

Modern risk transfer solutions: captives

An analysis with recommendations for action – current situation, challenges and opportunities



Foreword

The world we live in is subject to constant change. Due to accelerated market developments and complex risks, companies are facing ever greater challenges when it comes to protecting their assets and interests. A look at the risk landscape vividly illustrates this. We observe not only emerging risks such as cyber and sustainability but also global events that have immediate impacts on the economy and the insurance market. Recent events like the devastating COVID-19 pandemic, developments in the Israel-Gaza conflict, and the ongoing conflict in Ukraine highlight the multifaceted and interdependent nature of risks in today's world. This evolving risk landscape has significant implications for companies of all sizes, particularly industrial enterprises. The traditional insurance market is increasingly reaching its limits when it comes to insuring both new and existing risks.

Against this backdrop, it is not surprising that alternative risk transfer instruments are gaining importance. In 2022, the establishment of the Mutual Miris garnered significant attention in the market. Twelve major industrial companies joined forces to establish their own mutual insurance association specializing in cyber risk coverage.

Captives, in particular, are increasingly in focus. Headlines like "Captives are becoming more popular"¹, "European Captives are becoming more important due to rising market prices"² or "Why insurance captives are the darling of all corporations"³ have adorned industry publications for several years. Captives are by no means a new concept. The first captives were established in the 1950s, and since then, their number has steadily increased worldwide. Currently, there are approximately 6,000 captives established globally.

In this study, we therefore turn our attention to Captives, especially in the German-speaking region. Our aim is to present the current status quo of these risk transfer instruments, to highlight the challenges and opportunities in their establishment and operation, and to derive well-founded recommendations for action. This study provides insights into the world of Captives and offers valuable insights for companies and organizations dealing with the management of complex risks. We hope that this study contributes to strengthening decision-making and strategic planning in the field of risk management and supports companies on their journey towards greater security and resilience.

¹ Versicherungsmonitor: Captives werden beliebter, 9 April 2021, available online at: <https://versicherungsmonitor.de/2021/04/09/captives-werden-beliebter/>.

² Versicherungswirtschaft heute: Europas Captives werden wegen steigender Marktpreise wichtiger, 25 November 2022, available online at: <https://versicherungswirtschaft-heute.de/politik-und-regulierung/2022-11-25/europas-captives-werden-wegen-steigender-marktpreise-wichtiger/>.

³ Versicherungswirtschaft heute: Warum die Versicherungscaptive die Lieblingstochter aller Konzerne ist, 19 October 2020, available online at: <https://versicherungswirtschaft-heute.de/maerkte-und-vertrieb/2020-10-19/warum-die-versicherungscaptive-die-lieblingstochter-aller-konzerne-ist/>.

Contents

Table of Figures.....	5
A Management Summary.....	6
B Background and core questions.....	8
C Risk situation in companies	10
1 Types of risk	10
2 Risk trends	11
3 Cyber: a new risk	12
D Risk protection for companies.....	16
1 Traditional risk protection	16
2 Alternative risk transfer (ART)	19
E Captives as a form of ART	21
1 Definitions, types, mechanism, interplay on the market, domiciles.....	21
2 Captive market	27
3 Benefits of captives.....	29
4 Setting up a captive	32
5 Running a captive.....	41
6 Support with setting up and running a captive	48
7 Future prospects for captives	50
F Top recommendations for action on setting up and running a captive	54
1 Setting up a captive	54
2 Running a captive.....	55
3 Outlook – the future for captives.....	56
Appendix: study design	57
1 Method	57
2 Composition of random samples	57
3 Interviewees	60
 Your contact persons.....	 62

Table of Figures

Figure 1	Top five risks	10
Abb. 2	Combined ratios for non-private property insurance (industrial, commercial, agricultural property).....	16
Abb. 3	Overview of insufficiently covered risk and risks additionally covered by ART	18
Abb. 4	Classification of captives by business activity, ownership, location or risks.....	21
Abb. 5	Rent-a-captive vs. protected-cell captives	23
Abb. 6	Operational principle of captives.....	24
Abb. 7	Premium and claims flowchart	25
Abb. 8	Development of the captive market worldwide	27
Abb. 9	Global distribution of captive domiciles	28
Abb. 10	Benefits of captives	30
Abb. 11	Interest in setting up a captive.....	32
Abb. 12	Desired captive type at foundation.....	33
Abb. 13	Reasons for not considering captives	33
Abb. 14	Reasons for considering captives	34
Abb. 15	How much sales revenue did your company/group generate last year according to the income statement?	57
Abb. 16	How many people does your company/group employ? Please include all branch offices.	58
Abb. 17	In which of the following regions is your company/group active?	58
Abb. 18	In which sector is your company/group active?	59
Abb. 19	What is your position within your company/group?	59
Abb. 20	What are your principal day-to-day tasks?	59

A Management Summary

The insurance market is becoming increasingly hard for industrial companies as shown, for example, in the rising costs of risk protection. Over 40% of the industrial companies surveyed for this study noted significant increases in costs, with a further 56% recording slight rises in costs.

As a result, industrial companies are increasingly looking at alternative methods of protection. 98% of respondents stated that they were familiar with the term “alternative risk transfer” (ART). One variant of ART, captives, has been the subject of increased media attention in recent times. A third of the industrial companies surveyed for this study indicated they were interested in principle in setting up a captive and were planning to put this into practice within the next two to three years. The companies not currently intending to set up a captive may change their minds in future if the insurance market becomes even harder. Half of the respondents stated that they were satisfied with their insurance coverage, but the reverse is also true: half are not currently satisfied with what the insurance market is offering. This represents market potential, not just for captive managers but also for consultancies and brokers in particular. This is because setting up a captive does not generally form part of the company’s core business, and therefore cannot be accomplished by internal staff alone. The complexities of running a captive also require extensive specialist knowledge.

The following key issues were identified in discussions with experts on the specifics and challenges of setting up and running a captive:

- **Setting up a captive:**
 - Be aware of your own risk situation – in the past, present and future – and establish a centralised risk management system.
 - Make stakeholders aware that captives are a long-term strategic risk management tool rather than a short-term operational measure.
 - Ensure all stakeholders are involved from an early stage and communicate your message clearly.
 - Create internal insurance expertise in the short and long term.
 - Conduct a feasibility study and be receptive to the outcome, whatever it is.
 - Get external support on finance and regulation.
 - Become a part of the “captive community”.
- **Running a captive:**
 - Conduct regular reviews of new risks.
 - Regularly review goals, processes and insurance partners.
 - Optimise operating costs.
 - Rethink captives and use them as a tool for claims minimization and prevention, for example.



B Background and core questions

Companies are increasingly facing challenges in finding insurance on the market on economically justifiable terms, particularly when it comes to covering new risks. The situation is also being made tougher by factors such as the increase in risks related to cyber threats, the climate and disruption to business operations. These have consequences that are difficult to quantify, and insurers are reducing capacity in certain sectors or responding by increasing premiums or changing the conditions of insurance. All of these challenges mean that alternative risk transfer (ART) options are becoming increasingly important for companies. Setting up a captive is a well-established form of ART. Captives offer companies the opportunity to reduce their dependence on the market, but they are complex undertakings, both to set up and to operate.



With this in mind, the study looked at the following issues:

- Where are there needs when it comes to protecting against risks to companies?
- What is the benefit for industrial companies of setting up and/or running captives as a form of ART to respond to the difficult conditions on the insurance market?
- What kinds of companies will find captives relevant?
- What are the issues that need to be considered when setting up and running a captive?
- How has the captive market developed and what developments can be expected in the future?

Answers to these questions were obtained using a quantitative CATI survey⁴ of 61 risk management experts from industrial companies, plus eleven in-depth interviews with the officers responsible for captives at major German industrial companies as well as with experts from academia, industrial insurance, reinsurance and a broker.

Based on the risk situation of industrial companies and focusing particularly on the emerging risk⁵ of cyberattack, the study results look at traditional and alternative protection options for companies. The analysis focuses on captives as an alternative risk transfer instrument, highlighting the experts' views on both the benefits and the specific features and issues associated with setting up and running a captive. The study concludes with an outlook on future prospects for the captive market and recommendations for action for those interested in setting up/running their own captive.

⁴ Computerised telephone survey.

⁵ The term "emerging risks" refers to risks that have only just become apparent or are developing and may have an adverse impact on organisations, society or the environment. These are risks that may not previously have been identified, fully understood or included in traditional risk management approaches.

C Risk situation in companies

1 Types of risk

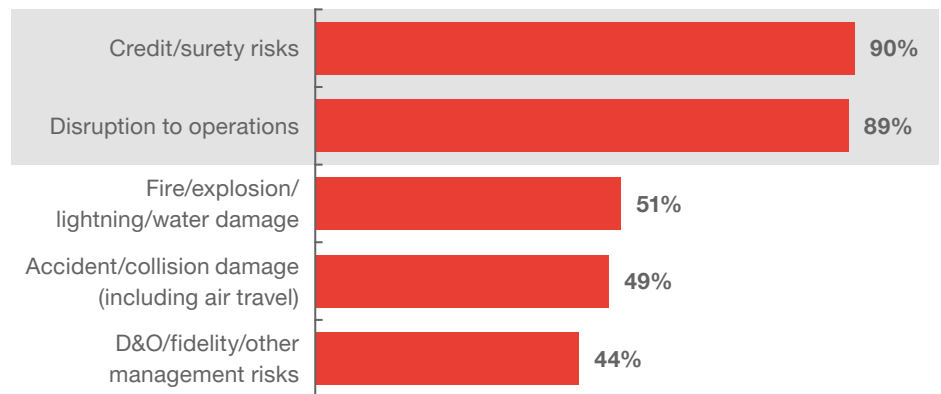
Major industrial companies face a plethora of risks, although they vary depending on the nature and structure of the company. Risks are traditionally classed as either endogenous (e.g. due to human error or technical faults) or exogenous (e.g. due to natural disasters, politics or the broader economy). These causes give rise to risks to property, revenue, personnel, products and the environment, as well as other risks such as political risks and credit risks.

Various differences in risk situation became apparent in this study, both among the companies in the survey and in the expert interviews.

In the industry survey, credit and surety risks (90%) and and business interruption (89%) made it into the top five risks by far the most frequently. They were followed by fire/explosion/lightning/water damage (51%), accident/collision damage (49%), and director and officer (D&O)/fidelity/other management risks (44%) (see Figure 1). Only 21% of respondents considered the risk of cyberattack and other IT risks to be top-five risks, and they only just fell within the ten most frequently mentioned risks.

Fig. 1 Top five risks

What are the top five risks facing your company/group?



Basis n=61

⁶ Aschoff, D. and Heitmann, J.: Klassische Risiken im Überblick, in: Mahnke, A. and Rohlfs, T. (eds.), Betriebliches Risikomanagement und Industrierversicherung, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020, pp. 90 et seq.

In the interviews with the experts, the risks most frequently mentioned as of particular relevance for their own companies were:

- Cyber
- Natural hazards
- Supply chains
- D&O
- Political risks
- Property and disruption risks

The above list is not sorted by frequency. However, cyber risks were ranked as currently one of the biggest risks in almost every interview (see Chapter 3).

What is the reason behind this discrepancy between the risk appraisals in the survey and the interviews? In our view, the size of the company is a crucial factor here. The industry survey tends to reflect the risk situation facing small and medium-sized enterprises (SMEs). The majority of these companies have 1,000 or more employees (63%) and a turnover of between €200 million and €500 million (49%). For this segment of larger SMEs, credit risks are still some of the biggest risks, since these companies have less internal capacity to compensate for them.

The situation in the expert interviews is different. The experts represented industrial companies with a minimum turnover of €700 million. In this segment, credit and surety risks are less relevant, as the companies have sufficient internal capacity to bear the brunt of any cash flow problems.

2 Risk trends

The risk landscape of industrial companies has radically changed over the last few decades. Property risks arising from factories and other buildings were previously a key focus, but these now make up a smaller proportion of overall premium volumes. “This means that the value of a company is now mostly composed of intangible assets such as intellectual property, software and data, and so these assets account for most of the risk.”⁷

We shortened the risk trend timescale considerably for the expert interviews, and asked the experts about trends in the past few years. The respondents stated there had not been any significant change in risk. This is remarkable, given that 2023 was shaped by the war in Ukraine and the aftereffects of the pandemic. There is one exception, however: all respondents said that cyber risks are an emerging risk class, and that they have brought about the biggest changes in risk situation in the recent past (see Chapter 3).

⁷ Aschoff, D. and Heitmann, J.: Klassische Risiken im Überblick, in: Mahnke, A. and Rohlf, T. (eds.), Betriebliches Risikomanagement und Industrieversicherung, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020, p. 97.

There was a mixed picture when it came to future expectations. Respondents expect sustainability/ESG issues to have an impact on risk situation – for example, with new risks arising from increasing sustainability requirements. New risks are also emerging as a result of climate change. Increasingly frequent extreme weather events and increasing natural hazards, for example, may increase loss and damage at company facilities and make it more difficult to find new premises. On the social side, there are also issues such as supply chain tracking and reputation management.

Interest in employee benefits may also increase in future. Up until now, this has largely been an issue in the US, where there is no comprehensive welfare state and it falls to companies to offer benefits such as health insurance, pension plans and leave. One result of the shortage of skilled staff is that employee benefits are now increasingly being offered in German-speaking countries as well – for example, in the form of company pension schemes or health insurance. This is giving rise to new risks (e.g. pensions, sick pay) that require coverage.

Some interviewees also suggested that risks could be minimised by technological advances, higher production standards, better workplace safety and a sharper focus on preventing loss or damage. Industry insurers are already providing companies with support on loss and damage prevention, in the form of risk engineering.

3 Cyber: a new risk

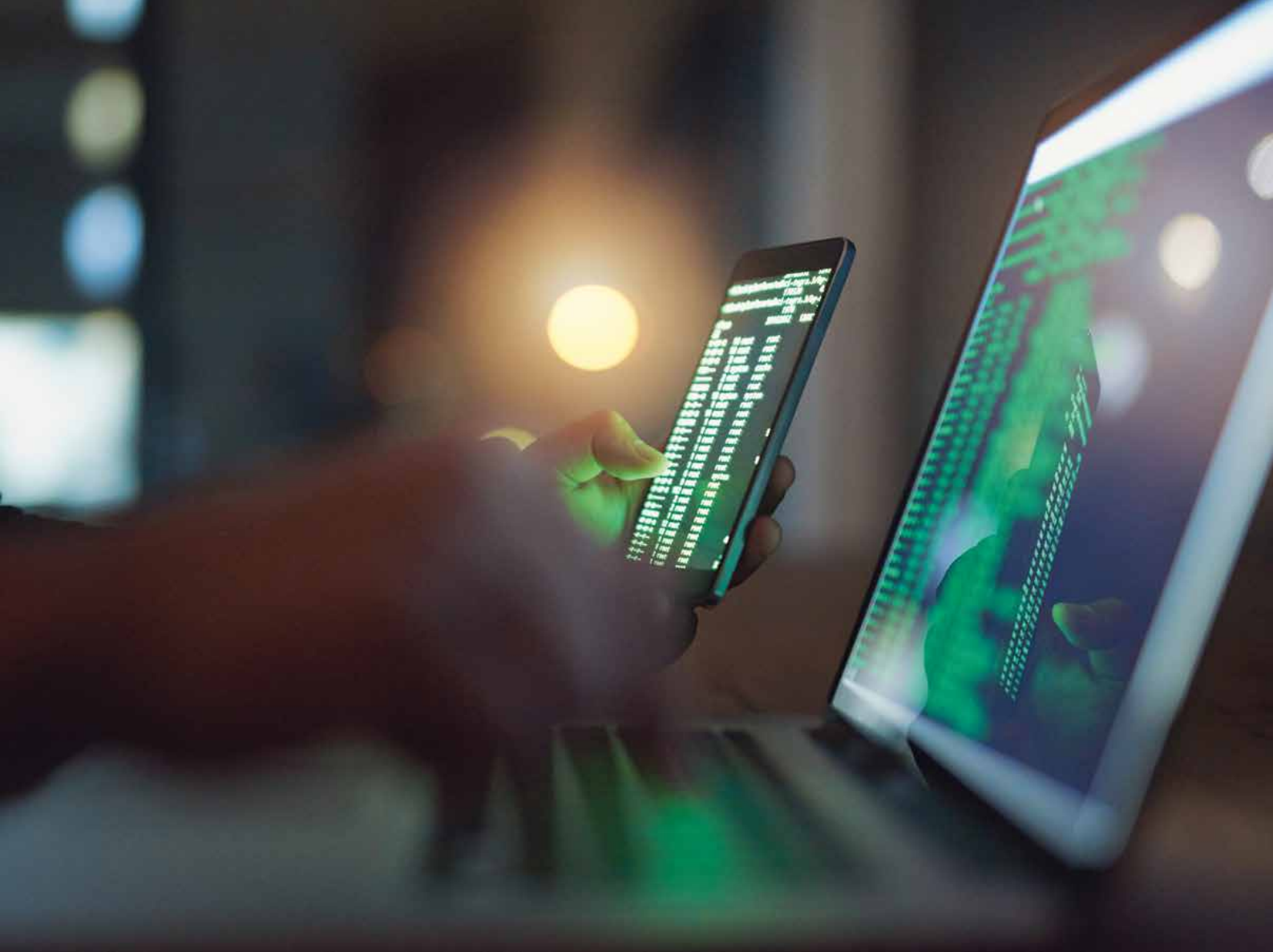
Cyberattacks are now one of the top risks facing companies, and are the fastest-growing global business risk. In the Allianz Risk Barometer 2023⁸, cyber incidents and disruption to operations hold joint first place (34% each) on the list of major business risks. Cyberattacks are increasing worldwide: in the 2023 PwC Digital Trust Survey, 88% of the German companies surveyed stated that they had been the victim of a cyberattack causing a loss of more than €10,000 in the last three years.

Growth in the use of technology by companies to drive digital transformation in their processes and by the public (e.g. mobile working), accelerated by the pandemic, is one of the reasons for the rise in the number of cyberattacks. Companies now often have complex IT infrastructures with a plethora of systems, apps and networks. This complexity makes it difficult to monitor and manage security, as vulnerabilities and potential entry points for hackers are easy to miss. The cyber threat landscape is also constantly developing and companies have to deal with a range of different hacking methods such as malware, phishing, ransomware, social engineering and zero-day exploits.

Our expert interviews with representatives of major industrial companies yielded a consistent and clear picture on cyber risks: cyber is one of the top risks, and awareness of it is very high within these companies. One of the companies surveyed had been the victim of a cyberattack only very recently.

The picture from the industry survey was different. Just a fifth of all respondents (21%) put cyberattacks and other IT risks in their list of the top five risks. One of the reasons for this may be the relatively abstract nature of cyber risks. The respondents tended to focus on more immediate and tangible risks. There may also be a tendency to prioritise risks that have already caused or are likely to cause significant losses.

⁸ Allianz Risk Barometer 2023, p. 4, available online at: www.allianz.com/content/dam/onemarketing/azcom/Allianz_com/press/document/Allianz-Risk-Barometer-2023.pdf.



The SME perspective (the majority of companies surveyed have a turnover of between €200 million and €500 million) may be another reason why cyber risks are viewed with less urgency. According to a survey⁹ by the German Insurance Association (GDV), German SMEs are lulling themselves into a false sense of security on cyber risks: 76% of respondents ranked the risk of cybercrime for SMEs as “high” or “very high”, but just 34% of respondents ranked the risk of cybercrime to their own companies as “high” or “very high”.

Another reason could be the availability of insurance coverage. The level of insurance cover available on cyber may be more proportionate to the risks faced by SMEs, and thus provide more protection than is the case for large companies. This, in turn, may lead to the risk being considered less urgent.

⁹ GDV: Deutsche Unternehmen erwarten mehr Cyberangriffe – Aber nicht auf sich selbst, 31 May 2022, available online at: www.gdv.de/gdv/medien/medieninformationen/deutsche-unternehmen-erwarten-mehr-cyberangriffe-aber-nicht-auf-sich-selbst-84912.

Protection against cyber risks

Risk management functions need to be continuously identifying, analysing and assessing their companies' individual cyber risks to ensure they have suitable protection against these threats. This will allow them to develop specific risk mitigation measures.



Tip!

For more information on dealing with cyber threats and how to protect yourself against disruption and data losses, visit www.pwc.com/gx/en/issues/cybersecurity/cyber-threat-intelligence.html

Find out more about how our cyber threat intelligence insights and services can protect your company from the digital risks of tomorrow.

In 2022, a total of 67% of companies in Germany had cyber insurance or another policy which included cyber. This is three percentage points up on 2021, according to the Hiscox Cyber Readiness Report 2022.¹⁰ The situation for SMEs is rather different: according to Cyber Direkt Risikolage 2022, around 23% of SMEs have a cyber or combined policy. Almost half (42.7%) were not actively considering cyber insurance at the time of the survey.¹¹ In September 2022, the GDV found that the market for cyber insurance was continuing to grow rapidly. In 2021 there were 39 insurance companies offering cyber coverage (2020: 33), with €178 million income from premiums (2020: €106 million).¹²

With companies' increasing demand for protection on the one hand and an increase in cyberattacks and associated claims on the other, the market has become palpably harder. Combined ratios for cyber insurers were around 124% in 2021.¹³ According to the 2022 Aon Market Report, the second half of 2021 saw an increase in premium rates and deductibles, as well as a reduction in limits. One in five companies have reduced their cyber insurance cover as a result¹⁴, although the situation is expected to ease slightly in 2023. According to the 2023 Aon Market Forecast, it has been seen "that, with the right level of preparation and analysis of risk information, it has been possible to extend or even add cover for good risks on acceptable terms".¹⁵

Our expert interviews reflected these market trends. Despite dissatisfaction with the market situation, the majority of respondents had cyber insurance. One of the reasons given was that this was demanded by stakeholders. As availability shrinks and costs increase, interest is turning towards alternative risk financing options such as captives or mutuals.

¹⁰ Hiscox Cyber Readiness Report 2022, p. 5, available online at: www.hiscox.de/wp-content/uploads/2022/05/Hiscox-Cyber-Readiness-Report-2022-Key-Findings-DE.pdf.

¹¹ Cyber Direkt Risikolage 2022, p. 14, available online at: www.cyberdirekt.de/downloads.

¹² www.gdv.de/gdv/medien/medieninformationen/cyber-ver-si-che-rer-machen-erst-mals-ver-luste-markt-legt-wei-ter-zu-89766.

¹³ GDV: Cyberversicherer machen erstmals Verlust – Markt legt weiter zu, 13 September 2022, available online at: www.gdv.de/gdv/medien/medieninformationen/cyber-ver-si-che-rer-machen-erst-mals-ver-luste-markt-legt-wei-ter-zu-89766.

¹⁴ Aon Marktreport 2022, available online at: <https://info.aon.de/publikationen/marktreport-2022/>.

¹⁵ Aon Marktprognose 2023, p. 7, available online at: https://info.aon.de/wp-content/uploads/230214_Aon_Marktprognose_DE_1920x1080px.pdf.



“

The setting up of Miris shows that there are capacity problems that need to be overcome. Otherwise, the industrial companies would not be setting up their own pools at the present time.”

Andreas Brügel, Delvag



Digression: Miris, a mutual

When the mutual Miris (Mutual Insurance and Reinsurance for Information Systems) was set up in 2022, it caused quite a stir. The Brussels-based company was founded by its members and has been operating since 1 January 2023. Its membership currently¹⁶ consists of twelve industrial companies including Airbus, Michelin and BASF.

Miris is a mutual insurance company. Prospective members need to go through a screening process where their liquidity ratios and cybersecurity are checked through a comprehensive questionnaire administered by the French consulting company Wavestone. This is followed by a peer review. Each member must contribute €5 million capital to the company, with mandatory additional contributions in emergencies. The mutual has a capacity of €25 million per year for the first two years, rising to €30 million in the third year. In addition to cyber cover, Miris is also intended as a risk management forum for its members.¹⁷ It remains to be seen how beneficial this initiative will prove to be for its members. Challenges are likely to include consultation, communication and coordination between companies, and risk diversification.

¹⁶ As of January 2023.

¹⁷ www.miris-insurance.com; www.versicherungsbote.de/id/4909092/Cyberversicherung-Industrie-gruendet-eigenen-Versicherer; www.heise.de/news/Mit-Miris-gegen-Cyberisiken-Eigener-Versicherer-der-Industrie-legt-los-7454881.html.

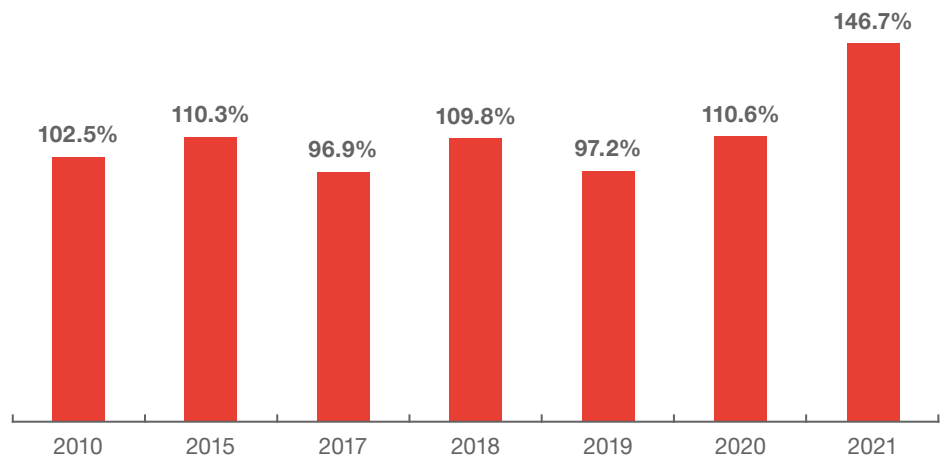
D Risk protection for companies

1 Traditional risk protection

Companies can protect against risks, at least partially, via the insurance market. However, the industrial insurance market has hardened in recent years. There are a variety of reasons for this: increasing interest rates, a decline in the number of providers following market consolidation, high combined ratios, and increasing reinsurance costs. The insurance broker Funk's overall assessment is that expenditures on claims are "simply too high".¹⁸ It states that industry insurers had a combined ratio of 177% in 2021. "Alongside fire damage, severe weather events are the biggest strain on insurers' balance sheets. Global trends such as increasing urbanisation and rising prosperity are exacerbating the climate crisis, meaning that natural hazards will be even more of a focus in future", summarised Ralf Becker, Managing Partner at Funk. These trends are having impacts on companies in the form of higher premiums and reduced capacity.

Fig. 2 Combined ratios for non-private property insurance (industrial, commercial, agricultural property)

Combined ratios for non-private property insurance (German direct business transactions, excluding nuclear and financial claims liability insurance, excluding cyber risk insurance up to 2019. Combined ratios after settlement, in relation to gross premiums earned).



Source: GDV.

¹⁸ Funk forum Markt-Spezial. Der deutsche Versicherungsmarkt 2022, available online at: www.funk-gruppe.de/de/medien-events/markt-spezial, https://www.funk-gruppe.de/fileadmin/user_upload/de/Navigation_oben/News/Markt-Spezial/Funk_Forum_Markt-Spezial_2022.pdf.

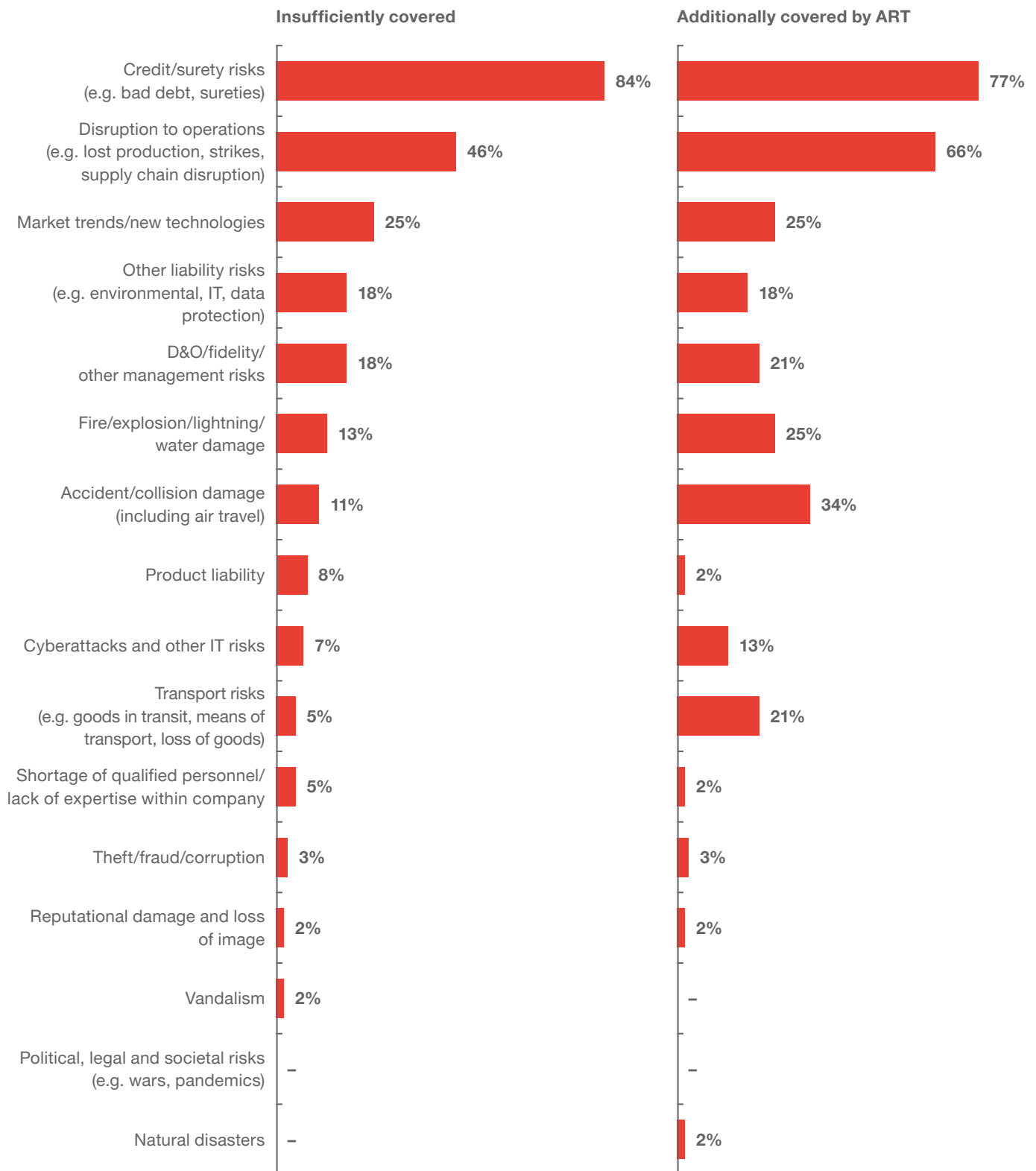


There are signs that the situation is easing for 2023. Aon's 2023 Market Forecast for the German insurance market, for example, has identified a significant fall in cyber insurance loss ratios in 2022. The expectation was that well-positioned companies would face moderate price rises at most. The forecast also states that the industrial property insurance market's combined ratio has improved, despite losses due to natural hazards, the rise in reinstatement costs due to inflation, and extended rebuilding times due to infected supply chains. Although only moderate increases are expected in the liability insurance market, there appear to be no signs of improvement for complex risks such as those associated with automotive suppliers, the chemical and pharmaceutical industries, or companies with exposure to the US.

The results of our industry survey also show that the companies are still covering some of their risks on the insurance market. Disruption, credit and surety risks, accident/collision damage, fire/explosion/lightning/water damage, and trends/new technologies were mentioned most frequently. Just 8% of the companies surveyed have obtained coverage for cyberattacks and other IT risks on the insurance market.

Almost all companies (97%) say that their insurance cover has expanded over the past five years. This is accompanied by increasing expenditure on risk protection: expenditure was up considerably for 44% of companies and slightly up for 56%. In our industry survey, the two top risks of credit/surety risks and business interruption are also the most frequently mentioned risks that cannot (or can no longer) be covered externally or cannot be fully covered due to increased prices, exclusions or capacity bottlenecks. These existing gaps in cover can be additionally covered by using ART.

Fig. 3 Overview of insufficiently covered risk and risks additionally covered by ART



Basis n=61

2 Alternative risk transfer (ART)

As described above, the challenges in the traditional insurance market mean that companies are increasingly turning to alternative methods of protection. This is also evident from our industry survey: 98% of respondents stated that they were familiar with the term “alternative risk transfer”.

Risks that would be very expensive to transfer to traditional markets, or which cannot be transferred at all, are natural candidates for ART. These include risks such as technology, credit and environmental risks that are both severe and highly prevalent. These risks are also particularly good candidates for captive solutions.

Although risks and other situations vary from one company to another, they generally face the same issues on this point, relating to financing or assessing risks. What is the importance of risk financing as such for my company? How much is my company paying an insurer for its services? Can my company bear and control its claims internally?

There are two instruments in ART: transferring risk to the capital markets and in-house risk financing.

Transfer of risk to the capital markets includes the use of insurance-linked securities such as cat bonds, and insurance derivatives such as weather derivatives. Options for covering risks internally may include captive (re-) insurance solutions or raising capital through contingent capital programmes. A clear majority of respondents to the industry survey stated that transfer of risk to the capital markets was their main ART strategy (98%). 7% use captives or contingent capital programmes. Credit/surety risks (77%) and disruption to operations (66%) were the risks most likely to be covered using ART methods.

The expert interviews confirmed that ART is relevant for all major companies. However, the reason given for this was market trends rather than any internal motivation on the part of the companies themselves. The overall message was that ART complements the insurance market, but does not and cannot replace it.

Various solutions are being considered and implemented for the individual risks and challenges facing very large industrial companies, generally as one-off solutions. Novel protection concepts such as cat bonds, parametric insurance solutions and mutuals are also being considered here. It was clear from the interviews that ART methods – captives in particular – continue to be niche solutions that require specialist knowledge and capacity. However, the increasing interest in ART shows that demand is there from companies.

“

We are seeing a sharp increase in demand for alternative risk transfer solutions. We're hearing this from both inside and outside the insurance industry, and there are many different reasons for this. One reason is definitely the very challenging insurance market. We have been seeing rising expectations on profits among insurance companies, increased risk awareness or greater risk aversion. There are certain risks that insurers only want to take on at a very reduced level, or do not want to take on at all. A second reason is the higher level of risk awareness on the part of other industries. There is a huge array of alternative risk transfer methods – including parametric solutions – that didn't exist just a few years ago. I think the maturity level of the risk transfer models has increased.”

Frank Bär, Covestro

“

I think that there really are some risks which simply cannot be covered on the insurance market, such as disruption due to supply chain failure. But you can address these with self-insurance, you can build up redundancy.”

Prof. Jens Mörchel, Dortmund University of Applied Sciences and Arts (FH Dortmund)



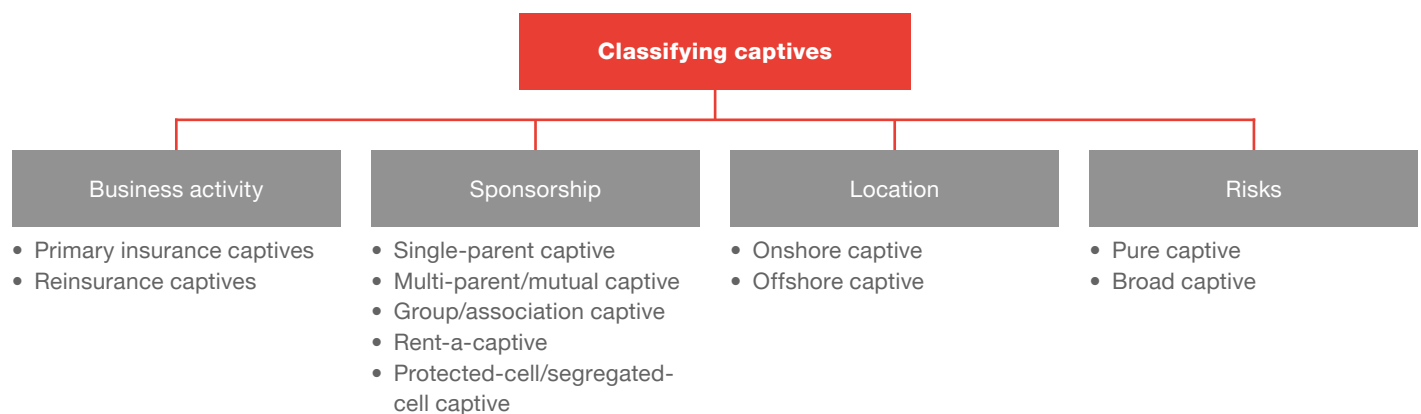
E Captives as a form of ART

1 Definitions, types, mechanism, interplay on the market, domiciles

The term “captive”, as the name implies, is used in insurance to refer to a subsidiary which usually provides internal insurance for the parent company and its affiliates. A captive is licensed by the regulators to carry out primary insurance and/or reinsurance and allows the operating company to fully or partially protect itself against its own risks, optimising financing of insurable risks. This involves the captive assuming key functions within the risk financing and insurance strategy of their operating company – a company for which insurance is outside its core business.¹⁹

Captives can be classified based on a range of characteristics such as business activity, sponsorship, location or risks transferred, as shown in Figure 4.

Fig. 4 Classification of captives by business activity, ownership, location or risks



“Traditional” captives are reinsurance captives which are set up and run by just one company (single-parent model). The captives of the experts interviewed for this study also fall under this classification.

¹⁹ Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlfs, T. (eds.), Betriebliches Risikomanagement und Industrieversicherung, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020.



Classification of captives – summary

Business operations

A **primary insurance captive** with the relevant licence can sign insurance contracts directly with the insured party, charge premiums and settle claims. The regulatory requirements for a primary insurance captive are generally stricter than for reinsurance captives.

A **reinsurance captive** cannot directly insure the insured party. Instead of this, it assumes risks from a fronting insurer, sometimes called a “fronter”. The fronter issues the insurance policies, collects premiums and settles

claims. Premiums and claims are pooled centrally and the captive insurer receives regular invoices for the portion of risk it assumes. The fronter is also responsible for carrying out a large number of the administrative tasks associated with the insurance programme, in return for which it receives reinsurance commission or a fronting fee. Since the fronter bears the counterparty risk, additional securities may be required from the captive, depending on its liquidity ratio and possibly its credit rating.

Sponsorship

In the **single-parent model**, the parent company wholly owns the captive insurer and has sole control over decision-making and activities – for example, in relation to developing the insurance strategy.

In the **multi-parent model**, several parent companies jointly set up and control a captive insurer. Each parent company becomes a co-owner of the captive and assumes a portion of the risks and costs. In most cases, the companies would not be able to raise the financial capacity required to cover the risks without pooling their resources in this way. The companies can also benefit from economies of scale and may be able to save costs. However, the multi-parent model also involves challenges. Cooperation and coordination between the parent companies, for example, can be complex, and clear agreements need to be concluded on risk allocation, premium levels and decision-making processes.

In a **group captive**, several companies jointly set up and control a captive insurer, as with the multi-parent model. But whereas parent companies of a multi-parent captive normally come from the same industry sector or have

common interests, the risk in a group captive is shared by companies from various sectors and of various sizes. This leads to a broader risk base and improved risk diversification. In the multi-parent model, by contrast, the focus is more on risk control and management within the group of parent companies.

A **rent-a-captive** is an insurance structure that enables companies to rent out or use an existing captive company or its insurance licence and infrastructure, instead of setting up one of their own. The renting company can then insure its risks via the captive without assuming the costs and obligations associated with setting up and running its own insurance company.

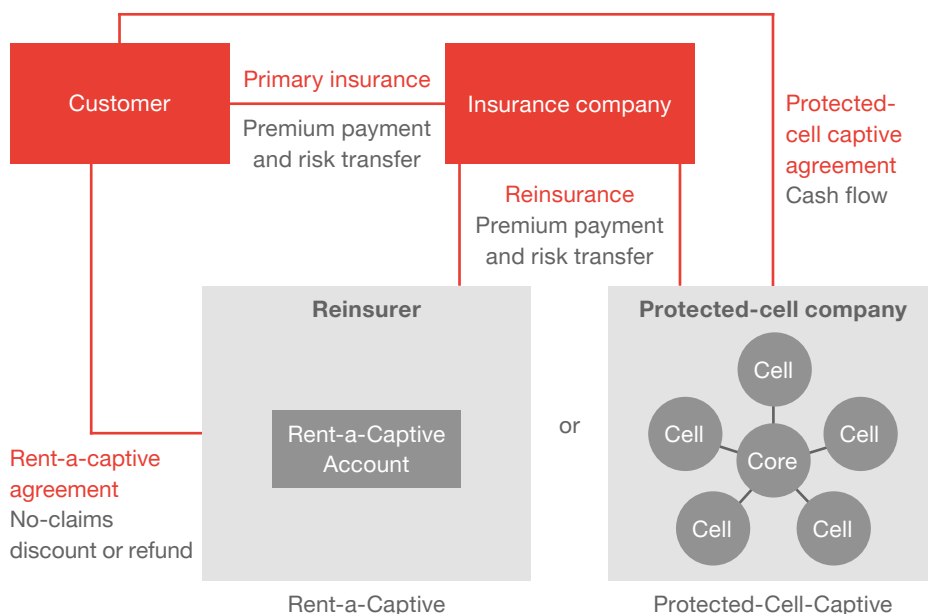
In **protected-cell captives (PCCs)/segregated-cell captives**, the captive insurer is once again set up and run by an appropriately licensed third party which “rents out” the captive to other companies as a service. Each cell in the PCC is rented by a separate company or insured party looking to insure its own risks. The cells are legally and financially separate from each other, and so each company is only responsible and liable for its own risks.

Protected-cell captives (PCCs), also known as segregated-cell captives, use a different sponsorship model and should be considered separately. Here, the captive insurance company is set up and run by an appropriately licensed third party, which “rents out” the captive to other companies as a service. This allows companies that want to self-insure their risks to benefit from the advantages of a captive insurance company despite not having the resources or capital required to set one up (see Chapter E 3). These solutions are often more flexible and cost-effective than setting up a captive insurance company from scratch, and are therefore also suitable for SMEs.

The geographical location of the risks, the differences in regulatory requirements, the importance of fronting and the costs of running the captive are the main factors when considering whether to go for a primary insurance or reinsurance captive option.

Rent-a-captive solutions operate similarly to PCCs, and the terms are often used interchangeably. The main difference is that the rent-a-captive model involves companies renting cells in an existing captive insurance company, whereas the PCC model is a specific type of captive structure that enables companies to run several cells in a single captive.

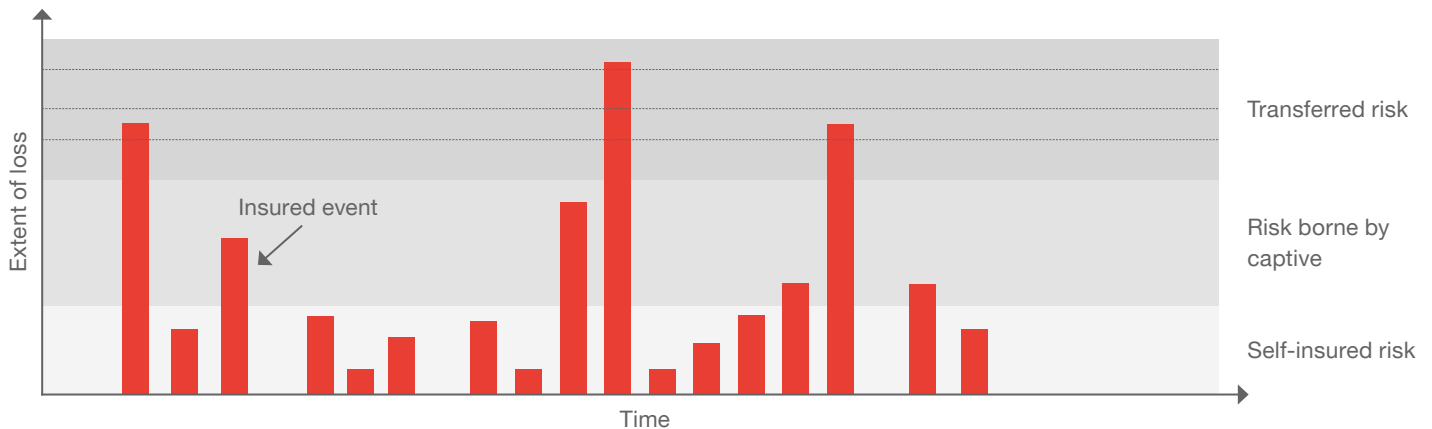
Fig. 5 Rent-a-captive vs. protected-cell captives



Source: based on Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlf, T. (eds.), Betriebliches Risikomanagement und Industrierversicherung, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020, pp. 366, 367.

Captives are predominantly used to optimise the parent company's risk financing; the mechanism can be seen in Figure 6. The captive underwrites specific risks up to a certain level of loss, thereby reducing the portion of risk that the parent company needs to transfer to the market. This increases the discretion that companies have over the financing structure of insurable risks and over interaction with the insurance market.²⁰

Fig. 6 Operational principle of captives



Source: PwC.

Risks typically covered by captives are those associated with high-frequency losses and those with medium probable maximum losses (PML), “medium” being defined by the company concerned. This means the captive is generally part of a vertical risk allocation structure across multiple insurance companies, which may be necessary for major industry risks if their size or complexity makes coverage across the whole range of risk impossible. In a layer model, the total insured sum required is spread across multiple layers. Each layer is a separate insurance policy, each covering a specific portion of the risk. The risk will often be assumed by the primary layer up to a certain sum, with subsequent layers being tapped into if the claim is greater than the sum covered by the previous layer(s). In practice, there are often more than ten layers stacked on top of one another to form a “tower”.²¹

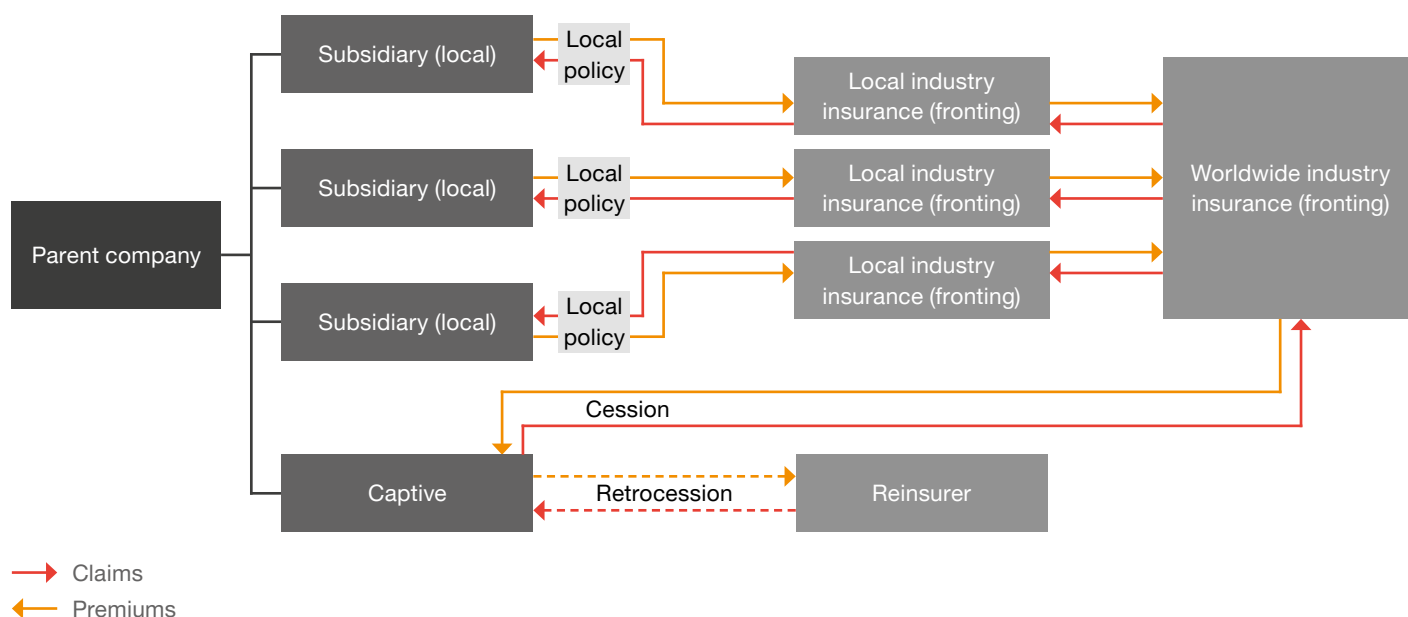
This means that the captive remains closely linked to the insurance market. On top of this, a reinsurance captive cannot issue policies, handle claims or issue payments itself; it requires a fronting company to do this.²² Figure 7 shows the routes taken by income from premiums and payouts for claims, and the interaction between parent company, captive and fronting company.

²⁰ Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlf, T. (eds.), *Betriebliches Risikomanagement und Industrieversicherung*, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020.

²¹ Klingler Versicherungsmakler: Exzedenten-Deckungen zur Beschaffung ausreichender Deckungssummen, available online at: <https://klingler-versicherungsmakler.de/produkte-dienstleistungen/special-lines/exzedenten-deckungen>.

²² A fronting company is a company that issues and manages an insurance policy on behalf of another company. The fronting company assumes the administrative tasks associated with the insurance policy, such as policy management, collecting premiums and claim handling.

Fig. 7 Premium and claims flowchart



Source: based on Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlf, T. (eds.), Betriebliches Risikomanagement und Industrieversicherung, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020, pp. 207, 228.

In this case, the premiums paid by the parent company or its affiliated subsidiaries are transferred to the captive via the fronting company, and return via the same route after an insured event, with the fronter retaining operational responsibility for claims management. The fronter charges fronting fees for services rendered and for bearing the counterparty risk.²³ As a result, the experts surveyed did not see captives as direct rivals or competitors to industry insurance companies.

“

With a very small number of exceptions, captives are reinsurance companies. This means that close cooperation with an industry insurance company as the primary insurer is necessary. Close cooperation is also required when the captive is run as a primary insurer in the case of global insurance solutions or for capacity reasons. So I do not see captives as competing with industrial insurance companies.”

Daniel Haag, AXA

²³ Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlf, T. (eds.), Betriebliches Risikomanagement und Industrieversicherung, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020.



Vermont is a destination with the right network. We have consultants, and there are good legal practices that are familiar with both the insurance regulation side and the company law side. There's a well-established network of auditors.”

Frank Bär, Covestro

In terms of geographical location, captives can be either onshore or offshore. An onshore captive is a captive insurance company that is set up and run in the same country or the same jurisdiction as the parent company. The opposite is the case for an offshore captive. The captives represented by the experts interviewed included both onshore and offshore models – the choice depends on the individual requirements and objectives pursued by the companies when setting up the captive.

Both quantitative and qualitative aspects need to be considered when selecting a specific location.²⁴ These range from risk location to strategic and operational context, along with cost considerations and reputational issues.

The geographical location of a risk determines the law applicable to the insurance contract. In purely legal terms, for example, risks located in the EU can only be underwritten by an insurer based in the EU, which determines possible locations in the case of primary insurance captives. The operating environment covers both regulatory and tax issues: factors such as tax rates, capital requirements, reporting and documentation obligations, or requirements placed on the executive bodies of the captive all vary depending on the location. For example, captives based in the EU are subject to the Solvency II supervisory framework, but can also benefit from the free movement of services. Issues such as currency, language or geographical proximity to the parent group can facilitate operations and also play a role when selecting location, as does the infrastructure currently available for captives, which also needs to be considered when looking at the operating environment. Some domiciles, for example, have contractors specialising in captive services and management, which enables extensive outsourcing of captive operations. Typical examples are Bermuda, Vermont, Guernsey, Luxembourg and Dublin. In other locations, such as Germany, more services need to be provided in-house, or companies need to recruit service providers themselves.²⁵

²⁴ Ibid.

²⁵ Ibid.

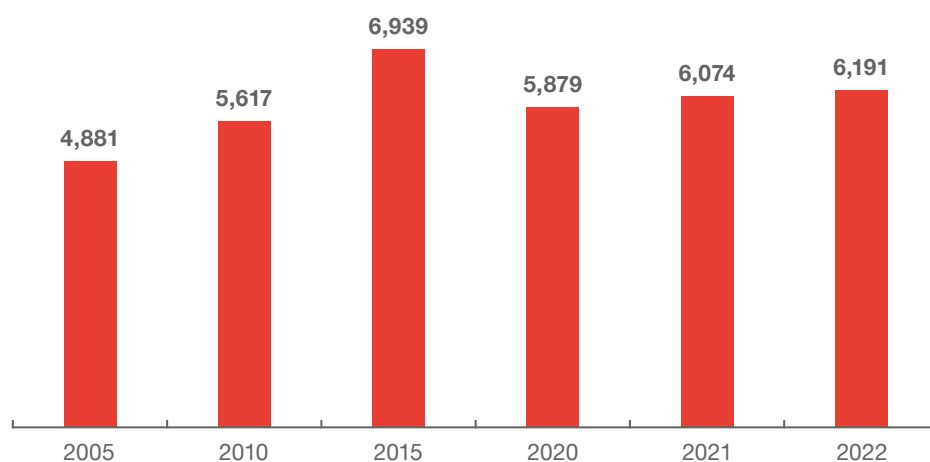
The qualitative aspects to consider when selecting a location include reputational risks. These are ranked higher for some locations than others, and they will also vary depending on the history and purpose of the parent company. The individual criteria for site selection depend on the company's individual requirements and the risks to be underwritten, as confirmed in our expert interviews.

2 Captive market

As even a cursory glance at the many different classifications and structures of captives suggests, it is difficult to provide an overall summary of the market and market trends. However, there is various market data based on reports by stakeholders such as regulatory bodies, captive managers and market directories that can give a sense of the size and development of the captive market, even if the information varies depending on the source.

According to the Insurance Information Institute there were 6,191 captives worldwide in 2022, almost 100 more than in the previous year.²⁶ Although the number of captives declined between 2015 and 2020, it is now rising again. And taking the long-term view – the first captives appeared in the 1950s – the number of captives being set up has also increased over time.

Fig. 8 Development of the captive market worldwide

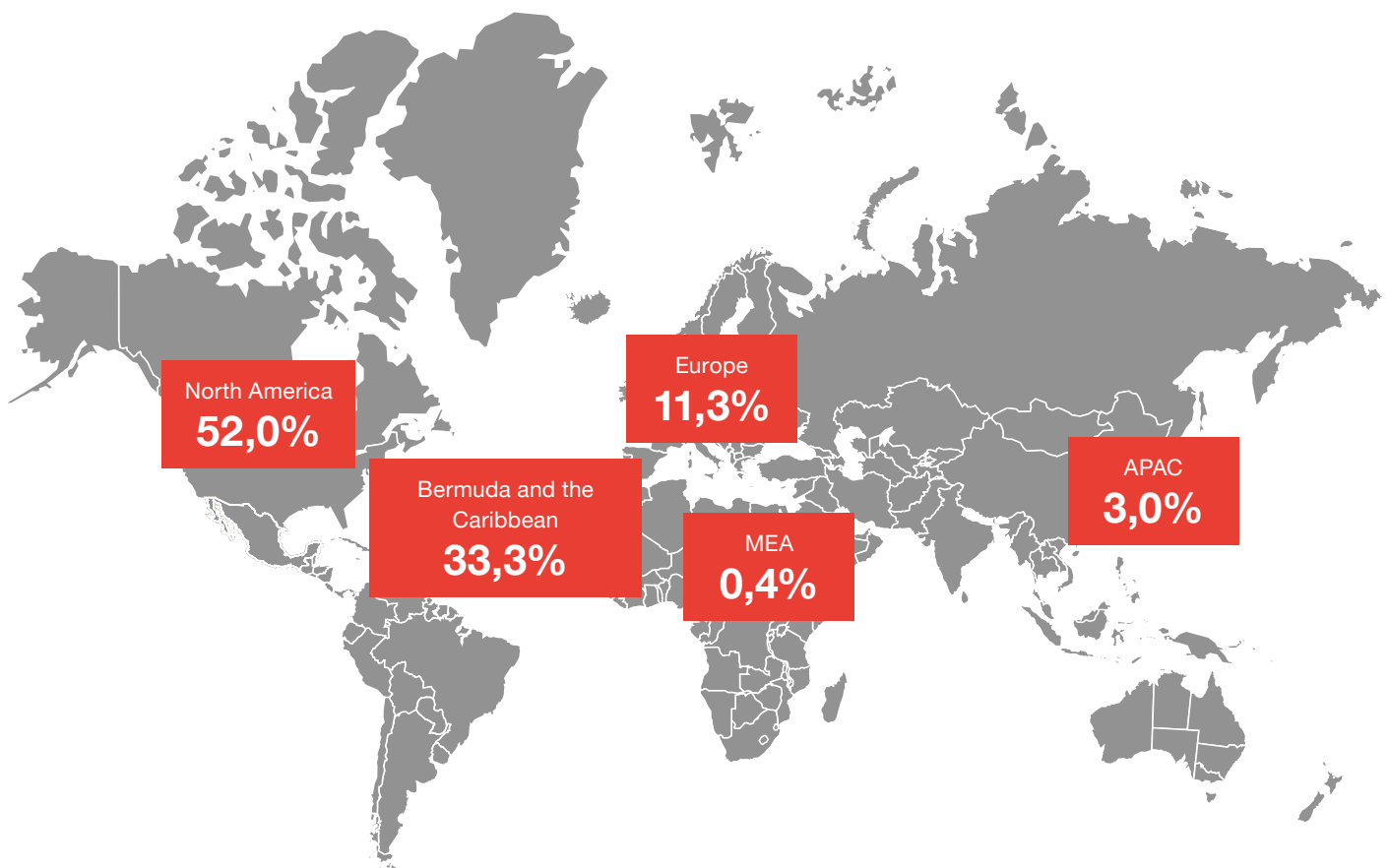


²⁶ Insurance Information Institute: "Background on: Captives and other risk-financing options", March 2023, available online at: www.iii.org/article/background-on-captives-and-other-risk-financing-options#Number%20of%20Captives,%202013-2022.

The majority of captives (over 50%) are domiciled in the US, followed by Bermuda and the Caribbean (approx. 33%) and Europe (approx. 11%).²⁷ There were nine captives domiciled in Germany at the end of 2021, according to Captive Review. In Europe, the domiciles most in demand are Luxembourg and Guernsey, with 192 captives based in each at the end of 2021.²⁸ The former is a domicile that is in demand by German companies: 28% of German companies' captives that are managed by Marsh are based there, followed by Dublin, Malta, Bermuda and the US, each of which accounts for 16%.²⁹

Only rough estimates can be given for total global premiums in the captive insurance market. This is in part because there is no standardised method for calculating this figure, but also because total premiums in captives can vary considerably by region or sector, and is also affected by other factors. According to Marsh's Captive Landscape Webinar, income from premiums reached \$68 billion in 2022, up \$8 billion on the previous year. However, these figures only relate to the 1,500 or so captives under Marsh's direct management.³⁰

Fig. 9 Global distribution of captive domiciles¹



¹ Captive Review: World Domicile Update 2022, available online at: <https://captive-review.com/report/?issue-link=fp2JMeRIRho9HLcn7skqFvdQjTezc3bJ2PonG8aeB2bfY6Gihhri9QHKu8UB1NTYdo2VJCzYiuoL0I3ZCg4eKUKkueeALFaJSwSIIASFBK8i4rNFbhuWxuluxoyCJqP>.

²⁷ Captive Review: World Domicile Update 2022, available online at: <https://captive-review.com/report/?issue-link=fp2JMeRIRho9HLcn7skqFvdQjTezc3bJ2PonG8aeB2bfY6Gihhri9QHKu8UB1NTYdo2VJCzYiuoL0I3ZCg4eKUKkueeALFaJSwSIIASFBK8i4rNFbhuWxuluxoyCJqP>.

²⁸ Ibid.

²⁹ Kraus, H. and Rohlf, T.: Captives – Alternative Finanzierung versicherungsfähiger Risiken, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature 2023, pp. 207, 228.

³⁰ Marsh: 2022 Captive Landscape Webinar, available online at: www.marsh.com/us/services/captive-insurance/insights/captive-landscape-insights-2022.html.

3 Benefits of captives

Using captives presents a wide range of advantages for companies. In terms of risk management, captives not only provide broader knowledge of risk and a consistent overview of risk information, but also optimise risk control and financing. Since risk protection measures need to be preceded by risk estimation and evaluation, setting up and running captives involves bundling risk (perspectives) and raising awareness of the need for risk management throughout the company³¹, as our expert interviews confirmed. Risks can also be spread across individual subsidiaries and diversified if necessary, which in turn can increase control over them. A captive thus enables companies to develop customised insurance solutions that are tailored to their specific needs.³² This enables more effective risk assessment/management and ultimately better risk protection too, reducing dependence on the often-volatile traditional insurance market and stabilising insurance costs. A captive can also extend insurance cover for the operating company – for example, transferring risks that are uninsurable or difficult to insure on the traditional market to the captive, or managing deductibles in a more targeted manner.

Concentrating claims handling and insurance policy processes in a captive allows them to be run more efficiently, as well as providing the company with high-quality information which can in turn be used to optimise risk management measures.³³ This also means that the company is now directly involved in “good” claims histories.

On the cost side, a captive allows greater control over risk-related costs and opens up the prospect of optimising the company’s cash flow, as well as providing investment income from the captive’s premiums, capital and reserves. Of course, the capital invested in the captive also remains within the company itself, and can be loaned back to the parent company under certain circumstances. Specific tax regulations in the captive’s domicile may also deliver cost benefits for the operating company. These need to be set against the costs of running the captive, which also need to be considered.

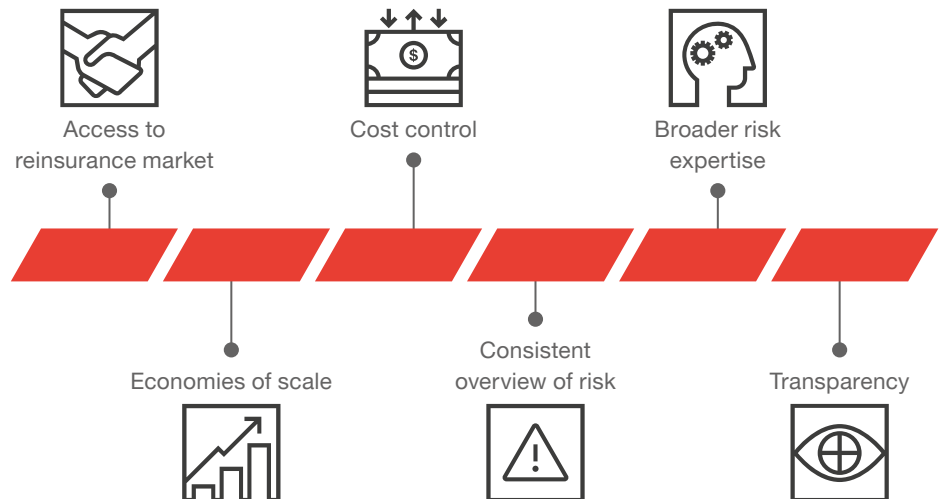
Captives also offer companies direct access to the reinsurance market that may not otherwise be available to externally insured entities. This allows the companies to increase their risk diversification, introduce additional protective measures and identify differences in risk pricing between the primary market and reinsurance market.

³¹ Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlf, T. (eds.), *Betriebliches Risikomanagement und Industrieversicherung*, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020.

³² Marsh: Marsh Captive Solutions, available online at: www.marsh.com/content/dam/marsh/Documents/PDF/UK-en/Captive%20Solutions%20Practice%20Brochure-2013.pdf.

³³ Ibid.

Fig. 10 Benefits of captives



Although captives offer a range of benefits, there are also certain challenges that must be taken into account. For example, captives must comply with the same regulations as other insurance companies and are subject to increasing regulatory control, particularly in Europe, which is likely to increase further in the next few years. One example of this is the Corporate Sustainability Reporting Directive (CSRD), which will be rolled out from 2024 onwards and, as things stand, will apply to captives by 2026 at the latest.

The time and costs involved in setting up and implementing a captive should also not be underestimated. Setting up a captive requires a careful risk analysis, appropriate capitalisation, and integration into existing company structures (see Chapter E 4). Companies must also carefully review the impact of a captive on their existing insurance programmes and contracts, and may need to undertake extensive restructuring in this area.

The company needs to have the expertise necessary for these tasks in place. Qualified staff with the relevant specialist knowledge and experience are required. Even appointing the right executives to a captive's board can be a challenge, since they need to have the knowledge and competences required to lead and run the company effectively. Management also needs to remain highly alert in order to closely monitor the captive's performance and financial situation.

Captives also have higher potential risk than traditional insurance companies. Unexpected or poorly covered insured events, lack of diversification or inadequate protection may lead to captives suffering considerable losses, which can put the company into financial difficulties. These are effects that the operating companies need to be aware of, and internal stakeholders may require a great deal of persuasion in this regard.



You need a lot of commitment from the company's (financial) board members. That's because a captive might operate well for five years, but then lose 20 million or more if things go badly. Everyone needs to be clear about that."

Stephan Schröder, Merck



Ask the expert:

Simon Dia, Director and Lead Commercial Insurance Transformation, PwC Germany

What kinds of companies can and should consider setting up a captive?

Simon Dia: Until five or six years ago it was mainly large companies – those operating at DAX and MDAX level, or multinationals. The model is now increasingly available to SMEs. Risks are to some extent more familiar and easier to calculate. That makes it easier to bear risks internally and set up a captive without incurring a major financial risk. This flexibility on the market and the well-established existing captive models mean that even smaller companies can now consider it.

But it's impossible to put a precise figure on this – it depends on the company's individual risk situation.

What is the added value of a captive?

Simon Dia: Companies with captives generally have very informative risk management systems, so they have a high level of transparency on their internal risks. This means they can act more flexibly on the insurance market and purchase the cover that offers the optimum price and performance. They know what their own risk-bearing capacity is, and they are often better at determining how much risk they can bear themselves. This is based on an in-depth analysis that asks: What risks do we face? How can we mitigate them internally? This then allows them to consider whether they want to bear the majority of the remaining risks themselves or transfer them directly to the insurance market. They are also less dependent on market cycles and can respond to hard or soft markets based on sound commercial criteria.

4 Setting up a captive

From a company's perspective, there are many different reasons for setting up a captive, as described above. We wanted to use our industry survey and expert interviews to find out more about the factors and events that motivate companies to set up captives.

Reasons for setting up a captive

The industry survey revealed that setting up a captive is not currently an option for most respondents. A quarter of respondents stated that they are currently gathering information or obtaining advice on setting up a captive, while 2% are already at the planning stage. For most of those interested in setting up a captive, doing so is a project that will be implemented in the medium term (within the next two to three years) and will require external support.

Fig. 11 Interest in setting up a captive

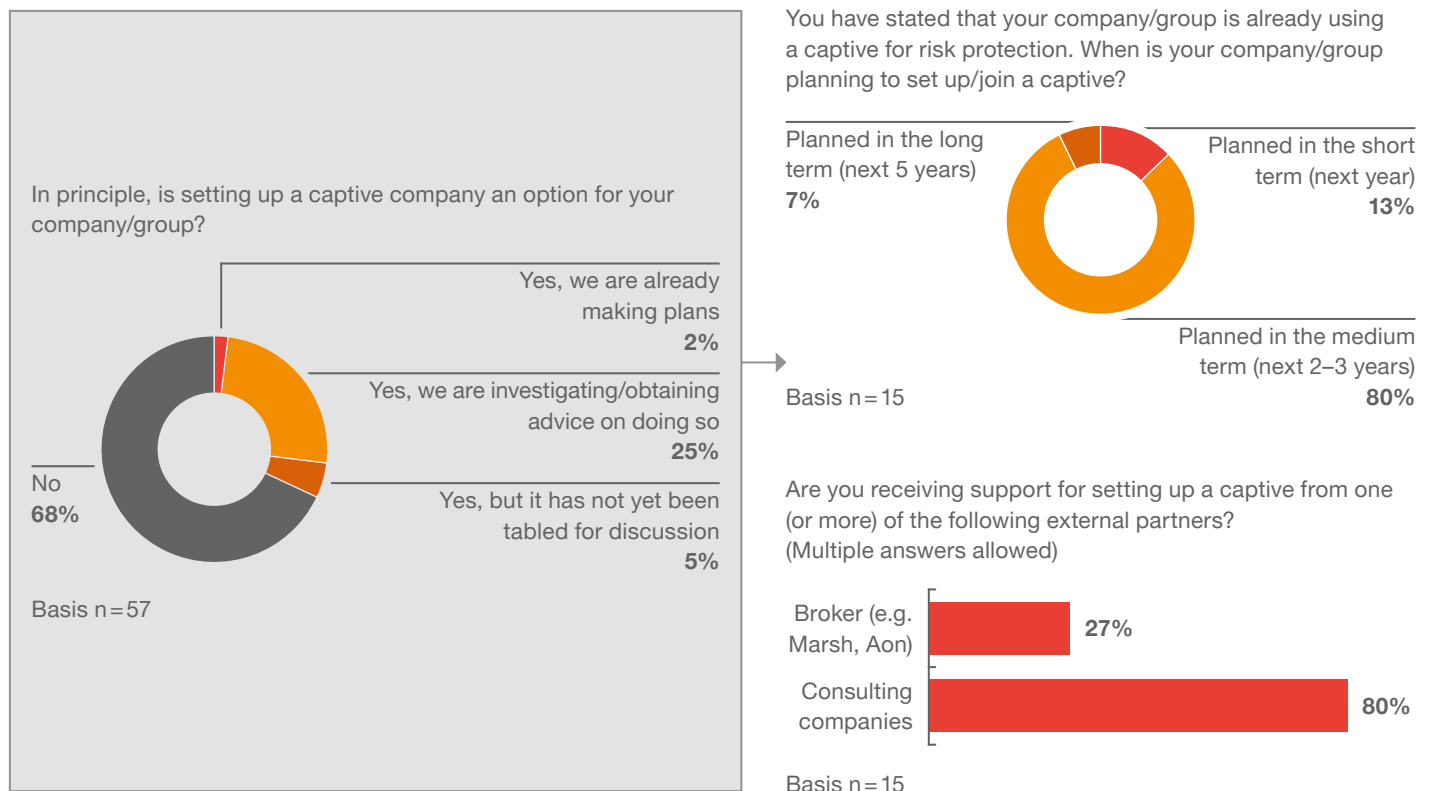
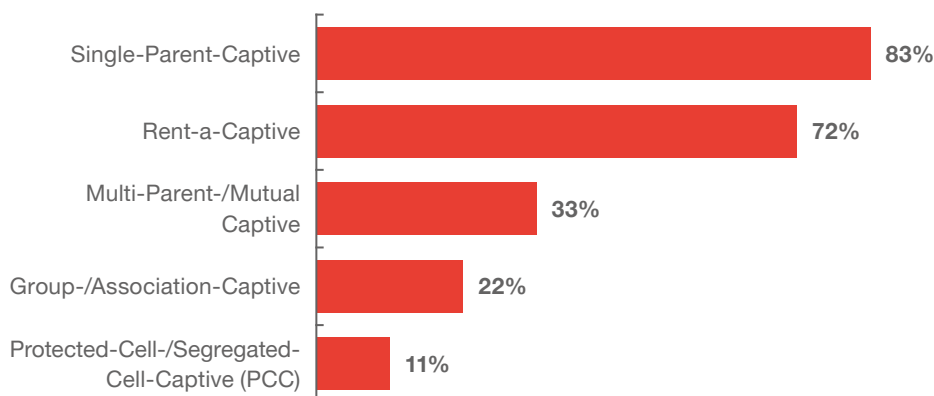


Fig. 12 Desired captive type at foundation

Do you know what type of captive is being considered? (Diagram only includes companies that are considering captives. Multiple answers allowed)

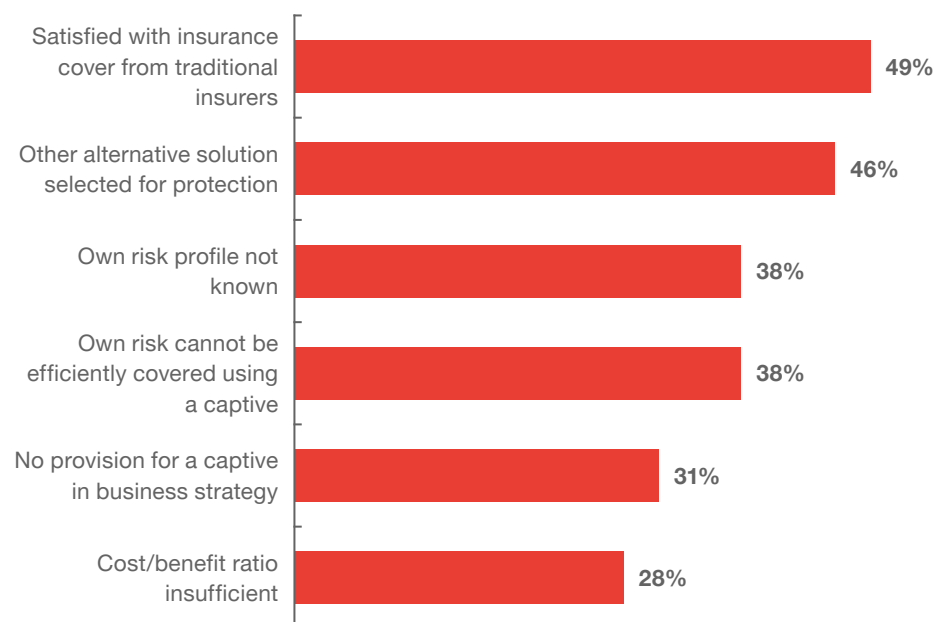


Basis n=18

For around half of the respondents, a captive is not a viable option because they are satisfied with the insurance cover they can obtain on the market and/or have already chosen other ART solutions. The most commonly mentioned specific reasons for considering a captive were centralisation of risk management (72%) and the lack of capacity on the market (50%).

Fig. 13 Reasons for not considering captives

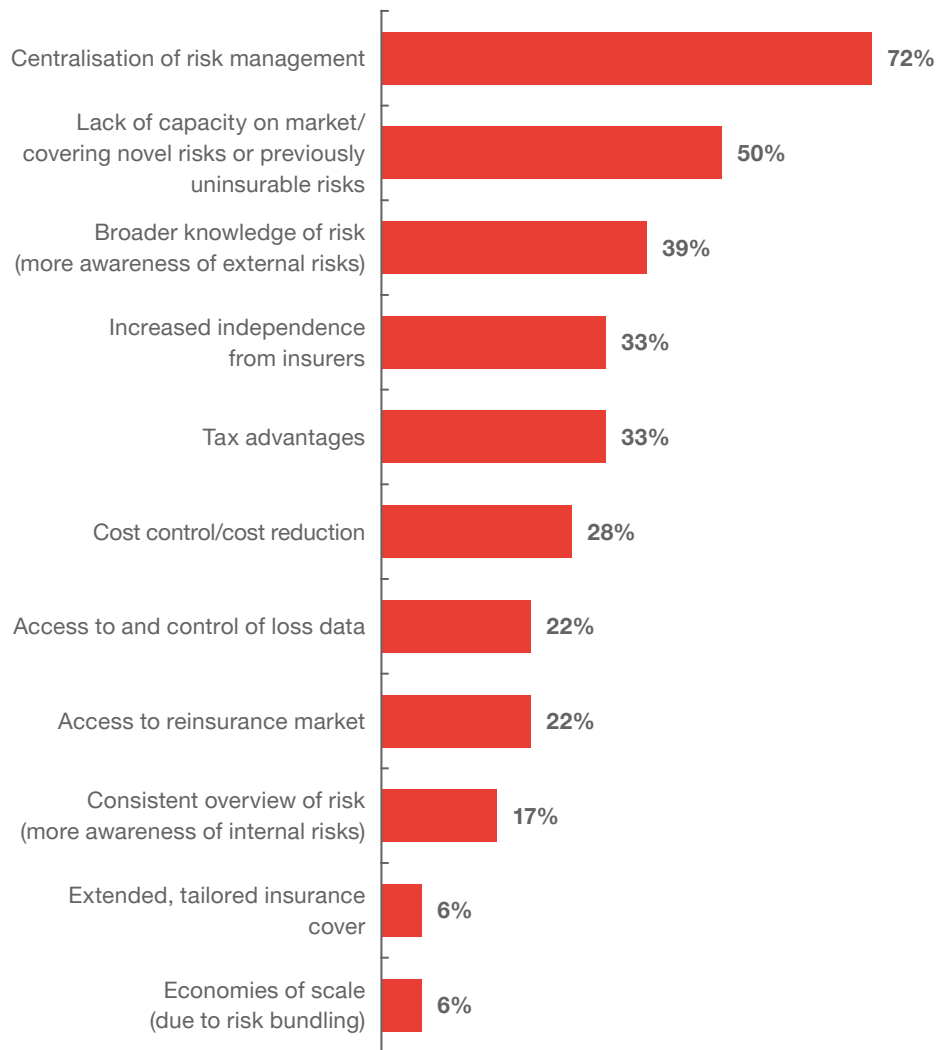
You have stated that using a captive for risk protection purposes is not an option for your company/group. Why is this? (Multiple answers allowed)



Basis n=39

Fig. 14 Reasons for considering captives

What are the reasons for your company/group considering setting up/joining a captive?
(Multiple answers allowed)



Basis n = 18

To summarise, the industry survey revealed that around a third of the industrial companies surveyed were interested in principle in setting up a captive, and were planning to do so within the next two to three years. The companies not currently intending to set up a captive may change their minds in future if the insurance market becomes even harder: half of the survey respondents stated that they were satisfied with their insurance cover, which conversely means that the other 50% of respondents are currently dissatisfied with the insurance options available on the market. This represents market potential, not just for captive managers but also for consultancies and brokers in particular. This is because setting up a captive does not generally form part of the company's core business, and therefore cannot be accomplished by internal staff alone.

In the expert interviews, we discussed the idea that centralising risk management is the main driver behind setting up captives. As it turned out, however, the experts from the industrial companies, all of which run their own captives, did not follow this logic. For them, centralising risk management is a prerequisite for setting up a captive. At the same time, however, the internal risk transfer involved in setting up a captive does help to raise awareness of risk management and increase its visibility within the company, which can help disrupt silo mentalities in individual departments and generate a holistic approach to risk management. One explanation for the divergence in opinion compared to the industry survey may be that these respondents tend to come from an SME background, and most of them have not had to directly deal with the prerequisites and conditions for setting up a captive.



Of course the level of awareness is different in colleagues who really only notice insurance when there's a claim. If you keep on poking the wound and saying, 'the company will still be liable for such and such an amount if an insured event occurs, so we need to raise awareness of the risk or improve the quality of the risk', that definitely does have an effect."

Sandra Kreuch, B. Braun

The reasons and triggers for setting up a captive vary from one industrial company expert to another. The point at which the captive was set up also plays a role here. For example, the hard insurance market has been an important trigger for setting up captives in the recent past. However, some of the captives have been around for decades, and it is often impossible to identify the reasons for founding them in full. In the past, captives were set up to cover novel, uninsurable risks. Other reasons mentioned included greater flexibility and strategic considerations. This is because captives should be seen as a strategic instrument to achieve long-term risk control, and never as a purely operational tool for responding to short-term market trends.



Prerequisites for setting up a captive

We also asked the experts what they considered to be the prerequisites for setting up a captive. They all agreed that a company needs to be of a certain size or have a certain turnover to make setting up a captive possible or worthwhile – after all, setting up and running a captive involves a lot of administrative work for the parent company as well as financial obligations. But putting a precise number on this is difficult, the experts said, and depends on the business segment and capacity available within the traditional insurance market. The ratio of premiums to running costs is crucial here, but it is not possible to put a definitive figure on this.



Setting up a captive is also a question of critical mass. Are the companies big enough? Can they actually generate sufficient premiums to afford a captive?”

Robert Makelaar, AGCS

The experts also identified other prerequisites for setting up a captive, including good internal risk management systems, commitment from senior finance officers, internal specialist knowledge of the insurance market, regulatory requirements and pricing.

Each individual company has to decide exactly what risks its captive should cover. However, there are some types of risk that are generally more or less suitable. Currency risks, market risks, compliance risks, political risks and intellectual property risks are all unsuitable for captives. More suitable risks include losses that are non-systemic and can be precisely calculated, along with defined events (e.g. disruption to operations, transport risks, even liability risks in some cases) – i.e. short-tail risks. These are often risks associated with moderate- to high-frequency losses where claim levels are low to moderate.³⁵



There are a few things to consider with this sort of undertaking. It takes money, personnel and structures to run a captive. That might sound manageable at first, but it requires the same level of administration and accounting as any normal insurance company and needs to be properly presented in annual financial statements. A captive needs a ‘parental guarantee’, a type of letter of comfort from the parent company, to operate. The company may have the right, or be obligated, to contribute additional funds, and it also needs to think about an exit strategy. What do we do if we no longer want the captive – how do we get our money back? Is it that easy to dissolve the captive?”

Rainer Witzel, THOR Capital

Captives are of particular relevance to the manufacturing sector and the pharmaceutical industry. But other sectors, such as public sector institutions, are now also showing interest in ART options. The reasons for this are the same as for large industrial companies: certain risks (e.g. cyber) are difficult or impossible to insure against. In these cases, it makes commercial sense to transfer at least some risks internally, not least to retain any surpluses within the company to cover potential losses.

³⁵ Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlf, T. (eds.), Betriebliches Risikomanagement und Industrieversicherung, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020, p. 357.



Challenges involved in setting up a captive

To set up your own captive, you need specialist knowledge of the insurance market and applicable regulations – which is not generally present, especially in industrial companies. In our small poll of captive owners in the industry survey, respondents cited the approvals process run by the German Federal Financial Supervisory Authority (BaFin), the time required, selecting the right form of captive, and capitalisation as particularly challenging aspects of the setup process.

The expert interviewees also described the setup process as a complex project that should not be underestimated. The experts identified the following challenges, some of which also came up in the industry survey: finding suitable internal and external personnel; knowledge and understanding of pricing; risk modelling; the insurance market; regulations; the time-consuming regulatory process (some of it still analogue); time and project management; and communication with shareholders and other departments.



One of the challenges is that you have to explain the captive solution to managers who are not familiar with insurance. And of course they want to understand it too, and want to know what it actually changes. This raises issues such as: What are the tax implications of the whole thing? Do the tax, financial control or accounting functions have any reservations about it? So you need to ensure all stakeholders in your centralised functions are on board, too.”

Béla Cluse, Knauf



Approach for setting up a captive

The experts provided a few tips on optimising the setup process based on the challenges and lessons they learnt from their own experience of setting up a captive, as well as from their market perspectives:

Data: The company needs to have its own clean data on losses and risks right from the start. This is key to identifying and assessing the risk situation, and creating a loss history and future forecast.

Feasibility study: A feasibility study is used to assess the commercial, legal and operational feasibility of the project. It should include a market analysis and a financial analysis, a legal review, evaluation of a suitable location, and a technical assessment. These may be carried out by stakeholders such as agents, brokers, insurance companies or consultancies. The feasibility study identifies potential benefits (better risk control, cost savings) and challenges (capital investment, regulatory risks). It then provides a specific recommendation. Depending on its scope, a feasibility study can take several months to complete.³⁶

Communication: It's important to involve all relevant stakeholders in the process from an early stage. Internal stakeholders include the legal and compliance function, the business units, board members, the finance department, and the product development and risk management functions. Key external stakeholders in the process include rival insurers, fronting insurers, external actuaries and auditors, regulatory bodies and licensing agencies.

Market specifics: Captives are often set up by global companies and corporations, so it's important to consider the specifics of different markets (e.g. employee benefits in the US) at an early stage in the process.

³⁵ Kraus, H. and Robles Häusser, J. A.: Captives, in: Mahnke, A. and Rohlf, T. (eds.), *Betriebliches Risikomanagement und Industrieversicherung*, Springer Fachmedien Wiesbaden GmbH, part of Springer Nature, 2020, p. 359.

External assistance: Setting up a captive requires specialist knowledge of the insurance market and applicable regulations. This expertise will not normally be part of the company's core business. External advisors such as brokers, consultancies and lawyers therefore need to be involved. Respondents also stated that it was helpful to communicate with other "captive owners" in other companies and sectors – for example, via the European Captive Forum.



Ask the expert:
Simon Dia, Director and Lead Commercial Insurance Transformation, PwC Germany

What's the best way for a company to approach a feasibility study to assess whether a captive is a sensible option?

Simon Dia: The feasibility study is hugely important. I'd look at feasibility from two perspectives: does it make commercial and strategic sense for my company to set up a captive, and if so, which risks would it cover? In our experience, it's a good idea to start small so that management can make a go/no-go decision later. The first thing to find out is your risk situation and what potential for optimisation you have. Can you increase that potential with a captive? That would be the first step, which actually requires very little time and effort. Once that's done, you can start to think about things like actuarial analysis, assessing locations, analysing systems, drawing up the business case and so on. Operational issues then need to be worked out in detail before you proceed with the setup.

Is external support always useful and necessary for this process?

Simon Dia: It's worth talking to like-minded people at the start – this is borne out by the results of our study: for example, talking to companies that have recently set up a captive, or communicating via captive networks such as the European Captives Forum. Brokers also often offer an initial consultation and assessment, though this may not always be entirely independent. It then makes sense to get external support to ensure you follow a standardised procedure and have an impartial "outside-in" view. This also helps you to avoid becoming dependent on other parties – for example, when looking for suitable brokers and insurers.

5 Running a captive

Structure

In the expert interviews, we spoke to executives responsible for captives at six large industrial companies. Although each individual company has its own specific history and trajectory, there's a high degree of consensus in this area, so we feel we have come up with a good – albeit not exhaustive – picture of the captive landscape in German industrial companies. A complete picture is impossible, since there are no official statistics on the number of companies that own a captive.

Most companies' captives do not have any employees of their own. Posts are usually covered by existing company employees taking on additional roles, using internal resources or with external support.

Functions that are outsourced include accounts, the legal department, compliance, auditing, actuarial advice, claims handling and tax. Popular captive locations such as Luxembourg or Vermont have mature captive management industries that can take on anything from individual functions to operation of the entire captive.

Challenges

According to the experts, the challenges involved in running a captive include the increasingly strict regulatory requirements, such as under Solvency II.

Solvency II is a set of regulations on the supervision and risk management of insurance companies, including captives. It sets out detailed requirements on equity capital, solvency capital requirements, risk management and reporting standards for insurance companies. Captives are generally affected by Solvency II, and must comply with its requirements to ensure adequate levels of financial stability and risk management. These additional requirements generally require a comprehensive review and adjustment of internal processes, risk management systems and reporting systems. Some experts expected costs to rise as a result of the increased reporting requirements.



Solvency II was one of our biggest challenges, as it introduced lots of new rules without the relevant agencies publishing a detailed interpretation and the implementation requirements until much later. The size of our captive meant this took a lot of work from just a few members of staff, and even now that we have processes in place it's a permanent added cost – for example, in terms of the reporting requirements (quarterly/annual reports as well as narrative reporting) and implementation of the relevant guidelines/SII processes.”

Björn Knispel, B. Braun



Digression: Effects of Solvency II on running a captive

- **Capital requirements:** Solvency II sets out strict equity capital requirements for insurance companies to ensure they have enough capital to cover their actuarial obligations. Captives must ensure that they meet the minimum capital requirements and hold sufficient equity capital to cover their risks.
- **Risk management:** Solvency II sets out strict requirements on risk management in insurance companies, including captives. Captives must establish a robust risk management system to identify, assess and control risks. This includes establishing internal controls, monitoring risks and implementing appropriate risk management processes.
- **Reporting:** Solvency II sets out detailed requirements on reporting for insurance companies. Captives must compile regular and comprehensive financial and risk reports and submit these to the regulatory bodies. The reports cover information on financial KPIs, risk profiles, capitalisation and other aspects relevant to running a captive.
- **Regulatory bodies:** Solvency II tightens up the regulation and control carried out by national regulators. Captives undergo monitoring and auditing by regulatory bodies to ensure they meet the requirements of Solvency II. This may include regular audits, reviews of reports and compliance with regulations.
- **Governance requirements:** Solvency II sets out governance requirements for insurance companies, including captives. Captives must have appropriate management and control structures in place, including an effective supervisory body, clear segregation of responsibilities, and suitable internal policies and control mechanisms.

A new challenge reported was the question of ESG and sustainability, although the extent of this challenge remains unclear. It may be acceptable for captives to be part of the overall company sustainability strategy (e.g. in terms of capital investment), but additional reporting may be required in the future if new regulations are introduced. Captives can also be used to cover aspects such as new ESG-relevant risks or novel, environmentally friendly methods and technologies. More evaluation and discussion will be required on the potential role of captives as a solution to adverse ESG risks in large corporates. Captives can also cover risks that are not ESG-compliant, provided that the parent company transparently discloses them in the relevant reports.

“

ESG is a huge issue for our company in the chemicals and pharmaceutical sector. We want to become climate-neutral, we are investing a lot in this globally, we're building to the latest standards and are modernising and transforming our production processes. This all links into insurance as well: it can sometimes be difficult to insure because the insurers don't have historical data for new methods and technologies. This is where captives can come in and provide support.”

Stephan Schröder, Merck





Digression: Captives in the ESG context

There are many areas in which ESG affects companies, from financing to operational efficiency, from reputation to staff retention. Regulatory requirements and reporting obligations are particularly relevant for captives in the ESG context:

CSRD:

- The Corporate Sustainability Reporting Directive (CSRD), published in June 2022, replaces the Non-Financial Reporting Directive (NFRD) and introduces more detailed reporting requirements for a wider range of companies, which must now provide sustainability information in their reports. It is being rolled out gradually from 2024, with different deadlines depending on the size and type of company.
- The CSRD requires captives to disclose material ESG-related opportunities and risks. This applies particularly to climate impacts. Any impacts their business activities have on the climate, however large or small, must be disclosed.
- Captives will be subject to CSRD requirements from the start of the 2026 financial year, although some will be covered sooner if they meet two of the criteria below:
 - More than €40 million in net turnover
 - More than €20 million in total assets
 - More than 250 employees
- Captives can be exempted from the requirement to submit a separate sustainability report under CSRD if the parent company includes the captive in its consolidated CSRD reporting. If an exemption is granted, however, the parent company must actually report on the captive, since it will normally be involved in an entirely different business segment.

ORSA:

- Own Risk and Solvency Assessment (ORSA) is a key tool under Solvency II, the purpose of which is to enable insurance companies to conduct an internal assessment of their risks and financial strength. ORSAs must also take account of climate risks under ESG.

MaGos (Minimum Requirements on the System of Governance of Insurance Undertakings) and other BaFin publications state that:

- The requirements relating to climate risks are also applicable to captives. This means that physical, transition and litigation risks must be identified and reported on.

The financial reporting procedure for captives is another complex area. This depends on a number of different factors, such as the type of insurance company involved, case law, and accounting standards used. The introduction of new regulations, such as the IFRS 17 accounting standard which has been applicable since 1 January 2023, also requires a comprehensive review, implementation and adjustment of relevant processes and reporting procedures.



Digression: Financial reporting for captives

Financial reporting for captives is subject to certain specific requirements:

- **Regulations:** Financial reporting procedures for captives will primarily depend on the applicable accounting regulations in the country where the company does business, and may be based on national accounting standards or statutory requirements. In many countries, financial reporting procedures for insurance companies are aligned with the International Financial Reporting Standards (IFRS) or the US Generally Accepted Accounting Principles (GAAP).
- **Standalone company:** Although a captive is controlled by its parent company, it is a standalone company with its own assets, liabilities and equity capital. The captive's financial items must be shown separately from those of the parent company on the balance sheet. As part of a larger corporate entity, captives must also comply with their parent company's corporate accounting and reporting policies. This may include implementing specific corporate directives, consolidating financial information or disclosing specific information at corporate level.
- **Tax regulations:** Captives must comply with the tax regulations that apply to their company and business activities. This includes ensuring correct treatment of revenues, expenditure, reserves and tax payments in accordance with applicable tax laws/regulations.
- **Local regulatory bodies:** Captives are subject to supervision and control by local regulatory bodies. These bodies may have additional rules and requirements for captives' accounts and operations. Captives must ensure that they meet the requirements imposed by these regulatory bodies and fulfil their reporting obligations.
- **Insurance technical reserves:** Captives must form insurance technical reserves to cover potential future claims. These reserves must be shown on the balance sheet in accordance with the specific regulations for insurance companies. This may include valuing loss reserves, premium provisions and other actuarial liabilities.
- **Special rules:** Depending on which accounting principles are applied, captives may be subject to certain special provisions. Exemptions of this kind may affect the valuation of assets, reinsurance contracts, or how insurance contracts are shown on the balance sheet.
- **Auditing regulations:** Captives may be required to arrange an independent audit of their financial information. This is dependent on local legislation or regulations, but will normally comprise an audit of the year-end accounts by an external auditor.



Digression: Effects of IFRS 17 on running a captive

IFRS 17 is the new accounting standard for insurance contracts and has been mandatory since 1 January 2023. It has brought about wide-ranging changes to financial reporting of insurance contracts, and therefore also affects captives. IFRS 17 introduces a standardised and comprehensive financial reporting method for insurance contracts, based on expected cash flows. This affects both the income statement (profit and loss account) and the balance sheet.

Captives, which report to IFRS standards, are therefore also affected by this new accounting standard. In particular, this includes the following:

- **Changes to financial reporting:** IFRS 17 has brought about wide-ranging changes to financial reporting for insurance contracts. Captives must modify their current financial reporting practices and comply with the new IFRS 17 requirements. This may include re-measuring insurance contracts, moving to the expected cash flow approach and implementing the measurement methods.
- **More comprehensive disclosure:** IFRS 17 involves additional rules on disclosure that require more comprehensive statements regarding insurance contracts, risks and capital requirements. Captives must ensure that they collect and document the necessary information and present it properly in their financial reports.
- **Modifying systems and processes:** IFRS 17 may require captives to modify their existing systems, data sources and processes to meet the new requirements. This may involve updating IT systems, implementing new measurement methods and training staff.
- **Effects on financial KPIs:** Changing over to IFRS 17 may have effects on captives' financial KPIs. In particular, there may be changes to the way insurance contracts are measured and how profit or loss is recognized, which may have an effect on the income statement (profit and loss account), balance sheet and other financial KPIs.

Despite the operational complexity involved in applying IFRS 17, it can offer advantages for captives. These advantages can include better pricing, adequate claims provisioning, more precisely calculated KPIs, better integration of the captive's accounts into its parent company's consolidated financial statements, or a better rating for the parent company.

For more information see <https://blog.pwc.lu/what-you-need-to-know-about-ifrs-17-for-captives-in-5-minutes>.



Tip!

IFRS 17 training for decision-makers – in-house training or webinar on methodological principles and effects of the new accounting standard on financial reporting: <https://pwcplus.de/en/article/237277/ifrs-17-fit-for-ai-accounting-insurance-1-2-3-tage/>

Economic growth of a captive may bring additional challenges. For example, the captive will constantly need strategic and operational development – for example, continuously extending protection to additional risks – if it is to remain cost-neutral when operating costs rise.

Succession planning is one of the internal challenges. Companies need to train up or appoint suitable personnel well before foreseeable departures occur, such as those due to retirement. In the case of dismissals or resignations, it is more difficult to document existing knowledge and ensure continuity of knowledge and decisions.

The expert interviews revealed that levels of process automation in captives are low. This was not necessarily seen as a problem by the respondents: their systems were adequate for their own purposes. Nevertheless, process optimisation and systemic support for the captive (e.g. from external consultants) would be useful to reduce costs, for example. This could be particularly useful when a captive is growing or expanding.

The systematic sharing of information between captives that is already in place may provide additional approaches to dealing with the challenges and energising the development process. Knowledge sharing should therefore be a subject of great interest for all executives responsible for captives. Subject to restrictions under competition law, there are many areas where captives can learn from one another.



6 Support with setting up and running a captive

Both the industry survey and the expert interviews showed that almost all companies need external support to set up and run their captives. The main reason for this is the complex process of setting up a captive, which requires knowledge that lies outside the company's core business. Since additional jobs are not usually created for the captive, external resources are both useful and necessary.

In the industry survey, the captive owners and companies planning to set up a captive stated that they had had support from consultancies and/or brokers with setting up their captives. The overwhelming majority were advised and assisted by consulting firms. The main areas the companies obtained support on were risk quantification, regulatory/legislative problems and strategic issues. These were the areas that scored highest in response to the question of where external support had been particularly helpful.

The overall tenor of the expert interviews was that consultancies and brokers were used, but so were captive managers and fronting partners. Another area which was helpful at setup and mentioned in several interviews was informal sharing of information within the "captive community", through forums such as the captive panel at the General German Association of Insured Business (Gesamtverband der versicherungsnehmenden Wirtschaft, or GVNW) and the European Captive Insurance and Reinsurance Owners' Association (ECIROA), which organises the annual European Captive Forum. The "captive community" within Germany and Europe is relatively small, with many members knowing each other and coming into face-to-face contact through the official institutions and events. This is an area where, as far as legally permissible, the experts feel they can openly share information and ask for recommendations.



The expert interviews also revealed that internal support on running a captive is mainly provided by the company's centralised functions such as legal or IT. The captives generally have hardly any employees (or none at all) working exclusively for them. The roles are generally covered by dual functions in the group and captive. As a result, external support is also required for running a captive – for example, on claims management.

In summary, it can be said that external support is absolutely essential when setting up and running a captive in order to manage the complex requirements effectively. Large consulting firms, such as PwC, are particularly recommended due to their expertise, their independence and their global network.



Tip!

We are your trusted partner in all phases of setting up and running of captives and offer you comprehensive support. We work closely with our international PwC network in Luxembourg, Liechtenstein, Malta and the UK to ensure a seamless, integrated approach. Find out more:
<https://www.pwc.de/en/finanzdienstleistungen/modern-risk-transfer-solutions-captives-in-focus.html>

7 Future prospects for captives

As described in the previous chapters, the number and importance of captives has risen in recent years. But will this growth continue in future, or is it merely a consequence of the hardening of the commercial insurance market situation on the industrial insurance market that will abate when the market eases?

In the industry survey, we asked how ART in general and captives in particular are expected to develop over the next five years. The resulting picture was rather mixed: with respect to ART in general, 91% expect it to increase moderately or considerably, with no-one expecting a decline. The overall view on captives, however, is less uniform. A fifth of respondents (22%) expect to see a moderate or considerable increase, while around a third (34%) said they expected a moderate decline. Almost half (44%) could not decide whether ART would increase or decrease, and opted for the neutral response.



I think that the trend for industrial companies like ours is that even more captives will be set up, existing captives will be used in an even more exposed form and other risk financing options will also be considered.”

Stephan Schröder, Merck



However, when we asked respondents whether they might consider a captive for their own company, and over what timeline, the responses suggested that the number of captives would continue to grow. 25% stated that they were investigating setting up a captive, 5% said that it was an option but had not yet been tabled for discussion, and 2% were already planning to set up a captive. The majority of companies that stated they were already working on using a captive for risk protection were planning to implement this within the next two to three years (80%).

Interviewees in the expert survey also generally expected the relevance of captives to increase. However, this also depends on how the insurance market develops: the expectation is that interest in captives will decline if the market situation improves.

Existing captives will have to be refined. The experts expect to see improvements in cost effectiveness – for example, by introducing better, more automated processes. Growth is also likely as a result of opening up new areas, such as insurance for third parties.

Primary insurance and reinsurance companies do not see the increasing relevance of captives as a direct threat to their business. Instead, it offers commercial insurers a route to generate additional business by taking on services such as fronting or claims handling. The fact that captives are taking on some risks also means that these risks no longer have to be covered by the traditional insurance market.

Relevance of captives for SMEs

Up until now, our analyses and surveys have primarily dealt with large or very large industrial companies and their risk situation and risk protection measures. There are a number of differences in this regard compared with SMEs. However, there are also commonalities, such as cyber risk and the difficulty of obtaining risk protection on the traditional insurance market.

Traditional captive solutions for large industrial companies (such as single-parent reinsurance captives) are seldom an option for SMEs. This is primarily due to the high level of equity capital required, but also the complexity of setting up these solutions. Alternatively SMEs do have options such as accepting increased deductibles, taking out separate coverage for peak risks, or mutuals (see Chapter C 3). But captive solutions such as rent-a-captive, protected-cell captives or virtual captives are also available.



With virtual captives available, even smaller companies can say, ‘with insurance conditions like these I’m no longer willing to use the traditional market; I’m going to use a virtual captive like the one provided by AGCS.’”

Andreas Brügel, Delvag



Digression: Virtual captives

Virtual captives are a form of risk financing that combines elements of traditional insurance companies and captive insurance companies. They have become popular in recent years, particularly in view of the tougher conditions in areas such as cyber insurance, D&O and disruption to operations. Unlike conventional captives, which act as subsidiaries of a parent company and are licensed as primary insurers or reinsurers, a virtual captive simulates a captive's functions within an existing risk bearer or insurer. "Put simply, it is a continuing, multi-year insurance programme for risk protection, with a no-claims bonus system, and it reduces the volatility from major loss events on a company's income statement. The company pays an annual premium for risk provisioning for self-insuring losses", write Peter Reichard and Robert Makelaar of AGCS in an article in the *Versicherungsmonitor*.³⁷

The benefits of a virtual captive include the ability to bear risks away from the core balance sheet, achieve a certain level of independence from the conventional insurance market, and use market arbitrage strategies to respond to changes in the primary insurance sector. They can also help to provide efficient protection against special or emerging risks and collect valuable information for identifying potential process modifications to improve risk control. This makes virtual captives particularly suitable for SMEs that are not large enough and do not have the resources required to run their own captive. They are a flexible and cost-effective way to manage risks and gain access to reinsurance and retrocession markets.

However, they do also have disadvantages. Costs can be high, particularly if the company is unable to generate sufficient premiums to cover the costs of the virtual captive. Conflicts of interest may also arise, particularly on D&O insurance where the company may have to cover claims for damages against its own managers.

Providers of virtual captives are generally large insurance companies or specialist risk bearers such as Allianz's AGCS, Funk, Swiss Re and Munich Re.

³⁷ *Versicherungsmonitor*: Virtuelle Captives: das Beste aus beiden Welten, 5 January 2022, available online at: <https://versicherungsmonitor.de/2022/01/05/virtuelle-captives-das-beste-aus-beiden-welten>.



Overall, it is clear that the relevance of captives will continue to grow. But more generally, ART is expected to become increasingly important. Various new solutions such as mutuals, higher deductibles or parametric insurance policies will be trialled, particularly during hard phases on the insurance market. At the moment, these are often one-off solutions, but they may be more widely applied in the future (see Chapter D 2).



Ask the expert:
Simon Dia, Director and Lead Commercial Insurance Transformation,
PwC Germany

How will the captive market develop in the future?

Simon Dia: We have been seeing an increasing number of enquiries on setting up captives in recent years. One reason, in addition to the ones revealed by our study, is the increase in companies' risk awareness. In our view, which is shared by the market, we are set to see a considerable increase in the number of captives being set up. This model will continue to spread, from the largest companies down to SMEs. It will increasingly be an option for shifting and bearing risk. At the same time, this business – which is highly specialised and alien to most industrial companies – needs to be reviewed regularly in terms of its suitability and objectives, and must be modified if necessary. This is leading to an increasing number of companies using their captives to cover larger parts of their value chains. For example, automotive manufacturers or car rental firms are now more likely to offer car subscriptions with a fully comprehensive insurance premium included, leaving them within the company's own value chain in the event of a claim.

F Top recommendations for action on setting up and running a captive

Based on our analysis and the results of our industry survey and expert survey, we have prepared a number of recommendations for action for companies that are intending to set up a captive or have already done so. There are separate recommendations for the setup phase and the operating phase.

1 Setting up a captive

1

Be aware of your own risk situation: Before going ahead with setting up a captive, companies need to know their past, present and future risk situation. This requires centralised risk management within the company. Ideally, data on losses, claims and how they have changed should be available within the company itself. Internal resources should always be available for this process, but external support may also be needed.

2

Raise awareness of the value of a captive: Captives are a long-term tool for risk management. Setting them up and running them is a non-trivial matter requiring significant expenditure, capacity and capitalisation. Awareness of this must be present and/or communicated within the company.

3

Good communication is crucial: All internal and external stakeholders should be involved at an early stage both before and during the setup process. The crucial factor is good communication that is technically sound and accurate while also reflecting the fact that non-specialist individuals and decision-makers must be able to understand the process. This is important because captives and insurance will not generally be part of the company's core business and prior knowledge cannot be assumed.

4

Internal insurance expertise is required: HR management needs to bear in mind that internal insurance expertise must be in place to set up and run a captive. This expertise will normally be outside the company's core business. It may therefore be necessary to appoint and retain new staff. If knowledge of captives is limited to a single individual, it may be lost when that person moves on or retires. Provision needs to be made for these eventualities. Another option, however, is to use a captive manager to handle the setup process and operations.

5

Check feasibility: A feasibility study is an important part of the decision-making process around captives (see Chapter E 4). Being receptive to the outcome is also important – i.e. the result may actually be that you decide not to go ahead with setting up a captive.

6

Get external support on finance and regulation: Financial reporting, tax and regulatory matters should not be underestimated and must be clarified in advance (see Chapter E5). Most companies obtain external support on these areas from consultants, brokers or captive managers, as this expertise is highly specialised and is not available by default in every company.

7

Become a part of the “captive community”: There is an active “captive community” within Germany and Europe that regularly shares information, such as at the European Captive Forum. Information is also shared informally, so it is advisable to actively seek contact with this community and get involved in the information sharing process.

2 Running a captive

1

Review new risks: Focusing on risks and the risk situation is not something that can be neglected once the captive has been set up. Companies also need to regularly review current or emerging risks (e.g. ESG, see Chapter E 5) and requirements (e.g. new regulations, see Chapter E 5) while they are running their captive to see whether the parent company or the captive could be affected.

2

Review processes and objectives: Captives develop by means such as extending cover to new risks. Processes and objectives therefore need to be subject to regular review, externally if necessary. This although includes insurance partners, whose offerings and services need to be regularly reviewed and adjusted or put out to tender.

3

Keep an eye on costs: A captive also needs to be profitable. Costs need to be reduced by taking steps such as implementing better processes and increasing automation.

4

Rethink captives: A captive’s functions may go beyond bearing risks. Loss mitigation and prevention are increasingly a focus for the insurance business, so they can also be integrated into the risk management process and thus the captive.

3 Outlook – the future for captives

1

Increasing relevance of captives: The hardened insurance market means that ART is generally becoming more attractive to companies. The number of captives is therefore expected to rise over the next few years. However, if the market softens again, interest in captives may decline again in the long term.

2

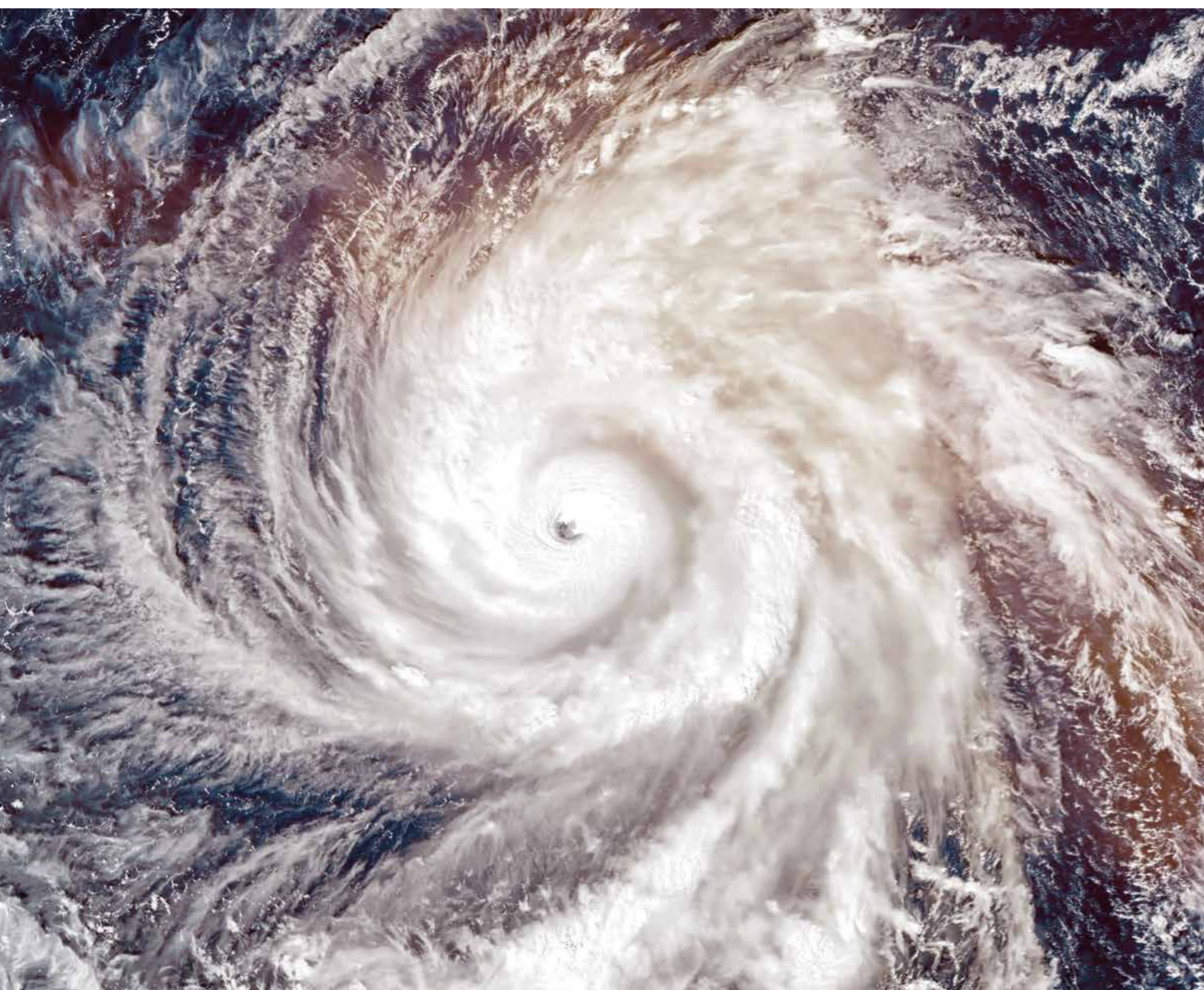
Captives are an option for very large companies only: Internal captive solutions will always be a niche product for large companies since they involve a great deal of effort and expertise in their initial stages and require large amounts of capital.

3

New solutions required for SMEs: Own captives are generally not an option for SMEs, but there is an ongoing search for new solutions to protect against risks. These include virtual captives, protected-cell captives and mutuals.

4

New technologies: Loss and risk assessment has changed in recent years. New technologies and AI-assisted functions should be reviewed for usability and risk evaluation, and deployed if appropriate.



Appendix: study design

1 Method

The study was based on a two-stage survey. Following extensive desk research, the first step involved a quantitative Computer-Assisted Telephone Interview survey (CATI survey) of 61 experts from the risk management departments of industrial companies. This industry survey focused on protection against corporate risks using both the traditional insurance market and alternative protection models. The survey was designed and the data was collected in collaboration with Statista.

The quantitative survey was followed by eleven qualitative expert interviews with captive owners in large German industrial companies, as well as experts from academia, industrial insurance, reinsurance and brokers. These interviews mainly focused on issues around setting up and running captives, along with the development of the captive market.

2 Composition of random samples

Quantitative survey

Information on companies

Fig. 15 How much sales revenue did your company/group generate last year according to the income statement?

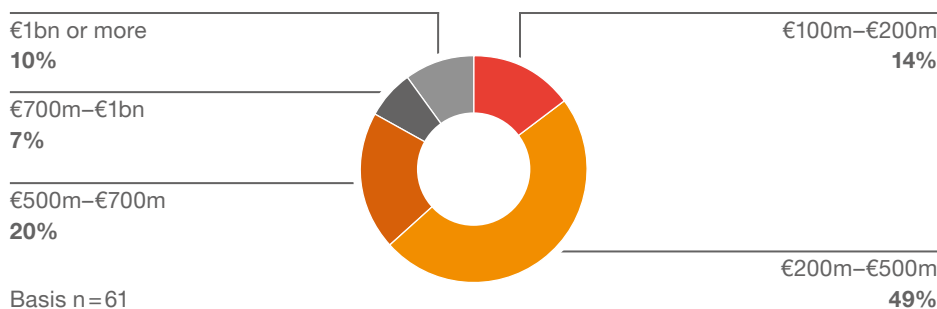


Fig. 16 How many people does your company/group employ?
Please include all branch offices.

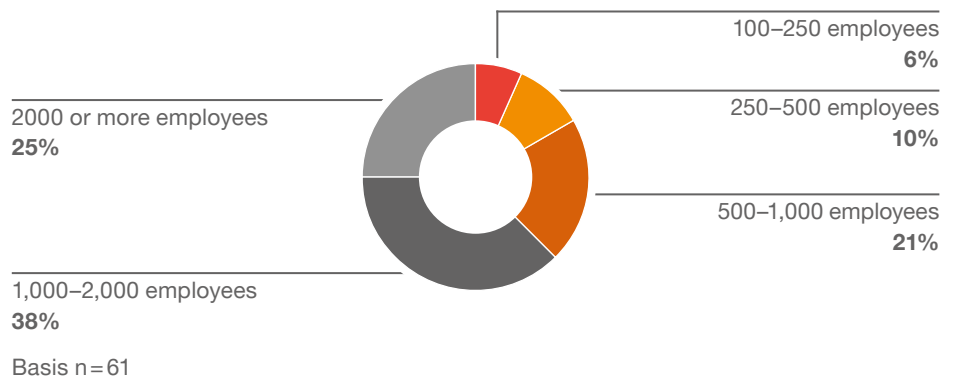


Fig. 17 In which of the following regions is your company/group active?

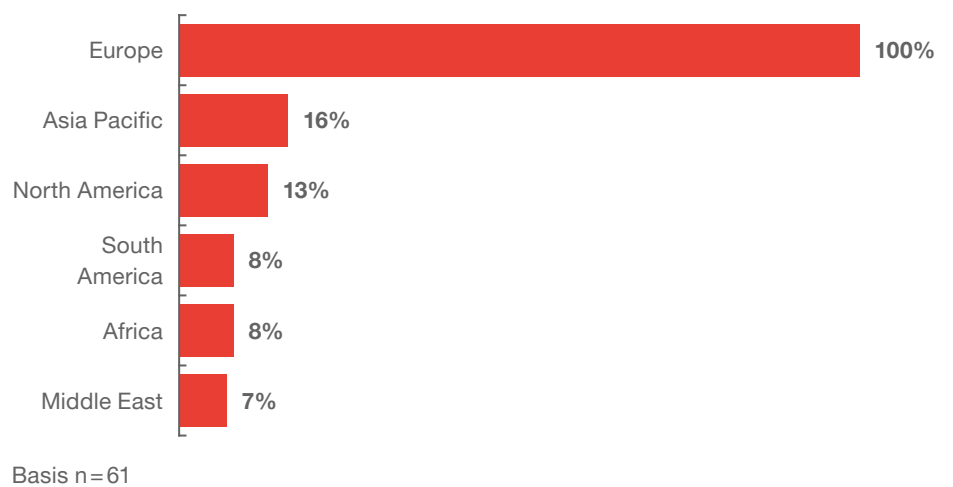


Fig. 18 In which sector is your company/group active?

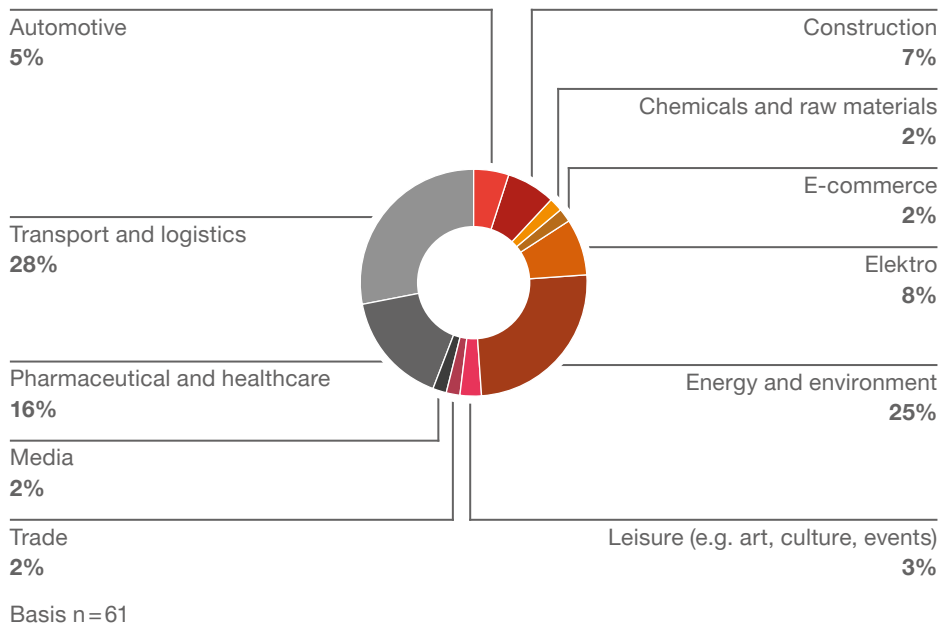


Fig. 19 What is your position within your company/group?

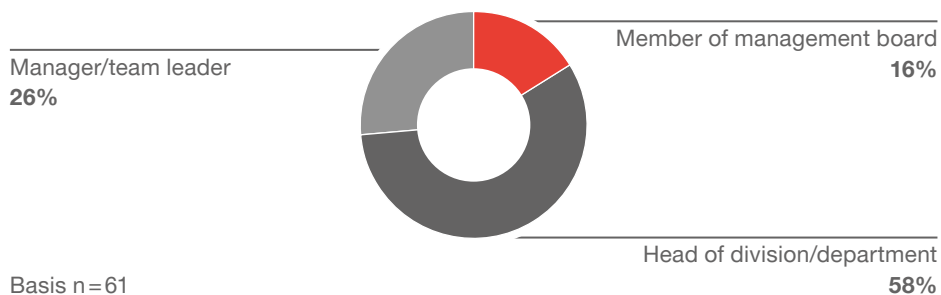
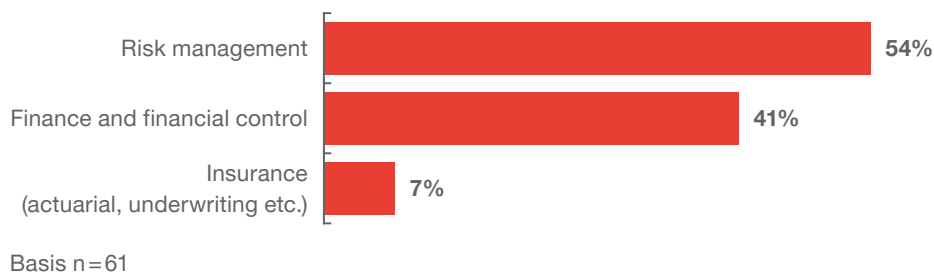


Fig. 20 What are your principal day-to-day tasks?



3 Interviewees

Andreas Brügel, Delvag Versicherung AG

Andreas Brügel is the Director of Primary Insurance and Reinsurance at Delvag Versicherungs-AG, the insurer of the Lufthansa Group. He began his professional career at Albatros Versicherungsdienste GmbH. He then held a number of different positions at Delvag Versicherungs-AG. In 2022, he was named “2022 European Captive Risk Manager of the Year”.

Frank Bär, Covestro

Frank Bär trained as an insurance salesman at an insurance broker and went on to complete a degree in business studies at the University of Cologne. He has 28 years’ professional experience in industrial insurance and enterprise risk management – five of those years in primary insurance (Allianz) and the rest on the industry side (Solvay, Menarini Group). He has been Head of Insurance at Covestro AG for the last five years.

Béla Cluse, Knauf

Béla Cluse is an actuary and has been working as an insurance specialist at the Knauf Group since March 2019. He was appointed to the Board of Knauf Re in February 2021 and is responsible for its actuarial functions. Before coming to Knauf, he worked at the Merck Group as an insurance specialist. Béla is a member of the Germany Association of Actuaries (Deutsche Aktuarsvereinigung, or DAV).

Simon Dia, PwC Germany

Simon Dia is an experienced expert in the field of reinsurance and commercial insurance. As Director and Head of Commercial Insurance Transformation at PwC Germany, he has more than 15 years of professional experience in the area of financial services. During this time, he has published various articles and studies on commercial insurance, underwriting and risk transfer. Before his time at PwC, he held different specialist and management positions in renowned companies. Among others, he worked at AXA XL as head of reinsurance acquisitions, where he was also responsible for the operational of the captive business. He also held the position of Head of IT at AXA XL.

Daniel Haag, AXA

Daniel Haag is 43 and has held various management positions at AXA in the last 15 years, including Director of Reinsurance and International Services. He is currently Director of Operations for AXA XL Germany, Austria and CSEE.

Markus Haßold, Knauf

Markus Hassold came to Knauf in September 1993 and has worked for the Knauf Group’s internal insurance broker since 1995. He is a team leader with responsibility for claims management, and is an expert in handling complex claims across all insurance partners. He is also the Director of Training/Dual-Study Programmes at Knauf V.V.G.

Björn Knispel, B. Braun

Björn Knispel has been Chair of the Board at REVIUM Rückversicherung AG since 1 January 2016, having previously been a Prokurist (authorised signatory) and responsible for implementing Solvency II. Before this, he spent several years in insurance-related posts at companies including Allianz Deutschland AG and KPMG Munich.

Holger Kraus, Siemens

Holger Kraus worked for Aon for several years, advising large companies on alternative risk transfer solutions and captives. He has worked on insurance at Siemens AG since 2009, initially focusing on risk financing and strategy, and has been the Head of Insurance since 2023. Alongside this role, he is Chair of the Board of RISICOM Rückversicherung AG, Siemens AG's internal reinsurance company. He also heads up the captive panel at the General German Association of Insured Business (GVNW).

Sandra Kreuch, B. Braun

Sandra Kreuch has been a member of the Board of REVIUM Rückversicherung AG since 1 June 2014, having previously been a Prokurist since 2012. She has also worked for B. Braun Inhouse Broker (BBM Group Insurance Broker GmbH) since 1 June 2004, where she has been Managing Director since 1 January 2012, and she worked for the Gerling Group between 1992 and 2004.

Robert Makelaar, AGCS

Robert Makelaar began his career in the (re-)insurance industry in 1988 at Swiss Re. Since 2000, he has been working at Allianz Risk Transfer AG, a subsidiary of Allianz Commercial that originally specialised in alternative risk transfer. As a Board member at Allianz Risk Transfer AG, he is responsible for structured, alternative risk transfer business, including asset-backed reinsurance and catastrophe bonds.

Prof. Dr. Jens Mörchel, Dortmund University of Applied Sciences (Fachhochschule Dortmund)

Professor Jens Mörchel studied Business Administration and Computer Science and is a licensed actuary. From 2001 to 2012, he worked for Munich Re in various positions including financial control of industry business and business development for Latin American markets. He was appointed Professor of Business Studies at the Dortmund University of Applied Sciences in 2012, focusing in particular on the insurance business and financial control.

Stephan Schröder, Merck

Stephan Schröder has been Head of Group Insurance for Merck KGaA in Germany since 2019. He is responsible for global insurance management for the Merck Group, which includes two captives in Europe and the US. Prior to this he was a Commercial Manager for AXA Corporate Solutions Deutschland (now AXA XL), responsible for sales to large corporates in Germany. Stephan has a total of around 30 years' experience in the industrial insurance sector.

Rainer Witzel, THOR Capital

After graduating, Rainer Witzel spent more than 20 years at international industrial insurance brokers in a range of different specialist and management positions. In 2011, he founded THOR Capital GmbH as a holding company for several investment initiatives in the commercial insurance and corporate risk management sector, including inex24 AG and XE:DARIS GmbH. Rainer also works as a consultant and investor in the corporate M&A sector, and he has an Executive MBA from St. Gallen Business School.

Your contact persons



Sven Stark

Lead Insurance Advisory
Partner PwC Germany
Tel: +49 151 61356533
sven.stark@pwc.com



Simon Dia

Lead Commercial Insurance Transformation
Director PwC Germany
Tel: +49 151 16780963
simon.dia@pwc.com



Lukas Redding

Manager PwC Germany
Tel: +49 151 18457586
lukas.redding@pwc.com



Sebastian Kohl

Manager PwC Germany
Tel: +49 151 42384651
sebastian.k.kohl@pwc.com

About PwC

Our clients face diverse challenges, strive to put new ideas into practice and seek expert advice. They turn to us for comprehensive support and practical solutions that deliver maximum value. Whether for a global player, a family business or a public institution, we leverage all of our assets: experience, industry knowledge, high standards of quality, commitment to innovation and the resources of our expert network in 151 countries. Building a trusting and cooperative relationship with our clients is particularly important to us – the better we know and understand our clients' needs, the more effectively we can support them.

PwC Germany. More than 14,000 dedicated people at 20 locations. €2.93 billion in turnover.
The leading auditing and consulting firm in Germany.

About Versicherungsforen Leipzig

Versicherungsforen Leipzig inspires and motivates the insurance industry to transform itself. We work together to shape the industry's future, identifying the topics that will inspire and change the industry, and then developing an understanding of what effects this will have on the various business areas. Using this as a basis, we explain the options available to the industry for the future. We work together with companies to design personalised, bespoke approaches, we turn these into solutions and we implement them together with our partners.

