Vysoká škola ekonomická v Praze

Fakulta financí a účetnictví

katedra bankovnictví a pojišťovnictví

studijní obor: Finance

Liability insurance for a multinational company

Autor bakalářské práce: Bc. Jan Hynek

Vedoucí bakalářské práce: prof. Ing. Jaroslav Daňhel, CSc.

Rok obhajoby: 2019

Čestné prohlášení

Prohlašuji, že diplomovou práci na téma „Liability insurance for a multinational company“ jsem vypracoval samostatně a veškerou použitou literaturu a další prameny jsem řádně označil a uvedl v přiloženém seznamu.

V Praze, dne 8. května 2019

……

Jan Hynek

Acknowledgement

I would like to sincerely express all my thanks to those, without whom this work would not be that precise and complete as it is. My thanks belong to all those for their valuable contributions, inputs and persistent support while I was writing this thesis.

To begin with, I would like to thank to my thesis supervisor prof. Ing. Jaroslav Daňhel, CSc. for his support, prompt responses and reactions on my questions as well as for respectable knowledge and creation of supportive environment.

Secondly, I would like to thank to my senior colleague from liability underwriting and even more importantly my very good friend Ing. Lukáš Srp from VIG Re Zajišťovna a.s. for his persistent support, corrections and overall supervision of my thesis.

Lastly, I would like to express my thanks to Ing. Michal Krajčovič who is in charge for international business and facultative reinsurance at Česká podnikatelská pojišťovna, a.s., Vienna Insurance Group. I would like to express my thanks for his inputs related to the practical part, especially regarding quotation.

Abstract

This diploma thesis provides a deep look into the insurance and its functioning. Main focus of the thesis is to describe the diversification of the risks within the insurance industry, meaning what is happening between the insurance entities while providing the insurance coverage for large industrial companies. Thus, the thesis will be mostly written from the insurance and reinsurance companies point of view. In order to simulate the ties between the insurance parties, I will also write about reinsurance – significant segment within the insurance. Particular process of insuring a company on a multinational level will be broadly discussed. Besides the process of insurance explanation, I will explain liability as a line of business of the insurance companies. This thesis should provide the understanding of how liability insurance works and shall serve as an example how insurance entities proceed and cooperate while providing coverage for a large industrial company.

Key words: insurance, liability, reinsurance, industrial company

Abstrakt

Diplomová práce detailně pojednává o fungování pojišťovnictví. Hlavním zaměřením práce je vysvětlení diverzifikace rizik v rámci sektoru, respektive objektivní nastínění vztahů a vazeb mezi pojistnými subjekty při poskytování pojistného krytí pro tzv. průmyslová rizika. Práce bude především psána z pohledu pojišťoven a zajišťoven, nikoli tedy z pohledu pojištěného. Dopodrobna bude rozebráno, jak fungují vazby mezi pojišťovnami a zajišťovnami, a bude vysvětleno samotné zajištění jako klíčový segment sektoru pojišťovnictví. Konkrétní postup při pojišťování velkého průmyslového rizika bude popsán společně s vysvětlením pojištění odpovědnosti, které klient od pojišťovny v rámci této teze poptává. Hlavním přínosem této práce tedy bude nastínění fungování pojištění odpovědnosti. Současně by tato práce měla sloužit jako příklad procesu pojištění velkého klienta pojišťovnami a zajišťovnami, především tedy toho, co se děje uvnitř těchto subjektů při kooperaci poskytování pojistného krytí.

Klíčová slova: pojištění, odpovědnost, zajištění, průmyslové riziko

Seznam zkratek

A	Activity of the insured
BI&PD	Bodily injury & property damage
CD	Coefficient for deductible
CEE	Central and Eastern Europe
CLoI	Coefficient for limit of indemnity
CoB	Class of business
COO	Chief Operating Officer
CT/O	Coefficient for turnover
CTS	Coefficient for territorial scope of cover
D&O	Directors & officers
E&O	Errors & ommissions
EIL	Environmental impairment liability
EL	Employers' liability
EPL	Extended product liability
GTPL	General third party liability
ILF	Increased limit factor
LAE	Loss adjustment expenses
LoB	Line of business
MedMal	Medical malpractise
MGA	Managing general agent
MTPL	Motor third party liability
PFL	Pure financial loss
PI	Professional indemnity
PL	Product liability
PR	Product recall
PT	Product tampering
S&A	Sudden & accidental pollution
T&C	Terms & conditions
T/O	Turnover

Obsah

Introduction

Liability insurance is considered to be one of the most problematic insurance line of business, mainly due to its frequent unclearness and possible loopholes which may occur. I chose to write a thesis about liability insurance mainly because of the two following reasons. Firstly, I would like to describe the meaning of liability insurance as a coverage for losses caused to third parties. Many times, it is unclear who is actually responsible for the loss and who should be held liable (thus the frequent unclearance). Secondly, after almost four years at reinsurance company, I would like to take a closer look on how the insuring process behind the doors of the insurance and reinsurance companies works. To outline this objectively, I would need to explain how reinsurance works since the reinsurance companies are often the parties who bear most of the exposure. This thesis will be focused on facultative reinsurance as further described.

Insurance industry is changing constantly. On the one hand, almost every company needs some insurance for its business in order to minimalize the risks related to its interests and avoid business interuptions caused by potential losses. As a result, standard insurance lines of business such as property and liability insurance are gradually more and more important. On the other hand, as the world is chaning, new emerging risks appear and the insurance has to react on such risks. For example, in liability insurance, class of business directors & officers (D&O) insurance is very quickly developing and gaining on its importance. D&O is the liability insurance for top managers and executives. This thesis will focus on insuring one risk and will explain the insuring process from the re/insurance companies point of view. In reinsurance, this is distinguished as facultative type of reinsurance. The trend in facultative liability reinsurance is that type of reinusance is downsizing in the course of time. The reason for that will be further described in the thesis, however it is mainly because reinsurance companies reinsure their risks in the form of portfolio which is more efficient for them.

As already indicated, the main goal of the thesis is to show the process of insuring a company with an influence on a multinational level. What is the process inside the insurance from the beginning when the insurance company is approached by the insured until the end when the risk is finally covered by several insurance and reinsurance companies. Second goal is to provide a deep knowledge and understanding of liability insurance, especially General Third Party Liability, Product Liability, Professional Indemnity, Employers' liability and Environmental Liability. All other relevant liability classes of business will be mentioned as

well. Third goal is to introduce the world of reinsurance. I will write broadly about reinsurance system and possible ways how insurance company can be reinsured. Which accounts are insured and what is relevant for reinsurance companies while reinsuring them. My last and most challenging goal will be relevant pricing process. In other words, the way of setting original premium. The calculation of original premium is usually based on a pricing tool or a tariff, however for such a big account like the one I am planning to write about, these tools and tariffs are not sufficient. Insurance company has to find another relevant procedure of original premium calculation.

Insuring a company with an influence on the multinational level is a very comprehensive process. After almost four years of working at reinsurance company, my understanding of such a process is on a good level, however the thesis will be written under the supervision of professional liability underwriters from VIG Re Zajišťovna a.s., and will be also be discussed with insurance experts from ČPP a.s. I will discuss all outputs and key parts of this thesis with respective insurance professionals and will formulate them in the thesis accordingly.

1 Reinsurance

1.1 Reinsurance within the insurance industry

Reinsurance in its simplest meaning is insurance for an insurance company. When the insurance company is purchasing reinsurance, they share the risk[1] together upon specified terms and conditions (T&C). More insurance companies might be involved in sharing the risk as well as more reinsurance companies. In the end, the risk can be shared by several (re)insurance companies. When purchasing reinsurance, the overall risk is not minimalized, but spreaded among concerned insurance and reinsurance entities. It allows the insurance company[2] to cede the part of the risk into the reinsurance in order to retain an exposition that is economically acceptable for the insurance company and in case of a loss the company would remain financially stable.

1.1.1 Basics of reinsurance

The role of reinsurance is essential for the whole functioning of the insurance system. It allows to spread the risk between insurance and reinsurance companies in a way that each and every company needs, i.e. maximalize the capacity they can retain and minimalize the costs of equity. When talking about finance in general, reinsurance ensures better stability and is closely supervised by respective regulatory authorities[3]. Insurance and reinsurance markets are of the worldwide importance. They are connected to the international financial markets and present in all financial centres where they have an impact on their development.

In the Czech Republic, reinsurance is defined as follows: *the process of undertaking the insurance risks based on a concluded policy under which the reinsurance company is obliged to indemnify the insurance company upon the scope of cover and T&C specified in the respective policy concluded between those entities in case an occurrence specified by the policy occurs"*[4]. Reinsurance is defined in the Act No. 277/2009 Coll., on insurance[5] of the Czech Republic. The *occurrence* as defined in the Insurance Act is an exposition undertaken by the reinsurance company. It is a potential loss that can be sustained by the reinsurance company. As an equivalent for "accepting" the risk by the reinsurer, insurance company pays

[1] In this context, the *risk* refers to a single insurance contract and its exposition from which the risk for the can arise.
[2] The company that is purchasing insurance is called ceding company and the process of "shifting" the risk is called *cession* or *to cede* a risk
[3] In the Czech Republic reinsurance is under the supervision of Czech National Bank (ČNB).
[4] Author's own translation.
[5] Zákon č. 277/2009 Sb., o pojišťovnictví (§ 3 – Vymezení pojmů l)

reinsurance premium. It is a part of the original premium (total premium charged for the insurance) that is charged by the reinsurance company for accepting the risk and undertaking the exposition. Reinsurance premium charged by the reinsurance company is usually based on many factors. In case of proportional reinsurance, the reinsurance premium is simply determined by the share of the reinsurer on the specific risk and related commissions. In case of non-proportional reinsurance, the reinsurance premium is calculated by multiplying the total premium and a rate which is calculated by the reinsurance company. Reinsurance premium might even be adjusted once the insurance policy expired. It is adjusted according to the loss record during the insurance policy. In case of non-propoportional reinsurance it is adjuted according the final written premium in the end of the policy period. The underwriters and actuaries consider mainly these factors while pricing the reinsurance premium:

- Capacity provided – the higher capacity is provided to the insurer, the higher is the reinsurance premium
- Loss history – loss history is very important when determining the reinsurance premium. Reinsurance companies often appreciate free loss record (especially in facultative reinsurance as specified further in this chapter).
- Scope of cover – what exactly will be covered and what will be excluded is a base for the calculation of the reinsurance premium

In the third part of this thesis, I will try to show the process of calculating the total premium for the demonstrated account. As I plan the account to be very extensive, it will not be easy to objectively determine the “meaningful” premium that should be charged for this insurance. Since there are not many similar accounts, there does not exist any precedence which might be considered as a base for calculation of the premium for this kind of risk. I will demonstrate how the reinsurance premium is calculated by the reinsurer based on the original premium and how the premium can be further allocated between other reinsurance entities.

1.1.2 Types of reinsurance

The classification of the reinsurance can be based on different aspects. Which form of the reinsurance is chosen depends on the agreement between insurance and reinsurance companies. All depends on the features of the risk and the willingness of both insurance and reinsurance companies and its participation on such insurance.

1.1.2.1 Forms of reinsurance

Following is the classification of various forms of reinsurance[6]:

1. Position[7]
    a. **Active -** the reinsurer takes the risks of the reinsurance policy holder.
    b. **Passive** – the reinsurance policy holder transfers (cedes) his risk to the reinsurer in the business accounting sense.
2. Cedent
    a. Primary insurer – insurance company is ceding the risk into the reinsurance.
    b. Retrocedent – the reinsurance company is retroceding the risk onto another reinsurer.
3. Form
    a. Facultative reinsurance – the risk is negotiated on a single basis and both insurance and reinsurance companies have their rights to either accept of refuse the risk.
    b. Obligatory reinsurance (treaty reinsurance) – the insurer and the reinsurer conclude a contract called treaty for the reinsurance of homogenous risks which are automatically ceded into reinsurance afterwards.
4. Type
    a. Proportional reinsurance – the sum insured, original premium and claims payments are divided in a fixed proportion between the insurer and reinsurer.
    b. Non-proportional reinsurance – the participation of the reinsurer begins from a certain threshold of paid losses which had been agreed between the insurer and reinsurer prior to the date when the policy period starts. Part of the original premium that is ceded into the reinsurance is reinsurance premium.

---

[6] CIPRA, Tomáš. Zajištění a přenos rizik v pojišťovnictví. Praha: Grada, 2004. Finance (Grada). ISBN 80-247-0838-8; page 43-52

[7] The new treatment of reinsurance transactions in national accounts: Conference of European Statisticians. In: . Geneva: Economic Commission for Europe, United Nations, 2012, Eleventh session.

5. Price

    a. **Fixed (adjustable rate, flat premium)**

    b. **Swing rate**

6. Instruments

    a. **Traditional**

    b. **Alternative (modern)**[8]

1.1.2.2 Obligatory and Facultative Reinsurance

The third part of this thesis will illustrate the process of insuring a fictional company. For the sake of a good order, I will take a closer look into the form of obligatory and facultative reinsurance as this will be deeply negotiated between the insurance and the reinsurance company.

Obligatory Reinsurance

In obligatory reinsurance (also known as a treaty reinsurance), a formal agreement (the treaty) is drawn up between the direct insurer and the reinsurer. Under this agreement, the former is obliged to cede to the latter every risk that is stipulated by the mutual agreement specified in the treaty.[9] In a simple way, the treaty is a portfolio of homogenous risk that are automatically ceded since they correspond with the T&C agreed by the insurer and the reinsurer. It is obligatory in a sense that the reinsurer can not expressly refuse the particular risk if the risk is in line with all treaty conditions.

Every treaty concluded between the insurer and the reinsurer includes these elements:

- Type of Treaty – proportional or non-proportional
- Lines of Business – Property treaty, liability treaty, personal accident treaty etc.
- Underwriting Territory and Geographical Scope
- Period

[8] SCHWEPCKE, Andreas. Reinsurance: Principles and State of the Art. Edited by Swiss Re Germany AG. Munich, 2004 (page 97) ISBN 3-89952-159-5.
[9] SCHWEPCKE, Andreas. Reinsurance: Principles and State of the Art. Edited by Swiss Re Germany AG. Munich, 2004 (page 98) ISBN 3-89952-159-5.

- Limits and sublimits – the reinsurer agress to indemnify the reinsured up to but not exceeding the limit of indemnity (in non-proportional reinsurance), or with a respective share the reinsurer participates on the treaty (proportional reinsurance). Sublimits may be used for specific lines of business (LoBs) or classes of business (CoBs)[10].
- Reinsurance premium – rates and instalments specified
- Conditions – applicable clauses
- Exclusions – general exclusions for LoBs and specific exclusions for covered CoBs
- Signing pages

In reality, all insurance companies have treaties for most of their common lines of business that they offer. Reinsurer does not asses every risk, but still grants the reinsurance protection if the terms and conditions of the agreement are met. This is advantegous for both sides as the administrative burden is significantly lower. The treaty can be proportional as well as non-proportional and one or more reinsurers can participate on the treaty.

Facultative reinsurance

Facultative reinsurance is on the other hand discussed and assessed on a case-by-case basis. The reason for choosing facultative reinsurance over the treaty reinsurance is that the risk does not fit into the treaty. Usually, the sum insured that is requested is higher then the treaty limit (in reality, if it is two or more times higher, facultative reinsurance is preffered), the activity is too exposed or somehow unusual, the scope of cover is too broad etc. First step is that the insurer decides himself if he wants to cover the risk or not. He can choose any reinsurer he wants (in practise, he contacts more of them and then decides upon offered T&C by the reinsurers). If the reinsurer is willing to accept the risk, reinsurance agreement (often called reinsurance cover note, or reinsurance slip) is concluded for this specific account.

The facultative reinsurance cover note often includes:

- Type – proportional or non-proportional facultative reinsurance with specified type of cover
- Entities of facultative reinsurance – reinsurer, reinsured and the insureds

[10] Line of business is a general type of insurance offered by the insurance companies such as property or liability. Class of business is a specific type of the line of business. For instance, under the liability line of business are several liability classes of business such as general third party liability, product liability, professional indemnity etc.

- Coverage – specified LoBs and CoBs covered by facultative reinsurance
- Period
- Interest – activity of the insured
- Original sum insured and the reinsurance structure including reinsurance premium
- Territorial limits and reinsurance law and jurisdiction
- Reinsurance conditions including all applicable exclusions and subjectivities

Facultative reinsurance is a subject of this thesis. In the third part of this thesis, the account will be assessed on facultative basis. It is not unusual that reinsurance combines both treaty and facultative reinsurance. When assessing the risk on non-proportional basis, the insurer and the reinsurer can agree that the risk will be facultatively reinsured from a certain threshold and the retention (part that remains in the insurance company) can be ceded into the treaty on which the reinsurer participates. Eventually, the reinsurer participates on the risk on a facultative basis (the capacity above retention) as well as on a treaty basis (his participation on the treaty).

The accounts that are usually reinsured on facultative basis can be of any line of business or more lines of business which are then assessed separately. For example, a shopping mall can have a property policy for its buildings and premises as well as liability policy for possible losses caused to third parties. Indeed, facultative reinsurance may be saught in various lines of business (marine, aviation), however it can be quite difficult for the insurer to find a reinsurer who will be willing to provide cover. In case the risk is not fully in line with the treaty but the difference in not substantial (eg. treaty limit is CZK 1 000 000 and the requested limit is CZK 1 250 000), special acceptance can be granted for this risk and the risk can be ceded into the treaty. When renewing the treaty, special acceptances granted through out the year are usually analysed and the treaty might be “updated” for the renewal so there will be no special acceptances for similar risks in the upcoming year.

The trend is that the facultative reinsurance is gradually “shrinking”, whereas the treaty reinsurance grows on its importance. The reason for that is that the treaties are broader every year. Most treaties are concluded on a year basis and it is normal that after the year when the treaty is being renewed, the coverage is slightly broader in order to “lighten” the treaty so more risks can be ceded and more premium earned. This expanding of the treaties have a direct impact on facultative business since many facultative risk can be newly ceded into the

treaty. In general, treaty business is bigger, produce higher premium volume and is generally more important for the concerned subjects.

1.1.3 Purpose of the reinsurance

As already mentioned, the purpose of the reinsurance is a diversification of a risk in a way that suits the best for every subject participating on the insurance contract. In this way, the exposition is vertically spreaded among all participating insurance and reinsurance companies. However, that is just one of the main purposes of reinsurance.

Following are the main functions of reinsurance[11]:

- Carrying risk – it is the principal function of reinsurance. In this case, the reinsurer acts as a risk carrier. The insurer might take such a great risk for which he needs a partner who is willing to take part of this risk, i.e. reinsurer. Closely related to this is a function of providing funding of a risk from the reinsurer.

- Balance-sheet continuity – stabilising effects on the direct insurer's balance-sheet is other important feature of the reinsurance. The insurer is interested in stabilising his technical results as it remains all in his retention unless he buys reinsurance cover.

- Macroeconomic function – reinsurance enables to take risks that are beyond own financial strength and propensity of the insurer. This indirectly reinforces the beneficial economics effects. It has a direct impact on macroeconomic cycle by enabling to private individuals bigger freedom of their economic activity as the insurance possibilities are greater in general due to reinsurance.

- Solvency Regulations – refers to a possibility of the insurance company to accept new clients with smaller or without any need to raise additional capital as the risk is partially or wholly ceded onto the reinsurer.

- Expertise – one of the services the reinsurer can offer is advising the insurer before conluding the insurance policy. Reinsurer's services are mostly related to product development and rating, providing trainings to the insurers, helping with sevices tools

[11] SCHWEPCKE, Andreas. Reinsurance: Principles and State of the Art. Edited by Swiss Re Germany AG. Munich, 2004 (page 20-27) ISBN 3-89952-159-5.

as reinsurers are constantly developing new services products or claims management where reinsurers offer support in claims analysis and management.

In today's world, reinsurance allows higher underwriting capacities to the insurers as well as stabilising the whole portfolio. Using this, the insurers can minimalize the risk of fluctuation connected to large unexpected losses. It can happen that potentially very exposed risk or a catastrophe can have an impact on the whole insurance company and its solvency. Reinsurance plays an important role as it allows to spread the risk and thus reduce the solvency risk.

1.2 Subjects of insurance

Since the main focus of this thesis is to describe the process of insurance from the insurance industry point of view, in following text I will mention all subjects that are important and play a specific role in this whole process. Emphasis will be given on the activity of each and every subject and its position within the insurance process.

1.2.1 Original insured and (re)insurance company

The initial relationship is between the client (original insured) and the insurance company (insurer, ceding company). There might be more insurance companies directly involved in a primary insurance (the initial process of insuring the client by insurance companies). Such a case is called *co-insurance*. Original insured concludes a policy with more insurance companies who agreed on mutual procedure and appoint the insurance leader as one of them with respective rights and duties[12]. *Insurance pool*[13] refers to a group of insurance companies that concluded mutual agreement including mutual procedure while insuring risks of certain characteristics. The reason for such pool is to gain a satisfactory capacity in order to insure big risks (e.g. nuclear power plants) or risks that would be otherwised uninsurable unless participating in such a pool (one single company would not be able to insure the risk). In all cases, the risk is further ceded to reinsurers.

Following is the general summary of subjects involved in insurance:

- Original insured – there is a difference between the subject insured and the policyholder who actually pays the insurance premium but is not indemnified in case of a loss. For the purpose of this thesis – insurance process from the (re)insurance

[12] Zákona č. 89/2012 Sb., občanský zákoník (§ 2817 odst. 2)
[13] Zákona č. 37/2004 Sb., o pojistné smlouvě, ve znění pozdějších předpisů (§30)

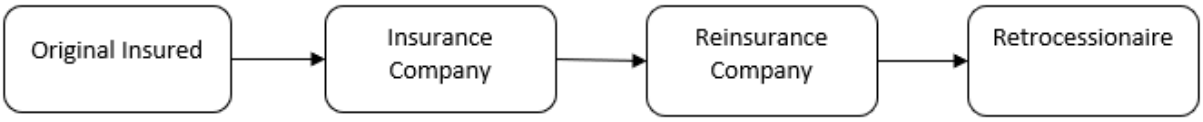
companies point of view – I will not differentiate between the policyholder and the subject actually insured. Since this thesis is from the perspective of the (re)insurance companies, the words *account* and *risk* will represent the original insured, unless otherwise specified.

- Insurance company (insurer, cedent, ceding company) – when talking about reinsurance, original insurer is usually called cedent (sometimes cedant), or a ceding company. More insurance companies can be involved as already mentioned above.
- Reinsurance company (reinsurer) – the subject "standing" behind the cedent in the insurance process. Also, more reinsurers can be involved with their respective shares provided to the ceding company.
- Retro-reinsurer (retrocessionare) – reinsurer's reinsurance. Reinsurance contract is further backed by another reinsurer (retro-reinsurer). Eventually, several subjects are participating on one insurance contract.

It is important to mention that under one insurance policy, more entities can be insured. This is typical for subjects with more companies consolidated into a concern or a holding. The subject needs insurance policy for all its companies[14]. All companies requested to be insured are mentioned in the policy (usually both insurance and reinsurance policies) with respective (however usually same) scope of cover and T&C.

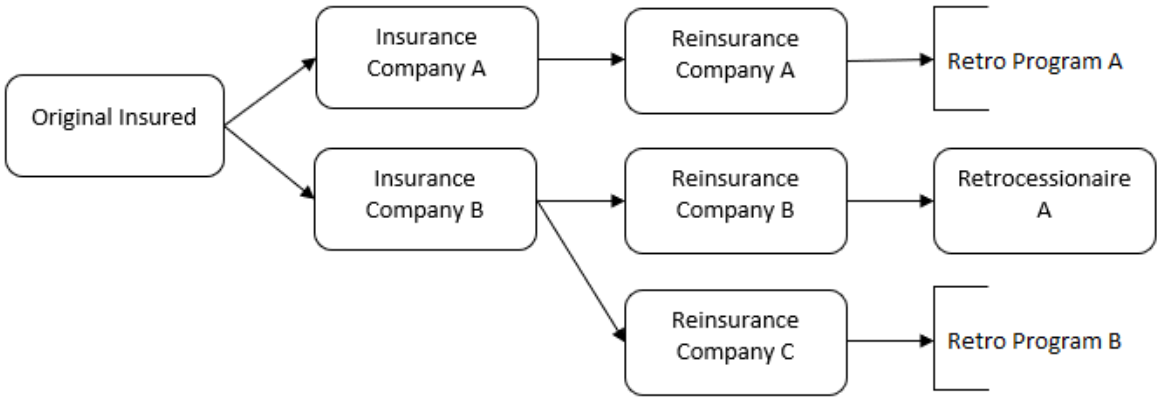
For the sake of clarity, the following tables are depicting the subjects involved in insurance process and the relationship between them:

Table 1 - Simplified insurance structure



[14] Example can be a fast food chain or law firm for all its branches that operate in different areas.

Table 2 - Possible insurance structure



Both depicted insurance structures can occur. The complexity of structure usually depends on a capacity that each subject involved in the structure is willing to retain. In the Table 1, original insured is concluding a policy the insurer for a limit EUR 1 000 000. The insurer is planning to retain only 10%, i.e. EUR 100 000 and seeking the reinsurance for the rest. Other possible solution might look as follows: original insured requires limit EUR 1 000 000 and approaches several insurance companies for their offer. Eventually, two insurance companies agree to offer the same terms and mutually agree to conclude a policy with the original insured. Each insurance company has a respective share on the risk. The reason for this can be a willingness of the insurance company to insure the specific risk. For example, insured's activity is a manufacture of toys which is generally considered as rather exposed activity. Insurance company A is then willing to accept only 50% of requested limit since the whole limit is simply to risky to be accepted into the portfolio of the insurance company. Thus, insurance company B comes in and accepts the remaining 50%. At any rate, part of accepted limit is ceded onto the reinsurer. Insurance company A still accepts only 50% of the limit rather then the whole limit since it is easiser for her to find reinsurance for smaller limit (especially considering exposed activity where reinsurers are more reluctant to provide capacity)[15]. Original insured is in touch only with the insurance company. There is no

[15] Willingness to accept the risk. Every subject has a different approach to the risk. Some subjects are willing to accept higher risk in return of higher premium, whereas others are risk-averse and want to accept as little risk as possible.

relationship between the original insured and the reinsurer[16]. In most cases, original insured is not even aware of the reinsurer or the reinsurance system in general.

Last step of the insurance process is a cession of the risk to the retro-reinsurer. Retrocession is nothing other than the onward transfer of indirect business , i.e. re-reinsurance, business that has already been reinsured. The reinsurer passes on parts of the risk that has already been reinsured by himself in order reduce his own potential financial burden. Indeed, it would not be possible to find enough cover for some really large risks without this broad break-down of the risk into bearable portions.[17] Retrocession can have a form of retro-program – for example the reinsurer keeps only a part of the capacity of all his property accounts and the exceeding part is ceded to the retro-program where several reinsurers participate (often called large retro). Other option is a retrocession on individual basis (single retro). Basically, it works the same way as treaty and facultative reinsurance, only with the difference that this stands in the second process of reinsurance.

1.2.2 Particular departments within the (re)insurance company actively involved in underwriting

This thesis has a goal to explain the process and the decomposition of the risk between the involved parties. First and initial relationship is the original insured and one or more insurance companies. Obviously, there are many departments within the insurance company and each one of them is responsible for area of the works that are necessary for a successful functioning of the company. In the insurance company, the process of scrutinizing all the details that are important in order to conclude the insurance policy and setting the specific terms and conditions and all the details regarding what is covered and when the client can be indemnified, is called underwriting. Underwriting department is in both insurance and reinsurance company and is responsible for the business part of the (re)insurance company. On the one side, there is a team whose role is a direct contact with the original insured. This is where all the demands from the original insured with respect to the insurance are communicated. On the other side, there are underwriters responsible for placing the risk into the reinsurance. The details are passed from the team who is in direct contact to these

[16] Cut Though Clause is a provision of insurance policy which is stipulating that the insured has the ability to receive payments directly from the reinsurer if unable to recover from the insurance company due to some reason (usually is requested by the insured to be in policy due to solvency risk of the insurance company).
[17] SCHWEPCKE, Andreas. Reinsurance: Principles and State of the Art. Edited by Swiss Re Germany AG. Munich, 2004 (page 13) ISBN 3-89952-159-5.

underwriters who further pass the original insured's requirements regarding insurance to the reinsurers. In case of the treaty reinsurance, the account is automatically ceded into the treaty (unless it is special acceptance). If the reinsurance is facultative, reinsurance underwriters usually have some comments or requests with regards to the original premium (besides they come with the offer what reinsurance premium would they charge for the specific risk), or the scope of coverage, T&C, exclusions etc. If the reinsurers do not accept the account upon given terms and conditions and request something to be changed in the coverage, it is backed communicated to the underwriters in the insurance company who then discuss these changes with the original insured. This flow of the comments and requests is being passed back and forth once all involved parties reach mutual agreement and the account can be underwritten. As already mentioned, the department responsible for the business side of the reinsurance company is also called underwriting. There is, similarly to the insurance companies, the department responsible for further passing the specific account or a portfolio into retro-reinsurance. This is the responsibility of Retrocession department. The other very important department in both insurance and reinsurance companies are actuarial analytics. They are mainly responsible for rates and pricing[18] and are closely in contact with underwriting department and other departments within the company.

In the third part of the thesis, emphasis will be given to the whole process of insuring the specific risk from the initial receipt of risk details by the insurance company until the final decision whether the risk is underwritten or the requested coverage is declined by insurance subjects. Often, when the local insurance companies are unavailable to provide the specific cover, the original insured must seek for the insurance abroad. In this moment, one very important insurance subject comes in and helps to find the insurance for the insured. These entities are called insurance intermediaries and there can be several types of them.

1.2.3 Intermediaries on the insurance market

In the Czech Republic, according to the law, an insurance intermediary is an individual or a firm who is authorized by the Czech National Bank to provide services on the financial market[19].

[18] FINA 443 Property and Liability Insurance [online]. [cit. 2019-02-28]. Dostupné z: 2018. Course presentations FINA 443 10. University of South Carolina, Darla Moore School of Business. Lecturer Jim Scott.
[19] ČAP: Česká asociace pojišťoven [online]. [cit. 2019-02-28]. Dostupné z: http://www.cap.cz/vse-o-pojisteni/pojisteni-v-praxi/zprostredkovatele

1.2.3.1 Insurance brokers

The activities of the insurance intermediaries include:

- The submission of proposals for the conclusion of the insurance contracts
- Preliminary works connected to the conclusion of the insurance contracts
- Conclusion of the insurance contracts on behalf of the insurance company for which the insurance is being carried out
- Client's services related to the management of the insurance contracts and assistance in claims procedure

These are the types of insurance intermediaries in the Czech Republic and for the comparison how are the intermediaries classified in the United States:

Table 3 - Insurance intermediaries

Czech Republic	USA[20]
Insurance broker	Wholesale brokers
Insurance agent	MGAs
Exclusive insurance agent	Underwriting managers
Bound insurance intermediary	Program managers
Subordinate insurance intermediary	Lloyd's coverholders
	Lloyd's broker

As for the intermediaries in the Czech Republic, the difference is generally whether the subject intermediates the insurance for one specific insurance company or has an agreement with more insurers. Other difference is that some of them can collect insurance premium on behalf of the insurance company whilst others are not obliged to. The last important difference is that in case of a loss caused by the mediation, the intermediary can be responsible or not.

Financial market is generally more complex in the USA then in the Czech Republic. In the Czech Republic, there are insured and the insurer with the specified rights and obligations as already mentioned. In the USA, not only there are more entities with given rights and duties,

[20] *FINA 443 Property and Liability Insurance* [online]. [cit. 2019-02-28]. Dostupné z: 2018. Course presentations FINA 443 10. University of South Carolina, Darla Moore School of Business. Lecturer Jim Scott.

but their role is often very specific. Between the insured and the insurer stand a retail broker and the wholesale broker. Retail broker is in the direct contact with the original insured and the wholesale broker with the insurer. Unlike retail broker, the wholesale broker does not have a direct contact with the original insured and the vice versa, i.e. retail broker is not in touch with the insurer[21]. However, the same one broker can act as a retail broker or a wholesaler. Wholesale brokers often possess specialized knowledge and expertise in a particular line of business and their role is very valuable when dealing with a difficult-to-place risk. Managing general agents (MGAs)[22] are type of the wholesale broker. MGAs are usually professionals with special knowledge in some specific lines of coverage or other unusal types of coverage. Thus, they are broadly used by the insurers who often do not possess with such knowledge. Here comes the big difference between Czech and US intermediaries. Unlike Czech intermediary subjects, some US subjects can possess with binding authority from the insurer[23]. The other type of the wholesale broker are surplus lines brokers. The difference from the MGAs is that these do not have an underwriting capacity given by the insurer. Lloyd's brokers and coverholders are the client representatives within Lloyd's of London (Lloyd's of London will be further described in chapter 1.3) who negotiate with the underwriters on behalf of the representative's clients.[24]

1.2.3.2 Reinsurance brokers

One type of the intermediaries on the insurance market are the insurance intermediaries who stand between the original insured and the insurer. The other type are the intermediaries in the reinsurance market (they stand between the insurer and the reinsurer). The functions of reinsurance brokers include mainly:

- Providing services for the client – ceding company.
- Assists in designing the structure of a reinsurance programme and finding the placement on the international reinsurance market.

[21] In some instances, retail agents may deal directly with an insurer in arraning coverage.
[22] MGAs starts to be present in the Czech Republic as well, e.g. Dual Group
[23] This is related to the exclusion „Line slips, binding authorities and any delegated authorities“ which says the underwriting capacity might be provided to a specific authority by the insurer. This exclusion is usually within the General Exclusions in all reinsurance contracts.
[24] IRMI: International Risk Management Institute, Inc. [online]. [cit. 2019-03-03]. Dostupné z: https://www.irmi.com/

- Administrative functions (issuance of all reinsurance contracts, distributing premiums, collecting claims payments etc.).

Reinsurance brokers are present in both treaty and facultative reinsurance. They are especially important when reinsurance has to be found for the global reinsurance program in case of a large multinational companies that are seeking for the insurance. Also, they play important role when the risk that is to be placed is rather unusual and the insurers do not possess with a specific knowledge about the reinsurance market or the financial market is not developed enough (such as CEE region, where the insurance market is continuously developing but still needs constant assistance in placing greater and more unusual risk). It can happen that the primary broker contacts directly the reinsurer without having the binding offer from any insurance company. This might happen when the risk is so great and the brokers know that the capacity will be mostly ceded from the insurers to the reinsurers so they try to find the subject on the market who will eventually bear the most of the capacity. Both insurance and reinsurance intermediaries play important role on the insurance market. Insurance intermediaries will be discussed in the third part of my thesis as they are actively involed and have a very important role in placing such risks. The largest international brokers are by the structure both insurance and reinsurance brokers. Three largest brokers in the world are Marsh & McLennan, Aon and Willis Towers Watson[25].

1.3 Reinsurance companies on the market

1.3.1 Reinsurance in the world

According to the Insurance Act of the Czech Republic, the reinsurer is a legal entity with an interest of accepting the risks (active reinsurance), thus performing reinsurance activity.

Subjects performing such activity may be defined as follows:

- Professional reinsurers
- Captive reinsurers
- Primary insurers who are supplementary performing reinsurance activities

[25] The Balance Small Business: 15 Largest Insurance Brokerages [online]. 2018 [cit. 2019-03-03]. Dostupné z: https://www.thebalancesmb.com/world-s-largest-insurance-brokers-462396

The role of professional reinsurers is carrying out solely reinsurance activites. They are not present in primary insurance and are not in any contact with the original insured. There are few types of professional reinsurers such as international reinsuers with operating branches in many states or regional reinsurers focusing on a particular region. Such a specialized reinsurer may be focused on a respective area or a specific line of business. Big insurance companies often have their own reinsurance subsidiaries with the own autonomy. In some states there are state reinsurers. Specific type of reinsurance is carried out by Lloyd's of London. Specialized syndicates who price the risk and have their own underwriting capacity are writting the business. The business is brought to these syndicates via brokers and coverholders. Lloyd's underwriters join together as syndicates and such syndicates join together to underwrite risks and programmes[26]. As the name of the company says, Lloyd's are present in London which is also a worldwide center of reinsurance. All biggest reinsurers and reinsurance brokers make London as a main reinsurance hub by excellence. Other reinsurance hubs are in Zurich, Bermuda or Singapore. In some cases, when the insurer have difficulties with finding the reinsurance, he has to start looking for a capacity in some of these hubs which might be the only places where he can find reinsurance. Also, there can be such a specific object to be insured (e.g. terrorism, aviation risks etc.) that can be reinsured only by few reinsurers or syndicates found in these hubs or even by a single specialized syndicate in the whole world.

These are the ten biggest reinsurers in the world[27]:

Table 4 - Top 10 Global Reinsurance Groups

Ranking	Reinsurance company name	Written Premium	Headquarters	CR
1	Munich Reinsurance Company	$37,821	Munich, Germany	114,0%
2	Swiss Re Ltd.	$34,775	Zurich, Switzerland	115,4%
3	Berkshire Hathaway Inc.	$22,740	Connecticut, USA	116,4%
4	Hannover Rück S.E.	$21,315	Hannover, Germany	99,1%
5	SCOR S.E.	$17,718	Paris, France	103,7%
6	Lloyd's	$14,250	London, UK	117,2%
7	Reinsurance Group of America Inc.	$10,704	Missouri, USA	N/A
8	China Re	$10,435	Beijing, China	103,9%
9	Great West Lifeco	$7,924	Winnipeg, Canada	N/A
10	Korean Reinsurance Company	$6,775	Seoul, South Korea	96,4%

[26] Lloyd's of London: About Lloyd's [online]. 2019 [cit. 2019-02-15]. Dostupné z: https://www.lloyds.com/about-lloyds/what-is-lloyds

[27] Reinsurance News, Top 50 Global Reinsurance Groups 2017; Dostupné z: https://www.reinsurancene.ws/top-50-reinsurance-groups/

The ranking is according to Gross life & non-life reinsurance premiums written (in USD $m's). Premium volume is a criteria by which the quality of insurance companies and its management are judged regarding assumed sales performance. Simply, gross written premium (as shown in the table) is overall written premium and net premium poses a premium after deduction of the reinsurance cessions.[28] The rankings and company's sales performance is usually displayed according to gross written premium for both life & non-life business.

Other important indicator which is often monitored by insurance companies is combined ratio (CR as shown in the table). It is a sum of two ratios. One is the calendar year loss ratio (incurred losses plus loss adjustment expenses (LAE), [29]divided by earned premium) and the other is called expense ratio (calculated by dividing all other expenses by either written or earned premiums). Used in both insurance and reinsurance, combined ratio below 100% indicates underwriting profit.

1.3.2 Reinsurance in the Czech Republic

In the Czech Republic is only one reinsurance company licensed by the Czech National Bank. It is VIG RE zajišťovna, a.s. as a part of Vienna Insurance Group (VIG). VIG is mainly focused on the region of central and eartern Europe (CEE) with around 50 companies in 25 countries. It is one of the leaders in the insurance industry in Austria and CEE. VIG Re has been established in Prague in 2008 and is providing its reinsurance services not only in the Czech Republic and CEE region, but further focuses on Western Europe as well. Currently, VIG Re's headquarters are in Prague, in 2017 Frankfurt branch was opened and in 2018 VIG Re is opening a branch in Paris.[30] VIG Re is successfuly pursuing business with stable net combined ratio around under 95% and with rating A+ from Standard & Poor's Financial Services both in respect of VIG Re's financial strength and long-term public issuer rating. The ratings were confirmed most recently on September 3, 2018.[31]

Reinsurance company does not need to have a granted license in the Czech Republic in order to offer its services to local insurance companies. Insurance companies can actively use the

[28] SCHWEPCKE, Andreas. Reinsurance: Principles and State of the Art. Edited by Swiss Re Germany AG. Munich, 2004 (page 33) ISBN 3-89952-159-5.
[29] The cost of investigating and adjusting losses.
[30] VIG Re [online]. [cit. 4.10.2014]. Annual Report 2017. Dostupné z WWW: < http://www.vig-re.com/about-us/annual-reports/>.
[31] VIG RE zajišťovna, a.s. [online]. [cit. 2019-02-25]. Dostupné z: http://www.vig-re.com/about

services of reinsurers even though they do not have a branch and are not directly present in the Czech Republic. In this sense, some active reinsurers in the Czech Republic are mainly Munich Re, Swiss Re, Hannover Re or Gen Re.

2 Liability insurance

The activity of an individual, a firm or any other organisation bears certain kind of a risk. On the one hand, they face a risk to themselves, their business or an interruption of their own interests. On the other hand, their activity may cause a damage to others. If they cause a loss, meaning the risk exposure materializes, it can have a harmful effect to other people, their property and any other tangible or intangible things around. In liability insurance[32], these are called *third parties* and means any other individual(s), firms or organisations that might be affected by the activity of the individual or the firm.

2.1 Categorization of liability insurance

2.1.1 Liability insurance in general

Generally, the type of a liability loss that the insured can cause to a third party can be:

- Bodily injury loss
- Property damage loss
- Pure financial loss[33]

The firm can cause a loss arising out of its activity with a nature of a bodily injury loss. For instance, the manufacturer of yogurts with a bad batch might cause a bodily injury loss to their customers. When the construction company is operating on sites, their cranes might drop down something and cause a loss to a property nearby, i.e. property damage loss. If a lawyer gives an incorrect advice to his client and as a result of the advice the client suffers a loss, the lawyer may cause a financial loss to the customer – pure financial loss.

There are many individuals and firms that can cause such losses to third parties. As a consequence, respective law regulations stipulate liability loss, where the subject who is liable

[32] Sometimes also called Casualty insurance.

[33] Financial losses might occur as a pure financial loss (financial losses for PI CoB) or consequential financial loss which a financial loss as consequence of a bodily injury or property damage loss (financial losses in GTPL, PL etc.)

for the loss is obliged to suffer the consequence which includes the obligation of the subject to compensate such a loss.

Sometimes, the firm or an individual face the possibility of incurring large losses. The subject that might cause such a loss might not be able pay for the loss and all the consequences (or simply does not want to). In such cases, the government in order to protect potential damaged parties, can stipulate a compulsory insurance or a statutory insurance. In every country, the conception of a liability loss is different. In some, the caused loss might be considered as a liability loss, whereas in others it can be considered as a different type of loss. Also, in some countries, respective type of liability must have insurance according to the law, while in other countries it is an optional insurance.[34] It is also not unusual in some cases, when two parties are entering into business together, that one of them has to prove that it has a relevant liability insurance policy. Also, in a lot of tenders, the participants are required to have a liability policy so they can participate in the tender. All these examples refer to the importance of liability insurance. Liability of the owner of a car arising out of a usage of the car is also a liability in this sense and is called Motor Third Party Liability (MTPL). However, it is a different type of liability. Liability as a line of business is a subject of this thesis. In insurance, MTPL is considered as a different line of business.

Since the conception of a liability loss is different in every country, everything that will be stated in this thesis will be according to the Czech law and from the Czech environment. During last 15 years, liability insurance has changed the most out of all insurance lines of business in terms of a legislation changes and amendments.[35] The term liability loss is stipulated by the Act No. 89/2012 Coll., Civil Code. With effect from 1.1.2014, new Czech Civil Code came into force together with many changes with respect to liability insurance and the term liability loss.

2.1.2 Forms of liability insurance

Liability insurance provides a protection if the subject (can be an individual or a firm, can be business related as well as in a common civil life of an individual, or an employee in a labor-law relationship) is liable for a loss caused to third parties.

[34] Example can Employers‘ Liability. For instance, in the Czech Republic it is a compulsory insurance, but in many other countries in Europe, this type of insurance is voluntary.
[35] ZÁRYBNICKÁ, Jana a Karel SCHELLE. Pojištění odpovědnosti za škodu: (historie a současnost). Ostrava: Key Publishing, 2010. Právo (Key Publishing). ISBN 978-80-7418-061-3.

There are many ways how liability insurance may be divided with respect of the specific characteristic of the insurance, what is covered under each liability policy, if the liability account is easily insurable, or even uninsurable at all and many others. Following is the most general way how the liability insurance may be differentiated[36]:

A. By legal obligation

   a. Statutory insurance – the only statutory liability insurance in the Czech Republic is Employers' Liability (EL as further described in chapter 2.2.2. Liability classes of business). Statutory insurance is in force due to the law and without conclusion any liability policy.

   b. Private insurance (contractual) – insurance is in effect from an inception date of a concluded policy. Private insurance can be further split into compulsory insurance or a voluntary insurance. There are about two tenths of compulsory insurance mainly in area of professional indemnity insurance.

B. By the subject, whose liability shall be covered

   a. Industrial risks – insurance designed for firms or individuals and for their businesses. Each business faces different potential third party losses. Industrial risk is subject of this thesis and will be continuously in detail described in this chapter.

   b. Small and medium enterprises – similarly to industrial risks, insurance is designed for business, however not necessarily negotiated on a single basis. Insurance for small and medium enterprises is very important for insurance companies as one of the main source of income.

   c. Private risks – determined by its nature to non-business sphere and includes mainly liability insurance for household members, liability insurance for a loss arising out of the ownership of the building of a citizen or loss of an employee caused to the employer.

C. By the size of the risk that should be insured

[36] ZÁRYBNICKÁ, Jana a Karel SCHELLE. Pojištění odpovědnosti za škodu: (historie a současnost). Ostrava: Key Publishing, 2010. Právo (Key Publishing). (page 49-55) ISBN 978-80-7418-061-3.

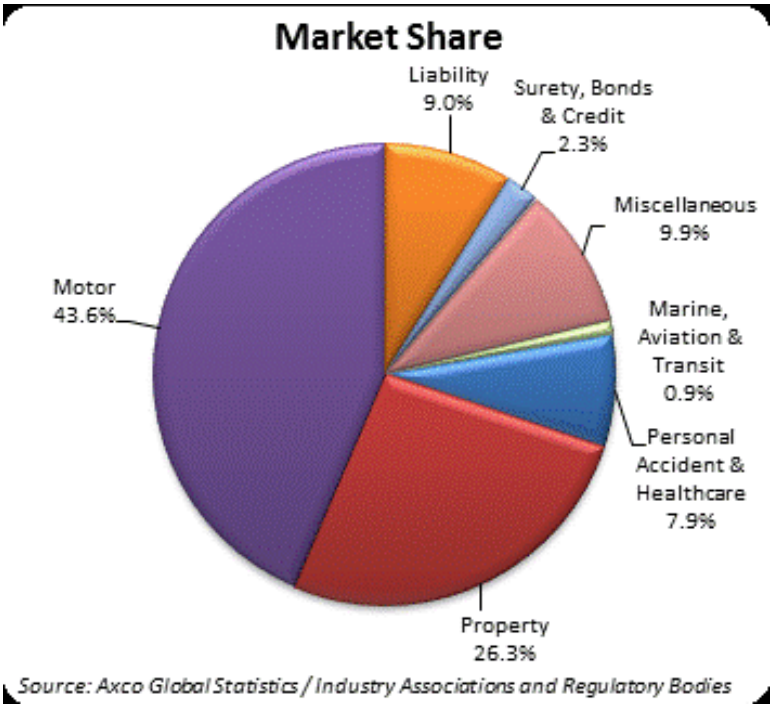
a. The size of the risk is important for the insurance company and for the procedure of insuring respective accounts. Small and medium risks are subject to standard routine control and are being negotiated and concluded by regular sales representatives and intermediaries using pricing tools, draft of the insurance contracts etc. Large risks are being underwritten only by insurance professionals and different tools and tariffs are used for such risks.

2.1.3 Liability trends in the Czech Republic

Third party business has shown reasonably strong growth over the last few years. This is mainly due to an update of Civil Code and Act on Business Corporations, which resulted in a bigger insurance consciousness and secondly due to an insistence of some parties that their partners, suppliers, contractors and sub-contractors should be insured. Also, growth in economy resulted in higher premium volumes and a bigger insurance activity in general.

In 2016 general third party premiums, excluding employers' liability, amounted to CZK 7.87bn, equivalent to 9.0% of the non-life market total.[37] The division of the market in terms of a total written premium and a share of each line of business is shown in table below:

Table 5 - Division of the market according to the gross written premium in non-life business in 2016

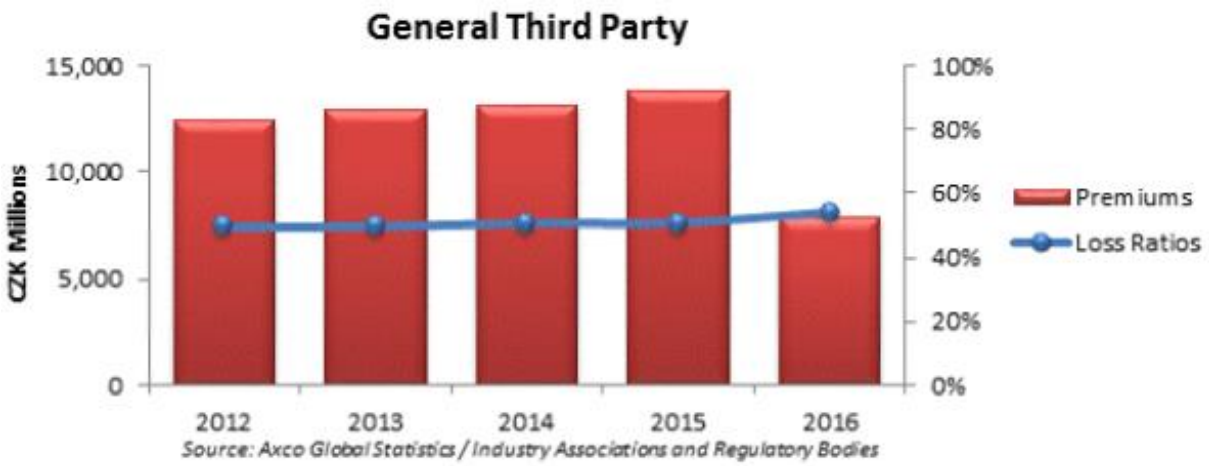


[37] Insurance Market Report: CZECH REPUBLIC: NON-LIFE (P&C) [online]. © AXCO 2017, 2017 [cit. 2019-03-05].

The chart shows a split of premium written per each line of business in non-life insurance. Generally, MTPL (motor) and property insurance are the main source of income for the insurance companies, however the importance if liability insurance is growing with new emerging risks on the market.

Gross written premiums and loss ratios for the years from 2012 – 2016 are shown below. In 2016 Czech National Bank changed the basis of its market statistics to better align with Solvency II [38]reporting. This led to a different clasifications of the statistics and its nature and also to the exclusions of employers' liability premiums for the general third party statistics. This together with other technical adjustments explain the reduction in premium income in 2016.

Table 6 - Gross written premiums and loss ratios in 2012-16



2.2 Liability insurance as a line of business

Liablity insurance is a coverage against third party bodily injury and property damage losses (BI&PD), when the insured has a legal obligation for such a compensation. In case of professional indemnity (often also called professional liability), bodily injury and property damage losses are not excluded and might also be the subject of insurance as well as pure financial losses (PFL). PFL are however quite important exclusion when BI&PD are covered within standard general liability since losses of financial nature are usually very exposed (depending on a specific activity, but at most times).

[38] The Solvency II Directive is a Directive in European Union law that codifies and harmonises the EU insurance regulation.

2.2.1 Basics of liability (re)insurance

There are many important aspects that have to be considered while providing liability coverage to the original insured. From the underwriting point of view, everything begins with the activity of the insured. Depending on the activity, the specific class of business is usually required for insurance. The standard liability classes of business are: General Third Party Liability (GTPL), Product Lability (PL), Professional Indemnity (PI), Employers' Liability (EL). These most common CoBs and many others will further be in detail described in the following chapter.

Apart from the specific CoB that is requested to be covered, there are two more very important criterias that have to be taken into account while selling liability insurance.

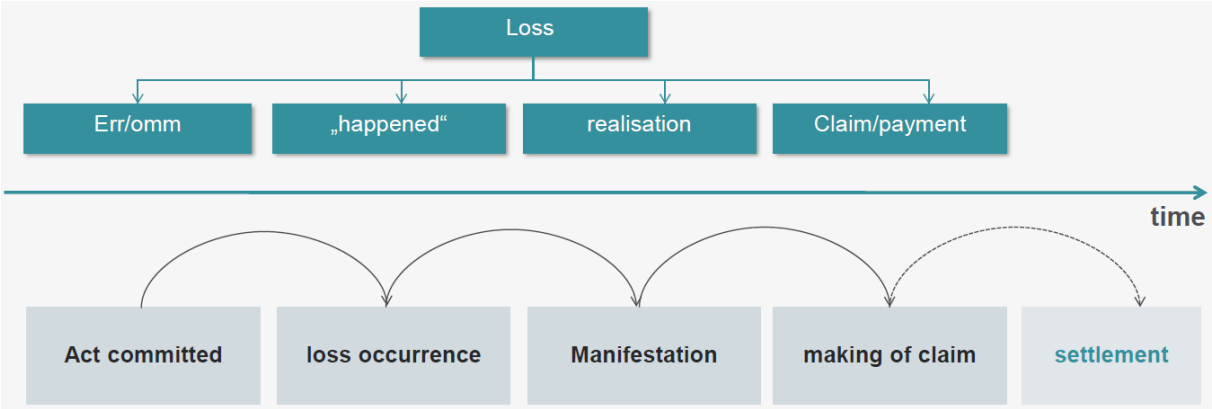
2.2.1.1 Policy period in liability insurance

The first one is a policy period. Very often, the policy period is being concluded for one year. Every year, when the expiration date of a policy approaches, the original insured and the insurer negotiate terms for a renewal of the policy. For the renewal, the policy can be renewed under the same T&C as expiry policy, or some new terms may be discussed for original premium surcharge. In case of losses during the policy period, the insurer is usually reluctant to renew the policy under the same T&C and demands some changes including additional premium.

Very important in this respect is a trigger. Trigger may be defined as some kind of a "flashpoint" of coverage[39]. The main purpose of the trigger is a determination of loss event for which the scope of cover of policy is relevant and delimination of not covered losses. Third party loss has a following development:

[39] SCHINDLER, Uwe. Triggers in Liability Insurance: Munich Re Seminars Non-Life [online]. Munich, 2017 [cit. 2019-03-07]. Powerpoint presentation.

Table 7 - Development of third party loss



Source: Schindler, Uwe. Triggers in liability insurance

Prior to third party liability loss, there is an error and omission (E&O) which is a source of the loss. Then, the loss happens, but there is still time difference between the loss happens and between it is realized. This is what is called a long-tail line of business in insurance. Some LoBs are short-tale, meaning when the loss happens, it is immediately realized (property loss – the damage to a building is visible immediately), whereas some losses are realized a long time after they happen or they are caused (surgeon makes an E&O during surgery, but an injury is realized a long time after the surgery). The last phase of a loss is a payment of the claim. This is a role of the trigger – to set when cover applies according to the development of the loss.

Defining trigger is one of the most important tasks of liability underwriters. On the one hand, the insured is requesting all claims to have covered, on the other hand the insurer has to define the trigger as clearly as possible and with repsect to specific class of business.

These are the triggers in liability insurance:

- Loss occurrence
    - The moment the loss is realized is during the policy period.
    - The cause of loss might have happened prior to the inception date of the policy.

  - Reporting time of the loss can be unlimited, however usually the (re)insurers insist on limitation[40]. Sunset Clause can be arranged to limit the reporting period.

- Claims made
  - The claim must be reported during the policy period in order to be covered, regardless when the loss is realized.
  - The cause of loss might happen during the policy period or before. To limit the timeframe before the policy period, retroactive date is arranged.
  - Extended reporting period after the expiration date of the policy can be arranged in order to report the claim after the policy period (beneficial for the insured).

- Acts committed
  - The E&O which leads to a loss takes place during the policy period.
  - Also, retroactivity and sunset clause might be arranged.

- Manifestation
  - Objectively verifiable first discovery of a loss.
  - Def. (German environmental liability model): [41] „The event. Triggering cover is … the verifiable first discovery of BI or PD or insured PFL sustained by the injured party, any third party or the insured.

Depending on what is covered, however in general, the most common trigger are loss occurrence and claims made in the Czech Republic. Claims made trigger is being used for PI CoB, whereas loss occurrence for GTPL, PL and EL. Sometimes, acts committed trigger may be used, especially in PI CoB (lawyers sometimes request acts committed, however lot of PI policies for lawyers are written on claims made basis). Insurance companies does not provide manifestation trigger in the Czech Republic.

---

[40] Default reporting period is 5 years according to the law in the Czech Republic.
[41] SCHINDLER, Uwe. Triggers in Liability Insurance: Munich Re Seminars Non-Life [online]. Munich, 2017 [cit. 2019-03-07]. Powerpoint presentation.

2.2.1.2 Territorial scope of cover in liability policies

Other important aspect of the liability policy is a determination of territorial scope. Liability underwriters always consider the original premium depending on requested territorial scope of cover. The original insured usually requests to have a territorial scope of cover that is in line with his business activities. That means, if the insured is active in exports, he will request to have coverage in all countries that he is exporting to in order to have third party liability coverage in those countries. If the cover is required for other countries, besides the original country (the country of the original insured and the insurer), the insurer can request a territorial split of export / turnover to be able to properly assess the exposition of the client and his products and services being exported abroad.

This is important, because if the loss happens abroad, it is being process by local courts since it happened in "their" country. Every country has their own procedures, applicable limits, independent investigators etc., so the same loss that can happen in one country can be differently indemnified in a different country since the court may simply settle different level of compensation. Insurance companies are especially prudent when the coverage is requested for USA and/or Canada. The limits and the compensations from the local courts are completely imcomparable. The compensation is in the form of punitive and exemplary damages, which might reach astronomical amounts (it can be several times higher then the actual loss). Often, the worldwide cover is requested, but as it would be too expensive for the insured, if not necessary, it is specified as worldwide (excluding USA/CAN).

2.2.2 Liability classes of business

Depending on the activity of the insured, the original insured may need specific liability CoB. Liability insurance is broken down into several liability CoBs according to the cause of loss. Some losses might arise out of a pure negligence of the employee, whereas others might emerge from a specific product sold by the insured. Indeed, there can be million of loss scenarios, but the type of the loss is almost [42]still the same – third party loss. Very important is note that the loss must be sudden and accidental. The losses on third parties that are intentional or anyhow wilful are in contradiction with the principals of insurance. Such losses should never be covered. In particular, this is very important, since the border between "sudden and accidental" and "wilful" is sometimes very thin and unclear.

[42] Exceptions might be in case of product recall (explained further in this sub-chapter) or legal expenses of the insured.

2.2.2.1 Common classes of business in liability insurance

These are the most common liability classes of business:

- General Third Party Liability (GTPL) – standard liability insurance for organizations and businesses to protect them against liability claims for bodily injury and property damage arising out of their operations, premises and other activites. GTPL coverage often comes together with products liability cover in liability policies.

- Product Liability (PL) – insurance policy for manufactures of any products where the products might result in third party bodily injury or property damage claim. Depending on the product manufactured, the exposition might be almost none as well as highly exposed.

- Employers' liability (EL) – coverage for the insured (employer) for any liability to his employees. Usually, such liability is for work-related bodily injury or disease. As mentioned earlier in this chapter, EL is the only statutory liability insurance in the Czech Republic.

- Professional Indemnity (PI) – liability class of business designed to protect traditional professionals (lawyers, accountants) and new types of professions (consultants, insurance brokers) against liability as a result of errors and ommissions. Mostly, these liability policies cover financial losses suffered by third parties.

These are the four most common CoBs. Unlike the others, PI insurance serves to cover third party financial losses (PFL). However, standard insurance policies which cover BI&PD also cover consequential financial losses resulted from such BI or PD. Often, PFL (subject of PI policies) are excluded for all other liability CoBs. BI&PD might as well be included in PI insurance, however sometimes it does not make sense to cover these as it is rather unimaginable to have such losses incurred (PI for lawyers or auditors), whereas in other cases, such losses resulting in BI&PD are easily imaginable (PI for architects, MedMal).

There are three sub-classes under the PL. These are: Extended Product Liability (EPL), Product Recall (PR) and Product Tampering (PT). EPL is a cover for named pure financial losses caused by the product (or semi-finished product) of the policy holder. Product recall provides coverage for PFL due to costs caused by accidentally defective products and the need to be recalled from the market as it is posing an imminent thread. Product tampering is related to the malicious tampering of the product and unlike the other two is very rarely

requested to be a part of the cover. Coverage for EPL and PR is often requested, however these coverages are considered as exposed and the insurers are always very careful while providing such covers.

Professional indemnity insurance is usually purchased by these professions: lawyers, auditors, accountants, architects and engineers, notaries, brokers (insurance/reinsurance brokers, real estate brokers), IT consultants, executors and many others. There are two PI insurance professions which stand a little bit aside. For example, in the reinsurance treaty, there are T&C for all professions and then there are separately stated T&C just for these two professions as they are of a little different nature on the one side and they generally bear higher risks on the other side. These professions are Medical Malpractise (MedMal) and Directors and Officers (D&O). The former is a professional liability insurance for physicians, surgeons and other medical professions and the latter is covering directors and officers for claims made against them while serving on a board of directors and/or as an officer.[43] Sometimes, D&O is not even understood as a PI CoB, but rather a separate unique CoB.

Some third party losses can be caused to the environment. For such losses, there is a CoB called Environmental Impairment Liability (EIL). The causes of such claims may be for example a technical failure, faulty material or a human error and they may result in release of pollutants which may end up in BI&PD losses, financial losses and a damage to natural resources and environment. Lot of large industrial companies face these losses.[44]

2.2.2.2 Emerging risks and trends in liability insurance

In the current world of changes and rapid technological and industrial development, new and developing risks pose potential higher exposures and require the immediate reaction of the insurance and reinsurance companies who have to face them. Emerging risk have a following characteristics:[45]

- New and developing risks
- Potential for high exposures/high damages

---

[43] IRMI: International Risk Management Institute, Inc. [online]. [cit. 2019-03-03]. Dostupné z: https://www.irmi.com/

[44] Very well known environmental liability loss is a collapse of the oil tanker Exxon Valdez in 1989 when 41 000 tons of oil was spilled into the water by the coast of Alaska. Such a catastrophic losses are sometimes even incalculable. Punitive damages for Exxon were settled in amount of $500 million.

[45] EBERT, Ina. Emerging risks: Munich Re Seminars Non-Life [online]. Munich, 2017 [cit. 2019-03-07]. Powerpoint presentation.

- Unknown extent of the risk

Emerging risks are a result of climate change, demographic developments, cyber risks, internet of things, technology development etc. Currently, one of the most discussed emerging risk is autonomous vehicles. Today, most accidents are caused by human error, however who would be liable in case of an accident of the autonomous vehicle? It can be the keeper of the car, the user, the manufacturer or a subcontractor (softwareprovider etc.). This arises a question, whether it will be covered from standard motor liability or a product liability. Other heavily discussed emerging risks are related to the internet of things and cyber. Right to collect and use data, access to them, hacking and data abuse and all other cyber related risks pose a question if new insurance products are needed.

2.3 International liability programmes

International liability programs are broadly used by companies who operate in more countries and need cover for all its subsidiaries. In spite of not having the international liability program in part three of this thesis, I will still explain how it works since similar risks as the one discussed in the practical part often have international liability programs.

Principally, local subsidiary of a holding has a coverage from local insurance policy plus above this coverage is a coverage applicable for all subisidiaries of the holding also from other countries. The latter is called international excess cover (master cover) and is in excess of one or more local policies.

The reasons for the international liability programmes are mainly[46]:

- To meet the challenges of globalization of industries, it is necessary to find international insurance solutions/standards for local risks of subsidiaries and to protect the balance sheet of parent company.

- Sums insured and the scope of coverage often differ and do not meet the needs of local subisidiaries. Thus, local policies and master cover are often different since the master cover strives for a homogenous worldwide coverage.

- To comply with local laws and avoid taxation issues.

[46] KAMPMANN, Ulrike. International Liability Programmes: Munich Re Seminars Non-Life [online]. Munich, 2017 [cit. 2019-03-07]. Powerpoint presentation

These reasons are also the advantages of international liability programmes. Other advantages are for example risk-specific procedure in the area of risk management and loss prevention, central coordination of insurance concerns or cost advantages.

Similar to excess policies is umbrella insurance. It is also in excess of specified policies and potentially as a primary insurance for some losses otherwised not covered by primary policies. The critical difference is that excess policies tend to follow the scope of cover of primary policies, except they add on their own limit, whereas umbrella policies usually have broader coverage over the one or more primary policies. Drop down can be agreed in case the primary policies do not cover some losses which are covered by the umbrella policy from certain excess. In such case, umbrella policies cover these losses despite being normally applied from higher excess limit.

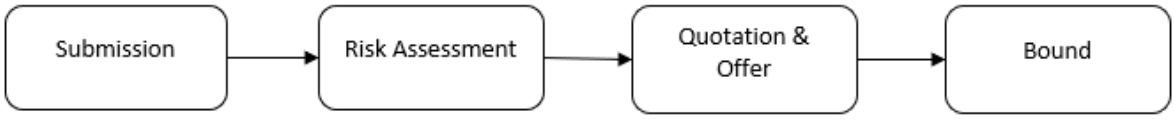
2.4 Underwriting of liability insurance

Prior to the practical part of the thesis, I would like to show the process of insuring the risk. Obviously, there is a difference between insuring homogenous risks and the single-assesed risks. Since the subject of this thesis is an analysis of a single unique risk, following text will be applicable for such case. Homogenous risks are treated in a different way and following procedure can be similar in some aspects, however is usually different.

2.4.1 Insurance process

The process of insuring looks simply as follows:

Table 8 - Simple insuring procedure



Source: created by author

First step is a submission of the risk. The risk might be submitted via the original insured, however very often the primary insurance broker is involved. In reality, the original insured approaches a broker and entrusts him to find the best insurance solutions for his business. The broker is then in touch with several insurers and basically on behalf of the insured is negotiating the best terms for his client.

Second step is the risk assessment which is done by the insurers. Alongside with the submission usually comes a risk proposal form or any other form of questionnaire. This form should contain all necessary info regarding the insured and his business in order to have a proper analysis by the (re)insurers and be able to come with the offer. There are two forms which are being used in most cases. They are not in contradiction, the more info (re)insurers have about the insured, the better for them since they simply have a better view of what is actually being requested to be insured. First, already mentioned proposal form/questionnaire. The insurers have many questionnaires for each and every business. In these forms, there are questions that are crucial for the assessment of the risk and also the general info about the insured is included. Second form is a risk details document. This document also contains some info about the insured. Further, it states the requirements of the insurance such as original limit, policy period, territorial scope etc.

Based on the requirements and given terms, the insurers calculate original premium and give their offers. Behind this process is also a negotiation between the insurer and the reinsurer. The reinsurer makes his own calculation and compare it with the calculation of the insured. After that, he provides his offer to the insurer. The last step is either the acceptance of the offer or rejection by the insured. If the offer is accepted, the riks is bound (also called in force).

2.4.2 Insurance policy

Insurance policy is concluded between the insured and the insurer and serves as a base of the insurance coverage agreed between these two parties. The scope of cover, all T&C and everything essential is included in the insurance policy. It is especially important, because if the loss is materialized, according to the insurance policy is determined whether the loss is covered or not. It is an obligation of the broker to have all requirements included in the policy since he is the one entrusted by the insured. Also, he must know exactly what is covered and what is excluded from the coverage. Based on agreed terms, the broker compiles the insurance contract together with the underwriters in the insurance company.

Original insurance policy usually contains the same information as reinsurance slip. Some differences are mentioned in sub-chapter 2.4.3 Reinsurance slip. Insurance policy always contains these provisions:

- The insurer and the original insured and other insureds under the policy

- Specified coverage
    - Type of cover (LoB, CoB)
    - Policy period, territorial scope, insurance trigger (in case of liability insurance), activity of the insured
    - Original limit per occurrence and limit in aggregate, original premium, premium instalments
- Conditions
    - Wording
    - Exclusions
    - Clauses
- Signing pages

2.4.2.1 Applicable wording

Very important part of the insurance policy is the applicable wording. The wording states general and specific T&C and all definitions of insurance coverage related to the specific class of business. Every insurance company should have their own wording which is applicable according to the local standards and rights and serves as a "starting point" of the cover provided by the respective insurance company on the market. Such wording is in line with the guidelines of the insurance company and is approved by the top management.

From the insurance policy, the wording differs in a way that it explains the meaning of all information related to the specific insurance. Indeed, it should explain everything and should serve as a determination in case of any obstacles or uncertainties. For example, in the wording is specified what exactly is meant by the "territorial scope", when it is applicable and what are the rights and obligations of both insured and the insurer. In insurance policy is then stated respective territory, e.g. Czech Republic.

2.4.2.2 Exclusions

Exclusions are provisions of the insurance policy which are clearly stating of what is excluded from the cover. Their role is to limit the scope of cover to the particular extent and in case of a

loss they should clearly define whether the loss is covered or based on the list of exclusions the loss is not covered.

In reinsurance, in case of treaty reinsurance, the treaty has a list of exclusions and the insurer can cede into the treaty only risks that are not in contradiction with these exclusions. Sometimes, when the requested cover can not be the subject of the treaty since any features of this cover contradicts with the exclusions, special acceptance may be discussed. In facultative reinsurance, facultative underwriters assess each and every risk on a single basis and for the respective risk are assigned particular exclusions with respect to the scope of cover.

In case of some exlcusions, reinsurers are very strict and they always insist on having such exclusions in the reinsurance slips. On the other, there are exclusions where reinsurers are not that reluctant when being asked to remove the exclusions from the reinsurance slip for some premium surcharge.

2.4.2.3 Clauses

Several clauses can be included in the insurance policy. Clauses have a character of complementary information. Their role is to further specify anything contained in the policy. Some clauses can specify the procedure of claims reporting and claims payments. Other clauses further describe some exclusions (terrorism clause, employers' liability and workers' compensation clause). Some clauses state the resolution in case of a specific situation or if the policy is concluded anyhow that some situations may arise and need clear procedure (currency fluctuation clause, change in law clause). Depending on the specific account, there might even be tens of clauses, if needed.

2.4.3 Reinsurance slip

As the insurance policy is concluded between the insured and the insurer, also is concluded a reinsurance slip between the insurer and the reinsurer for the respective risk. Often, reinsurance broker acts as the intermediary between these two and have a similar role as a primary broker, but in a further step in the break down of the risk by insurance entities.

It is important to note that not everything covered by the insurance is then further ceded and reinsured. It is upon the discussion between the insurer and reinsurer and what is reinsurer willing to accept into reinsurance. This concerns usually separate limits with different level of

indemnities of the insurance. For example, the main cover is GTPL and along with this cover is also requested a limit for Sudden & Accidental (S&A) pollution and a liquor liability[47].

The limits for such insurance can looks as follows:

- GTPL: CZK 10 000 000 e.e.o., in a.a.[48]
- S&A Pollution: CZK 5 000 000 e.e.o., in a.a.
- Liquor Liability: CZK 1 000 000 e.e.o., in a.a.

Total limit for GTPL is CZK 10 million. The limits for S&A pollution and for liquor liability might be within this 10 million limit, i.e. combined limit [49]or can be as separate limits. This is very important to be specified in the reinsurance slip since in case of a loss triggering for example GTPL and S&A pollution, depending on the type of limits different claim is indemnified. If the combined limit is agreed, total payments on claims are not higher then CZK 10 million, however in case of separate limits, total payments can reach CZK 15 million on paid claims.

Agreed reinsurance structure between the insurer and the reinsurer might look as follows:

- Type of cover: Combined single limit for GTPL, S&A Pollution and Liqour Liability
- R/I Structure: CZK 6 000 000 e.e.o., in a.a. xs CZK 4 000 000 e.e.o.

Using this reinsurance structure, the reinsurer pays losses exceeding CZK 4 million. Since the limit for liquor liability is only CZK 1 million, the reinsurer will never indemnify a loss related to liquor liability. Similarly, out of the total limit for S&A pollution, the reinsurer would hypothetically pay only CZK 1 million in maximum. The rest is still within the retention of the insurer.

[47] „Any establishment that sells, serves, or assists in the purchase or use of liquor (i.e. dram shop) opens its doors for a liability claim as a consequence of someone getting drunk to the extent that injuries or property damages are the result.“ – Greenwood Insurance Group

[48] Each and every occurrence and in annual aggregate

[49] Limits that are within the original limit and are lower then the original limit and are covering specific CoB are called sub-limits.

Reinsurance slip always contains reinsurance exclusions[50]. This means, that apart from the original exclusions stated in the insurance policy and the original wording, reinsurers include into their offers also named exclusions related to reinsurance. These exclusions are usually already included in the original wording and reinsurers usually do this to emphasize the exclusions that they really want to have excluded from the cover. The insurer then has to bear in mind the exclusions in the original wording and the reinsurance exclusions to have an overview of what is ceded and what would not be accepted by the reinsurers in case of a claim. If there are more reinsurers participating on the risk, their exclusions have to be in line in case no leader is appointed and both of them are participating with the same share. In case the reinsurance leader is clearly appointed, other reinsurers follow his offer and reinsurance exclusions[51].

To summarize it, in the reinsurance slip, it is mostly important to clearly state the reinsurance structure. What is the participation of the insurer and reinsurer, how the risk is ceded etc. Secondly, it contains reinsurance exclusions and clauses that specify the reinsurance cover. Last, but not least, the reinsurance slip always contains reinsurance premium.

3 Practical example of the insurance process for an industrial risk

The third part of this thesis will take the practical example of the industrial risk and will describe the process of the insurance from the sole beginning (receiving submission) until the final conclusion of the insurance policy. Thus, the risk will be bound eventually in order to show the whole insuring process (many insurance subjects often decline such risks since it is simply to big for them). Subject will be only liability insurance. The original insured, named insurance company and named reinsurers are hypothetical entities used only in this thesis. Following are the subjects used in the practical example:

Original insured[52]: *Taisiia a.s.* (hereinafter referred to as the *Taisiia a.s.*)

Broker 1 hereinafter referred to as the *Broker A*

Insurance company 1 hereinafter referred to as the *Insurer A*

Reinsurance company 1 hereinafter referred to as the *Reinsurer A*

[50] Sometimes might be simply stated „As per original policy“.
[51] Sometimes, the conditions given by each reinsurer can differ. Depending on the specific case.
[52] Taisiia a.s. and its subsidiaries as additional insureds will be further named afterwards.

Reinsurance company 2 hereinafter referred to as the *Reinsurer B*

3.1 Submission

In the first sub-chapter of the practical part, I will describe the initial process, i.e. submission of the risk. Negotiation between the broker and the insurance company will contain a critical info about the original insured requested by the insurance company. Firstly, company's profile will be discussed, then all neccesities delivered by the broker to the insurance company to be able to properly assess the risk. Also, in this chapter, I will write about all the requirements for insurance by the insured. Principally, everything will be summed up so the insurance company will be willing to quote the risk and come with the offer, which will be further explain in following sub-chapter.

The submission comes from the original insured or the broker (in this thesis, the broker who will deal on behalf of the insured), where either one of them approaches one or more insurance companies. The submission includes following information:

- Company's profile
- Risk details, insurance requirements
- Questionnaire

In most cases, the documents provided to the insurers are not sufficient to have a counter-offer immediately. Thus, after the initial contact, there is a communication between the broker and potential insurers. Insurers request all information needed for the proper assessment of the risk and for the calculation of the original premium. In the same time, insurers approach reinsurers for their offers and for their comments. [53]Insurers contact reinsurers almost immediately after receiving submission and putting together some complex information about the risk which are then forwarded to reinsurers in order for them to properly and most conveniently assess the risk. It is crucial for the insurer to find reinsurance support before submitting any offer to the broker. If the insurer did not have a capacity provided by the reinsurer and would give the offer which would be eventually accepted by the client, the insurer would have to find the placement for the capacity exceeding his retention and that could be even fatal for him in case no capacity is found in the end.

[53] In case of facultative reinsurance.

3.1.1 Company's profile

The first important information for the insurance company is the profile of the company that is to be insured. Generally, the more information provided to the insurers the better. However, sometimes it is even satysfing to provide the website of the original insured, since all necessary information can be found there. Based on the company's profile, the insurance company is not able to come up with any offer. It is only the first step in the process, the first touch with the original insured.

Profile of our company looks as follows:

- *Name of the company:* Taisiaa a.s.
- *Address of the company:* Americká 22, Praha 2, 120 000, Czech Republic
- *Website:* www.taisiia.cz
- *Activity of the company:*
    - Dams operation (for Taisiia and Taisiia Renewable)
    - Hydroelectrical plants, including civil works and dams (for Taisiia Aero and Taisiia South Africa)
- *Turnover of the company:* EUR 75 000 000 000 (planned turnover 2019)

Company's profile on the website:

"Taisiia is a multional energy company and one of the leading integrated electricity and gas operator worldwide. Across 4 continents, we work at 35 countries, generating energy, selling gas and distributing electricity across a network of approximately 2,2 milion km.

We generate energy with a managed capacity of more then 85 GW with more then 70 million end users around the world. We are one among the leading companies in this sector."

It might be quite surprising, but the complexity and the whole design of the website plays its role as well. Insurers and reinsurers want to have quality risks in their portfolio. Common sense plays a role too. If they see that the company does not even have a proper website, it is not a good first impression. Turnover of EUR 75 billion indicates that we are dealing with one of the biggest companies in Europe, even worldwide. In such a case, underwriters in insurance and reinsurance companies usually know very well such companies from their own

experience. Let's assume that the company Taisiia have a website with all features in a good order.

3.1.2 Risk details

Unlike the company's profile, risk details are usually limited, meaning there is not enough information provided. As for the company's profile, broker always submit the basic information and the company almost always have a website in today's world. However, what I call risk details in this thesis are all information necessary for the assessment of the risk and thorough underwriting judgement. Usually, these information are in a separate document provided in the submission. The same applies – the more information, the better. Sometimes, when the account is not that extensive, risk details written in the initial email are satisfactory.

3.1.2.1 Risk details of Taisiia a.s.

In our case, the account is very extensive and the risk detail document is a separate document containing namely these information:

General schedule

- Policyholder & Address – name of the policyholder, idenfitication number and address
- Insureds – all named insureds under this policy
- Period of insurance
- Insured's business – named activity of the insured covered by this policy
- Definitions – description of fundamental terms used in risk details
- Territorial Scope of cover
- Indemnity limits – indemnity limits for Section A - General Liability and the sublimits within and for Section B – Environmental Liability
- Deductibles
- Cross Liabilities, Operative Clause and General Provisions

Conditions

- Section A – General Liability

  - General Liability
  - Products Liability
  - Failure to Supply
  - Pollution Liability
  - Pure Financial Losses
  - General Exclusions (not applicable to section B)
- Section B Environmental Liability
  - Insurance Coverage
  - General Exclusions (applicable only to section B)

This document is compiled by the Broker A based on needs and insurance requirements of Taisiia a.s. and its subsidiaries.

3.1.2.2 Insurance requirements according to risk details of Taisiia a.s.

In the following text, I will sum up the insurance requirements from risk details of Taisiia a.s. as what is requested to be covered. First of all, the cover is requested for Taisiia a.s. and for its divisions operating in different areas and for all their subsidiaries and affiliated companies. The insured's business which is subject of the insurance is in detail specified together with one year insurance policy period and world-wide (excluding USA/CAN) territorial scope of cover.

Risk Details Summary of Taisiia a.s.

Original Insured:	Taisiia a.s.
Additional Insureds:	Taisiia Renewable a.s.
	Taisiia Aero a.s.
	Taisiia South America S.A.
Period of insurance:	From 01.01.201X to 31.12.201X (both days inclusive)

Insurance trigger: loss occurrence

Insured's business:

- Any business or activity related with the electrical generation, transformation, transmission, distribution, supply, transport, delivery, regulation and/or sales of electricity, gas, water, energy (including combustible), electrical mobility, as the case may be.
- Any business or activity related with the management and monitoring of: energetic consumption, energetic efficiency and transmission in compliance with the current regulation
- Any business or activity related with communication, data communication, information technology, demotic, multimedia and interactive services
- Any business or activity related with network structures of: electricity, water, gas, optical fiber, district heating and telecommunications.

Territorial Scope of Cover: World-wide (excluding USA/CAN)

Deductibles: EUR 50 000 e.e.o., but EUR 100 000 e.e.o. for Taisiia Aero a.s.

Retroactive date: January 1st, 199X

Indemnity Limits:

- *Section A General Liability*: EUR 500 000 000 each and evey occurrence for General Liability including sub-limits within the general liability indemnity limit for:
    - EUR 500 000 000 e.e.o., in a.a. for Products Liability
    - EUR 200 000 000 e.e.o., in a.a. for Failure to supply
    - EUR 200 000 000 e.e.o., in a.a. for Pollution liability
    - EUR 50 000 000 e.e.o., in a.a. for Pure financial losses
    - EUR 10 000 000 e.e.o., in a.a. for Terrorism
- *Section B Environmental Liability*: EUR 150 000 000 each and every occurrence and in annual aggregate for Environmental Liability

Additinonal Clauses:

- Cross Liabilities
- Operative Clause
- General Provisions

Exclusions: As per Risk Details of Taisiia a.s.

Additional underwriting information received in submission

Turnover: EUR 75 000 000 000 (planned turnover 2019)[54]

Loss History: As per Claims Analysis Excel document

These are the information that are substantial for the underwriting assessment of the risk and any potential quotation. Usually, insurers receive more documents together with Risk Details, for example a document regarding loss history, list of dams, environemntal and other experts studies and judgements and sometimes also draft of the insurance policy contract. In the second part of this chapter, the proces of quotation will be displayed and all these risk details will be taken into consideration.

3.1.3 Contact of the broker and insurers

In this case, with such a comprehensive account, very high limits of indemnity, very high turnover, the role of the Broker A is to place the whole capacity requested. Usually the primary broker contacts the insurance company which contacts the reinsurance company for the additional capacity placement or entrusts the reinsurance broker for such services. In our case international Broker A provides both primary insurance and reinsurance broking services, thus only Broker A is mentioned in the thesis.

Let's assume it is a renewal of the risk, but current insurers do not want to participate on this risk anymore, therefore the broker has to contact new insurers and ask for their capacity. Broker A contacts several insurance companies, provides them with risk details, renewal information and all documents necessary for the underwriting assessment. Some of the insurers are not interested in the risk, others are and indicate how much capacity are they able to deploy. Together with the capacity information, the flow of any other information necessary to give the quotation is being discussed. Finally, the insurer who deploys the most

[54] As per submission, no substantial changes in turnover for the past 5 years

capacity is the leader of the program and is setting the all insurance terms and conditions for this account. Other insurers who offered less capacity are asked to accept these terms and when 100% of the capacity is deployed between several insurers, the risk is successfully placed. Although it can sound not that complicated, to obtain the whole capacity for such a big account can take months of work for the broker, before the insurers willing to participate are found and all the terms are set.

Broker A knows it will be very difficult to find a placement for all the capacity, therefore he is not contacting only the insurance companies and searching for the ceding company, but also is contacting reinsurers right away since he knows the part of the capacity will be placed in this reinsurance companies[55] anyway. Every insurance company has a reinsurance for offered capacity, some reinsurers are contacted directly and provide their capacity to their partner insuance company where they have obligatory reinsurance agreement and if they are willing to provide more capacity, they may reinsure other insurance company on facultative basis – meaning the capacity that is placed in such reinsurance company "came" from more subjects. Broker A contacted reinsurer directly in order to find a reinsurance for the insurance company so she can provide more capacity in total and does not have to find extra reinsurance by herself. Also, insurance companies might be in contact and discuss what are their options as how much capacity they are able to deploy. Reinsurers do the same and also search for the retro-reinsurers to place the exceeding capacity (usually they already have a retro program where the part of the risk can be ceded and they only discuss some details if necessary).

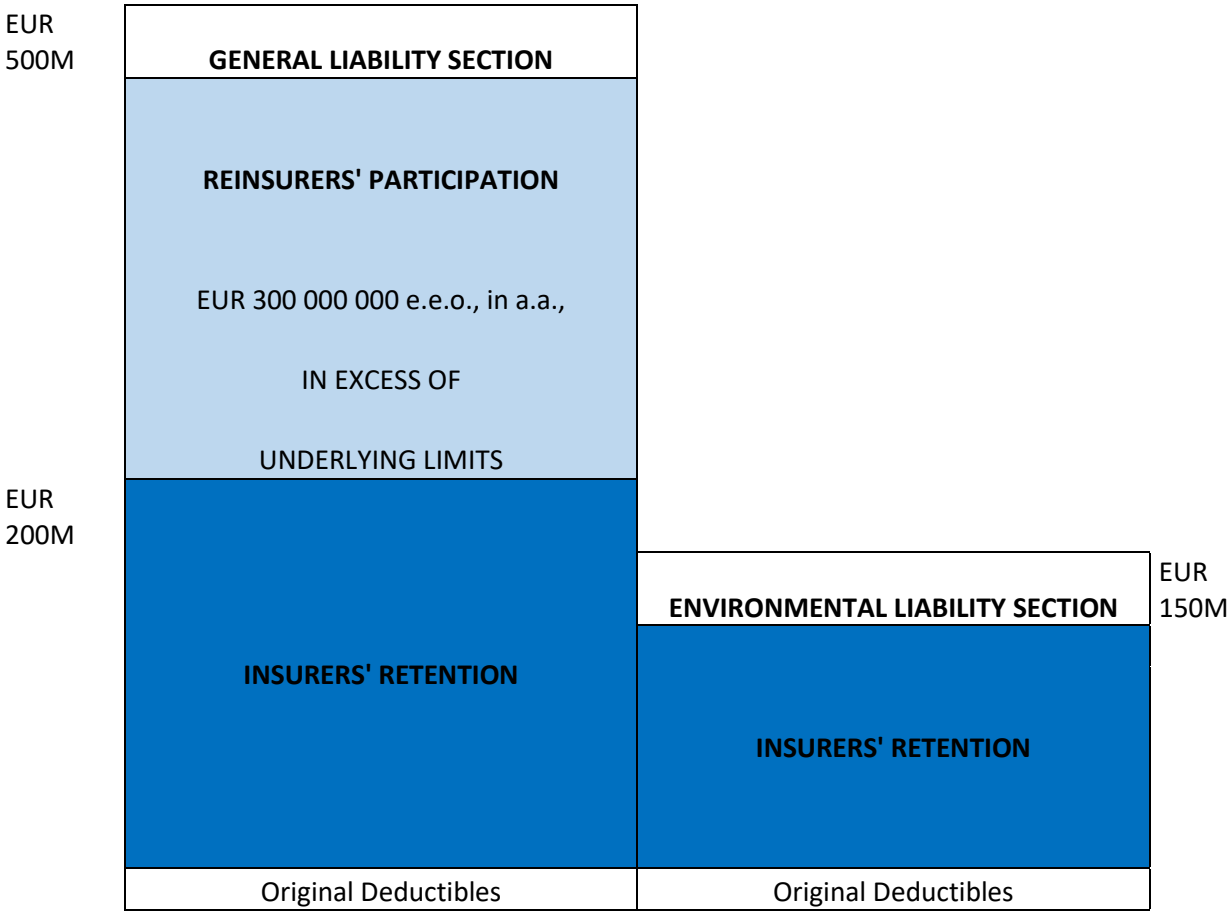
3.1.4 Decomposition of total limits and retentions

Since several subjects participate on this account, this sub-chapter will be focused on the deployment of the whole limits between insurers and reinsurers. I will explain the capacity that is held by the insurers (retention) and the exceeding capacity that is reinsured. Also, I will discuss the participation of each subject on respective part of the limit.

[55] Biggest reinsurance companies in the world usually provide their capacities and participate on similar accounts.

Following chart indicates the decomposition of the total limit of indemnity:

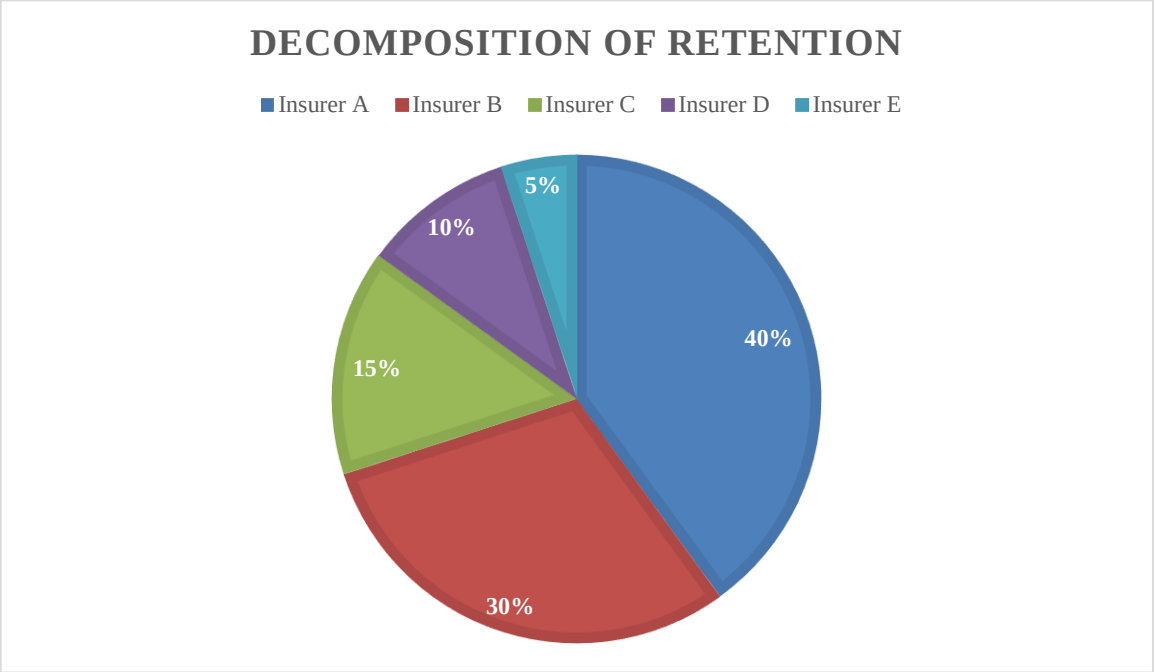
Table 9 - Decomposition of total limit



There are two sections requested to be insured (as mentioned in risk details). Section A – General Liability with total limit of indemnity EUR 500 000 000. This limit is partially ceded into reinsurance on non-proportional basis. Underlying limit of EUR 200 000 000 is in insurers' retention and the exceeding limit EUR 300 000 000 is ceded into reinsurance. In case of a loss of e.g. EUR 250m , first EUR 200m will be indemnified by the insurers and the exceeding part of EUR 50m will be paid by the reinsurers. In case of a total loss EUR 500m, again first EUR 200m will be indemnified by the insurers and the rest, i.e. EUR 300m will be paid by the reinsurers. Section B – Environmental Liability is with limit EUR 150m and is not reinsured with this program. However, in case of any loss, the insureds have to pay their part - original deductible. In reality, this amount is deducted from the retention of the insurers', thus the insurers' pay the difference between the amount of the loss and deductible.

Decompostion of the retained capacity by the insurers is indicated in a following diagram:

Table 10 - Decomposition of retention



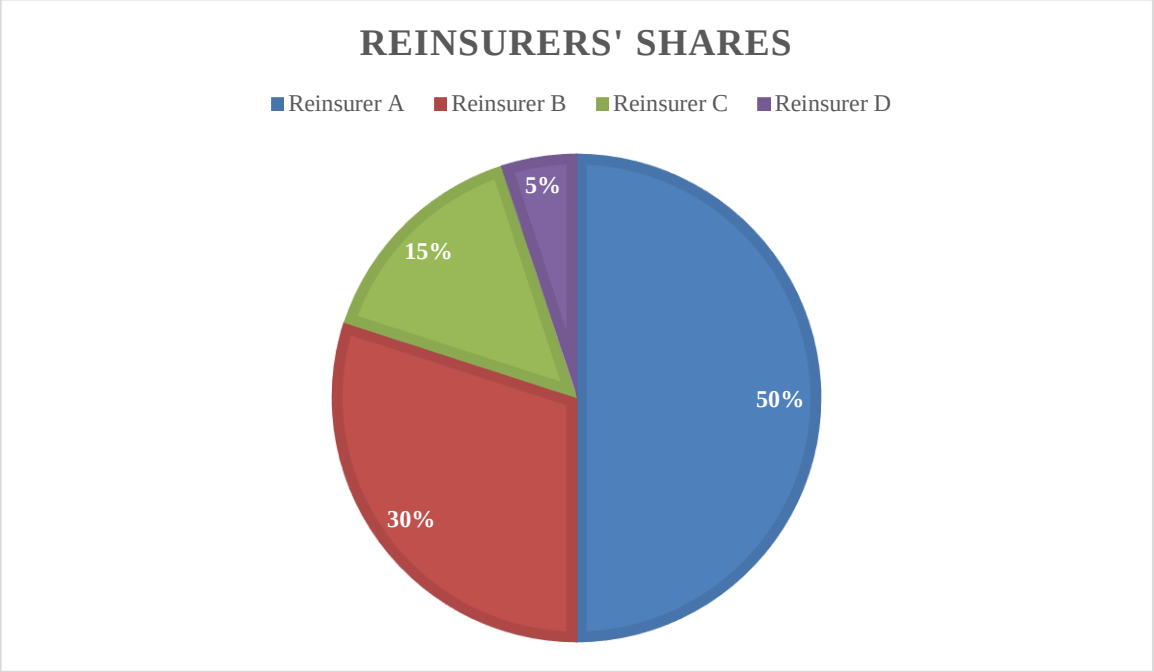
After the risk is negotiated and confirmed by all insurers under the terms and conditions satisfying for all of them, the deployment of the retained capacity is as follows:

- Insurer A – 40% (= EUR 80 000 000)
- Insurer B – 30% (= EUR 60 000 000)
- Insurer C – 15% (= EUR 30 000 000)
- Insurer D – 10% (= EUR 20 000 000)
- Insurer E – 5% (= EUR 10 000 000)
    - In total, retained capacity by the insurers is equal to EUR 200 000 000.

The retention is held by the insurers and everything in excess of the attachment point (EUR 200m) is ceded into the reinsurance. Similarly, the reinsurers participate on excess limit by their respective shares. In our case, the capacity for ceded part of the limit has been granted by four reinsurers who agreed to indemnify in case the loss exceeds attachment point.

Decompostion of the capacity exceeding attachment point by the reinsurers is indicated in a following diagram:

Table 11 - Reinsurers' shares



In practise, in case the loss exceeds the attachment point, the reinsurers pay as follows:

Amount of loss X Share of the reinsuer = Paid Amount

Provided capacity by each reinsurer is following:

- Reinsurer A – 50% (= EUR 150 000 000)
- Reinsurer B – 30% (= EUR 90 000 000)
- Reinsurer C – 15% (= EUR 45 000 000)
- Reinsurer D – 5% (EUR 15 000 000)
    - In total, capacity provided by the insurers is equal to EUR 300 000 000.

Usually, reinsurers participate in some retrocession programs. I will not further decompose reinsurers' share that are further ceded into retro-reinsurers, however just to be clear, in practise, provided capacity by each reinsurer as indicated above would not be the final share since they can further cede some part into retro-reinsurance. Depending on retro policy of

each reinsured, capacity might be ceded on a single retro basis, to the large retro where others participate, within the holding to onto other companies (parent company usually) etc.

3.2 Quotation

Quotation if a phase of quantification the original premium. Underwriters and actuaries in insurance and reinsurance companies quote the risk in order to send the offer to the client in which the premium plays the main role (is the offer itself). Each insurance company has different risk appetite as well as every quoter in the company, thus, depending on who is quoting the business and what is the risk appetite of the person and the insurance company, the original premium can be always different.

3.2.1 Insurer's A premium policy

Principally, the quantification should always reflect the exposition of the risk and the expenses of the insurer. These expenses include reinsurance expenses, expenses related to commission (brokerage) and other administrative expenses. In our case, Insurer A (leading insurer) is calculating his expenses as follows:

- Expenses related to reinsurance – 10%
- Expenses related to broking services – 25%
- Administrative expenses – 15%

In total, the expenses are in amount of 50%.

The second important indicator that the insurer takes into account is a loss ratio. Let's assume Insurer's A risk appetite is to have stable loss ratio of 50% and in that sense have a premium policy – he strives to have premium always in the double amount of average year losses. This loss ratio policy together with all expenses makes amount of 100%. This number is equal to all expenses related to that specific insurance policy plus expected losses. To have a profit on every account, Insurer A charges 10% profit margin as a loading on given number.

Following is the summary of the premium policy of Insurer A:

- Expenses – 50% (= EUR 500)
- Losses – 50% (= EUR 500)
- Profit margin – 10% (EUR 100)

- Insurance premium = EUR 1 100

3.2.2 Quotation of Taisiia a.s.

Account Taisiia a.s. together with all other co-insureds is such a complex account that hardly any standardized tariff or pricing tool may be used. Main factors that are considered while calculating original premium are indemnity limits and the turnover of the insured. Consequently, besides losses and expenses, in pricing tools limits and turnover are used as a basis for original premium calculation. These pricing tools are programmed in order to reflect the premium policy of each insurance subject, in our case as described in previous sub-chapter.

Indicators that will be used are these:

- Tariff for Industrial Accounts
- Loss History
- Original premium charged by the previous leading insurer

3.2.2.1 Tariff for Industrial Accounts

Insurer A has a standardized pricing tool for big industrial accounts. Depending on the specific liability class of business, Insurer A uses respective pricing tool. For General Liability business, Insurer A uses GTPL tariff for Industrial Accounts. The tariff considers following features of the risk:

- Turnover as a basis for calculation (T/O)
- Rate for given activity (A)
- Coefficient for requested limit of indemnity (CLoI)
- Coefficient for turnover (CT/O)
- Coefficient for deductible (CD)
- Coefficient for territorial scope (CTS)
- Loadings and discounts as per tariff for Industrial accounts

All rates, coefficients, loadings and discounts are stated in the tariff for Industrial Accounts. In practise, Insurer A takes the one thousandth of the insured's turnover and multiply it with respective rates, coefficients, loadings and tariffs. Unfortunately, in this case, he can not simply do this, because the tariff does not consider such a high turnover and limit of indemnity. However, Insurer A will still use some components of this tariff in order to calculate rough original premium. Together with some other indicators (loss history and previous original premium), he will finally calculate the original premium.

Equation for the calculation of original premium is:

$$\text{Original Premium} = T/O \times 0{,}001 \times A \times CLoI \times CT/O \times CD \times CTS$$

Firstly, let's assume the amounts behind the rate for given activity and coefficients and their importance. The most important, besides turnover, is a rate for given activity (reflects the exposure) and coefficients for original limit and turnover. Rate and all coefficient are numbers that are multiplied with 1 promile of turnover. After multiplication of all these, Insurer A calculates the original premium. Depending on T&C and scope of cover, he may or may not apply some loadings or discounts.

Values of the rate and coefficients are strictly stated in Insurer's A tariff for Industrial accounts, however our case is hardly applicable since tariff simply does not calculate with such a high turnover and limits, which are most important. Following are the bands of values in tariff for Industrial accounts:

Table 12 - Bands values in Insurer's A tariff

	Value Range	Proportionality
Rate for given activity	(0 ; 5)	↑ Exposed activity > ↑ Rate
Coefficient for requested LoI	(0.5 ; 3)	↑ Limit > ↑ Coefficient
Coefficient for T/O	(1 ; 0)	↑ Turnover > ↓ Coefficient
Coefficient for deductible	(1 ; 0.8)	↑ Deductible > ↓ Coefficient
Coefficient for scope of cover	Depends on activity	↑ Territorial scope > ↑ Coefficient

In table 12 is shown the logic behind the tariff for Industrial accounts. There are various activities with assigned rates. The value of a rate is between 0 (= no exposure at all) to 5 (maximum exposure). The same logic applies for coefficients. In case of coefficients, respective bands for LoI, T/O, deductible and territorial scope of cover are assigned. In table only marginal values are depicted. For example, if the requested limit of indemnity is EUR 1

million then coefficient for a multiplication in the equation will be 1.2. In the second column is proportionality which is direct or inverse. Simply, with higher limit comes higher multiplication coefficient. The same logic applies for deductible (higher deductible means lower coefficient decreasing original premium since the insured bears more exposure) and territorial scope of cover (bigger territorial scope means higher exposure, therefore increasing original premium). Higher turnover means lower coefficient. This might not be clear on the first sight. The reason for that is that in tariff for Industrial accounts, turnover is being taken as a basis for original premium calculation and the coefficient for turnover which comes later in equation "performs" some kind of a mitigation effect. Using this, tariff can calculate accounts with higher T/O.

Getting back to calculation of original premium out of previously mentioned equation:

Original Premium = T/O x 0,001 x A x CLoI x CT/O x CD x CTS

As tariff for Industrial accounts does not calculate with such a big turnover and high limit of indemnity, I will try to take numbers even higher/lower then marginals since the turnover and limit of indemnity are higher then in the Tariff.

Rough original premium calculation for Taisiia a.s. would then consist of (including commentaries for choosing that specific number):

- Turnover: EUR 75 000 000 000. Per mile = 75 000 000
- A: 3
    - All activities are in range of 0 – 5. Activity of our insured is exposed, but not the most exposed when considering liability insurance.
- CLoI: 4
    - Limit of Indemnity requested is higher then maximum limit in tariff.
- CT/O: 0.005
    - Maximum Turnover is a lot higher then in tariff.
- CD: 0.7

- EUR 50 000 deductible is indeed very high and differs from suggested deductibles and corresponding coefficients in tariff.

- CTS: 1.1
  - Standard coefficient for Worldwide (excl. USA/CAN) for given activity.

Original Premium = T/O x 0,001 x A x CLoI x CT/O x CD x CTS

After substitution

Original Premium = 75 000 000 x 3 x 4 x 0.005 x 0.7 x 1.1

Original Premium = EUR 3 465 000

Calculated original premium based on tariff for Industrial accounts is around EUR 3.5 milion. However, this calculation is very rough because the tariff is simply not designed for such a big account. In the end, calculated original premium according to tariff might not be corresponding with suggested premium by the broker at all. At any rate, it can serve as one of the hints for Insurer A when concluding binding offer including final original premium.

3.2.2.2 Loss History

Loss history is provided in a separate document including loss information from 2013. This document is the Attachment II to this thesis – Claims analysis.

Attachment II includes four sheets. First sheet is detailed information about all losses since 2015. Most importantly, it describes all features regarding each and every loss that has been claimed since 2015. Important features for loss settlements are stated, such as if the loss is still opened, or already settled – closed. Date of a loss and in which country the loss took place is mentioned. Very important is a cause of loss – in our case causes of losses are not surprising since we know the activity of the insured and we are aware of losses connected to such activity. Some of these are especially exposed and result in high losses such as deaths or any other accidents. Paid losses are losses and allocated loss adjustment expenses already paid to claimants. Reserved losses are reserved payments that are potentially to be paid to claimants. Lastly, deductibles are considered and losses net of deductibles are stated.

In the second sheet, there is a summary of losses as per particular period since 2013. For years 2013 and 2014 no detailed info is provided, however at least summary info is sent by the broker. There are two amounts for every year – losses before and after deduction of the

original deductibles. These numbers are essential for Insurer A since they can serve as a rough basis for calculation of the total premium. Insurer's A premium policy is to have maximum loss ratio 50%. From this sheet, average year losses in total net of deductible are approximately EUR 1 850 000. However, this is not the only important number. Insurer A considers the increasment in development through out the years, especially in 2018 when the total losses net of deductible are above EUR 3 milion. Further, in the first sheet there are two single losses above EUR 1 milion since 2015 (both are deaths of employee). Therefore, Insurer A will request further information especially about growing trend in losses and might ask if satisfactory precautions where implemented.

Following is the table in the second sheet of Attachment II – Claims Analysis – summary of losses since 2013:

Table 13 - Attachment II - Claims analysis - summary of losses since 2013

	OPEN + CLOSED	
Insurance Period	**Gross of deductible**	**Net of deductible**
2013	1 896 252	1 426 532
2014	1 452 369	982 669
2015	2 701 584	2 089 102
2016	2 173 973	1 541 985
2017	3 302 615	2 080 055
2018	3 729 729	3 005 233
Total	15 256 522	11 125 576
Average	2 542 754	1 854 263

Considering the difference between the losses before and after deductible and the actual amount of deductible which is EUR 50 000 (higher deductible of EUR 100 000 for Taisiia Aero a.s. is not taken into account anyhow separately since only one loss took place since 2015), Insurer A considers deductible as very important.

Insurer A has principally two options after analyzing loss history. First option is to keep the same level of deductible and apply his premium policy of loss ratio equal to 50% and 10% loading profit margin. In that case, original premium would simply be:

$$\text{Original Premium} = (1\,854\,263 / 0.5)*1.1$$

$$\text{Original Premium} = \text{EUR } 4\,079\,379$$

On the first sight, original premium around EUR 4 milion is very high even for the company with turnover EUR 75 bilion. This calculation does not even reflect the growth in losses. Let's assume the same calculation, but without losses 2018. The average loss between 2013-2017 is then EUR 1 315 672 net of deductible. Using the same equation, original premium would be equal to:

Original Premium = EUR 2 894 478

It is important to mention that Insurer A uses loss ratio policy net of deductible. Using numbers gross of deductibles would lead to even higher original premium calculations. Difference between calculations with and without year 2018 is indeed substantial. Assuming Insurer A is not a risk taker, he will rather calculate with EUR 4 milion circa.

Second option is to introduce offer with EUR 100 000. On the one hand, increasing original deductibles is always very sensitive for insureds. On the other hand, this step would be justified since not only that losses are apparently frequent, but they are gradually growing in amounts and numbers. To see the effect of higher deductibles of EUR 100 000 for Taisiia a.s. and all co-insureds and affiliated companies, I will create extra sheet similar to Sheet I – GTPL Claims Comprehensive, using only Applicable and Applied deductible EUR 100 000 and out of that I will calculate average loss per year. For years 2013 a 2014 we have no comprehensive data so I will only amend the rest.

Table 14 - Attachment II - Claims analysis - summary of losses since 2013 using deductible EUR 100 000

	OPEN + CLOSED	
Insurance Period	**Gross of deductible**	**Net of deductible**
2013	1 896 252	1 426 532
2014	1 452 369	982 669
2015	2 701 584	1 879 227
2016	2 173 973	1 366 606
2017	3 302 615	1 659 615
2018	3 729 729	2 665 838
Total	15 256 522	9 980 487
Average	2 542 754	1 663 415

In order to compare the calculation of original premium for different deductibles, I will proceed again with the same equation using newly calculated year's loss average:

Original Premium = (1 663 415 / 0.5)*1.1

Original Premium = 3 659 513

The difference in premium caused by higher deductible is approximately 10%. The loss ratio is usually calculated on gross of deductible basis – deducible is not taken into account – and then the deductible is applied as discount to calculated premium depending on the particular amount applied (higher deductible means higher discount on original premium since the insured bears more potential losses on his own). As loss history is not the only indicator for original premium calculation, I chose to calculate original premium on net of deductible basis since I simply know that on gross of deductible basis the original premium would be really high. More over, in the previous part where rough original premium was calculated (using tariff for Industrial accounts), deductible was taken into account. Those two numbers together with the original premium charged by the previous insurer and the suggestion for new premium by the broker will be compared and then the final original premium can be concluded.

3.2.2.3 Incoming pricing information from the broker

Unlike internal pricing methods and own original premium calculation, pricing suggested by the broker is given and the only thing the insurance company can do is to negotiate the price. However, the market is wide and the competition is big. Any bigger difference between insurer's idea about the pricing and broker's suggestion may possibly lead to a loss of the risk for the insurer. These are the essential pricing information provided by the broker:

- Suggested original premium
- Brokerage

Suggested original premium may or may not correspond with original premium charged by previous broker. Insurer A in this case may only assume that suggested premium is probably different from the premium charged by previous insurer, especially because in case of such big accounts, original premium is fluctuating since there are simply many factors having impact on the premium and secondly, due to a growth in losses, previous insurer was reluctant to renew the policy upon expiring premium and the broker has to amend the pricing in order

to find a new placement. Brokerage is important, because it might be even in tens of percents and considering the broker is not actually providing any capacity and still gets quite a big commission as a part of original premium, insurers often take brokerage into account. Lately, the trend on the market is that brokers are charging higher commissions and as a result of that insurers are often reluctant to participate on the risk.

In case of Taisiia a.s., suggested original premium and brokerage came in initial email and is on a basis take it or leave it, meaning are given and Insurers are asked if they want to participate or not upon given pricing terms. These are pricing information from the broker:

- Suggested original premium: EUR 3 250 000 gross
- Total costs: 20%

Suggested original premium is on a gross basis and includes 20% brokerage (total costs as called by the broker), meaning EUR 2 600 000 will be deployed between insurance entities. Assuming the original premium is EUR 2 600 000 net the summary of loss ratios using given premium for last years and average loss ratio is depicted in following table:

Table 15 - Theoretical loss ratios using broker's premium suggestion

	OPEN + CLOSED	
Insurance Period	**Gross of deductible**	**Net of deductible**
2013	72,9%	54,9%
2014	55,9%	37,8%
2015	103,9%	80,3%
2016	83,6%	59,3%
2017	127%	80%
2018	143,5%	115,6%
Average	117.4%	85,6%

Generally, loss ratio is a proportionate relationship of incurred losses to earned premiums expressed as a percentage. Insurance subjects calculate loss ratio regardless of the deductible. That means, negative loss ratio might still mean profit for them because of agreed deductible.

Suggested premium by the broker is lower than Insurer's A calculation and loss ratios are not in a favour for the Insurer A as well since it is not corresponding with his premium policy. Although Insurer's A risk appetite does not match this account, he is still willing to provide

such capacity in order to be leader, i.e. 40%. He does so mainly because he has been assured by the broker that appropriate precautions were taken in order to minimalize biggest losses – personal accidents and other incidents. Broker assured that following measures has been implemented:

- Proper training of staff to prevent from further losses
- Regular internal audit
- New COO[56] appointed and special department for safety supervision established

These are the consequencies after the negative outlook from 2018. Finally, Insurer A agrees to provide capacity of 40% and be the leader for upcoming period, i.e. 2019. Being the leader means having a preferential right for any other changes in T&C, scope of cover, exclusions, clauses etc., considering these changes are not significant and in contrary with insured's demands and expectations. Also, these changes can not be that significant that it would affect actual original premium that has been agreed. Usually, the leader wants to have certain exclusions and clauses to be part of the insurance policy. If these do not collide with insured's proposal insurance policy may be issued and signed by respective subjects. After agreeing on participation of Insurer A, these terms are negotiated to other participating subjects and in case any subject do not want to or can not participate on the risk, additional capacity has to be found.

3.2.2.4 Reinsurance premium

In case of Taisiia a.s., reinsurance premium calculation is based on ceded capacity into the reinsurance since the reinsurance structure is on non-proportional basis. Depending on the attachment point, ceded part of the premium is higher or lower. Generally, if the capacity that is ceded into reinsurance is higher, the reinsurance premium will be higher as well. In this case, reinsurance structure is as follows.

- Limit of Indemnity: EUR 500 000 000 e.e.o., in a.a.
- Reinsurance structure: EUR 300 000 000 e.e.o., in a.a. xs EUR 200 000 000 e.e.o.
- Reinsurance premium: to be calculated

[56] Chief Operating Officer as a member of the board of directors of Taisiia a.s.

Calculation of reinsurance premium is based on the original premium, meaning that reinsurance companies need to know original premium in order to calculate reinsurance premium[57]. Sometimes, insurance and reinsurance companies can negotiate the amount of original premium together – usually, if the insurance company does not know what is the adequate premium that shall be charged. Reinsurance companies use pricing tools for calculation of reinsurance premium. Pricing tools are programmed by actuarial analytics. Reinsurer A needs following inputs in order to calculate reinsurance premium:

- Limit of Indemnity
- Ceded capacity and retention
- Original premium
- ILF factor

Based on these four information, Reinsurer A is able to calculate reinsurance premium. Increased limit factor (ILF factor) is usually used in order to determine premium for higher limits applied to premium for basic limits of coverage, however in this case might be also use as some kind of a risk factor. It is a percentage amount and underwriters give higher percentage for classes of business that are generally more exposed (professional indemnity insurance) or in case of risks that bear certain exposure. The policy of Reinsurer A regarding ILF factor for most common classes of business is following:

- 25% ILF – General liability, Product liability, Employers' liability and Environmental liability.
- 35% ILF – Professional indemnity, product recall, extended product liability and CoBs with lower ILFs covering generally more exposed activities (based on underwriter's risk appetite).
- 40% ILF – Directors & Officers insurance, Medical Malpractise.

Taisiia a.s. requires coverage for General liability and Environmental liability for which the ILF factor is 25%, however the reinsurance underwriter considers the activity of Taisiia a.s. as rather exposed and furthermore also takes into account the loss history, thus decides to choose ILF factor 35%. Afer filling required information into the pricing tool, the reinsurance premium calculated for the given reinsurance structure is:

[57] Reinsurance companies make their own calculation of original premium as well in order to have an impartial view whether suggested premium by the insurance company reflects the exposure or not.

Reinsurance premium: EUR 1 064 296,52 gross

I will not explain in detail the functioning of re/insurance pricing tools since it is very comprehensive and requires deep knowledge of financial mathematics. Assuming this is the result calculated by the pricing tool, reinsurance underwriter now may or may not apply some loadings/discounts. The underwriter already applied higher ILF factor, thus will only round the number and gives the reinsurance offer for premium EUR 1 100 000 gross. Depending on the shares of each Reinsurer, reinsurance premium is proportionally divided between them after the 20% commission is deducted.

3.3 Conclusion of the policy and bound of the risk

After the conclusion of the original premium and reinsurance premium and setting all T&C the insurance policies can be issued and the insurance for Taisiia a.s. is granted. Broker needs to find the capacity for 100% of the risk prior to inception date. Placement of such risks can be very challenging for the brokers. Insurance policy between Taisiia and each insurer is concluded separetely, including specific shares of particular insurer. As a part of the policy, the wording of Insurer A on which is the insurance based, is attached. This wording is followed by every insurer and serves as a base of the insurance. In this case, Insurer A uses its general liability wording for all its liability classes of business.

Reinsurance cover note is issued between insurance and reinsurance companies with the assistance of the broker whose responsibility is to arrange the cover note and submit the document to specific insurer and reinsurer for their approvals and signatures. After all parties sign respective documents, the insurance is in force and Taisiia a.s. is successfuly covered.

In the course of the year, Taisiia a.s. still uses broker’s services if needed. For instance, Taisiia a.s. will acquire new company, which will be incorporated into the Taisiia holding. Taisiia a.s. needs to have the insurance for this company as well, thus contacts broker who will on behalf of Taisiia contacts all parties participating on this account and will inform them that the endorsement document for this extension needs to issued. Based on the size of newly acquired company, Insurer A charges corresponding premium surcharge and agrees to include newly acquired company into the current insurance policy. As the business of Taisiia a.s. is constantly developing, it may happen that more endorsements are needed to be issued in order to have all risks of Taisiia holding covered.

In the end of the policy period, when the expiration date of the policy is approaching, the insurance is to be renewed. Depending on many factors, the policy can be either renewed upon same T&C as expiring policy, or new terms can be set. Usually, if there is any change in the turnover, company's interest, or loss record, new T&Cs including reflecting newly calculated original premium need to be negotiated.

Thesis conclusion

The fictional company that is chosen as an example to illustrate the whole insurance process does not really have an analogical company in the Czech Republic in terms of a size. Chosen company with a turnover of 75 bilion EUR do not even have common precedens on a national market, thus more insurance and reinsurance companies (operating on international level) had to be approached. Eventually, the capacity was found and the risk was successfully insured.

Everything important for the illustration of such a process has been deeply described in theoretical parts so the reader is able to perceive not only how insurance and reinsurance work, but also how specific line of business for which the insurance was requested works. First chapter of this thesis was dedicated to reinsurance. To outline the world of reinsurance was essential since both insurance and reinsurance companies participate on this account. The risk has been reinsured on facultative basis for reinsurance premium charged by the reinsurers. In order for the reader to be able to understand all the connections between insurance and reinsurance companies, most important features of reinsurance have been explained.

Second part of the thesis is about liability insurance. In the practical part, original insured requires insurance for various liability classes of business, therefore it is very important to scrutinize this line of business and respective classes of business. Special attention is being paid to underwriting of liability insurance as it is the main focus of practical part of the thesis. Explanation of reinsurance and liability insurance was a partial goal of this thesis and such explanation serves as a theoretical foundation for the practical part.

In the practical part, in first subchapters, original insured is introduced together with requirements for insurance. Requirements for insurance are in detail stated in the Attachment I to this thesis – Risk details. After the submission of the risk, the negotations between the broker, insurers and reinsurers resulting in a deployment of the capacity is described. Further in the thesis, the focus is on the quotation. In reality, the quotation is not after the deployment of the capacity. Insurance subjects are approached with a suggestion for original premium already quoted by the leader or from the expiring policy. In this thesis, special subchapter is dedicated to quotation, thus this stage is written separately.

Not only that more insurance subjects had to be approached for their offers, but also the possibility for a justified quotation is very limited since the subjects simply do not possess with required know how. Last goal of this thesis was to suggest such quotation process and to produce original premium which would make sense and reflect the exposure of such a company. This process has been discussed in both insurance and reinsurance companies mentioned in the introduction with liability underwriters who expressed their idea about possible quotation process. The logic behind the quotation was to calculate the original premium based on several different methods and to compare calculated premiums together if the amounts reflect the suggestion from the broker. Eventually, suggested premium by the broker has been accepted since calculated premiums do not differ substantially. Finally, upon given terms and conditions the risk was insured. I consider this goal in my thesis to be successfully accomplished.

After the capacity is placed and each insurance subject signed re/insurance policy for accepting the risk, the account is bound. In the end of the practical part, possible changes in the course of the policy period in a form of the endorsements are mentioned. Such comprehensive accounts like the one used in this work may often require some extensions to be included in insurance coverage during the policy period.

References

BOOKS

CIPRA, Tomáš. Zajištění a přenos rizik v pojišťovnictví. Praha: Grada, 2004. Finance (Grada). ISBN 80-247-0838-8

DAŇHEL, J. -- DUCHÁČKOVÁ, E. Pojistné trhy : změny v postavení pojišťovnictví v globální éře. [Praha]: Professional Publishing, 2012. ISBN 978-80-7431-078-2

DUCHÁČKOVÁ, Eva. Pojištění a pojišťovnictví. Praha: Ekopress, [2015]. ISBN 978-80-87865-25-5

SCHWEPCKE, Andreas. Reinsurance: Principles and State of the Art. Edited by Swiss Re Germany AG. Munich, 2004 (page 97) ISBN 3-89952-159-5

Survey of Commercial Insurance. Malvern, PA: American Institute For Chartered Property Casualty Underwriters, 2014. ISBN 978-0-89463-799-5

Zákon č. 277/2009 Sb., o pojišťovnictví

Zákona č. 89/2012 Sb., občanský zákoník

Zákona č. 37/2004 Sb., o pojistné smlouvě, ve znění pozdějších předpisů

ZÁRYBNICKÁ, Jana a Karel SCHELLE. Pojištění odpovědnosti za škodu: (historie a současnost). Ostrava: Key Publishing, 2010. Právo (Key Publishing). ISBN 978-80-7418-061-3

ELECTRONIC REFERENCES

ČAP: Česká asociace pojišťoven [online]. [cit. 2019-02-28]. Dostupné z: http://www.cap.cz/vse-o-pojisteni/pojisteni-v-praxi/zprostredkovatele

EBERT, Ina. Emerging risks: Munich Re Seminars Non-Life [online]. Munich, 2017 [cit. 2019-03-07]. Powerpoint presentation

FINA 443 Property and Liability Insurance [online]. [cit. 2019-02-28]. Dostupné z: 2018. Course presentations FINA 443 10. University of South Carolina, Darla Moore School of Business. Lecturer Jim Scott

Insurance Market Report: CZECH REPUBLIC: NON-LIFE (P&C) [online]. © AXCO 2017, 2017 [cit. 2019-03-05]

IRMI: International Risk Management Institute, Inc. [online]. [cit. 2019-03-03]. Dostupné z: https://www.irmi.com/

KAMPMANN, Ulrike. International Liability Programmes: Munich Re Seminars Non-Life [online]. Munich, 2017 [cit. 2019-03-07]. Powerpoint presentation

Lloyd's of London: About Lloyd's [online]. 2019 [cit. 2019-02-15]. Dostupné z: https://www.lloyds.com/about-lloyds/what-is-lloyds

Reinsurance News, Top 50 Global Reinsurance Groups 2017; Dostupné z: https://www.reinsurancene.ws/top-50-reinsurance-groups/

SCHINDLER, Uwe. Triggers in Liability Insurance: Munich Re Seminars Non-Life [online]. Munich, 2017 [cit. 2019-03-07]. Powerpoint presentation

The Balance Small Business: 15 Largest Insurance Brokerages [online]. 2018 [cit. 2019-03-03]. Dostupné z: https://www.thebalancesmb.com/world-s-largest-insurance-brokers-462396

The new treatment of reinsurance transactions in national accounts: Conference of European Statisticians. In: . Geneva: Economic Commission for Europe, United Nations, 2012, Eleventh session

VIG Re [online]. [cit. 4.10.2014]. Annual Report 2017. Dostupné z WWW: < http://www.vig-re.com/about-us/annual-reports/>

List of tables

Attachments

1. Attachment I - Risk Details

Attachment I – Risk details is a separate document provided by broker with detail information for the practical part of this thesis. Comprehensive information about the insureds as well as requirements for the insurance are included in this attachment. The attachment is compiled by the broker to provide a clear and structured picture about the risk in general.

Attachment I - Risk details.pdf

2. Attachment II – Claims analysis

Attachment II – Claims analysis is a separate document provided by broker with detail information for the practical part of this thesis. This attachment contains comprehensive information about loss history. In the practical part of this thesis, information in this document serve as a important input data for underwriting process. The attachment is compiled by the broker.

Attachment II - Claims analysis.xlsx