

ROMUALD HOLLY
ERNIE GRESZTA

Self-insurance as a formula for risk management – a new perspective¹

The article sets together some formulas for risk management that are used to protect a company's operations: mutual insurance, co-operatives, captive insurance, peer-to-peer, risk retention schemes as well as internal risk distribution.

The aim of the article is to recognize how mutual companies and captives differ in risk management, especially what their stronger and weaker sides are in these regards. The analysis has been enriched by the comparison of a captive and mutual insurance company vs. the formula of a joint stock insurance company.

The results of these considerations present some possible reasons as to why and how, after the long period of demutualization that took place on many insurance markets worldwide, there has recently been a significant growth of self-insurance formulas, both mutual insurance and captive. Also, the Polish market has been used as an example to portray the market changes during the last 15-year period.

Keywords: self-insurance, mutual insurance, captive insurance, risk management.

Introduction – what is self-insurance?

Self-insurance has been present for a few thousand years. Its initial development dates back to the times when organized trade began in the old days of merchants joining forces to travel together. Self-insurance evolved over the centuries into more organized formulae. It started from *foenus nauticum* through *Rhodian Sea Law*² to contemporary mutual insurance companies, co-operatives and captive insurers, and most recently to peer-to-peer insurance. Many companies also use risk retention schemes that are sometimes regulated [i.e. special Risk Retention Act in the US]. There are many structured self-insurance formulae in usage in the world.

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1. This study is supported by the Medical University of Lodz – research programme No 502-03/6-06-01/502-64-088.
 2. Encyclopedia Britannica <https://www.britannica.com/event/Rhodian-Sea-Law> [Accessed on January 17th, 2017].

Self-insurance carries the same sense as *general average* in maritime law and, along with it, its evolution led to new business models applied by contemporary companies that set up captives or mutuals in order to manage their risks more professionally.

Self-insurance formula is often described as circumstances in which a person or a business does not conclude insurance agreements with commercial insurers, but instead uses other methods for risk management. The essence of self-insurance is that a person or business entity that faces a potential loss to its own assets and/or business interruption as a result of an unexpected, sudden and accidental event or when it may become liable due to a negligent act and decides to “carry the risk” on its own or within an organized group of people/companies (i.e. group captives) rather than to conclude an insurance agreement with commercial insurance companies.

Self-insurance developed differently in different countries (due to different economic, social and business conditions). Before WWII, self-insurance in Poland in the formula of mutual companies had an equal premium share on the insurance market as joint stock companies. After WWII, the market was taken over by the state-owned insurer. This situation (lack of competition and lack of organized self-insurance) lasted until the early nineties, when the first commercial insurers returned to the market.

The first mutual insurance companies also returned to the market at the same time, however the mutual concept have not regained its pre-WWII significance, while captive insurance companies have not appeared (unless we count EU based captive insurers, which after 2004 gained access to the Polish market under EU rules of freedom of services). There are no local captives in Poland *per se* because there are no specific captive insurance regulations in Poland.

There are only a few Polish companies that have decided to set up their own insurers. A couple of them had to choose the mutual formula (in the absence of a legal captive formula). TUV Cuprum was set up based on a law written for mutual insurers, however, to a large extent, it actually performs the role of captive insurer for its owners (The group of companies of KGHM S.A), which can potentially insure its clients and employees. There is a similar case with TUV Pocztove and most recently, TUV Polski Gas S.A.³

The first *sensu stricto* Polish captive insurer was set up by Orlen S.A. in Malta in 2006, under special captive regulations (“Affiliated companies”) developed in Malta.⁴

Currently, the dominant model in the world of risk management – in the medium to large size company segment – especially in the US, is to insure against potential risks in the formula of a captive insurance company. This means there is a strong market for a captive solution and sufficient awareness among companies-captive owners to form a separate legal entity, which as a captive insurer is involved in risk management for a captive owner. Self-insurance in captive formula has been growing since the 50-ties and has been very successful, with more than 7000 active captive insurers now in the world.⁵

3. IMSIG http://www.imsig.pl/pozycja/2016/211/KRS/355555,POLSKI_GAZ_TOWARZYSTWO_UBEZPIECZE%C5%83_WZAJEMNYCH.

4. Orlen S.A., raporty bieżące <http://www.orklen.pl/PL/RelacjeInwestorskie/RaportyBiezace/Strony/Nabycieudzia%C5%82%C3%B3wsp%C3%B3%C5%82ekOrle.aspx> (Accessed on February 1st, 2017).

5. Aon Risk Solutions, <http://www.aon.com/attachments/risk-services/Aon-Captive-eBook-USltr-17-07.pdf> (Accessed on March 2nd, 2017).

Table 1 Number of insurance captives worldwide

Year	Number of insurance captives worldwide
2009	5525
2010	5587
2011	5831
2012	6125
2013	6412
2014	6839
2015	6939

Source: Business insurance survey

Obviously, there are some people that believe that “captives” had been used long before 50-ties and have had a much longer business and insurance history. Some insurance writers go back to ancient times in search of similarities between contemporary group captive owners and traders travelling in those days in organized convoys. However, it is more a contemporary self-insurance trend, dating back to when Frederic M. Reiss, was the one who coined the term “captive” and a presented the concept of owning an insurance company to his first client, the Youngstown Sheet & Tube Company in Ohio in the 1950s. Later on, in 1962 F.M. Reiss created the first captive management company, International Risk Management Limited (IRML) in Bermuda to provide administration services for his clients’ captives (IRML is now part of Aon Corporation).

For the purpose of this article, a risk is understood as:

- the probability of the materializing of an undesirable event **and**
- the probability of the occurrence of loss (as a result of that event) which violates the interests of an entity and is always in reference to particular events, which when materialized lead to the possibility of losses being caused,

While risk management in practice is stimulating:

- the probability of the materializing of particular undesirable events **and**
- such influencing of the course of undesirable events that their effects do not violate the interests of those that are subjects to them”.⁶

Every company faces uncertainty and risk.

In Frank Knight’s work “Risk, Uncertainty and Profit”⁷, he expressed opinion that uncertainty is not measurable (non-quantitative) but risk can be measured (probability). The sources of uncertainty are not defined and therefore it is next to impossible measure it. However, any new information received can remove or reduce uncertainty. “New information also provides the risk manager with greater insights into the risks facing an enterprise. The organizational treatment of information and a systematic approach to learning are key competencies”⁸

6. R Holly, *Zarządzanie ryzykiem – czyli czym?* [in: *Rynek ubezpieczeń. Współczesne problemy*, ed. W. Sułkowska, Diffin, Warszawa 2013, available at <http://cyfroteka.pl/catalog/ebooki/02014003/020/ff/101/OEBPS/Text/section004-001.xhtml> (Accessed on 8 December, 2016)

7. F.H. Knights, *Risk, Uncertainty and Profits*, REPRINTS OF ECONOMIC CLASSICS, Augustus M. Kelley, Bookseller New York 1964.

8. R. Walker, *Winning with Risk Management*, World Scientific, Singapore 2013.

1. Formulas considered by many stakeholders as a form of self-insurance

Mutual insurance company

A mutual insurance company is technically owned and controlled by its policyholders. However, no single policyholder, who is merely a mutual insurance company's policyholder, exercises control of the company. The policyholder may be asked to vote on matters requiring policyholder action. This usually means that the policyholder will be presented with a proxy and advised by the board that runs the company as to how to exercise its vote. As soon as an insurance agreement ceases, so does the policyholder's ownership status. A policyholder has not invested any assets in the mutual insurance company and does not actively participate in running it. The goal of the mutual insurance company is to provide its members insurance coverage at or near cost, since any dividends that are paid back to members represent excess premium payments.

There is substantial Polish and foreign literature on mutual insurance companies. A few examples include publication of prof. M. Płonki⁹ (one of many), prof. Kuchlewskiej¹⁰ and Małgorzaty Rutkowskiej.¹¹ On the other hand, an example of an American publication, which places mutuals against stock insurers and presents conflict of interest among policyholders and owners of a stock company.¹²

Insurance co-operative

The idea behind an insurance cooperative is to bring a lower cost of insurance cover based on a non-profit assumption to people that believe in the concept that group members should look after each other. According to this definition from Japanese cooperative insurance associations, a co-op insurer is defined as follows "*Cooperative insurance is a mutual aid system where the members share their premium to establish mutual assets, and the funds are paid out at times of unexpected contingencies to compensate for financial deficit and stabilize the lives of members and their families in preparation for various risks that jeopardize daily life, from death, hospitalization or housing damage to traffic accidents*".¹³ One of the most recent example about insurance cooperatives was proposed in the US Senate as an alternative to the ACA plan. Cooperatives, structured as non-profits and owned by their members, could offer a network of health care providers or contract out for medical services.¹⁴ According to this link, such co-ops have been created in 24 US States.¹⁵

9. M. Płonka, *Determinanty konkurencyjności towarzystw ubezpieczeń wzajemnych w Polsce*, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2013.

10. M. Kuchlewska, „*Odwzajemnianie*” towarzystw ubezpieczeń wzajemnych w Polsce, „*Rozprawy Ubezpieczeniowe*”, 2010, nr 9 [2].

11. M. Rutkowska, *Towarzystwa Ubezpieczeń Wzajemnych. Społeczne aspekty funkcjonowania w ubezpieczeniach zdrowotnych*, PWN, Warszawa 2006.

12. Instead of many see R. MacMinn, Y. Ren, *Mutual versus Stock Insurers: A Synthesis of the Theoretical and Empirical Research*, "Journal of Insurance Issues", 2011, vol. 34 [2].

13. Japan Co-operative Insurance Association Inc. <http://www.jcia.or.jp/english/aci1/> [Accessed on January 20th, 2017].

14. Health Insurance.org <https://www.healthinsurance.org/glossary/insurance-cooperatives/> [Accessed on January 20th, 2017].

15. Health Insurance.org <https://www.healthinsurance.org/faqs/what-are-consumer-operated-and-oriented-plans-co-ops-how-are-they-different-from-plans-in-the-health-insurance-exchanges/> [Accessed on January 20th, 2017].

Insurance captive

The term captive is used nowadays with a few different meanings. In the finance and insurance context it is mostly used in the following two meanings:

A captive finance company is a subsidiary whose purpose is to provide financing to customers buying a parent company's products or a captive insurance company as a subsidiary that provides risk management services for its parent company or for a group of companies (captive owners).

A captive insurer is defined as an insurance company that is wholly owned and controlled by its policyholders and insureds; its primary purpose is to insure the risks of its owners, and its insureds benefit from the captive insurer's underwriting profits.¹⁶

Captive insurance is primarily utilized by insureds that choose to:

- 1) Put their own capital at risk by creating their own insurance company (in mutual insurance, policyholders do not put in their own capital)
- 2) Usually choose to act outside of the commercial insurance marketplace (as a rule mutuals act on the open market)
- 3) Achieve their own risk management objectives (as a rule, risk management has stronger drive in captives vs. mutuals, because captives are funded by their owners with the purpose of managing their losses and profit from owning the captive).

There are many more formal and more detailed definitions, which come from either international organizations (i.e. from the OECD) or from particular countries' tax and insurance legal regulations (domiciles) or else from within insurance theorists.

The OECD understands captive as "*a wholly owned subsidiary of a multinational group of companies which exclusively insures or reinsures the risks of companies that belong to the group. A captive insurance company is usually established in a low-tax country*". Whether premiums paid to captive insurance companies by their owners are recognized as business expenses depends on the tax laws applicable to a captive owner.¹⁷ This definition does not reflect the business realities or legal regulations of many different jurisdictions, including United States. First of all, captives are more and more often owned by local companies (not international), even of a medium size [do not need to be multinational groups], and can be often organized on group bases (many different and unrelated owners that decide to pool the funds together).

There is more on captives in Polish literature, i.e., in Andrzej Liwacz's work of "Zakład ubezpieczeń typu captive" [An insurer of a captive type]¹⁸ and in "Zarządzanie ryzykiem w przedsiębiorstwie" [Risk management in a company], which state that events may result, on one hand, from the area of exposure, with its preconditions and factors, and, on the other, from the area of susceptibility, in which concrete values and processes that interact with each other exist.¹⁹

16. Captive.com <http://www.captive.com/resources/captive-insurance-basic-information-index/what-is-captive-insurance> [Accessed on January 20th, 2017].

17. OECD, Glossary of tax terms, OECD 2015, <http://www.oecd.org/ctp/glossaryoftaxterms.htm#c> [Accessed on December 8th, 2016].

18. A. Liwacz *Zakład ubezpieczeń typu captive*, [in:] *Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa*, t. I: *Podstawy*, eds. B. Hadyniak J. Monkiewicz, Poltext, Warszawa 2010, s. 161–182.

19. B. Hadyniak, *Zarządzanie ryzykiem w przedsiębiorstwie* [in:] *Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa*, t. I: *Podstawy*, B. Hadyniak J. Monkiewicz (eds.), Poltext, Warszawa 2010, s. 31–52.

Peer-to-peer insurance (P2P)

P2P is a reciprocity insurance contract that uses the collaborative consumption concept. This type of risk sharing has become the most recent insurance phenomena in some markets. Groups of associated or like-minded individuals pool their premiums together to insure themselves against certain risks. Peer-to-peer insurance mitigates the conflict that arises between a traditional insurer and policyholder, when an insurer keeps the premiums and it doesn't deliver fully on its promise to fully pay out claims on time or offer premium credits to insureds that are claim-free. P2P is sometimes also referred to as social insurance.²⁰ The perceived lack of transparency from insurers and the high cost of insurance premiums leads many people, especially the younger generation, to use this new and attractive form of self-insurance.

There are two market examples of P2P. The German Friendsurance represents one model based on an insurance broker formula. It is an example of one of the most successful P2P self-insurance solutions in Germany <http://www.friendsurance.com>. In the broker model, insurance policyholders form small groups online. Part of an insurance premium is paid into a group fund, the part to a third party insurance company. Minor losses of insureds are paid out of the group fund. For claims above the deductible limit, a regular insurer is called upon. When there is no insurance claim during a policy term, policyholders receive their share back. It is refunded from the group pool or credited towards the next policy year. If the group pool happens to be empty, a special insurance policy comes into force.

Another well-known P2P example is Lemonade.inc from the USA, which operates as an insurance company. It received financial backing from Berkshire Hathaway and the largest reinsurers on the market.²¹ <https://www.lemonade.com>. Obtaining investment funds from such sources as Berkshire Hathaway and large reinsurers means there are serious investors who believe in the P2P concept. In the case of P2P organized by insurer vs. by an insurance broker, policyholders contribute to the pool of premium within an insurer, and if the pool is insufficient to pay for the claims of its members, another insurer pays the excess from its retained premiums and/or reinsurers step in. If the pool is sufficient and there is money left at the end, then premium credits or funds are available to policyholders.

An insured group could also be set up by policyholders who, e.g., form a social network.

In the broker model, the only requirement is that all group members must have the same type of insurance. Examples are personal liability and household insurance. The peer-to-peer insurance broker concept carries no costs other than abovementioned special pool of funds if it becomes exhausted. Supplying brokers are financed through the brokerage commissions of insurance companies, which should be disclosed to policyholders.

In the insurance company model, the only requirement is that group members have something in common, such as, e.g., being members of the same organization (association, club, charity etc.), profession, place of residence or employment. This concept carries no cost other than fixed fees to cover insurers' operational management expenses and the cost of reinsurance.

20. Investopedia <http://www.investopedia.com/terms/p/peertopeer-p2p-insurance.asp> [Accessed on January 20th, 2017].

21. PR newswire <http://www.prnewswire.com/news-releases/lemonade-is-backed-by-berkshire-hathaways-national-indemnity-and-lloyds-of-london-568159441.html> [Accessed on January 20th, 2017].

The goal of the P2P solution is to strengthen the sense of responsibility within an insured pool of a group of people, introducing a risk management approach (a willingness to learn about it), while minimizing the number of fraudulent cases. In theory, it should prevent or lessen the number and weight of fraud cases, which is less likely within a group of individuals who either know each other or are somehow related.

P2P as a concept should also work for certain SMEs and also further promote “self-insurance” awareness and opportunities that come from a group form, and eventually may cause some premiums to be steered away from commercial insurers. P2P has already present in a few EU countries, in the USA and China.

Risk retention schemes

Many companies evaluate what is more efficient for them – the purchase of insurance policies or other risk transfers solutions or risk retention. The amount of risk to be retained by a company is very often weighed against premiums and the other potential savings for retaining risk (additional tax savings, i.e., no insurance premium tax). It is less common to find companies that make risk transfer vs. risk retention decisions based on their entire portfolio of insurance and other risk-transfer solutions. However, doing so could help companies derive more value to gain from their risk-bearing capacity. Usually companies retain only the risk they feel most comfortable retaining.

This is a simplified approach of how many companies make decisions on risk retention:

Table 2. Intrinsic risk value

Intrinsic risk value (IRV) = expected losses to be paid in a year's time + loss handling expenses (i.e., usage of external experts) + other expenses (i.e., cost of external recoveries) minus the easier to handle loss or damage process (no insurer involved) and usually faster repair/reinstatement
Insurance premium = 1
If the IRV is lower than the insurance premium <1, then the company retains the risk
If the IRV is higher than the insurance premium >1, then insurance cover from a commercial insurer is purchased

Source: Own table

This approach does not take into account either taxes or companies' financial capacity or risk appetite.

Risk retention is a growing formula. It is obviously less formalized than captives. The negative side of retaining risks is that a company cannot keep any untaxed reserves open and therefore on any positive financial results gained, CIT must be paid, whereas captives can accumulate tax-free reserves over time for future losses. Captives also have access to the reinsurance market, which risk retentions as a rule do not (except in the USA).

It is possible to mix both models, that is, to have a captive insurer domiciled abroad to insure against certain risks, which attract low insurance premium taxes (IPTs) and for risks, which bring high IPTs, to be instead retained locally (no insurance premium as such, therefore no need to pay IPTs). Depending on the level of IPT, and the line of insurance business, the tax saving can reach up to 29% in some EU countries (i.e. motor lines in Belgium).

Internal risk distribution

There are also ways to distribute risks (at the end costs of financing undesirable events) within large international groups. This is based on phony services not performed by companies among each other, and within multinational groups. It is obvious that there are certain risks that are more likely to occur in certain territories, e.g., earthquakes, floods or hail storms, whereas in others, obstructive local government and tax authorities, kidnapping or even cyber risks are more likely. What happens then is that a group company that suffers a loss and needs funds to cover a loss can deliver phony services to another entity in the world, which happens to be in a good financial position in a particular year and therefore is possibly in a higher local tax bracket. The loss-suffering company issues invoices, which are paid, and at the same time there is a lower pre-tax result for another entity elsewhere. There is a double positive effect in such a scheme. There are local risk retentions in place but also serious tax optimizations available. Tax authorities try to prevent these schemes, but it will be some time before their efforts have an effect.

2. How mutual companies and captives differ in risk management?

In principle, mutual insurers by their nature are less likely to successfully enforce good risk management practices into the activities of their clients and owners. This is because policyholders are owners of a mutual insurer only for as long as they have a valid policy. The relatively short-term commitment is the key reason for having less risk management effort (as a rule). In practice, the management of mutual insurers can make the same or better efforts than captive owners, as long as there is knowledge of risk management, there is a will to take action, and it is supported by its official policy with actions. This also helps when policyholders receive additional incentives through premium ratings, or otherwise, to accept the required change in their behaviour and activities.

Captive insurers, in theory, should have a much better chance of being seriously involved in risk management, as long as the reasons behind their formation are not limited to improving the cash management of a captive owner, but also include risk management (although the purposes for the creations for many captives, in the past, has often been more towards improved “cash management” obtained in domiciles with lower corporate tax). In general, since captive owners set up captives with longer time perspectives and own them for a longer time than a policy term’s duration (unlike in the case of mutuals), then risk management initiatives should be more widespread and better funded and have longer-term perspectives and engagement.

As mentioned above, mutual insurers have had a long tradition in Poland, whereas there are only a few insurance captives owned by local Polish companies (however there are many more captives that conduct business in Poland based on EU rules of freedom of services). These captives insure the businesses of their owners and provide risk management support for all foreign-owned companies that are also set up in Poland.

Mutual insurers in Poland enforce the formula (legal and organizational) that is the most similar to older concepts of insurance, i.e., being able to compensate losses at the lowest possible cost (the most efficient and cost effective way). This has been usually the case for the last couple of centuries, for as long as there has been a sense of belonging of the appropriate number

and kind of policyholders-members to the insured pool and an understanding of the common interest in commonly taken actions.

In the case of mutual insurers, premiums are usually more adequate to the cost of claims, whereas for commercial insurers this depends more on current supply and demand in a market for a particular insurance coverage.

Each of the above self-insurance solutions has its stronger and weaker sides in terms of risk management.

Other formulas present on the market are called alternative risk transfers (i.e., finite reinsurance, derivatives, P2P etc.) and are either based on external capital (as in the case of joint stock insurers) or are based on mutual-type rules for commonly managed pools of premiums and risks. From this point of view, captives should be treated as mutual companies, equally the same in the case of pure captives and group captives (i.e., for risk-sharing among members of associations).

Even when mutuals or captives are not able to insure certain risks, they can support owners with typical risk management roles such as:

- Identifying risks
- Analysing risks
- Evaluating and ranking risks
- Treating risks
- Monitoring and reviewing risks

Next, mutuals, but more so captives, are able to support their owners with the development of a strategy for managing risks, which typically include:

- Risk acceptance and management of retained risks
- Risks avoidance
- Risk mitigation (reducing potential negative effects or the probability of risk occurrence)
- Ceding all or part of a risk to another party (i.e., from captives to reinsurers)
- Exploiting risks (turning negative risks into positive opportunities)

Captives, as a rule, have fewer owners than mutuals, and are therefore also more likely to perform all of the above.

3. Enterprise Risk Management (ERM)

In August 2004, the Treadway Commission's Committee of Sponsoring Organizations (COSO) issued its *Enterprise Risk Management (ERM) – Integrated Framework*. The project was completed after three years. It is believed that the integration of ERM implementation should be considered as necessary within company strategy setting.²²

Aligning risk management with a company strategy is based on selecting those risks which decision makers agree as identified and acceptable and/or those that management believes to be the ones that can bring attractive opportunities. However, besides the so called explicit risk, there are also implicit ones that play a key part in active risk management. There are also embedded risks that are hidden and more difficult to be identified and accepted.

22. Protifiti Risk Consulting, *Guide to Enterprise Risk Management*, 2006, available only on-line, at http://www.ucop.edu/enterprise-risk-management/_files/protiviti_faqquide.pdf (Accessed December 15th, 2016).

The setting of company strategy in risk management should consider decisions as to whether or not to form an insurance captive or to more actively use an existing captive for risk management purposes. A captive should become part of a company's insurance strategy towards risk management.

Insurance captives can support their owners in their Enterprise Risk Management (ERM) programs for the following reasons:

- I. Captives should have good recognition of what risks can be insured and/or self-insured. This is on the condition that a captive fulfils its role well and it has better risk recognition particular to a certain activity than most other commercial insurance entities. ERM is about understanding balance sheet management and how to manage risks.
- II. Management boards of insurance captives consist of people with cross-industry experience and backgrounds. Appropriate ERM should be addressed through focused internal resources, including board members. Broad business views are always necessary to manage company risks.
- III. Most captives manage claims professionally. Many captives also manage claims with utmost efficiency, because they are managed to the benefit of captive owners. Claim management expertise is needed to implement a successful ERM strategy.
- IV. Captives are qualified at risk quantification and pricing. Good pricing knowledge is needed for risks to be priced appropriately; also, when a risk may seem as uninsurable in the commercial marketplace, it may very well be insurable on the reinsurance market, after a certain part of it is retained by a captive.

Captive as a formula for risk management and an incentive for loss control (Enhanced loss prevention and claim management).

The advantage of risk management opportunities offered by a captive should be very interesting for every responsible company with a mature approach to risk management and which takes a conscious decision to form a captive, primarily to fully explore it for risk management purposes. This is the case for companies that understand a captive's role as a solution that goes beyond a mere profit centre registered in a domicile with lower tax. Retaining risks does not bring uncertainty for those who think of the opportunities it offers rather than the threats. Motivation for enhanced loss prevention and improved claim management comes from the fact that a captive's technical result becomes, in the end, a direct financial benefit for a captive's owner.

A company's decisions on whether to step into self-insurance (captive, mutual or another formula) are made by taking into account many variables, including the value to be gained from risk management advice and services. An excellent example of step-by-step decision making toward self-insurance has been covered by the main work on captives by Paul Bawcutt.²³

4. Self- insurance in Poland

As mentioned above, there are only a handful of "captives" registered in Poland. They operate under the regulations for mutual insurers (TUW) because there is no special act of law and no regulations about captives in Poland. This is why, the "captives" above is in quotation marks.

23. P. Bawcutt, *Captive Insurance Companies*, 4th Edition, London 1997, page 80.

There are many more “true” captives that have been set up under special captive laws in other EU domiciles (as limited liability or joint stock companies or cell companies). These operate in Poland under the rules of freedom of services, or else they write insurance risks on fronting agreements made with other insurers already active locally.

The amount of premium written by non-Polish captives in Poland is unknown, largely because premiums transferred abroad are not reported locally and are not subject to insurance premium tax. Therefore, the fiscal authorities in Poland do not know how much of a premium goes abroad to captives. This would be known if there were insurance premium tax in Poland (even minimal).

There is even less knowledge on captives’ risk a management activity, because it is not shared openly in the media or among competitors.

Any differentiation between “captives” (as mutual insurers) and “true captives” (formed under captive regulations) matters only from the legal point of view. From the economical point of view, retaining risks and earning premiums via specially formed insurers for the purpose of self-insurance, whether this is done by using a mutual or captive insurer, makes no difference.

When it comes to a market premium share written by mutuals, this has increased in Poland in the last 10 years (by approximately 10 times); however, it is still at an insignificant level of under 3% of the total yearly premium written in the country. Therefore, mutual insurers need to do much more in order to catch up with joint stock companies on the market.

Table 3. Premiums written by mutual insurers registered in Poland

Legal form	Gross written premium (in PLN k)		Share of total premium (%)		Gross written premium (in PLN k)		Share of total premium (%)	
	2002	2003	2002	2003	2012	2013	2012	2013
Joint stock insurance company	22 938 979	24 583 280	99,48	99,31	61 320 947	56 334 332	97,87	97,28
Mutual insurers	120 988	172 830	0,52	0,69	1 306 180	1 532 258	2,13	2,72

Source: Own table

According to the data above, in the period of 11 years (between 2002–2003 and 2012–2013), there has been a substantial growth in the market share of mutual insurers, from 0.52% of market share to 2.72%, however still remaining on a relatively low level to certain more developed markets.

There are currently 9 mutual insurers (including the latest registration of TUW Polski Gas in Q4 2016).

Worldwide, after a long period of demutualization, there has been, in recent years, a significant growth of mutual insurers, for a few reasons. Those mentioned in the ICIMF report are:

- Generally lower premiums from mutual insurers than from joint stock insurers
- Diminished trust in joint stock insurers after the last financial crisis
- Less of a ‘greed culture’ among mutual insurers

The ICIMIF report published in 2011 shows nearly a fifth of the world’s top mutual and co-operative insurers experienced double-digit premium growth in 2011, with 33 companies growing by over 20 per cent. The report lists 3300 mutuals and co-operative insurers active in 77 countries.²⁴

24. International Cooperative Alliance <http://ica.coop/en/media/news/top-500-list-shows-growth-mutual-insurers>. Accessed on 03.03.2017.

Summary

Many companies, even very small ones, whether consciously or not, make certain risk management decisions, including decisions on what insurance cover to purchase (if any) and from whom to purchase it. Often, decisions are only about whether to insure against a certain risk or not, without actually thinking about prevention, risk retention or creating a special fund for the purpose of financing this, should a risk materialize.

If a company moves to a self-insurance decision making level, this is on a more conscious level, when initially only funds are set aside or lines of credit are arranged at a bank, should a large uninsured loss occur.

The next level is to involve a professional risk manager and/or captive advisor, a specialized lawyer or international broker, who does an entire overview of the business risks and other risks and suggests a program with a certain level of self-insurance (i.e., via deductibles or aggregate deductibles or fully-fledged risk retention scheme). It always helps to develop active prevention program when retaining risks, but also when traditional insurance is in place or a mixed approach is used (insurance and risk retention).

When we move to the level of large or large multinational companies, the majority of them have insurance managers and/or risk managers who are active in risk management areas. Here, there is already a sufficiently large awareness of self-insurance formulae and known benefits associated from using them. Very often, there is also an owned captive insurer in existence.

The amount of risk retained (value) by companies grows every year, as is the amount of potentially unpaid insurance premiums to commercial insurers (which must worry them). There are more active captive insurers and risk retention schemes in the world right now than ever before.

There are also new formulae appearing on the market, such as, e.g., the peer-to-peer (P2P) insurance formula that has surfaced in recent years in many countries. However, it is difficult to assess future potential of P2P. A lot will depend on consumer trust put in P2Ps and on future clients' experience with making claims. If P2P does not provide any better service than commercial insurers (even with lower premium costs than market insurers), then policyholders might turn away from P2P; however, the strong growth in the usage of self-insurance formula for risk management in the medium to large companies segment is most likely not stoppable. The financial benefits are obvious and so are risk management advantages. Improving processes and achieving better financial results are ongoing targets for most, if not all self-insurance operations.

References

- Aon Risk Solutions, <http://www.aon.com/attachments/risk-services/Aon-Captive-eBook-USltr-17-07.pdf>
- Bawcutt P., *Captive Insurance Companies*, 4th Edition, London 1997
- Captive.com <http://www.captive.com/resources/captive-insurance-basic-information-index/what-is-captive-insurance>
- Encyclopedia Britannica <https://www.britannica.com/event/Rhodian-Sea-Law>
- Hadyniak B. *Zarządzanie ryzykiem w przedsiębiorstwie [in:] Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa, t. I: Podstawy*, eds. B. Hadyniak J. Monkiewicz, Poltext, Warszawa, 2010

- Health Insurance.org <https://www.healthinsurance.org/glossary/insurance-cooperatives/>
- Health Insurance.org <https://www.healthinsurance.org/faqs/what-are-consumer-operated-and-oriented-plans-co-ops-how-are-they-different-from-plans-in-the-health-insurance-exchanges/>
- Holly R., *Zarządzanie ryzykiem – czyli czym?* [in:] *Rynek ubezpieczeń. Współczesne problemy* W. Sułkowska, Diffin, Warszawa, 2013
- IMSIG http://www.imsig.pl/pozycja/2016/211/KRS/355555,POLSKI_GAZ_TOWARZYSTWO_UBEZPIECZE%C5%83_WZAJEMNYCH
- International Cooperative Alliance <http://ica.coop/en/media/news/top-500-list-shows-growth-mutual-insurers>
- Investopedia <http://www.investopedia.com/terms/p/peertopeer-p2p-insurance.asp>
- Japan Co-operative Insurance Association Inc. <http://www.jcia.or.jp/english/aci/1/>
- Knights F. H., *Risk, Uncertainty and Profits*, REPRINTS OF ECONOMIC CLASSICS, Augustus M. Kelley, Bookseller, New York, 1964
- Kuchlewska M., „*Odwzajemnianie*” *towarzystw ubezpieczeń wzajemnych w Polsce*, „*Rozprawy Ubezpieczeniowe*”, 2010, 9[2]
- Liwacz A., *Zakład ubezpieczeń typu captive*, [in:] *Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa, t. I: Podstawy*, eds. B. Hadyniak J. Monkiewicz, Poltext, Warszawa, 2010
- MacMinn R., Ren Y. *Mutual versus Stock Insurers: A Synthesis of the Theoretical and Empirical Research*, *Journal of Insurance Issues*, 2011, vol. 34 [2]
- OECD, *Glossary of tax terms*, OECD 2015 <http://www.oecd.org/ctp/glossaryoftaxterms.htm#c>
- Płonka M., *Determinanty konkurencyjności towarzystw ubezpieczeń wzajemnych w Polsce*, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2013
- Protifiti Risk Consulting *Guide to Enterprise Risk Management*, 2006, available only at http://www.ucop.edu/enterprise-risk-management/_files/protiviti_faqguide.pdf
- Rutkowska M., *Towarzystwa Ubezpieczeń Wzajemnych. Społeczne aspekty funkcjonowania w ubezpieczeniach zdrowotnych*, PWN, Warszawa 2006
- Walker R., *Winning with Risk Management*, World Scientific, Singapore 2013

Samoubezpieczenie jako metoda zarządzania ryzykiem – nowa perspektywa

Artykuł przedstawia metodę samoubezpieczeniową, wykorzystywaną do zabezpieczenia działalności operacyjnej przedsiębiorstwa (lub grupy przedsiębiorstw) przed wystąpieniem finansowych skutków zdarzeń losowych. O samoubezpieczeniu, mówimy gdy przedsiębiorstwo (lub grupa przedsiębiorstw) tworzy własny zakład ubezpieczeń (w dalszym ciągu istnieje umowa ubezpieczenia, tyle że z podmiotem, który jest własnością ubezpieczającego się w nim przedsiębiorstwa).

Wykorzystując metodę samoubezpieczeniową przedsiębiorstwa na świecie tworzą różne podmioty np. *captive*, TUV-y, podmioty spółdzielcze, ubezpieczenia peer-to-peer, programy zatrzymania ryzyka oraz wewnętrzne systemy dystrybucji ryzyka (pomiędzy spółkami w grupie).

Celem artykułu jest wskazanie różnic pomiędzy *captive* a TUV-em w zakresie zarządzania ryzykiem. Autorzy prezentują także możliwe powody dla których po długim procesie demutualizacji nastąpił powrót do rozwiązań samoubezpieczeniowych na świecie.

Słowa kluczowe: samoubezpieczenie, zatrzymanie ryzyka, captive, TUW.

DR HAB. ROMUALD HOLLY, PROF. SGH – Collegium of Socio-Economics, Warsaw School of Economics; Department of Health Care Policy, Medical University of Łódź.

ERNIE GRESZTA – PhD student, Collegium of Socio-Economics, Warsaw School of Economics; Master of Law (Maria Curie-Skłodowska University in Lublin).