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**REINSURANCE MANAGEMENT IN INSURANCE  
COMPANIES IN CASE OF GENERAL THIRD PARTY  
INSURANCE**

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**Key words:** reinsurance and its types, general third party insurance, risk.

**A b s t r a c t**

The aim of the study was to assess the methods of reinsurance management in insurance companies operating in the Polish market during the years 2004–2008. Determination of reinsurance applied by insurance companies in each of the eighteen groups of section II insurance types (according to the Act on insurance activities), including also the discussed group thirteen, i.e. in general third party insurance nit included in groups from nine through twelve was the base for the assessment. Each reinsurance type defines the risk sharing, that is the liability of the insurance company (the assignor) and reinsurer in case of insurance damage, in a different way. The reinsurance method and the scope of damage also influence the reinsurer's commission and the share in profits of the reinsurers that insurance companies receive from the reinsurers. The values of those financial parameters have a very large influence on the operational results of insurance companies as concerns the balance or reinsurance operations, which should oscillate around zero in a longer time perspective.

**ZARZĄDZANIE REASEKURACJĄ W ZAKŁADACH UBEZPIECZEŃ W PRZYPADKU  
UBEZPIECZENIA ODPOWIEDZIALNOŚCI CYWILNEJ OGÓLNEJ**

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**Słowa kluczowe:** reasekuracja i jej rodzaje, ubezpieczenia odpowiedzialności cywilnej ogólnej, ryzyko.

**A b s t r a c t**

Celem badań jest ocena sposobu zarządzania reasekuracją w zakładach ubezpieczeń działających na rynku polskim w latach 2004-2008. Podstawą oceny jest ustalenie rodzaju reasekuracji stosowanych przez zakłady ubezpieczeń w każdej z osiemnastu grup działu II ubezpieczeń (według

ustawy o działalności ubezpieczeniowej), w tym również w omawianej grupie trzynastej, czyli w ubezpieczeniach odpowiedzialności cywilnej ogólnej, nie ujętych w grupach od dziesiątej do dwunastej. Każdy rodzaj reasekuracji inaczej określa sposób podziału ryzyka, a tym samym sposób odpowiedzialności zakładu ubezpieczeń (cedenta) i reasekuratora w przypadku wystąpienia szkody u ubezpieczonego. Sposób reasekuracji oraz zakres szkody wpływa też na wielkość prowizji reasekuracyjnej i udział w zyskach reasekuratorów, jakie zakłady ubezpieczeń uzyskują od reasekuratorów. Wartości tych wielkości finansowych mają bardzo duży wpływ na wyniki działalności zakładów ubezpieczeń w zakresie m.in. uzyskiwanego salda operacji reasekuracyjnych, które w dłuższym czasie powinno oscylować wokół zera.

## Introduction

Reinsurance is the contract made between the insurer and the reinsurer according to which the division or assignment of risk takes place in such a way that the insurer still remains solely and exclusively responsible directly to the insured (MONKIEWICZ 2000, p. 126). The parties to the reinsurance contract are the insurer (insurance company) that is referred to as the assignor (as it assigns, i.e. transfers a part of the insurance contracted) and the reinsurer, which any professional reinsurer or any insurance – reinsurance company licensed for reinsurance activities can be, that accepts from the assignor a part of the insurance contracted or of a set of insurance contracts made (DARUL 1994, p. 11). The reinsurance contracts contain the same basic elements as the insurance contract, i.e. the risk, premium and benefit. Additionally, the same basic principles as in case of the insurance contracts, that is the principle of good will, the principle of indemnity and the principle of the so-called interest in the insurance apply to reinsurance contracts (DUDKOWIAK 1994, p. 214). The fundamental difference between those contracts is that no legal relation is established between the insuring and the reinsurer as a consequence of the reinsurance contract although the insurance and reinsurance are harmonized with one another and are mutually complementary. The insurance fulfils the same role as the reinsurance because the insurance fulfils the role of a factor protecting the economic stability of the entity insured and reinsurance fulfils the role of the factor protecting the financial stability of the insurer, that is it provides the insurer protection equivalent to that provided by the insurer provides to its insured. It is believed that stabilisation of the insurer's financial results is the most important function of reinsurance. Contemporary insurances could not exist without reinsurance, particularly in case of encompassing risks of catastrophic character with insurance coverage as reinsurance allows balancing the fluctuations in the financial results of insurance activity resulting from occurrence of catastrophic risks insured. The same situation could also appear in case of immense concentration of ordinary (normal) risks, such as, for example, risks concerning general third party liabilities of the insured realised within a certain period of time.

## **Methodology and objective of study**

Obtaining knowledge on and assessment of the reinsurance management methods in insurance companies operating in the Polish market during the years 2004–2008 was the main objective of the study. The studies were conducted during the second half of 2008. Until now data was obtained from insurance companies with almost 70% total share in the section II insurance market that encompasses the other personal and property insurance (*Act... 2003*). Determination and assessment of the reinsurance types applied by the insurance companies in each of the eighteen groups of section II insurances, including the here discussed group thirteen (i.e. general third party insurance not included in groups 10–12) and determination of their influence on the financial results of the insurance companies as concerns, among others, the balance of reinsurance operations obtained, was the special objective of the study.

### **Group 13. Third party insurances (general third party insurances) not included in groups 10–12**

Third party insurance (OC) (general third party insurances) are the insurances included in group thirteen and not included in groups ten (i.e. third party insurances of all types resulting from possession and operation of land motor vehicles, including the insurance of the carrier's liability), eleven (i.e. third party insurances of all types resulting from possession and operation of aircrafts, including the carrier's liability) and twelve (third party insurances of all types of maritime and inland navigation operations resulting from possession and operation of inland and maritime vessels, including insurance of the carrier's liability), that cover many other groups of insurances. Those include, for example, the professional indemnity cover (OC) of different professional groups, including indemnity cover of brokers, court enforcement officers, organizers of mass events, organizers of tourism, indemnity cover of some legal professions (notaries, advocates, legal advisors), indemnity cover of tax advisors or indemnity cover of entities accepting orders for providing health services for damages caused in providing those services. There are also so-called contractual insurances, i.e. for example, indemnity cover for nuclear damages, indemnity cover for oil damages (*International... 1969*), and product indemnity cover (the liability of the producer for damages to people or property incurred by third parties as a consequence of using, applying or consuming the product specified in the insurance contract is the subject of that insurance). Third party insurances of individuals in private life (third party tortuous insurance) represent a separate group. Protection of the property interest of

the insured is the basic objective of the third party insurance. It is also assumed that the third party insurance also protects the property of the victim, as the nature of the insurance cover represents assuring performance of the liability to the victim, even when the value of damages exceeds the capacity of the party that caused those damages (the insured). When the damages disbursed by the insurance company are lower than the actual value of the damage, the debtor, and at the same time the insured, can be committed to cover that difference (*Podstawy...* 2002). In this case we deal with protection of the victim against insolvency of the cause of the damage (the insured). As a consequence of the regime of liability, third party insurances are divided into the third party tortuous insurances and third party contractual insurances. The third party tortuous insurance, i.e. insurances of the liability resulting from a prohibited act, include, for example, third party insurance of real property owners, third party insurance for hunters or amateur sportsmen. On the other hand the examples of the third party contractual insurances covering damages caused as a consequence of non-performance or inappropriate performance of a commitment include insurances covering operation of hotels, pensions, inns and other similar facilities or insurance of non-performance or inappropriate performance of a trade contract. In the European insurance statistics the general third party coverage includes mainly the liability in private life, liability for public activity and product liability, so it represents a slightly different type of classification than that assumed in the Polish Act on insurance activity, which also includes the professional indemnity cover of professional groups.

### **Reinsurance in group 13 of insurances, that is in third party insurances (general third party insurances) not included in groups 10–12**

In reinsurance practice different forms, types and kinds of reinsurance contracts have developed. The basic reinsurance forms are the facultative reinsurance, compulsory reinsurance and facultative-compulsory reinsurance. In the facultative reinsurance contract each risk (or group of risks) is reinsured individually and the level of reinsurance premium is independent of the premium collected by the insurer from the insured. This means that those contracts leave to the parties the total freedom of decision concerning both the offering of the share in a given risk by the insurer (assigner) to the reinsurer and to the reinsurer as concerns acceptance of the share offered. In the compulsory reinsurance contract the insurer (assigner) commits itself to transfer and the reinsurer to accept all the risks specified in the contract. The reinsurer automatically covers all the risks specified in the contract. The

facultative-compulsory reinsurance contracts are also called the open cover contracts leaving to the insurer the freedom in deciding which risks and to what extent it wants to assign the shares to the reinsurer while the reinsurer is committed to accept the shares assigned to it on terms and conditions agreed in advance.

Considering the method of risk sharing between the insurer (assigner) and the reinsurer the reinsurance contracts are divided into proportional and non-proportional ones (KOWALEWSKI 2006, p. 471). The size of the insurance sums is the subject of proportional reinsurance while the share of the reinsurer in each risk is fixed as a specified proportion to the own share of the insurer. Also the share of the reinsurer in premiums and damages is set at the same proportions as his share in the risk. In non-proportional reinsurance the damage or loss burden is the subject of reinsurance, that is the individual risks (insurance sums) are not assigned for reinsurance and only the participation method of the reinsurer in damages is set. This not only simplifies servicing of non-proportional reinsurance contracts as compared to the proportional ones, but also secures the insurers (assigners) as concerns their financial balance against the consequences of accumulation of average risks. Among the types of non-proportional reinsurance the contracts of non-proportional reinsurance of the surplus of damages per risk or contracts of non-proportional reinsurance of the surplus of damages per event are most frequently applied. In the discussed group of third party insurances no applications of non-proportional reinsurance of the loss burden surplus was found.

## **Results of own studies and discussion**

The basic data characterizing the reinsurance management process in the insurance companies in the Polish market during the years 2004–2008 are presented in Tables 1, 2, 3 and 4, as well as Figures 1 and 2. Table 1 presents the premiums, damages and benefits as well as reinsurance commissions in group thirteen of section II of insurances. It indicates that during the years 2004–2008 gross written premiums increases by 12–16% year to year while the share of the reinsurers in the gross written premium showed the decreasing trend (26,67% in 2004 and 17,68% in 2008). The gross damages and benefits achieved the highest increase in 2005 (42%) and during the consecutive years they stayed at a very similar level while in 2008 they increased by 28%. The percentage share of reinsurers in gross damages and benefits reached the highest level in 2006 (19,60%) and the lowest in 2007 (14,17%). Reinsurance commissions and shares in the profits of reinsurers represent an important item in the finances of the insurers. Their size sometimes exceeds the share of reinsurers in the gross damages and benefits (e.g. for 2004). It is usually so

that the higher the percentage share of reinsurers in the damages and benefits the lower the reinsurance commissions and shares in the profits of reinsurers are. This results, first of all, from the change in the conditions of reinsurance contracts made between the insurers and reinsurers and is a consequence of the analysis of fortuitous events during the preceding years causing the necessity for disbursing damages and benefits at a higher or lower level.

Table 1  
Premiums, damages and benefits as well as reinsurance commissions in group thirteen section II of insurances (general third party insurances) during the years 2004–2008

Item	2004 [K PLN]	2005 [K PLN]	2006 [K PLN]	2007 [K PLN]	2008 [K PLN]
I. Gross written premiums	706 743	821 256	821 373	864 041	973 378
1. Share of reinsurers in gross written premium	160 236	182 688	182 786	168 641	172 120
2. Percentage share of reinsurers in gross written premium	22.67	22.25	22.25	19.52	17.68
II. Gross damages and benefits	187 539	266 702	266 541	261 496	335 643
1. Damages and benefits disbursed from own share	153 712	214 447	214 288	224 448	287 474
2. Share of reinsurers in the disbursed damages and benefits	33 827	52 255	52 253	37 047	48 170
3. Percentage share of reinsurers in gross damages and benefits	18.04	19.52	19.60	14.17	14.35
III. Reinsurance commissions and share in profits of reinsurers	36 926	31 659	31 784	35 955	34 881

Source: own work based on: [www.knf.gov.pl/rynek\\_ubezpieczeń/dane\\_o\\_rynku](http://www.knf.gov.pl/rynek_ubezpieczeń/dane_o_rynku). 17.11.2009.

Insurance companies should monitor continually the profitability of reinsurance operation, in particular the analysis of passive reinsurance profitability, which in a longer time perspective should oscillate around zero percent (*Metodologia...* 2001, p. 112). The passive reinsurance profitability ratio is defined as the ratio of the reinsurance operation balance to gross premiums that is the balance of reinsurance operation within a longer period should oscillate around zero. The quality of reinsurance programs applied by individual insurance companies has a large influence on the level of reinsurance operations balance (CIUMAN 2007, p. 77). According to the data in table 2, the balance of reinsurance operations for group thirteen section II of insurances during the years 2004–2008 was always negative and during the years

2004–2006 showed an increasing trend while during the years 2007–2008 a decreasing one. The period of five years covered by the study for sure is not a longer time perspective, however, it shows the level of the balance, which was not only negative during the consecutive years but also has a relatively high value. This means that insurance companies should prepare their reinsurance programs more carefully so that the decreasing trend of that balance should be visible more clearly because with the current value of that balance even a longer time perspective would not allow obtaining even the estimated value of the reinsurance profitability ratio value close to zero percent.

Table 2  
Simplified balance of reinsurance operations for group thirteen section II of insurances during the years 2004–2008.

Item	Group thirteen section II of insurances (general third party insurances) in individual years				
	2004 [K PLN]	2005 [K PLN]	2006 [K PLN]	2007 [K PLN]	2008 [K PLN]
I. Share of reinsurers in the premium	160 236	182 688	182 786	168 641	172 120
II. Share of reinsurers in gross disbursed damages and benefits	33 827	52 255	52 253	37 047	48 170
III. Reinsurance commissions and shares in the reinsurer's profits received	36 926	31 659	31 784	35 955	34 881
IV. Balance = -I+II+III <sup>a</sup>	-89 483	-98 774	-98 749	-95 639	-89 069

<sup>a</sup> – the balance does not include: 1) the share of reinsurers in the amount of provisions for not disbursed damages and benefits, 2) revenues of the reinsurer from deposits of premium.

Source: own work based on: [www.knf.gov.pl/rynek\\_ubezpieczeń/dane\\_o\\_rynku](http://www.knf.gov.pl/rynek_ubezpieczeń/dane_o_rynku). 17.11.2009.

Table 3 presents the results of studies concerning the reinsurance types applied by insurance companies in group thirteen section II of insurances during the years 2004–2008. Out of the existing types of reinsurance the facultative and compulsory non-proportional reinsurance of loss burden were not applied. Compulsory proportional amount reinsurance followed by the facultative proportional reinsurance had the highest share in the market (from the perspective of the premiums amount). The types of non-proportional reinsurance were the least frequently applied and in this case they were only the facultative non-proportional reinsurance of the surplus of damages and compulsory non-proportional reinsurance of the surplus of damages per event.

Table 3

Types of reinsurance applied in group thirteen section II of insurances (general third party insurances) and premiums passed to reinsurers during the years 2004–2008

Item	Types of reinsurance applied in group thirteen section II of insurances (general third party insurances) during individual years				
	2004	2005	2006	2007	2008
Facultative proportional					
Premiums passed to reinsurers [M PLN]	10.82	9.75	9.78	5.07	9.15
Facultative non-proportional of surplus of damages					
Premiums passed to reinsurers [M PLN]	2.2	0.51	0.60	7.26	2.44
Compulsory proportional amount based					
Premiums passed to reinsurers [M PLN]	41.2	29.2	30.1	29.3	27.9
Compulsory non-proportional of surplus of damages per event					
Premiums passed to reinsurers [M PLN]	2.98	3.01	2.96	3.40	4.43

*Source:* own work based on the author's program "Reinsurance management in insurance companies under conditions of socioeconomic transformation based on the example of Poland during the years 2004–2008" (data from insurance companies with the combined almost 70% share in the market of section II insurances).

Table 4 presents the data in the most typical system of reinsurance by type that is divided into proportional and non-proportional as well as facultative and compulsory reinsurance. The fact that proportional reinsurance (both facultative and compulsory) was many times more extensive in scope (from the perspective of the value of premiums transferred to reinsurers during the years 2004–2005 than non-proportional reinsurance (also see figure 1) deserves noticing. However, as of 2007, the share of non-proportional reinsurance increased significantly. This means that the insurers, increasingly often opt for protection against the consequences of high damages as well as damages of catastrophic character. In this case the reinsurer is responsible for damages higher than the parity and only to the level of the reinsurance coverage limit (coverage layer) while the assigner (insurance company) covers the damages to the parity level and those above the upper limit of the reinsurer's coverage layer. Considering the facultative and compulsory reinsurance, the compulsory reinsurance representing in average around 75% of the reinsurance market had the dominating position (also see figure 2).

Table 4  
Reinsurance types and relations between them and premiums transferred to reinsurers within the frameworks of group thirteen section II insurances (general third party insurance ) during the years 2004–2008

Reinsurance types	Group thirteen section II of insurances (general third party insurances) in individual years				
	2004	2005	2006	2007	2008
Proportional (premium in M PLN)	52.02	38.95	39.88	34.37	37.05
Non-proportional (premium in M PLN)	5.18	3.52	3.56	10.66	6.87
Percentage relations between <i>proportional and non-proportional</i> reinsurance premiums (total 100%)	$\frac{90.94}{9.06}$	$\frac{91.71}{8.29}$	$\frac{91.80}{8.20}$	$\frac{76.32}{23.68}$	$\frac{84.36}{15.64}$
Facultative (premium in M PLN)	13.02	10.26	10.38	12.33	11.59
Compulsory (premium in M PLN)	44.18	32.21	33.06	32.70	32.33
Percentage relations between <i>facultative and compulsory</i> reinsurance premiums (total 100%)	$\frac{22.76}{77.24}$	$\frac{24.16}{75.84}$	$\frac{23.90}{76.10}$	$\frac{27.38}{72.62}$	$\frac{26.39}{73.61}$

Source: own work based on the author's program "Reinsurance management in insurance companies under conditions of socioeconomic transformation based on the example of Poland during the years 2004–2008" (data from insurance companies with the combined almost 70% share in the market of section II insurances).

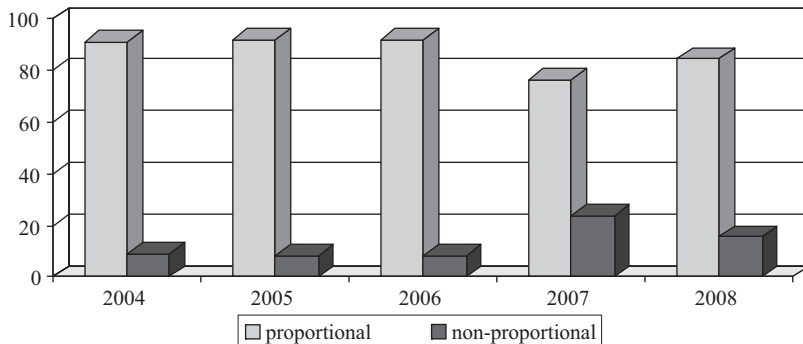


Fig. 1. Percentage share of premiums in proportional and non-proportional reinsurance in group thirteen (general third party insurance) section II of insurances during the years 2004–2008 (total 100%)

Source: own work based on the author's research project concerning the Polish insurance market in the aspect of reinsurance during the years 2004–2008 (almost 70% of section II insurance market was covered).

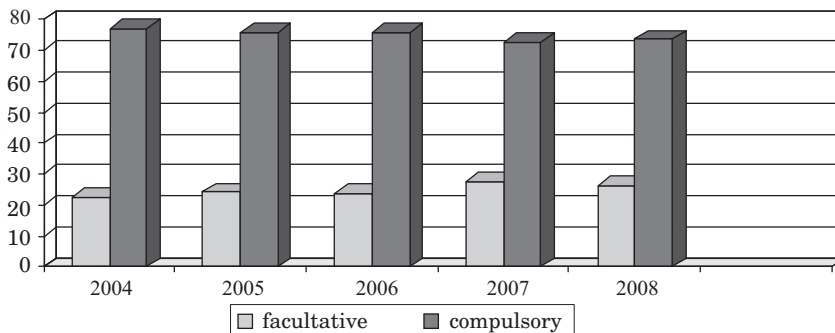


Fig. 2. Percentage share of premiums in facultative and compulsory reinsurance in group thirteen (general third party insurance) section II of insurances during the years 2004–2008 (total 100%)

Source: own work based on the author's research project concerning the Polish insurance market in the aspect of reinsurance during the years 2004–2008 (almost 70% of section II insurance market was covered).

The final conclusions from the conducted own studies on applied types of reinsurance in group thirteen (general third party insurances) of section II of insurances during the years 2004–2008 after covering almost 70% of that section insurance market can be formulated as follows:

1. Compulsory (around 70% of the market) and proportional (around 91% during the years 2004–2006 and around 80% during the years 2007–2008) was the dominating type of reinsurance applied by insurance companies,
2. Among proportional reinsurance methods the amount reinsurance only was applied (this means that surplus reinsurance and mixed reinsurance were not applied),
3. Among non-proportional reinsurance methods the facultative reinsurance of damage surplus and compulsory reinsurance of damage surplus per event only were applied,
4. Non-proportional reinsurance of loss burden surplus was not applied,
5. The balance of reinsurance operations was always negative.

## Conclusion

The studies conducted so far indicate that during the years 2004–2008, in group thirteen (general third party insurance not included in groups from ten through twelve) of section II insurances, the insurance companies applied mainly the proportional reinsurance (ca. 91% of the market), however, during the years 2007–2008 that share decreased to ca. 80% to the benefit of non-proportional reinsurance. This indicates that the insurers increasingly

often opt for coverage against consequences of high damages or high concentration of performance of ordinary (normal) risks during a given period, that is, in the here discussed case, the risks concerning general third party insurance. As a consequence of the fact that non-proportional reinsurance is provided mainly by professional reinsurers – as there is a big problem with determining the premium adequate to the risk – and faced with absence of domestic professional reinsurance companies, the entire reinsurance premium for those contracts goes to the foreign professional reinsurers. This is not a favorable situation from the perspective of the country's balance of trade, the more so as a consequence of the fact that the balance of reinsurance operations in the discussed groups of insurances was always negative, which means that insurance companies always transferred more funds (part of premium) to reinsurers than they received in the form of participation of those reinsurers in the damages and benefits disbursed. Considering on the other hand the other structure of reinsurance, that is facultative and compulsory reinsurance the compulsory reinsurance dominated with ca. 75% share in the market. This means that the assigners (insurance companies) prefer contracts made in advance (in that case reinsurance is of automatic character) and for a specific time, and as a consequence of the fact that settlements are of periodic type the work intensity of servicing such contracts decreases. In case of that type of contracts that usually cover large volumes of risks of different types, the assigner may expect higher commissions and higher share in the reinsurer's profit so there is a better chance of decreasing the usually negative balance of reinsurance operations by insurance companies.

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## References

- CIUMAN K. 2007. *Reasekuracja jako czynnik rozwoju rynku ubezpieczeniowego w Polsce*. WAE w Krakowie. Kraków.
- DARUL K. 1994. *Reasekuracja*. PW LAM, Warszawa.
- DUDKOWIAK Z. 1994. *Reasekuracja, jej formy i funkcje*. In: *Ubezpieczenia w gospodarce rynkowej*. Ed. A. WĄSIEWICZ. Oficyna Wydawnicza Branta. Bydgoszcz.
- KOWALEWSKI E. 2006. *Prawo ubezpieczeń gospodarczych*. Oficyna Wydawnicza Branta, Bydgoszcz-Toruń.
- Metodologia analizy finansowej zakładów ubezpieczeń*. 2001. PUNU, Departament Analiz Systemu Ubezpieczeniowego, Warszawa.
- Podstawy ubezpieczeń*. Tom I. *Mechanizmy i funkcje*. 2000. Ed. J. MONKIEWICZ. Poltext, Warszawa.
- Podstawy ubezpieczeń*. Tom II. *produkty*. Ed. J. MONKIEWICZ. 2002. Poltext, Warszawa.
- Act of the 22<sup>nd</sup> of May 2003 on insurance activities*, Dz. U. of 2003, No. 124, item 1151 (schedule to the Act – Division of risk according to sections, groups and types of insurances).
- International Convention on Civil Liability for Oil Pollution Damage. 1969. Brussels.