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Trade credit insurance – specifity of risks

Trade credit insurers differ from other property insurers in terms of both sources of risk and underwriting techniques, which makes them similar to banks checking their clients' credit ratings. This affects the wide range of operations which they perform, which in turn is reflected in the kind of risk that they incur. It is unique in terms of underwriting, reinsurance (microeconomic risk), changes in the marketplace and aggregation (systematic risk) as well as economic cycles, political, social and environmental changes and changes in currency exchange rate (systemic risk).

Key words: trade credit insurance, trade credit insurers, credit risks, microeconomic risks, systemic risks, macroeconomic risks, volatility of risk.

Introduction

Although trade credit insurance is commonly included in the area of insurance, it differs significantly from it. By nature it is much closer to banking products rather than to classic insurance products. Trade credit insurance considers disparate sources of risks and uses contrasting underwriting techniques, which makes it similar to a bank examining a client's credit rating. Additionally, credit risk may appear and vanish with time, as soon as the debtor repays the loan. However, the damage caused by the debtor's lack of solvency may be beyond repair.

Trade credit insurers' activity within the insurance and financial market is burdened with risk of a variety of sources and whose scope and course is moulded by specific components. A complex and atypical business system used by a trade credit insurer as well as a wide range range of performed activities raises the question of specifity of the risk incurred.

The purpose of this article is to characterise the types of risk incurred by trade credit insurers and to present the specifity of these risks with reference to the remaining nonlife insurers. The article elaborated on the sources of research? conducted on the Polish property insurance market, the Polish trade credit insurance market, and the two main players in this market (monoliners), i.e., Euler Hermes Poland and Export Credit Insurance Corporation JSC (KUKE). Literature, both domestic as well as foreign on the subject is rare, so raising it stemmed from both cognitive and practical premises.

The specific features of risk incurred by trade credit insurers

The subject literature mentions numerous divisions of risk an insurance company is exposed to. Three of them are most interesting from the point of view of an insurer:

- the first description – relating to the type of risk: insurance, credit, market and operational risk
- the second description – relating to the degree of involvement: of a single company, a capital group and a conglomerate
- the third description – relating to the origin of risk: microeconomic, industry and macroeconomic risk.

The most important type of risk, to a trade credit insurer, is the insurance risk. It is similar to credit risk, are mentioned together with the market and operational risk. In the core of credit insurance lies credit risk, also called the risk of lack of payment, payment default or not meeting the obligations [4]. It is also the main risk in banking activity, regulated in detail in the first pillar of Basel II Accord. In the case of non-life insurers credit risk has not been prominent, as it is exemplified by the Solvency I system, where it was only considered in the construction of the reinsurance ratio, as well as by results of preliminary work on Solvency II. Essentially, analyses carried out to implement Solvency II reduced credit risk for nonlife insurers to one of the seven types of microeconomic risk on the level of an insurance company. (cf. Tab. 2)

Table 1: Location of credit risk among the types of risk in insurance

Risk	Life Insurance	Property Insurance
Microeconomic (on company level – unsystematic)	Underwriting (dependent and independent), **credit**, operational, investment, solvency, matching, expenditure, resignation and reserves management	Underwriting (dependent and independent), **credit**, reinsurance, operational, investment, solvency and reserves management
Systematic (industrial)	Legislative and market changes	Legislative and market changes
Systemic (macroeconomic)	The change in the market value of an investment, environmental change, social and political change, economic cycle, rate of inflation, currency exchange rate, technological change	The change in the market value of an investment, environmental change, social and political change, economic cycle, rate of inflation, currency exchange rate, technological change

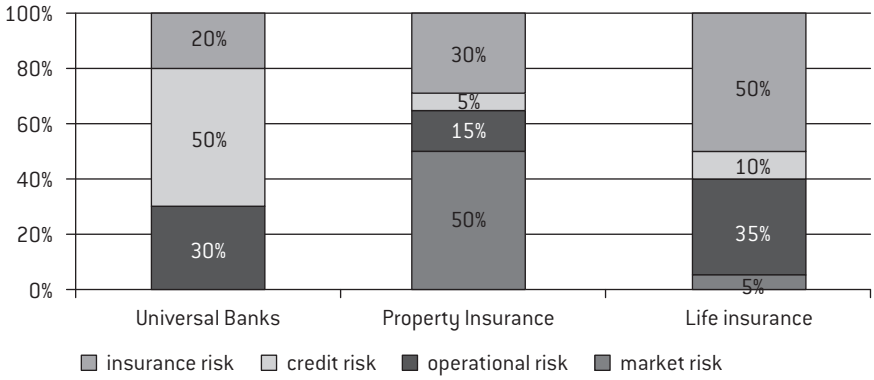
Source: own study based on [10].

The risk here was reduced to default risk with reference to investment and premiums as well as reinsurers' insolvency as the main risk component in credit risk. Thus, this kind of risk is not considered to be part of risk related to underwriting, which is a typical technical-insurance risk. Trade credit insurers face a different problem. Although they are part of non-life insurers, it is credit risk that they treat as insurance risk related to the frequency and intensity of occurrences (insolvency) and underwriting management (assessment of premiums and reserves). It is important to point out some relevant differences between credit risk which occurs in a bank or a supplier (primary credit risk) and in the credit-insuring company (secondary credit risk). The crucial one is that a bank offers a loan first, the supplier sends goods or provides service and in case of lack of loan repayment or due amount repayment ("default") they enable the security measures. A credit insurer, on the other hand, enables the payment of compensation after the occurrence of the event defined in the contract (confirmed or actual insolvency or protracted default) and then enables possible security. As a rule, a bank loan is secured, while trade credit insurance hardly ever is. It must be said that possible payment prob-

lems of a bank borrower may result in immediate maturity of the loan, but what usually ensues is not the loan repayment but realisation of security. In contrast, a trade credit insurer may, on reception of negative information about the debtor's financial situation, reduce the insurer's exposure by active management of limits and by taking precautions (so-called pre-loss recovery). In practice, this implies various possibilities of effective risk management on signing a credit contract or an insurance contract. Beside this, lack of repayment is defined in a variety of ways. In the case of a bank it is any lack of repayment regardless of its cause, while credit insurance distinctly describes the covered reasons for lack of repayment. In fact, one could use the term "all risks coverage" for bank credit risk, while insurance credit risk could be labelled as "enumerative coverage".

With banks, credit risk refers to approx. 50 percent of the exposure, while in the case of property insurance and life insurance only 5 percent and 10 percent, respectively (cf. Fig.1). The latest publications of Insurance Europe [14] confirm this information. With credit insurers the exposure would amount to as much as 55 percent, considering credit risk as the major insurance risk category.

Figure 1 : Exposure to various types of risk in different financial sectors



Source: [9] based on [6] and [3].

It must be said that the aforementioned credit risk and insurance risk aspects generally refer to a single insurance company. Progress of globalisation, development of financial market, mutual intermingling of various financial sector segments, development of capital groups and financial conglomerates as well as insurance groups with insurers' stakes – all these call for broadening the credit insurers' activities by group activity, considering both its positive (risk diversification effect or cost cutting) and negative effects (e.g. contamination effect or multiple creation of capital).

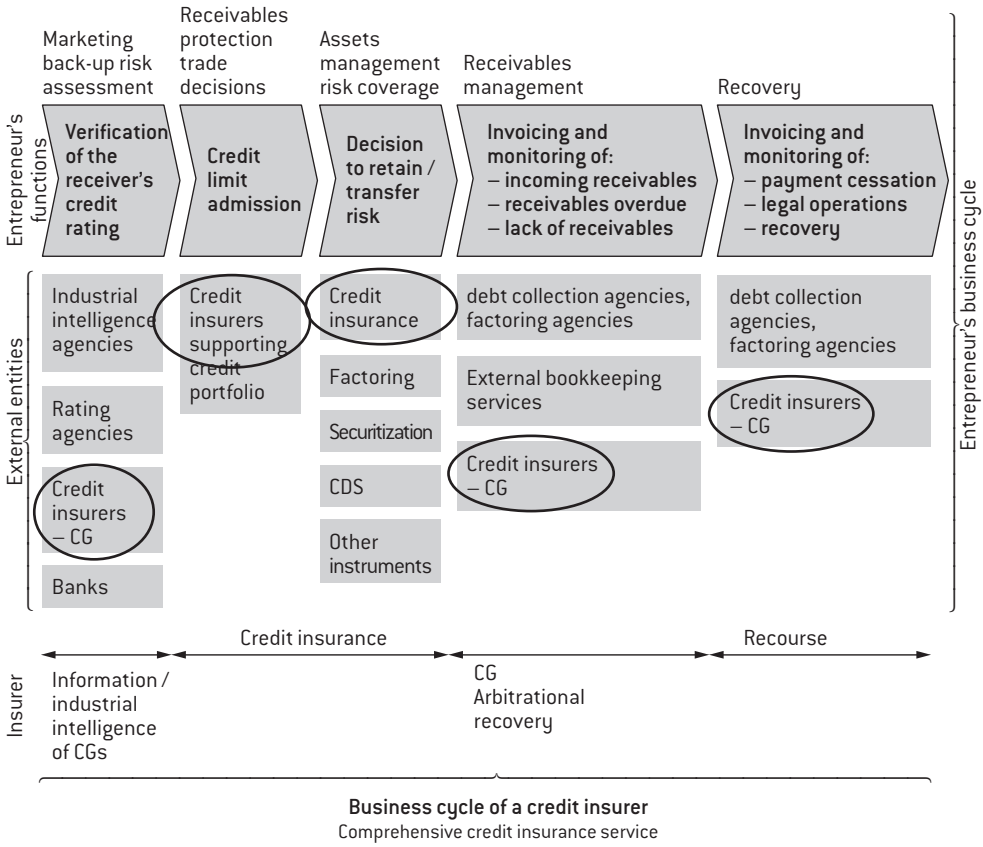
Application of outsourcing for implementation of an insurance service which amounts to using related or external entities can lead to distinguishing another way to divide risk, namely into a single company risk, capital group risk and conglomerate risk. In the case of global credit insurers this division comes down to a situation in which the insurer carries out only the basic insurance operations, such as contracting insurance, setting premiums and commissions and paying claims. On the other hand, the related companies within the capital group[1] deal with the key production components, such

1. In Poland: e.g. Coface Poland Credit Management Services Ltd., Coface Poland Factoring Ltd., Euler Hermes Services Poland Ltd., Euler Hermes Collections Ltd., Atradius Information Services B.V., Atradius Collections B.V. Ltd.

as business information, debt collection and supplementary services (e.g. receivables management or factoring). They can only render services to the capital group entities or, additionally, to external entities ("open form" e.g. Coface Group). In the case of credit insurance, using business information and debt collection as the major production component is a credit insurer-specific feature which denotes the specifity of credit insurance as well as peculiarity of credit insurers' finance management.

The wide array of operations performed by a credit insurer while rendering a credit insurance service to a supplier and using a variety of definite production components (information, debt collection) supplemented by adapting the insurer's business cycle to the one of the insured supplier makes credit insurers key business partners to thousands of entrepreneurs (cf. Fig. 2).

Figure 2: Credit insurer's business cycle vs. insured supplier's business cycle



Appendix: CG – Capital Group, CDS – Credit Default Swap.
Source: own study.

This in turn makes credit insurers dependent on the economic situation in the industry where the insured suppliers operate and which covers the risks (payees), which makes them sensitive to economic cycles and increases their susceptibility to macroeconomic risk [8].

The fact that information, recovery and reinsurance present essential importance to credit insurers, as does the interdependence between their financial situation and economic cycles,

creates the need for still another division of risk into microeconomic, trade and macroeconomic risks. There are identifiable differences between the risks that appear in the business of property insurers and those affecting the activities of credit insurers (Table 2).

Table 2: Selected differences between property insurers and trade credit insurers with regard to the character of risk

Risk	Non-life insurer	Credit insurer
Microeconomic risk (on the company level – unsystematic)		
Pure underwriting	Rate and intensity of incidental loss e.g. elements hazard, fire, pollution, offence, war, terrorism.	Rate and intensity of credit loss due to incidental occurrences, i.e. confirmed insolvency or protracted default.
Underwriting management	Poor underwriting due to wrong risk selection and inappropriate product development. Loss due to underestimating premiums and reserves, managerial decisions concerning development, lack of experience in underwriters, large loss aggregation.	Poor underwriting due to wrong risk selection and inappropriate product development. Specially relevant when there are no general insurance terms and when foreign contract patterns or translations of foreign general insurance terms are used without considering the insurer's country peculiarities. Loss due to underestimating premiums and reserves resulting from staff's lack of experience. Aggregation of large loss can be specially relevant during crisis.
Credit	Risk of defaulting on payment of investment and premiums.	Reinsurers' insolvency is the main component of extraunderwriting credit risk. Chief reinsurers' bankruptcy will have great financial impact on credit insurers due to their substantial dependence on reinsurance.
Reinsurance	Purchasing wrong coverage may result in financial problems in the case of unexpected claims or large losses. Reinsurer's bankruptcy is an additional setback.	Difficulty in finding appropriate coverage, especially during recession, due to aggregation of reinsurance business and reluctance of the private sector to cover political risk and public debtors. Competition between private and public reinsurance.
Operational (efficiency)	Frauds, inadequate reinsurance programme, problems in controlling IT systems and their failures, management failures are chief components of operational losses.	Disobeying procedures during the key business cycle, especially while assessing risk (using economic information) and in prevention and adjustment-related operations (recovery and recourse). Essential importance of IT systems in huge data bases management.
Systematic (industrial)		
Legislative	Legal risk influences property insurers to a greater degree as a result of court decrees regarding TPL claims.	Legal risk has a huge impact on credit insurers, especially with regard to changes in tax law, bankruptcy law, business law or public aid settlement (State Treasury-guaranteed exports insurance).
Market changes	Implications of changes in customers' and competitors' behaviour. Implications of the business cycle. When premiums are low there is a greater likelihood of concluding unprofitable contracts.	It has a great importance during rapid changes in insurance cycle which is tightly related to changes in economic cycle of the insured business. Dectructive price-related and unrelated competition makes it impossible to develop capital and technical reserves. A significant increase in aggregation of insurance operations with regard to credit insurance is, among other things, a growing contamination risk.

Risk	Non-life insurer	Credit insurer
Systemic (macroeconomic)		
Economic cycle	Increasing unemployment rate in turn causes the number of losses due to delinquencies and thefts to ties as well. Recession will cause a decrease in the income level due to the underwriting cycle. Investments will be affected.	A direct tie between the economic cycle and the financial performance of credit insurers. Huge importance in the case of fast-changing economic cycle. Insurers must have the time to prepare for the change in the cycle. Shortening the timespan of changes in the marketplace leads to an increase in exposure to loss-prone businesses.
Political and social change	Increased losses due to a change in social behaviour (e.g. offences and thefts). A change in attitude of insurance holders to compensation of claims in TPL insurance.	Increased losses due to political risk and a change in social behaviour (e.g. economic crime, strikes). Simultaneously, a possibility of effective recourse[2] with positive political changes.
Environmental change	Increased aggregation of losses due to natural disasters and hazards (e.g. floods, hurricanes and pollution).	Increased aggregation of natural disasters and hazards affects the financial standing of certain businesses and payment capacity of holders.
Currency exchange rate	Potential losses caused by lack of matching a substantial liability in a foreign currency to an investment in the same currency. This risk is more significant in property insurance than in life insurance.	Losses caused by lack of matching between substantial liabilities in a foreign currency to an investment in the same currency. This is key risk in export credit insurance.

Source: own study based on [10].

The above differences between property insurance and credit insurance are particularly evident in respect of underwriting, reinsurance (microeconomic risk), market changes and aggregation (systematic risk), economic cycle, political, social and environmental changes, and fluctuations of currency exchange rates (systemic risk). Trade credit insurers must possess micro and macroeconomic expertise and be able to use it to assess and cover risks to a much greater degree than other non-life insurers. To exemplify importance of a change in the economic cycle for credit insurers, we could look at the 2008–2009 crisis situation in Atradius of Dutch and Spanish origin or the French Coface company. According to A. Taraszkiewicz, a manager responsible for supervising risk assessment in Atradius, "This time the warning stage was exceptionally short, and the slump in the economic situation was extremely dynamic, so there was little time to brace for the crisis." "Usually, the period hinting at an impending slump lasts more than three to six months." [7] This is the credit insurers' greatest problem. Coface, in turn, which in normal circumstances pays globally up to approx. €60m a month, at the peak of the 2008–2009 crunch paid up to €200m. Such high reimbursements posed a real problem because insurers did not manage to prepare for the crisis as they had done in previous years. Usually, recognising the symptoms of crisis leads to tightening risk assessment procedures, reducing limits of liability, boosting prices, requiring a larger degree of the net amount for the most threatened businesses or companies.[7] As a result of unprecedented (within the last 40 years) volatility of data and risks Coface did not release its 2009 annual report on global risk forecast.[3]

2. The example is a huge recourse payment (approx. $50bn) received in 2005–2006 on account of claims paid in 1986–1992 on medium and long-term export credit insurance against political risk with regard to developing countries (Russia, Nigeria, Algeria). See [1].

3. *The Handbook of Country Risk. A Guide to International Business and Trade*.

Unlike non-life insurers, credit insurers face different risks which bring about greater volatility of the achieved key financial indexes. This can be seen clearly in the following example, where the standard deviation and volatility ratio has been calculated for them (cf. Table 3).

Table 3: Differentiation rates of selected financial indexes of non-life insurers and credit insurers (class 14) (between 1995 and 2013) and Euler-Hermes Insurance Company and KUKE PLC (between 2004 and 2013)[4]

Type of index (%)	Arythmetic mean				Standard deviation				Volatility ratio (%)			
	Non-life	Class 14	EH Poland	KUKE	Non-life	Class 14	EH Poland	KUKE	Non-life	Class 14	EH Poland	KUKE
Dynamics NWP	114.9	124.5	509.4	49.4	16.6	31.6	1078.2	103.4	14.5	25.4	211.7	209.2
Dynamics NCP	113.8	160.9	919.8	125.3	16.3	126.6	2287.9	26.7	14.3	78.7	248.8	21.3
NCR	70.2	61.2	76.3	40.8	9.4	78.2	36.7	20.6	13.4	127.7	48.1	50.5
Combined-Ratio	91.6	83.2	73.7	62.9	4.1	59.4	124.9	53.1	4.4	71.5	169.5	84.4
ROT	(1.9)	(14.9)	(1.5)	2.8	8.7	83.3	113.4	9.6	(460.9)	(558.0)	(7673.0)	345.6

NWP – net written premium
NCP – net claims paid
NCR – net claims ratio
ROT – profitability rate of technical operations
Source: own study based on [11], [12] and [13].

The presented volatility and specifity of incurred risk was the reason why 87/343/EEC Directive [2] was implemented in the EEC market which replaced the first 73/239/EEC Directive [5] with regard to credit insurance and suretyship insurance (guarantee). The new directive points out that due to cyclic occurrence of claims in credit insurance, it should be treated similarly to insurance against the risk of thunderstorm, hail and frost when calculating average burden of losses. Thus, in credit insurance (class 14) an obligation and special methods of creating equalization reserve have been introduced. However, insurance undertakings that apply the International Financial Reporting Standards must not create equalization reserves. The final wording of Solvency II Directive, currently in implementation, introduces a modular approach to the calculation of the Solvency Capital Requirement (SCR) [16]. A non-life underwriting risk module is one of the modules used in the design of the Basic Solvency Capital Requirement (BSCR). Within this module, credit insurance – along with suretyship insurance – was included in lines of business 9 (insurance), 21 (proportional reinsurance) and 28 (non-proportional property reinsurance). The module comprises three sub-modules: the premium and reserve risk sub-module, the lapse risk sub-module and the catastrophe risk sub-module.

Separate values of standard deviation for gross premium risk and standard deviation for reserve risk, amounting to, respectively, 12 percent and 19 percent, have been calculated for the first of the above sub-modules in the segment consisting of lines of business 9 and 21. Moreover,

4. The studies covered two periods: 1995–2003 and 2004–2013. The first period was selected because the supervisory authority published whole-market data for the first time in 1995; the first year of the second period (2004) was the first full reporting period for Euler Hermes SA.

the standard deviation for gross premium risk and standard deviation for reserve risk (of 17 percent and 20 percent, respectively) have also been calculated for line of business 28. The standard deviations for credit insurance used for SCR calculations are among the highest in the non-life segment and are comparable to gross premium risks established for marine, aviation and transport insurance, general liability insurance and miscellaneous financial loss insurance, whereas the deviation for reserve risk can be compared with gross premium risks applicable to assistance and miscellaneous financial loss insurance [15].

The man-made catastrophe risk sub-module, which includes the credit and suretyship risk sub-module, has been distinguished as a component of the catastrophe risk sub-module.

The above facts confirm the data presented in Table 3, which show that trade credit insurance and trade credit insurers are different from traditional insurers.

Conclusion

The above analysis of the kinds of risk incurred by trade credit insurers as opposed to other non-life insurers indicated at dictinct discrepancies between them. They are especially prominent within underwriting, reinsurance (microeconomic risk) changes in the marketplace and aggregation (systematic risk) as well as economic cycles, political, social and environmental changes and changes in currency exchange rate (systemic risk). Unlike non-life insurers, credit insurers incur different risks which bring about greater volatility of the achieved key financial indexes, which in turn affects capital requirements.

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Ubezpieczenia kredytu kupieckiego – charakterystyka ryzyk

Ubezpieczyciele oferujący ubezpieczenia kredytu kupieckiego różnią się od innych ubezpieczycieli majątkowych pod względem zarówno źródeł ryzyka, jak i technik jego oceny, czym upodabniają się do banków oceniających zdolność kredytową swoich klientów. Wpływa to na szereg działań, które podejmują, co z kolei znajduje odzwierciedlenie w rodzaju ponoszonego przez nich ryzyka. Jest ono jedyne w swoim rodzaju, zarówno z punktu widzenia underwritingu, reasekuracji (ryzyko mikroekonomiczne), zmian na rynku i koncentracji (ryzyko systematyczne), jak również w kontekście cyklu koniunkturalnego, zmian społeczno-politycznych i środowiskowych oraz zmian kursu walutowego (ryzyko systemowe).

Słowa kluczowe: ubezpieczenia kredytu kupieckiego, ubezpieczyciele oferujący ubezpieczenia kredytu kupieckiego, ryzyka kredytowe, ryzyka mikroekonomiczne, ryzyka systemowe, ryzyka makroekonomiczne, zmienność ryzyka.

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