FINANCIAL INSURANCE FOR ENTERPRISES – ANALYSIS OF DEMAND AND SUPPLY

UBEZPIECZENIA FINANSOWE DLA PRZEDSIĘBIORSTW – ANALIZA POPYTU I PODAŻY

https://doi.org/10.34739/zn.2019.50.04

Aleksandra Wicka

Poland, Warsaw University of Life Sciences WULS, Department of Development Policy and Marketing, ORCID number: 0000-0001-7713-4953, e-mail: aleksandra_wicka@sggw.pl

Abstract: The aim of the article is to assess changes in the enterprises' demand for financial insurance. The analysis covered expenses incurred by business entities on purchase thereof and supply by the entity. Data used in the study came from secondary sources published in studies by the Polish Financial Supervision Authority (KNF), the Polish Chamber of Insurance (PIU) and the Central Statistical Office (GUS). Furthermore, information from the studies-related literature has been included. The time period of studies covered the years 2005–2018. Selected types of insurance included in financial insurance have been presented herein and industries which these products are especially targeted at have been indicated. Moreover, supply by entities has been discussed with an indication of insurers who hold a leading position in the financial insurance sales in Poland. It has been stated that the demand (by value) for financial insurance in the years 2005–2018 was growing. The amount of the gross premium written in 2018 was twice as high as in 2005 and amounted to PLN 1.09 billion. Furthermore, it has been determined that the highest average dynamics of market growth concerned insurance from various financial risks (group 16), which are usually offered jointly with other insurance products, but also the dynamics of expenses incurred on purchasing surety was over 200%, whereas, in 2018 it was even 360%.

Keywords: financial insurance, enterprises, demand

Streszczenie: Celem artykułu jest ocena zmian popytu przedsiębiorstw na ubezpieczenia finansowe. Analizie poddano wydatki podmiotów gospodarczych ponoszone na ich zakup i podaż w ujęciu podmiotowym. Dane wykorzystane w opracowaniu pochodziły ze źródeł wtórnych publikowanych w opracowaniach Komisji Nadzoru Finansowego (KNF), Polskiej Izby Ubezpieczeń (PIU) i Głównego Urzędu Statystycznego (GUS). Wykorzystano także informacje z literatury przedmiotu badań. Zakres czasowy badań obejmował lata 2005–2018. W opracowaniu przedstawiono wybrane rodzaje ubezpieczeń zaliczanych do ubezpieczeń finansowych wskazując branże, do których w sposób szczególny adresowane są te produkty. Zwrócono także uwagę na podaż w ujęciu podmiotowym wskazując ubezpieczycieli, którzy zajmują pozycję lidera w sprzedaży ubezpieczeń finansowych w Polsce. Stwierdzono, że popyt (w ujęciu wartościowym) na ubezpieczenia finansowe w latach 2005–2018 rósł. Kwota składki przypisanej brutto w 2018 roku była dwukrotnie wyższa niż w 2005 roku i wynosiła 1,09 mld zł. Ustalono także, że najwyższa średnia dynamika wzrostu rynku dotyczyła ubezpieczeń od różnych ryzyk finansowych (grupa 16), które oferowane są zazwyczaj łącznie z innymi produktami ubezpieczeniowymi, ale także dynamika wydatków ponoszonych na zakup gwarancji ubezpieczeniowej przyjmowała wartości powyżej 200%, a w 2018 roku było to nawet 360%.

Słowa kluczowe: ubezpieczenia finansowe, przedsiębiorstwa, popyt

Introduction

Using insurance by enterprises as a risk management method has been discussed many times, both in scientific and business publications. The studies concern the threats (types and classification of risk), which can occur with regard to the conducted business activity (Monkiewicz & Hadyniak, 2010; Zawiła-Niedźwiecki, 2014; Wierzbicka, 2015), but also the possibility of using

insurance as a method of minimising losses resulting from performance thereof (Jedynak, 2009; Gajda, 2010; Gasińska, 2014; Wierzbicka, 2014; Wicka, 2015; Holly at al., 2017). Nevertheless, the majority of those studies are of a theoretical character, without empirical evidence, or are based on statistical data published by the Polish Financial Supervision Authority (KNF). Unfortunately, these reports do not give the possibility of specifying which insurance products belonging to particular insurance groups



are selected by business entities. Therefore, it is unknown in which industries specific risks coverages are purchased.

In many sectors of the economy, e.g. in agriculture, hospitality, nature risk insurance and asset insurance dominates, and financial insurance is closely related to the use of other financial instruments, e.g. investment loans (Cummins, Dionne, Gagné, et al. 2009; Wicka, 2016; Ganc 2018; Lane, 2019; Wicka & Parlińska, 2019; Franzoni & Pelizzari, 2019). The reason for the relatively low interest in financial insurance may be that it does not always have a significant impact on the company's financial situation (Prinja, Bahuguna, Gupta, Chowdhury & Trivedi, 2019). Also, the awareness of potential insurance buyers in various countries is often insufficient. The demand for financial insurance is also lower if entrepreneurs perceive their financial situation as good and decide to internalize the risk (Wieczorek-Kosmala, 2017; Elum, Modise & Marr, 2017; Woods, Nielsen, Pedersen, & Kristofersson, 2017). However, research results are available indicating that it is more beneficial for insurers to offer comprehensive insurance covering multiple risks. Such insurance is also bought in a situation of lower risk aversion (Kubitza, Hofmann, Steinorth, 2019). It should be underlined, that in this market, communication between insurers and insurance buyers is very important (Jaska, 2011; Nowotarska-Romaniak, 2014; Gorczyńska, 2017).

Additionally, due to the amendments introduced to KNF reports concerning the manner of presenting data necessary for such analysis¹, systematic observation of the discussed phenomena on the grounds of secondary data ensuring comparability becomes more hindered and sometimes even impossible. Only a few works in the analysed area present data on the grounds of primary sources (among others: Gajda, 2010; Gasińska, 2014; Polska Agencja Rozwoju Przemysłu [PARP], 2019). There is still a lack of knowledge on using insurance in order to transfer risk outside the enterprise depending on the industry in which it conducts activity and on the types of insured risks. Furthermore, there is still a lack of information on the degree of feeling threats, including the threat of new risks and the manner in which entrepreneurs deal with these phenomena.

¹ E.g. with regard to gross premium written (there was a category of an enterprise and then, categories of financial and non-financial enterprises) or information on the number of

Material and methods

The aim of the work is to assess the market of financial insurance for enterprises by analysing the demand by value (data concerning the number of policies is unavailable from 2014) and supply in terms of quantity.

Data presented herein come from secondary sources. This statistical data has been published by GUS, KNF, in scientific and business literature and available legal acts. The scope of the numerical analysis covers the years 2005-2018. Dynamics' fixed basis indicators (year 2005=100) and share indicators were used for data analysis.

Results and discussion

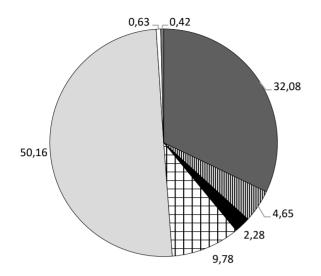
Non-financial enterprises in Poland as nsurance market customers

The demand side of the insurance market by entity consists of enterprises, individual customers and other entities. The question whether companies are important customers for insurers may be stipulated by studying the share of products sold to business entities in total sales. This share can be estimated, among others, by value (gross premium written). The amount of the gross premium written illustrates how much insurers generated from sales of their policies in a given year. Therefore, one may check how much money was allocated by entrepreneurs in a given financial year to purchase insurance coverage.

The share of enterprises in a gross premium written collected by insurers in 2018 has been presented in Figure 1. It constituted over 32% for non-financial companies and 4.6% for financial entities. Which, together with government institutions (2.2%) gives almost 40% to institutional entities.

In Poland, over 2 million active companies were operating at the end of 2017 (at the time of writing the article there are no official GUS data for 2018 yet). Their increase by 163 thous. was noted in comparison with 2005 (Fig. 2). Very small, that is, micro-enterprises prevailed in the structure thereof. Their share in the total number of entities at the end of 2017 amounted to 96.5% (PARP, 2019). The majority have operated in the market for over 5 years and more (approx. 69%) and they are enterprises of natural persons. From the point of view of the issue described herein, this is very important information, since entrepreneurs conducting business activity in this form most often decide on risk management in their companies on their own and very rarely use the help of specialised entities, e.g. insurance brokers or risk management specialists (Gasińska, 2014).

policies purchased by various segments of insuring customers; the Polish Financial Supervision Authority has not disclosed such data in reports since 2014 by KNF.



Non-financial corporations sector

III Financial institutions sector

- Government institutions sector
- ⊞ Employers and self-employed workers
- Other households
- Non-profit institutions acting for the benefit of households

Figure 1. The Share of Enterprises in the Gross Premium Written Collected by Insurers in 2018 (in %) Source: own study on the basis of GUS data.

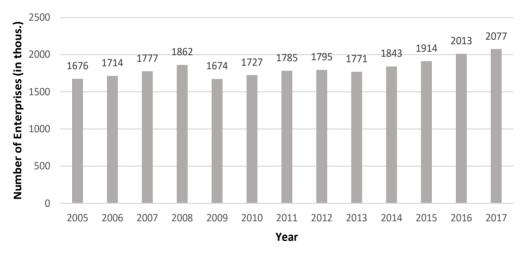


Figure 2. The Number of Enterprises Active in Poland in the Years 2005-2017 (in thous.) Source: own study on the basis of GUS data.

In 2017 non-financial enterprises generated production value at a level of PLN 3,478 bn in comparison to 3,075 bn in 2015. They noted a decrease in revenues per one entity and in 2017 generated PLN 463.8 thous. in comparison to 2015, when they generated PLN 487.1 thous. (Gasińska, 2014).

Non-financial enterprises in Poland operate in various economy industries. From among the entities registered in 2017 the majority conducted activity in the commerce section (23.99%), then, construction (13.56%) and professional, scientific and technical activity (13.34%). The following places were taken by: industry (10.21%), healthcare (8.81%) and transport (7.50%) (GUS, 2018). The list ends with culture and entertainment constituting the activity of

1.1% of entities. All of those entities constitute prospective customers of insurance companies upon consideration of the characteristics of threats resulting from the type of conducted business activity.

Types of products included

in the subject literature in financial insurance

In compliance with the Insurance Act binding in Poland, financial insurance is included in section 2 of insurance, that is, remaining personal and property insurance (The Act of 11 September 2015 on Insurance and Reinsurance, Dz.U. 2015.1844). They were classified into three groups due to the risk subject to coverage under specific insurance products. Those are the following groups: Group 14. Credit insurance:

- general insolvency,
- export credit, repayment of instalments, mortgage, agricultural loan.
- Group 15. Surety:
 - direct,
 - indirect.

Group 16. Insurance of various financial risks:

- loss of employment risk,
- insufficient income,
- bad weather conditions,
- loss of profit,
- fixed general expenses,
- unforeseen commercial expenses,
- loss of market value,
- loss of permanent source of income,
- indirect commercial losses apart from the aforementioned,
- other financial losses.

Other issues consist of the fact that some specialists dealing with financial products raise objections, whether surety is an insurance product or a bank product (Wierzbicka and Wierzbicki, 2010). Moreover, in practice, insurance of various financial risks (group 16) does not occur as an independent product. It usually supplements insurance coverage offered within other groups, e.g. business interruption (BI) is sold jointly with property insurance against other natural forces.

The financial insurance most often used by non-financial enterprises in Poland includes surety and credit insurance, including commercial credit, therefore, these products have been the most broadly discussed herein.

Surety

Surety is a product the economic sense of which comes down to the fact that in exchange for collecting a small premium, the insurance company (guarantor) accepts the debtor's (the obliged party's) role of the guarantor of timely payment of specific liabilities to the benefit of the surety's beneficiary (Kowalewski, 2006; Lisowski, 2016). Currently, in the case of most of the implemented infrastructural projects, surety is used as a form of security at various steps of investment implementation. It is difficult to imagine a situation when a contractor starts performance of e.g. a construction contract without any security of good performance thereof with the use of financial instruments, such as surety. Such requirements are usually established at the stage of tender procedure. The basic advantage of surety in comparison with the bank guarantee constitutes its lower price and the fact that the principal does not have to "freeze" funds for security purposes.

Security of his interests is provided on the condition of paying the premium (Wicka, 2012).

Surety is broadly used and enables developing business without the need to engage equity in order to secure the contract. It is commonly used in construction (guarantee of good performance of the contract), tourism (tourist guarantee) and in investment implemented under public-private partnership.

The International Credit Insurance and Surety Association enumerates the following types of surety (Vaughan and Vaughan, 2003):

- Contract surety.
- Surety securing payment of customs duties and taxes to the benefit of customs and tax authorities.
- Surety against embezzlement.
- Surety required while starting or conducting business activity.
- Surety for paying rent.

Trade credit insurance

Trade credit insurance is a product that enables the entrepreneur to secure himself against dishonesty of contractors. Untimely payments can damage the liquidity of any company, in particular, small and medium-sized companies. Credit insurance may be useful for all enterprises which sell products with payment. This insurance provides deferred certainty that money for the unpaid invoice shall be paid by the insurer with whom we concluded an insurance contract (PIU, n.d.). The trade credit insurance contract is concluded for 12 months. The amount of the premium predominantly depends on the amount of the company's turnover. The trade credit insurance provides the policyholder not only with protection against dishonest partners, but also against bankruptcy or the insolvency of contractors. Due to the fact that it is required in financial insurance to adhere to the principle of good cooperation between the policyholder and the insurer in case any circumstances occur in the term of the contract resulting in a more significant risk of damage, the entity benefiting from the insurance cover is obliged to inform the insurer thereof. Using the trade credit insurance by the entrepreneur enables him to receive from the insurer the information on the financial situation of the company's business partner.

Enterprises' demand for financial insurance – results of analyses

In this part, the information regarding expenses incurred on purchasing financial insurance

measured with policies' gross premium written has been presented¹.

A permanent increase in the value of the financial insurance market had been observed since 2005. In 2005 enterprises paid for the insurance cover in the discussed scope over PLN 634 m, whereas, in 2018, it amounted to PLN 1.5 bn. It means that there was a market increase by over 72%. An average value of expenses amounted to PLN 1.26 bn. The maximum value was observed in 2014 and amounted to PLN 2 bn, whereas, the

minimum value was observed in 2005 and amounted to PLN 634 m. The distinct increase in expenses on financial insurance in 2014 resulted from the increase in expenses on insurance of various financial risks from group 16 (Figure 2). The rate of changes in the level of expenses in the years 2005--2018 varied depending on the type of purchased insurance products. The dynamics of changes in expenses incurred on specific types of insurance has been presented in Table 1.

 Table 1. Dynamics of Expenses Incurred on Purchasing Specific Financial Insurance Types by Enterprises

 in the Years 2006–2018 (Year 2005=100)

Specification	Selected indicators for financial insurance types (2005=100)													
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Dynamics of a premium in total from financial	х	132	172	184	237	226	240	225	278	318	236	119	147	173
insurance (%)	~	132	172	104	231	220	240	225	270	310	230	119	147	175
Credit insurance (group 14)	Х	141	180	156	147	148	174	158	169	158	128	92	89	101
Surety (group 15)	Х	109	118	149	194	226	215	201	210	255	276	249	352	360
Insurance of various financial risks (group 16)	Х	133	192	252	408	349	359	345	493	610	380	81	109	170
Share of financial insu- rance premium in section 2 of insurance in (%)	12	14	16	15	18	16	14	12	14	16	12	7	7	9

Source: own calculations on the basis of KNF data.

An increase in demand by value has been observed for all studied insurance products in comparison with 2005. The dynamics premium indicator in total from financial insurance amounted to over 100% for each year. The dynamics of expenses incurred on purchasing insurance against various financial risks in each analysed year (apart from 2016 and 2017) exceeds the dynamics of expenses incurred on purchasing financial insurance in total. The highest level in this category was observed in 2014, when expenses incurred on insurance against various financial risks were 6 times higher than in 2005. From among four presented products, the highest increase was observed for insurance against various financial risks and surety. In 2018, expenses on purchasing this insurance were over 170% and 360% higher than in 2005, respectively.

The slowest increase in the market was observed for credit insurance. In 2018, the value of premium was higher only by 101% than in 2005, whereas, in 2016 and 2017 a decrease thereof was observed (Table 1). Taking into account inflation in this period, it may be stated that this change is close to zero.

Demand for financial insurance depends not only on economic factors (Macieiasz-Światkiewicz. 2014; Maison, 2014), such as incomes of business entities or the price of insurance cover offered, but also on macroeconomic conditions. It may be proven by the "avalanche-style" increase in financial insurance observed in the years in which they occurred, e.g. turbulences in financial markets e.g. in the period between 2008-2010. The demand for financial insurance was also stimulated by bankruptcies of companies, the number of which in the analysed period of time had a growing tendency and resulted in the deficit of trust of business partners. The short-term impact of selected threats on increasing the demand for insurance was also observed in other markets (Wicka, 2014).

The growing interest in financial policies observed in the years 2005–2013 could have resulted from economic and non-economic factors, but also from, among others, Poland's accession to the European Union. The accession provided Polish entrepreneurs with access to the broad, but also not well-known by them, market, which entailed a possibility of new threats. Thus, the increased

¹ Gross premium written – the sum of gross premiums due to insurance contracts concluded in the reporting period. This category is used while stipulating the market value, but also

while indicating how much the customers paid for the insurance coverage.

interest of entrepreneurs in purchasing surety and trade credit insurance. However, the growing demand was accompanied by limiting, by insurers, the availability of discussed products by e.g. increasing prices of policies by at least 20% and justifying this with the deteriorating economic situation and the increase in the number of bankruptcies of enterprises in the country and abroad (Jaworski, 2009). The customer whom one insurer refused accepting the discussed risk for insurance, could not in fact count on any other insurance company accepting. Furthermore, the deterioration of terms and conditions of insurance offered, as well as difficulties in negotiating changes thereof were indicated.

Supply of financial insurance

The majority of insurance companies operating in the Polish insurance market offer all or at least selected types of financial insurance. Only 17 of 33 insurers offer credit insurance (group 14), 23 – surety

Table 2. List of Insurers Offering Financial Insurance in 2018

(group 15), and 29 entities – insurance of various financial risks (group 16). Companies that do not offer such services, i.e. D.A.S. TU OCHRONY PRAWNEJ S.A., TU ZDROWIE S.A., Polskie Towarzystwo Reasekuracji (PTR) and TUW Cuprum conduct a specific or niche insurance activity consisting of selling only legal expenses insurance or provide reinsurance services.

A list of entities that sell financial insurance with a consideration of the types of products offered has been presented in Table 2.

For many years three global players, i.e. Euler Hermes, Atradius and Coface have been leaders in financial insurance sales in Poland (Lisowski, 2016). They offer complex surety in this scope to entities from various industries, as well as several additional services. On the grounds of the data (contractors' monitoring) from analytical reports drawn up by those entities, they satisfy the information needs of insured customers enabling them to conduct their business pacefully.

Specification	Credit insurance	Surety	Insurance of various financial risks		
	group 14	group 15	group 16		
TUIR ALLIANZ POLSKA S.A.	X	x	X		
AVIVA TU OGÓLNYCH S.A.			X		
AXA UBEZPIECZENIA TUIR S.A.	X	x	X		
COMPENSA TU S.A. Vienna Insurance Group		x	X		
CONCORDIA POLSKA TUW	X	x	X		
CREDIT AGRICOLE TU S.A.	x		X		
TUW-CUPRUM					
D.A.S. TU OCHRONY PRAWNEJ S.A.					
STU ERGO HESTIA S.A.	x	х	X		
TU EULER HERMES S.A.	x	x	X		
TU EUROPA S.A.	x	X	X		
GENERALI T.U. S.A.	x	х	X		
TU INTER POLSKA S.A.		х	X		
INTERRISK TU S.A. Vienna Insurance Group	x	X	X		
LINK4 TU S.A.			X		
TUW MEDICUM	х	x	X		
NATIONALE-NEDERLANDEN TU S.A.	x		X		
PARTNER TUIR S.A.		х	x		
PKO TU S.A.	x	x	X		
T.U.W. POCZTOWE		х	x		
POLSKI GAZ TUW		х	x		
TUW POLSKI ZAKŁAD UBEZPIECZEŃ WZAJEMNYCH		х	x		
PTR S.A.					
PZU S.A.	x	x	x		
SALTUS TUW	x		X		
SANTANDER AVIVA TU S.A.			X		

A. Wicka, FINANCIAL INSURANCE FOR ENTERPRISES – ANALYSIS OF DEMAND AND SUPPLY, Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach Nr 123, Seria: Administracja i Zarządzanie (50) 2019

SIGNAL IDUNA POLSKA TU S.A.		X	X
TUW TUW		X	X
TUZ TUW	X	X	X
UNIQA TU S.A.	X	x	X
TUIR WARTA S.A.	x	x	x
WIENER TU S.A. Vienna Insurance Group		x	x
TU ZDROWIE S.A.			
Total	17	23	29
* without KUKE S.A.			

Source: own study on the basis of KNF data.

Conclusions

The following conclusions can be drawn on the grounds of the conducted analyses.

In the years studied the demand for financial insurance by value was growing (groups 14, 15 and 16). The amount of the gross premium written in 2018 was twice as high as in 2005 and amounted to PLN 1.09 billion. It was noted in the studied period that the highest dynamics of the market growth concerned insurance against various financial risks (group 16). Products offered in this group, such as business interruption (BI) are often joined with other insurance products, such as property insurance against fire and other fortuitous events.

It has been determined that the majority of insurers operating in the market of other personal and property insurance offer financial insurance. Nevertheless, three insurance companies: Euler Hermes, Atradius and Coface have been unquestioned leaders in the financial insurance segment for many years.

To a large extent financial insurance comprises negotiable products and terms and conditions of offering them by insurers depends on the macroeconomic conditions and financial situation of both, the policyholder and his contractors.

References

- *Biuletyny roczne KNF*. Pobrane z: https://www.knf. gov.pl/.
- Cummins, J.D., Dionne, G., Gagné, R., Nouira, A.H. (2009). Efficiency of insurance firms with endogenous risk management and financial intermediation activities. Journal of Productivity Analysis, 32(2), 145-159. https://doi.org/ 10.1007/s11123-009-0131-0.
- Elum, Z.A., Modise, D.M., & Marr, A. (2017). Farmer's perception of climate change and responsive strategies in three selected provinces of South Africa, Climate Risk Management, Volume 16, 2017, Pages 246-257, https://doi.org/ 10.1016/j.crm.2016.11.001.

- Finanse MSP Raport firmy Qualifakt Badania Rynkowe i Doradztwo. http://qualifact.pl/ segmenty/msp_ruu_2012.html.
- Franzoni, S., & Pelizzari, C. (2019). Rainfall financial risk assessment in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 31(3), 1104-1121. https://doi.org/ 10.1108/IJCHM-10-2017-0632
- Ganc, M. (2018). Ryzyko utraty płynności a możliwość ubezpieczenia należności w spółdzielniach mleczarskich. Zeszyty Naukowe SGGW, Polityki Europejskie, Finanse i Marketing, (19), 32-42. https://doi.org/ 10.22630/PEFIM.2018. 19.68.3
- Główny Urząd Statystyczny (2015). Polski rynek ubezpieczeniowy 2015. Warsaw: Główny Urząd Statystyczny.
- Główny Urząd Statystyczny (2018). Działalność przedsiębiorstw niefinansowych w 2018 roku. Warsaw: Główny Urząd Statystyczny.
- Gorczyńska, M. (2017). Rynek ubezpieczeń kredytu w Polsce – ocena tendencji ogólnych. *Zarządzanie Finansami i Rachunkowość*, *5*(2), 5-16. https://doi.org/10.22630/ZFIR.2017.5.2.07.
- Jaska, E. (2011). Kreowanie wizerunku przedsiębiorstwa na rynku ubezpieczeniowym. Zeszyty Naukowe SGGW - Ekonomika i Organizacja Gospodarki Żywnościowej, (93), 81-92.
- Jaworski, M. (2009, September 2). Droższe ubezpieczenia kredytu kupieckiego. *Gazeta Prawna*. Retrieved 2019, October 20, from http://biznes. gazetaprawna.pl/artykuly/348693,drozsze_ubez pieczenie_kredytu_kupieckiego.html,3.
- Kaniewska-Sęba, A. (2003). Postaci funkcji trendu. In *Analiza Rynku* (pp. 68-86). Warsaw: Polskie Wydawnictwo Ekonomiczne.
- Kowalewski, E. (ed.). (2006). *Prawo ubezpieczeń gospodarczych.* Bydgoszcz-Toruń: Oficyna Wydawnicza Branta.
- Kubitza, C., Hofmann, A. & Steinorth, P. (2019). *Financial Literacy and Precautionary Insurance* (April 24, 2019). http://dx.doi.org/10.2139/ ssrn.3346477.

- Lane, P.R. (2019). Climate Change and the Irish Financial System. *Economic Letters* 1/EL/19, Central Bank of Ireland.
- Lisowski, J. (2016). Ubezpieczenia finansowe. In Ronka-Chmielowiec W. (ed.) *Ubezpieczenia* (pp. 382-406). Warsaw: C.H. Beck.
- Maciejasz-Świątkiewicz, M., & Musiał, M. (2014). Zarys ekonomii behawioralnej. Opole: Wydawnictwo Uniwersytetu Opolskiego.
- Maison, D. (2014). *Polak w świecie finansów.* Warsaw: Wydawnictwo Naukowe PWN.
- Nowotarska-Romaniak, B. (2014). Implementation of the Marketing Orientation in Poland by Life Insurance Companies. *Zeszyty Naukowe SGGW, Polityki Europejskie, Finansei Marketing,* (12), 154-164.
- Polska Agencja Rozwoju Przemysłu, (2019). Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce 2019. Retrieved 2019, November 26, from https://www.parp.gov.pl/ storage/publications/pdf/2019_07_ROSS.pdf.
- Polska Izba Ubezpieczeń, (n.d.). *Kredyt kupiecki.* Retrieved 2019, November 15, from https://piu.org.pl/knowledgebase/ubezpieczeniadla-firm/finanse-65/kredyt-kupiecki/.
- Prinja, S., Bahuguna, P., Gupta, I., Chowdhury, S., & Trivedi, M. (2019). Role of insurance in determining utilization of healthcare and financial risk protection in India. *PloSOne*, *14*(2), 1-16. https://doi.org/10.1371/ journal. pone.0211793
- Rozporządzenie Ministra Finansów z dnia 16.12.2015 r. w sprawie informacji zamieszczanych we wzorcach umów stosowanych przez zakłady ubezpieczeń. Dz.U. 2015.2189.
- Ustawa z dnia 11.09.2015 r. o działalności ubezpieczeniowej i reasekuracyjnej. Dz.U. 2015. 1844.

- Ustawa z dnia 5 sierpnia 2015 r. o rozpatrywaniu reklamacji przez podmioty rynku finansowego i o Rzeczniku Finansowym. Dz.U. 2015.1348.
- Vaughan, E.J., Vaughan, T.M. (2003). *Fundamentals of Risks and Insurance*. New York: John Wiley & Sons Inc.
- Wicka, A. (2012). Ubezpieczenia finansowe i ich wykorzystanie w zarządzaniu ryzykiem przedsiębiorstw. Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse. Rynki finansowe. Ubezpieczenia (51), 157-167.
- Wicka, A. (2016). Ubezpieczenia upraw rolnych z dotacją z budżetu państwa w latach 2008-2015. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu, 18*(5), 260-266.
- Wicka, A. (ed.) (2014). Czynniki i możliwości ograniczania ryzyka w produkcji roślinnej poprzez ubezpieczenia. Warsaw: Wydaw-nictwo SGGW.
- Wicka, A., & Parlińska, A. (2019). Evaluation of Subsidized Crop Insurance in Poland. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu, 21*(3), 502-511. https://doi.org/ 10.5604/01.3001.0013.2822
- Wieczorek-Kosmala, M. (2017). Risk financing choices of Polish companies – survey results. Zeszyty Naukowe SGGW. Ekonomika i Organizacja Gospodarki Żywnościowej, (118), 55-68. https://doi.org/10.22630/EIOGZ.2017.118.16
- Wierzbicka, E. (ed.) (2010). *Ubezpieczenia non-life.* Warsaw: CeDeWu.
- Woods, B.A., Nielsen, H.Ø., Pedersen, A.B., & Kristofersson, D. (2017). Farmers' perceptions of climate change and their likely responses in Danish agriculture. *Land Use Policy*, 65, 109--120. https://doi.org/10.1016/j.landusepol.2017. 04.007.