

# Problems and Opinions

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DOI: 10.26354/bb.1A.4.97.2024

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## Importance of the insurance sector for the stable functioning of the financial system and the real economy

### Abstract

The stability of the financial system (financial stability) is crucial to the proper functioning of modern economies. Among many institutions that influence this stability are insurers. Traditionally, they have had a stabilising function in economies, as their primary role is risk diversification. In addition, the literature points to numerous other functions of insurance and insurance companies in the economy. However, they can also contribute to generating systemic risk, particularly when they engage in non-insurance activities. The aim of this article is therefore to identify the role of insurance and insurance companies in the functioning of the financial system and the real economy in the context of creating financial stability. To this end, the results of empirical studies published in the academic literature were reviewed. An analysis of the guidelines and recommendations of global, European and national supervisory and crisis management institutions on enhancing safety in the insurance market was also carried out. The analysis leads to the conclusion that the impact of insurers on systemic risk is increasing, primarily due to their growing role and interconnectedness, both with each other and with other financial market participants. The preponderance of the literature indicates that a potential source of systemic risk from insurers are their non-

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insurance activities (investments, securities and derivatives transactions). However, the negative consequences of insurer insolvency require appropriate mechanisms to manage such a situation.

**Keywords:** insurance, systemic risk, crisis management, resolution

**JEL Codes:** G01, G22, G32

## Znaczenie sektora ubezpieczeniowego dla stabilnego funkcjonowania systemu finansowego i gospodarki realnej

### Streszczenie

Stabilność systemu finansowego (stabilność finansowa) ma kluczowe znaczenie dla prawidłowego funkcjonowania współczesnych gospodarek. Wśród wielu instytucji, które mają wpływ na tę stabilność, są ubezpieczyciele. Tradycyjnie pełnią oni w gospodarkach funkcję stabilizatora, ponieważ ich podstawową rolą jest dywersyfikacja ryzyka. Ponadto literatura wskazuje na liczne inne funkcje ubezpieczeń i zakładów ubezpieczeń w gospodarce. Mogą oni jednak przyczyniać się także do generowania ryzyka systemowego, szczególnie gdy angażują się w działalność pozaubezpieczeniową. Celem artykułu jest zatem określenie roli ubezpieczeń oraz zakładów ubezpieczeń dla prawidłowego funkcjonowania systemu finansowego i gospodarki realnej. W tym celu dokonano przeglądu wyników badań empirycznych publikowanych w literaturze naukowej. Dokonano także analizy wytycznych i rekomendacji globalnych, europejskich i krajowych instytucji nadzorczych i instytucji zajmujących się zarządzaniem kryzysowym, dotyczących zwiększenia bezpieczeństwa na rynku ubezpieczeniowym. Analiza prowadzi do konkluzji, że wpływ ubezpieczycieli na ryzyko systemowe zwiększa się, przede wszystkim ze względu na ich rosnącą rolę oraz wzajemne powiązania, zarówno między sobą jak i z innymi podmiotami rynku finansowego. Przeważająca część literatury przedmiotu wskazuje, że potencjalnym źródłem ryzyka systemowego ze strony ubezpieczycieli jest ich działalność pozaubezpieczeniowa (inwestycje, transakcje związane z papierami wartościowymi i instrumentami pochodnymi). Negatywne konsekwencje upadłości ubezpieczycieli wymagają jednak dysponowania odpowiednimi mechanizmami zarządzania taką sytuacją.

**Słowa kluczowe:** ubezpieczenia, ryzyko systemowe, zarządzanie kryzysowe, resolution

**JEL codes:** G01, G22, G32

### Introduction

The primary role of insurance companies is to provide insurance cover, i.e. to finance the consequences of unwanted events, by assuming risk from entities and, in turn, dispersing it for a specified insurance premium. In other words, insurers convert the unknown cost of a future insurance event with a specified probability into a certain present cost in the form of an insurance premium (Mayerson 1960, p. 85–103). In addition to the protective function described above, insurance companies also perform an investment function by investing funds in various types

of instruments, primarily in securities with negligible risk, such as government bonds. Another function of insurance is the preventive function, which is realised either by financing preventive initiatives or by preventing risky behaviour through exclusions or limitations of the insurer's liability in insurance contracts. In other words, insurers perform a variety of microeconomic, macroeconomic and socio-economic functions (Bednarczyk 2007, p. 264–270).

All the identified functions are important for the functioning of the financial system and the real economy, as they affect the level and management of risk by economic entities, including participants in the financial system. Of particular importance, however, are the protection function and the investment function, which are essential for the proper and undisturbed functioning of the financial system and, consequently, also the real economy, including the welfare of policyholders, insureds, claimants and victims. The sudden need to liquidate the investments of insurance companies, and therefore to sell quickly the financial instruments they hold (both their own and those where the investment risk is borne by the policyholders) may result in serious repercussions on the financial market. At the same time, the bankruptcy of an undertaking (linked to other entities and providing protection to a large number of entities or entities of strategic importance to the economy) may have an impact on other (non-insurance and even non-financial) entities in the real economy (contagion effect) (Koziońska 2023, p. 677–678). It is due to the fact that the role of insurance companies in the economy, their size and interconnectedness, as well as the offering of products and services other than strictly insurance products and services, have changed the way the sector is being evaluated as a potential source of systemic risk.

The purpose of this article is to assess the role of insurance and insurance companies for the proper functioning of the financial system and the real economy. In this respect, it seems crucial to identify the role and functions of insurance and insurance companies, which directly translate into the functioning of the real economy. The role of insurers in the financial system, which then affects the real economy, is also not without significance. In this context, it seems necessary to relate the concept of systemic risk to both traditional insurance activities, investment activities and activities outside the traditional insurance offerings, such as derivatives trading. An analysis of the two indicated areas (which are to some extent common and interact with each other) will make it possible to define the overall role of the insurance sector.

The first part of this paper analyses the function of insurance and insurers in the economy. The second part of this paper cites the approaches of different organisations to the concept of systemic risk and also presents the common features of these approaches and the related implications for the insurance market, in the context of the role of insurers in the real economy and the financial system. The second part reviews recent researches on the impact of insurers on systemic risk in the context of the types of insurance and non-insurance activities they undertake. The next part of the article is devoted to regulations related to systemic risk in the context of insurance. The fourth part is an attempt to assess the Polish insurance sector in terms of generating systemic risk. The article ends with conclusions on the role of insurance in today's economies and the necessary security mechanisms for this market.

## 1. Functions of insurance and insurers and their role for the real economy

The primary function of insurance is to lift or reduce the burden of certain random events whose risk of occurrence accompanies various entities, including households and businesses (Ronka-Chmielowiec 2016, p. 14). As Bednarczyk (2016, p. 45) points out, insurance makes it possible to disperse and redistribute the financial consequences of random damage and to increase the financial security of entities. In doing so, she distinguishes the following functions of insurers: protective-compensatory (providing insurance cover), mobilisation (mobilising savings in the economy) and investment (facilitating the transfer of savings into physical capital).

Citing Rejda (1966, p. 195–208), Bednarczyk divides the functions of insurers into microeconomic (enabling the restoration of assets damaged by the materialisation of random events) and macroeconomic (ensuring that the whole economy functions in a relatively even and stable manner). She also points out that non-life insurance is classified as a so-called macroeconomic stabiliser of the economy, as it mitigates shocks related to the occurrence of casualties.

Jonas (2020, p. 11) indirectly indicates the functions and role of insurance by citing various definitions that define the category of insurance. In doing so, he cites the following:

- Protection against the consequences of unfavourable, random events, by spreading the coverage of their consequences over a number of units (after Gluchowski 2001),
- Removing or reducing the burden of certain random events, the risk of which accompanies a person at different stages of life (after Ronka-Chmielowiec 2002).

In addition to the classic functions, Bednarczyk (2016, p. 46) points out that the practice of insurance companies provides further functions of companies not described in the literature, i.e.: contributing to financial stability, replacing and/or supplementing government social programs, facilitating trade and exchange, assisting in the accumulation of savings, enabling more efficient risk management, encouraging the reduction of random losses, and fostering more efficient capital allocation.

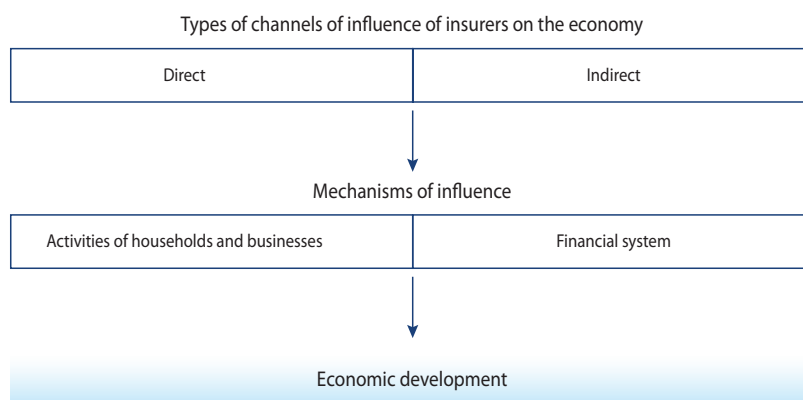
Signorini (2024, p. 2–3) points out that the contingencies that insurance companies safeguard can range from the effects of natural disasters to the effects of demographic change. Therefore, insurance and insurance companies play an important role in the real economy.

A review of the literature on the functions performed by insurance companies indicates that the classic insurance business plays a significant role as a stabiliser of economic life. The proper functioning of insurers should therefore have a positive impact on the real economy, and any disruption to the stable operation of the insurance sector deprives the real economy of an additional mechanism to support its development.

## 2. Insurance business and its importance for the financial system

A full assessment of the impact of the insurance sector on the real economy also requires an assessment of the sector's role in the financial system. Indeed, a properly functioning financial system is one of the conditions for the development of the real economy. The impact of the insurance sector on the financial system is therefore the second, indirect, channel of influence of insurers on the real economy. The channels of influence on the economy are summarised in Figure 1.

**Figure 1. Channels of influence of the insurance sector on the real economy**



Source: own study.

Assessing the role of the insurance sector in the stable functioning of the financial system involves, first and foremost, an analysis of the systemic risks that the sector can generate.

### a. Definition of systemic risk

Risk is an inherent element of the activities of any business entity. It is defined as the possibility of an outcome that differs from the expected one (Jajuga 2019, p. 18). However, there are many types of risk. As Koleśnik (2017, p. 141) points out, in addition to the classic types of risk (such as credit risk, market risk, operational risk or liquidity risk), systemic risk, understood as the risk of simultaneous bankruptcy of multiple entities in a given sector of the financial system, should be indicated. Here, he points to the banking sector as an example.

Research related to systemic risk gained prominence after the outbreak of the financial crisis in 2008. As Smaga (2020, p. 20) notes, systemic risk, unlike the other types of

risk studied in financial markets, is more than the sum of risks generated by individual entities. It is an aggregation of all risks and arises not only from the functioning of individual entities, but also from the interconnectedness between them.

According to De Bandt and Hartmann's (2000) approach, the key element in systemic risk is, a systemic event, which consists of two elements: a shock and contagion (propagation). Shocks can be idiosyncratic or systematic. Idiosyncratic ones initially affect only the condition of a single financial institution or only the price of a single asset, whereas systematic shocks can affect the entire economy, e.g. all financial institutions simultaneously.

Chen et al. (2014) point out that systemic risk is often caused by financial institutions that are 'too big to fail' or 'too interconnected to fail'. Systemic risk is also the possibility of simultaneous failure of major financial institutions. The authors add that traditional measures, such as correlation coefficients, are often inadequate for measuring systemic risk, because they usually involve 'tail behaviour' (this can be read as a reference to the propagation cited earlier – author's note), which is not captured by conventional measures.

According to the definition used by the International Monetary Fund (IMF), systemic risk is defined as a situation in which the risk that the failure of a particular financial institution will cause large losses to other financial institutions threatens the stability of the financial system (IMF 2014). The European Central Bank (ECB), on the other hand, in relation to banks, adopts a definition of systemic risk as "the probability of a systemic event occurring in the financial system over a specified period of time. A systemic event, in turn, is characterised by a clear and measurable indicator, i.e. the number of financial institutions failing at the same time over a specified period". The ECB (2020) emphasises that three main forms of systemic risk can be distinguished, i.e. first, contagion risk, which is idiosyncratic in nature, second, common exposure to shocks in financial markets or adverse macroeconomic developments, which can cause simultaneous problems for a number of entities, and third, financial imbalances, such as credit and asset bubbles, which build up gradually and can have a sudden harmful effect on markets. All forms of systemic risk can be interconnected.

In developing its approach to systemic risk in the insurance sector, the International Association of Insurance Supervisors (IAIS) cites the concepts of both the IMF and the Bank for International Settlements (BIS) and the Financial Stability Board (FSB), noting that the term systemic risk "refers to the risk of disruption to financial services that is caused by an impairment of all or part of the financial system and can have serious negative consequences for the real economy." According to the IAIS, the source of systemic risk can be either a single financial institution or a group of such institutions (IAIS 2019).

## b. Systemic risk – an approach to definition from an insurance perspective

While the definitions of systemic risk adopted by different institutions differ, certain common features can be observed in each approach (e.g. emphasis on the size of institutions, interconnectedness, contagion). Referring strictly to the specifics of the insurance market, one can recall the so-called key exposures of the insurance sector, developed by the IAIS (IAIS 2019), which can have systemic effects. These are:

1. Liquidity risk, defined as the inability of an insurer to use its investments and other assets in a timely manner to meet its financial obligations, including collateral needs, as they fall due.

According to the IAIS, liquidity risk is lower for companies doing traditional insurance business and higher for insurers operating in securities lending, derivatives or hedging liquid liabilities with illiquid assets.

2. Interconnectedness, including:
  - a. Exposures of a macroeconomic nature, defined as the exposures of an insurer (or the insurance sector) to macroeconomic risk factors;
  - b. Exposures to the counterparty risk, i.e. the interactions between insurers and counterparties through which each entity is exposed to the effects of the other's financial distress.
3. Limited substitutability, concerning continuity of cover in the event of insurer failure. Substitutability may be low in the case of high market concentration or in the case of niche insurance products offered by a small number of insurers.

The pandemic showed that systemic risk can also increase as a result of an equal and strong external factor. In the case of the pandemic, for example, most insurance companies were exposed to the risk of a strong increase in compensation payments due to the large-scale materialisation of various risks. As Lisowski (2021, p. 246–250) points out, this risk is primarily associated with insurances such as e.g. travel insurance, business *interruption*, business and professional liability, cyber risk, event cancellation or financial losses. At the same time, worsening macroeconomic conditions, e.g. a drop in interest rates (reducing the profitability of the assets held by the undertakings), an increase in the unemployment rate or a reduction in the scale of demand for insurance products (or even causing the withdrawal of funds from savings insurance products), reduce the profitability and liquidity<sup>1</sup> of undertakings on a system-wide scale. This generates the risk of simultaneous risk of bankruptcy of many undertakings, which is a manifestation of systemic risk.

In response to financial crises such as the one in 2008, regulators around the world introduced a number of changes to reduce systemic risk generated by financial institutions, including insurers. In the European Union, a key element of this effort was the Solvency II Directive, which introduced more stringent risk management

<sup>1</sup> At the same time, analyses by Kozińska et al. (2021) suggest that liquidity problems in a crisis are particularly difficult to manage due to the difficulty of obtaining such sources of liquidity to address the institution's problems in terms of both the nature and scale of available funds.

and capital requirements for insurers. Poposki et al. (2024) point out that the introduction of this directive was aimed at reducing systemic risk through better monitoring of interdependencies between financial institutions.

With Solvency II, insurers are required to maintain adequate level of own funds to ensure their solvency, considering claims. In addition, these regulations require insurance companies to implement effective risk management strategies, which contribute to greater stability in the insurance sector.

Solvency II is an instrument to monitor the risk of insurer bankruptcy and thereby counteract the effects of potential bankruptcies on the financial system and the real economy. While Solvency II has significantly increased the resilience of the insurance sector to shocks, it has not entirely eliminated the risk of bankruptcy. For this reason, tools are being developed to manage systemic risk when an insurance company is on the verge of failure (FOLTF – failing or likely to fail). The IRR Directive establishes in this context the concept of critical functions, understood as *“activities, services or operations performed by an insurance or reinsurance undertaking for third parties that cannot be substituted within a reasonable time or at a reasonable cost, and where the inability of the insurance or reinsurance undertaking to perform the activities, services or operations would be likely to have a significant impact on the financial system or the real economy in one or more Member States including, in particular, the impact resulting from effects on the social welfare of a large number of policy holders, beneficiaries or injured parties or from a systemic disruption or a loss of general confidence in the provision of insurance services.”*

The identification of a critical function in an insurance company is one of the prerequisites for its resolution, in order to better protect the financial system and the real economy from the possible consequences of an insurer’s exit from the market.

### c. The nature of systemic risk in the context of the insurance sector – a review of research

A review of the academic literature shows that opinions on the ability of insurers to generate systemic risk are divided and there is no consensus, unambiguous position on this issue.

As A. Denkowska and S. Wanat (2020, p. 39) point out, prior to the 2008+ financial crisis, there was a belief among researchers that insurers were not a systemically important sector. This approach was changed by the crisis and the associated role of AIG, one of the largest US insurance groups. While AIG lost liquidity due to the crisis, this phenomenon was due to the group’s involvement in trading derivatives based on credit risks rather than offering traditional insurance products. The 2008 crisis resulted in a new research approach, which maintains that traditional insurance business does not generate systemic risk, while it can be generated by the



presence of insurers in the business of asset management, investment, derivatives trading. Evidence for this approach can be found in the IAIS (2013) document, i.e. the methodology for assessing globally systemically relevant insurers, where supervisors' association states the following:

- in general, insurance risks are not correlated with economic cycles and financial market risks,
- insurance groups and conglomerates that engage in non-traditional or non-insurance activities may be more susceptible to changes in the financial market and may therefore be more likely to increase or contribute to systemic risk.

P. Drake et al. (2017), citing a number of works, conclude that insurance risk, classically conceived, generates low risk compared to services performed by other financial market institutions. Nevertheless, this risk increases as insurers' activity shifts towards investment management, derivatives operations, CDS and underwriting of financial products. Also T. Bednarczyk (2013) points out that traditional insurance activities, although stabilising, become a risk when insurers engage in high-risk financial activities.

Also Bobtcheff et al. (2016) distinguish between two types of insurance business:

1. Traditional insurance – includes products that can be diversified according to the law of large numbers (e.g. property insurance, life insurance). This type of business is considered low risk in terms of systemic risk as the perils they cover have little correlation with the economy.
2. Non-traditional activities – e.g. insurance products with guaranteed minimum returns or surrender options, which can lead to systemic risk. These products are more correlated with the economic cycle and can generate insolvency risk, especially in crisis situations.

The authors point out that the biggest threat to systemic risk from the insurance sector is posed by large insurance companies with non-traditional operations and those with strong links to other financial institutions.

The IAIS lists as non-traditional or non-insurance activities the guarantees, activity in financial markets (e.g. CDS), non-hedging transactions and leveraged activities. In summary, the activities of insurers may involve systemic risk if they involve investing (own funds or customers' funds) or offering products similar in nature to bank or investment products.

The changing assessment of insurers in terms of systemic risk is not only related to non-insurance business. The evolution of the assessment of the insurance sector is also related to the increasing global linkages between insurers, reinsurers and other financial market players, including banks. A study by T. Gehrig and M. Iannino (2018) on systemic risk in the insurance sector analyses the evolution of systemic risk exposures in the insurance sector in Europe. A key finding of this study is that the increasing degree of interdependence between banks and insurers correlates with systemic risk exposure. According to the authors, one of the main factors

contributing to the increase in systemic risk in the insurance sector is the increasing involvement of insurers in non-insurance activities. This change in the business model of insurers may be the result of regulatory arbitrage, which incentivize the financial institutions to transfer some risk from the banking sector to insurance.

In 2013 the Financial Stability Board (in consultation with the IAIS) published for the first time a list of Global Systemically Important Insurers (G-SIIs), where 9 entities were identified, among which were:

- Allianz,
- AIG,
- Generali,
- Aviva,
- Axa,
- Metlife,
- Ping An,
- Prudential Financial,
- Prudential.

In November 2019, the FSB suspended the identification (in the context of insurers) of global systemically important institutions. In November 2022 the FSB announced that it will stop identifying global systemically important institutions in the context of insurers, which is related to the finalisation by the IAIS and approval by the FSB of the so-called holistic framework – a comprehensive framework, on the assessment and mitigation of systemic risk in the insurance sector (FSB 2022).

The differences in terms of assessing the potential for insurers to generate risk relate not only to the question "if?" but also to what the size of that risk might be. D. Kessler (2014) argues that the traditional insurance and reinsurance model does not generate systemic risk, unlike banks and other financial institutions. The main research thesis is based on the assumption that the reinsurance and insurance sector is inherently stable and is not exposed to the same mechanisms that can lead to systemic financial crises, such as sudden bankruptcies or bank runs. The author also states that insolvencies in the insurance and reinsurance sector are rare and, unlike banks which can fail quickly and generate cascading problems in the financial system, the failure of an insurer or reinsurer is a lengthy process that usually takes place in an orderly manner.

According to Kozinska (2023), the insurance sector is not free from the risk of insolvency, hence the need to reform crisis management in the insurance sector, which is being implemented in the European Union through the proposed IRR Directive. It will introduce resolution mechanisms into the sector, similar to those in the banking sector. The IRRD will strengthen the stability of the insurance sector and reduce the financial and social impact of possible insurance company bankruptcies.

B. Srbinoski et al. (2024) who, also citing other researches, conclude that, given the strong evidence of increasing networking among insurers globally and locally, as well as the increasing frequency and severity of natural disasters, the potential

for insurance-induced crises becomes a significant future risk. This is one of a few current examples of work in which the authors link insurers as a potential source of crises to the traditional insurance business of protecting assets from the effects of the elements. The authors analysed the evolution of insurers' linkages between 2000 and 2021, as well as the insurance sector's linkages with firms outside the financial market. The results show increasing trends in interconnectedness. The authors acknowledge that the evidence on the destabilising impact of catastrophes on European insurers and non-financial firms is weak and it is highly unlikely that systemic disruption is due to crises caused by significant catastrophic events. However, according to the authors, there is the potential for a contagion effect of catastrophe risk, both due to interconnectedness within and outside the sector. The most interconnected non-financial firms (with the insurance industry) are experiencing negative weather events, suggesting that as the scale and uncertainty of catastrophic events increases, insurers and non-financial firms may suffer significant losses.

In conclusion, the current approach to the insurance sector in the context of systemic risk, is that the capacity of the sector to generate this risk increases with the number of interconnections, the size of the entities and the pursuit of activities going beyond classic insurance services.

### 3. The insurance sector in Poland in the context of systemic risk

The assets of the Polish insurance sector at the end of 2023 amounted to more than PLN 218 billion. Out of more than PLN 114 billion of insurance companies' investments, as much as 84% were debt securities. The largest segment of insurance business in Poland is the motor insurance market, whose value in 2023, measured by premiums, amounted to PLN 28.3 billion, while premiums in the entire insurance market amounted to PLN 78.8 billion<sup>2</sup> (PIU 2024). Many segments of the insurance market are highly concentrated, such as life insurance linked to an insurance capital fund (unit-linked). At the end of 2023, unit-linked assets in Poland amounted to less than PLN 40 billion (Zalewska 2024), and 66% of assets are managed by three insurance companies. In compulsory crop insurance, on the other hand, two insurance companies held, according to data for 2020, almost 77% of the market (Janowicz-Lomott 2023).

Given the size and operations' scale of some entities on the Polish insurance market, the network of relations with other entities, as well as the strong concentration in certain market segments, it should be assumed that the possible bankruptcy of an insurance company in Poland may have systemic consequences. Avoiding these consequences are the primary objectives of the proposed IRR Directive. These are:

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<sup>2</sup> Motor insurance, understood as the sum of the written premiums of classes 3 and 10 of Branch II, as defined in the Polish legal system.

- protecting the collective interest of policy holders, beneficiaries and claimants;
- maintaining financial stability, in particular by preventing contagion and by maintaining market discipline;
- ensuring the continuity of critical functions;
- protecting public funds by minimising reliance on extraordinary public financial support.

In addition to the issue of the day-to-day operations of the insurance undertakings and their impact on systemic risk, there is a need to analyse these risks and their effects also at the level of insurer insolvency. The described objectives of the IRR Directive translate into concrete risks of a systemic nature, i.e.: lack of insurance protection or funding of damages for a large group of entities when insurance coverage is essential for daily functioning or for undertaking certain professional activities, sale of assets caused by the entity's poor financial situation affecting valuations of financial instruments, permanent undermining of confidence in the sector due to the default on insurance contracts.

The IRR Directive provides further necessary tools to increase security in the insurance sector and allows for systemic risk testing in the insurance sector, in face of the risk of insolvency.

Cyclical reports by the National Bank of Poland (NBP), indicate that for the insurance sector, double gearing and the high proportion of expected profits included in future premium (EPIFP) in own funds may be a problem. The NBP recognises that due to these two factors, the real resilience of the insurance sector to shocks may not be adequately reflected by capital ratios. The NBP's calculations show that reducing double gearing and not including EPIFP in own funds would result in a decrease in the solvency capital requirement (SCR) for the whole sector from 240% to 175% (NBP 2024, p. 75). This problem is not identified in materials published by the Polish Financial Supervision Authority and the Ministry of Finance.

The EIOPA report (2021), in turn, shows that European insurers are not free from the risk of insolvency. Over the past 20 years, 219 cases of 'failures and near misses' have been identified. In an earlier study, EIOPA (2018) also gives reasons for insurers' failures or near misses. In the life insurance sector, these were: management and staff competence risk, investment management risk, equity/liability risk, market risk, reserve valuation risk and economic cycle risk. In the non-life sector, reserve valuation risk was the most significant, followed by internal management and control risk, board and staff competence risk, underwriting risk and actuarial risk. EIOPA (2021), citing the conclusion that insurers are not free from the risk of insolvency and the associated costs, also stresses that one of the objectives of the resolution mechanism is to protect taxpayers' money. EIOPA cites the case of the bankruptcy of AIG, for which the protection package cost the US economy \$150 billion, and the case of Australian insurer HIH. The bankruptcy took place in 2001 and its cost was estimated at 5.3 billion Australian dollars, with the main emphasis being on the financial losses of policyholders and the lack of continuity of cover. Both of these issues are among the objectives of the IRRD and

the directive itself refers to the impact on the real economy and the financial system through damage to the interests of policyholders, which is reflected, among other things, in the definition of the critical function, provided in the IRRD and cited in Part 2 of this paper.

The history of the bankruptcy of Polish insurance companies is cited by Kozinska (2023, p. 676–686), concluding that 'they have not been extensively analysed in the national literature'. Instead, the author cites the potential effects of the possible bankruptcy of an insurance company on the Polish market. This is not only about the impact directly on customers (e.g. related to the rules of the Insurance Guarantee Fund, which protects only a part of the insurer's customers in case of bankruptcy), but also about imperfections in the Polish legal system. The author cites a number of provisions from the bankruptcy law and the mandatory insurance law, which are sometimes inconsistent or imprecise, so that it is not possible to clearly define 'the principles of settlement of insurance claims, as well as the division of tasks and responsibilities between the trustee and the Insurance Guarantee Fund (pol. Ubezpieczeniowy Fundusz Gwarancyjny, UFG)'.

## Conclusions/Summary

Although the academic literature does not provide a clear answer to the question to what extent insurance activity translates into systemic risk, there are studies that confirm the adverse impact of insurers' troubles on the financial system and the real economy. This has to do primarily with the growing importance of insurers, greater interconnectedness within and beyond financial markets, and activities beyond traditional insurance coverage. The growing importance of the insurance sector is influencing changes in thinking about crisis management in the sector. Regulations (IRRD) are being introduced to minimise the financial and social impact of potential insolvencies. The insurance sector as an element of the financial market is starting to be treated similarly to the banking sector (maintaining all proportions), i.e. the increase in importance for the economy and society is correlated with the need to fill the gaps in regulation related to crisis management.

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### Legal acts

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