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The effect of reinsurance operations on reducing the risks facing the insurance companies in Palestine

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1. Background and significance of the study

Insurance companies are the main component in the economic and financial sector in any country, in which they have become an integral part with the banking system in terms of their high asset values, financial resources, and large profits. Insurance companies play an important role in protecting wealth, assets, and public and private property, by ensuring the fulfilment of compensation and obligations of the policyholder according to the terms and conditions of the insurance contract. Insurance companies are usually exposed to risks due to the nature of their work and the risks associated with it, and because of the nature of the insurance industry, in light of uncertainty and risk, and in light of the Great Economic Development, they face great challenges in accepting or denying some coverages that companies do not want or exceed their absorption capacity or financial solvency (A-Shanti et *al.*, 2020).

The basic idea of insurance is based on the realization of the law of large numbers so that the insurer can accept as many risks as possible. Therefore, we find the insurer facing risks beyond its absorptive capacity and resorting to several means. Insurance companies are considered like other companies that always seek to exercise their activity effectively to enable them to achieve their goals, and in order to achieve their competitive existence, which should provide various means and find methods to manage the risks to which they are exposed (Burai, 2016).

Based on the above, it became necessary for insurance companies to distribute the risks surrounding them through another company, which is represented by reinsurance operations. Hence, the importance of reinsurance is manifested by allowing insurance companies to assume high risks with high costs and the possibility of their fragmentation and distribution, thus giving them an opportunity to increase their operating capacity and achieve the largest and most comprehensive coverage of the insurance market in light of intense competition to ensure its survival and continuity. Therefore, it plays an important role in absorbing important risks that threaten the insurance business and the economy as a whole. The economic development of a country presupposes the existence of a strong and tight insurance system that responds to the needs of coverage and the changes taking place, and this, in turn, depends on the choice of a reinsurance policy. Reinsurance is an integral part of the insurance activity and comes in second place after it. If the insurance activity is carried out on an internal scale, the reinsurance process depends primarily on the widespread in various countries. If it were not for the reinsurance companies, the financial efficiency of the insurance companies located in Palestine would have declined and been disturbed, as they are considered a safe haven in the face of risks. Hence, this study comes to try to identify the impact of reinsurance operations in reducing the risks facing insurance companies in Palestine (Salam & Moussa, 2010).

2. The problematic

Insurance companies face risks that may often exceed their operational and financial capacity, especially when compensation claims occur. Therefore, it is necessary to reduce risks, and lease most or part of these risks to other companies that have a high operational and financial capacity and are large at the same time in the form of reinsurance operations. The aim of the study is to track the impact of reinsurance operations in avoiding many of the risks that insurance companies may face, by answering the following questions:

- Is there an impact of reinsurance operations in **increasing the operating capacity** of insurance companies in Palestine?
- Is there an impact of reinsurance operations in **reducing the profitability risks** of insurance companies in Palestine?
- Is there an impact of reinsurance operations in **reducing the potential losses** of insurance companies in Palestine?
- Is there an impact of reinsurance operations in **maintaining the competitiveness** of the insurance company in Palestine?

3. Aim of the study

This research contributes to the formation of a theoretical and conceptual framework on insurance and reinsurance and there are many goals, namely the following:

- Investigating reinsurance operations and their impact on Palestinian insurance companies
- Study the impact of reinsurance operations in reducing the risks faced by insurance companies in Palestine
- Unveil the reasons that led insurance companies to resort to reinsurance in Palestine

4. Hypotheses of the study

***The 1st hypothesis*:** there is no statistically significant effect at the indicative level ($0.05 \geq \alpha$) of reinsurance operations in increasing the operating capacity of insurance companies in Palestine.

***The 2nd hypothesis*:** there is no statistically significant effect at the indicative level of significance (0.05 ≥ α) of reinsurance operations in reducing the profitability risks of insurance companies in Palestine.

***The 3rd hypothesis*:** there is no statistically significant effect at the indicative level (0.05 ≥ α) of reinsurance operations in reducing the value of potential losses of insurance companies in Palestine.

***The 4th hypothesis*:** there is no statistically significant effect at the indicative level (0.05 ≥ α) of reinsurance operations in maintaining the competitiveness of insurance companies in Palestine.

5. Study model

The following model represents the impact of reinsurance operations in reducing the risks faced by insurance companies in Palestine:

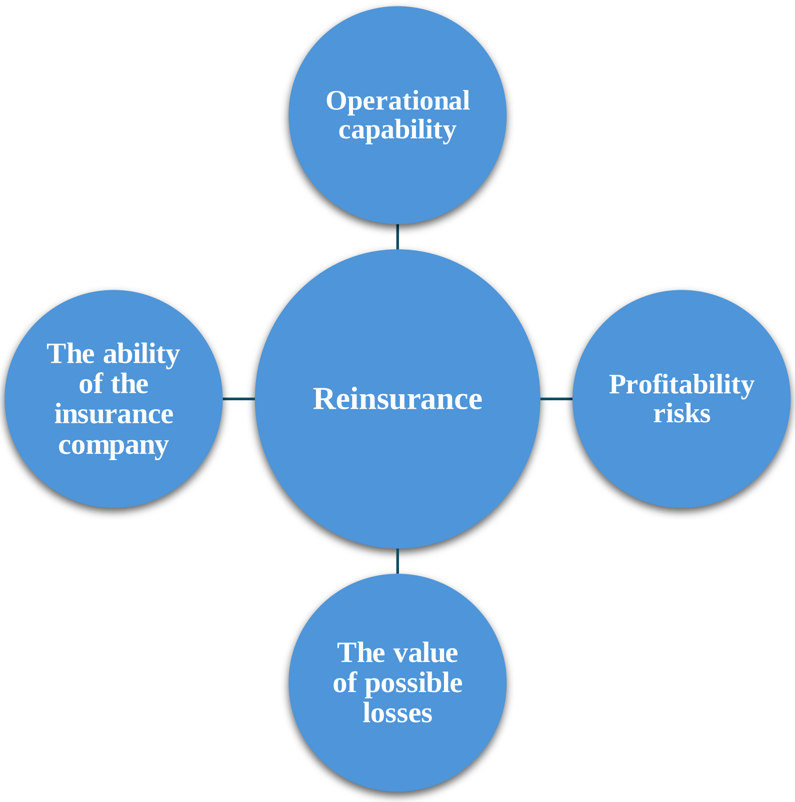

Figure 1: Study model

6. Importance of the study

The importance of the study stems from the reinsurance operations and the extent of their impact on reducing the risks facing insurance companies. Therefore, the importance lies through identifying the ability that reinsurance operations give in order to face the potential and expected risks from regular insurance operations, which led to studying these operations and delving into their impact on reducing risks at the practical level and through practicing these operations by companies.

7. Important concepts

7.1. Insurance

Insurance is a form of risk management that helps protect individuals and businesses from financial losses in the event of unexpected events. It is a contract between an insured (an individual or entity seeking protection) and an insurer (an insurance company), in which the insurer agrees to reimburse the insured for losses incurred from covered events in exchange for a premium (a periodic payment) (Dorfman & Jacob, 1992; Cummins et *al*. 2005). In other words, it is a risk transfer mechanism that protects individuals or businesses from financial losses arising from unforeseen events to an insurance company in exchange for a premium.

7.2. Insurance companies

A company which operates within the framework of an insurance contract, providing a commitment to disburse a specified sum of money to either the insured party or a designated beneficiary in the event of the transpiring of the insured risk or accident. This financial provision is made in consideration of the premiums remitted to the company by the insured party. Notably, these entities are classified into two distinct categories, namely local companies, and foreign companies, in accordance with the stipulations of the Palestinian Insurance Law No. 20 of 2005.

Local insurance company refers to any company established within Palestine and duly registered with the Registrar of Companies to engage in the business of insurance. Conversely, a foreign insurance company is defined as any company established outside of Palestine and duly registered with the Registrar of Companies for the purpose of conducting insurance operations.

7.3. Reinsurance

Reinsurance involves the shared assumption of responsibility for the insured risk and its outcomes between the primary insurance company, known as the ceding company or direct insurer, and a specialized entity referred to as the reinsurance company or reinsurer. This arrangement is formalized through a contract requiring the ceding company to bear a portion of the risk, while transferring the remaining portion to the reinsurer for coverage (Bahij, 2011).

7.4. Risk management

Risk management encompasses an integrated organizational approach with the primary objective of addressing risks using optimal methods and minimal expenditure. This involves the systematic identification, analysis, and assessment of risks, followed by the selection of suitable strategies to mitigate them, thereby aligning with the desired organizational objectives (Bedard & Johnston, 2022; Carmel & Agarwal, 2022).

Chapter II: Literature review

Chapter II: Literature review

This chapter seeks to explore the pivotal role of reinsurance operations in mitigating the risks encountered by insurance companies in Palestine. The scope of this discussion is confined to addressing the concerns of executive and financial managers within Palestinian insurance companies. Furthermore, the analysis delves into the influence of reinsurance on bolstering the capacity of insurance firms to confront various risks. Lastly, this section scrutinizes several scholarly works from both Arab and international researchers, offering critical insights into these studies.

1. Reinsurance

1.1. Emergence and development

The emergence and development of reinsurance can be traced back to the fourteenth century AD, within the context of marine insurance. Over time, the application of reinsurance expanded to encompass fire, theft, and general accident insurance during the eighteenth century, in response to the growth and diversification of industry and trade. The need for new forms of insurance that aligned with the advancements brought about by the Industrial Revolution and the subsequent trade expansion became increasingly pressing. Consequently, the inaugural reinsurance operation materialized in the year 1370 AD, followed by the establishment of specialized reinsurance entities like the International Cologne Re Company in 1852, the Swiss Re Company in 1863, and the International Lloyds Company. The proliferation of reinsurance companies gained momentum, with 30 companies at the dawn of the nineteenth century and a subsequent surge leading to over 300 companies in the mid-nineteenth century. By the beginning of the twentieth century, the number of reinsurance companies had surpassed 2500, and today, the global landscape encompasses over 10 000 reinsurance companies distributed across various countries. Notably, the United States accounts for 42% of these companies, while Europe comprises 39%, Latin America 6%, Australia 4%, Asia 6%, and Africa 3% (Bahij, 2011).

Global reinsurers are seeking to integrate into the formation of large entities with a view to reorganising these companies, thereby contributing to an increase in their capabilities and financial liability and thus to a strong stand with other large companies to absorb insurance work that is increasing as business and economic activities expand.

The immediate purpose of reinsurance may be to protect insurance companies from potential losses by converting these losses into reinsurance (i.e. by recovering their losses from the reinsurance provider for a premium paid to the reinsurer, which has led insurance companies to resort to such a method to protect their documents against losses). The underlying concept of insurance is to distribute the loss to as many as possible according to the Large Numbers Act, so that the insurance company collects large numbers of insured persons, and whenever those numbers are large and the insured risks are similar, the insurance company has achieved its objective with precision and accuracy, and in this way the insurance company can expand its acceptance of significant risks; it will retain part of those risks and reinsurance the remaining part of the excess of its capacity; hence the idea of reinsurance has arisen for this purpose. (Salam & Moussa, 2010).

1.2. Reinsurance contract (formulation)

Definition of reinsurance

The doctrine of reinsurance has varied, mainly because restoration involves two aspects: the first is legal and the second is technical.

<u>First, the legal definition:</u>

Reinsurance is a contract in which the first party, called the reinsurer or retrocessionaire, agrees to compensate the second party, called the insurer or ceding company, for its potential losses that may result from insurance policies it issues to insureds, in whole or in part, in exchange for a premium or sum of money.

Reinsurance is a new insurance contract, separate and independent from the original insurance policy, on the same risk that was insured under the original insurance policy issued by the insurer. Under this new contract (reinsurance contract), the reinsurer agrees to compensate the ceding company for its potential losses resulting from the original insurance policies it issued. This is in exchange for a premium or sum of money paid by the ceding company to the reinsurer. (Medfouna & Goufi, 2015).

<u>Second, the technical definition:</u>

Reinsurance refers to the act of an insurance company accepting large-value risks and then distributing this risk by reinsurance of part or parts of it with other insurance companies that participate in the part allocated to it in bearing risks within the limits of the parts it accepts, in exchange for paying an agreed commission to the reinsurer (Medfouna & Goufi, 2015).

Third, the comprehensive definition of reinsurance:

It is an internal agreement between two or more insurance entities, in which the first entity waives part of each insurance transaction obtained by the entity in exchange for the second entity's commitment to bear a percentage of the compensation paid to the insured in the event of the occurrence of the insured risk in the form of an accident, while the first entity commits to paying a certain amount to the second entity, which is the share of that entity from the insurance premium. This agreement may be a prior agreement for all insurance transactions or an immediate agreement according to each transaction separately. The first entity is called the original insurer or the ceding entity or the direct insurer, while the second entity is called the accepting entity, the reinsurance entity, or the retrocessionaire (Medfouna & Goufi, 2015).

1.3. Importance of reinsurance operations

The primary reason for the reinsurance operations is the inability of insurers to bear significant risks, or to bear more than a certain amount of losses, for any risk. As a result of the limited possibilities of the insurance company, it cannot accept significant risks. Unless there is an opportunity to reinsure these significant risks and through the above, the importance of reinsurance has emerged through the following points:

a. *Increased operational capacity:* Operational capacity is the maximum amount that an insurance or reinsurance company can underwrite without compromising its solvency margin. In many cases, insurance companies are forced to accept insurance policies that exceed the maximum capacity of their operational capacity. Therefore, insurance companies resort to reinsurance to increase their operational capacity, accepting all expected risks, whether small or large, with a high degree of reliability that the reinsurer will accept its reinsurance process beyond its capacity.
b. *Balance and stability*: Balance and stability, or avoiding the effects of fluctuations in loss rates, are one of the distinctive rules of reinsurance operations. The insured does not know whether or when he will suffer a loss, nor does the insurer, and both do not also know the cost of the loss if it occurs. However, through reinsurance, the direct insurer can establish a balance in fluctuations in loss rates by distributing risks to a huge group of insurance complexes through reinsurance.
c. *Risk distribution:* Insurance is a mechanism for distributing risk, where the risk of the policy holder (the insured) is distributed to all other policy holders who have purchased the same policy. Reinsurance continues this process by distributing the risk to a larger

number by participating with reinsurers from all over the world. When a large loss occurs, the insured will receive compensation for this loss and then the insurer itself will claim insurance at the same time. In the event of reinsurance claims, all reinsurers pay part of it. In this way, the risk is distributed through reinsurance, and the direct insurer benefits from financial protection in the same way that the insured benefits when they purchase an insurance policy (A-Shanti et *al*., 2020).

1.4. Reinsurance objectives

1- Reinsurance companies provide technical assistance to direct insurance companies, by training their personnel in the efficient performance of technical insurance work, which is reflected in efficient operations, pricing, marketing, and competition, as well as in their profitability.
2- Reinsurance companies have an important role to play in direct insurance companies, such as the central bank's role with local banks, i.e., it is sometimes a financing role, particularly for small and new direct insurance companies that perform reinsurance as a type of control over both their loss rates and their exchange rates.
3- Empowering a company to compete within the market and to operates with a great deal of risk.
4- To protect the net retention of the ceding company from the single risk (by a proportional agreement) or loss increase for the risk, as well as from the accumulated similar risks resulting from a single insured risk, and from small compensations that deplete the retained net premiums. (Cummins et *al*., 2023).

1.5. Components of the insurance contract

The contract of reinsurance is no different from other contracts in that it is based on three pillars: the pillar of consent, the pillar of the subject matter, and the pillar of the cause. If these pillars are met and free from defects that affect their validity, the contract of reinsurance will be concluded valid and effective. These pillars are as follows:

1- *The pillar of consent*: The meaning of consent is the agreement between the parties to the contract to conclude it. This agreement is made by the connection of the offer issued by one party with the acceptance of the other party in a way that produces an effect on the contract. In order for the contract to be valid and effective, the acceptance must match the offer, and the conditions of validity must be met in the pillar of consent, that the parties be legally qualified if they are natural persons, or with legal personality if they are legal persons, and that there will not be tainted by coercion, gross deception with fraud or gross error, and as it is required for the validity of consent when concluding the direct insurance contract, that the parties exercise the utmost good faith in their dealings, the applicant for insurance must be committed to the duty of disclosure and declare to the insurer all the material circumstances and essential facts known to him or that are presumed to be known to him and related to the subject matter of insurance and the risk to be insured from, which are likely to enable the insurer to decide whether to accept to conclude the contract or refuse it (Bahij, 2011).

2- *The pillar of the subject matter*: We mean by the pillar of the subject matter the thing that is contracted upon, and this thing must be specific or determinable, existing, or capable of existing at the time of the contract, and that dealing with it is legitimate. As for the direct insurance contract, the legal texts have differed in defining its place, where some of them stated that "it falls on the person who benefits from the non-occurrence of a certain risk". The thing here is not only the material thing that occupies a place in the external space, but this release extends to real rights, personal rights, and civil liability, whether tortious or contractual. (Bahij, 2011).

3- *The pillar of the cause*: The reason for the contract is the third pillar of the pillars of the conclusion of the contract in general, and the contract of reinsurance does not come out of this rule, otherwise it would be considered void. The legitimacy of the cause of the reinsurance contract is linked to the legitimacy of the subject matter of the contract and the legitimacy of the interest that binds the direct insurer to this subject matter. This legitimate reason is represented by the need of the direct insurer to cover his liability arising from the insurance contracts he concluded. As for the reinsurer, it is represented by his readiness to cover the liability of the direct insurer in exchange for a portion of the insurance premiums. (Bahij, 2011).

1.6. Elements of reinsurance

Cummins and colleagues (2019) point out that the reinsurance process consists of a set of elements, namely:

- *The direct insurer*: who is the original insurer who cedes a portion of the operation to one or more reinsurers, and thus transfers part of the risk to one or more reinsurance companies.

- *The reinsurer:* The institution that accepts reinsurance work, and it may be an institution whose primary function is reinsurance, or it practices reinsurance activity in addition to its other insurance activities.
- *The amount of reinsurance:* It is the amount that the original insurer cedes to the reinsurance company.
- *The retained amount:* It is the difference between the insurance amount agreed upon by the original insurer and the insured upon payment at the occurrence of the risk and the amount reinsured with the reinsurance company.
- *Reinsurance commission:* The amount that the direct insurance company charges to cover the expenses it incurred in order to obtain that operation.
- *Reinsurance contract:* It is an agreement between two bodies, namely the direct insurance company and the reinsurance company.

1.7. Reinsurance terms

The terms of the reinsurance contract vary depending on the reinsurance process and whether it is voluntary or obligatory reinsurance, as there is not much difference in these terms between proportional and non-proportional agreements. Therefore, the assignment condition and mandatory acceptance are unique to only proportional agreements, but the rest of the conditions apply to both types (proportional and non-proportional) (Bahij, 2011).

First: The assignment and mandatory acceptance condition

This condition is only specific to proportional agreements, as explained above. Through this condition, the direct insurer is obliged to assign a specified portion of all the surplus that exceeds the amount retained by the company for its own account from all insurance operations. This is stated in the following formula: "The company agreed to assign, and the reinsurer agreed to accept, in a reinsurance manner, through a participation share of a certain percentage (%) of any or all risks, regardless of their description, subscribed by the insurance company".

Second: Common conditions

Unlike the first condition of the basic conditions of the reinsurance contract, these conditions include both proportional and non-proportional agreements, and these conditions will be explained as follows:

a. ***The condition of simultaneous and concomitant liability:*** The condition of simultaneous and concomitant liability concerns the time when the liability of the reinsurer arises against the direct insurer (the ceding company). It was decided that this liability arises simultaneously with the establishment of the liability of the direct insurer in the face of the original insured and its linkage with this liability from all sides, that is, that the liability of the reinsurer towards the direct insurer arises automatically, simultaneously, and concomitantly with the establishment of the latter's liability facing the original insured. The liability of the direct insurer is established either by his acknowledgment of it or by a court ruling.

b. ***The condition of the absolute right of the insurer:*** The direct insurer (the ceding company) enjoys an absolute right to select risks, subscribe to them, determine the insurance premium corresponding to the risk, acknowledge its liability for the compensations claimed, or reject them, and choose the method of settling them. He may conduct the friendly settlements that he deems appropriate, and he may reconcile and pay compensations for which he is not responsible in accordance with the terms of the insurance policy. The reinsurer has no right to object to the decisions of the direct insurer in this regard but must follow what he decides and is committed to implementing it.

c. ***The condition of immediate payment of compensation:*** Although all reinsurance agreements stipulate that the direct insurer shall settle all compensations and then be settled with the reinsurer in quarterly statements, at the same time, these agreements obliged the reinsurer to pay the compensation immediately if the direct insurer requested it and the compensation exceeded a certain amount, regardless of whether the reinsurer was a creditor or debtor to the direct insurer at the time of this claim.

d. ***The condition of unintentional error and omission:*** The condition of unintentional error and omission is considered one of the common conditions in contracts of reinsurance of both its proportional and non-proportional types. Any error committed by the direct insurer, whether it is in the assignment process, financial statements, or others, does not affect the liability of the reinsurer if it is corrected immediately after it is discovered. This condition was mentioned in the participation agreement as follows: “An error, omission, or failure to notify of any risk, modification, or assignment carried out under this Agreement shall not relieve the Insurance Institute of liability under this Agreement, provided that such error or omission is corrected immediately upon discovery”.

e. ***The condition of inspection of the direct insurer's books and records:*** The reinsurer has the right to inspect the books and records of the direct insurer (the ceding company) to verify the accuracy of the assignment operations, their numbering, the recording of compensation and insurance premiums.

f. ***The arbitration clause:*** The agreements stipulated that arbitration shall be resorted to resolve any dispute that arises between the direct insurer and the reinsurer, whether it relates to the interpretation of the terms of the treaty insurance or the application of its provisions. The method of appointing the arbitrators, their powers, the place of arbitration, and the applicable law are determined by the arbitration clause attached to the agreement. Despite the difference in the wording of the arbitration clause from one agreement to another, all the conditions have included a statement of the place of arbitration, the method of selecting the arbitrators, the applicable law, and the consequences of the arbitrators' decision (Bahij, 2011).

1.8. Methods of Reinsurance

The process of reinsurance can be carried out in a variety of ways, and the direct insurer seeks to choose the method that best suits its needs and obligations. The most important of these methods are illustrated in the following figure, with a focus on facultative and treaty reinsurance.

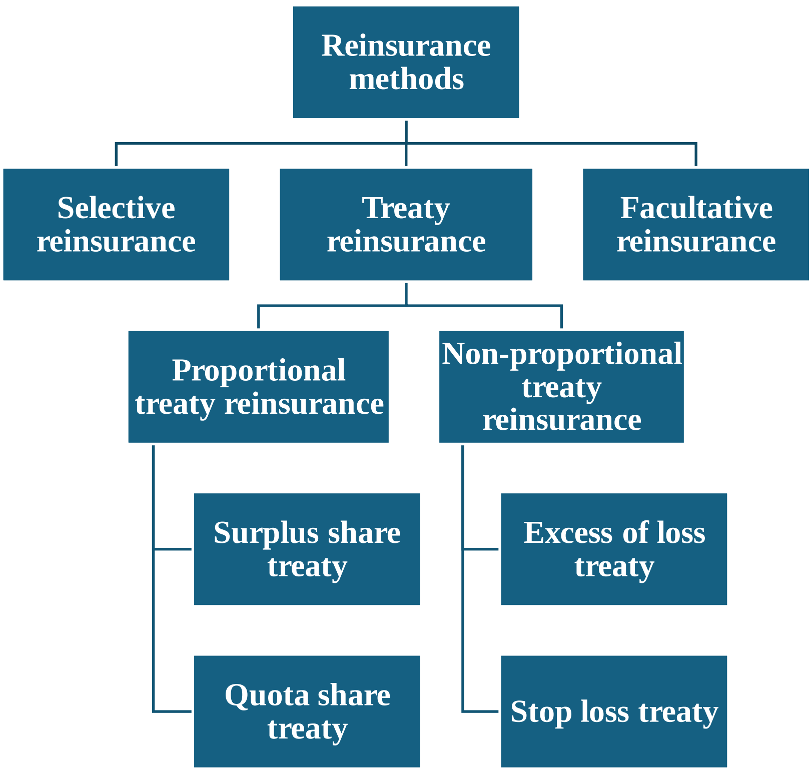

Figure 2: Reinsurance methods (Cummins et *al.* 2019)

1.8.1. Facultative reinsurance

Facultative reinsurance is the foundation on which the reinsurance system is built. This type of reinsurance is described as voluntary selection, indicating that each party to the relationship has the right to freely choose to determine its relationship with the other party.

The direct insurer has complete freedom in selecting the risk that it wants to offer to the reinsurer. It is not obliged to assign all of its risks to the same reinsurer. It can move its risks from one reinsurer to another.

The reinsurer, in turn, has the full right to accept or reject the risk that is offered to it. It also has the right to request that the direct insurer disclose to it all of the material circumstances affecting the risk that it relied on in determining the insurance terms and the price on which the insurance premium was calculated. This is to enable the reinsurer to study the risk and make a decision to accept or reject it (Shukri, 2008).

Disadvantages of Facultative Reinsurance

- According to Bedard and Johnston (2023), the original insurer will not be able to know whether or not the reinsurer will accept the risk before issuing the insurance policy to the insured. This is because the reinsurer has the right to accept or reject the risk, and it may not be able to decide until it has received more information about the risk.
- The original insurer will not be able to know the cost of the reinsurance until it has received the reinsurer's response. This is because the reinsurer may negotiate the terms of the reinsurance agreement with the original insurer.
- The reinsurance procedures according to this agreement take a relatively long time, which means that the original insurer bears the risks of the occurrence of the risk before taking the approval of the reinsurance. This is because the reinsurer needs to review the information that the original insurer has provided about the risk.

1.8.2. Treaty reinsurance

Treaty reinsurance is a type of reinsurance in which the direct insurer agrees to cede all or part of its risks to the reinsurer on a contractual basis. The reinsurer agrees to accept the ceded risks, and the terms of the reinsurance agreement are typically specified in a treaty.

The reinsurance process is mandatory and binding on both parties, and it is not limited to a specific risk in itself but includes the total risks that the direct insurer underwrites. The reinsurance process may be either proportional or non-proportional (El-Ghamedi, 2017).

a. Proportional treaty reinsurance

In proportional treaty reinsurance, the reinsurer agrees to bear a pro rata share of the losses incurred by the direct insurer. This means that the reinsurer will pay a portion of the losses that exceed the direct insurer's retention limit. The proportion of the loss that is borne by the reinsurer is typically specified in the treaty agreement and is based on a number of factors, such as the type of risk, the size of the risk, and the creditworthiness of the direct insurer (El-Ghamedi, 2017).

Proportional treaty reinsurance is a common type of reinsurance that is used to spread risk and reduce the direct insurer's potential losses. It is often used by direct insurers that operate in a variety of lines of business or that have a large amount of business.

There are two types of the proportional treaty reinsurance, the surplus share treaty and the quota share treaty

The surplus reinsurance agreement: Under this method, the direct insurer retains a certain amount of the insurance transaction for itself, and this portion is called the retention. The remaining amount of insurance is called the surplus. The surplus is divided into several retention portions, and these portions are distributed to the reinsurance companies covered by the agreement, according to their capacity. If the surplus reinsurance agreement is unable to cover the risk in full, the uncovered surplus can be covered through a second surplus agreement, a third surplus agreement, and so on (Medfouna & Goufi, 2015).

The quota share treaty: which is a type of proportional treaty reinsurance in which the direct insurer and the reinsurer share the risk, the premium, and the compensation in a pre-agreed proportion. The proportion can be expressed as a percentage or as a specific amount. The reinsurer's premium is typically based on the proportion of the risk that the reinsurer bears. The reinsurer will charge a higher premium for a larger proportion of the risk. This type of participation reinsurance can be used to protect the direct insurer from a variety of risks, including: catastrophic losses, large losses, complex risks, uninsured risks…etc (Cummins et *al*., 2019).

b. <u>Non-proportional treaty reinsurance</u>

In non-proportional treaty reinsurance, the reinsurer agrees to bear all losses that exceed a certain amount, known as the deductible. This means that the direct insurer is responsible for paying all losses that fall within the deductible. The deductible is typically specified in the treaty agreement and is based on a number of factors, such as the type of risk, the size of the risk, and the creditworthiness of the direct insurer. Non-proportional treaty reinsurance is often used to protect direct insurers from catastrophic losses. It can also be used to provide additional capital to the direct insurer. Some types of non-proportional agreements include excess of loss reinsurance and stop-loss reinsurance (Al-Qassab, 2011). The types of agreements for non-proportional reinsurance are:

Excess of Loss Reinsurance: This type of reinsurance is also known as "loss-in-excess" or "excess-of-limits" reinsurance. Under this type of agreement, the reinsurer agrees to bear all losses that exceed a certain limit, known as the deductible. The direct insurer is responsible for all losses that fall within the deductible. This type is often used to cover catastrophic and infrequent losses. This is because they are often too large for direct insurers to bear on their own (El- Qassab, 2011).

Stop-Loss Reinsurance: This type of reinsurance is also known as "stop-loss" or "loss-stop" reinsurance. Under this type of agreement, the reinsurer agrees to bear all losses that exceed a certain percentage of the direct insurer's retention. The direct insurer is responsible for all losses that fall within the retention percentage, even if those losses are large. It is often used to cover smaller, more frequent losses (El- Qassab, 2011).

1.9. Advantages and disadvantages of reinsurance

1.9.1. Advantages of reinsurance

- *<u>Achieving Qualitative Balance</u>:* The goal of reinsurance is not limited to simply disposing of the excess of the insurer's absorption capacity, but the fragmentation of risk and its distribution to the largest possible number of companies has become one of the goals. This allows the insurer (ceding company) to retain small portions of large insurance operations instead of retaining a few large insurance operations. This achieves a qualitative balance in its work and agrees with the law of large numbers.
- *<u>Achieving Spatial Balance</u>:* This is done by ensuring freedom of contract and freedom of transfer so that each of the parties represented by the direct insurer and the reinsurer can freely transfer premiums and compensations. This enables the transfer of funds from one

place to another freely. Therefore, any profits achieved by the reinsurance company from operations in one place can help it to face losses in another place, within the framework of what is known as geographic diversification to reduce risks.

- *Achieving Temporal Balance:* This balance can be achieved by taking advantage of the profits that reinsurance companies generate in certain years to offset the losses they suffer in other years. agrees with the concept of time diversification. Time diversification states that by investing for a longer period of time, an investor can reduce the risk of financial losses.
- *Increased confidence and peace of mind in the hearts of policyholders:* If the insured person knows that part of his insurance operation has been reinsured with a reinsurance company, this leads to increased confidence and trust that the direct insurer will be committed in the future to compensation in the event of a loss.
- *Deepening the expertise of the original insurer*: Reinsurance enables the original insurer to obtain expertise and advice, especially in the early years of the company's establishment.
- *Facilitating the entry of the insurer into new branches of insurance:* Reinsurance enables the insurer to enter new branches that were not common in the market or unfamiliar, as the reinsurer provides the original insurer with the information it needs related to how to underwrite or assess the risk.
- *Stabilizing the profits of the direct insurer "original":* The retention of part of the risk by the original insurer and the transfer of the rest of the risk to the reinsurance company guarantees the original insurer a certain degree of stability in its profits, by reducing the volatility of profits and increasing profitability by focusing on the risks that it is best equipped to manage (Bedard & Johnston, 2023).

1.9.2. Disadvantages of reinsurance

- The payment of commissions and compensation causes the outflow of international reserve currency, draining the country. This is because developing countries typically have a lower number of insurance risks than developed countries. This means that direct insurers in developing countries are more likely to need to reinsure their risks with foreign reinsurers, and this leaves negative effects on the balance of payments.
- In some types of reinsurance, the reinsurance contract may take effect after the original insurance contract between the insurer and the insured has taken effect. This is due to the slowness of reinsurance procedures, their complexity, and the time gap between the signing

of the reinsurance contract and the date on which it takes effect. This exposes the original insurer to a great risk in the event of the occurrence of the risk insured before it can be transferred to another party more capable of bearing these risks.

- The relationship between the original insurer and the reinsurance company is not cooperative, nor is it considered to be agency. The original insurer remains solely responsible for the process before the insured, without the insured having any direct rights before the reinsurance company (Moussa, 2015).

2. The insurance sector in Palestine

The insurance sector is one of the most important economic sectors, and one of the pillars of the economic stability triangle, alongside the banking sector and the judicial sector. It works to manage the risks of the national economy, through protecting national savings, the lives and property of individuals and institutions; and contributes in a proactive way to economic development.

The insurance sector in Palestine has witnessed significant development since the Palestinian Securities and Capital Markets Authority assumed the powers of supervision and regulation of the insurance sector. This development has not been limited to doubling the size of the insurance portfolio and increasing the amount of compensation paid by insurance companies only, but also on the level, nature, and quality of the insurance services provided to the public and their diversification, and the increase in the size of insurance companies' capital, in addition to increasing the level of their investments.

The Palestinian Securities and Capital Markets Authority regulates and supervises the insurance sector in Palestine in accordance with the Palestinian Insurance Law No. (20) of 2005 and the secondary legislation issued thereunder. The Authority has attached particular importance to the insurance sector to ensure the achievement of the economic and social objectives expected from the insurance activity, to ensure the continuation of insurance companies in fulfilling their insurance obligations, and to protect the rights of insurance policy holders and beneficiaries; this is done through continuous monitoring, ensuring the soundness of the financial positions of insurance companies and their financial solvency, and hedging to face the risks that they may be exposed to; this is done in accordance with the best international practices and the international principles defined by the International Association of Insurance Supervisors (IAIS) and adopting a risk-based supervision approach (RBS).

The General Directorate of Insurance works continuously to keep pace with the best international standards and practices in order to perform its role and practice it by supervising and regulating the insurance sector in Palestine. It also works on the continuous review of the secondary legislation issued under the Palestinian Insurance Law No. (20) of 2005, and introducing the necessary amendments to the existing legislation, and issuing any secondary legislation required in order to strengthen the legislative environment for the insurance sector and enable the Authority to exercise its supervisory role effectively.

2.1. How the Insurance Sector Contributes to Improving the Palestinian Economic Situation

The insurance sector contributes to improving the Palestinian economic situation in a number of ways, including:

- *Protecting individuals and assets from risks:* Insurance provides protection for individuals and assets from a variety of risks, such as fire, natural disasters, injuries, and liability. This protection helps individuals and assets to remain intact, which contributes to maintaining the economy.
- *Encouraging investment:* Insurance provides a safety net for investors, which encourages them to invest in economic projects. This investment creates jobs and increases productivity, which contributes to economic growth.
- *Increasing liquidity:* Insurance provides investors and consumers with a way to transfer their risks to insurance companies. This transfer allows investors and consumers to retain liquidity that they can use in other economic activities.
- *Reinforcing confidence:* Insurance provides individuals and investors with peace of mind that they are protected from risks. This peace of mind reinforces confidence in the economy, which contributes to attracting foreign investment.

2.2. Challenges Facing the Insurance Sector in Palestine

The biggest and most dangerous challenge facing insurance companies in Palestine is the potential collapse of the economic and political system in the Palestinian Authority areas. This could threaten investment in general in Palestine, and specifically the Palestinian financial system, of which insurance is an important part. Therefore, the continued Israeli occupation, the delay in resolving the final status of the Palestinian issue, and the American and Israeli threats to undermine the work of the Palestinian Authority could threaten the continued operation of the Palestinian private sector in general due to economic and political contraction and the lack of a future vision for it.

2.3. Reinsurance in Palestine

Palestinian insurance companies enter into reinsurance contracts with foreign companies for a number of benefits. As a result, Palestinian insurance companies have come to rely heavily on these agreements. In fact, there is no Palestinian insurance company that does not have reinsurance agreements with foreign companies.

Believing in the importance of reinsurance, Palestinian insurance companies have made it a priority to enter into reinsurance agreements for all of the insurance products they offer. These agreements are with some of the largest reinsurance companies in Europe, which are known worldwide for their excellent financial strength. Palestinian companies are committed to providing the highest level of service, and therefore they have entered into reinsurance agreements with leading reinsurers with a high capacity. They have also recruited and hired a team of experienced experts and specialists in the local, Arab, and global insurance industry.

Palestinian insurance companies have also hosted delegations from foreign reinsurance companies to promote cooperation and raise awareness of reinsurance and its importance to the insurance sector. One of the leading reinsurance companies is Swiss Re, which is the leader of the reinsurance agreements for Tamkeen Insurance. Swiss Re is also one of the largest reinsurance companies in the world.

2.4. Reinsurance contracts entered into by Palestinian insurance companies

Contracts entered into with reinsurance companies under which the company is compensated for losses resulting from one or more insurance contracts issued by the company and in accordance with the classification requirements for insurance contracts are classified as reinsurance contracts.

Reinsurance contracts are recorded as insurance contracts on the balance sheet of the primary insurer. The benefits arising from entering into reinsurance contracts are considered as reinsurance assets.

Reinsurance assets are periodically evaluated. If there is an indication of losses in reinsurance assets, the primary insurer reduces the book value of reinsurance assets to the recoverable amount. The resulting losses are included in the income statement.

2.5. Reinsurance risks resulting from the conclusion of reinsurance contracts by Palestinian insurance companies

Like other insurance companies, in order to reduce exposure to financial losses that may result from large insurance claims, the company enters into reinsurance agreements with global reinsurance companies with high creditworthiness as part of its usual business. These companies include Naasco Reinsurance, Hannover Reinsurance, and SwissRe, among others.

To reduce its exposure to large losses due to the insolvency of reinsurance companies, the company evaluates the financial condition of the reinsurance companies it deals with and monitors the concentration of credit risk resulting from geographic areas, activities, or similar economic components of those companies.

Reinsurance contracts do not release primary insurers from their obligations to policyholders. As a result, primary insurers remain liable for claims that are reinsured if the reinsurer is unable to meet its obligations to the policyholders. This is a clear risk that primary insurers face. In addition, Palestinian insurance companies are exposed to some financial risks through their assets and liabilities, reinsurance assets, and insurance liabilities. The main risks that primary insurers face are inadequate receipts from their long-term investments to finance the obligations arising from both insurance contracts and investments. The most important elements of these financial risks are interest rate risk, equity risk, foreign exchange risk, and credit risk (Al-Qassar, 2007).

2.6. Credit Risks Faced by Palestinian Insurance Companies from Reinsurers

Credit risk is the risk that a third party that owes money to the company will not be able to pay its contractual obligations, resulting in a financial loss for the company. Specifically, Palestinian insurance companies are exposed to credit risk from reinsurers in the following areas:

Reinsurers' share of insurance obligations: When a primary insurer cedes part of its insurance obligations to a reinsurer, it is exposed to the risk that the reinsurer will not be able to meet its obligations to the primary insurer.

Amounts due from reinsurers for claims paid: When a primary insurer pays a claim, it is entitled to be reimbursed by the reinsurer for its share of the claim. The primary insurer is exposed to the risk that the reinsurer will not be able to pay this amount.

The following table provides a breakdown of total premiums written for a sample of Palestinian insurance companies, total reinsurance premiums from these premiums, reinsurers' share of paid claims, and names of reinsurance companies

Table 1: Comparison of reinsurance usage and reinsurers among selected palestinian insurance companies

Companies	**Total premiums written $ (2021)**	**Total reinsurance premiums $ (2021)**	**Reinsurers' share of paid claims $ (2021)**	**Reinsurers (Country of origin)**
United Insurance Company	44 724 970	6 043 027	3 527 701	
Takaful Insurance Company	41 180 383	2 797 736	2 070 236	
Mashreq Insurance Company	39 844 510	2 843 742	1 231 482	
Trust International Insurance Company	111 934 513	16 739 010	7 447 651	Qatar Insurance and Reinsurance (Qatar)
Palestine Insurance Company	34 156 001	2 481 648	1 164 087	
National Insurance Company	19 059 629	3 065 998	474 698	
Tamkeen Insurance	30 637 882	2 411 573	1 196 111	Swiss Re (Switzerland)
Al Ahli Group Insurance Company	21 499 061	1 029 673	5 115 826	

2.7. Reinsurance and Risk Mitigation

First: How does reinsurance contribute to increasing the operational capacity and absorption capacity of insurance companies?

Through reinsurance agreements, insurance companies obtain the advice of reinsurers on underwriting, pricing, and setting retention limits. Reinsurance helps to protect insurance companies from bankruptcy. If a company insures a large risk, it may be exposed to bankruptcy when the risk occurs. However, when it reinsures that risk with one or more reinsurers, each reinsurer will pay a certain percentage of the loss equal to the percentage it has accepted to reinsure. Through this process, the insurance company will be in a safe position.

Reinsurance helps to increase the underwriting capacity of an insurance company. When an insurance company reinsures part or all of its insurance business, it is able to accept some insurance that exceeds its retention limit, and then reinsurance with another insurer with the excess limit.

Reinsurance can also help to stabilize profits by reducing the effects of large fluctuations in an insurance company's financial results due to changes in economic, social, and natural disaster conditions in the country insured by the insurance company. Reinsurance can also help to reduce the amount of unearned premiums reserves required by law.

Reinsurance can also provide protection against losses. When an insurance company experiences a loss, the reinsurer will pay all or part of the loss that exceeds the company's retention limit. Reinsurance can also be used to exit from certain types of insurance. In this case, the insurance company can transfer its obligations for the existing insurance to another contractor, while remaining responsible for the financial coverage of the documents.

Increasing the absorption capacity of insurance companies is one of the most important goals in the insurance industry. This can be achieved by increasing capital, managing investments, or using integrated reinsurance programs. These measures help to increase premium retention in the local market.

Reinsurance plays an important role in increasing the absorption capacity of insurance companies. The relationship between the two is positive. As the efficiency and effectiveness of the reinsurance program implemented by the direct company increases, so does its absorption capacity. In fact, reinsurance has a positive impact on absorption capacity. The higher the share assigned to the reinsurance company, regardless of whether the agreement is proportional or non-proportional, the lower the retention limit for the direct company. This gives the company the ability to expand its underwriting and absorb part of the demand in the market until its capacity reaches the point of saturation. Therefore, it is clear that the relationship between reinsurance programs and absorption capacity is positive or direct. The factor that determines this is the retention limit and what reinsurance agreements provide in terms of extending the ability of the direct company to absorb a greater amount of risk in the market.

Second: How does reinsurance contribute to reducing the profitability risks of insurance companies?

Profitability is an essential goal and a necessity for the survival of insurance companies and their continuity, and a goal that shareholders aspire to. It is a relationship between the profits that the institution achieves and the investments that contributed to achieving these profits. Therefore, we find that a great effort is directed towards the optimal use of available resources in order to achieve the best possible return for shareholders that is not less in value than the return that can be achieved on alternative investments that are exposed to the same degree of risk. Profitability is considered a goal for the establishment and a measure for judging its adequacy. Where these aforementioned goals are achieved by resorting to reinsurance by insurance companies, which in turn increases their profitability index. As there is a direct relationship between reinsurance and the profitability index of insurance companies.

Profitability is also used to assess the ability to generate profits, such as margin ratio, return on assets, return on equity, and earnings per share. The profitability ratio reflects the overall performance of the company. While each set of ratios measures certain aspects of the company's performance, profitability ratios unify the impact of most management decisions. They examine the company's ability to generate profits from sales, assets, and equity. Profits are the measure of the effectiveness of the company's investment, financing, and operational management policies, and the decisions made in relation to these policies. One of the most important decisions that insurance companies make to increase profits is the reinsurance strategy.

The process of analysing the profitability of insurance underwriting for property and liability insurance and reinsurance agreements is a measure of the performance of the insurance company's management towards the underwriting process. The insurance underwriting profitability rate is used as an indicator of the underwriting output in insurance companies. It is prepared in two stages. First, the combined ratio is calculated based on:

$$Combined\ ratio = \frac{Total\ incurred\ losses}{Total\ net\ premiums\ written}$$

And the second: calculating the insurance underwriting profitability rate.

From the above, it has become imperative for insurance companies to resort to reinsurance agreements in order to increase their profitability and create value for shareholders.

Third: How does reinsurance contribute to reducing the potential losses of insurance companies?

Reinsurance is a way for an insurance company to reduce its financial losses arising from the risks it has underwritten. This is done by transferring those losses to a reinsurer in exchange for a premium. Reinsurance does not prevent losses from occurring, but it does help to mitigate their severity and impact.

Fourth: How does reinsurance contribute to increasing the competitive advantage of insurance companies?

The competitive advantage of insurance companies is their ability to produce insurance services that meet the needs that competitors meet, but with greater ease, quality, or better features. Where the competitive advantage of an insurance company contributes to creating greater value for the company and its shareholders due to some strengths it enjoys when compared to its competitors.

Every insurance company, regardless of the size of its capital, the capacity of its technical reserves, and the strength of its sales and operations, has certain and limited liability limits. The percentages of its liability limits for each type of insurance vary, and therefore determine the amount of insurance amounts that can be covered against the insured risk.

From what has been reviewed previously, we can define liability limit as the maximum liability of the company that it is able to finance from its own resources. It is usually expressed in a monetary amount and is the net retention of the company from the single risk or a group of risks that may result from a single accident after reinsurance assignments. The liability limit is also known as the reserve balance of each insurance company. Determining liability limits is very beneficial for an insurance company because it preserves its incomes from the written premiums, limits the volume of premium flows to reinsurance companies, and provides an opportunity for rapid underwriting of new business. This gives the company a competitive advantage that will be reflected in the company's overall business and increase its underwriting and insurance coverage, among other benefits.

Reinsurance contributes to increasing the balance and stability of insurance companies, which in turn gives the insurance company a significant competitive advantage. Balance and stability, or avoiding the effects of fluctuations in loss rates, are considered one of the distinctive rules of reinsurance operations. The insured does not know whether or when he will suffer a loss, nor does the insurer. Both also do not know the cost of the loss if it occurred. However, through reinsurance, the direct insurer can establish a balance in the fluctuations of loss rates by distributing risks to a large group of insurance pools through reinsurance (Al-Qassar, 2007).

3. Previous studies

3.1. Arab studies

Study by Al-Mahi (2021): The role of reinsurance in expanding the portfolios of insurance companies and reducing losses

The study by Al-Mahi (2021) examined the role of reinsurance in expanding the portfolios of insurance companies and reducing losses. The study was conducted in Sudan and used a sample of one insurance company, Shiken. The study found that reinsurance can be a valuable tool for insurance companies to expand their portfolios and reduce losses. Reinsurance can help companies to:

- *Accept more risks:* Reinsurance can help companies to accept more risks, such as insuring large commercial properties or complex liability risks. This can help companies to grow their business and attract new customers.
- *Reduce the cost of insurance:* Reinsurance can help companies to reduce the cost of insurance by spreading the risk over a larger pool of insurers. This can make insurance more affordable for consumers.
- *Improve the quality of insurance:* Reinsurance can help companies to improve the quality of their insurance products and services by providing access to expertise and resources that they may not have on their own.

The study also found that insurance companies need to carefully consider the use of reinsurance. Reinsurance can be expensive, and it is important to ensure that the benefits of reinsurance outweigh the costs.

In the case of Shiken, the study found that the company used reinsurance to expand its portfolio of general insurance. The company had been experiencing an increase in claims in this area, and reinsurance helped to reduce the financial impact of these claims.

The study concluded that reinsurance is a valuable tool for insurance companies, but it is important to use it wisely. By carefully considering the use of reinsurance, insurance companies can improve their financial performance and become more competitive.

Study by El-Dhawadi Mahdi (2019): The role of reinsurance in covering the commitments of insurance companies, a case study of the Algerian Insurance Company Caat:

This study aimed to:

- Highlight the importance of insurance companies resorting to reinsurance to reduce the severity of losses resulting from the realization of risks.
- Clarify the contribution of reinsurance in covering the company's obligations under study towards policyholders with a focus on the branch of industrial risks and other risks (IARD).

The study population was represented by Algerian insurance companies and the Algerian Insurance Company was taken as a study sample. A descriptive analytical approach was used, and the following conclusions and recommendations were reached:

- Reinsurance allows insurance companies to accept insurances with large amounts or special risks without being exposed to financial losses.
- Reinsurance makes the risk portfolio homogeneous and balanced, as a result of the inverse relationship between the degree of risk insured and the value of the retained portion. The greater the degree of risk, the less the retained portion, and therefore, with the increase in the degree of risk, the reinsured portion increases by the assigning company.
- Reinsurance helps to stabilize premiums, compensation, and the results of insurance companies, as an insurance company can collect the largest possible number of risks of the same type, even if some of them are highly risky. When it redistributes risks or transfers them between itself and reinsurance companies, the insurance company is not exposed to large losses when high-intensity risks are realized.
- Reinsurance plays an important role in paying a significant portion of the compensation due to policy holders, especially if it is related to major risks, and this has been confirmed through a case study of the Algerian Insurance Company.

Study by Nour Eldin (2020): The role of insurance products and reinsurance in achieving financial stability for insurance companies in Algeria

This study aimed to analyse the relationship between the growth and development of insurance products and reinsurance in maintaining the financial stability of insurance companies in Algeria during the period (2000-2020). Using the quantitative analysis method of the available data and through a proposed measurement model to estimate the relationship between insurance products as independent variables and the financial soundness of insurance companies as a dependent variable. The study population consisted of Algerian insurance companies, some of which were taken as samples. The quantitative analysis method of the available data was used, and the following results were reached:

- The insurance system, whether by the companies operating in Algeria or foreign companies, contributes to maintaining the financial stability of insurance companies in Algeria. The absence of a reinsurance system will have a negative impact on the financial soundness of insurance companies
- The financial stability of insurance companies is highlighted in the adequacy of the financial resources resulting from compensation to cover various obligations (compensation plus administrative and management expenses)
- The percentage of the impact of insurance products on the financial soundness of insurance companies varies, and reinsurance companies are considered the main source for maintaining the financial stability of insurance companies.

Study by Dali (2020): Evaluation of the Need for an Egyptian Reinsurance Company in the Context of Economic, Social, and Political Changes

The study aimed to analyse the current status of reinsurance activity in the Egyptian insurance market. The study population was the Egyptian insurance market, and some national insurance companies were selected as a sample. Quantitative methods were used to measure the need for an Egyptian reinsurance company in the Egyptian insurance market by:

- Evaluating the results of external reinsurance operations.
- Determining the optimal retention level for the local insurance market.
- Evaluating the need for the Egyptian insurance market to establish an Egyptian reinsurance company.

The results of the study were as follows:

- The technical results of foreign incoming reinsurance operations deteriorated compared to outgoing operations, this means that Egyptian insurance companies are paying more for reinsurance than they need to. During the study period, loss rates for incoming operations from abroad reached 71% compared to 49% for outgoing operations to the outside. This means that the Egyptian market was deprived of benefiting from this volume of premiums during the mentioned period

- The results of the quantitative model showed that the retention rate in the Egyptian insurance market has not reached the optimal level. The actual retention volume of net premiums held by the Egyptian property insurance market does not represent the optimal retention level with the lowest loss rate and the highest possible technical return.
- The results of determining the optimal retention level for the Egyptian insurance market and measuring the absorption capacity showed that the Egyptian insurance market now needs to establish a national reinsurance company. This would increase the retention limit in the local market, and thus reduce the leakage of foreign currency resulting from reinsurance operations abroad. This does not mean self-sufficiency for these institutions. It is possible to deal with the global reinsurance markets after exhausting the absorption capacity in the local market through a national reinsurance company

Study by Masoudi (2018): The role of reinsurance operations in managing the risks of the insurance industry

This study aimed to identify the role of reinsurance operations in managing the risks that define the insurance industry, given the effective role that these operations play as a means of risk transfer and their importance in increasing the absorption capacity of insurance companies, and bearing part of the company's risks, which allows it to improve its financial position by reducing the volatility in the value of its results and increasing its margin of financial soundness.

The study population consists of a group of general managers, financial managers, and internal auditors working at the level of the general directorates of various insurance companies. A random sample of this population was determined to distribute the questionnaires, which reached 125 questionnaires to the members of the sample, of which 100 questionnaires were distributed directly and 25 questionnaires were distributed via email. 115 questionnaires were retrieved, representing 92% of the questionnaires that were distributed, and we excluded 27 of them for the study. Thus, the number of questionnaires subject to the study is 88 questionnaires. It should be noted here that the questionnaires that were not valid for analysis were empty of answers when they were reviewed, and the researcher was answering more than one answer to the questions posed.

The most important findings of this study were as follows:

- Reinsurance operations work to stimulate insurance companies to increase their underwriting capacities due to the support provided by the reinsurance market, especially since insurance companies are not always able to guarantee coverage of the risks that they face. They may face risks that exceed their ability and cannot therefore accept them and bear their consequences alone.
- It is essential for insurance companies to effectively plan to face high-risk risks according to a specific and effective strategy approved by experts specialized in the field of risk management.
- Reinsurance operations are considered one of the basic strategies for facing the risks to which Algerian insurance companies are exposed.
- Insurance companies should adopt an integrated strategy that includes all levels of the company's administration, relying on quantitative methods to measure potential risks and assess the company's financial position, in addition to relying on well-rated reinsurance companies, to increase their absorption capacity.

The study concluded that reinsurance operations play a direct role in managing the risks of these companies. There are no statistically significant differences between the answers of the respondents about the consideration of reinsurance operations as one of the basic strategies for facing the risks to which Algerian insurance companies are exposed.

3.2. International studies

Study by Sun (2021): Research on reinsurance of optimal investment for insurance companies under the deferred risk model

The study aimed to estimate the probability of ruin in risk operations by adopting reinsurance contracts (quota share and excess of loss), compared to scenarios without such treaties. The descriptive statistics method and the modification of claim distributions were used. The results of this study showed that although each branch presents particularities in the severity of claims, the correct choice of reinsurance (proportional or non-proportional) means reducing the probability of capital loss.

Study by Bressan (2018): The Impact of Reinsurance for Insurance Companies

This study documents the impact of reinsurance utilization on the financial soundness, profitability, and taxes of insurance companies. The study population consists of US insurance companies. A large sample of property and casualty, health, life, property, and non-life insurance companies was drawn. The focus was on property and non-life insurance companies. Descriptive statistics of the variables were used in the analysis. The results of this study show that primary insurers that increase their use of reinsurance exhibit lower capital ratios. This impact holds across the health, composite, property, and non-life insurance segments. Reinsurance and capital can be considered substitutes for improving financial soundness. This means that by sharing risks with reinsurers, primary insurers can benefit from a capital relief. Additional findings show an important relationship between demand and supply of reinsurance at the firm level. In reinsurance utilization, primary insurers are more likely to provide reinsurance to other companies.

Study by Yang et al. (2021): Balanced Reinsurance Strategies of Insurance Companies under Standardized Competition and Cooperation

This study aims to derive explicit solutions for both the balanced reinsurance strategy and the value function by solving an equation. Numerical experiments were conducted to illustrate the effects of model parameters such as group size and number of groups on the balanced reinsurance strategy. This study adopted a descriptive-analytical approach and a sample of insurance companies located in the northern United States. The results show some similarities and differences between the competitive case and the cooperative case between the insurance company and the reinsurance company, and the detailed effects of different competition and cooperation patterns. Each insurance company can request a proportional reinsurance to reduce the risk of its claim. The reinsurance premium is determined by the principle of variance value, where the goal of each insurance company is to find a reinsurance strategy to maximize the expected utility of its final reward.

Study by Cummins et al. (2021): The Costs and Benefits of Reinsurance for Insurance Companies

This study examines the costs and benefits of reinsurance for property-liability insurers. The study uses a sample of U.S. property-liability insurers to analyse the relationship between reinsurance use and insurer financial performance.

The study finds that reinsurance use is associated with lower insurer insolvency risk. This is because reinsurance can help insurers to stabilize their loss experience, increase their capacity, and limit their liability on specific risks. Reinsurance can also help insurers to protect themselves from catastrophes.

However, reinsurance use is also associated with higher insurer costs. This is because reinsurers charge premiums for assuming the risk transferred to them. The study finds that the cost of reinsurance can be significant, and that it can offset some of the benefits of reinsurance.

The study's findings suggest that insurers should carefully consider the costs and benefits of reinsurance before making a decision to use it.

Chapter III: Materials and Methods

Chapter III: Materials and Methods

This chapter describes the procedures that was followed to conduct this study. These procedures included the research method, the data collection method, the data related to the study, the definition of the study population, the study sample, the study tools, the procedures for applying the study tools, and the data processing and analysis process.

1. Research methodology

1.1. Research method

This work used the descriptive-analytical method in conducting this study to identify the impact of reinsurance operations on reducing the risks faced by Palestinian insurance companies. This method is based on a precise and detailed interpretation of the current situation or problem by identifying its circumstances and components and describing the relationships between them, in order to conclude a scientific and comprehensive description of the phenomenon or problem. It also includes analysing the data, measuring it, interpreting it in a comprehensive manner that is useful in generalizing the facts that have been extracted, and helps to a reasonable extent in predicting the future of the phenomenon, and providing solutions and proposals.

1.2. Data collection

Secondary sources: The study relied on books, references, published Arabic and international scientific research, Arabic and international university theses and dissertations, both printed and electronic, as well as different databases to obtain the latest global research on the subject of the study.

Primary sources: a questionnaire was developed as a tool for the study (Appendix 1), in a way that is compatible with the variables, through reviewing previous studies related to the subject.

2. The study population

The study population consists of some of the insurance companies operating in Palestine, a total of (8 companies), with a total of (1,517 employees). They are presented in the following table 2.

Table 2: distribution of the study population

Company	Number of employees
Mashreq Insurance Company	205
Palestine Insurance Company	173
National Insurance Company	207
Trust International Insurance Company	229
Al Ahli Group Insurance Company	128
Takaful Insurance Company	203
Tamkeen Insurance	139
United Insurance Company	233

3. The study sample

The study sample is a subset of the study population. It was selected by randomly selecting (66) employees from the study population. The questionnaires were distributed to the sample, and (66) questionnaires were returned, with a response rate of (100%).

4. The study tool

4.1. Description of the scale

To identify the impact of reinsurance operations on reducing the risks faced by Palestinian insurance companies, the study tool was built in the form of a questionnaire (Appendix 1) by benefiting from managers and previous studies. It consists of two parts:

PART ONE: questions on personal and professional data (gender, academic qualification, specialization, job title, experience)

PART TWO: items to measure the study hypotheses; the study tool consisted of 20 items divided into 4 sections, each section measuring one of the study hypotheses. The questions were designed in a scientific and objective manner, so that they accurately reflect the phenomenon or problem that the study addresses. The 4 sections are presented in the following table 3.

Table 3: The distribution of emotional intelligence scale sections on the different items

N°	Section	N° of items
1	The role of reinsurance operations in increasing the operational capacity of insurance companies	5
2	The role of reinsurance operations in reducing the profitability risks of insurance companies	5
3	The role of reinsurance operations in reducing potential losses for insurance companies	5
4	The role of reinsurance operations in maintaining the competitive advantage of insurance companies	5
Total		20

4.2. Scale scoring

The scale items were scored as follows:

- Strongly agree: 5 points
- Agree: 4 points
- Neutral: 3 points
- Disagree: 2 points
- Strongly disagree: 1 point

This scoring system was applied to all items on the scale.

4.3. Study variables

Independent variables

- Gender
- Years of experience
- Educational qualification
- Specialization
- Current job title

Dependent variable

The impact of reinsurance operations in reducing the risks faced by Palestinian insurance companies.

5. Statistical analysis

Data was gathered, revised, and analysed using the Statistical Package for the Social Sciences (SPSS) software using the following statistical treatments:

- Descriptive statistics was used to summarize the data collected from the sample. This included calculating the number of respondents, the percentage of respondents in each category, the average score for each item on the scale, and the standard deviation of the scores.
- The study hypotheses were tested using one-way analysis of variance (ANOVA) and a t-test.
- The Cronbach's alpha coefficient was used to calculate the reliability of the tool, and the Pearson correlation coefficient was used to confirm the nature of the relationship between the study variables and its validity.

Chapter IV: Results

Chapter IV: Results

1. Answers to the study questions

1.1. Results for the main question

What is the impact of reinsurance operations in reducing the risks facing Palestinian insurance companies?

To answer this question, the arithmetic means and standard deviations of the impact of reinsurance operations on reducing the risks facing Palestinian insurance companies were extracted, as presented in the following table 4.

Table 4: Arithmetic mean and standard deviation of the impact of reinsurance operations on reducing the risks facing Palestinian insurance companies

Scale	Arithmetic mean	Standard deviation	Level
The impact of reinsurance operations in reducing the risks facing Palestinian insurance companies	3.91	0.373	High

According to the table (table 4) and the given data, the impact level of reinsurance operations on reducing the risks facing Palestinian insurance companies is high, with an arithmetic mean of 3.91 and a deviation of 0.373.

1.2. Results for each section

Section n°1: Is there a role for reinsurance operations in increasing the operational capacity of insurance companies in Palestine?

The arithmetic means and standard deviations for each item was extracted, and they are presented in table 5. The items were sorted in a descending order of the arithmetic mean.

Table 5: Arithmetic means and standard deviations of the role of reinsurance operations in increasing the operational capacity of insurance companies

Order	Item	Arithmetic mean	Standard deviation	Level
1	The company engages in reinsurance operations to protect itself from losses and restore its financial balance	4.26	0.590	Very high
2	Reinsurance operations provide protection for companies from disasters and risks	4.12	0.755	High
3	Reinsurance operations are affected by economic and social conditions, which affect the cost of claims	3.97	0.723	High
4	Reinsurance operations help insurance companies avoid fluctuations in the cost of financial claims and operational claims	3.89	0.726	High
5	Reinsurance operations increase operational capacity by employing the largest number of insurance operations	3.89	0.897	High
The role of reinsurance operations in increasing the operational capacity of insurance companies		**4.03**	**0.463**	**High**

According to the data contained in table 5, the role of reinsurance operations in increasing the operational capacity of insurance companies was high, with an average of 4.03 and a standard deviation of 0.463.

The most important item from the table is the one which states that reinsurance operations help companies protect themselves from losses and restore their financial balance, and it had the highest average score of 4.26, with a standard deviation of 0.590.

The other items are listed in order of importance, with the second item having an average score of 4.12 ± 0.755, the third item having an average score of 3.97 ± 0.723, the fourth item having an average score of 3.89 ± 0.726, and the fifth item having an average score of 3.89 ± 0.897.

Section n°2: Is there role of reinsurance operations in reducing the profitability risks of insurance companies?

The arithmetic means and standard deviations for each item was extracted, and they are presented in table 6. The items were sorted in a descending order of the arithmetic mean.

Table 6: Arithmetic means and standard deviations of the role of reinsurance operations in reducing the profitability risks of Palestinian insurance companies

Order	Item	Arithmetic mean	Standard deviation	Level
1	Reinsurance operations aim to diversify their financial portfolio to maintain financial balance	4.08	0.829	High
2	Reinsurance operations distribute major risks across multiple insurers, making them more manageable and insurable	4.08	0.640	High
3	Reinsurance operations can have a direct impact on the risk of the insured in a reinsurance transaction	3.97	0.656	High
4	Reinsurance operations directly affect the financial stability of the direct insurer by enhancing their capital base and reserves	3.95	0.793	High
5	Reinsurance operations help to protect capital, distribute it, and facilitate diverse investment avenues	3.89	0.879	High
The role of reinsurance operations in reducing the profitability risks of insurance companies		**3.99**	**0.520**	**High**

According to table 6, the role of reinsurance operations in reducing the profitability risks of insurance companies was high, with an average of 3.99 and a standard deviation of 0.520.

The most important item is the one which states that reinsurance operations aim to diversify their financial portfolio to maintain financial balance, and it had the highest average score of 4.08, with a standard deviation of 0.829.

The other items are listed in order of importance, with the second item having an average score of 4.08 ± 0.640, the third item having an average score of 3.97 ± 0.656, the fourth item having an average score of 3.95 ± 0.793, and the fifth item having an average score of 3.89 ± 0.879.

Section n°3: Is there role of reinsurance in reducing potential losses for insurance companies?

The arithmetic means and standard deviations for each item was extracted, and they are presented in table 7. The items were sorted in a descending order of the arithmetic mean.

Table 7: Arithmetic means and standard deviations of the role of reinsurance operations in reducing potential losses for insurance companies

Order	Item	Arithmetic mean	Standard deviation	Level
1	Reinsurance operations spread an insurer's risks and obligations across a wider network of insurers, effectively reducing the overall impact of those risks	4.14	0.630	High
2	Reinsurance operations act as a safeguard against catastrophic losses and their financial impacts by insuring against these potential losses	4.06	0.762	High
3	Reinsurance operations offer opportunities to provide technical advice to policyholders, which can help to prevent or reduce losses	3.85	0.846	High
4	Reinsurance operations generate revenue through commissions from reinsurers, calculated based on premiums paid to reinsurers, and through a profit commission paid to the insurance company to incentivize them to maintain profitability	3.82	0.677	High
5	Reinsurance operations facilitate the continuation of underwritten operations, which contributes to minimizing the likelihood of losses.	3.71	0.818	High
The role of reinsurance operations in reducing potential losses for insurance companies		**3.92**	**0.412**	**High**

Assessing to the data presented in table 7 reveals that the role of reinsurance operations in reducing potential losses for insurance companies was high, with an average of 3.92 and a standard deviation of 0.412.

Of particular importance is the one which states that reinsurance operations spread an insurer's risks and obligations across a wider network of insurers, effectively reducing the overall impact of those risks, and it had the highest average score of 4.14, with a standard deviation of 0.630.

The other items are listed in order of importance, with the second item having an average score of 4.06 ± 0.762, the third item having an average score of 3.85 ± 0.846, the fourth item having an average score of 3.82 ± 0.677, and the fifth item having an average score of 3.71 ± 0.818.

Section n°4: Is there role of reinsurance in maintaining the competitive advantage of insurance companies?

The arithmetic means and standard deviations for each item was extracted, and they are presented in table 8. The items were sorted in a descending order of the arithmetic mean.

Table 8: Arithmetic means and standard deviations of the role of reinsurance operations in maintaining the competitive advantage of insurance companies

Order	Item	Arithmetic mean	Standard deviation	Level
1	Reinsurance operations foster the growth and diversification of insurance markets by enabling risk containment strategies for a wider range of risks, ultimately expanding market reach and competitiveness	3.92	0.686	High
2	Reinsurance operations contribute to the establishment of a supervisory framework that supports the development of the insurance industry and facilitates its accessibility to direct insurance companies	3.80	0.808	High
3	Reinsurance operations lead to the protection of the company's assets from damage and loss, ensuring its continuity and enhancing its competitive ability	3.67	1.072	High
4	Reinsurance partnerships between domestic insurance companies and local reinsurers yield significant economic and competitive benefits for the national market	3.62	1.120	High
5	Reinsurance operations enhance the technical proficiency and managerial competence required for scrutinizing and assessing large-scale operations, bolstering the company's competitive edge	3.59	0.960	High
The role of reinsurance operations in maintaining the competitive advantage of insurance companies		**3.72**	**0.630**	**High**

As evident from table 8, the significance of reinsurance operations in preserving the competitive edge of insurance firms stands out, with an average rating of 3.72 and a standard deviation of 0.630.

The most crucial aspect highlighted in the table is the ability of reinsurance operations to stimulate the growth and diversification of insurance markets by facilitating risk containment strategies for a broader spectrum of risks, ultimately expanding market reach and competitiveness.

This item holds the highest average score of 3.92, with a standard deviation of 0.686.

Other noteworthy aspects, ranked in decreasing order of significance, include an average score of 3.80 ± 0.808 for the second item, an average score of 3.67 ± 1.072 for the third item, an average score of 3.62 ± 1.120 for the fourth item, and an average score of 3.59 ± 0.960 for the fifth item.

2. Analysing and testing the hypotheses

2.1. The 1st hypothesis

⇒ there is no statistically significant effect at the indicative level (0.05 ≥ α) of reinsurance operations in increasing the operating capacity of insurance companies in Palestine.

To test the hypothesis, a t-test (one-sample two-tailed t-test) was conducted on the obtained data. Results are presented in table 9.

Table 9: One-sample t-test results for the effect of reinsurance operations in increasing the operating capacity of insurance companies in Palestine

					Indicative level 0.05 ≥ α
The variable	**Mean**	**Standard deviation**	**Degree of freedom**	**t-value**	**Significance level**
Effect of reinsurance operations in increasing the operating capacity of insurance companies in Palestine	4.02	0.463	65	69.845	0.000

The table 9 shows that reinsurance operations have **statistically significant effects** on increasing the operational capacity of insurance companies in Palestine (0.05 ≥ α indicative level). This was found to be at a very high level, with an average score of 4.02 and a standard deviation of 0.463. This means that the null hypothesis, which states that there is no statistically significant effect of reinsurance operations on increasing the operational capacity of insurance companies in Palestine, is rejected. This is in accordance with the calculated t-value of 69.845, which is greater than the table value of 2.000 (Annex 2 for t-values). The significance level is also 0.000, which is less than the 0.05 level, the value adopted to accept the hypothesis.

2.2. The 2nd hypothesis:

⇒ there is no statistically significant effect at the indicative level of significance ($0.05 \geq \alpha$) of reinsurance operations in reducing the profitability risks of insurance companies in Palestine.

To test the hypothesis, a two-tailed t-test was conducted on the obtained data. Results are presented in table 10.

Table 10: One-sample t-test results for the effect of reinsurance operations in reducing the profitability risks of insurance companies in Palestine

Indicative level $0.05 \geq \alpha$					
The variable	**Mean**	**Standard deviation**	**Degree of freedom**	**t-value**	**Significance level**
Effect of reinsurance operations in reducing the profitability risks of insurance companies in Palestine	3.99	0.520	65	61.579	0.000

Table 10 reveals that reinsurance operations exert **statistically significant effects** on mitigating the profitability risks faced by insurance companies in Palestine at a confidence level of $\alpha \geq 0.05$. This finding holds true at a remarkably high magnitude, with an average rating of 3.99 and a standard deviation of 0.520. This observation compels us to reject the null hypothesis, which posits that reinsurance operations lack a statistically significant impact on reducing the profitability risks of insurance companies in Palestine. The calculated t-value of 61.579 surpasses the table value of 2.000 (Annex 2), substantiating the rejection of the null hypothesis. Moreover, the significance level of 0.000 falls below the 0.05 α level.

2.3. The 3rd hypothesis

⇒ there is no statistically significant effect at the indicative level ($0.05 \geq \alpha$) of reinsurance operations in reducing the value of potential losses of insurance companies in Palestine.

To test the hypothesis, a two-tailed t-test was conducted on the obtained data. Results are presented in table 11.

Table 11: One-sample t-test results for the effect of reinsurance operations in reducing the value of potential losses of insurance companies in Palestine

Indicative level 0.05 ≥ α					
The variable	**Mean**	**Standard deviation**	**Degree of freedom**	**t-value**	**Significance level**
Effect of reinsurance operations in reducing the value of potential losses of insurance companies in Palestine	3.92	0.412	65	76.175	0.000

Table 11 reveals that reinsurance operations have **statistically significant effects** on reducing the value of potential losses of insurance companies in Palestine at a confidence level of α ≥ 0.05, with a high average of 3.92 ± 0.412. Meaning the null hypothesis is rejected. The calculated t-value of 76.175 surpasses the table value of 2.000 (Annex 2), confirming the rejection of the null hypothesis. Moreover, the significance level of 0.000 is below the 0.05 α level.

2.4. The 4th hypothesis

⇒ there is no statistically significant effect at the indicative level (0.05 ≥ α) of reinsurance operations in maintaining the competitiveness of insurance companies in Palestine.

To test the hypothesis, a two-tailed t-test was conducted on the obtained data. Results are presented in table 12.

Table 12: One-sample t-test results for the effect of reinsurance operations in maintaining the competitiveness of insurance companies in Palestine

Indicative level 0.05 ≥ α					
The variable	**Mean**	**Standard deviation**	**Degree of freedom**	**t-value**	**Significance level**
Effect of reinsurance operations in maintaining the competitiveness of insurance companies in Palestine	3.72	0.630	65	47.312	0.000

According to table 12, the effect of reinsurance operations in maintaining the competitiveness of insurance companies in Palestine is **statistically significant** (at 0.05 ≥ α), with a significantly high mean value of 3.72 ± 0.630, indicating that the null hypothesis with states that "there is no statistically significant effect at the indicative level ($0.05 \geq \alpha$) of reinsurance operations in maintaining the competitiveness of insurance companies in Palestine" is rejected. According to the calculated t-value (47.312), which is higher than the table value of 2.000 (Annex 2), and the significance level at 0.000 (≤ 0.05), confirms to the rejection of the null hypothesis.

Chapter V: Discussion of results

Chapter V: Discussion of results

1. Reinsurance effect of increasing the operational capacity

Reinsurance operations play a crucial role in enhancing the operational capacity of insurance companies in Palestine by providing them with several benefits:

1. *Risk Management and Diversification*: Reinsurance allows insurance companies to transfer and diversify their risk portfolio, effectively reducing their exposure to large, catastrophic losses that could severely impact their financial stability. By sharing risk with reinsurers with greater financial resources and expertise, insurance companies in Palestine can operate with greater confidence and expand their risk appetite, enabling them to offer a wider range of insurance products and services.
2. *Improved Capital Efficiency*: Reinsurance effectively enhances the capital efficiency of insurance companies by allowing them to conserve their own capital for underwriting and investment purposes. By transferring a portion of their risk to reinsurers, insurance companies in Palestine can retain more capital for underwriting new business, pursuing growth opportunities, and investing in technology and innovation, ultimately strengthening their financial position.
3. *Enhanced Financial Strength and Stability*: Reinsurance operations contribute to the overall financial strength and stability of insurance companies in Palestine by mitigating the impact of adverse underwriting results and unexpected losses. By transferring a portion of their risk, insurance companies can maintain stable financial performance, attract additional investors, and enhance their ability to meet regulatory requirements.
4. *Increased Ability to Expand Market Reach*: Reinsurance operations enable insurance companies in Palestine to expand their market reach and compete more effectively in the industry. By partnering with reinsurers with global reach and expertise, insurance companies can tap into new markets, expand their product offerings, and cater to a broader customer base, driving growth and profitability.
5. *Reduced Administrative Costs and Operational Efficiency*: Reinsurance can help insurance companies in Palestine streamline their operations and reduce administrative costs by transferring the underwriting and claims-handling responsibilities for certain risks to reinsurers with specialized expertise. This can free up resources and manpower for insurance companies to focus on core business functions and enhance their overall operational efficiency.

2. **Reinsurance effect on reducing profitability risks**

Reinsurance plays a crucial role in mitigating the profitability risks of insurance companies in Palestine by providing them with several benefits:

1. *Risk Transfer and Diversification*: Reinsurance allows insurance companies to transfer a portion of their risk to reinsurers with greater financial capacity and expertise. This effectively reduces the company's exposure to large, unexpected losses that could significantly impact their profitability. By spreading their risk across a broader pool of reinsurers, insurance companies in Palestine can manage their risk portfolio more effectively and reduce their reliance on a single source of revenue.
2. *Enhanced Loss Adjusting and Claims Management*: Reinsurance can help insurance companies in Palestine optimize their loss adjusting and claims management processes by leveraging the expertise and resources of specialized reinsurers. This can lead to faster settlements, reduced claim costs, and improved overall profitability.
3. *Reduced Impact of Adverse Underwriting Results*: Reinsurance can help insurance companies in Palestine smooth out the volatility of their underwriting results by transferring a portion of their risk to reinsurers during periods of high loss frequency or severity. This can protect against the adverse effects of unexpected losses and help maintain a more stable and predictable profitability outlook.
4. *Improved Capital Allocation and Investment Decisions*: Reinsurance can free up capital that would otherwise be tied up in risk reserves, enabling insurance companies in Palestine to allocate more resources to growth initiatives, invest in new technologies, and pursue strategic acquisitions. This can lead to enhanced profitability and long-term sustainability.
5. *Reduced Exposure to Catastrophic Events*: Reinsurance can help insurance companies in Palestine mitigate their exposure to large, catastrophic events that could severely impact their profitability. By transferring a portion of this risk to reinsurers with global reach and expertise, insurance companies can manage their exposure to extreme weather events, natural disasters, and other major catastrophes.
6. *Enhanced Risk Management Practices*: Reinsurance can help insurance companies in Palestine implement more sophisticated risk management practices, identify, and manage emerging risks, and improve their overall risk governance framework. This can lead to better-informed underwriting decisions, improved risk-adjusted returns, and enhanced profitability.

3. Reinsurance effect on reducing potential losses

Reinsurance significantly reduces the potential losses faced by insurance companies in Palestine through several key mechanisms:

1. *Risk Transfer and Diversification*: By sharing risk with reinsurers, Palestinian insurance companies spread their exposure, minimizing the impact of large, unexpected events. This protects them from financial instability while diversifying their income streams.
2. *Enhanced Loss Management*: Reinsurance leverages the expertise and resources of specialized reinsurers, leading to faster claim settlements, lower claim costs, and overall improved claims handling. This translates to reduced potential losses for Palestinian insurance companies.
3. *Smoothing Underwriting Results*: Reinsurance acts as a buffer against periods of high losses, transferring a portion of the risk and stabilizing the financial results of Palestinian insurance companies. This predictability allows them to focus on long-term growth without worrying about short-term volatility.
4. *Freed-Up Capital*: Reinsurance frees up capital normally tied up in risk reserves, enabling Palestinian insurance companies to invest in growth initiatives, new technologies, and strategic acquisitions. This diversification further reduces their reliance on a single source of income, mitigating potential losses.
5. *Reduced Catastrophe Exposure*: Reinsurance allows Palestinian insurance companies to transfer a portion of their risk associated with catastrophes to reinsurers with global reach and expertise. This minimizes the impact of catastrophic events like natural disasters, protecting them from major losses.
6. *Improved Risk Management*: Reinsurance fosters better risk management practices in Palestinian insurance companies. By utilizing reinsurer expertise, they can identify and manage emerging risks more effectively, leading to informed underwriting decisions and reduced potential losses.

4. Reinsurance effect on maintaining the competitiveness

Reinsurance plays a multifaceted role in bolstering the competitiveness of Palestinian insurance companies:

1. *Risk Management Prowess*: By transferring and diversifying risk with reinsurers, Palestinian companies mitigate exposure to large losses, protecting their financial

stability and fostering confidence among investors and policyholders. This translates to a competitive edge in attracting and retaining business.

2. *Operational Efficiency Boost*: Reinsurance unlocks capital tied up in risk reserves, allowing for investments in technology, innovation, and streamlining operations. This enhances efficiency, reduces costs, and enables Palestinian companies to offer competitive products and services.
3. *Market Reach Expansion*: Partnering with global reinsurers grants access to broader markets and expertise. This empowers Palestinian companies to tap new segments, diversify offerings, and compete effectively in a wider arena.
4. *Financial Strength and Stability*: Reinsurance acts as a buffer against unexpected losses, ensuring stable financial performance. This attracts investors, strengthens regulatory compliance, and projects a competitive image in the market.
5. *Enhanced Risk Management Practices*: Reinsurance expertise empowers Palestinian companies to identify and manage emerging risks more effectively. This leads to informed underwriting decisions, improved risk-adjusted returns, and ultimately, a competitive edge in risk management.

Conclusion

Conclusion

This study focuses on the crucial role of reinsurance operations in mitigating risks faced by insurance companies. It aims to identify the specific capabilities that reinsurance grants to tackle these risks, both potential and expected, arising from normal insurance activities. Through a practical analysis of the current situation of insurance and reinsurance companies in Palestine, the aim was to track the impact of reinsurance operations in avoiding many of the risks that insurance companies may face. The specific points analysed in this study were the effect of reinsurance operations on increasing the operating capacity of insurance companies in the country, reducing their profitability risks, their potential losses, and in maintaining their competitiveness. Data was collected through two sources; first was through previous studies and literature around the subject, and the second was through a questionnaire distributed to employees of insurance companies operating in Palestine.

The study found that reinsurance operations play a significant role in strengthening the operational capacity of insurance companies in Palestine by enhancing risk management, improving capital efficiency, boosting financial stability, expanding market reach, and optimizing operational efficiency. These benefits contribute to the overall competitiveness and long-term sustainability of insurance companies in the Palestinian market.

Another finding is that reinsurance plays a significant role in reducing the profitability risks of insurance companies in Palestine by facilitating risk transfer, optimizing loss adjusting and claims management, mitigating the impact of adverse underwriting results, improving capital allocation, reducing exposure to catastrophic events, and enhancing risk management practices. These benefits contribute to the profitability, stability, and long-term sustainability of Palestinian insurance companies.

Furthermore, reinsurance is a multifaceted tool that empowers Palestinian insurance companies to proactively manage and reduce the value of potential losses. It enables them to operate with greater financial stability, pursue growth opportunities, and contribute to the overall health of the Palestinian insurance market.

In essence, reinsurance equips Palestinian insurance companies with the tools to manage risk effectively, optimize operations, expand reach, and maintain financial stability. These are the cornerstones of competitiveness in any market, ensuring Palestinian companies can thrive and contribute to the long-term growth of the insurance sector.

Recommendations

Based on the previous results, the following recommendations were reached:

- It is necessary for insurance companies to effectively plan to face high-risk risks according to a specific and effective strategy approved by experts specializing in risk management.
- Insurance companies should adopt an integrated strategy that includes all administrative levels of the company, relying on quantitative methods to measure potential risks and assess the company's financial position, in addition to relying on well-rated reinsurance companies to increase their absorption capacity.
- The need to expand the scope of reinsurance operations.
- Reinsurance operations should not be limited to some insurance aspects but should be expanded to include all insurance aspects.
- Work to conduct more studies on insurance companies.

Summary

The effect of reinsurance operations on reducing the risks facing the insurance companies in Palestine

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The study aimed to identify the impact of reinsurance operations in reducing the risks facing insurance companies in Palestine. In order to achieve this, the descriptive analysis method was relied upon, and the study population consisted of some insurance companies operating in Palestine, using a designed questionnaire as a tool for the study. The results showed that reinsurance demonstrably strengthens the operational capacity of Palestinian insurance companies, suggesting its effective role in supporting their growth and expansion. In addition, by providing a shield against unexpected losses, reinsurance significantly reduces profitability risks, fostering stability and investor confidence. The study also confirms that reinsurance effectively minimizes the value of potential losses faced by Palestinian insurance companies, offering crucial financial protection. Furthermore, Reinsurance empowers Palestinian insurance companies to maintain their competitive edge by diversifying risks, attracting investments, and optimizing operations. Based on these results, it is necessary for the insurance companies to plan effectively to confront the risks of a high degree according to a specific and effective strategy approved by experts specialized in the field of risk management. Insurance companies must also adopt an integrated strategy that includes all administrative levels of the company, relying on quantitative methods to measure potential risks and evaluate the company's financial position, in addition to relying on good-rated reinsurance companies to increase their capacity. Further research should be conducted to expand a more comprehensive base for reinsurance operations and their effect on insurance companies in Palestine. Reinsurance acts as a powerful tool for Palestinian insurance companies, enabling them to operate more effectively, manage risks proactively, and thrive in the competitive market.

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Annexes

Annex 1: The questionnaire

Hungarian University of Agriculture and Life Sciences

Institute of Agriculture and Food Economics

Business Administration and Management

HUNGARIAN UNIVERSITY OF AGRICULTURE AND LIFE SCIENCES

Dear Respondent,

I am conducting a study on the impact of reinsurance operations in reducing the risks faced by Palestinian insurance companies. I am seeking data related to your opinion on the different items in the questionnaire.

I kindly ask you to answer all the items in the attached questionnaire. Please note that the results of the study depend on the credibility of your answers. Any information you provide will be treated with complete confidentiality and for research purposes only.

Thank you for your cooperation. We will provide you with the results of this study as soon as it is completed. (Please note that the expected time to fill out this questionnaire is a few minutes.)

Sincerely,

Study terms

Insurance: An agreement whereby the first party (the insurer) undertakes to pay to the second party (the insured) or to the beneficiary who has stipulated insurance on his behalf an amount of money or any other financial compensation (insurance amount) in the event of an accident or the occurrence of the risk specified in the contract, in return for a premium or any other financial payment that the insured pays to the insurer.

Reinsurance: The process of sharing the responsibility for the risk insured and its outcome between the insurance company (the ceding company or the direct insurer) and a specialized company (the reinsurance company, the reinsurer). It is carried out under a contract whereby the ceding company undertakes the responsibility of covering part of the value of the risk and assigns the remaining part of this value to the reinsurer.

Risk management: An integrated process that aims to address risks in the best way and at the lowest cost. This is done by identifying the risk, analysing it, measuring it, and identifying the means of addressing it, with the selection of the most appropriate of these means to achieve the desired goal.

PART ONE: Personal and professional details

1. **Gender**
   a. Male b. Female
2. **Educational qualification**
   a. Diploma b. Baccalaureate c. Higher education
3. **Specialization**
   a. Business administration b. Insurance and Risk management c. Accounting
   other: ……………….
4. **Current occupation**
   a. Manager b. Head of department
5. **Professional experience**
   a. Less than 5 years b. 5 – 10 years c. more than 10 years

PART TWO: Information about the research hypotheses

Please circle the answer that you agree with.

Section n°1: The role of reinsurance operations in increasing the operational capacity of insurance companies

The company engages in reinsurance operations to protect itself from losses and restore its financial balance	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations are affected by economic and social conditions, which affect the cost of claims	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations help insurance companies avoid fluctuations in the cost of financial claims and operational claims	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations increase operational capacity by employing the largest number of insurance operations	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations provide protection for companies from disasters and risks	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

Section n°2: The role of reinsurance operations in reducing the profitability risks of insurance companies

Reinsurance operations distribute major risks across multiple insurers, making them more manageable and insurable	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations aim to diversify their financial portfolio to maintain financial balance	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations help to protect capital, distribute it, and facilitate diverse investment avenues	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations directly affect the financial stability of the direct insurer by enhancing their capital base and reserves	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations can have a direct impact on the risk of the insured in a reinsurance transaction	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

Section n°3: The role of reinsurance operations in reducing potential losses for insurance companies

Reinsurance operations spread an insurer's risks and obligations across a wider network of insurers, effectively reducing the overall impact of those risks	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations act as a safeguard against catastrophic losses and their financial impacts by insuring against these potential losses	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations offer opportunities to provide technical advice to policyholders, which can help to prevent or reduce losses.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

Reinsurance operations generate revenue through commissions from reinsurers, calculated based on premiums paid to reinsurers, and through a profit commission paid to the insurance company to incentivize them to maintain profitability	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations facilitate the continuation of underwritten operations, which contributes to minimizing the likelihood of losses.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

Section n°4: The role of reinsurance operations in maintaining the competitive advantage of insurance companies

Reinsurance operations foster the growth and diversification of insurance markets by enabling risk containment strategies for a wider range of risks, ultimately expanding market reach and competitiveness	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations contribute to the establishment of a supervisory framework that supports the development of the insurance industry and facilitates its accessibility to direct insurance companies	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations enhance the technical proficiency and managerial competence required for scrutinizing and assessing large-scale operations, bolstering the company's competitive edge	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance operations lead to the protection of the company's assets from damage and loss, ensuring its continuity and enhancing its competitive ability	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reinsurance partnerships between domestic insurance companies and local reinsurers yield significant economic and competitive benefits for the national market	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

Annex 2: Standard t-value table

cum. prob	$t_{.50}$	$t_{.75}$	$t_{.80}$	$t_{.85}$	$t_{.90}$	$t_{.95}$	$t_{.975}$	$t_{.99}$	$t_{.995}$	$t_{.999}$	$t_{.9995}$
one-tail	0.50	0.25	0.20	0.15	0.10	0.05	0.025	0.01	0.005	0.001	0.0005
two-tails	1.00	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01	0.002	0.001
df											
1	0.000	1.000	1.376	1.963	3.078	6.314	12.71	31.82	63.66	318.31	636.62
2	0.000	0.816	1.061	1.386	1.886	2.920	4.303	6.965	9.925	22.327	31.599
3	0.000	0.765	0.978	1.250	1.638	2.353	3.182	4.541	5.841	10.215	12.924
4	0.000	0.741	0.941	1.190	1.533	2.132	2.776	3.747	4.604	7.173	8.610
5	0.000	0.727	0.920	1.156	1.476	2.015	2.571	3.365	4.032	5.893	6.869
6	0.000	0.718	0.906	1.134	1.440	1.943	2.447	3.143	3.707	5.208	5.959
7	0.000	0.711	0.896	1.119	1.415	1.895	2.365	2.998	3.499	4.785	5.408
8	0.000	0.706	0.889	1.108	1.397	1.860	2.306	2.896	3.355	4.501	5.041
9	0.000	0.703	0.883	1.100	1.383	1.833	2.262	2.821	3.250	4.297	4.781
10	0.000	0.700	0.879	1.093	1.372	1.812	2.228	2.764	3.169	4.144	4.587
11	0.000	0.697	0.876	1.088	1.363	1.796	2.201	2.718	3.106	4.025	4.437
12	0.000	0.695	0.873	1.083	1.356	1.782	2.179	2.681	3.055	3.930	4.318
13	0.000	0.694	0.870	1.079	1.350	1.771	2.160	2.650	3.012	3.852	4.221
14	0.000	0.692	0.868	1.076	1.345	1.761	2.145	2.624	2.977	3.787	4.140
15	0.000	0.691	0.866	1.074	1.341	1.753	2.131	2.602	2.947	3.733	4.073
16	0.000	0.690	0.865	1.071	1.337	1.746	2.120	2.583	2.921	3.686	4.015
17	0.000	0.689	0.863	1.069	1.333	1.740	2.110	2.567	2.898	3.646	3.965
18	0.000	0.688	0.862	1.067	1.330	1.734	2.101	2.552	2.878	3.610	3.922
19	0.000	0.688	0.861	1.066	1.328	1.729	2.093	2.539	2.861	3.579	3.883
20	0.000	0.687	0.860	1.064	1.325	1.725	2.086	2.528	2.845	3.552	3.850
21	0.000	0.686	0.859	1.063	1.323	1.721	2.080	2.518	2.831	3.527	3.819
22	0.000	0.686	0.858	1.061	1.321	1.717	2.074	2.508	2.819	3.505	3.792
23	0.000	0.685	0.858	1.060	1.319	1.714	2.069	2.500	2.807	3.485	3.768
24	0.000	0.685	0.857	1.059	1.318	1.711	2.064	2.492	2.797	3.467	3.745
25	0.000	0.684	0.856	1.058	1.316	1.708	2.060	2.485	2.787	3.450	3.725
26	0.000	0.684	0.856	1.058	1.315	1.706	2.056	2.479	2.779	3.435	3.707
27	0.000	0.684	0.855	1.057	1.314	1.703	2.052	2.473	2.771	3.421	3.690
28	0.000	0.683	0.855	1.056	1.313	1.701	2.048	2.467	2.763	3.408	3.674
29	0.000	0.683	0.854	1.055	1.311	1.699	2.045	2.462	2.756	3.396	3.659
30	0.000	0.683	0.854	1.055	1.310	1.697	2.042	2.457	2.750	3.385	3.646
40	0.000	0.681	0.851	1.050	1.303	1.684	2.021	2.423	2.704	3.307	3.551
60	0.000	0.679	0.848	1.045	1.296	1.671	$\boxed{2.000}$	2.390	2.660	3.232	3.460
80	0.000	0.678	0.846	1.043	1.292	1.664	1.990	2.374	2.639	3.195	3.416
100	0.000	0.677	0.845	1.042	1.290	1.660	1.984	2.364	2.626	3.174	3.390
1000	0.000	0.675	0.842	1.037	1.282	1.646	1.962	2.330	2.581	3.098	3.300
z	0.000	0.674	0.842	1.036	1.282	1.645	1.960	2.326	2.576	3.090	3.291
	0%	50%	60%	70%	80%	90%	95%	98%	99%	99.8%	99.9%
	Confidence Level										

STUDENT DECLARATION

Signed below _**Momen Mesyef**__, student of the Hungarian University of Agricultural and Life Sciences, ____**Gödöllő**___ Campus, Business Administration and management BSc Course full time/correspondence* declare that the presented Thesis is my own work, and I have used the cited and quoted literature in accordance with the relevant legal and ethical rules. I understand that the one-page-summary of my thesis will be uploaded on the website of the Campus/Institute/Course, and my thesis will be available at the Host Department/Institute and in the repository of the University in accordance with the relevant legal and ethical rules.

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Date: _2024 year 03 month 28 day

Momen Mesyef
Student

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As primary supervisor of the author of this thesis, I hereby declare that review of the thesis was done thoroughly; the student was informed and guided on the method of citing literature sources in the dissertation, attention was drawn to the importance of using literature data in accordance with the relevant legal and ethical rules.

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Dr.Fodor Zita
Internal Supervisor

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