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# M&A to support value creation in the insurance sector: Cattolica and Generali integration


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Table of Contents

INTRODUCTION ........................................................................................ 2

Chapter I: The financial extraordinary operations: mergers and acquisitions .................... 3

1.1 Different types of M&A ........................................................................................ 3

1.2 Typologies, advantages, and risks of M&A ................................................................ 7

1.3 The Global M&A Market: historic trends and valuations .......................................... 14

Chapter II: The M&A in the insurance sector ................................................................. 20

2.1 Evolution of the insurance sector ........................................................................ 20

2.2 The Insurance Market ........................................................................................ 22

*2.2.1 The insurance market worldwide* ..................................................................... 22

*2.2.2 The EU insurance market* ............................................................................... 24

*2.2.3 The Italian insurance market* .......................................................................... 25

2.3 The impact of regulation: from Solvency I to Solvency II ......................................... 33

*2.3.1 Solvency II capital requirements: the SCR and the MCR* ..................................... 36

Chapter III - Cattolica integration in Generali ................................................................ 43

3.1 Reasons behind the operation ............................................................................. 43

3.2 Valuation analysis of the operations .................................................................... 48

3.3 Methods and hypothesis ...................................................................................... 51

*3.3.1 Sum of Parts* ................................................................................................. 51

*3.3.2 Market Cap* .................................................................................................. 63

*3.3.3 Market multiples* ........................................................................................... 65

*3.3.4 Multiples from comparable transactions (or M&A multiples)* .............................. 67

3.4 Results from the capital increase analysis ............................................................ 68

3.5 From the reserved capital increase to the public tender offer ................................... 69

CONCLUSION ........................................................................................................ 73

TECHNICAL APPENDIX ......................................................................................... 74

BIBLIOGRAPHY ..................................................................................................... 82

# INTRODUCTION

This paper analyzes how Cattolica Assicurazioni faced the negative impact of Covid-19 pandemic, and the stricter regulatory requirements by putting in place a strategic partnership and a M&A operation to protect shareholder value.

This paper also analyzes how the value of companies operating in a regulated sector as the insurance one is affected by the minimum capital requirements imposed by the supervisory authority.

This topic is linked to the consolidation trend that the insurance sector is nowadays experiencing. As a result of the financial crisis, market Authorities are setting stricter regulation to obtain more adequate risk management process and higher level of capitalization, also in the insurance sector, to ensure resilience of the operators towards potential risks and unexpected events.

Aiming high levels of capitalization is demanding for insurance companies. Therefore, M&A activities represent an option for market operators.

Finally, the focus of the paper is to demonstrate through research, market data, reports, and the analysis of Cattolica Assicurazioni integration in Generali how the presence of strict capital requirements impacts companies' stock price, and how M&A can support shareholder value in this context.

The first chapter focuses on extraordinary financial operations, their typologies, advantages, and derived risks from their applications. The thesis includes an overview of the M&A market, in EU and in North America (US and Canada) to present a picture of its dimension, current trends and value expressed (volumes and relative deal values).

The second chapter goes through the sector main features: the business model (products etc.), the insurance market (worldwide, in EU and in Italy), the regulation and the minimum capital requirements, the main M&A operations between insurance companies and their value drivers.

In the last chapter, the Cattolica integration in Generali is deepened going through all its phases. The price offered by Generali in the reserved capital increase was studied using both analytical and empirical methods to assess the difference between Cattolica intrinsic and market value (influenced also by the minimum capital requirement).

To better assess the role of capital requirements in the company valuation, the results obtained from the analytical method analysis has been compared with the company market value one year forward (the time of the public tender offer), when the company's regulatory ratios already had improved.

# Chapter I: The financial extraordinary operations: mergers and acquisitions

## 1.1 Different types of M&A

The term “mergers and acquisitions”, abbreviated as M&A, refers to the operations through which two or more companies, or business units, integrate with each other, giving rise to a new player in the market. These are extraordinary operations used by companies to pursue a strategy of external development or reorganization, which is often preferred over internal growth because, although more expensive, it allows for the acceleration of development processes.

The simplest and most direct form of external growth is *acquisition*, which is the process through which a company (the “acquirer”) acquires ownership (either wholly or partially) of another company (the “target”), assuming control over its governance in order to pursue integrated strategies that enable greater value creation.[1]

However, acquisition is not the only form of external growth: two or more companies intending to benefit from integrated management can also decide to merge and create a single legal entity. This operation can take place in two ways: *merger in “strict sense”* and *merger by incorporation*.[2]

In a *merger in “strict sense”*, a new company is created, taking over all assets and liabilities of the companies being extinguished due to the operation. On the other hand, in a merger by incorporation, one of the companies absorbs the other within it.

M&A operations typically require the availability of financial resources, which are raised through capital increases by the acquiring/incorporating company and/or through debt financing (known as *leveraged buyout* - LBO). However, the civil law regulations impose stricter conditions on debt financing to prevent excessive indebtedness.[3]

Carrying out these operations also involves a complex negotiation and legal-administrative process, whose contents are summarized in extensive contractual documents such as the “share purchase agreement” (SPA) or the “merger plan”.

The latter, drafted by the administrators, is identical for all participating companies and includes the corporate name, the articles of association for the resulting company, the shares’ exchange, and allocation methods. This document is then accompanied by the participants’ financial statements , the administrators’ report, and the expert’s report.[4]

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[1] Glossario finanziario, *Acquisizione*, Borsaitaliana.it.

[2] Glossario finanziario, *Fusione*, Borsaitaliana.it.

[3] Codice civile, Art. 2501-bis, *Fusione a seguito di acquisizione con indebitamento*, 2018.

[4] Codice civile, Art. 2501-ter, *Il Progetto di fusione*, 2018.

Furthermore, M&A operations, given their significance, are subject to specific resolutions by the corporate bodies and, if the conditions are met, also require authorization from market regulatory Authorities. Therefore, ,the operations can be finalized only after these steps with the signing of the agreement by the legal representatives of the companies involved.[5]

Prior to commencing negotiations, companies individually conduct strategic analysis and analysis of the target company. This is followed by negotiation of the merger agreement terms, the agreement closing, and post-M&A integration.[6]

In the strategic analysis, the acquiring/incorporating company examines its strengths and weaknesses (SWOT analysis), defines its growth strategy, and identifies the synergies achievable through the operation.[7]

Based on strategic evaluations, initial informal contacts can be made with potential targets to verify the existence of broad agreements.The parts may sign a "letter of intent" (known as a "memorandum of understanding"), which is "a confidential document between the parties that does not involve binding obligations but sets a predetermined common course of action".[8]

Once the strategic analysis is completed, the target company's financial structure, economic value, and competitive position are examined. Analyzing the competitive position focuses on the company role in the market, particularly the served customer segments and the value these customers attribute to the brand.[9]

Afterwards, it is essential to analyze the target company financial and asset structure, including tangible and intangible assets, as well as financing sources (equity and debt).

Significant attention is given to facilities, technologies, and patents. Companies are highly interested in these aspects as they enable scale economies of scale through integration and production relocation, as well as an increased degree of innovation due to the new acquired technologies.

In this phase the target company intrinsic value is determined. The valuation can be conducted through different methods: the most used are the Discounted Cash Flow method (in all its variations), the Multiples from Comparable Transactions and the Market Multiples.[10]

The DCF method consist in discounting the company future cash flows at a hurdle rate that consider the risk of the company business.

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[5] Campobasso G.F., *Manuale di Diritto Commerciale*, Utet Giuridica, 2017.

[6] Bergamin S., Braun M., *Mergers and Acquisitions - Integration and transformation as the Gateway to Success*, Springer, 2017.

[7] Copeland T., Koller T., Murrin J., *Il valore dell'impresa: strategie di valutazione e gestione*, il Sole 24 Ore, 1998.

[8] Torrente A., Schlesinger P., *Manuale di Diritto Privato*, Giuffrè, 2017; Il Sole 24 Ore, *Memorandum d'intesa*, Sez. Parole Chiave, 2016.

[9] Kotler P., Keller K., Ancarani F., *Marketing Management*, Pearson, 2017.

[10] Savioli G., *Le operazioni di gestione straordinaria*, Giuffrè Editore, 2020.

Another evaluation method used is the so-called *"Multiples from Comparable Transactions"*, which is easily applicable for assessing unlisted companies.[11] However, it is the least accurate method among the three, as it is subject to more approximation since it is difficult to find a perfectly comparable company on  market to the one being evaluated. On the other hand, the *Market Multiples*, along with DCF methods, are the most commonly used.

They are used "to indirectly estimate the financial results (earnings and dividends), the expected growth rate, and the inherent risk in the expected results".[12]

For example, the Price/Earnings ratio(P/E ratio), which is the ratio between the market value of the company's shares and its earnings, is often taken into consideration.

Following these stages of analysis, the actual negotiation of the transaction takes place. Its purpose is to determine the price of the transaction, the payment terms, and guarantees.

In determining the price, the parties establish the value of the transaction based on their respective analyses and the expected synergies.

Subsequently, the payment method is chosen, which essentially depends on the parties' interests. In the case of acquiring a majority stake in a publicly traded target company, the acquiring company is required to make a *public tender offer* (PTO), if the payment is intended to be in cash. Alternatively, payment can also be made through a *stock-for-stock transaction*, offering the acquiring company own shares (known as an *exchange offer* or *public exchange offer*). In this case, the exchange ratio at which the shares are to be exchanged is negotiated between the parts.

In the case of transactions between companies of similar sizes, where it is not possible to distinguish between the acquiring and target company, a *merger of equals* is pursued.

Both a PTO and an exchange offer can be classified as *friendly* or *hostile*. It is considered *friendly* when the target company's Board of Directors is favorable towards the transaction, while it is considered *hostile* if they oppose it.[13]

Recent examples of significant transactions that took place in  market include the merger of FCA-PSA (friendly) and the acquisition of UBI Banca by Banca Intesa (hostile).

Regarding the warranties provided by companies, they can be of any type and can cover any operational or financial aspect. They are explicitly stated in the sale contract or, in the case of mergers, may be included in the shareholders' agreements (agreements among shareholders to regulate commitments and reciprocal warranties).

Integration can also be achieved through less invasive methods, such as collaboration agreements (known as *partnerships* or *joint ventures*), which, unlike mergers or acquisitions, have only a limited

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[11] Guatri L., *Trattato sulla valutazione delle aziende*, Egea, 1998.

[12] Guatri L., Bini M., *I moltiplicatori nella valutazione delle aziende: (1) Principi e linee guida professionali*, Università Bocconi Editore, 2003.

[13] Brealy R.A., Myers S.C., *Principi di finanza aziendale*, Mc Graw Hill, 2020.

impact on the governance of participating companies as they do not structurally modify share ownership.[14]

These types of operations, with their limited scope, are generally easier to implement and less costly than traditional merger and acquisition processes. However, they have inherent disadvantages. They can be reversible and typically involve high coordination costs between the parties, which may not always offset the synergies and innovations produced by the agreement.

Furthermore, the participating companies, continuing to operate as separate entities, remain subject to their respective governance structures, which may have additional objectives beyond the agreement. This creates uncertainty for investors in the long term, as the companies will continue to operate separately at the end of the agreement.

Conversely, investors tend to appreciate mergers and acquisitions (M&A) more because they create a unified entity that fosters greater cohesion in pursuing long-term objectives.

At the core of every integration operation there is a value creation strategy, based on the belief that it is possible to enhance the involved companies' value. Therefore, despite these operations being carried out through different legal and governance approaches, they are frequently grouped together and represented by the acronym "M&A".

[14] Markovits R.S., *Chapter 15 Joint Ventures and Other Types of Functionally-Analogous Collaborative Arrangements*, in: *Economics and the Interpretation and Application of U.S. and E.U. Antitrust Law*, Springer, 2014.

## 1.2 Typologies, advantages, and risks of M&A

M&A operations are classified on the operation geographical scope and the participating companies' activities.

Based on geographical scope, these operations are divided into "domestic M&A" and "cross-border M&A" (or *transnational* M&A).

Domestic M&A occurs between companies based in the same country. An example of domestic M&A is the merger that took place in the first quarter of 2020 between Cofide, a financial holding company owned by the De Benedetti family, and the CIR Group[15]: both companies are based in Italy.

On the other hand, cross-border M&A refers to operations that involve companies legally and economically present in different countries. An example of such an operation is the Campari Group's acquisition of 100% of French distributor Baron Philippe de Rothschild (cross-border merger by incorporation).[16]

These operations' main objectives are the access to new markets to sell their products (internationalization strategy), andthe concentration of certain production chain phases in foreign countries (known as offshoring), such as China, where the labor and materials cost is lower.

This type of operation has become increasingly common due to globalization and market concentration, which are now primarily characterized by large players operating internationally. As a result, there are more and more multinational companies operating in different countries, sometimes with autonomous administrative and international economic divisions.[17]

The second classification categorizes M&A operations as horizontal, vertical, and conglomerate.

Horizontal M&A occurs "between companies operating in similar industries that can be more or less direct rivals".[18] This operation main advantages are brand diversification, customer base expansion, and competitive positioning improvement (elimination of a potential competitor).

Horizontal M&A is very common in almost all sectors. Some recent examples include the acquisition of Versace by the Michael Kors group (luxury sector) and the merger between the French company Essilor and the Italian company Luxottica (eyewear sector), both of which took place in 2018.[19]

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[15] KPMG, *Rapporto-M&A-fusioni-acquisizioni-Q1-2020*, 2020.

[16] KPMG, *Rapporto-M&A-fusioni-acquisizioni-Q1-2020*, 2020.

[17] Daft R.L., *Organizzazione Aziendale*, Apogeo Education, 2017.

[18] Corporate Finance Institute, *What are Mergers & Acquisitions (M&A)?*, 2021.

[19] Versace.com, Sez. Company Profile; EssilorLuxottica.com, *Essilor and Delfin successfully complete the combination of Essilor and Luxottica by creating EssilorLuxottica, a global leader in the eyecare and eyewear industry*, Press release, 2018.

On the other hand, vertical M&A refers to "operations that involve the company and its suppliers or a customer enterprise".
These operations can be upstream, integrating part of the supply chain, or downstream, towards the end consumer[20], and are particularly relevant in sectors with extensive and complex production chains, such as the automotive industry, where large groups often choose to absorb their suppliers to achieve integration economies and ensure better production coordination.
Vertical integration processes can also occur in the consumer market when a player in the chain decides to integrate the distribution channel. An example of this is Amazon's acquisition of the Whole Foods distribution chain in 2017. Customers can purchase Whole Foods products like "365 Everyday Value®" on Amazon, and Amazon's Echo and Alexa products can be purchased in Whole Foods stores, where customers can also pick up or return Amazon packages at Amazon Lockers.[21]
Lastly, conglomerate M&A refers to "transactions involving companies which operate in unrelated sectors".[22] An example of this is General Electric's acquisition of the American network NBC. General Electric is a producer of engines, aircraft, and electronic devices.
On the advantages side, M&A enable the value creation for the participating companies.
According to classical economics, value creation refers to the shareholders' ability to obtain profit through business activities.[23]
Profits are represented by the net income (N.I.), visible at the end of the fiscal year in the financial statement. If the margin resulting from the difference between costs and revenues is positive, there is a net profit (value is created for shareholders). Otherwise, if there is a net loss, value is destroyed, eroding the capital provided by shareholders for business operations.[24]
However, value creation is not immediate but occurs over different periods and in different ways. In the modern economy, value creation also occurs through financial markets, where companies raise capital, and their stocks are traded.
M&A transactions have a significant impact on financial markets and price formation as they can influence investor expectations at three distinct moments: the transaction announcement (ex-ante), its completion, and subsequent periods (ex-post).
The transaction announcement has a strong effect on the participating companies' stock price, as investors begin to incorporate their expectations about the operation effects.

[20] Corporate Finance Institute, *What are Mergers & Acquisitions (M&A)?*, 2021; Brealy-Myers, *Principi di finanza aziendale*, 2020.
[21] Ir.aboutamazon.com, *2017 Annual Report*, Amazon, 2018.
[22] Brealy-Myers, *Principi di finanza aziendale*, 2020.
[23] De Simone E., *Storia economica*, Franco Angeli Editore, 2018.
[24] Fiori G., Tiscini R., *Economia aziendale*, Egea, 2017.

This process depends on the information provided by the companies and the investor's individual assessments. If the transaction is positively evaluated, the stock price increases, reflecting the anticipated higher future profits, and shareholders immediately see the value of their shares grow.

Those who benefit the most from the transaction, particularly in the initial phase, are the shareholders of the acquired (or target) companies, as they "receive, on average, a premium of 20% in friendly mergers and 35% in hostile takeovers", while the stock price of the acquiring/incorporating companies increases less in the initial phase (around 2-3% for mergers and 3-5% for acquisitions).[25]

These "abnormal" returns on the transaction announcement date, known as day 0, can be calculated. The daily abnormal return is composed of the residual from regressing the stock return on a market index.

$$R_{it} = a_i + b_i R_{mt} + e_{it}{}^{26}$$

In which:

$R_{it}$ = total return on stock i-th in day t

$a_i, b_i$ = the intercept and the angular coefficients of a $R_{it}$ on $R_{mt}$ linear regression for a reference period (different than the one of the equation estimates)

$R_{mt}$ = representative index (of the entire market) total return in day t

$e_{it}$ = abnormal return

Another commonly way to compute the abnormal return in the day is subtracting the market movement (positive or negative) from the stock movement.

$$AR_{it} = R_{it} - R_{mt}{}^{27}$$

In which:

$AR_{it}$ = abnormal return of the i-th stock in a day t

$R_{mt}$ = representative index (of the entire market) total return in day t

$R_{it}$ = total return on the i-th stock in day t.

Through these equations, it is possible to obtain an estimate of a company's abnormal return on a given day, after eliminating the general market trend. The residual represented by the abnormal return would be equal to zero if no specific event had occurred for the company, in this case, the operation announcement.[28]

[25] Copeland–Koller–Murrin, *Il valore dell'impresa: strategie di valutazione e gestione*, 1998.
[26] Copeland–Koller–Murrin, *Il valore dell'impresa: strategie di valutazione e gestione*, 1998.
[27] Reilly F.K., Brown K.C., Leeds S.J., *Investment Analysis & Portfolio Management*, South-Western Pub Editor, 2018.
[28] Copeland–Koller–Murrin, *Il valore dell'impresa: strategie di valutazione e gestione*, 1998.

The transaction announcement is followed by its realization, which modifies the underlying price of the securities traded in the market. In fact, there exists a new security (which can represent either the acquiring company or the newly formed company) to which the the new economic entity future results will be attributed.

In the initial phase, the price of the security continues to reflect the investors'expectations, which may change over time based on progressively achieved results, remaining subject to fluctuations throughout the company life.

Therefore, the stock price plays a fundamental role as it synthesizes growth expectations and anticipates future performance results, still unknown at the time of the operation.[29]

Technically, the company stock price is formed in the market discounting the company future cash flows at its Weighted Average Cost of Capital (WACC).[30]

Obtaining the hurdle rate to discount cash flows is not complicated for investors; it is much more challenging to estimate the value of the streams themselves.

Normally, this estimate is done by comparing the company historical data to the sector growth opportunities For companies with a long presence in  market, it is not difficult because there is a wealth of historical data and analyses to compare.

In case of M&A operations, the future cash flows analysis is not immediate because the involved companies have always operated separately, and the historical results do not take into account the achievable synergies .

The synergies effects translate into the chance for the acquiring company to: increase revenues, decrease costs, reduce the tax burden, lower the cost of capital, and exploit temporary investment opportunities in the stock market.

According to the finance manual by Dallocchio-Salvi, revenue synergies arise from the possibility that the union of the two companies results in:

- Increased market power and a reduction in the number of competitors; an increase in market share can improve "the company's ability to impose prices for its goods on the market and exploit any rents associated with the acquired competitive position". In reality, this does not happen indiscriminately because national competition and market Authorities impose limits on the degree of sector concentration to maintain a minimum level of competition.
- Improved competitive the acquiring/incorporating company capabilities by facilitating entry into new or related sectors with the opportunity to serve previously neglected customer segments.

[29] Savioli G., *Le operazioni di gestione straordinaria*, Giuffrè Editore, 2020.
[30] Bloomberg Market Concepts, *Equities*, 2021.

- A more structured marketing function capable of promoting more effective advertising campaigns, an advanced distribution network, and a more balanced product portfolio.[31]

On the cost synergy side, concentration between companies can lead to efficiency improvements.

In particular, it is possible to:

- Fully leverage economies of scale in operational activities through the production capacity optimization, allowing for the reduction of average production costs with a higher number of produced units (very common in horizontal mergers).
- Achieve economies of vertical integration by "improving coordination between various stages of the production chain" (the so-called "supply chain") and sharing best process technologies upstream and downstream of production.
- Facilitate management renewal, especially when there is inertia or excessive resistance to "changes in technology or new market conditions".[32]
- The third benefit obtained through M&A relates to "reducing the tax burden born by the resulting company".

This can result from three cases:

- The deductibility of tax losses carried forward by the acquired company; one company may decide to acquire another that has negative results to take advantage of the tax deductibility resulting from the latter's tax losses. In the Italian tax system, it is possible to deduct the acquired company's losses from the profits of the five financial years following the transaction. To avoid the trade spread of the so-called "tax coffins" (non-operating companies with significant previous losses), the current discipline has provided that "to carry forward the previous losses of the participants, it is necessary to demonstrate the "vitality" of the acquired company that has suffered the losses".
- The greater use of debt; if external growth results in greater diversification and lower operational risk, the *probability of default* of the resulting entity decreases while "the borrowing capacity and the possibility of being able to benefit from the deductibility of interest expense (so-called tax shields) increases".[33]
- The asset revaluation entered in the balance sheet because of the operation. For the tax authority, M&A transactions are considered "neutral": any merger surpluses and deficits are not taxed. Then, the resulting company will be able to allocate the deficit to the assets on the balance sheet by revaluing them. In this case, the asset tax value differs from its statutory value, which has become higher, and there will be, consequently, "a misalignment between tax and civil depreciation".

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[31] Dallocchio M., Salvi A., *Finanza d'azienda*, Egea Editore, 2004.
[32] Dallocchio–Salvi, *Finanza d'azienda*, 2004.
[33] Dallocchio–Salvi, *Finanza d'azienda*, 2004.

The tax authority allows to maintain the previous tax value (net of the accounting revaluation) but sometimes there is the chance to obtain the tax recognition of these capital gains through the application of preferential substitute taxes (so-called *franking*). In this case, the new company is incentivized to opt for tax exemption because it has the possibility of deducting higher depreciation or lower tax charges in case of subsequent transfers.[34]

Through M&A operations, it is also possible to reduce the cost of capital by increasing the use of leverage and changing the weighted average cost of capital (WACC) structure.[35]

Through M&A, it is also possible to catch investment opportunities temporarily created on stock markets in case of price volatility. If the price at which the *target* company shares are traded is lower than their book value, the buyer may decide to buy them believing in future market corrections.[36]

The synergies' value is not known a priori but it will be observed in the financial statements in following years. Usually, their complete realization normally takes place in a medium-long term perspective (at least three years).[37]

However, it is important to define the nature of synergies and give them an indicative value. According to Prof. Aswath Damodaran, the creator of most recent Cash Flow (CF) valuation methods, the two firms must be valued independently by discounting expected cash flows to each firm at their cost of capital. Then, the value of the combined firm with no synergy is obtained adding the values obtained for each firm in the first step.

The effects of synergy are built into the expected growth rates and cash flows and the combined firm is re-evaluated with synergy. Therefore, synergies must be determined before their impact on the combined companies' future CFs.

Here follows the formula for estimating the synergy value:

Value of Synergy = Value of the combined firm, with synergy – Value of the combined firm, without synergy[38]

Capturing this greater value is not simple with the chance that value creation does not materialize at all.

Indeed, M&A transactions also involve risks. The operation success is significantly influenced both by exogenous factors, such as the state of the economy, the country legislation (in which the company operates), the financial markets regulation, and endogenous factors, such as the effective ability to proceed with the post-operation integration of companies.

It is important for companies to consider the general state of the economy and sector. During economic crisis or even recession, shareholders usually tend to be more risk-averse and therefore

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[34] Course of Revision, Deontology and Professional Technique, *Riallineamento: effetti fiscali*, 2021.

[35] Dallocchio–Salvi, *Finanza d'azienda*, 2004.

[36] Dallocchio–Salvi, *Finanza d'azienda*, 2004.

[37] Copeland–Koller–Murrin, *Il valore dell'impresa: strategie di valutazione e gestione*, 1998.

[38] A. Damodaran, *The Value of Synergy*, Stern School of Business, 2005.

require a higher return on capital than in periods of growth. Therefore, it becomes more complicated to complete negotiations and the number of M&A transactions that close successfully reduces.[39]

The regulatory framework also plays a key role in M&A and its assessment. Studies show there are higher volumes of M&A transactions in countries where shareholders are better protected.[40] Less shareholder protection poses a risk to shareholders: as a result, they will demand a higher return on their invested capital.

Another risk for M&A transactions regards financial markets regulation. An over-regulation makes many M&A transactions not to complete due to the higher limits imposed on merger processes by the Antitrust authority.[41]

On the other hand, increasing market deregulation facilitates the transactions' completion, fueling a considerable wave of M&A, more often driven by market optimism rather than real growth opportunities.[42] As a result, many of these operations, although perfected, are short-lived and end up destroying more value than they would have "optimistically" created.

All M&A transactions, even in the presence of periods of economic growth and limited regulation of the financial markets, remain exposed to the endogenous risk of execution: the failure to integrate the participating companies.

Many M&A operations, which seem economically convenient, prove unsuccessful because "managers are not able to fulfil the complex phase of integration between the two companies".[43]

The management must take care of the integration process, implementing actions such as common management policies and staff remuneration: suitable actions to promote the formation of a new common organizational and corporate culture accepted by both participants.[44]

The company officers must be the main promoter of the change: in their role, they must incentivize confront occasions, team-up and coordination between the different company units and transmit this wish also at the down levels.

In the end, M&A can create value for stockholders, but not necessarily for the economy. The creation of monopolistic positions could be harmful for markets.

The correct management of all risk factors remains a relevant aspect to entirely catch the M&A positive effects and value creation.

[39] Mariani G, *M&A and value creation: a swot analysis*, G. Giappichelli Editore, 2017.

[40] Feito-Ruiz I., Menendez-Requejo S., *Cross-border Mergers and Acquisitions in different legal environments*, International Review of Law and Economics, 2011.

[41] Mariani G, *M&A and value creation: a swot analysis*, 2017.

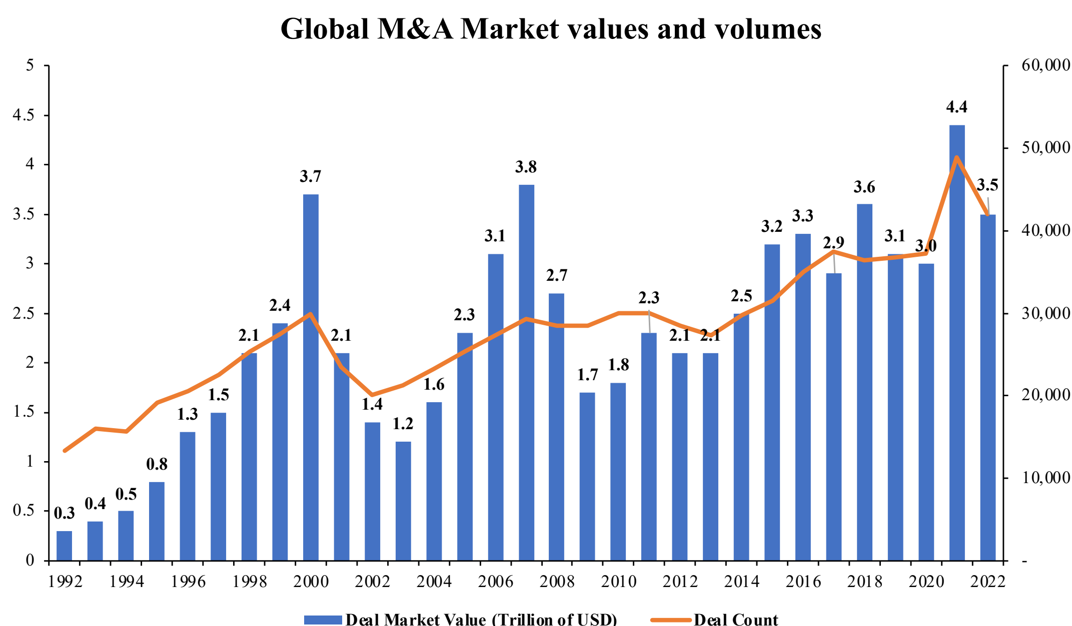
[42] Mishkin F.S., Eakins S.G., Beccalli E., *Financial Markets and Institutions*, Pearson College Div, 2019.

[43] Brealy-Myers, *Principi di finanza aziendale*, 2020.

[44] Daft R.L., *Organizzazione Aziendale*, 2017.

## 1.3 The Global M&A Market: historic trends and valuations

The M&A operations at a global level experienced a growing trend in the last thirty years, with the presence of some "peaks" (so-called *waves*), fueled by speculative bubbles that characterized financial markets.




*Sources: KPMG, Rapporto Merger & Acquisitions 2021; Bain, Global M&A Report 2022*

The peak in 2000 relates to the development of a completely new sector, linked to the internet and new media (so-called dot-com), which reached high valuations and multiples for companies in the sector: values certainly "drugged" and disconnected from any economic fundamental.[45]

In 2000, M&A transactions reached a turnover of approximately USD 3,700 billion (*United States Dollars*) with almost 30 thousand transactions concluded worldwide and an average deal value of approximately USD 125 million per transaction.

In the following years, with the deflation of the dot-com bubble and the downsizing of valuations related to high-tech sectors, the M&A market contracted significantly until reaching in 2003 the lowest level in the last 30 years, with only 1,200 billion USD in turnover and about 21 thousand M&A transactions carried out globally (with an average value per transaction of 58 million USD).

After 2003 there was a gradual recovery in M&A activities, which led to a new peak in 2007 with 3,800 billion USD in turnover and over 29 thousand transactions concluded globally (an average value of 130 million per transaction).

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[45] Tamburi Investment Partners (TIP), *Prezzi e Valori: L'enterprise value in the digital age. Borsa, private equity, M&A, premi, sconti, errori e prospettive,* MilanoFinanza Editore, 2017.

The overall growth of the world economy drove the rise, partly drugged by the excess credit provided by the banking system; this trend, also fueled by securitization transactions which hid or transferred *toxic assets*, produced a peak similar to 2000 levels.

The financial crisis of 2008 (fueled by the "subprime" crisis) led to a sharp collapse of the global M&A market, which in the 2008-2009 halved in terms of transaction turnover, reaching USD 1,700 billion in 2009 (with an average value per transaction of about USD 60 million).[46] The fall in turnover was caused by the loss of large transactions, often financed by extensive recourse to debt.

The numerous corporate recapitalization and restructuring interventions following the financial crisis, also supported by numerous public initiatives, have nevertheless supported the number of M&A operations.

In the years following 2008 financial crisis, M&A activity gradually returned to growth, reaching in 2017 the record number of 37,437 transactions globally (+31.3% compared to 2009 and +6.9% compared to 2016). Over the same period, the value of these transactions has also grown considerably, reaching USD 4,400 billion in 2021, the highest level of global turnover ever.[47]

The general growth of the world economy has supported a progressive increase in the number of M&A operations, with only temporary slowdowns in periods of financial tensions, followed by recoveries in subsequent periods, also thanks to central banks (FED and ECB) interventions to support the economy.

In the last decade, the progressive reduction in the cost of money and the huge injections of liquidity to stimulate the economy have given a strong impulse to extraordinary operations.

Only with the spread of the Covid-19 epidemic, the M&A market experienced a slight contraction compared to previous years, returning almost to 2014 levels.

2020 was a year that saw first the decline and then the rebound of M&A activity. In the first quarter of the year (the first months of the spread of the pandemic) there were 8,818 transactions (–8% compared to Q1 2019). The second quarter, in which the first acute phase of the pandemic occurred, was the one with the worst results: a total of 5,958 transactions carried out compared to 9,003 in the previous year (–34% compared to Q2 of 2019).

Subsequently, the M&A market experienced a weak recovery with 7,351 transactions carried out in the third quarter (+18% compared to Q1), but they were still lower than the 9,265 in the third quarter of the previous year.[48]

The last quarter of 2020, despite the presence of a second global wave of the pandemic, maintained the signs of recovery, reaching 15,103 operations. The total number of transactions was 37,230 for a turnover of USD 3 trillion.

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[46] Tamburi Investment Partners (TIP), *Prezzi e Valori: L'enterprise value in the digital age. Borsa, private equity, M&A, premi, sconti, errori e prospettive,* 2017.

[47] KPMG, *M&A Report 2021*, 2022.

[48] S&P Global Market Intelligence, *Global M&A by the numbers: 2020 Recap*, 2021.

After the pandemic, the M&A market grew again, reaching a new peak in terms of turnover and number of deals. The cumulative value of the deals was €4.4 trillion, even higher than the ones of the previous asset bubbles of 2000 and 2007. In addition, a new record number of transactions was reached: 49,948 transactions, much higher than the previous level of 37,473 of 2007 (+31%).

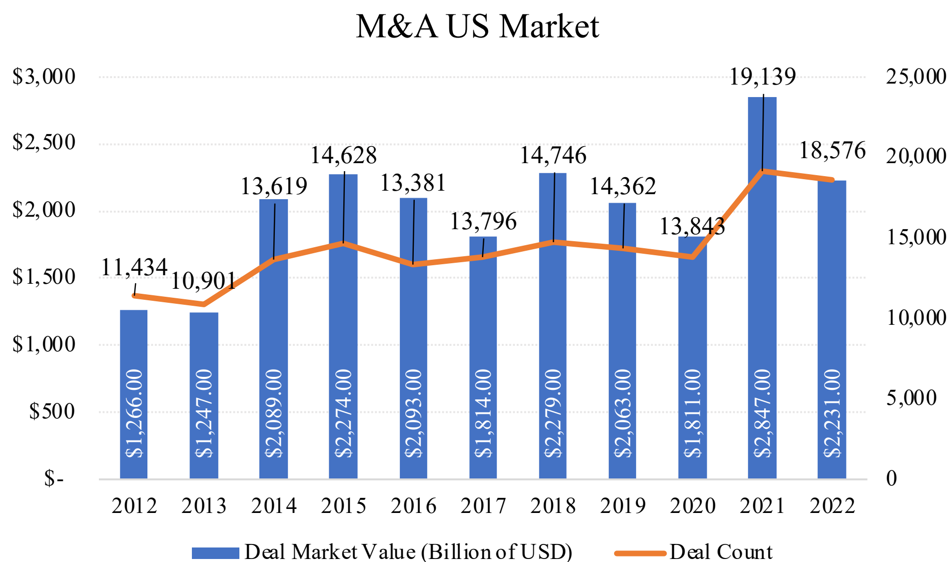
These values were linked to the renewed economic situation of 2021: "low inflation, low interest rates, high equity valuations, particularly in the United States, and large available capital reserves".[49]

In 2021, the growth of M&A transactions was particularly significant in the US (+60% in value, after –12% in 2020, and +25% in volumes) where new all-time highs were reached: USD 2,847 billion in turnover and 19,139 transactions completed.[50]

In 2022, mainly due to the outbreak of war in Ukraine, rising inflation and restrictive policies implemented by central banks, global M&A activity declined, returning to levels very similar to pre-covid. The M&A deal values dropped from 4.4 to 3.5 trillion USD (–20%) with also a lower number of transactions (from 48 to 42 thousand deals).

Acquirers and target companies faced the interest rate increasing, the rising inflation, and disruptions in the supply chain, which impacted the companies' projections accuracy.[51]

The M&A North America market (US and Canada) stumbled in 2022: the number of deals decreased to 18,576 deals for a combined value of $2.2 trillion and deal value dropped 21.6% from the peek seen in 2021.




*Source: PitchBook, 2022 Annual Global M&A Report*

"Soaring inflation and aggressive interest rate hikes dampened investor sentiment while geopolitical tension and ongoing supply chain issues amplified market uncertainty".[52]

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[49] KPMG, *M&A Report 2021*, 2022.

[50] KPMG, *M&A Report 2021*, 2022; Pitchbook, *Annual Global M&A Report 2022*, 2023

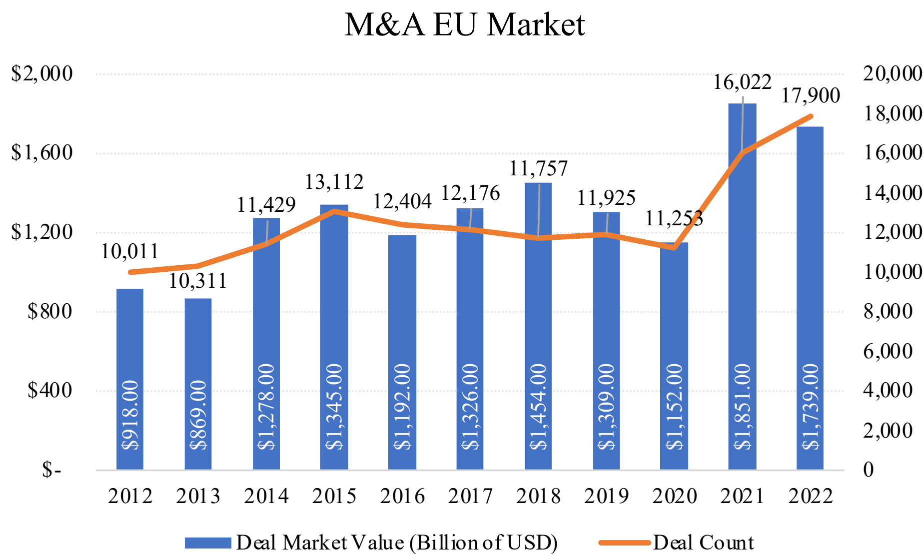
[51] Bain & Company, *Global M&A Report 2022*, 2023.

[52] Pitchbook, *Annual Global M&A Report 2022*, 2023.

Consequently, the US stock market experienced sharp losses: the three major indexes saw their biggest annual drop since 2008: S&P 500 finished the year with a 19.4% decline, shedding roughly $8 trillion in market cap, while the Dow Jones Industrial Average fell by 8.8% and the Nasdaq Composite by 33.1%".[53] This bearish time slowed down M&A activity as rising interest rates lowered equity valuations and increased the cost of financing acquisitions.

Despite the intense market volatility, North American M&A Market remained above the three-year pre-pandemic average (2017 to 2019), showing that 2022 M&A levels are depressed compared with the peek of 2021 and that deal activity is correcting to a more sustainable level in line with the historic trend.[54]

In Europe, it was mainly "the growing concern about the Russia-Ukraine war;the likely need to subsidize winter energy costs for consumers forced a pullback on funding for other social needs such as healthcare".[55]




*Source: PitchBook, 2022 Annual Global M&A Report.*

Despite the macroeconomic backdrop and the war in Ukraine, the M&A activity in EU remained resilient with a deal count rising to 17,900 deals, up 11.7% from the year before. "On the other hand, European M&A deal value dropped 6.1%, indicating that there were more deals worth slightly less than in 2021".[56]

As a result of the war, the energy crisis began, commodities prices soared, and inflation rose. These contingencies directly led to the largest M&A deal of the year in EU: "the German government's nationalization of Uniper, the country's largest importer of gas, for $33.7 billion in Q3 in an attempt to stabilize energy prices".[57]

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[53] Pitchbook, *Annual Global M&A Report 2022*, 2023.
[54] Pitchbook, *Annual Global M&A Report 2022*, 2023.
[55] Bain & Company, *Global M&A Report 2022*, 2023.
[56] Pitchbook, *Annual Global M&A Report 2022*, 2023.
[57] Pitchbook, *Annual Global M&A Report 2022*, 2023.

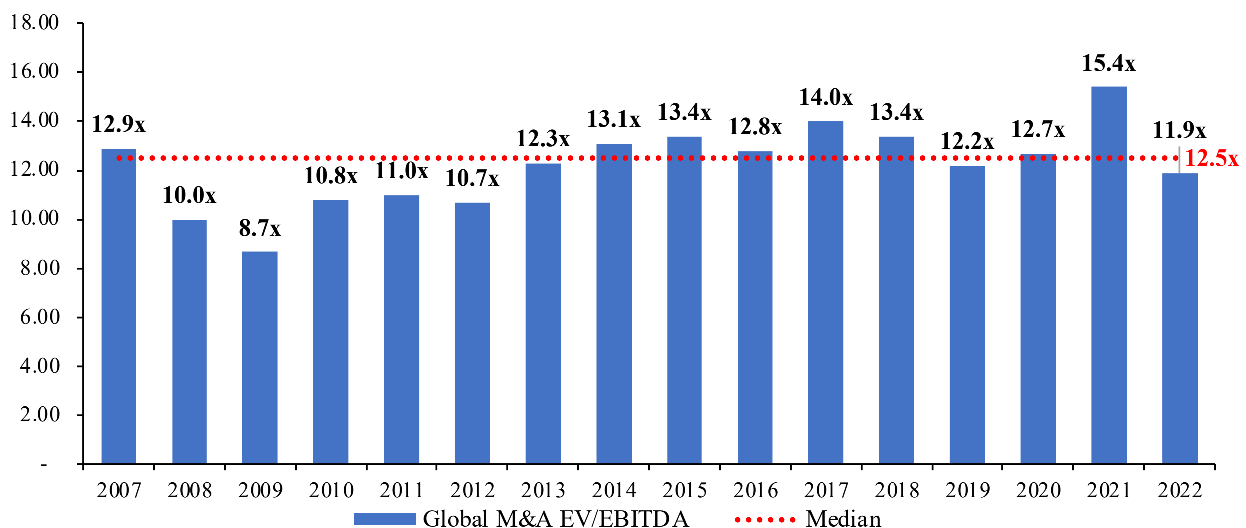
"Similarly, the French company EDF, which controls the nuclear plants in France was fully nationalized by the government in a deal worth $10 billion to diversify energy supplies away from Russian gas. Indeed, in Europe energy M&A deals increase 34.9% to $152.5 billion in 2022".[58]

Another important element is the historical trend of valuations recognized on average in M&A transactions. The parameter that is normally used is the EV/EBITDA multiple (*Enterprise Value/Gross Operating Margin*); this parameter, which represents one of the most widespread market valuation parameters, allows in fact to have sufficiently homogeneous and comparable data both over time and on the different markets.[59]

In fact, based on the available data, it has been possible to analyze M&A valuations globally, focusing on the period from 2007, the eve of the 2008 financial crisis until today (about 15 years).

The trend of the EV/EBITDA multiple has been reconstructed taking as a reference the data extrapolated from Bain & Company's annual M&A reports, which take as reference all M&A transactions for which sufficient information is available regarding size and related countervalues/prices.

Global M&A EV/Ebitda Median (2008-2022)




*Source: Bain, Global M&A Report 2022.*

From the analysis it was possible to highlight the following aspects:

- the valuation trend has a good correlation with both the trend of economic cycles (GDP) and with the international stock markets' performance;
- in the period considered, the median multiple recorded globally is equal to 12.5 times compared to 11.9 times in the last year monitored (2022);
- with the exception of the 2008-2009 period, when valuations were significantly affected by the international financial crisis, the average valuations of the M&A sector were between

[58] Pitchbook, *Annual Global M&A Report 2022*, 2023.

[59] Tamburi Investment Partners (TIP), *Prezzi e Valori: L'enterprise value in the digital age. Borsa, private equity, M&A, premi, sconti, errori e prospettive,* 2017.

ten (low in 2008) and fifteen times (maximum in 2021) without showing particular anomalies in absolute value and in terms of performance;

- since the financial crisis of 2008-2009, average multiples have been progressively increasing and stabilizing (around 13 times), even during the Covid-19 period;
- the trend of the last year is lower than average due to high markets' volatility.

Therefore, it can be stated, based on the average assessments expressed by the global M&A market, that there was a general growth trend that reached its maximum in 2021 and then fell below the average for the period in the following period, indicating a progressive increase in market volatility and uncertainty.

However, it is important to focus on the assessment assumptions expressed by the M&A market in the face of the global pandemic and the energy crisis of 2022.

The pandemic has put a strain on the global economy and, therefore, it would have been natural to expect valuations to decline as already emerged in the wake of the 2008 global financial crisis, when deal multiples fell by around 30% from their peak in 2007.

On the other hand, the data at the end of 2020 show an opposite trend. Globally, the EV/EBITDA multiple reached 13 times compared to 12 times the previous year, supported by high-growth sectors, such as technology and telecommunications, and pharmaceuticals, where multiples increased considerably.

Another factor that has supported the assessments is the economic support measures put in place by governments and central banks. Overall, most governments chose to support households and businesses through the growth of public deficits that have reached levels higher than those recorded following the 2008 financial crisis: 5% of GDP in France), 12% of GDP in the US and 10.8% of GDP in Italy.[60] At the same time, central banks kept interest rates low, facilitating access to credit for firms and households, and carried out real open market operations to support the public debt of governments.

These factors led to the highest level of M&A activity in recent years, but an equally sharp contraction has followed in the wake of the war in Ukraine and the European energy crisis. The rise in energy prices spilled over to commodity prices, generating a significant increase in inflation in both EU and US. In response to the situation, Central banks (FED and ECB) raised interest rates almost to 5% and thus the cost of money.

Therefore, the rising cost of capital, the geopolitical tensions, and the supply chain uncertainty risk to guide the global economy to a recession and a consequent slow in the M&A global activity in the next years.

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[60] Bain & Company, *Global M&A Report 2021*, 2021.

# Chapter II: The M&A in the insurance sector

## 2.1 Evolution of the insurance sector

The insurance business is based on a general core principle: to mitigate the effects of risks by dividing among many the overall cost of some specific negative event that would ruin a single one, "making it fall light and bearable on the whole society".[61]

The mitigation effect is more efficient with larger pools of risks acquired.

The tool used by companies to carry out their business is the insurance contract. Insurance companies acquires some kind of risks from market operators that periodically pays a sum (so-called *premium*) to the insurance company. The latter will disburse in the future the money received by the insured at the onset of a particular event (the risk materialization).

Risk can affect physical person, asset and more in general financial asset.

Nowadays, the insurance sector is mainly divided into two main businesses: life and non-life (or Property and Casualty – P&C).

Life insurance companies undertake to pay a sum or an annuity upon the occurrence of an event relating to human life, against the payment of a premium (remuneration by the insured as a counterpart to the risk assumed).

In particular, the life insurance policies can be divided into two conceptually distinct areas: policies with *pure risk coverage* and those with *financial coverage*.

Pure risk coverage is essentially divided into three categories: life case, death, and mixed policies, characterized by the type of event underlying the contract. On the other hand, financial coverage is a policy with a significant investment component: the return on the policy is linked to the performance of an underlying financial asset.

In addition, there are also specific instruments with social security purposes, linked to national pension legislation and with long-term investment horizons: *pension funds*. These funds are created with the aim of guaranteeing workers a supplementary pension, in addition to that due by public social security institutions.

On the contrary, non-life companies cover the insured against the risk of a harmful event and the consequent financial loss. They are divided in three main categories: insurance for *damage to property*, which covers the destruction, loss, and deterioration of property; *personal injury insurance*, which covers the decrease or total loss of the ability to produce income; *civil liability insurance* for damages against third parties or property of third parties.

Coverage policies for damage to property can generally be distinguished by type of asset or damage. They can cover an asset from any damage or from a specific damage and can be a combination of

[61] Smith A., Bagiotti A., Bagiotti T., *The wealth of nations,* Utet Editore, 16th May 2013.

the two possibilities. There is the possibility of ensuring an asset for direct damage (a fire in a car) and for consequential damage (the inability to work because of the destruction of the car).

Among the main damages that insurance companies generally deal with are fires, atmospheric events, thefts and, lately, electronic damage to machinery and software.

Personal injuries coverage policies aim to guarantee the insured the economic resources to adequately cope with accidents and illnesses. In case of illnesses, in addition to allowing the maintenance of pre-existing income, reimbursements can be used in particularly critical situations (hospitalizations or urgent surgical operations, specialist opinions, transfers to international hospitals, etc.). In the same way, accident policies protect the insured from events that may cause physical injuries, temporary or permanent, with compensation or daily allowances. In the most extreme case, the death of the insured due to an accident, compensation is paid to the beneficiaries of the contract or, alternatively, the heirs of the insured are reimbursed.

Civil liability insurance conceptually overturns the idea of protection and, precisely, of liability: in this case the damages derive from the non-intentional behavior of the insured towards other subjects, and the policies therefore aim to provide economic protection that the insured could not otherwise equip himself with.

In this context, the most striking and widespread example is that of civil liability policies for those who drive a vehicle (cars, motorcycles ...), a mandatory policy in most countries in view of the high social costs associated with the extent and number of accidents.

Among the most widespread premium calculation models, there is the “bonus-malus” mechanism, which tends to reward the most virtuous motorists and penalize the less virtuous ones based on the past individual history of their claims.

More advanced calculation models now consider other variables for the tariff calculation such as, for example, the kilometers traveled or the driving style, thanks to telematics tools installed on the vehicle.

To date, the sector is experiencing a trend of concentration where large national and international groups absorb smaller companies to strengthen their presence in the territory and expand their customer base.

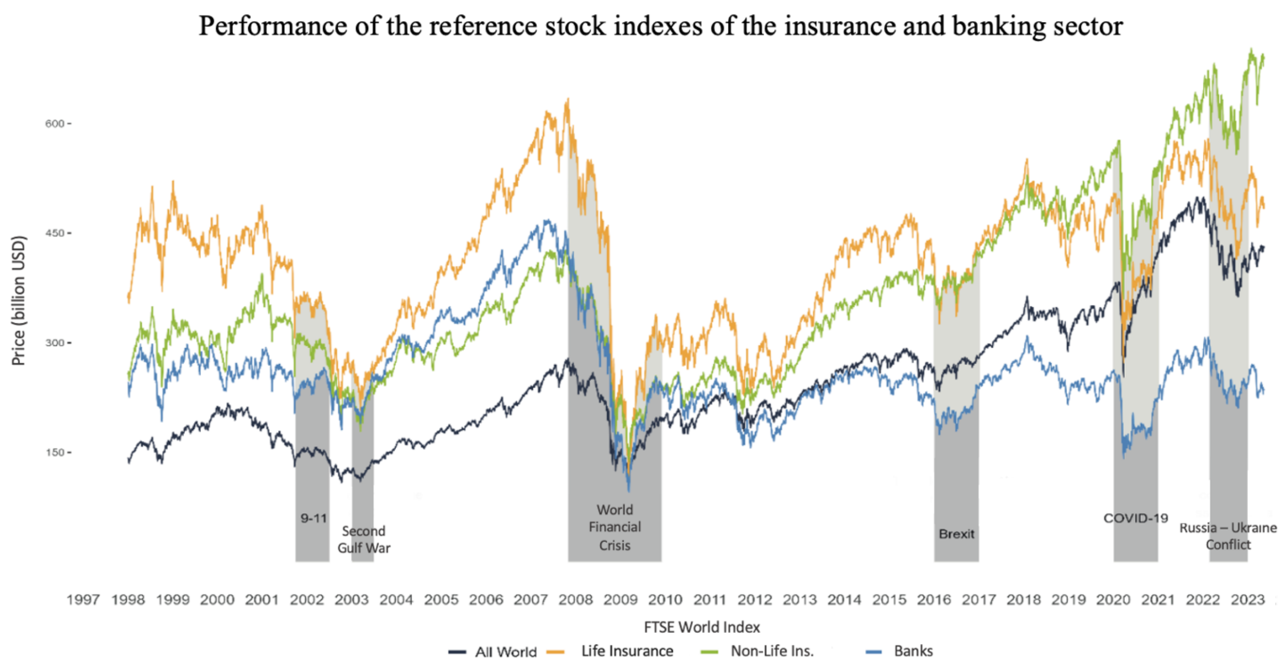
## 2.2 The Insurance Market

### *2.2.1 The insurance market worldwide*

To understand the relevance of the insurance sector, we analyzed the historical performance of FTSE Word Index, within the global economic-financial cycle, comparing insurance life and non-life operators to banking, and all other sectors (FTSE All world) in the period 1998-2023 (fig below). It is noted that:

- the performance of insurance securities is more affected than bank stocks by geopolitical events, sources of financial tensions (Gulf War, global financial crisis, Brexit, COVID-19, Russia-Ukraine conflict);
- after the financial crisis (2008-2010), the average price of bank securities remained relatively stable while the value of insurance securities increased, with a differential tending to increase with respect to banks;
- since COVID-19 shock, the gap between life and non-life insurance shares is growing, in favor of non-life companies.

Performance of the reference stock indexes of the insurance and banking sector

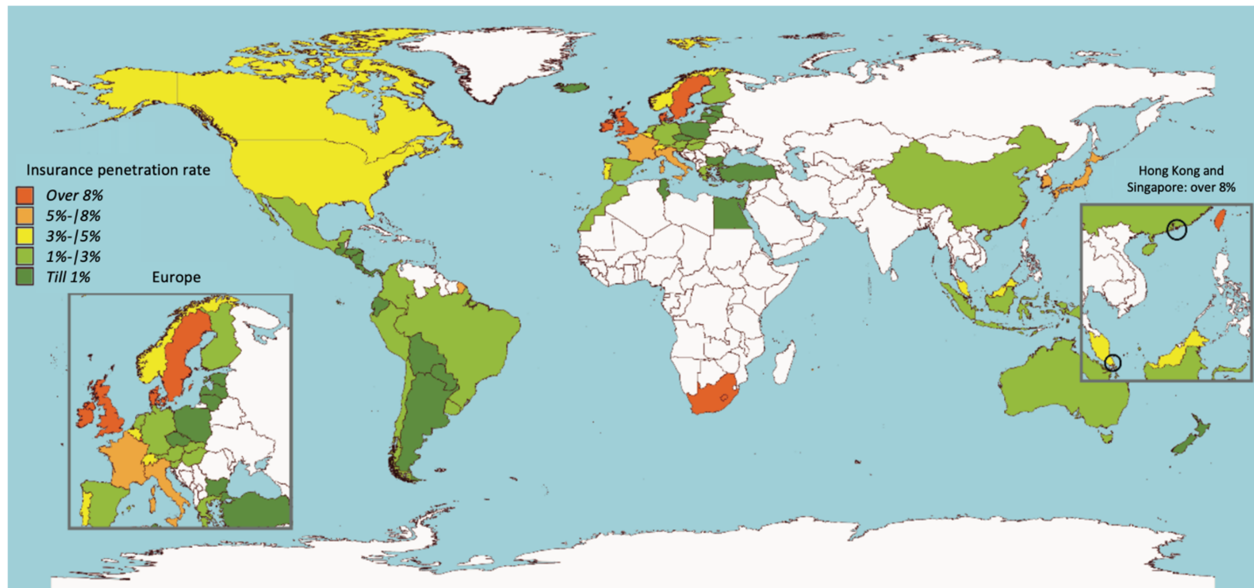



Source: *Report on the activities carried out by the Institute in the year 2022*, IVASS.

As described in the following tables, the values of the insurance penetration rate among countries are very different due to several metrics such as overall development level, GDP, financial market, size of public sector, etc.

**Impact of premiums on GDP – life sector 2021**

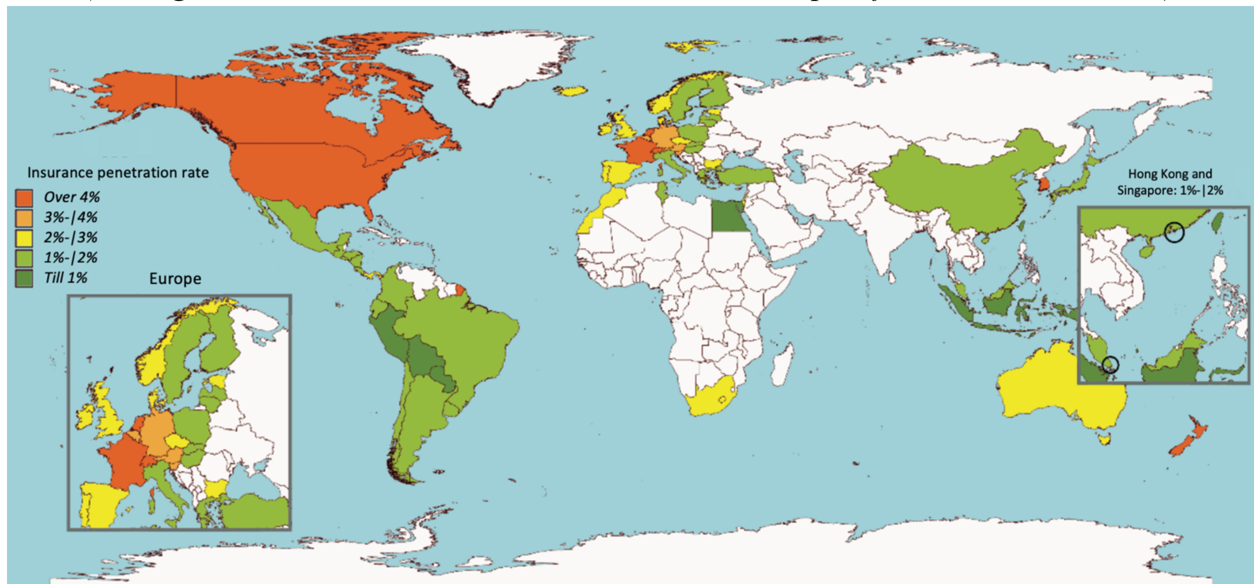
*(20 largest insurance markets, OECD countries and sample of non-OECD countries)*




Source: *IVASS elaboration on OCSE, Swiss Re Institute and World Bank data*.

**Impact of premiums on GDP – non-life sector 2021**

*(20 largest insurance markets, OECD countries and sample of non-OECD countries)*




Source: *IVASS elaboration on OCSE, Swiss Re Institute and World Bank data*

The life insurance penetration rate is particularly high in United Kingdom and Sweden and to a slightly lesser extent in Italy (4.9%) and France, while in US, Canada and the France the non-life branches are particularly developed.

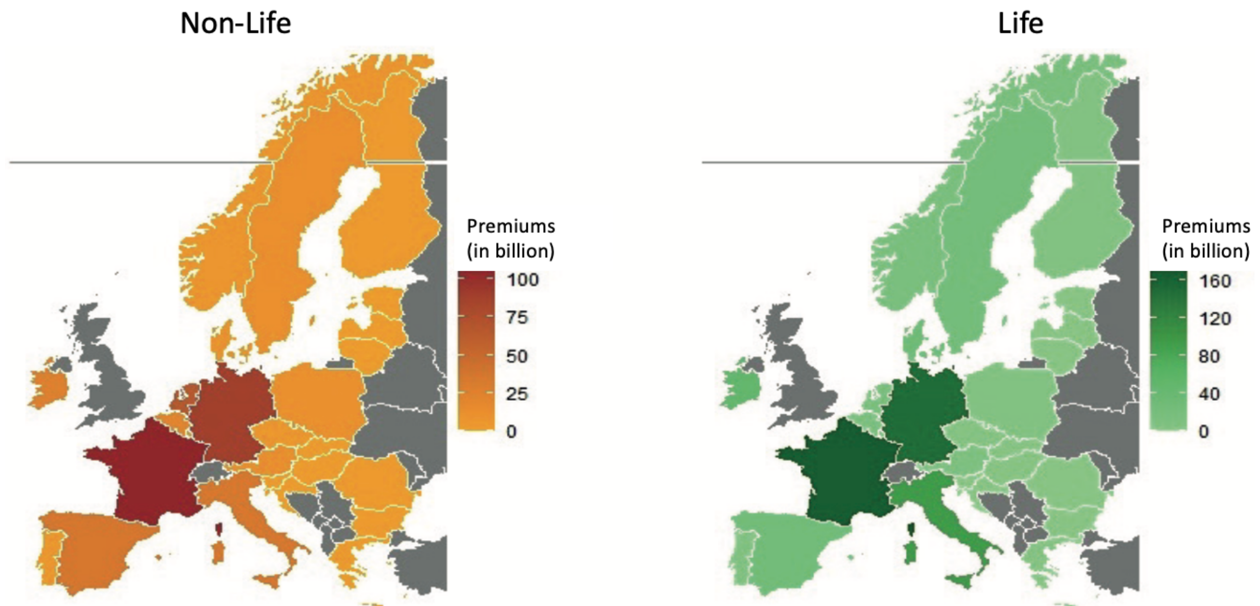
In Italy, the penetration rate in the non-life segment was confirmed (1.9%), equal to Brazil and Argentina, significantly lower than in France and Germany.

### *2.2.2 The EU insurance market*

Total premiums written (P&C and life management) throughout the European Economic Area (EEA, 27 countries) amounted to €1,125 billion in the fourth quarter of 2022, of which €480 billion from non-life management and €645 billion from life business.

The largest markets in absolute terms of premium income are France and Germany, with €273 billion and €239 billion respectively, followed by Italy (€132 billion), the Netherlands (€80 billion) and Spain (€63 billion).[62]

**Collection of non-life and life premiums in the European Economic Area**




Source: *IVASS elaboration on EIOPA data*

P&C premiums written in 2022 (excluding the fourth quarter) were extremely heterogeneous. In France it is 105 billion euros, in Germany 89 billion, in Italy 36 billion and in Spain 36.4 billion. Malta and Luxembourg, with high insurance penetration rates (respectively 17.5% and 16.1% of their respective GDP in 2021), collected 3 and 14.3 billion euro.

In life business, the main markets in terms of premium income are as follows: France (€168 billion), Germany (€150 billion), Italy (€96 billion), Ireland (€49 billion), Spain (€26 billion) and Luxembourg (€25 billion).[63]

The companies' total assets in Italy, France, Germany, and Spain represent about two thirds of European companies. In the composition of assets, in Italy and Spain, government bonds predominate, accounting for 34% and 40% of assets respectively, compared to the European average of 18%.

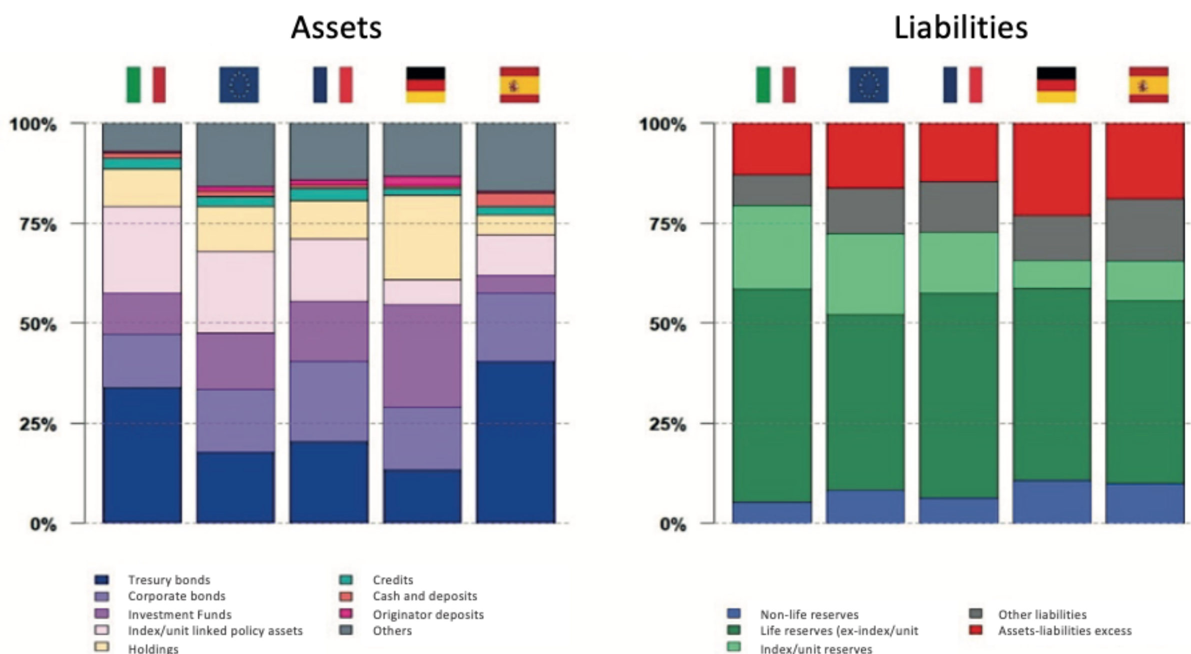
The government bonds share held by French companies, the largest country in terms of asset

[62] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 19th June 2023.

[63] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

volumes (30% of the European market), is close to the EU average. Germany shows a greater preference for mutual funds, accounting for 26% of total assets.

**Composition of assets and liabilities**




Source: *IVASS elaboration on EIOPA data*

The difference between assets and liabilities of Italian companies (net worth) is lower than the European average and countries whose companies hold smaller assets (Spain).
The ratio of total life reserves to total liabilities is 85% in Italy compared to an average of 76%, with 78% in France, 72% in Germany and 69% in Spain. Regarding life business, the share of reserves other than unit-linked is prevalent for all countries represented; for unit-linked policies, Italy (24%) and France (18%) have a higher incidence than Germany (9%) and Spain (12%).

### *2.2.3 The Italian insurance market*

In 2022, insurance premiums accounted for 6.8% of Italian GDP, 4.9% for life premiums and 1.9% for non-life premiums. The incidence of non-life premiums on GDP over the last twenty years fluctuates around 2%, while for life premiums there is a tendency to increase and greater volatility (between 4% and 7%), negatively correlated (–46%) with the inflation rate (FOI index). The erosion of purchasing power increases the incidence of basic expenses against the insurance expenditure (substitution effect).[64]
In Italy, 92 companies were authorized to carry out insurance business on 31 December 2022 (94 in 2021), subject to IVASS prudential supervision. 88 were national and 4 were representatives of foreign companies with registered offices in countries outside the EEA.

[64] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

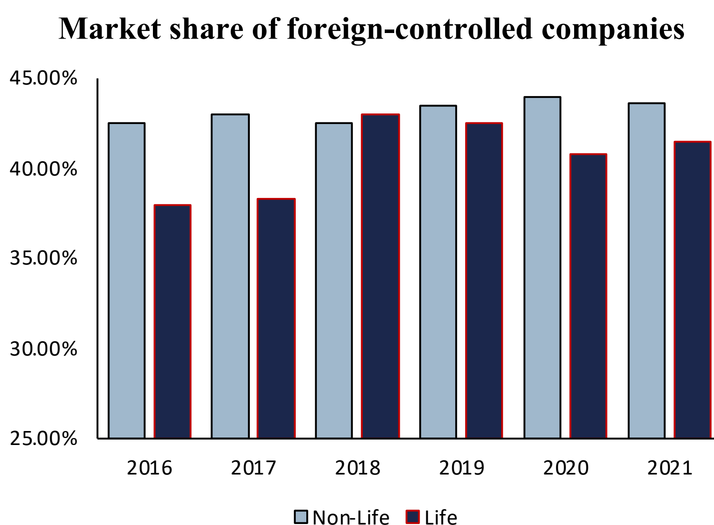
Between 2013 and 2022, the number of domestic companies shrank from 131 to 88, a contraction of 33% over the decade, mainly due to M&A transactions.

Between 2020 and 2021, the number of foreign companies operating "in freedom to provide services"[65] increased slightly (from 884 in 2021 to 889 in 2022), while 89 EEA companies were admitted operating in Italy under the establishment regime, down by two units compared to the previous year. 72% of the representations of EEA companies in Italy have their registered offices in France, Germany, Ireland, and Luxembourg.[66]

The companies with registered office in an EEA State that collected premiums in Italy under the freedom to provide services were 289 (EIOPA 2021 data) out of a total of 884 admitted operating. Life and P&C premiums written by Italian customers in 2021 amounted to 168.9 billion euros, an increase of +7.2% compared to 2020.[67]

Inflows from foreign companies amounted to €71.6 billion (42.4% of the total), up 9.8% year-on-year. On the national territory, the premiums written by Italian-owned companies in 2021 amounted to 97 billion (+6.2% compared to 2020).[68]

The incidence of foreign-owned companies, in terms of premiums paid, is more than 40% for both life and non-life management, but the trend is quite difference for the two branches, with a significant growth, in the market share, in the life-lines (from 38% in 2017 to 42% in 2021) and a substantial stability in the non-life business.




Source: *IVASS*

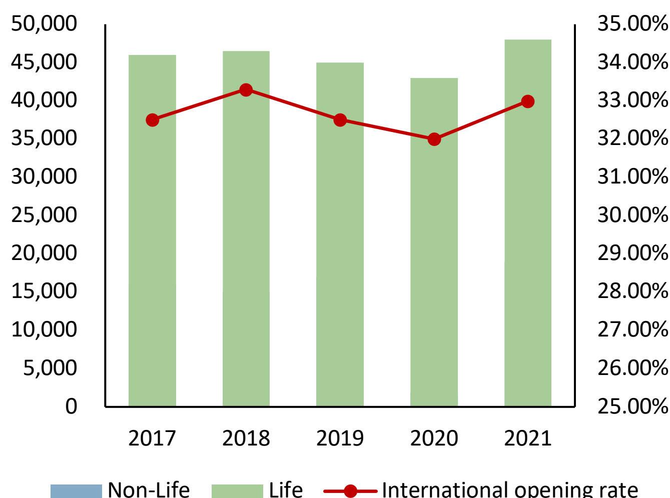
Inflows abroad of companies registered in Italy and supervised by IVASS amounted to €48.3 billion, an increase of 10.7% on an annual basis. The ratio between the premium income made abroad by Italian-controlled companies compared to the total premium collection made by them – the so-called *international opening rate*–is 33.2%; 98% of the collection takes place through controlled foreign

[65] Form of the Cross-Border Activity of Foreign Insurance Undertakings.
[66] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.
[67] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.
[68] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

companies.

**Collection abroad of Italian companies**

*(million €, %)*



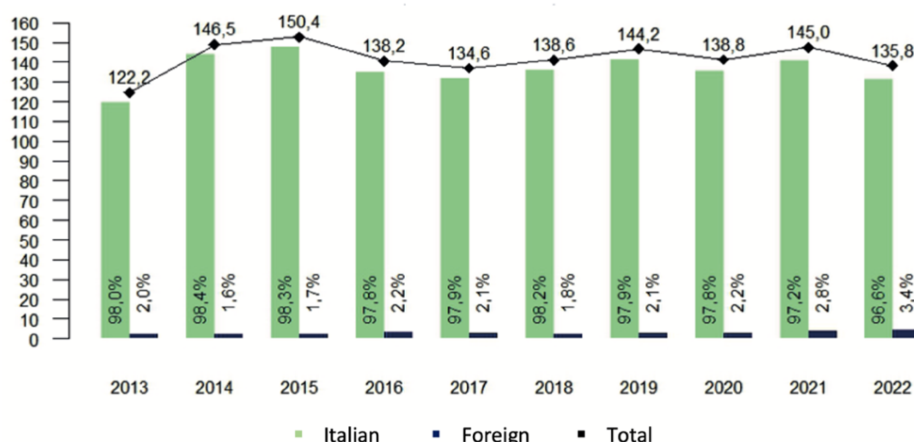

Source: *IVASS*

The growth in premiums written in 2021 is due to the positive trend in life business: premiums collected abroad amounted to €30.2 billion (+13.6% compared to 2020). Premiums collected abroad in the non-life segment amounted to €18.1 billion (+6.1%). The growth of non-life premiums abroad is consolidated: compared to 2017, premiums grew by +14%.[69]

In 2022, gross premiums written in the companies' Italian and foreign portfolio amounted to €135.8 billion, with a decrease of 6.4% compared to the previous year. The premiums of the Italian direct and indirect employment portfolio amounted to €131.2 billion (–6.9%), while those of the foreign portfolio amounted to €4.6 billion (+12.9%), mainly for the contribution of indirect work.

**Premium income – Total direct and indirect portfolio**

*(billion €)*




Source: *IVASS*

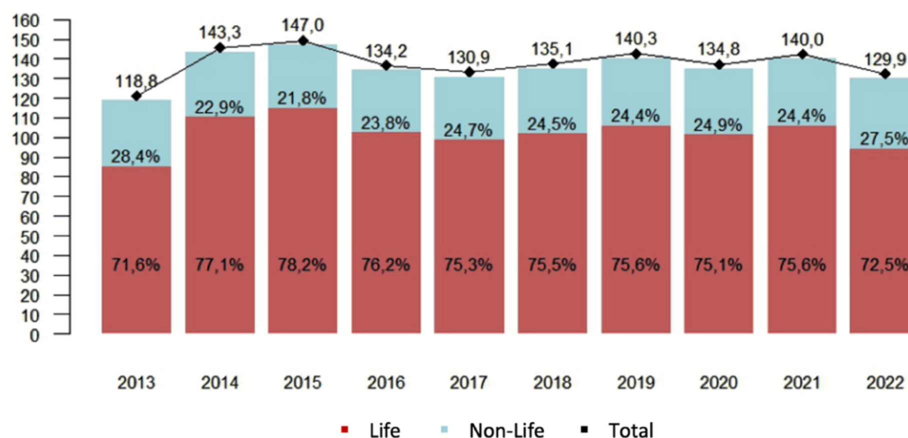
Premiums written for Italian direct business amounted to €129.9 billion.

The overall decrease of 7.2% is attributable to Life classes (–11%), while P&C classes grew (+4.6%).

[69] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

**Premium income – Italian direct portfolio**

*(billion €)*




Source: *IVASS*

The ratio between premiums in the Italian direct portfolio and GDP decreased from 7.8% in 2021 to 6.8%, due to GDP growth (+6.8% in nominal terms) and the reduction in premium income (–7.2%). The decrease in the incidence of premiums to GDP was recorded only in life business (from 5.9% in 2021 to 4.9%) while it was unchanged in non-life business (1.9%).[70]

Premiums collected in classes I (human life insurance) and III (insurance related to investment funds) represent almost all issues, accounting for 94.9% of the total (96% in 2021). Classes V (capitalization operations) and VI (management of collective funds set up to provide benefits in the event of death, life or cessation or reduction of employment) have a modest weight of 1.4% and 3.4%.[71]

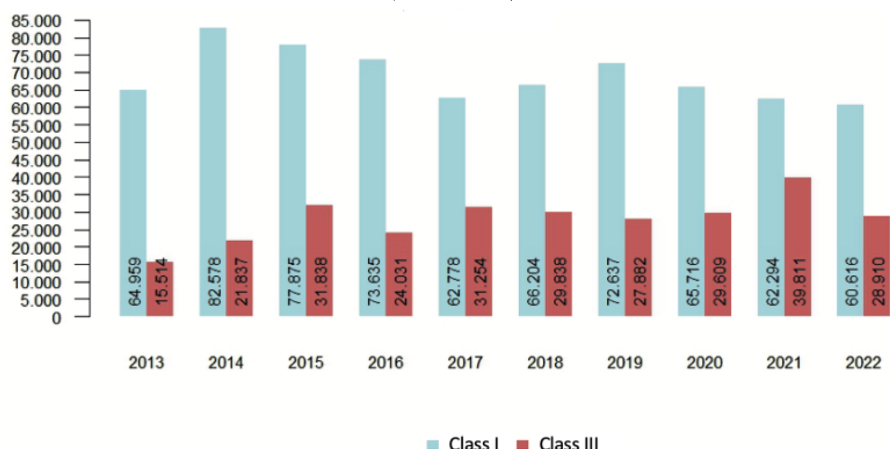
Life business premiums (Italian direct business), equal to € 94.2 billion, decreased by11% compared to +4.5% in 2021. The decrease is due to the marked reduction in the weight of class III (–27.4%) after the significant growth in 2021 (+34.5%), while premiums written in class I varied to a lesser extent (–2.7%). Class V, after a long phase of reduction, grew by +7.4%, compared to the reduction in 2021 (–36.7%). Class VI grew substantially (+33%) after the contraction in the previous year (–38.8%).[72]

[70] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

[71] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

[72] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

**Collection of life premiums in classes I and III**
*(million €)*




Source: *IVASS*

Net inflows (balance between premiums and charges relating to claims) showed a significant decrease, due to the reduction in premiums and the increase in claims charges.

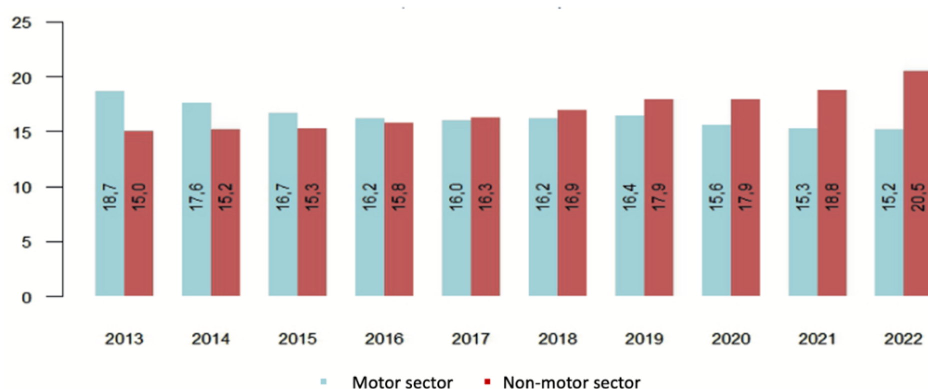
**Life Branch – premiums and charges of direct italian work**

| (in million €) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Life premiums (A)** | 85,100 | 110,518 | 114,947 | 102,252 | 98,611 | 102,048 | 106,012 | 101,329 | 105,887 | 94,228 |
| **Charges related to claims (B)** | 66,788 | 64,577 | 71,196 | 62,932 | 71,155 | 73,223 | 76,158 | 76,446 | 75,630 | 78,798 |
| **Net collection (A)-(B)** | 18,312 | 45,941 | 43,751 | 39,320 | 27,456 | 28,825 | 29,854 | 24,883 | 30,257 | 15,430 |

Source: *IVASS*

Total P&C premiums written (Italian direct business), amounting to €35.7 billion, grew for the second consecutive year (+4.6%), after a reduction in 2020. The positive trend in premiums written in 2022 derives from the development of the non-motor segment against the slight contraction in the motor segment.[73]

**Collection of non-life premiums in the motor and non-motor segments**
*(miliardi di euro)*




Source: *IVASS*

Growth in premiums written in other non-life classes strengthened (+8.2%). Among the most representative sectors are the health and property sectors, which account for 39.6% of P&C production, up +8.5%.

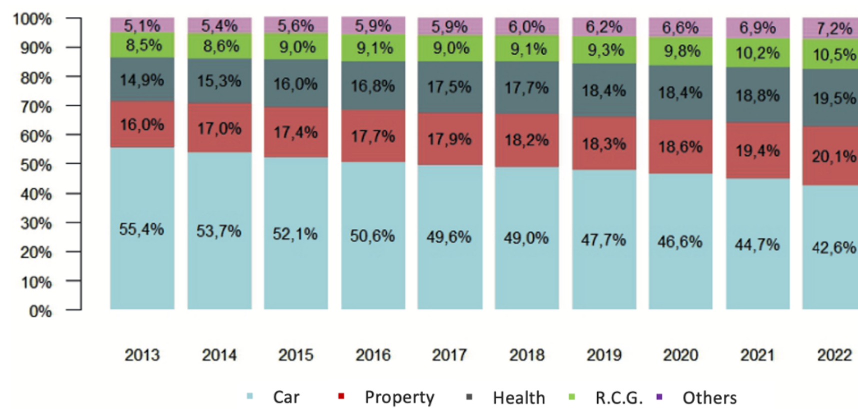
[73] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

In the health sector, there was an increase in health premiums (+12.6% compared to 2021), attributable to the greater use of private coverage, especially in the corporate sector.

In the property segment, the increase in premium income for "other damage to property" (+8.3%) and "fire and natural elements" (+6.2%) testifies to the increase in demand for asset protection. In fire and natural roofing, the retail and corporate segments increased, while in other property damage, the corporate segment developed, particularly for hail roofs.

The general liability increased (+8.2%, reaching 10.5% of total P&C) thanks to the former 110% Superbonus related activities and the corporate sector recovery; the legal protection and assistance (+6.8%) lines consolidated (mainly due to the tourism sector recovery after the pandemic),the credit (+25.1%) and surety (+7.7%) lines, respectively due to the recovery of economic activities and the high number of tenders also under the PNRR.[74]

**Composition of the major non-life compartments**




Source: *IVASS*

In the P&C segment, the incidence of the motor segment fell by 13%, to the benefit of the health (+5%), property (+4%), general liability (+2%) and other segments (+2 %).

Insurance products are offered to customer through different distribution channels.

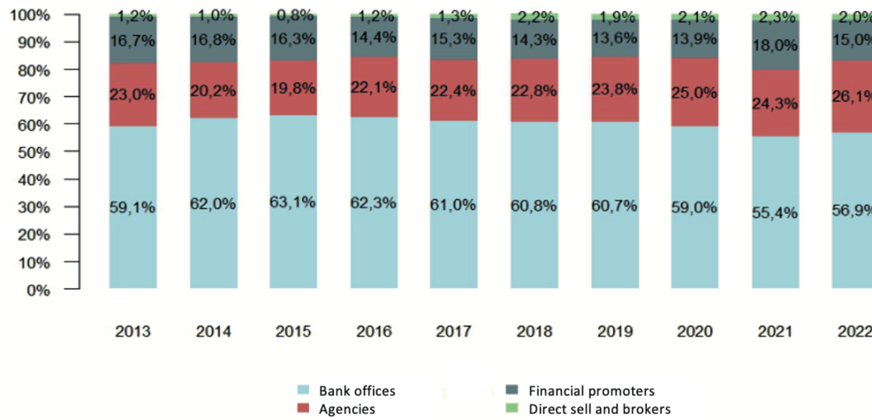
In the life segment, after the peak of 2015, the sales share on Italian direct work through bank office branches gradually decreased. In 2022, it was equal to 57%, although banks remained the most used channel in the life sector.

The weight of agencies increased (from 23% in 2013 to 26.1%), while that of financial advisors decreased by –1.7%.[75]

[74] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

[75] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

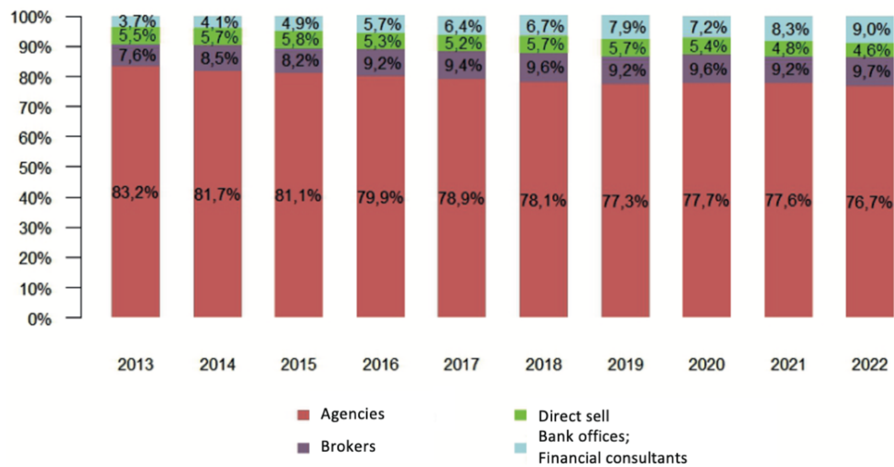
**Distribution channels – life branche**




Source: *IVASS*

In non-life segment, the traditional channel (agents and brokers) shows a steady decline in the share of total production, while premiums intermediated by the banking network are growing.

**Distribution channels – non-life branche**




Source: *IVASS*

In terms of profitability, in 2022 insurance companies recorded a profit of €2.3 billion (down by 4.4 billion compared to 2021), equal to 1.7% of gross written premiums (4.6% in 2021). The lower profit is attributable to life business with a loss of 0.4 billion compared to the profit of 2.7 billion in non-life.

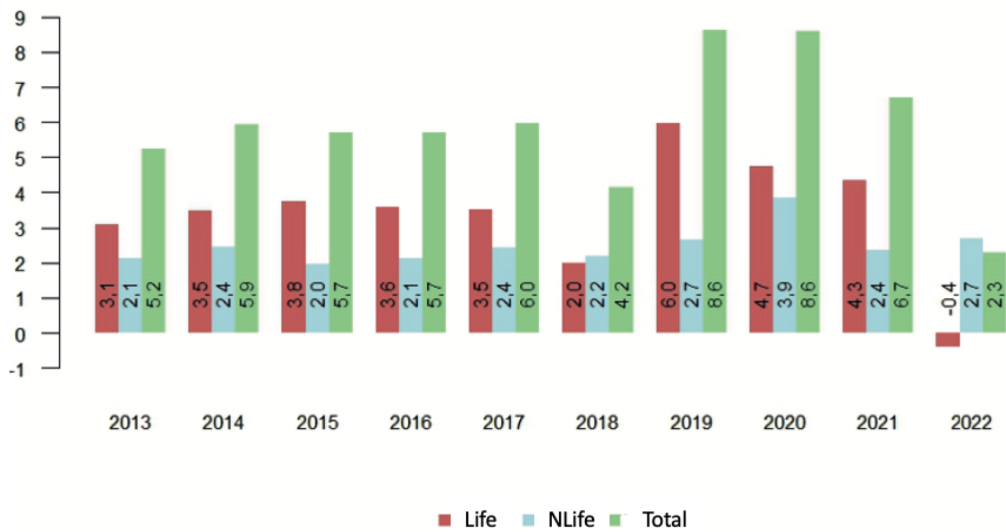
In the period 2013-2022, P&C management showed a positive and rather stable result of around €2,2 billion. Life operating results were affected by turbulence in financial markets and recorded a loss in the last year for the first time since 2011.

In relation to premiums, the P&C operating result remains positive, despite a continuous contraction in motor liability premiums, confirming the growing role of the non-motor lines in the overall profitability of the segment.

In life management, the relationship is affected not only by the volatility of the results most closely linked to financial markets performance, but also by the decline in demand for linked policies.

**Operating result**

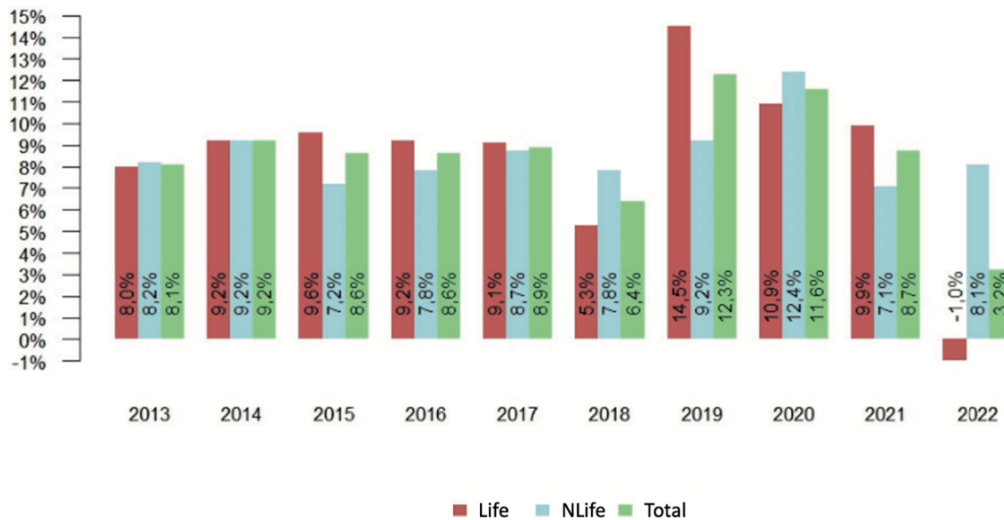
*(billion €)*




Source: *IVASS*

Life and P&C ROE (*Return on Equity*) was 3.2%, down 5.5 points from 8.7% in 2021. In life management, ROE is negative (–1%, it was 9.9% in 2021); in non-life management ROE grew to 8.1% compared to 7.1% in 2021.

**ROE**




Source: *IVASS*

## 2.3 The impact of regulation: from Solvency I to Solvency II

The insurance sector is regulated and supervised by independent authorities at both national and European level. The supervisory authorities are IVASS (*Istituto per la vigilanza sulle assicurazioni*) in Italy, and EIOPA (*European Insurance and Occupational Pensions Authority*) for the European Union.

Companies and, in general, all human operations are likely to encounter the possibility of failure. In the financial environment, bankruptcies can bring disastrous consequences. The insolvency of a bank, for example, could endanger the savings of depositors and cause damage of incalculable proportions to a region economy.

The same dynamic applies to insurance companies, whose activities are essentially based on a promise: to return in the future, in the form of money or services, the funds periodically received by the insured from the purchase of a policy.

In a developed society, insurance coverage is extremely wide, to the point that its failure would have particularly serious consequences on the national economy and its functioning.

This justifies the implementation of capital requirements, which oblige companies to maintain a constantly adequate capital to cover all the risks associated with their business.

Regarding insurance companies, it is important to consider their operations and how their financial statements are drawn up.

Premiums collected by policyholders do not appear as profits in a company's accounts. "That money built an insurer's technical reserves, i.e., the commitments made to customers when taking out a policy".[76]

While waiting to return these resources to customers, through the payment of claims or the distribution of capital at the end of a life insurance policy, the insurer invests these funds to preserve their value and encourage their increase. However, it is not guaranteed that all investments will be successful. This may be the case if claims prove to be more expensive than initially planned or investments used to cover technical provisions decrease due to unfavorable developments on financial markets.

These examples clarify the importance of having financial resources available to deal with situations of need. Therefore, it is not surprising that for many years, laws and regulations in all countries have required insurance companies to set up specific capital funds: technical provisions (representing the obligations assumed), investments intended to cover them and the so-called *solvency requirement* (the solvency margin fin Solvency I or the capital requirement in Solvency II, the new legislation).[77]

For thirty years, until December 2015, the amount of the solvency margin was determined according to the rules of Solvency I. It was computed, in life business, as a percentage of the mathematical

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[76] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, January 2016.

[77] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.

reserves. In non-life branches as a percentage of annual premiums or average claims charge.
That mechanism had the advantage of simplicity. There was no need for groups of consultants and actuaries to determine the margin. On the other hand, those capital buffers did not consider the financial risk great influence on the insurance company performance and, in case of an adverse trend, the chance of lead the company to ruin.[78]
A prudential legislation with fixed financial requirements, unrelated to the performance of the company's key variables, fails to adequately perform the signaling function, and does not guarantee timely and efficient intervention by the supervisory authority.
In addition, Solvency I system was fragmented within Europe. Community directives provided a minimum level of harmonization for the whole Union, but then each country was free to determine individually how the solvency margin was calculated. There was the chance of favoring some nations at the expense of others, creating misalignments on market.
Without neglecting the effects generated by the progressive internationalization process of the insurance industry, the formation of transnational groups operating in different countries and forced to comply with a wide range of prudential regulations, their policies were freely offered in the continental market thanks to the European passport.
As a result, it was decided to achieve maximum harmonization of European legislation, establishing a close link between the definition of capital requirements and the set of risks inherent in an insurance company.
In November 2003, the European Commission set up a standing committee to draft a framework law proposal for risk management in insurance. This marked the beginning of a long process that ended twelve years later, with the entry of Solvency II[79], approved by the European Parliament in 2009.
This text included the fundamental principles of the regulation, such as how to calculate new capital requirements, guidelines on corporate governance and risk control of insurance companies, as well as disclosure requirements.[80]
The Omnibus II Directive, promulgated in 2014, was a further step forward by adapting prudential provisions to the new supervisory structures introduced by the creation of EIOPA (European Insurance and Occupational Pensions Authority). The latter, operational since 1 January 2011, is responsible for supervising the European insurance market, in cooperation with national authorities[81].
Finally, since 1 January 2016, Solvency II has entered into force, replacing 14 previous directives

[78] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[79] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[80] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[81] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.

and 28 national regulations, achieving a single regulation for the entire European Union[82].

Solvency II isa prudential regulation designed to assess all the significant risks for an insurance company, to determine the amount of capital needed to prevent the failure of the insurer if one of those risks arises.[83]

While previous supervisory legislation relied on fixed amounts of capital to be used when needed, Solvency II creates a system that maintains a constant balance between risks and capital requirements. This system represents a dynamic equilibrium, as the risks and financial activities needed to address them are constantly evolving realities and require frequent adjustments.[84]

In its normal business, an insurance company first calculates the obligations assumed towards the policyholders (i.e., reserves) and ensures that it has adequate financial resources to be able, if necessary, to fulfill its commitments, such as compensation for a claim or the payment of a life insurance policy at the time of maturity.

These financial resources consist of the policy premiums collected at the time of taking out the insurance and calculated using probabilities. However, unforeseen events can occur that change forecasts and make circumstances more complex. The implementation of prudential capital requirements is precisely intended to ensure the company is not unprepared to face adverse situations of this kind.

The new legislation has been built by subjecting every relevant aspect in the insurance company life to the most diverse stress scenarios.

Regulators asked the question, “if this particular situation were to occur, what amount of capital would an insurance company have to have to avoid almost certain bankruptcy?”.[85]

A risk may arise on the insurance reserve side if claims of a higher amount than initially envisaged are to be paid. The risk may also emerge on the side of investments intended to cover these obligations, as they are subject to fluctuations in financial markets.

This led to a specific capital requirement for each aspect of the insurance business. “The sum of the different “building blocks” represents the company overall Solvency Capital requirement (SCR): the capital requirement to be held to deal with unexpected events that may occur”.[86]

[82] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[83] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[84] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[85] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[86] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.

### *2.3.1 Solvency II capital requirements: the SCR and the MCR*

The core of the new regulatory framework is "represented by the method of measuring risks and calculating capital requirements of an insurance undertaking".[87]

Solvency II has established a specific methodology for computing the value of technical provisions (commitments made to policyholders), which are recorded as liabilities in an insurer financial statement.

What is the value of these commitments? The value of technical provisions mirrors the real sum that companies would need to disburse if they were to instantaneously transfer these obligations to another insurer. As a result, both assets and liabilities must be assessed based on their market value, ensuring a market-consistent approach.[88]

Although the concept is straightforward, the calculation process can still be complex. Firstly, the "best estimate" of future payments is established. To illustrate, consider valuing the insurance provisions for a collection of life policies maturing in seven years. In this scenario, the insurer needs to estimate, year by year, the anticipated payments for policy lapses or the event of the policyholder's death. Additionally, the final capital to be disbursed to the policyholder upon policy maturity needs to be factored in. All these projected values are then discounted at a "risk-free" rate to obtain their present value.[89]

Through skillful diversification of their exposures, insurers have the capacity to mitigate the overall risk inherent in their portfolio. By combining these exposures while considering suitable correlation matrices to incorporate the benefits of diversification, the company derives its Solvency Capital Requirement (SCR).

Solvency II was designed to consider the dynamic nature of business operations. Companies are required to revise their capital requirement calculations annually, or more frequently if their risk profile changes. When formulating these estimates, they should use the upcoming twelve months as a reference period from the time of assessment. Regardless, companies must consistently monitor their requirements on an ongoing basis.[90]

After establishing the necessary supervisory capital, the regulation clearly outlines the eligible components that can be used to satisfy the capital requirements. Firstly, they are *own funds* of the insurance undertaking, that is "the excess of assets (investments of the company) compared with its liabilities (technical provisions)".[91]

[87] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[88] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[89] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[90] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.
[91] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.

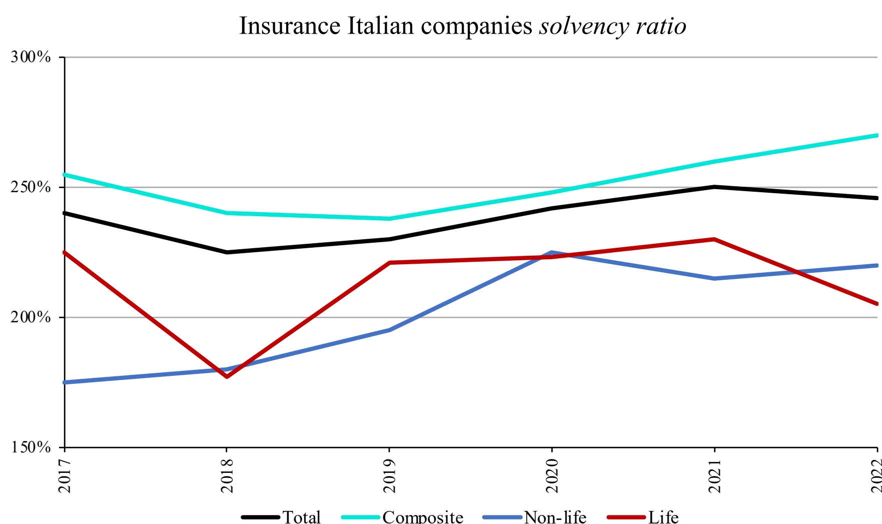
Own funds are classified into three tiers according to their ability to cover a loss. They are composed of at least 50% Tier 1 funds (maximum coverage capacity) while for Tier 3 (minimum coverage capacity) the maximum limit is 15%.[92]

At these resources can be added *subordinate liabilities* issued by the insurer (bonds categorized as almost as capital). Investors who acquire them receive significantly greater yields compared to those assured by typical corporate bonds. However, they also fall lower in the hierarchy of creditors, just ahead of shareholders, in the event of the company's insolvency. Due to these features, they are treated similarly - even for prudential intents - to equity. Despite their status as bonds, they share numerous characteristics with risk capital.

The *expected profits on future premiums* are allowed, subject to certain conditions, "to be considered for the coverage of the solvency requirement, among the own funds of an insurance undertaking". *Ancillary own fund* items are subject to IVASS authorization, and are "off-balance sheet items represented, for example, by called but not paid capital, or letters of credit or other legally binding obligations".[93]

Usually, controlling the health of a company, the authority looks directly at the ratio between the Own Funds and the Solvency Capital Requirement (SCR) values: the so-called ***solvency ratio*** (in percentage). If the ratio is above 100% indicate that the own funds are sufficient to cover the capital requirement. Besides this threshold, the insurance companies tend to maintain higher levels of this ratio as a form of prevention from unexpected shocks in the system.

In 2022, the average solvency ratio of Italian companies decreased by 4.9% (from 250.7% in 2021 to 245.8%); this change is mainly due to life companies, while for multi-class and non-life companies the average index is increasing.[94] The decrease in the solvency ratio is generalized for life companies while the variability of the ratio for non-life companies increases.

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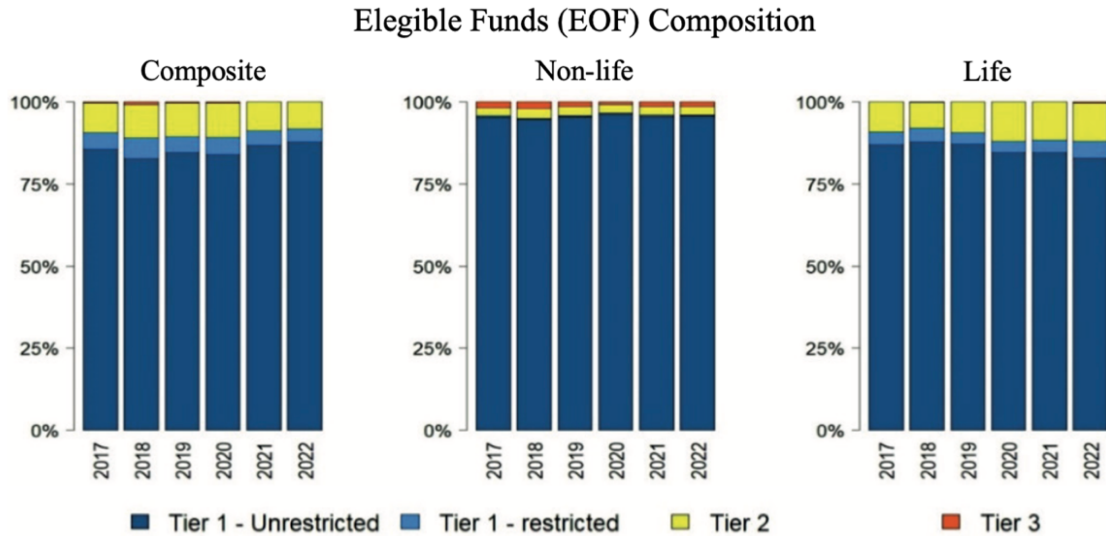
[92] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

[93] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.

[94] For multi-class companies 271.1% in 2022 and 263.7% in 2021; for non-life companies 220.0% and 217.6%.

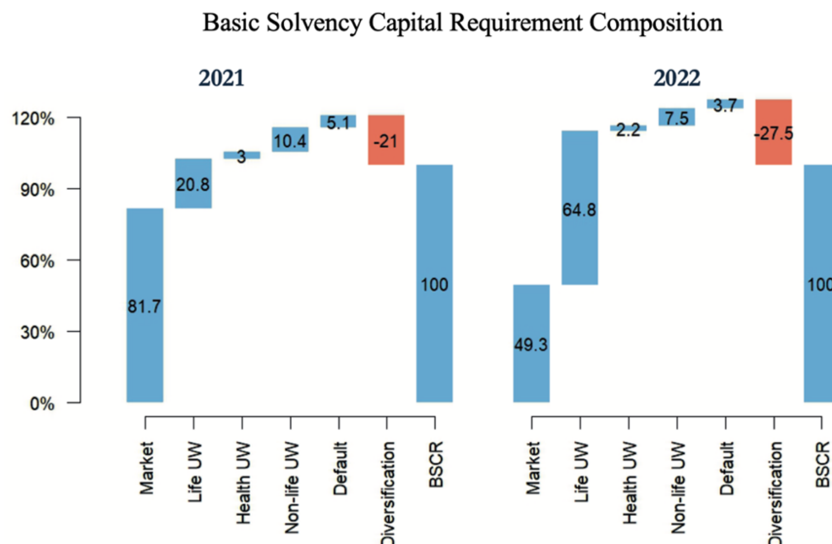
Source: *Annual Report 2022 – IVASS, 2023*

The own funds of Italian companies are of a high quality. In 2022, the total amount of own funds decreased compared to the previous year by –5.7% for multi-class, –5.6% for non-life companies and –3.9% for life companies. The composition of own funds in tier terms remained stable.[95]




Source: *Annual Report 2022 – IVASS, 2023*

On average, eligible own funds (EOFs) consist of Tier 1 funds, 91.7% in the case of multi-class companies (composite), 95.9% for non-life companies and 87.9% for life companies. 75% of multi-branch companies have a ratio between Tier 1 and total EOF above 81%, for non-life companies above 96% and for life companies above 82%.[96]




Source: *Annual Report 2022 – IVASS, 2023*

[95] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

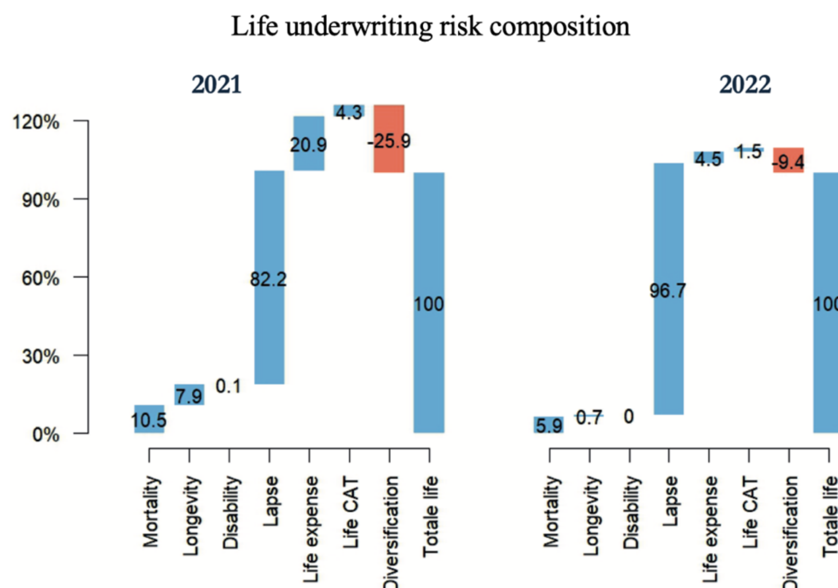
[96] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022*, 2023.

The composition of the *basic solvency requirement*[97] (BSCR or SCR) in December 2022 shows the increase in the weight of the risk module linked to life underwriting (from 20.8% in 2021 to 64.8%), while the weight of the market component was strongly reduced (from 81.7% to 49.3%).

The component linked to non-life underwriting and to asset default (counterparty risk) decreased slightly: the first from 10.4% to 7.5%, and the latter from 5.1% to 3.7%.[98]

The component that mainly affects life underwriting risk is the risk of mass repayment[99] (or *lapse mass risk*), whose capital requirement is equal to the loss of own funds that would result from the immediate termination of a portfolio contracts' significant portion.[100]

In 2022, the increase in interest rates generated a significant increase in the SCR *lapse*, from six to 30 billion euros. The SCR *for lapse risk* is defined as *the highest among risk capital requirements for the risk of increased extinction rates* (lapse up), *risk of a permanent decline in extinction rates* (lapse down), *and risk of mass extinction* (lapse mass).




Source: *Annual Report 2022 – IVASS, 2023*

However, over the year, "insurers must certify having at least a minimum base of prudential capital". This function is fulfilled by the second capital ratio provided by the regulation. It is the ***minimum capital requirement*** (MCR). Calculated every three months, it corresponds to "a percentage of the undertakings' own funds in relation to some parameters (net premiums and technical provisions), calibrated to take account of their risk" (included between 25 and 45 percent of the SCR). [101]

The Regulation also sets an absolute minimum level: €3.7 million for life undertakings and €3.6 million for re-insurers. Only top-quality elements are eligible for MCR coverage (not ancillary own

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[97] The basic solvency requirement shall be determined using the standard formula, before introducing the operational risk component and the adjustment component linked to the absorption capacity of technical provisions and deferred taxation.

[98] IVASS, *Relazione sull'attività svolta dall'Istituto nell'anno 2022,* 2023.

[99] Art. 142, Delegated Regulation (EU) 2015/35 of the European Commission.

[100] Art. 142, paragraph 6, Delegated Regulation (EU) 2015/35 of the European Commission.

[101] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.

funds).[102] An insurance company must at least meet this minimum capital requirement to continue operating.

[102] IVASS, *Solvency II - The new prudential regulation of the insurance sector*, 2016.

## 2.4 Main M&A operations in last years and their value drivers

Insurance groups have always sought to expand their offer model and implement diversification strategies to increase their profitability and market presence. A useful tool to achieve these objectives are M&A operations. These respond to the need of various players trying to diversify investments by type of assets and geographical areas and to consolidate their position in important markets.

In 2022, M&A activity in the sector remained high, driven by activities of international operators (entering and leaving the Italian market) and bancassurance agreements end (the traditional M&A drivers).

Here are some of the most important operations of the last two years and their value creation drivers.

On 8 February 2021, Intesa Sanpaolo Vita S.p.A. signed an agreement to purchase the100% of Cargeas Assicurazioni S.p.A., a non-life insurance company operating mainly through the banking network of UBI Banca and controlled by BNP Paribas Cardif SA, for 390 million euro.

The transaction was aimed at strengthening Intesa Sanpaolo's presence in the P&C segment. Cargeas Assicurazioni is, in fact, a company active in the placement of motor, property, health, credit protection, business and income protection policies, which collected premiums in 2020 for an amount of 226 million euros and has more than 600 thousand customers throughout Italy. The transaction was completed on May 27, 2021.[103]

On 4 March 2021, the British insurance company Aviva Plc communicated to the market its intention to dispose of the remaining insurance activities in Italy, both Life and P&C, in line with the Group's strategy aimed at focusing operations on the "core" markets in which the company enjoys an already consolidated positioning (United Kingdom, Ireland and Canada).

In detail, the divestment transactions in life business concerned the sale of the 51% stake in Aviva S.p.A., a company in which UniCredit holds the remaining 49%, and 100% of Aviva Life S.p.A. to CNP Assurances.

The operation allowed the French group to become the fifth largest life insurance group in Italy, reinforcing the existing bancassurance partnership with UniCredit. Regarding the non-life business, Aviva announced the sale of 100% of Aviva Italia S.p.A. to Allianz S.p.A. against the payment of 330 million euros: Allianz has acquired a portfolio equally distributed between the Motor and Non-motor segments, consolidating its position as the third P&C operator in Italy.[104]

On 23 September 2021the sale of Amissima Vita S.p.A., controlled indirectly the US private equity fund Apollo Global Management, to Athora Holding Ltd took place. Athora is a life insurance and reinsurance group 6% owned by Apollo Global Management, entirely focused on the European

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[103] KPMG, *Il mercato assicurativo italiano 2022*, Milano Finanza Editori S.p.A, Nov. 2023.

[104] KPMG, *Il mercato assicurativo italiano 2022*, 2023.

market, and specialized in offering traditional life and savings products and pension. This transaction marks Athora's entry into the Italian life insurance market. The transaction closed on 2 August 2022, for a value of 300 million Euros.[105]

On 3 January 2022, Zurich Insurance Group announced that its subsidiary Zurich Investments Life has agreed to sell the Italian Life and Pension back book, consisting mainly of traditional and some unit-linked policies, to the Portuguese insurance company GamaLife-Companhia de Seguros de Vida, for a consideration of EUR 128 million paid from its own funds. The transaction was completed in the second half of 2022.

Approximately $9.5 billion (€8.4 billion) of net reserves was transferred to the Portuguese company. Upon completion of the disposal, Zurich's capital requirement under the Swiss Solvency Test (SST) declined by approximately $1.2 billion, adding approximately 11% to the group's solvency ratio, which rose to 214%. In addition, the agreement increased Zurich's liquidity by approximately $200 million.[106]

The transaction represents a strong strategic alignment between GamaLife's pan-European growth plan and Zurich's intention to exit the legacy business in Italy.

GamaLife's goal was to ensure a seamless transition for all local stakeholders and to bring the values of innovation, simplicity, and service across the enlarged GamaLife Group.

On 19 January 2022, VHV Allgemeine Versicherung AG, Hannover, an insurance company specializing in the construction sector belonging to the German VHV Group, and ITAS Mutua, Italy's oldest P&C insurance company, announced their long-standing cooperation in property insurance.

In particular, the two companies agreed that VHV would have acquired 91.1% of Assicuratrice Val Piave S.p.A., a subsidiary of ITAS Mutua particularly active in the motor classes and in risks related to housing, family, and accident insurance.

This transaction supported VHV's strategy to further diversify the markets served and its portfolio, while for ITAS Mutua it represented an opportunity to strengthen the strategic options inherent in the coverage of risks in the corporate and public sector.[107]

Finally, on 22 July 2022, Banco BPM S.p.A. acquired 81% of Bipiemme Vita S.p.A., an Italian insurance company, from Covéa SGAM, a diversified mutual insurance company based in France, through the exercise of the option right in the bancassurance agreement for a value of 309.4 million euro,

The transaction completion allowed Banco BPM to acquire 100% of the capital of Bipiemme Vita, holding also 100% of the capital of Bipiemme Assicurazioni (non-life business), and to develop its insurance business "in-house".

[105] KPMG, *Il mercato assicurativo italiano 2022*, 2023.
[106] KPMG, *Il mercato assicurativo italiano 2022*, 2023.
[107] KPMG, *Il mercato assicurativo italiano 2022*, 2023.

# Chapter III - Cattolica integration in Generali

## 3.1 Reasons behind the operation

Cattolica Assicurazioni is an insurance company, with the legal form of a cooperative, listed since 2000 on the Mercato Telematico Azionario – MTA, and operating in life and non-life insurance business. The insurance company on 31 December 2019 has a market share of 5.6% and 4% respectively which place Cattolica among the Top 10 (#6 P&C operator and #8 Life insurance group) of the Italian insurance market, one of the most concentrated in Europe.

As a result of Covid-19 pandemic, the company has seen its solvency level deteriorate due to tensions on financial markets, the widening of spreads and negative rates that impacted negatively on the company's security portfolio, and liabilities.

Cattolica Solvency ratio, equal to 175% at the end of 2019, recorded a sudden decline to 111% on 8 May, and 103% on 22 May, a level quite close to the minimum sustainable threshold of 100%.[108]

In this context, on 27 May 2020 the Italian supervisory authority IVASS officially asked the company to provide for its recapitalization with a capital increase of 500 million, to be achieved by 30 September of the same year: a highly demanding objective to achieve in the short term.[109]

According to the authority, "the sharp deterioration in solvency would be a consequence of the high exposure in the life business to government bonds (mainly Italian), very sensitive to the BTP-Euro Swap spread (€14 billion, equal to 55.2% of the entire Cattolica securities portfolio) and to the stock market collapse (FTSE MIB –27.5% since the beginning of 2020), as well as to the worsening solvency conditions of some company's subsidiaries". In particular, the Joint Ventures with Iccrea (BCC Vita) and Banco BPM (Vera Vita) recorded the lowest Solvency levels, with both companies below the minimum threshold of 100%: BCC Vita at 25% and Vera Vita at 65%.[110]

The worsening of the Solvency ratio was also amplified by the negative value of the free risk rates, with a consequent increase in the present value of the commitments to the insured (normally discounted at a free risk rate).

The Authority noted that the negative Solvency performance was also due to the structure of the company's investment portfolio considered too risky: on 31 December 2019 the company had €28 billion in class C investments (the risk of which is borne by the company), and 5 billion in corporate bonds (of which 22% with BBB– rating, 24.2% non-investment grade and 3.2% unrated).[111]

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[108] MilanoFinanza, *Ivass interviene su Cattolica: subito l'aumento di 500 milioni*, May 2020.

[109] MilanoFinanza, *Ivass interviene su Cattolica: subito l'aumento di 500 milioni*, May 2020; Cattolica Assicurazioni, *Comunicato stampa 15 maggio 2020,* 15th May 2020.

[110] MilanoFinanza, *Ivass interviene su Cattolica: subito l'aumento di 500 milioni*, May 2020; Cattolica Assicurazioni, *Comunicato stampa 1° giugno 2020 sull'andamento e la comunicazione della solvibilità di Gruppo*, June 2020.

[111] MilanoFinanza, *Ivass interviene su Cattolica: subito l'aumento di 500 milioni*, May 2020.

As of May 31, 2020, following the financial markets' stabilization, the company's Solvency improved, returning between 130% and 135%.[112]
In the meantime, the company had begun to evaluate some capital strengthening initiatives, as a capital increase of € 200 million combined with the issue of a subordinated Tier 1 instrument for the same amount.[113] This initiative would have made it possible to achieve adequate capitalization, allowing the finalization of the M&A activities planned by 2021, deriving from the conclusion of bancassurance relationships with related partners.
IVASS' letter forced Cattolica to accelerate the capitalization measures already under study and on 25 June 2020 the agreement between Cattolica Assicurazioni and Generali was announced to market. Generali undertook to subscribe a reserved tranche of Cattolica's capital increase as part of a broader strategic partnership.[114]
In particular, the partnership, in which the capital increase is one of the main pillars, also provided for long-term industrial and commercial agreements, driving the transformation of Cattolica from a cooperative into a joint-stock company.
The industrial agreements concerned four macro-areas:

- Asset Management: Generali Asset Management would have managed Cattolica's investment portfolio in order to improve its efficiency, "leveraging on specialist skills and expertise";
- the Internet of Things: Generali would have offered to Cattolica's customers "the use of the innovative IOT platform developed by Generali Jeniot for car, home, pet and telematics business";
- the Health Business: "the extension to Cattolica's customers of Generali Welion's innovative services in the health sector (not offered by Cattolica), and the partial outsourcing of the liquidation and assistance services by Cattolica to Generali Welion";
- Reinsurance: Generali would have become the main partner in relation to a share of risks to be reinsured[115].

This partnership was positively evaluated by both companies: Cattolica complied with IVASS' requests, protecting its shareholder value, and find an important partner in Generali. On the other hand, Generali took the opportunity to acquire a relative majority stake (24.4%) of an important competitor, thus consolidating its market positioning.

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[112] Cattolica Assicurazioni, *Comunicato stampa 1° giugno 2020 sull'andamento e la comunicazione della solvibilità di Gruppo*, June 2020.
[113] Cattolica Assicurazioni, *Comunicato stampa 1° giugno 2020 sull'andamento e la comunicazione della solvibilità di Gruppo*, June 2020.
[114] Generali, *Comunicato stampa congiunto del 25 giugno 2020 per l'avvio della partnership strategica con Generali,* June 2020.
[115] Generali, *Comunicato stampa congiunto del 25 giugno 2020 per l'avvio della partnership strategica con Generali*, June 2020.

The perception of the Cattolica's solidity improved, also thanks to the possibility of taking advantage of revenue and cost synergies, deriving from the economies of scale and scope achievable with Generali.
However, the reserved capital increase subscription was subject to the fulfilment of three specific conditions:

- the transformation of Cattolica from a cooperative into a S.p.A. (Società per Azioni or Joint-Stock Company);
- obtaining the necessary authorization from the competent Authorities;
- the amendment of certain statutory conditions aimed at protecting Generali's entry into Cattolica: the exclusion of the Cattolica shareholders' option right on the capital increase of €300 million, Generali's veto right on certain relevant matters both in the Shareholders' Meeting and in the Board of Directors and the appointment of three members in the latter.[116]

Cattolica shareholders' meeting of 27 June approved the capital increase, giving the Board of Directors the power for the realization of up to 500 million, also in a divisible manner and in accordance with the request of IVASS.
On 4 August 2020, the Board of Directors officially exercised the delegation for the first tranche of capital increase (€300 million) reserved for Generali at strike price of €5.55 per share, with a premium over the share price of 54% (market price on 24/06/2020) and 6% (6-month average price).[117] On 30 October 2020, the increase was fully subscribed by Generali.
In particular, the capital increase was defined in two tranches to be subscribed at two separate times. The first of €300 million reserved for Generali, the second of €200 million in option to all shareholders and to be released in a later period.
On 31 July 2020, the resolution for the company transformation into a joint-stock company was approved by the shareholders' meeting, with deferred effect from 1 April 2021.
Following the company's transformation, 11.64% of the shareholders (holders of a total of 20,720,720 shares) availed themselves of the *withdrawal right*.[118] As a result, Cattolica Assicurazioni reimbursed €113 million to the withdrawing shareholders, equal to a withdrawal price of €5.47 per share[119], partially offsetting the effects of the capital increase of 300 million.
Then, since Generali launched a *public tender offer* (PTO) on the total number of Catholic shares on 31 May 2021, the second tranche of the original capital increase was no longer executed.
On 3 December 2021, due to the tender offer positive outcome and the further improvement in Cattolica solvency margins, the Cattolica's Board of Directors submitted to IVASS the formal

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[116] Generali, *Reinforcing market position in Italy*, Presentations, 2021.
[117] Generali, *Esercitata delega per aumento di capitale anche nella parte riservata a Generali*, Press release, 4th August 2020.
[118] Generali*, Comunicato stampa congiunto del 25 giugno 2020 per l'avvio della partnership strategica con Generali,* Press release, 8th October 2020.
[119] Generali, *Esercizio del diritto di recesso: perfezionato l'acquisto di azioni,* Press release, 30th December 2020.

request to avoid the second tranche of 200 million euros.[120] The request was welcomed by the supervisory authority, which gave full approval on 19 January 2022.[121]

The ***public tender offer*** (PTO) was funded entirely in cash from Generali's 2021 M&A budget and envisaged a price per share of €6.75. The offer fulfillment was conditioned by the purchase of at least 50% of the capital plus 1 and, consequently, the achievement of an absolute majority in the shareholders' meeting.[122]

The tender offer has allowed Generali to strengthen its position in both the Italian and European insurance markets. In addition, the operation envisaged potential synergies for a value of €80 million per year pre-tax through the reduction of operating costs (economies of scale), technical excellence and higher revenues achievable (revenue synergies). The synergies were adjusted to €130 million per year and integration costs approximately between €150-200 million pre-tax to be amortized over four years.[123]

Overall, Cattolica integration represented a unique opportunity for Generali on the market: 3.5 million customers, an extensive and stable agency network, especially in northern and central Italy, for a total of 1,400 agencies.[124]

The transaction also represented an excellent opportunity for Cattolica's stakeholders:

- Shareholders received a premium over the share price of 11% (price on May 28) and 44% (average price over 6 months).
- Cattolica customers benefited from the improvement and expansion of the products offered with the strengthening of technological and digital solutions.
- Agents gained the ability to target a larger customer base through digital tools and capabilities.
- The company's employees joined one of the leading international insurance groups offering a diverse set of development opportunities in Italy and internationally.[125]

Generali's main competitor on the market, Unipol acquired Fondiaria-SAI in a similar operation in 2014 pursuing the same objectives (now UnipolSai).[126]

Based on the results communicated by Equita, advisor and financial agent in charge of coordinating the collection of the Offer acceptances, approximately 139 million shares were sold during the Offer Period, equal to approximately 80% of the shares subject to the Offer and 61% of Cattolica share

[120] Generali, *Decisione inerente alla seconda tranche dell'aumento di capitale*, Press release, 4th December 2021.

[121] Generali*, Comunicazione Ivass relativa alla seconda tranche dell'aumento di capitale,* Press, release, 19th January 2022.

[122] Generali, *Reinforcing market position in Italy*, 2021.

[123] MilanoFinanza, *Generali, da Cattolica fino a 130 milioni di sinergie,* 12th December 2022.

[124] Generali, *Reinforcing market position in Italy*, 2021.

[125] Generali, *Reinforcing market position in Italy*, 2021.

[126] Unipol Group, *Integrazione Unipol - Fondiaria-SAI,* 2014.

capital. The bought shares, added to the 54 million already held by Generali, made the company owning 193 million shares (84.5% of Cattolica share capital).[127]

On 23 May 2022, Generali purchased an additional 6 million ordinary shares of Cattolica (approximately 7% Cattolica share capital) through a reverse accelerated book-building procedure (RABB), aimed exclusively at qualified investors in Italy and foreign institutional investors. The share purchase took place at €6.75 for each share, the same as for the PTO, incorporating a premium of about 7.7% on Cattolica ordinary share closing price as of May 23(2022), for a total value of € 105 million. As a result, Assicurazioni Generali directly hold approximately 91% of the share capital of Cattolica.[128]

Having exceeded the threshold of 90%, Assicurazioni Generali complied with the obligation pursuant to art. 108, paragraph 2(TUF), to purchase all remaining ordinary shares outstanding which, at the date of the announcement, amounted to 19,396,670 (the "Residual Shares"), corresponding to approximately 8% of the Cattolica share capital (so-called "Obligation to Purchase procedure").

With the procedure fulfilment, Generali achieved a total stake equal to approximately 97% of the share capital of Cattolica, and, therefore, availed itself of the right to purchase the remaining shares (art. 111 of the TUF: the "Purchase Right"), approximately 6 million, again at a price of € 6.75 per share.[129]

On 12 August 2022, owning 100% of the share capital of Cattolica, Generali had revoked the listing and trading of Cattolica shares, with the consequent company delisting from the MTA stock market.[130]

The entire integration process was completed on 1 July 2023 with the merger by incorporation of Cattolica Assicurazioni into Generali.[131]

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[127] Generali*, Final results of the offer,* 3rd November 2021.

[128] Generali, *Completion of the transaction for the purchase by Assicurazioni Generali S.p.A. of ordinary shares of Società Cattolica di Assicurazioni S.p.A. through a reverse accelerated book-building procedure addressed to qualified investors and foreign institutional investors,* Press Release, 24th May 2022.

[129] Generali*, Final results of the obligation to purchase procedure,* Press Release, 3rd August 2022.

[130] Generali, *Revocation from listing and trading of the ordinary shares of Cattolica as of the current date*, Press Release, 12th August 2020.

[131] Borsaitaliana, *Generali Italia: integrazione completa di Cattolica, sinergie per 130 milioni,* 5th July 2023.

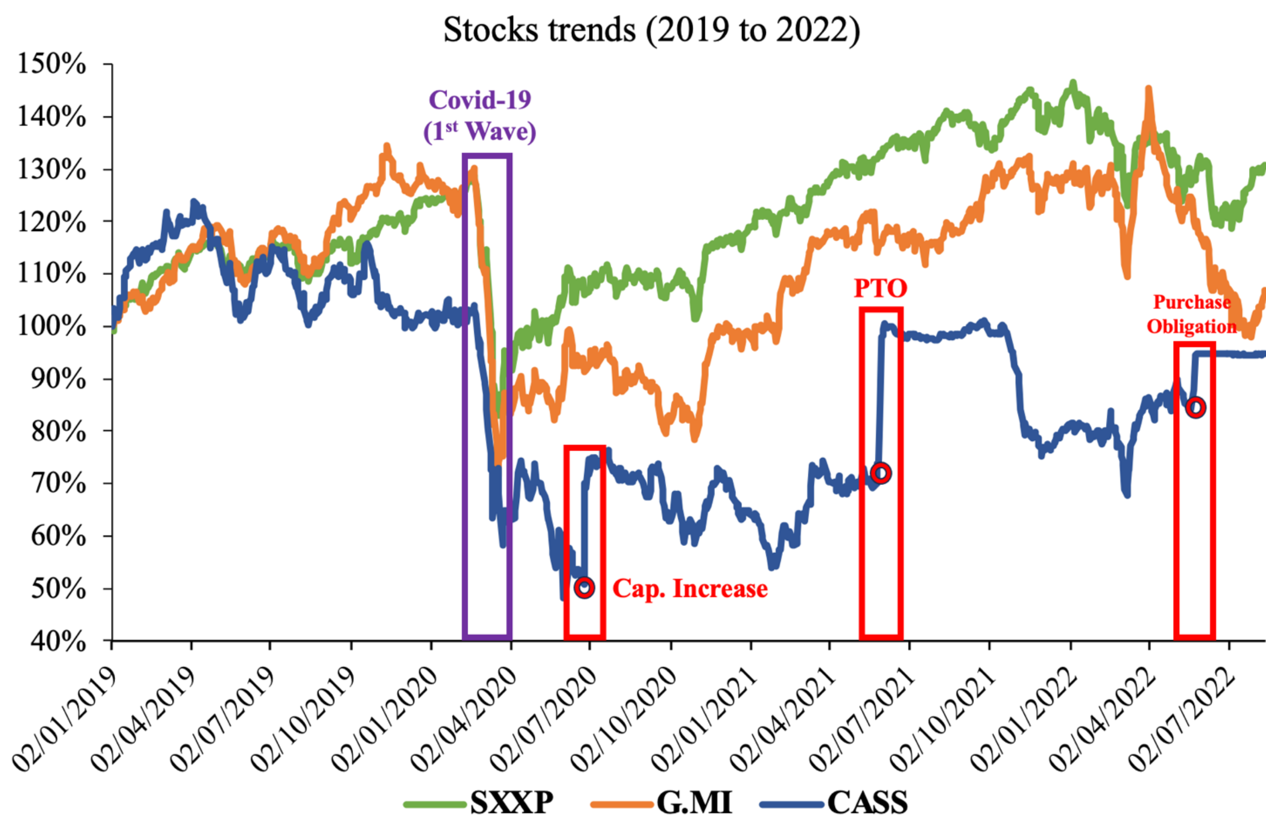
## 3.2 Valuation analysis of the operations

The main operations of the integration process under analysis were the capital increase reserved to Generali and the public tender offer for Cattolica Assicurazioni, announced respectively in June 2020 and May 2021.

Both transactions were characterized by the offer of a price higher than the market one. It is therefore focus of the analysis assessing the relation between Cattolica stock price and the one offered by Generali for the 24.4% (*Reserved Capital Increase*) of Cattolica's stake, and how the first was impacted by the additional capital requirement and the operation's announcement. Afterwards, the price of € 5.55 will be compared to the one of €6.75 on the remaining 75.6%, made at the PTO one year later (Public Tender Offer + Obligation to Purchase).

Therefore, this study analyzes in detail both operations to grasp their essential characteristics, possible correlations, and different solvency effects on the stock prices.

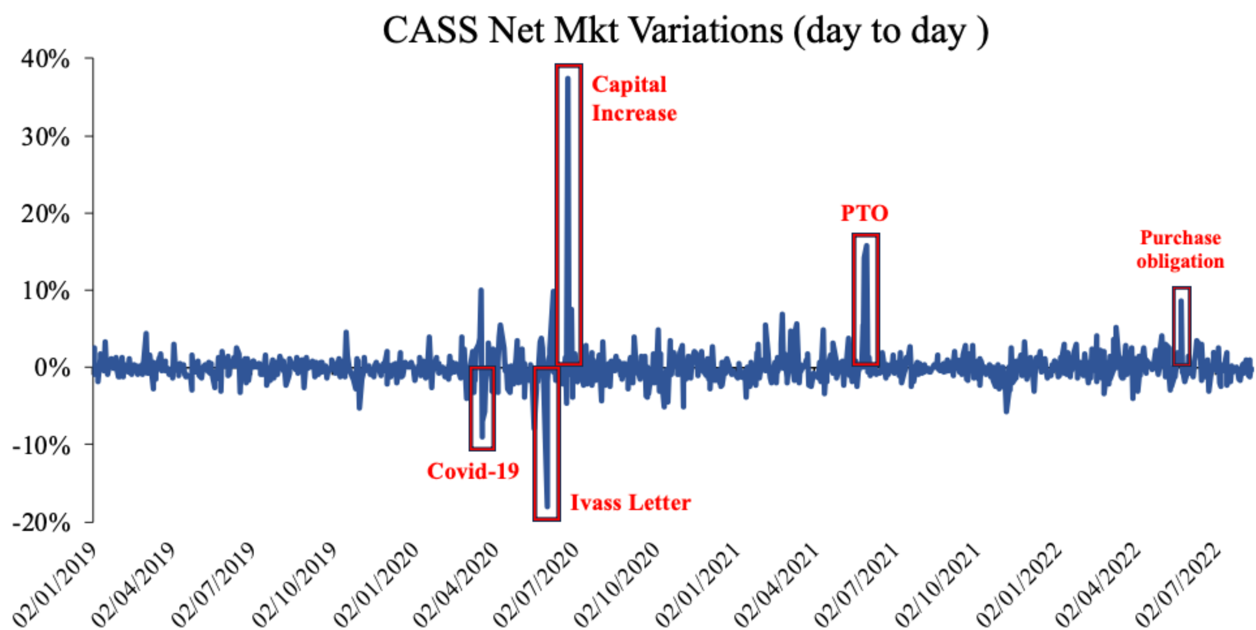
First, it is interesting to get the effects that the transactions announcement has produced on market and on the performance of CASS (Cattolica Assicurazioni), and G.MI (Generali) shares.




Source: *Original work (Bloomberg data)*

The comparison between the individual companies' market prices and the reference index allows to better frame some dynamics. First, Covid-19 has affected all operators in the sector since March 2020 with the first explosion of the pandemic and then from the following October with the second wave of infections and the new lockdown measures.

In the period under analysis Generali had a performance in line with the market index. On the contrary, Cattolica stock had already started to underperform since October 2019, before the outbreak of the pandemic (October 2019 - February 2020). This negative performance has further expanded with Covid-19. From the chart it is possible to see how in both circumstances the price of Cattolica has experienced a greater decline than the insurance index and Generali.
However, Cattolica stock showed two considerable increases that took place exactly on the day of the announcement of the two transactions in June 2020 and May 2021.
On June 24, 2019, the day before the announcement of the capital increase, Cattolica stock quoted at a price of € 3.61 per share and then jumped to € 4.99. So, the increase on the day of the announcement was 38%. However, this increase does not consider the general performance of the insurance market on that day.
In fact, taking as a benchmark the Stoxx Europe 600 Insurance Index (SPIX. Z), which summarizes the performance of the main European insurance companies[132], it was used the second formula presented Chapter I to compute the abnormal return on the day (see page 9, Chapter 1). The daily market variation was subtracted from the return of the share, which, being positive on 25 June (+76 bps), corrects the ex-market increase of the stock to 37.35%: a lower but still "abnormal" return for a single day, confirming what was stated in the first chapter on share price increase at the operation announcement (see page 8, Chapter 1).




Source: *Original work (Bloomberg data)*

On the same day, Generali shares experienced a slight increase (+26 bps) but not as much as the market (+76 bps), thus recording an ex-market decrease of 50 bps, meaning that according to market the price offered by Generali was almost in line with the market expectations.

[132] Qontingo, *SXIV Supersector Indices: STOXX® EUROPE 600 INSURANCE INDEX*, May 31st, 2020.

The tender offer announcement on 31 May 2021 had a more limited effect on the securities' price: day-to-day ex market changes were respectively +16% (CASS) and +0.5% (G.MI). In this case, the market welcomed the transaction for both parties.

Next step of the analysis was computing Cattolica value range and compare it with Generali valuation of Cattolica share price in relation to the one offered in capital increase, how the additional requirement affected Cattolica value, and the reasons why Generali offered a higher price one year later in the tender offer.

As a result, we put ourselves in the shoes of a retail investor and chose to consider the two transactions not as standalone events but as a single design with the aim of bringing Cattolica under Generali's control.

## 3.3 Methods and hypothesis

To assess why Generali valued Cattolica shares at price of € 5.55 for the reserved capital increase, analytical and empirical methodologies commonly accepted by professional practice and doctrine were used and deemed suitable to represent the economic, patrimonial, and financial characteristics of Cattolica according to the so-called "pre-money" principle, considering the planned Capital Increase of € 500 million requested by IVASS.
The number of shares taken to estimate Cattolica economic value is equal to 167 million ordinary shares: the entire share capital of 174 million net of 7 million treasury shares hold by the Company due to past buy back operations.[133]
According to general professional practice, different methods are usually used to assess companies operating in life and non-life business. Therefore, considering that Cattolica Assicurazioni is a company operating in both businesses, the so-called "Sum of the Parts" (SoP) method was applied.[134]

### *3.3.1 Sum of Parts*

The SoP method calculates the equity value as the sum of the economic values attributable to each different company's line of business. Cattolica's business lines are the non-life business (or P&C business), the life business and the so-called "other business" (real estate character, etc.).
To analyze the P&C business (non-life), the **Dividend Discount Model** (DDM) in the *"excess capital"* version was used.
DDM determines the value of a company as a function of the expected future dividend stream. In the present case, the variant used is the "excess capital", according to which the economic value is equal to the sum of the following elements:

- *Present value of future cash flows* "generated over a given planning time horizon and distributable to shareholders while maintaining a minimum capital level (SCR) consistent with the instructions dictated on the subject by the supervisory authority and compatible with the nature and expected evolution of the activities".
- *Present value of a perpetual annuity* defined on a sustainable dividend for the years following the explicit planning period consistent with a *payout ratio* (dividend/net income ratio) that reflects sustainable profitability and maintenance of adequate capital levels

[133] Cattolica Assicurazioni, *Verbale consiliare di esercizio della delega per l'aumento del capitale sociale e approvazione delle correlate delibere statutarie, relazione del Consiglio di Amministrazione e parere della società di revisione,* 5th August 2020.
[134] Cattolica Assicurazioni, *Verbale consiliare di esercizio della delega per l'aumento del capitale sociale e approvazione delle correlate delibere statutarie, relazione del Consiglio di Amministrazione e parere della società di revisione,* 5th August 2020.

consistent with the rate of sustainable growth over the long term. This value is also named as *Terminal Value*.

This method is particularly appropriate for determining the economic value of insurance companies, operating in non-life classes because:

- emphasizes the ability of the evaluated company to generate cash flow for shareholders (so called *cash flow to equity*);
- optimally considers the levels of capitalization "absorbed" by the core business, distinguishing between the capital endowment of the evaluated company and the capital required by the asset in line with the underlying risk profile (with reference to the minimum necessary capital level, the *Solvency ratio target*).[135]

On the contrary, the DDM in the *classic version* is based only on the assumption of consistency between expected dividends, payout ratio, expected net profit and dynamics of book equity.

The formula on which the DDM method is based is as follows:

$$W = \sum_{i=1}^{n} \frac{D_i}{(1+k_e)^i} + \frac{TV}{(1+k_e)^n}$$

Where:

$W$ = Value of the company economic capital

$k_e$ = Cost of equity

$D_i$ = Cash flow potentially distributable in the i-th period of explicit planning

$n$ = Explicit planning period (expressed in years)

$TV$ = Residual value or terminal value assumed as the present value of the perpetual annuity obtained from the sustainable dividend for the years following the explicit planning period.

For the identification of future economic flows, reference is made to the analytical forecasts of net results formulated by the management bodies, in the form of economic and financial projections and/or business or strategic plan, which, in case of listed companies, is usually available to investors. Consequently, the nature of the information used (e.g., projections vs business plan or strategic vs consensus estimates) remains the main input for the evaluator, affecting the quality of the evaluation itself.

To estimate the distributable cash flows, a minimum level of capital is defined as necessary to guarantee the operation of the company being assessed (solvency target ratio).

For the determination of this level, the Solvency II criteria, and the market trends (*economic solvency* vs *statutory solvency*) must be considered.

[135] Latorre G., Maurizio S., Chiricosta A., *La valutazione delle assicurazioni*, Egea Editore, 2013.

In this context, the target solvency ratio could be significantly above the regulatory requirement (100%) and typically in the range of 125% to 175%.[136]

The net result indicated in the plan or in the economic and financial projections, to arrive at an estimate *of the cash flow, must consider the estimated financial impact between the dynamics of the statutory dividend (*i.e., the dividend envisaged in the plan) and the estimated cash flow for the application of the methodology in question (so-called *financial adjustment*).

In other words, the financial adjustment is necessary to reflect in the expected cash flows, and therefore in the valuation, any financial income and expenses deriving respectively from a deficit or excess capital with respect to the *solvency ratio target*.

In the case of the capital increase, the dividends estimated at 2022 and 2023, respectively of € 0.3 and € 0.2 cents per share, were taken from Bloomberg (market info provider). These dividends, being an expression of the company in its entirety, were taken for values of € 0.22 and € 0.14 cents per share, the percentage contribution of the non-life business to the total net income creation (70%), computed on an three years average prior to capital increase.

| Million € | FY 2017 | | FY 2018 | | FY 2019 | | Average | |
|---|---|---|---|---|---|---|---|---|
| **Net Income** | **41.1** | **100%** | **106.9** | **100%** | **75.1** | **100%** | **74.4** | **100%** |
| Non-Life Management | 76.2 | 136% | 71.4 | 52% | 58.0 | 56% | 68.5 | 70% |
| Life Management | -14.7 | -26% | 68.4 | 50% | 55.0 | 53% | 36.2 | 37% |
| Other | -5.4 | -10% | -3.2 | -2% | -9.9 | -10% | -6.2 | -6% |
| Eliminations | -15.0 | | -29.7 | | -27.9 | | -24.2 | |

Source: *Bloomberg*

These values, being estimated by analysts who know the sector and its dynamics, must be considered already net of the capital necessary to maintain capital requirements (both *statutory solvency* and *economic solvency*).

| | FY 2020 | FY 2021 | FY 2022 Stm | FY 2023 Stm |
|---|---|---|---|---|
| Total Div per share | € - | € - | € 0.32 | € 0.20 |
| **Non Life – DPS** | € - | € - | **€ 0.22** | **€ 0.14** |

Source: *Original work*

In fact, in the years 2020 and 2021, no dividends were detached due to the uncertain economic situation in which the company found itself. Thus, it can be assumed that, even in the context of a capital increase, no dividends would have been paid to shareholders at least until the company's financial position had improved.

The next step of the analysis was to determine the cost of capital ($k_e$) at which discounting the previous flows (dividends).

In market practice, the cost of equity is estimated with the Capital Asset Pricing Model (CAPM), considering the structure of market interest rates and the specific sector of reference. The cost of equity was, therefore, calculated as the sum of the nominal rate of return on risk-free assets (so-

[136] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.

called *risk-free rate*) and a specific risk premium, which reflects the riskiness of the activity in the reference sector.[137]

The formula used to calculate the cost of equity is as follows:

$$k_e = r_{fr} + \beta \times (ERP)$$

Where:

$r_{fr}$ = rate of return on risk-free assets (estimated from the gross return of German government bond benchmark).

$\beta$ = beta coefficient, which indicates the riskiness of a specific security compared to the stock market. It is often derived from a sample of comparable companies.

$ERP = r_{mkt} - r_{fr}$ = the premium or differential return demanded by investors for investing in equity securities compared to risk-free assets.

In the valuation, considering the analysis is carried out in euros, the German 10Y government bond yield on 24/05/2020, equal to –0.44%, was taken as risk-free rate.

The levered beta for the CAPM was taken from the *median adjusted data* of 1.14 from a sample of listed insurance companies operating mainly in the non-life business, calculated over a six-month interval prior to the announcement of the capital increase.

It has been assumed that Cattolica Assicurazioni leverage is in line with the average sector's leverage, where debt consists only of subordinate tier instruments used to maintain these companies highly capitalized according to Solvency requirements.

| **Non-Life Players** | Beta | **Adj. Beta** |
|---|---|---|
| ALLIANZ SE-REG | 1.21 | 1.14 |
| HELVETIA HOLDING AG-REG | 1.21 | 1.14 |
| MAPFRE SA | 1.21 | 1.14 |
| POWSZECHNY ZAKLAD UBEZPIECZE | 0.32 | 0.54 |
| RSA INSURANCE GROUP PLC | 1.27 | 1.18 |
| TALANX AG | 1.31 | 1.20 |
| UNIQA INSURANCE GROUP AG | 0.89 | 0.93 |
| UNIPOLSAI ASSICURAZIONI SPA | 0.67 | 0.78 |
| VIENNA INSURANCE GROUP AG | 0.93 | 0.95 |
| ZURICH INSURANCE GROUP AG | 1.26 | 1.17 |
| **Average** | 1.03 | **1.02** |
| **Median** | 1.21 | **1.14** |

Source: *Bloomberg*

It was considered an interval of only six months to represent as much as possible the current situation of the company, excluding past events no longer expressive company situation at the time of the operation.

[137] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.

In addition, the *"adjusted data"* was taken with respect to the historical one. The historical beta finds strong limitations in absence of stationary conditions and financial markets stability, while the adjusted beta, adjusted with Blume technique, allows to overcome this limitation.[138]
In analytical terms we have that:

$$\beta_{adjusted} = \beta_{historic} \times {}^{2}/_{3} + \beta_{market} \times {}^{1}/_{3}$$

The risk premium was computed using two distinct approaches:

- assuming a 5% Italian risk premium as per professional practice;
- calculating an implied risk premium specific to the sector.

In fact, another formulation often used instead of the classic ERP is the c.d. *Implied Equity Risk Premium*, whereby the equity formula becomes:

$$k_e = r_{fr} + \beta \times (IERP)$$

The main difference between the "classic" and implied risk premium is as follows:

- the *classic risk premium* derived from the long-term yield differential between equities and bonds on the financial markets;
- the *implied risk premium* comes from a study of the price paid to hold risky assets. This price is the main indicator of the desired premium.

According to Prof. Damodaran, the IERP creator, if you know the price paid for the risky asset or its intrinsic value, and you can estimate the future cash flows, you can get through a reverse process the expected return by the investor on the asset in question.
With this model, you get a cost of equity from which the risk-free rate will be subtracted to obtain the c.d. *implied equity risk premium*.[139]

$$PV = \frac{E(CF_1)}{(1+k_e)} + \frac{E(CF_2)}{(1+k_e)^2} + \cdots + \frac{E(CF_n)}{(1+k_e)^n} + \frac{E(CF_n) \times (1+g)}{(r-g) \times (1+k_e)^n}$$

Where:
PV = Present value of the index today
$k_e$ = cost of equity (unknown)
$E(CF_i)$ = expected cash flow at the i-th time
$g$ = cash flow's growth rate.

In practice, an Excel model was used, also built by Prof. Damodaran (see evaluation appendix) to which values of the Eurostoxx 600 Insurance index (index level, current dividend yield, etc.) were applied. The model produced an implied equity risk premium of 5.39%.

[138] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.
[139] Damodaran A., *Equity Risk Premiums (ERP): Determinants, Estimation, and Implications – The 2023 Edition Updated: March 23, 2023*, Stern University, 23rd March 2023.

In summary, the use of two different risk premia led to two equity costs, respectively of 5.26% (ERP) and 5.70% (IERP).

$$k_e(ERP) = -0.44 + 1.14 \times (5.00\%) = 5.26\%$$

$$k_e(IERP) = -0.44 + 1.14 \times (5.39\%) = 5.70\%$$

The analysis considering both $k_e$ to obtain a value range representative of Cattolica non-life business.

Furthermore, to achieve the complete enhancement of the company's economic capital in a temporal perspective, also including the periods after 2023, the last component of the DDM -the *Terminal Value* (TV) -was estimated. The TV is normally expressed by the following formula:[140]

$$TV = \frac{D_{n+1}}{k_e - g}$$

Where:

$D_{n+1}$ = sustainable expected dividend after the explicit planning period.

$k_e$ = cost of equity

$g$ = expected growth rate after the explicit planning period to be related to the nominal growth rate of the economy over the long term.

In the assessment, the long-term expected inflation, observable in the eurozone at the time of the announcement, equal to 1.7% was chosen as a proxy for the growth rate.[141]

The sustainable dividend ($D_{n+1}$) was derived by multiplying the estimated 2023 dividend by the chosen g rate.

Considering what has been said above, we have come to the determination of two distinct TVs: one for the ERP evaluation and the other for the IERP. The same were then discounted together with the other flows, obtaining a price per share of € 3.30 (IERP calculation) and € 3.72 (ERP) for a estimated value range of the P&C business between € €551.8 and €621.5 million.

| Non-Life Business | PPS | EV |
|---|---|---|
| Min | € 3.30 | **€ 551.8** |
| Max | € 3.72 | **€ 621.5** |

(in million)

Source: *Original work*

To evaluate the life business, the application of so-called *embedded value* methodologies was sought.

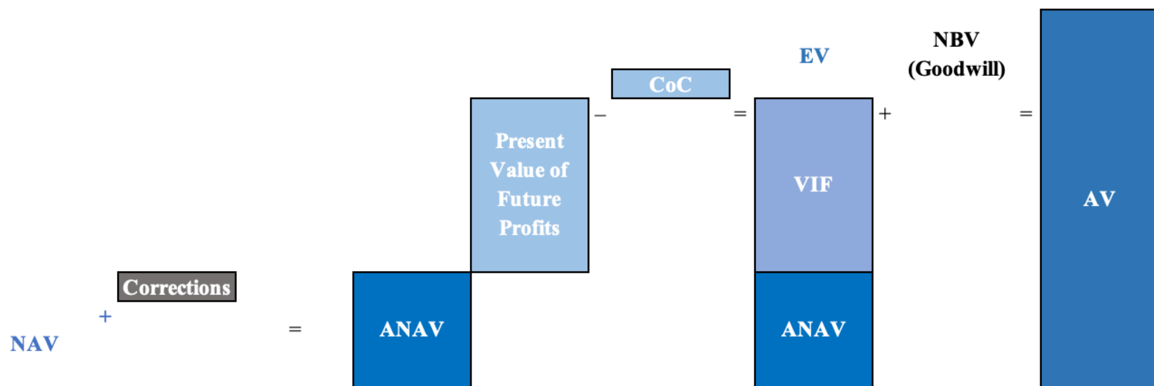
**The Embedded Value Method (EVM)** is a method based on discounting future cash flows linked to the insurance policies and underlying financial assets' portfolio of a life insurance company, which aims to measure the consolidated value of shareholders' interests related to the business

[140] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.

[141] ECB, *HICP Inflation forecasts*, 2nd July 2023.

outstanding at the valuation date, and to capture the implicit value of the medium-long term economic effects of financial assets and portfolio commitments policies itself.[142]

In general, the Embedded Value (EV) of an insurance company is the sum of two components, the net asset value at market values (*adjusted net asset value* or ANAV), and the value of the outstanding portfolio (*Value in Force* or VIF). In turn, the VIF is the difference between the *present value of future profits* (PVFP) and the *cost of capital* (COC).




Source: *Latorre et al., La valutazione delle assicurazioni, 2013.*

The EV represents, therefore, a synthetic measure of the value that considers the policy portfolio and the assets held by the company at the valuation date, without considering the *new future production* (so called *New Business Margin* or NBM).

The value of new production, generally referred to as *goodwill*, added to the Embedded Value, defines the *Appraisal Value* (AV), or the company value that also considers its ability to produce new contracts in the future.[143]

The *present value of future profits* (PVFP) represents the present post-tax value of the technical and financial profits expected to be generated by the outstanding business and its assets hedged.

On the other hand, the cost of the company's capital requirement must be quantified. This cost is measured by the present value of the projected annual costs related to the immobilization of the capital requirement by the company, generally referred to as *cost of capital* (COC).

$$VIF = PVFP - COC$$ [144]

To determining the EV, it firstly must be obtained the Adjusted Net Asset Value, adjusting the company's Net Asset Value.

The main corrections generally made to the NAV are:

- **Commissions to be amortized** (local GAAP financial statements), DAC and DIR (IAS/IFRS financial statements): it is necessary to reverse these items because the positive

[142] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.
[143] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.
[144] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.

or negative effects deriving from the accounting evolution of these items are not considered in the calculation of the VIF.

- **Goodwill**: the book equity is adjusted for this item as it expresses an extra intangible value, already included in the calculation of the VIF and in any value attributable to future new business.
- **Tax credit for reserves taxation**: life insurance companies operate as a withholding agent on the difference, if positive in favor of the insured, between the amount of capital received (for redemption or maturity) and that of premiums paid. They are subject pursuant to Law 265/2002 as an advance payment, as a percentage of the amount of the mathematical reserves of life classes recorded in the financial statements for the year. The payment of this tax does not generate any impact on the income statement but is accounted for by the companies only as a credit creation towards the Treasury and is recovered against withholding taxes and substitute taxes to be paid in each year. Since this non-interest-bearing claim is generally a significant amount for insurance companies, it is considered in business practice as an adjustment item for equity.[145]

This method is difficult to apply in absence of precise data provided directly by the company on life insurance policies and economic projections regarding future production.

Alternatively, it is possible to take these values from the *reports on solvency and financial condition* (so-called “sfcr” or “Solvency II report”) published annually by insurance companies. In these reports, the company’s book values are adjusted and expressed at market values (or Solvency II values).

For the purposes of determining EV, the *excess between assets and liabilities expressed at Solvency II values* represents the Adjusted Net Asset Value (ANAV). Instead, a proxy of the VIF can be found in the so-called *risk margin* relating to the life reserves indicated in the report. The sum of these two components can be taken as a proxy of a life insurance company’s EV.

Regarding Cattolica Assicurazioni, the valuation is a more complex. The company operates in the life insurance segment mainly through bancassurance agreements with various Banking Groups, providing for the use of a dedicated insurance company (so called *joint venture* - JV),

Cattolica joint ventures in the life segment are:

- **Lombarda Vita**: with registered office in Brescia and share capital of 185.3 million, the life insurance company was born from the agreement between Cattolica and Ubi Banca for the distribution of life insurance policies through the network of branches of UBI Banca Group. Cattolica holds 60% of the share capital and the remaining 40% is held by UBI. The agreement expired on June 30, 2021.[146]

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[145] Latorre–Maurizio–Chiricosta, *La valutazione delle assicurazioni,* Egea 2013.

[146] Generali, *Closing della cessione a Intesa SanPaolo della partecipazione detenuta in Lombarda Vita*, Press Release, 12th April, 2021.

- **Vera Vita**: Life company acquired following the partnership agreement with Banco Bpm; is headquartered in Verona, with a share capital of 219.6 million and is specialized in the production of savings and investment products. Cattolica owns 65% of the company. The fifteen-year agreement with Banco BPM was set to expire at the end of 2033.[147]
- **BCC Vita**: headquartered in Milan with share capital of €62 million, it carries out insurance activities in the life-lines and distributes through the branches of the ICCREA Group. Cattolica, which initially held 51%, rose to 70% of the share capital in 2019, renewing the partnership agreements and setting the new deadline at the end of 2022.[148]
- **Berica Vita**: born from the agreement with Banca Popolare di Vicenza (BPdV), it has a share capital of 31 million and carry out insurance activities in the life branches. Starting from 2018, following the integration of BPdV branches into the Intesa group, it is substantially in "run-off" due to the absence of new production and its activity is limited to the management of the existing policy portfolio. Cattolica Assicurazioni, which until 30 June 2020 held 60% of the share capital[149], acquired total control in July 2020, taking over the remaining 40% of the company from BPdV (in compulsory administrative liquidation since 2017).[150] The company in July 2021 was then merged by incorporation into Cattolica.[151]

Considering the nature of the individual companies and the underlying partnership agreements, the EV of the individual life companies was calculated from the Solvency II data and reports still available.

| (in million €) | VIF | ANAV | **Total EV** | % Cattolica | **EV** |
|---|---|---|---|---|---|
| **LOMBARDA VITA** | 23.0 | 482.2 | 505.3 | 60% | **303.2** |
| **VERA VITA** | 16.1 | 384.8 | 400.8 | 75% | **300.6** |
| **BCC VITA** | 21.9 | 188.7 | 210.6 | 70% | **147.4** |
| **BERICA VITA** | 1.3 | 116.3 | 117.5 | 60% | **70.5** |

Source: *Companies' Solvency II reports*

In addition, the presence of put & call options, to oversee the early or expiration mechanisms of the JV agreements, made it necessary to refer to the underlying options prices that constitute, for valuation purposes, floor and/or cap levels for these companies' value and were therefore discounted to 24/06/2020 contributing at the value of Cattolica's life business.

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[147] MilanoFinanza, *Banco Bpm rileva le jv con Cattolica (Vera Vita e Vera Assicurazioni) per 392 milioni*, 29th May 2023;

[148] Generali, *Cattolica e Iccrea Banca rinnovano la partnership fino al 2022*, Joint Press Release, 5th July 2019.

[149] Generali, *Bilancio Consolidato 2019 – Gruppo Cattolica*, Archivio Storico Contenuti Price Sensitive Cattolica, Balance sheets, March 2020.

[150] Generali*, Acquisizione della partecipazione di minoranza in Berica Vita da Banca Popolare di Vicenza in LCA*, Archivio Storico Contenuti Price Sensitive Cattolica, Press release, 28th July, 2020

[151] Generali, *Fusione per incorporazione di Berica Vita Spa in società Cattolica di Assicurazione - Società per Azioni*, Archivio Storico Contenuti Price Sensitive Cattolica, Operazioni Straordinarie, 24th July, 2021.

These prices' formation has been explained in the various press releases but often a point reference value is not provided. In such cases, the price paid (point value) on the purchase date of the partner's participation was taken.

This is the case of Vera Vita, acquired by Banco BPM on 29 May 2023 (prior the agreement expiry following Cattolica's *change of control*) for a countervalue of €392.5 million, value obtained from the sum of:

- 65% of companies' own funds on 31/12/2022, totaling €332.5 million;
- a fixed component of €60 million;
- 65% of the companies' operating profit accrued from 01/01/2023 until the closing date.[152]

The investment in Lombarda Vita was sold on 12 April 2021 (in advance of the expiry of the agreement with Ubi) to Intesa Sanpaolo S.p.A., which took over from UBI Banca following the merger by incorporation, for a value of € 219.8 million.[153]

To update these prices, a representative cost of capital for life insurance companies was also determined using the CAPM (as before).

The beta used is the *adjusted data* obtained with the prior same feature from the median basket of comparable companies (same P&C assessment approach).

| **Life Players** | Beta | **Adj. Beta** |
|---|---|---|
| AGEAS | 1.16 | 1.11 |
| ASSICURAZIONI GENERALI | 0.85 | 0.90 |
| AVIVA PLC | 1.55 | 1.36 |
| AXA SA | 1.25 | 1.17 |
| BALOISE HOLDING AG - REG | 0.72 | 0.82 |
| CNP ASSURANCES | 1.92 | 1.62 |
| METLIFE INC | 1.87 | 1.58 |
| OLD MUTUAL LTD | 1.27 | 1.18 |
| PRUDENTIAL PLC | 1.88 | 1.59 |
| SWISS LIFE HOLDING AG-REG | 1.39 | 1.26 |
| **Average** | 1.39 | **1.26** |
| **Maedian** | 1.33 | **1.22** |

Source: *Bloomberg*

The *risk-free rate* (–0.44%) and the risk premia are the same as those used in the non-life business. The beta taken from the sample is the median adjusted value (1.22). It was used the premium of 5.39% (IERP) because it is more representative of the high risk related to the life business.

The cost of capital obtained to update prices was 6.13%.

$$k_e(ERP) = -0.44 + 1.22 \times (5.00\%) = 5.66\%$$

$$k_e(IERP) = -0.44 + 1.22 \times (5.39\%) = 6.13\%$$

[152] Banco Bpm, *Banco BPM esercita l'opzione call nei confronti di Cattolica Assicurazioni sul 65% del capitale di Vera Vita e Vera Assicurazioni*, Press release, 29th May 2023; Il Sole 24 Ore*, Banco Bpm: sale a 100% in jv assicurative con Cattolica, paga 392,5 mln*, 25th May 2023.

[153] Generali, *Cattolica cede a Ubi Banca la partecipazione detenuta in lombarda vita a un prezzo compreso tra ca. € 290 e € 300 milioni,* Press Release, 23rd December, 2020; Generali*, Closing della cessione a Intesa SanPaolo della partecipazione detenuta in Lombarda Vita,* Press release, 12th April 2021.

Below are the prices agreed according to the put/call options rules with respective maturities and discounted by the estimated $k_e$ (IERP).

| (in million €) | Put/Call Prices | Maturity (M) | Years to M | PV |
|---|---|---|---|---|
| **LOMBARDA VITA** | 219.8 | 12/04/21 | 0.8 | **209.6** |
| **VERA VITA** | 392.5 | 29/05/23 | 2.9 | **329.9** |

Source: *Cattolica past press releases*

In the case of BCC Vita and Berica Vita, the price of the underlying options is not of public domain. The only found punctual data were the prices paid by Cattolica on 5 July 2019 for 19% of Iccrea Banca's stake (€ 39.3 million)[154] and on 30 July 2020 for 40% of Berica Vita (€ 22.5 million).[155]
. Cattolica's overall stake in BCC Vita (70%) was valued at about € 145 million; in Berica Vita (60%) at approximately € 35 million.

| (in million €) | Price paid | % acquired | Cattolica share (%) | **Share Value** |
|---|---|---|---|---|
| **BCC VITA** | 39.3 | 19% | 70% | **144.9** |
| **BERICA VITA** | 23.0 | 40% | 60% | **34.5** |

Source: *Cattolica past press releases*

For all life business companies, a value range has therefore been identified between embedded value and the prices previously identified.

| (in million €) | **EV** | **Prices** | **Min** | **Max** |
|---|---|---|---|---|
| **LOMBARDA VITA** | **303.2** | **209.6** | **209.6** | **303.2** |
| **VERA VITA** | **300.6** | **329.9** | **300.6** | **329.9** |
| **BCC VITA** | **147.4** | **144.9** | **144.9** | **147.4** |
| **BERICA VITA** | **70.5** | **34.5** | **34.5** | **70.5** |

Source: *Original work*

Then, the subordinated loans were taken from the 2020 consolidated financial statement.

| (in million €) | Values |
|---|---|
| Subordinate Loan Tier 1 restricted (UBI) | 80 |
| Subordinate Loan Tier 2 | 100 |
| Subordinate Loan Tier 2 | 500 |
| Total Financial Debt | 680 |
| % Life business | 30% |
| **Life Business – Financial Debt** | **204** |

Source: *Balance sheet 2019 – Cattolica Group*

Subordinated liabilities on 31 December 2019 were composed of:

- an 80-million-euro loan granted by UBI Banca (Subordinate Loan Tier 1 Restricted) on 30 September 2010 with an indefinite maturity;
- a € 100 million subordinated bond issued on December 17, 2013 (Subordinate Loan Tier 2) with a maturity of 30 years;

[154] Generali, *Cattolica e Iccrea Banca rinnovano la partnership fino al 2022,* Joint Press Release, 5th July 2019.
[155] Generali, *Bilancio 2020 – Gruppo Cattolica,* Balance Sheets, 2021.

- a € 500 million subordinated bond issued on 14 December 2017 (Subordinate Loan Tier 2) with a maturity of 30 years.[156]

These loans represent a source of capital different from equity and, therefore, have been subtracted in percentage relating to the life business value creation (30%) from the values obtained previously. The value range obtained for the life segment is shown below.

| Life Business | PPS | EV |
|---|---|---|
| Min | € 2.91 | **€ 485.6** |
| Max | € 3.87 | **€ 647.0** |
| | | (in million) |

Source: *Original work*

To achieve the overall value range according to the SoP, the values of the investments held by Cattolica Assicurazioni in companies operating in businesses other than insurance were also added, such as:

- **Cattolica Agricola**: established in 2012 by Cattolica (sole shareholder), it is based in Verona and has a share capital of 35.5 million. It exclusively exercises agricultural activities.[157]
- **Cattolica Beni Immobili**: established in 2012 by Cattolica (sole shareholder) as part of the purchase of the Tenuta Ca' Tron real estate complex. It is based in Verona and manages, the not instrumental to agricultural activity, insisting on the fund as well as the "Cattolica Center" real estate complex, located in Verona.[158]
- **Cattolica Immobiliare**: based in Verona with share capital 400 thousand euros, it carries out activities of development and enhancement of real estate assets and those typical of real estate services. It is 100% controlled by Cattolica.[159]
- **Cattolica Services**: consortium company that provides services for the Group, based in Verona, with share capital of €21 million. The company provides services for the design, implementation and management of IT applications and operational processes and services related to telecommunication systems. It is controlled by Cattolica, which holds 99.96%, the remaining part is owned by the other Group companies.[160]

These values and their sum are shown below.

| (in million €) | PPS | EV |
|---|---|---|
| Cattolica Agricola | € - | **€ 148,5** |
| Cattolica Beni Immobili | € - | **€ 45,6** |
| Cattolica Immobiliare | € - | **€ 3,0** |
| Cattolica Services | € - | **€ 60,5** |
| Total | € 1,54 | **€ 257,6** |

Source: *Balance sheet 2019 – Cattolica Assicurazioni*

[156] Generali, *Bilancio 2019 – Cattolica Assicurazioni*, Balance Sheets, 2020.
[157] Generali, *Bilancio Consolidato 2019 – Gruppo Cattolica*, Balance Sheets, 2020.
[158] Generali, *Bilancio Consolidato 2019 – Gruppo Cattolica*, Balance Sheets, 2020.
[159] Generali, *Bilancio Consolidato 2019 – Gruppo Cattolica*, Balance Sheets, 2020.
[160] Generali, *Bilancio Consolidato 2019 – Gruppo Cattolica*, Balance Sheets, 2020.

These holdings values were recorded at the time of purchase with the cost method, which does not reflect the change of the company over time and its evolution. Therefore, every year they undergo a process of impairment (write-downs and revaluations) to appreciate their actual value over time. Finally, the total value of the various businesses of Cattolica obtained through the sum of the parts was subtracted from the capital increase of €500 million requested by the supervisory authority to obtain the representative *pre-money value* of the shares.

| Sum of Parts | PPS | EV |
|---|---|---|
| Min | € 7.76 | **€ 1,295.0** |
| Max | € 9.14 | **€ 1,526.0** |
| | | (in million) |

| SoP (Pre-Money) | PPS | EV |
|---|---|---|
| Min | € 4.76 | **€ 795.0** |
| Max | € 6.14 | **€ 1,026.0** |
| | | (in million) |

Source: *Original work*

In the analysis, several empirical methods were also used:

- Market Cap;
- Market Multiples;
- Multiples from comparable transactions (or M&A Multiples).

### *3.3.2 Market Cap*

According to the **Market Cap method**, market prices and market capitalizations are relevant information for estimating the companies' economic value.

This method uses the stock market prices expressed in share prices recorded in time intervals considered significant and assumes that there is a relationship with a high degree of significance between the share prices expressed on market and their economic value.[161]

Below are the average Cattolica share prices up to 12 months and the related premiums recognized by Generali with the offer of €5.55 per share.

| | Price per Share | Implied Premium |
|---|---|---|
| **Generali Offer** | **€ 5.55** | |
| Last (24.06.2020) | € 3.61 | **54%** |
| 1 Month Average | € 3.85 | **44%** |
| 3 Month Average | € 4.41 | **26%** |
| 6 Month Average | € 5.21 | **6%** |
| 12 Month Average | € 6.60 | **-16%** |
| Target Price | € 3.83 | **45%** |

Source: *Original work*

In this specific case, the average market capitalization of Cattolica at 1 and 3 months was used to define the value range, reflecting the perception of Cattolica's value, risk profile, profit generation,

[161] Cattolica Assicurazioni, *Verbale consiliare di esercizio della delega per l'aumento del capitale sociale e approvazione delle correlate delibere statutarie, relazione del Consiglio di Amministrazione e parere della società di revisione,* 5th August 2020.

governance, and capital position. A premium was added to these averages to consider the size of Generali's share, derived from market operations (about 20%-30%), providing two different scenarios: i) 20% premium from a general tender offer; ii) premium in line with the takeover bid premium promoted by Intesa San Paolo (ISP) over UBI (28%).

Below are the results obtained in terms of price per share and enterprise value.

| (in million) | PPS | EV |
|---|---|---|
| Mkt Cap 1 Months + PTO Premium | € 4.61 | € **770.5** |
| Mkt Cap 3 Months + PTO Premium | € 5.29 | € **882.8** |
| Mkt Cap 1 Months + TOB ISP-UBI | € 4.92 | € **821.8** |
| Mkt Cap 3 Months + TOB ISP-UBI | € 5.64 | € **941.7** |

Source: *Original work*

In this context, an analysis of the premiums offered in past transactions was also carried out and then compared with the premiums paid by Generali to Cattolica shareholders through the offer of €5.55. Below are the 1, 3, 6 months and 1-year premiums recognized in M&A transactions that took place from 2015 to 2020.

| PAST TRANSACTION | | | | Premium | | | |
|---|---|---|---|---|---|---|---|
| **Bidder** | **Target** | **Year** | **Deal** | **1 M** | **3M** | **6 M** | **1 Y** |
| Worldline | Ingienico | 2020 | Voluntary | 24.0% | 25.0% | 38.0% | 54.0% |
| PSA | FCA | 2019 | Voluntary | 40.0% | 40.0% | 37.0% | 27.0% |
| Vittoria Capital S.p.A. | Vittoria Assicurazioni | 2018 | Voluntary | 20.0% | 15.0% | 14.0% | 16.0% |
| Quarantacinque S.p.A. | CAD IT | 2018 | Voluntary | 12.0% | 18.0% | 21.0% | 24.0% |
| Co.Stamp S.r.l. | Modelleria Brambilla | 2018 | Voluntary | 4.0% | 3.0% | 3.0% | -19.0% |
| RLG Italia Holding S.p.A. | YOOX Net-A-Porter Group | 2018 | Voluntary | 28.0% | 27.0% | 28.0% | 43.0% |
| Pauto (Italia) S.p.A. | Snaitech | 2018 | Voluntary | 16.0% | 27.0% | 31.0% | 35.0% |
| Double 2 SpA. | TBS Group | 2017 | Voluntary | 18.0% | 20.0% | 24.0% | 28.0% |
| Industria 4.0 S.r.l. | Tech-value | 2017 | Voluntary | 1.0% | 7.0% | 11.0% | 16.0% |
| B.F. Holdings S.p.A. | Bonifiche Ferraresi | 2017 | Voluntary | 35.0% | 35.0% | 36.0% | 37.0% |
| Chiara finanziaria S.r.l. | Caltagirone Editore | 2017 | Voluntary | 48.0% | 49.0% | 55.0% | 58.0% |
| Italmobiliare Investment Holding | Italmobiliare | 2017 | Voluntary | 8.0% | 13.0% | 14.0% | 21.0% |
| Servizi Societari S.r.l. | Meridie | 2017 | Voluntary | 27.0% | 27.0% | 36.0% | 23.0% |
| Sofil S.as. | Parmalat | 2017 | Voluntary | 11.0% | 15.0% | 17.0% | 18.0% |
| H-Farm S.p.A. | H-Farm | 2017 | Voluntary | 12.0% | 11.0% | 12.0% | 12.0% |
| Cairo Editore | RCS Media Group | 2016 | Voluntary | 112.0% | 89.0% | 76.0% | 38.0% |
| Blado Investment S.C.A. | Polis | 2016 | Voluntary | 18.0% | 20.0% | 25.0% | 29.0% |
| Blado Investment S.C.A. | Alpha Immobiliare | 2016 | Voluntary | 20.0% | 18.0% | 13.0% | 7.0% |
| Fri El Green Power S.r.l. | Alerion Clean Power | 2016 | Voluntary | 73.0% | 81.0% | 69.0% | 43.0% |
| FGC Finanziaria S.r.l. | Viannini Lavori | 2015 | Voluntary | 16.0% | 16.0% | 18.0% | 23.0% |
| VEI capital | MID Industry Capital | 2015 | Voluntary | -14.0% | -9.0% | -6.0% | -7.0% |

Source: *Bloomberg*

The analysis showed that the one-month premium recognized by Generali (44%) is higher than that of the ten-year average (26%); the 3-month premium (26%) reflects the previously offered average and median values. On the other hand, the premiums awarded at 6 (6%) and 12 months (–12%) are quite far from the obtained averages and median values.

| | | | | | | | 2010-2020 | |
|---|---|---|---|---|---|---|---|---|
| **Premiums Analysis** | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Average | Median |
| 1 M Premium Average | 1.0% | 55.8% | 20.0% | 16.0% | 40.0% | 24.0% | **26.1%** | **24.0%** |
| 3 M Premium Average | 3.5% | 52.0% | 22.1% | 18.0% | 40.0% | 25.0% | **26.8%** | **25.0%** |
| 6 M Premium Average | 6.0% | 45.8% | 25.6% | 19.4% | 37.0% | 38.0% | **28.6%** | **28.6%** |
| 1 Y Premium Average | 8.0% | 29.3% | 26.6% | 19.8% | 27.0% | 54.0% | **27.4%** | **27.0%** |

Source: *Original work*

### *3.3.3 Market multiples*

According to the **market multiples method**, the value of a company is determined by taking as a reference the indications provided by the stock market regarding companies with characteristics like the evaluated company.[162]

The criterion is based on the determination of *multiples*: ratios between stock market values and economic, equity and financial quantities of a selected sample of comparable companies.

The multiples thus determined are applied to the corresponding quantities of the company being evaluated, to estimate a range of values.[163]

In this case, the *price/earnings*, *price/book-value,* and *price/net-asset-value* multiples were used as per professional practice in 2020, 2021 and 2022. These multiples are the most suitable for assessing both non-life and life insurance companies.

| | Currency | (in millions) MKT CAP (LCU) | Solvency II ratio | P/E | | | P/BV | | | P/NAV | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Life Players** | | | | 2020 | 2021 | 2022 | 2020 | 2021 | 2022 | 2020 | 2021 | 2022 |
| AGEAS | EUR | 7,327.00 | 196% | 7.7x | 9.3x | 8.2x | 0.7x | 0.7x | 0.6x | 0.8x | 0.7x | 0.7x |
| AVIVA PLC | GBP | 12,353.00 | 203% | 6.7x | 6.1x | 5.5x | 0.7x | 0.7x | 0.6x | 1.2x | 1.2x | 1.1x |
| ASSICURAZIONI GENERALI | EUR | 23,194.00 | 196% | 12.3x | 9.3x | 8.7x | 0.9x | 0.9x | 0.9x | 1.7x | 1.6x | 1.5x |
| AXA SA | EUR | 46,197.00 | 182% | 9.4x | 7.3x | 6.3x | 0.6x | 0.6x | 0.6x | 1.5x | 1.4x | 1.3x |
| BALOISE HOLDING AG - REG | CHF | 6,883.00 | 201% | 12.6x | 11.3x | 11.3x | 1.0x | 1.0x | 0.9x | 1.2x | 1.2x | 1.1x |
| CNP ASSURANCES | EUR | 8,346.00 | 227% | 6.6x | 6.1x | 5.7x | 0.4x | 0.4x | 0.4x | 0.4x | 0.4x | 0.4x |
| METLIFE INC | USD | 36,322.00 | 395% | 7.4x | 6.9x | 6.7x | 0.5x | 0.5x | 0.5x | 0.8x | 0.8x | 0.7x |
| OLD MUTUAL LTD | ZAr | 68,651.00 | 161% | 16.2x | 7.4x | 6.8x | 1.0x | 0.9x | 0.9x | 1.1x | 1.0x | 1.0x |
| PRUDENTIAL PLC | USD | 38,867.00 | 309% | 8.9x | 8.9x | 8.1x | 1.8x | 1.5x | 1.3x | 3.0x | 3.0x | 3.0x |
| SWISS LIFE HOLDING AG-REG | CHF | 12,591.00 | 204% | 11.4x | 10.2x | 9.7x | 0.8x | 0.7x | 0.7x | 1.0x | 0.9x | 0.9x |
| **Non-Life Players** | | | | | | | | | | | | |
| ALLIANZ SE-REG | EUR | 76,788.00 | 190% | 12.0x | 9.6x | 9.0x | 1.2x | 1.1x | 1.0x | 3.0x | 2.7x | 2.4x |
| HELVETIA HOLDING AG-REG | CHF | 5,324.00 | 235% | 13.0x | 10.2x | 9.5x | 0.9x | 0.9x | 0.9x | 1.4x | 1.3x | 1.2x |
| MAPFRE SA | EUR | 5,819.00 | 187% | 9.4x | 8.5x | 7.8x | 0.8x | 0.7x | 0.7x | 1.3x | 1.2x | 1.2x |
| POWSZECHNY ZAKLAD UBEZPIECZE | PLN | 29,059.00 | 245% | 11.1x | 10.0x | 10.0x | 1.7x | 1.7x | 1.6x | 2.4x | 2.3x | 2.1x |
| RSA INSURANCE GROUP PLC | GBp | 4,732.00 | 178% | 11.0x | 9.5x | 9.2x | 1.1x | 1.1x | 1.0x | 1.7x | 1.6x | 1.5x |
| TALANX AG | EUR | 9,306.00 | 211% | 11.0x | 9.0x | 8.4x | 1.0x | 0.9x | 0.9x | 3.0x | 3.0x | 3.0x |
| UNIQA INSURANCE GROUP AG | EUR | 2,273.00 | 204% | 20.0x | 8.8x | 8.2x | 0.7x | 0.7x | 0.6x | 1.3x | 1.2x | 1.2x |
| UNIPOLSAI ASSICURAZIONI SPA | EUR | 6,374.00 | 200% | 10.4x | 9.4x | 9.0x | 1.2x | 1.2x | 1.1x | 1.5x | 1.4x | 1.4x |
| VIENNA INSURANCE GROUP AG | EUR | 2,653.00 | 210% | 7.9x | 7.1x | 6.9x | 0.6x | 0.6x | 0.5x | 1.1x | 1.0x | 0.9x |
| ZURICH INSURANCE GROUP AG | USD | 54,715.00 | 186% | 16.0x | 12.3x | 11.7x | 1.7x | 1.6x | 1.6x | 3.0x | 3.0x | 3.0x |
| **CATTOLICA ASSICURAZIONI SC** | **EUR** | **930.00** | **147%** | **9.5x** | **8.0x** | **7.4x** | **0.5x** | **0.5x** | **0.5x** | **0.9x** | **0.9x** | **0.8x** |
| **Life Players Average** | | | **234%** | **9.9x** | **8.3x** | **7.7x** | **0.8x** | **0.8x** | **0.7x** | **1.1x** | **1.0x** | **1.0x** |
| **Non-Life Players Average** | | | **203%** | **12.3x** | **9.4x** | **9.0x** | **1.1x** | **1.1x** | **1.0x** | **2.0x** | **1.8x** | **1.7x** |
| **Weighted Average of the two segments** | | | **212%** | **11.6x** | **9.1x** | **8.6x** | **1.0x** | **1.0x** | **0.9x** | **1.7x** | **1.6x** | **1.6x** |

Source: *Bloomberg*

Firstly, the simple averages of multiples for companies operating in life and non-life lines were computed. The weighted average between the two branches was calculated, using as weights the previous percentage of net income generation (30% life, 70% non-life). This procedure was applied to all multiples in the three different years.

Finally, the multiples thus obtained were multiplied by the Cattolica value driven financial figures, obtaining an estimate of the value according to the three different indicators.

[162] Cattolica Assicurazioni, *Verbale consiliare di esercizio della delega per l'aumento del capitale sociale e approvazione delle correlate delibere statutarie, relazione del Consiglio di Amministrazione e parere della società di revisione,* 5th August 2020.

[163] Cattolica Assicurazioni, *Verbale consiliare di esercizio della delega per l'aumento del capitale sociale e approvazione delle correlate delibere statutarie, relazione del Consiglio di Amministrazione e parere della società di revisione,* 5th August 2020.

The different values, obtained from the Bloomberg portal and multiplied to the chosen multiples, are shown here with the following results:

- Net Income (2019) = €75.1 million;
- Book Value (2019) = €2,351.0 million (about 2.4 billion);
- Net Asset Value (2019) = €1,979.3 million (about 2 billion).

| (in million) | | PPS | EV |
|---|---|---|---|
| P/E | 2020 | € 5.22 | **€ 871.2** |
| | 2021 | € 4.09 | **€ 683.4** |
| | 2022 | € 3.87 | **€ 646.6** |
| P/BV | 2020 | € 14.08 | **€ 2,351.0** |
| | 2021 | € 14.08 | **€ 2,351.0** |
| | 2022 | € 12.67 | **€ 2,115.9** |
| P/NAV | 2020 | € 12.10 | **€ 3,364.8** |
| | 2021 | € 12.10 | **€ 3,166.8** |
| | 2022 | € 12.11 | **€ 3,166.8** |

Source: *Original work*

In the table, the P/E multiple shows result more aligned with Cattolica market cap in June 2020 (€602 million) and to the value recognized in the offer itself (€ 927 million).

In contrast, P/BV and P/NAV multiples overstate the company's equity value and are not consistent even with the intrinsic value range identified in the sum of the parts. Therefore, to normalize the results obtained, a discount of 67% was applied to the value obtained from the P/BV and P/NAV multiples. At the time of the capital increase announcement, the market used to apply the same on Cattolica shares book value. To the results thus obtained, the OPA premium of 20%, used previously, was added.

| | | PPS | PPS disc. | PPS disc + 20% | EV |
|---|---|---|---|---|---|
| P/BV | 2020 | € 14.08 | € 4.65 | € 5.58 | **€ 931.0** |
| | 2021 | € 14.08 | € 4.65 | € 5.58 | **€ 931.0** |
| | 2022 | € 12.67 | € 4.18 | € 5.02 | **€ 837.9** |
| P/NAV | 2020 | € 20.15 | € 6.65 | € 7.98 | **€ 1,332.4** |
| | 2021 | € 18.97 | € 6.26 | € 7.51 | **€ 1,254.1** |
| | 2022 | € 18.97 | € 6.26 | € 7.51 | **€ 1,254.1** |

(in million)

Source: *Original work*

Among these values, however, it was taken as a value range the P/E multiple values obtained in 2022 and 2020, equal to approximately €776 million and €1 billion.

| | | PPS | PPS + 20% | EV |
|---|---|---|---|---|
| P/E | 2020 | € 5,22 | € 6,26 | **€ 1.045,4** |
| | 2021 | € 4,09 | € 4,91 | **€ 820,1** |
| | 2022 | € 3,87 | € 4,65 | **€ 775,9** |

(in million)

Source: *Original work*

### *3.3.4 Multiples from comparable transactions (or M&A multiples)*

The **multiples from comparable transactions** method (or *M&A multiples*) derives the value of a company or a business unit from the valuations highlighted in market transactions regarding comparable realities with the company or the branch investigated. The average/median multiples thus obtained are applied to the economic and financial variables of the company or business under analysis to obtain the theoretical value attributed by the market.

| Year | Country | Target | Acquiror | P/E | P/BV |
|---|---|---|---|---|---|
| 2020 | EU | Caser | Helvetia | 12.7x | 1.0x |
| 2019 | EU | Fidea NV | Baloise | 29.2x | 1.4x |
| 2019 | EU | Seguradorad Unidas/Advance Care | Generali | 12.0x | 3.0x |
| 2019 | ITA | RBM | Intesa San Paolo | 16.2x | 2.6x |
| 2018 | ITA | Popolare Vita | Cattolica Assicurazioni | 12.1x | 1.9x |
| 2018 | ITA | Avipop | Cattolica Assicurazioni | 14.9x | 4.8x |
| 2017 | ITA | Cargeas | BNP Paribas Cardif | 9.1x | 3.1x |
| 2017 | ITA | Cattolica Assicurazioni | Berkshire Hathaway | 20.1x | 0.7x |
| 2017 | ITA | Old Mutual Wealth | Cimen | 14.7x | 2.7x |
| 2016 | EU | Delta Lloyd NV | NN Group | 16.3x | 1.0x |
| 2016 | ITA | Ergo Preidenza | Cinven | 8.3x | 0.7x |
| 2016 | ITA | UNIQA Life | Reale Mutua | 9.7x | 0.4x |
| 2016 | ITA | Ergo Ass.ni | Darag | 11.5x | 0.9x |
| 2015 | ITA | Carige Vita Nuova + Carige Ass.ni | Apollo Global Mgmt. | 5.3x | 0.9x |
| 2014 | EU | Nationale Suisse | Helvetia | 17.0x | 1.9x |
| 2014 | EU | Basler Versicherungs | Helvetia | 24.5x | 4.9x |
| 2014 | ITA | Direct Line (Italia + Germania) | Mapfre | 36.9x | 1.9x |
| 2014 | ITA | RSA Italy | ITAS Mutua | 19.0x | 1.2x |
| 2013 | ITA | Eurolta Assicurazioni S.p.A. | J.C. Flowers | 3.9x | 0.3x |
| 2013 | ITA | Fata Ass.ni Danni S.p.A. | Cattolica Assicurazioni | 15.5x | 1.4x |
| | | | **Average - Italy** | **14.0x** | **1.7x** |
| | | | **Median - Italy** | **13.4x** | **1.3x** |
| | | | **Average - Total** | **15.4x** | **1.8x** |
| | | | **Median - Total** | **14.8x** | **1.4x** |

Source: *Bloomberg*

In this case, the median transactions' multiples P/E and P/BV in Italy and EU (Total) were used. As in the previous case, a discount of 67% was applied to the value obtained from the P/BV multiple.

| | | PPS | EV |
|---|---|---|---|
| P/E | **Median - Italy** | € 6.03 | **€ 1,006.3** |
| | **Median - Total** | € 6.66 | **€ 1,111.5** |
| P/BV | **Median - Italy** | € 6.04 | **€ 1,008.6** |
| | **Median - Total** | € 6.51 | **€ 1,086.2** |

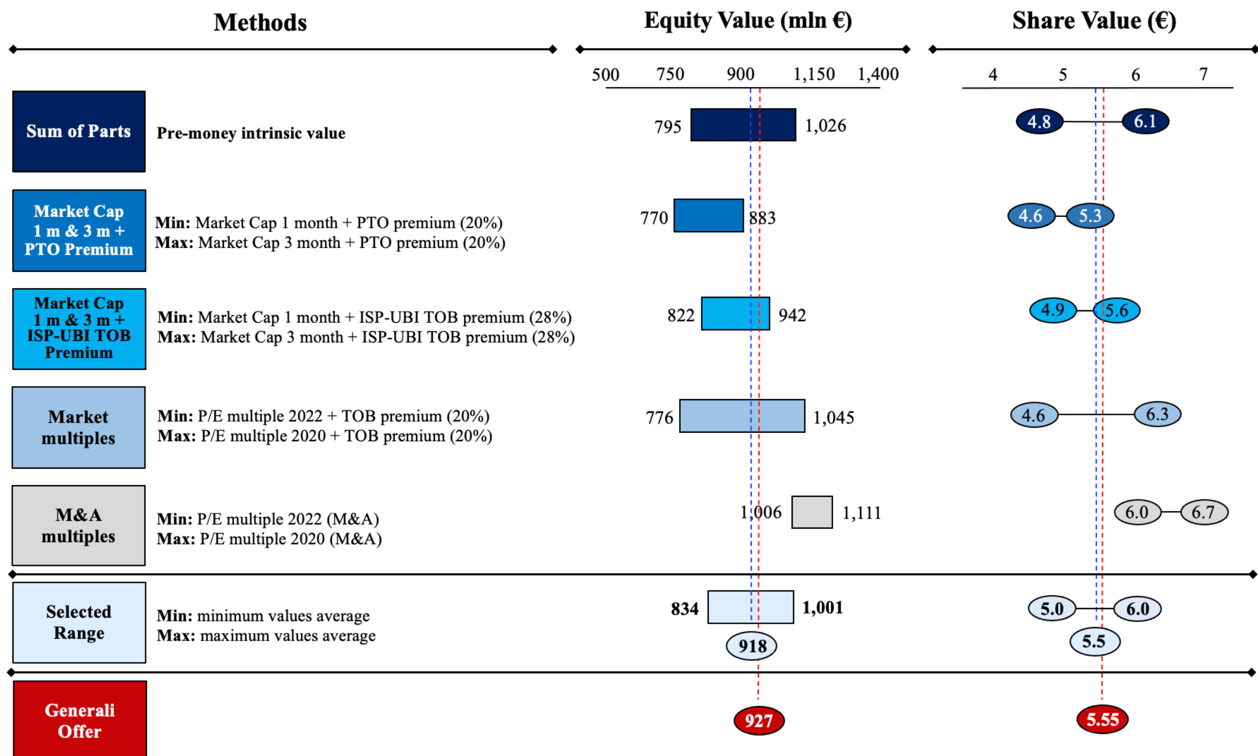
(in million)

Source: *Original work*

Among these, the value range was constructed using the median values Italy and Total, derived from the M&A P/E multiple. Median values were chosen with respect to mean values to avoid that some extremal data excessively impact on the formation of the multiple to be used. An example of this is the acquisition of Fidea NV from Baloise in 2019. The P/E multiple recognized in the transaction was 29.5, a far data from the median of 14.8 identified.

## 3.4 Results from the capital increase analysis

As summarized in the table below, the empirical methods confirmed the sum of parts (SoP) economic value. The highlighted values are mainly within the SoP range. Only the outcome of the M&A multiples method is slightly higher than previous ones with a range between €1 billion and €1.1 billion.




Source: *Original work*

Finally, we identified the range of Cattolica economic value as result of the five methods average (the so-called *Selected Range*).

The selected range was identified between €834 and €1,001 million, with an average value of approximately € 918 million (€5.50 per share), very close to the € 927 million (€5.55 per share) of the Generali's offer in the reserved capital increase.

Therefore, the price of €5.55 paid for the newly issued shares was fair and offset partially the impact of the additional capital requirement of 500 million and the risk of its execution on time. The Generali valuation boosted Cattolica Assicurazioni market value that rose from €3.61 to €4.99, reducing the gap from its intrinsic value. However, the risk of completing the residual capital requirement of 200 million was still affecting the company market value.

## 3.5 From the reserved capital increase to the public tender offer

The next focus of the paper is to analyze the reason why one year later, at the time of the tender offer, Generali offered a price of €6.75, higher than €5.55 paid for the reserved capital increase.

The following table shows the evolution of the Cattolica equity value from the day before the capital increase announcement until tender offer.

The focus is to analyze the impact of the 500 million (additional capital requirement) on the company value and how it has evolved over time, even after the reserved capital increase execution of 300 million and the increase in the Solvency group level.

| VALUE DRIVERS (in million €) | **Day before the Cap. Inc. news 24/06/20** | Takeover Bid ex-Ivass | Cap. Increase Generali 25/06/20 | Shares Withdrawal 30/12/20 | **Day before the PTO news 28/05/21** | **Public Tender Offer 31/05/21** |
|---|---|---|---|---|---|---|
| Intrinsic value | 1,410 | 1,410 | 1,410 | 1,410 | 1,410 | 1,410 |
| Capital Shortfall | **(500)** | | (500) | (500) | **(300)** | |
| Capital Increase | | | **300** | 300 | 300 | |
| Capital Withdrawal | | | | **(113)** | (113) | |
| Equity Value | **910** | 1,410 | 1,210 | 1,097 | **1,297** | **1,410** |
| Market Capitalization | 603 | | 1,103 | 918 | 1,212 | 1,394 |
| Generali Offer | **927** | | | | **1350** | **1350** |
| Number of shares (#/mln) | 167 | 167 | **221** | **200** | 200 | **200** |
| Intrinsic Price per share (€) | **5.45** | **8.44** | 5.48 | 5.48 | 6.48 | **7.05** |
| Market Price per share (€) | 3.61 | | 4.99 | 4.59 | **6.06** | 6.97 |
| Price offered (€) | **5.55** | 5.55 | 5.55 | 5.55 | 6.75 | **6.75** |
| Intrinsic Premium | 2% | **-34%** | 1% | 1% | 4% | -4% |
| Mkt. Premium | 54% | | 11% | 21% | 11% | -3% |
| Group Solvency II Level | **103%** | | 122% | 161% | **199%** | **199%** |
| Generali Share | | | 24% | **27%** | 27% | |

Source: *Original work*

Cattolica intrinsic value, ante IVASS additional capital requirement, is equal to about €1,410 million, as identified by the average of the SoP range.

| **Sum of Parts** | PPS | EV |
|---|---|---|
| Min | € 7.76 | € **1,295.0** |
| Max | € 9.14 | € **1,526.0** |
| **Average** | € 8.45 | € **1,410.5** |

(in million €)

Source: *Original work*

Furthermore, Generali's partnership did not initially change the Cattolica business model, so the continuity of the theoretical intrinsic value was assumed during the succession of the various transactions (from June 2020 to May 2021).

Because of IVASS additional capital requirement, the value of Cattolica Assicurazioni is negatively impacted by 500 million capital shortfalls with a reduction in the company's value from €1,410 million (*theoretical intrinsic value*) to €910 million (*adjusted equity value*).

According to Cattolica equity value, the adjusted price per share, net of the IVASS additional capital requirement, is €5.45, higher June 24 (2020) market price (the pre-announcement day). At that time,

the market was discounting, in addition to the 500 million capital shortfall, also the execution risk of the capital increase.
Therefore, the price offered (€5.55) is close to the equity value per share (€5.45) with a premium of 54% compared to market values (€3.61 vs €5.55).
In the hypothesis of unregulated sector without supervisory authorities that sets minimum capital requirements, the price of€5.55 (offered by Generali) would have been at discount compared to Cattolica intrinsic value per share of €8.44 (without netting the capital requirement of 500 million) . In the regulated sector, the purchase is at a premium (+2%) while in the unregulated it would have been at discount (–34%).
Through the reserved capital increase, Generali subscribed 54 million new Cattolica shares, pouring €300 million into the company's coffers as a first response to the IVASS' letter.
The 300 million capital increase improved the company's equity and solvency profile but produced a dilution effect for Cattolica's historical shareholders, increasing the number of shares outstanding post-capital increase to 221 million compared to 167 million outstanding before capital increase, and allowing Generali to acquire an important stake in the company, equal to 24%.
The fulfillment of the 300 million had, as shown in the table, a positive effect on Cattolica stock price, which rose to € 4.99 per share, allowing a first realignment on June 25 between equity value (€1,210 million) and market capitalization (€1,103 million).
Since then, the market reduced the risk premium for transaction completion, limiting only to the second tranche of €200 million (still pending).
Therefore, after Cattolica transformation into a S.p.A, some shareholders exercised the right of withdrawal, resulting in a disbursement of approximately €113 million for the company. At the time, the net recapitalization was a total of €187 million, compared to the 500 million requested. The withdrawal also reduced the number of outstanding shares to 200 million and enhanced the dilutive effect of the capital increase reserved for Generali, increasing the stake held by the latter to 27% compared to 24% previously held.
The market negatively assessed the withdrawal. The company market price per share decreased to €4.59, reducing Cattolica capitalization by about €200 million, a greater value than the €113 million paid by Cattolica.
Regarding capital adequacy, it should be noted that the Solvency ratio has progressively improved compared to the minimum level recorded by the company at 15/5/2020 (103%), for which the capital increase was requested by IVASS.

| Required Capital (mln €) | Solvency level at quarters results | | Info Release Date |
|---|---|---|---|
| 0 | 175% | at 31/12/19 | 19-May-20 |
| 0 | 147% | at 30/03/20 | 15-May-20 |
| **500** | **103%** | **at 15/05/20** | **30-May-20** |
| 500 | 122% | at 31/05/20 | 01-Jun-20 |
| 200 | 141% | at 30/06/20 | 11-Sep-20 |
| 200 | 161% | at 30/09/20 | 10-Nov-20 |
| 200 | 187% | at 31/12/20 | 25-Mar-21 |
| **0** | **199%** | **at 31/03/21** | **28-May-21** |
| 0 | 197% | at 30/06/21 | 06-Aug-21 |
| 0 | 193% | at 30/09/21 | 16-Nov-21 |

Source: *Cattolica's Press Releases and Quarter Results*

On 30/06/2020, Solvency rose to 141%, and to 161% on 30/09/2020[164], after the positive execution of the 300 million, finalized at the end of October.[165]

Afterwards, the results on 31 December 2020 showed a Solvency level significantly higher than the 2019 level (187% vs 175%) until reaching the threshold of 199%[166] by 31/3/2021[167], a value in line with the best practice in the market.

Cattolica market price, already on 28/5/2021 (date of publication of the results of the first quarter of 2021 of Cattolica) had risen to €6.06 per share, considering the second tranche of capital increase no longer required, and aligning the company intrinsic value per share (€6.48) to Generali's tender offer price per share (€6.75).

Moreover, from 31/05/2021 Generali's tender offer price of €6.75 per share was substantially in line also with the company intrinsic value per share of €7.05, no longer affected by any capital shortfall impact.

The market price in the same day rose to €6.97, higher than €6.75 (PTO price), betting for a relaunch of the offered price in line with the Intesa takeover on Banca UBI.

The above analysis allows us to conclude that there is an overall consistency between the price at which the capital increase took place and the price of the tender offer. In the face of a substantially unchanged intrinsic value of Cattolica, what changes is the measure of additional capital requirement (capital shortfall), quantified as 500 million at the time of IVASS letter and substantially zero at the PTO announcement.

From an evaluation point of view, the two prices (capital increase and tender offer) are consistent with each other.

[164] Generali, *RISULTATI al 1H2020*, Press releases, 11th September 2020.

[165] Generali, *Solida crescita del risultato operativo (€297mln +37,5%) e del solvency ratio (161%) in miglioramento nel trimestre*, Press releases, 10th November 2020.

[166] Generali, *Risultati al 31 Dicembre 2020*, Press releases, 25th March 2021.

[167] Generali, *Risultati al 31 Marzo 2021*, Press releases, 28th May 2021.

The temporal recourse, first to the reserved capital increase and then to the tender offer, has allowed Generali to maximize the benefits in terms of execution risk and disbursement compared to the alternative hypothesis of immediately activating a takeover bid on Cattolica.
In particular, the dilution effect linked to the reserved capital increase and the subsequent withdrawal allowed Generali to launch the offer for a smaller number of shares and in an improved Solvency contest, even without the full exercise of the recapitalization requested by IVASS. Therefore, Generali is agreed to join Cattolica at different times to take advantage of the dilution effect and the positive evolution of regulatory capital requirements that have gradually gone back to zero compared to the 500 million requested initially by IVASS.

# CONCLUSION

Through this paper, it has been shown how Cattolica Assicurazioni market value was impacted by the request of additional capital requirement and the M&A contribution in supporting the company's shareholder value.

When insurance companies see their Solvency capital decreasing, Authorities ask them additional capital to restore it. As a results, the company market value is negatively impacted by this announcement.

For insurance companies, achieving a greater solvency level in short time is highly demanding. In this context, M&A can both provide new capital and support shareholder value, as in Cattolica's case.

The company complied with IVASS request and protected its shareholder value through the integration in Generali.

Firstly, Cattolica Assicurazioni allowed the entrance of a strong player, which provided new capital and brought expertise in the company by reserving him a capital increase. Then, the tender offer made market price per share realign to intrinsic price per share.

Before the operations, Cattolica shareholders used to experience a lower market price due to the risks linked to the additional capital requirement and its execution. Selling in that condition would have represented a loss for all shareholders.

Therefore, firstly the strategic partnership and then the following integration in Generali allowed the company to restore the balance between intrinsic and market value.

In conclusion, it can be noted that the companies' valuation in regulated sectors and in presence of *minimum capital requirements (MCR) and solvency capital requirements (SCR) is strongly conditioned by the level of available capital.*

The market synthesizes this information and includes it on the stock price, increasing the number of evaluated factors. Consequently, the insurance companies' shares value reflects not only the risks related to the business carried out, but also those related to the maintenance of minimum capital and solvency requirements (solvency risk) with a consequent impact on market values and making them an active player/target for the M&A activity in the sector.

# TECHNICAL APPENDIX

## 1) Sum of Parts method:

**Segment percentages**

| Million € | FY 2017 | | FY 2018 | | FY 2019 | | Average | |
|---|---|---|---|---|---|---|---|---|
| **Net Income** | **41.1** | **100%** | **106.9** | **100%** | **75.1** | **100%** | **74.4** | **100%** |
| Non-Life Management | 76.2 | 136% | 71.4 | 52% | 58.0 | 56% | 68.5 | 70% |
| Life Management | -14.7 | -26% | 68.4 | 50% | 55.0 | 53% | 36.2 | 37% |
| Other | -5.4 | -10% | -3.2 | -2% | -9.9 | -10% | -6.2 | -6% |
| Eliminations | -15.0 | | -29.7 | | -27.9 | | -24.2 | |

Source: *Bloomberg*

**Non-life Dividend per share**

| | FY 2020 | FY 2021 | FY 2022 Stm | FY 2023 Stm |
|---|---|---|---|---|
| Total Div per share | € - | € - | € 0.32 | € 0.20 |
| **Non Life – DPS** | € - | € - | **€ 0.22** | **€ 0.14** |

Source: *Original work*

| Non-Life Players | Beta | Adj. Beta |
|---|---|---|
| ALLIANZ SE-REG | 1.21 | 1.14 |
| HELVETIA HOLDING AG-REG | 1.21 | 1.14 |
| MAPFRE SA | 1.21 | 1.14 |
| POWSZECHNY ZAKLAD UBEZPIECZE | 0.32 | 0.54 |
| RSA INSURANCE GROUP PLC | 1.27 | 1.18 |
| TALANX AG | 1.31 | 1.20 |
| UNIQA INSURANCE GROUP AG | 0.89 | 0.93 |
| UNIPOLSAI ASSICURAZIONI SPA | 0.67 | 0.78 |
| VIENNA INSURANCE GROUP AG | 0.93 | 0.95 |
| ZURICH INSURANCE GROUP AG | 1.26 | 1.17 |
| **Average** | 1.03 | **1.02** |
| **Median** | 1.21 | **1.14** |

Source: *Bloomberg*

## Implied Risk Premium Calculator

| | | |
|---|---|---|
| Enter level of the index = | 359.74 | **EUROSTOXX 600 insurance** |
| Enter current dividend yield = | 3.50% | |
| Enter expected growth rate in earnings for next 5 years for market = | 1.40% | |
| Enter current long term bond rate = | -0.44% | **BTP 10Y Italy** |
| Enter risk premium = | 5.00% | |
| Enter expected growth rate in the long term = | 1.40% | |

**Intrinsic Value Estimate**

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Expected Dividends = | 12.8 € | 12.9 € | 13.1 € | 13.3 € | 13.5 € |
| Expected Terminal Value = | | | | | 433.1 € |
| Present Value = | 12.2 € | 11.8 € | 11.5 € | 11.1 € | 357.4 € |
| Intrinsic Value of Index = | 404.0 € | | | | |

**Implied Risk Premium**

Implied Risk Premium in current level of Index = 5.39% **(Go under Tools and choose Solver: See below)**

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Expected Dividends = | $12.8 | $12.9 | $13.1 | $13.3 | $13.5 |
| Expected Terminal Value = | | | | | $385.6 |
| Present Value = | $12.2 | $11.8 | $11.4 | $11.0 | $313.5 |
| Intrinsic Value of Index = | 359.7 € | | | | |

*Source: Stern University – Damodaran IERP*

**Dividend discount model – excess capital version**

| (Using IERP) | FY 2020 | FY 2021 | FY 2022 Stm | FY 2023 Stm |
|---|---|---|---|---|
| Expected Dividends | € - | € - | € 0.22 | € 0.14 |
| Expected Terminal Value | | | | € 3.53 |
| Present Value | € - | € - | € 0.20 | € 3.11 |
| **Non-Life PPS** | **€ 3.30** | | | |

| (Using ERP) | FY 2020 | FY 2021 | FY 2022 Stm | FY 2023 Stm |
|---|---|---|---|---|
| Expected Dividends | € - | € - | € 0.22 | € 0.14 |
| Expected Terminal Value | | | | € 3.97 |
| Present Value | € - | € - | € 0.20 | € 3.52 |
| **Non-Life PPS** | **€ 3.72** | | | |

Source: *Original work*

| Non-Life Business | PPS | EV |
|---|---|---|
| Min | € 3.30 | **€ 551.8** |
| Max | € 3.72 | **€ 621.5** |

(in million)

Source: *Original work*

**Life business – Companies' Embedded Value**

| (in million €) | VIF | ANAV | Total EV | % Cattolica | EV |
|---|---|---|---|---|---|
| **LOMBARDA VITA** | 23.0 | 482.2 | 505.3 | 60% | **303.2** |
| **VERA VITA** | 16.1 | 384.8 | 400.8 | 75% | **300.6** |
| **BCC VITA** | 21.9 | 188.7 | 210.6 | 70% | **147.4** |
| **BERICA VITA** | 1.3 | 116.3 | 117.5 | 60% | **70.5** |

Source: *Companies' Solvency II Reports*

| Life Players | Beta | Adj. Beta |
|---|---|---|
| AGEAS | 1.16 | 1.11 |
| ASSICURAZIONI GENERALI | 0.85 | 0.90 |
| AVIVA PLC | 1.55 | 1.36 |
| AXA SA | 1.25 | 1.17 |
| BALOISE HOLDING AG - REG | 0.72 | 0.82 |
| CNP ASSURANCES | 1.92 | 1.62 |
| METLIFE INC | 1.87 | 1.58 |
| OLD MUTUAL LTD | 1.27 | 1.18 |
| PRUDENTIAL PLC | 1.88 | 1.59 |
| SWISS LIFE HOLDING AG-REG | 1.39 | 1.26 |
| **Average** | 1.39 | **1.26** |
| **Maedian** | 1.33 | **1.22** |

Source: *Bloomberg*

**Bancassurance deals – Paid prices**

| (in million €) | Put/Call Prices | Maturity (M) | Years to M | **PV** |
|---|---|---|---|---|
| **LOMBARDA VITA** | 219.8 | 12/04/21 | 0.8 | **209.6** |
| **VERA VITA** | 392.5 | 29/05/23 | 2.9 | **329.9** |

| (in million €) | Price paid | % acquired | Cattolica share (%) | **Share Value** |
|---|---|---|---|---|
| **BCC VITA** | 39.3 | 19.0% | 70.0% | **144.9** |
| **BERICA VITA** | 23.0 | 40.0% | 60.0% | **34.5** |

Source: *Cattolica past press releases*

**Life business – First range**

| (in million €) | **EV** | **Prices** | **Min** | **Max** |
|---|---|---|---|---|
| **LOMBARDA VITA** | **303.2** | **209.6** | **209.6** | **303.2** |
| **VERA VITA** | **300.6** | **329.9** | **300.6** | **329.9** |
| **BCC VITA** | **147.4** | **144.9** | **144.9** | **147.4** |
| **BERICA VITA** | **70.5** | **34.5** | **34.5** | **70.5** |

Source: *Original work*

**Life business – Financial Debt**

| (in million €) | Values |
|---|---|
| Subordinate Loan Tier 1 restricted (UBI) | 80 |
| Subordinate Loan Tier 2 | 100 |
| Subordinate Loan Tier 2 | 500 |
| Total Financial Debt | 680 |
| % Life business | 30% |
| **Life Business – Financial Debt** | **204** |

Source: *Balance sheet 2019 – Cattolica Assicurazioni*

| **Life Business** | PPS | **EV** |
|---|---|---|
| Min | € 2.91 | **€ 485.6** |
| Max | € 3.87 | **€ 647.0** |

(in million)

Source: *Original work*

**Other businesses**

| (in million €) | PPS | EV |
|---|---|---|
| Cattolica Agricola | € - | **€ 148,5** |
| Cattolica Beni Immobili | € - | **€ 45,6** |
| Cattolica Immobiliare | € - | **€ 3,0** |
| Cattolica Services | € - | **€ 60,5** |
| Total | € 1,54 | **€ 257,6** |

| **Sum of Parts** | PPS | **EV** |
|---|---|---|
| Min | € 7.76 | **€ 1,295.0** |
| Max | € 9.14 | **€ 1,526.0** |

(in million)

| **SoP (Pre-Money)** | PPS | **EV** |
|---|---|---|
| Min | € 4.76 | **€ 795.0** |
| Max | € 6.14 | **€ 1,026.0** |

(in million)

Source: *Original work*

2) Market Cap method:

**Capital increase – Implied premium**

| | Price per Share | | Implied Premium |
|---|---|---|---|
| **Generali Offer** | € | **5.55** | |
| Last (24.06.2020) | € | 3.61 | **54%** |
| 1 Month Average | € | 3.85 | **44%** |
| 3 Month Average | € | 4.41 | **26%** |
| 6 Month Average | € | 5.21 | **6%** |
| 12 Month Average | € | 6.60 | **-16%** |
| Target Price | € | 3.83 | **45%** |

Source: *Original work*

**Value range – Mkt Cap Method**

| (in million) | PPS | | EV | |
|---|---|---|---|---|
| Mkt Cap 1 Months + PTO Premium | € | 4.61 | € | **770.5** |
| Mkt Cap 3 Months + PTO Premium | € | 5.29 | € | **882.8** |
| Mkt Cap 1 Months + TOB ISP-UBI | € | 4.92 | € | **821.8** |
| Mkt Cap 3 Months + TOB ISP-UBI | € | 5.64 | € | **941.7** |

Source: *Original work*

**Premium analysis**

| PAST TRANSACTION | | | | Premium | | | |
|---|---|---|---|---|---|---|---|
| **Bidder** | **Target** | **Year** | **Deal** | **1 M** | **3M** | **6 M** | **1 Y** |
| Worldline | Ingienico | 2020 | Voluntary | 24.0% | 25.0% | 38.0% | 54.0% |
| PSA | FCA | 2019 | Voluntary | 40.0% | 40.0% | 37.0% | 27.0% |
| Vittoria Capital S.p.A. | Vittoria Assicurazioni | 2018 | Voluntary | 20.0% | 15.0% | 14.0% | 16.0% |
| Quarantacinque S.p.A. | CAD IT | 2018 | Voluntary | 12.0% | 18.0% | 21.0% | 24.0% |
| Co.Stamp S.r.l. | Modelleria Brambilla | 2018 | Voluntary | 4.0% | 3.0% | 3.0% | -19.0% |
| RLG Italia Holding S.p.A. | YOOX Net-A-Porter Group | 2018 | Voluntary | 28.0% | 27.0% | 28.0% | 43.0% |
| Pauto (Italia) S.p.A. | Snaitech | 2018 | Voluntary | 16.0% | 27.0% | 31.0% | 35.0% |
| Double 2 SpA. | TBS Group | 2017 | Voluntary | 18.0% | 20.0% | 24.0% | 28.0% |
| Industria 4.0 S.r.l. | Tech-value | 2017 | Voluntary | 1.0% | 7.0% | 11.0% | 16.0% |
| B.F. Holdings S.p.A. | Bonifiche Ferraresi | 2017 | Voluntary | 35.0% | 35.0% | 36.0% | 37.0% |
| Chiara finanziaria S.r.l. | Caltagirone Editore | 2017 | Voluntary | 48.0% | 49.0% | 55.0% | 58.0% |
| Italmobiliare Investment Holding | Italmobiliare | 2017 | Voluntary | 8.0% | 13.0% | 14.0% | 21.0% |
| Servizi Societari S.r.l. | Meridie | 2017 | Voluntary | 27.0% | 27.0% | 36.0% | 23.0% |
| Sofil S.as. | Parmalat | 2017 | Voluntary | 11.0% | 15.0% | 17.0% | 18.0% |
| H-Farm S.p.A. | H-Farm | 2017 | Voluntary | 12.0% | 11.0% | 12.0% | 12.0% |
| Cairo Editore | RCS Media Group | 2016 | Voluntary | 112.0% | 89.0% | 76.0% | 38.0% |
| Blado Investment S.C.A. | Polis | 2016 | Voluntary | 18.0% | 20.0% | 25.0% | 29.0% |
| Blado Investment S.C.A. | Alpha Immobiliare | 2016 | Voluntary | 20.0% | 18.0% | 13.0% | 7.0% |
| Fri El Green Power S.r.l. | Alerion Clean Power | 2016 | Voluntary | 73.0% | 81.0% | 69.0% | 43.0% |
| FGC Finanziaria S.r.l. | Viannini Lavori | 2015 | Voluntary | 16.0% | 16.0% | 18.0% | 23.0% |
| VEI capital | MID Industry Capital | 2015 | Voluntary | -14.0% | -9.0% | -6.0% | -7.0% |

Source: *Bloomberg*

| | | | | | | | 2010-2020 | |
|---|---|---|---|---|---|---|---|---|
| **Premiums Analysis** | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Average | Median |
| 1 M Premium Average | 1.0% | 55.8% | 20.0% | 16.0% | 40.0% | 24.0% | **26.1%** | **24.0%** |
| 3 M Premium Average | 3.5% | 52.0% | 22.1% | 18.0% | 40.0% | 25.0% | **26.8%** | **25.0%** |
| 6 M Premium Average | 6.0% | 45.8% | 25.6% | 19.4% | 37.0% | 38.0% | **28.6%** | **28.6%** |
| 1 Y Premium Average | 8.0% | 29.3% | 26.6% | 19.8% | 27.0% | 54.0% | **27.4%** | **27.0%** |

Source: *Original work*

## 3) Market Multiples method:

| Life Players | Currency | MKT CAP (LCU) (in millions) | Solvency II ratio | P/E | | | P/BV | | | P/NAV | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2020 | 2021 | 2022 | 2020 | 2021 | 2022 | 2020 | 2021 | 2022 |
| AGEAS | EUR | 7,327.00 | 196% | 7.7x | 9.3x | 8.2x | 0.7x | 0.7x | 0.6x | 0.8x | 0.7x | 0.7x |
| AVIVA PLC | GBP | 12,353.00 | 203% | 6.7x | 6.1x | 5.5x | 0.7x | 0.7x | 0.6x | 1.2x | 1.2x | 1.1x |
| ASSICURAZIONI GENERALI | EUR | 23,194.00 | 196% | 12.3x | 9.3x | 8.7x | 0.9x | 0.9x | 0.9x | 1.7x | 1.6x | 1.5x |
| AXA SA | EUR | 46,197.00 | 182% | 9.4x | 7.3x | 6.3x | 0.6x | 0.6x | 0.6x | 1.5x | 1.4x | 1.3x |
| BALOISE HOLDING AG - REG | CHF | 6,883.00 | 201% | 12.6x | 11.3x | 11.3x | 1.0x | 1.0x | 0.9x | 1.2x | 1.2x | 1.1x |
| CNP ASSURANCES | EUR | 8,346.00 | 227% | 6.6x | 6.1x | 5.7x | 0.4x | 0.4x | 0.4x | 0.4x | 0.4x | 0.4x |
| METLIFE INC | USD | 36,322.00 | 395% | 7.4x | 6.9x | 6.7x | 0.5x | 0.5x | 0.5x | 0.8x | 0.8x | 0.7x |
| OLD MUTUAL LTD | ZAr | 68,651.00 | 161% | 16.2x | 7.4x | 6.8x | 1.0x | 0.9x | 0.9x | 1.1x | 1.0x | 1.0x |
| PRUDENTIAL PLC | USD | 38,867.00 | 309% | 8.9x | 8.9x | 8.1x | 1.8x | 1.5x | 1.3x | 3.0x | 3.0x | 3.0x |
| SWISS LIFE HOLDING AG-REG | CHF | 12,591.00 | 204% | 11.4x | 10.2x | 9.7x | 0.8x | 0.7x | 0.7x | 1.0x | 0.9x | 0.9x |
| **Non-Life Players** | | | | | | | | | | | | |
| ALLIANZ SE-REG | EUR | 76,788.00 | 190% | 12.0x | 9.6x | 9.0x | 1.2x | 1.1x | 1.0x | 3.0x | 2.7x | 2.4x |
| HELVETIA HOLDING AG-REG | CHF | 5,324.00 | 235% | 13.0x | 10.2x | 9.5x | 0.9x | 0.9x | 0.9x | 1.4x | 1.3x | 1.2x |
| MAPFRE SA | EUR | 5,819.00 | 187% | 9.4x | 8.5x | 7.8x | 0.8x | 0.7x | 0.7x | 1.3x | 1.2x | 1.2x |
| POWSZECHNY ZAKLAD UBEZPIECZE | PLN | 29,059.00 | 245% | 11.1x | 10.0x | 10.0x | 1.7x | 1.7x | 1.6x | 2.4x | 2.3x | 2.1x |
| RSA INSURANCE GROUP PLC | GBp | 4,732.00 | 178% | 11.0x | 9.5x | 9.2x | 1.1x | 1.1x | 1.0x | 1.7x | 1.6x | 1.5x |
| TALANX AG | EUR | 9,306.00 | 211% | 11.0x | 9.0x | 8.4x | 1.0x | 0.9x | 0.9x | 3.0x | 3.0x | 3.0x |
| UNIQA INSURANCE GROUP AG | EUR | 2,273.00 | 204% | 20.0x | 8.8x | 8.2x | 0.7x | 0.7x | 0.6x | 1.3x | 1.2x | 1.2x |
| UNIPOLSAI ASSICURAZIONI SPA | EUR | 6,374.00 | 200% | 10.4x | 9.4x | 9.0x | 1.2x | 1.2x | 1.1x | 1.5x | 1.4x | 1.4x |
| VIENNA INSURANCE GROUP AG | EUR | 2,653.00 | 210% | 7.9x | 7.1x | 6.9x | 0.6x | 0.6x | 0.5x | 1.1x | 1.0x | 0.9x |
| ZURICH INSURANCE GROUP AG | USD | 54,715.00 | 186% | 16.0x | 12.3x | 11.7x | 1.7x | 1.6x | 1.6x | 3.0x | 3.0x | 3.0x |
| **CATTOLICA ASSICURAZIONI SC** | **EUR** | **930.00** | **147%** | **9.5x** | **8.0x** | **7.4x** | **0.5x** | **0.5x** | **0.5x** | **0.9x** | **0.9x** | **0.8x** |
| **Life Players Average** | | | **234%** | **9.9x** | **8.3x** | **7.7x** | **0.8x** | **0.8x** | **0.7x** | **1.1x** | **1.0x** | **1.0x** |
| **Non-Life Players Average** | | | **203%** | **12.3x** | **9.4x** | **9.0x** | **1.1x** | **1.1x** | **1.0x** | **2.0x** | **1.8x** | **1.7x** |
| **Weighted Average of the two segments** | | | **212%** | **11.6x** | **9.1x** | **8.6x** | **1.0x** | **1.0x** | **0.9x** | **1.7x** | **1.6x** | **1.6x** |

Source: *Bloomberg*

| | | PPS | PPS disc. | PPS disc + 20% | EV |
|---|---|---|---|---|---|
| P/BV | 2020 | € 14.08 | € 4.65 | € 5.58 | **€ 931.0** |
| | 2021 | € 14.08 | € 4.65 | € 5.58 | **€ 931.0** |
| | 2022 | € 12.67 | € 4.18 | € 5.02 | **€ 837.9** |
| P/NAV | 2020 | € 20.15 | € 6.65 | € 7.98 | **€ 1,332.4** |
| | 2021 | € 18.97 | € 6.26 | € 7.51 | **€ 1,254.1** |
| | 2022 | € 18.97 | € 6.26 | € 7.51 | **€ 1,254.1** |

(in million)

Source: *Original work*

| | | PPS | PPS + 20% | EV |
|---|---|---|---|---|
| P/E | 2020 | € 5,22 | € 6,26 | **€ 1.045,4** |
| | 2021 | € 4,09 | € 4,91 | **€ 820,1** |
| | 2022 | € 3,87 | € 4,65 | **€ 775,9** |

(in million)

Source: *Original work*

4) Multiples from comparable transactions (M&A multiples):

**M&A Transaction multiples**

| Year | Country | Target | Acquiror | P/E | P/BV |
|---|---|---|---|---|---|
| 2020 | EU | Caser | Helvetia | 12.7x | 1.0x |
| 2019 | EU | Fidea NV | Baloise | 29.2x | 1.4x |
| 2019 | EU | Seguradorad Unidas/Advance Care | Generali | 12.0x | 3.0x |
| 2019 | ITA | RBM | Intesa San Paolo | 16.2x | 2.6x |
| 2018 | ITA | Popolare Vita | Cattolica Assicurazioni | 12.1x | 1.9x |
| 2018 | ITA | Avipop | Cattolica Assicurazioni | 14.9x | 4.8x |
| 2017 | ITA | Cargeas | BNP Paribas Cardif | 9.1x | 3.1x |
| 2017 | ITA | Cattolica Assicurazioni | Berkshire Hathaway | 20.1x | 0.7x |
| 2017 | ITA | Old Mutual Wealth | Cimen | 14.7x | 2.7x |
| 2016 | EU | Delta Lloyd NV | NN Group | 16.3x | 1.0x |
| 2016 | ITA | Ergo Preidenza | Cinven | 8.3x | 0.7x |
| 2016 | ITA | UNIQA Life | Reale Mutua | 9.7x | 0.4x |
| 2016 | ITA | Ergo Ass.ni | Darag | 11.5x | 0.9x |
| 2015 | ITA | Carige Vita Nuova + Carige Ass.ni | Apollo Global Mgmt. | 5.3x | 0.9x |
| 2014 | EU | Nationale Suisse | Helvetia | 17.0x | 1.9x |
| 2014 | EU | Basler Versicherungs | Helvetia | 24.5x | 4.9x |
| 2014 | ITA | Direct Line (Italia + Germania) | Mapfre | 36.9x | 1.9x |
| 2014 | ITA | RSA Italy | ITAS Mutua | 19.0x | 1.2x |
| 2013 | ITA | Eurolta Assicurazioni S.p.A. | J.C. Flowers | 3.9x | 0.3x |
| 2013 | ITA | Fata Ass.ni Danni S.p.A. | Cattolica Assicurazioni | 15.5x | 1.4x |
| | | | **Average - Italy** | **14.0x** | **1.7x** |
| | | | **Median - Italy** | **13.4x** | **1.3x** |
| | | | **Average - Total** | **15.4x** | **1.8x** |
| | | | **Median - Total** | **14.8x** | **1.4x** |

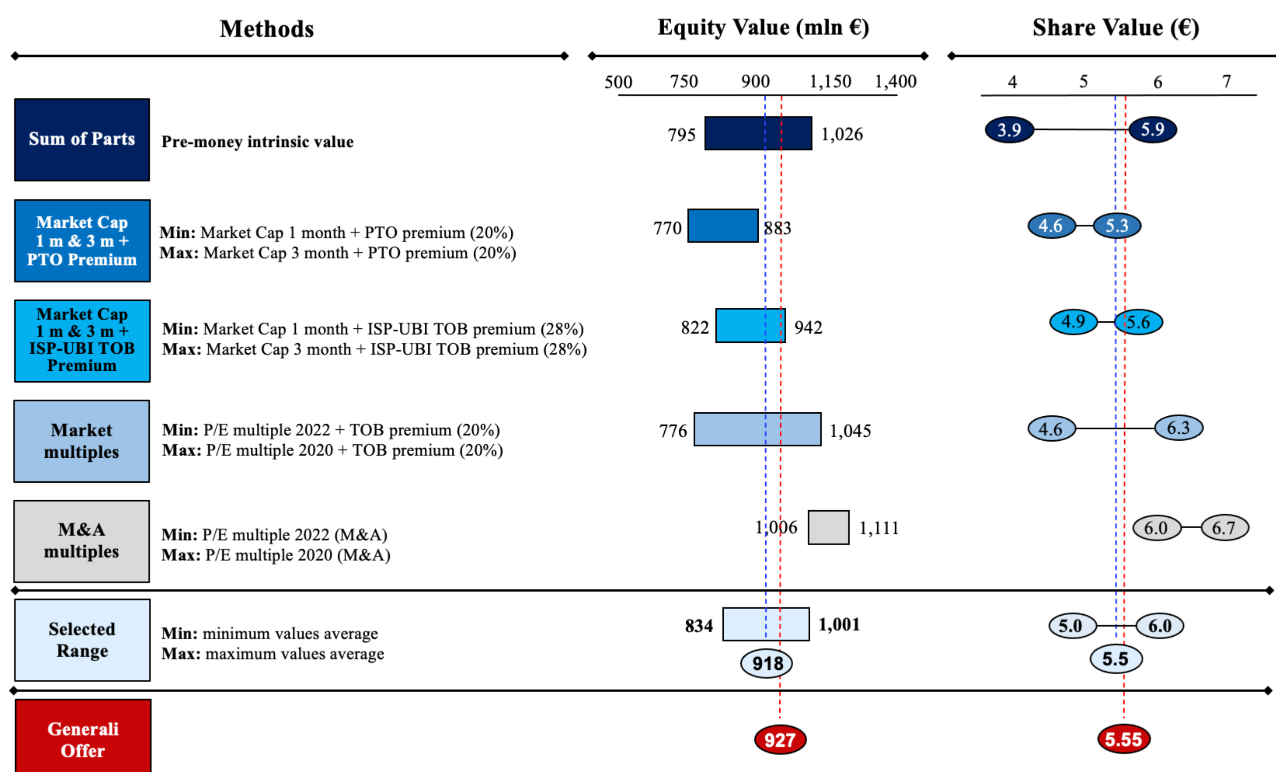
Source: *Bloomberg*

| | | PPS | EV |
|---|---|---|---|
| P/E | **Median - Italy** | € 6.03 | **€ 1,006.3** |
| | **Median - Total** | € 6.66 | **€ 1,111.5** |
| P/BV | **Median - Italy** | € 6.04 | **€ 1,008.6** |
| | **Median - Total** | € 6.51 | **€ 1,086.2** |

(in million)

Source: *Original work*

5) Selected range for Equity and Share value:




Source: *Original work*

6) Value Drivers' Analysis:

| VALUE DRIVERS (in million €) | **Day before the Cap. Inc. news 24/06/20** | Takeover Bid ex-Ivass | Cap. Increase Generali 25/06/20 | Shares Withdrawal 30/12/20 | **Day before the PTO news 28/05/21** | **Public Tender Offer 31/05/21** |
|---|---|---|---|---|---|---|
| Intrinsic value | 1,410 | 1,410 | 1,410 | 1,410 | 1,410 | 1,410 |
| Capital Shortfall | **(500)** | | (500) | (500) | **(300)** | |
| Capital Increase | | | **300** | 300 | 300 | |
| Capital Withdrawal | | | | **(113)** | (113) | |
| Equity Value | **910** | 1,410 | 1,210 | 1,097 | **1,297** | **1,410** |
| Market Capitalization | 603 | | 1,103 | 918 | 1,212 | 1,394 |
| Generali Offer | **927** | | | | **1350** | **1350** |
| Number of shares (#/mln) | 167 | 167 | **221** | **200** | 200 | **200** |
| Intrinsic Price per share (€) | **5.45** | **8.44** | 5.48 | 5.48 | 6.48 | **7.05** |
| Market Price per share (€) | 3.61 | | 4.99 | 4.59 | **6.06** | 6.97 |
| Price offered (€) | **5.55** | 5.55 | 5.55 | 5.55 | 6.75 | **6.75** |
| Intrinsic Premium | 2% | **-34%** | 1% | 1% | 4% | -4% |
| Mkt. Premium | 54% | | 11% | 21% | 11% | -3% |
| Group Solvency II Level | **103%** | | 122% | 161% | **199%** | **199%** |
| Generali Share | | | 24% | **27%** | 27% | |

Source: *Original work*

| Sum of Parts | PPS | | EV | |
|---|---|---|---|---|
| Min | € | 7.76 | € | **1,295.0** |
| Max | € | 9.14 | € | **1,526.0** |
| **Average** | € | 8.45 | € | **1,410.5** |

(in million €)

Source: *Original work*

| | Price per Share | Implied Premium |
|---|---|---|
| Generali Tender Offer | € 6.75 | |
| Last (28.05.2021) | € 6.06 | **11%** |
| 1 Month Average | € 5.07 | **33%** |
| 3 Month Average | € 4.99 | **35%** |
| 6 Month Average | € 4.70 | **44%** |
| 12 Month Average | € 4.73 | **43%** |

Source: *Original work*

**Cattolica Solvency level evolution**

| Required Capital (mln €) | Solvency level at quarters results | | Info Release Date |
|---|---|---|---|
| 0 | 175% | at 31/12/19 | 19-May-20 |
| 0 | 147% | at 30/03/20 | 15-May-20 |
| **500** | **103%** | **at 15/05/20** | **30-May-20** |
| 500 | 122% | at 31/05/20 | 01-Jun-20 |
| 200 | 141% | at 30/06/20 | 11-Sep-20 |
| 200 | 161% | at 30/09/20 | 10-Nov-20 |
| 200 | 187% | at 31/12/20 | 25-Mar-21 |
| **0** | **199%** | **at 31/03/21** | **28-May-21** |
| 0 | 197% | at 30/06/21 | 06-Aug-21 |
| 0 | 193% | at 30/09/21 | 16-Nov-21 |

Source: *Cattolica past press releases*

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