Fundación MAPFRE

TRENDS AND ELEMENTS FOR THE DEVELOPMENT OF INSURANCE MARKETS

MAPFRE Economics

Trends and Elements for the Development of Insurance Markets

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MAPFRE Economics - mapfre.economics@mapfre.com
Spain: Carretera de Pozuelo, 52 - Edificio 1
28222 Majadahonda, Madrid
Mexico: Avenida Revolución, 507
Col. San Pedro de los Pinos
03800 Benito Juárez, Mexico City

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Paseo de Recoletos, 23. 28004 Madrid
www.fundacionmapfre.org

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MAPFRE Economics

Manuel Aguilera Verduzco
General Manager
avmanue@mapfre.com

Ricardo González García
Director of Analysis, Sectorial Research and Regulation
ggricar@mapfre.com

Gonzalo de Cadenas Santiago
Director of Macroeconomics and Financial Analysis
gcaden1@mapfre.com

José Brito Correia
jbrito@mapfre.com

Begoña González García
bgonza2@mapfre.com

Isabel Carrasco Carrascal
icarra@mapfre.com.mx

Fernando Mateo Calle
macafee@mapfre.com

Rafael Izquierdo Carrasco
rafaizq@mapfre.com

Eduardo García Castro
gcedua1@mapfre.com

Johannes Ricardo Rojas Díaz
jrroja1@mapfre.com

Eduardo Arroyo Samper
Andrea Díaz Nava
Gloria Donaire Picón
Pablo Planelles Pereira

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Presentation

Fundación MAPFRE is pleased to present the new MAPFRE Economics report entitled *Trends and Elements for the Development of Insurance Markets*. This document is a key tool for understanding the current dynamics of the global insurance markets and the determining factors that impact their development, emphasizing the sector's essential role in economic and social stability, and in promoting long-term savings and risk management. The study addresses the elements that influence insurance supply and demand, highlighting the close connections insurance activity maintains with virtually all areas of economic activity.

Based on the analysis of the international experience, the study presents, by way of conclusion, the general guidelines identified as most relevant for consideration in the design and updating of public policies that use insurance as an instrument to achieve major economic and social objectives. In doing so, such policies can simultaneously increase insurance penetration, thereby expanding the population's protection against the risks to which it is exposed, and strengthening the important role of the insurance industry in channeling medium- and long-term savings.

With 50 years of history, Fundación MAPFRE is recognized as a leading global foundation for its commitment to people's well-being and social progress. This new publication forms part of its founding objective of contributing to the dissemination of knowledge about insurance and social protection, and of conveying the importance of the insurance industry as a fundamental pillar for economic development and the improvement of social well-being. To this end, we hope the reader finds this report to be a useful tool for both their personal and professional activities.

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Introduction

The insurance industry plays a key role in the functioning economy, contributing to both the stability of economic agents and to the strengthening of savings, investment, and capital formation. Through risk protection and compensation, insurance reduces the economic impact of adverse events and permits the continuity of productive activity across all sectors. In catastrophic or high loss situations, the mechanisms of insurance and reinsurance are essential to sustaining economic stability. Furthermore, the industry acts as a highly relevant institutional investor, channeling long-term resources toward financing productive activities, supporting the stability of the financial system.

The relationship between insurance and the economy goes both ways. The industry's performance is also influenced by macroeconomic variables like growth, income level, access to credit, interest rates, exchange rates, and financial stability. These factors directly influence insurance demand, the revenue and cost structure of companies, and the management of their assets and liabilities. Experience also shows that there is a close relationship between a country's level of economic development and the degree of insurance penetration.

Based on a comparative analysis of the international experience, this report identifies general aspects relating to prudential regulations; innovation and new insurance products; cost efficiency; distribution mechanisms and channels; insurance as an tool of public policy (tax incentives, mandatory insurance, and participation in support of other areas of activity); financial education; and financial inclusion in insurance, as main areas that need to be addressed in order to increase insurance penetration. The objective is to expand the coverage of this risk protection and compensation instrument, while recognizing its capacity to raise levels of well-being in society.

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Executive summary

The insurance industry and the economy

A country's insurance industry and economy are interrelated in both directions. On the one hand, the risk protection and compensation process practiced by the insurance industry is a support function for the various sectors of the real economy (primary activities, industry, and services), through the wide range of liability and property insurance products that offer protection to both households and the entire business fabric of a country, including retailers, self-employed professionals, small and medium-sized enterprises, as well as large corporations through global risks insurance. In the case of catastrophic events, insurance and reinsurance provide stability and continuity to the economic process, helping economies return to normal operations within relatively short periods. This has been demonstrated in markets where insurance penetration is high, notwithstanding the road that still lies ahead to close existing insurance protection gaps both in these and other types of risk, especially in emerging economies.

Another key aspect of the role played by the insurance industry in the economy relates to the support it provides, along with other financial institutions, in the savings-investment process. Through Life insurance products with savings components and the management of significant investment portfolios reflected on their balance sheets, insurance companies contribute to the creation of stable domestic savings and, consequently, to capital formation. Thus, the insurance industry is one of the main institutional investors globally. Through this role, it not only permits the channeling of savings to the financing of production activities, but also (due to the features of its business model and its implicit investment function) provides the economic system with an element of countercyclical stabilization.

But the link between the insurance industry and the economy also acts in the opposite direction, as there are various macroeconomic factors that, to a greater or lesser degree, influence the dynamics of insurance activity. Aspects like the pace of economic growth, particularly consumption, private sector credit, per capita income, the level and trajectory of interest rates, the behavior of exchange rates, and the degree of financial volatility influence the demand for insurance products, revenue and cost structures, asset values, and the ability to manage assets in relation to liabilities.

The degree to which the insurance industry is conditioned by the main economic and financial variables is explained by the close links that insurance activity maintains with virtually all areas of economic functioning. Thus, a country's income level—whether measured in absolute terms or structurally on a per capita basis—is an economic factor highly correlated with all business lines in the insurance industry at the aggregate level. The high coefficients

of determination between per capita income on parity with buying power and insurance activity, in both Non-Life and Life insurance, can also be observed in relation to specific indicators linked to greater insurance activity, such as the size of the vehicle fleet—particularly the number of vehicles per capita—healthcare expenditure, private sector credit, and household saving capacity across different markets.

Toward increasing insurance penetration

As highlighted in this study, regulation plays a fundamental role as a catalyst for insurance activity. Thus, within regulatory frameworks—which range from market access mechanisms to complementary sources of financing, solvency requirements for insurance activity and investments, the launch of new products on the market, regulations related to market competition, consumer protection, mandatory insurance, taxation and the different options related to the role insurance can play as a supplement to or replacement for specific activities that fall under social security protection—regulatory and public policy decisions may be critical in either stimulating or suppressing insurance supply and demand. Accordingly, progress must be made toward modern and efficient regulation.

Based on an analysis of international experience, including major insurance markets in North America (particularly the United States), Latin America (including Brazil, Mexico, Argentina, Colombia, Peru, and a broad sample of other Latin American markets), Europe (United Kingdom, France, Germany, Italy, and Spain), and Asia (Japan, India, and South Korea), the following section sets out, by way of conclusion to this report, the general lines identified as most important for consideration in the design and updating of public policies that use insurance as an instrument to achieve major economic and social objectives. Through this approach, it is also possible to simultaneously increase insurance penetration, thus expanding the population's protection against the risks to which it is exposed, and strengthening the important role of the insurance industry in channeling medium- and long-term savings.

Among these measures, which are discussed in detail in Chapter 4 of this report, reference is made to general aspects of prudential regulation; innovation and new insurance products; cost efficiency; distribution mechanisms and channels; insurance as an instrument of public policy (tax incentives, mandatory insurance, and participation in support of other areas of activity); financial education; and financial inclusion in insurance. These are identified as the main areas that need to be addressed in order to increase insurance penetration, with the aim of expanding the coverage of this risk protection and compensation instrument and recognizing, according to the best international practices, its economic and social function and, therefore, its capacity to enhance societal well-being.

1. Conceptual framework regarding the determining factors of insurance penetration levels

1.1 Recent evolution of the global insurance sector

In recent years, the global insurance sector has shown a combination of commercial soundness and high geographical and insurance-segment heterogeneity. The macroeconomic cycle, marked by episodes of inflation and its subsequent moderation, through a tightening of financial conditions followed by more moderate interest rates, has reconfigured the dynamics between premiums, claims, and financial results.[1]

Thus, in the recent analysis, the most visible macroeconomic variable for the insurance industry has been inflation, which markedly rebounded after the pandemic, with spikes in 2022 and 2023. This has direct implications for the insurance industry on the real cost of claims (raw materials, repairs, materials, healthcare costs, spare parts, etc.), generating what is known as "claims inflation," which primarily affects technical performance in the Non-Life insurance lines. At the same time, this environment constrained households' and companies' capacity to purchase insurance, increasing the price elasticity of demand in personal lines. To contain inflation, central banks aggressively raised interest rates starting in 2022, reshaping the yield curve and creating a pattern of rapid hikes followed by gradual reductions and stabilization in 2024–2025. This interest rate cycle enhanced the available investment spread for insurance companies and partially eased pressure on guaranteed Life products, while simultaneously increasing market volatility and the cost of capital in the short term. Consequently, between 2022 and 2024, the insurance industry implemented a "repricing" process, applying greater prudence in underwriting and strengthening their technical provisions. Starting in 2025, inflation moderation and interest rate stabilization have begun to temper the pace of premium adjustments.

The difference in performance between Life and Non-Life are evident in each segment's technical mechanisms and sensitivity to macroeconomic shocks. The dominant variable in the Non-Life insurance segment in the 2022–2023 period was cost inflation and the cost of reinsurance, after catastrophic events that created a "hard market," characterized by rate increases and a higher number of exclusions. Conversely, in the Life segment, during the 2023–2024 period, rising interest rates represented an opportunity for this segment to offer products with higher guaranteed rates due to improved investment portfolio yields. This supported the sale of savings and annuity products, following a prolonged period of near-zero interest rates in many major global markets (and even negative rates), as was the case in the Eurozone. Likewise, the strong performance of equity markets over the last two years has favored the development of Life insurance products in which the policyholder assumes the investment risk (such as "unit-linked" or "index-linked" products), especially in markets where this type of insurance is more widespread.

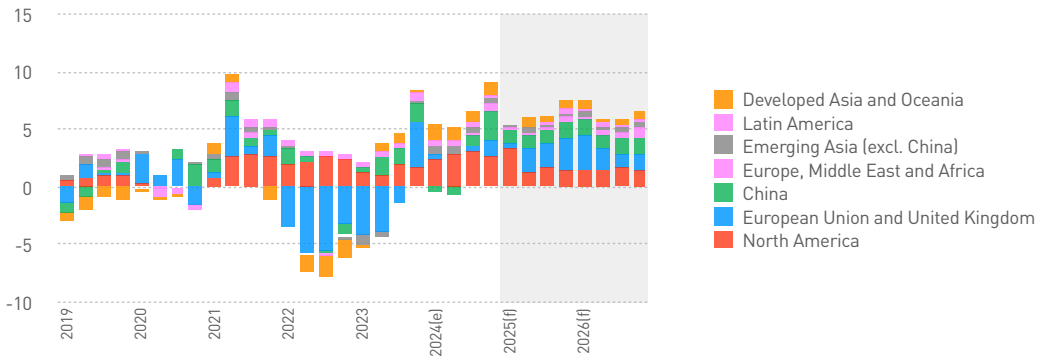
In 2025, with interest rates lower and in the process of stabilizing, and with inflation easing, momentum in the Life segment has softened, and overall growth in the sector is tending to normalize. In the Non-Life segment, the price review phase has lost some of its momentum, and competition is expected to once again put pressure on rates in certain lines of

business. From a strategic perspective, insurance companies will need to strengthen asset-liability management, maintain underwriting discipline (especially in the Non-Life segment), and update pricing and provisions models in order to incorporate climate risks and adverse macroeconomic scenarios. All of this takes place in an environment in which solvency and capital assignment remain key determinants of the industry's capacity for profitable growth.

A comparative analysis of the Life and Non-Life segments reveals the substantial differences in their contribution to global insurance premium growth. While the Life insurance segment shows a more balanced pattern, with significant contributions from China, North America, and the European Union, the Non-Life segment is characterized by a strong concentration in North America, which leads with much higher increases than the rest of the regions. This disparity reflects structural factors: in the case of Life, growth is driven by demographic trends and the demand for savings and protection products, while in Non-Life, insurance linked to catastrophic risks, health, and automobile predominate, especially in developed markets.

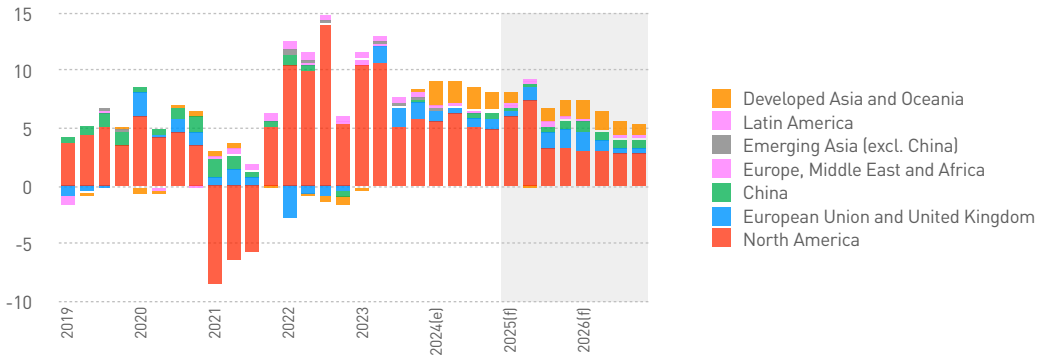
The data in Chart 1.1-a shows the evolution of contributions to premium growth in the global Life insurance segment by region. China and North America stand out as the principal drivers of growth, with average contributions close to 1.29 (percentage points) and 1.78 pp, respectively, while the European Union and United Kingdom also contribute significantly (around 1.78 pp). This reflects the strength of mature markets and the dynamism of the Chinese economy, driven by the expansion of savings and protection products in a context of an aging population. By contrast, developed Asia and Oceania have a lower average contribution to global growth in this segment (0.54 pp), indicating structural deceleration linked to market saturation and relatively low interest rates. Meanwhile, Latin America and emerging Asia (excluding China) show moderate contributions (0.24 pp and 0.36 pp, respectively), suggesting growth opportunities that are negatively affected by macroeconomic volatility and, positively, by low insurance penetration. The aforementioned Chart 1.1-a reinforces this trend, showing a sustained recovery in China and North America, while Europe and emerging markets display variability. Trends for the next few years indicate that mature markets remain the pillar for

Chart 1.1-a
Global: contribution to Life premium growth by economic region
(annual nominal growth in USD, percentage points)



Source: MAPFRE Economics

Chart 1.1-b
Global: contribution to Non-Life premium growth by economic region
(annual nominal growth in USD, percentage points)



Source: MAPFRE Economics

growth, although with some slowdown in Europe compared with the dynamism of North America. Despite some regulatory adjustments, China will remain a key market due to demand linked to population aging and digitalization. Furthermore, a macroeconomic context marked by relatively stable interest rates and a relative economic recovery will favor the sale of savings and protection products. However, competitive and regulatory pressures will require greater operational efficiency and differentiation.

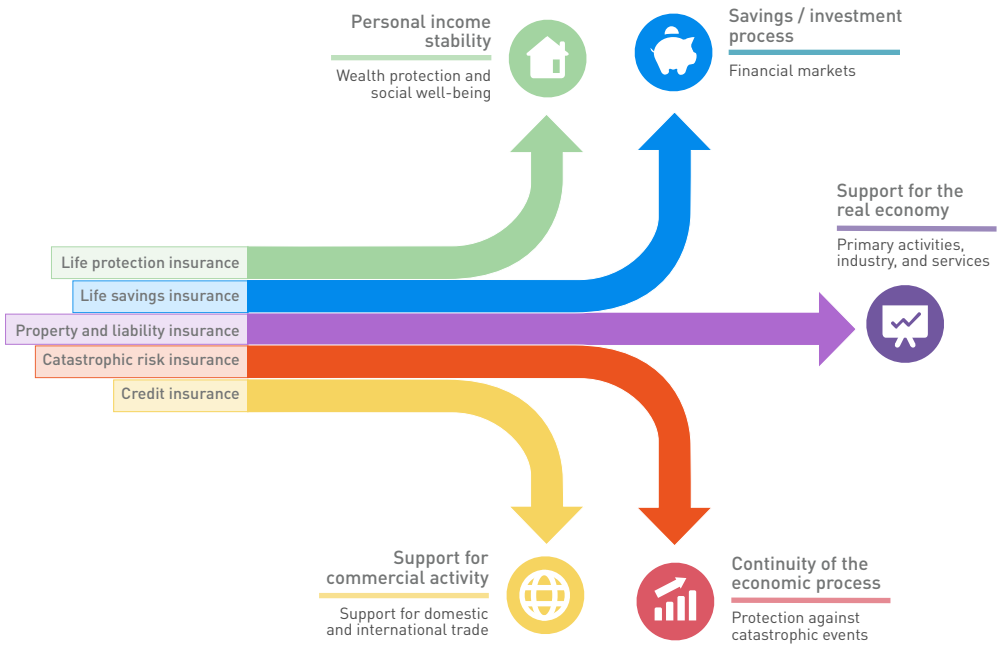
The pattern is different in the Non-Life insurance segment. As Chart 1.1-b shows, North America leads with a notable average contribution to growth (3.99 percentage points), well above other regions, which reflects the strength of the United States market in motors, health, and catastrophic risk insurance. Developed Asia and Oceania also post a solid contribution to growth (1.07 pp), while Latin America and emerging Asia contribute more modestly (0.18 pp and 0.10 pp, respectively). While China is relevant in the Life segment, its contribution to the Non-Life segment's global growth stands at around 0.62 pp, indicating more gradual development in the property and third-party liability lines. The European Union and the United Kingdom, meanwhile, present an average contribution close to 0.97 pp, reflecting stability, but with challenges due to regulatory pressures and the transition toward sustainable insurance. The chart shows significant peaks in North America, with contribution values even above 10 pp in certain periods, which could be associated with tariff adjustments and claims due to extreme weather events. For the coming years, the Non-Life insurance segment is expected to remain highly dependent on North America, while in other regions the strategy should focus on innovation in health insurance, cyber risks, and climate adaptation.

1.2 Insurance and economic activity

1.2.1 The role of the insurance industry in the economy

The insurance industry and economy are interrelated in both directions. On one hand, the process of risk protection and compensation carried out by the insurance industry supports the functioning of the various sectors of the real economy (primary activities, industry, and services), through the broad variety of liability and property insurance products that provide coverage for

Chart 1.2.1
The role of the insurance industry and economic activity



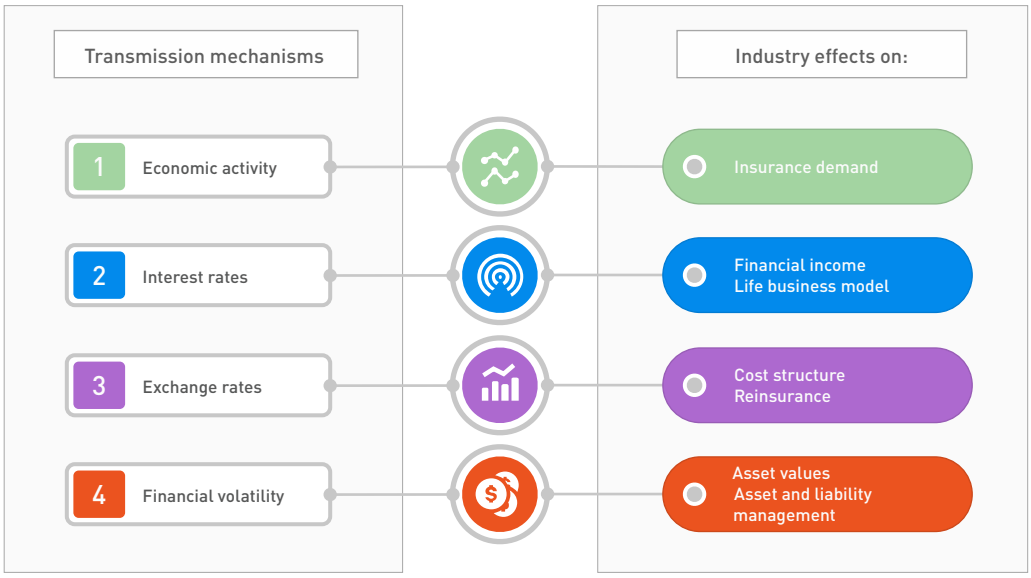
Source: MAPFRE Economics

both households and a country's entire business fabric. This includes retail businesses, independent professionals, small and medium enterprises, as well as the large corporations through global risk insurance (see Chart 1.2.1).

In the case of catastrophic events, insurance and reinsurance provide stability and continuity to the economic process, helping the economy normalize its operations within relatively short periods of time. This has been demonstrated in markets with high insurance penetration, notwithstanding the remaining work needed to close the insurance protection gaps that persist in this type of risk.[2] Insurance also stimulates and enables multiple business activities and transactions, both domestic and international, through the protection provided by credit insurance. From the perspective of households, insurance activity provides stability for personal and family income through the protection and compensation provided by Life Protection, Accident, Health, Home, and Auto insurance policies.

The second key aspect in the role the insurance industry plays in the economy is related to the support it provides, alongside other financial institutions, in the savings-investment process. Through Life insurance with savings components, and through the management of significant investment portfolios generated on their balance sheets, insurance companies contribute to the creation of stable domestic savings within the economy and, consequently, to the process of capital formation. In this regard, the insurance industry is one of the main institutional investors worldwide. Through this role, it not only channels savings toward the financing of production activities, but also (due to the characteristics of its business model and its inherent investment

Chart 1.2.2-a
Principal transmission mechanisms from the real economy and financial markets to the insurance industry



Source: MAPFRE Economics

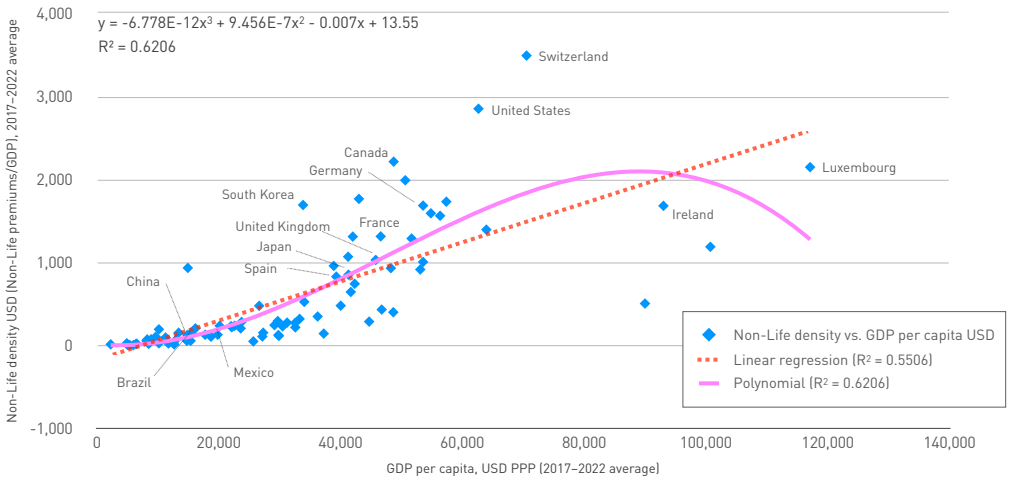
function) provides the economic system with a countercyclical stabilizing element.

1.2.2 Effects of the economy on insurance activity

There are various macroeconomic factors that, to a greater or lesser extent, affect the performance and dynamics of insurance activity. Aspects like the pace of economic activity, particularly consumption, credit to the private sector, per capita income, the level and trajectory of interest rates, exchange-rate behavior, and the degree of financial volatility all have an impact on the demand for insurance products, on revenues and cost structures, on asset values, and on the ability to manage those assets in relation to liabilities (see Chart 1.2.2-a).

The degree to which the insurance industry is conditioned by the main economic and financial variables is explained by the close links that insurance maintains with virtually all areas of economic functioning. Thus, a country's income level or GDP, whether measured in absolute terms or structurally on a per capita basis, is an economic factor highly correlated with all business lines of the insurance industry at an aggregate level. Thus, the analysis of the fitted regression line curve between GDP per capita and Non-Life insurance density (average annual Non-Life insurance premium per person) shows that there is a high level of correlation in both variables. As shown in Chart 1.2.2-b, the fit obtained using a polynomial function yields a coefficient of determination of 0.6206 (higher than that of the linear regression). This implies that, among the various factors influencing the explanation of a country's average Non-Life insurance premium contracted per person annually, the available level of GDP per capita would explain 62.06%, with the remainder attributable to other factors. These high correlations between per capita income measured in purchasing power parity and insurance activity can also be observed in relation to specific indicators associated with increased insurance activity, such as

Chart 1.2.2-b
Fitted regression line: GDP per capita (USD PPP) vs Non-Life premiums per capita (USD)

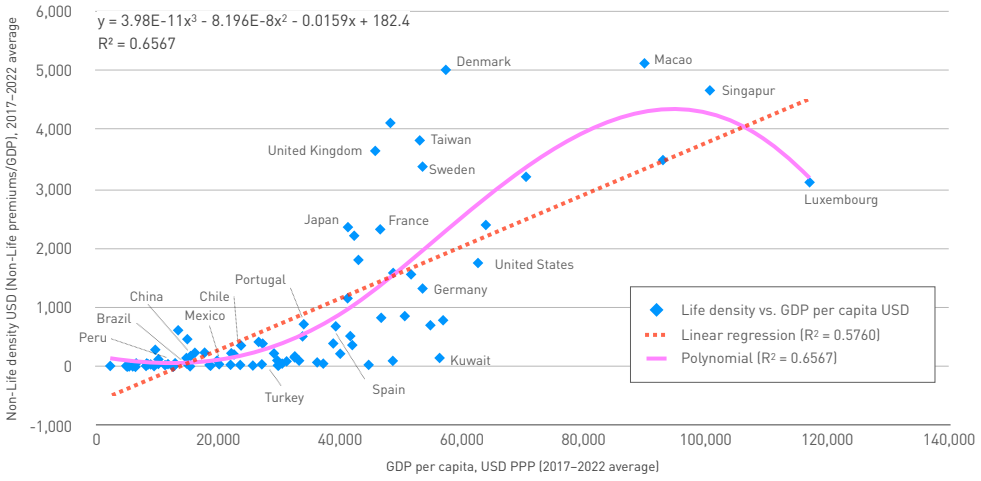


Source: MAPFRE Economics

the size of the vehicle fleet—particularly the number of vehicles per person—or healthcare expenditure.[3]

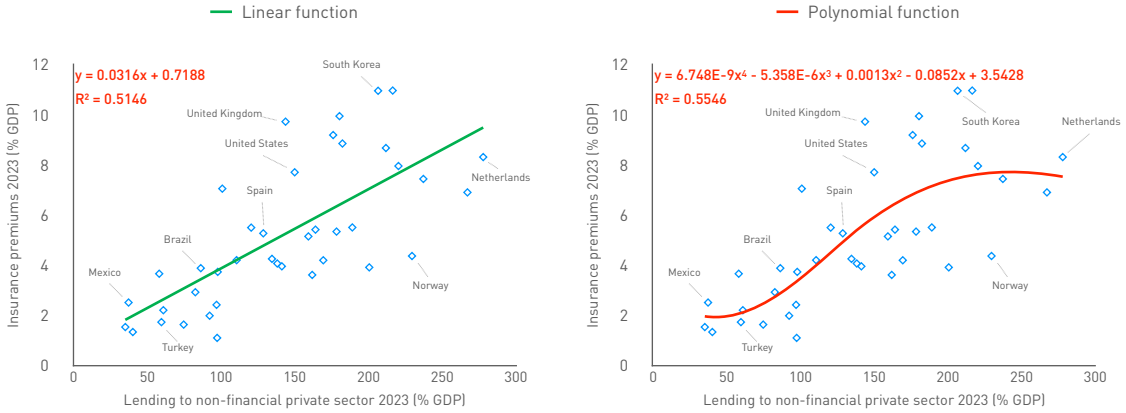
Another relevant factor related to insurance activity is the savings capacity as a function of per capita income of a country's population. In this sense, insurance activity in the Life segment, which is heavily weighted in savings-linked insurance products, also presents a high correlation with the per capita income level (see Chart 1.2.2-c). Analysis of the fitted regression line between per capita GDP and Life insurance density (average Life insurance premiums per person) shows, as in the Non-Life insurance segment, that there is a high correlation between the two variables, with a coefficient of determination of 0.6567 in the polynomial fit (significantly higher than

Chart 1.2.2-c
Fitted regression line: GDP per capita (USD PPP) vs. Life premiums per capita (USD)



Source: MAPFRE Economics

Chart 1.2.2-d
Global markets: lending to the non-financial private sector vs. insurance premiums (% GDP) (fitted regression lines)



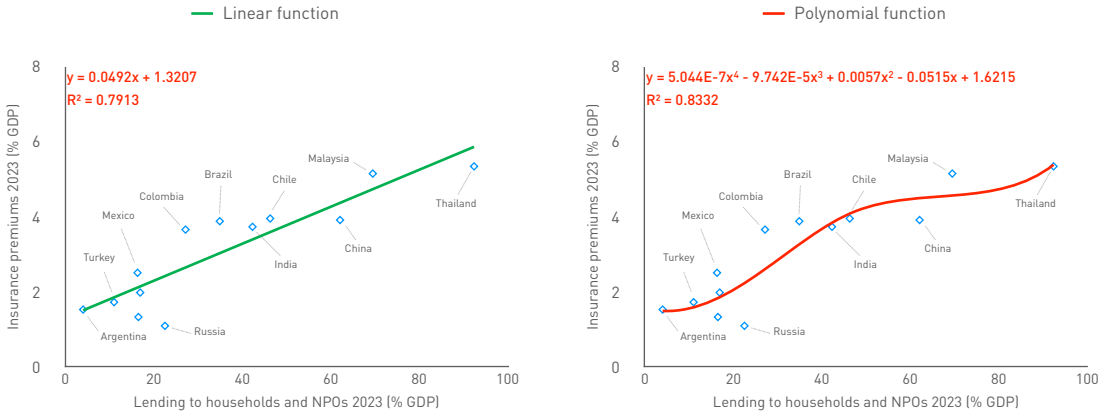
Source: MAPFRE Economics (based on data from BIS and Swiss Re)

that of the linear regression). This implies that, among the various factors that explain the variability in average annual Life insurance premiums per person in a given country, the level of per capita GDP accounts for 65.67%. Furthermore, it should be noted that the fact that the best fit is obtained using the polynomial function described implies that increases in GDP per capita have a greater effect on Life insurance as a country's income level rises.

This positive elasticity persists up to very high levels of per capita GDP, beyond which further increases in GDP per capita no longer lead to growth in Life insurance density and, in some countries, a certain decline can even be observed.

Another important aspect illustrating the relationship between economic factors and the insurance industry concerns the interrelationship between credit to the

Chart 1.2.2-e
Emerging and developing markets: lending to households and NPOs vs. insurance premiums (% GDP) (fitted regression lines)



Source: MAPFRE Economics (based on data from BIS and Swiss Re)

non-financial private sector and insurance activity, with both variables measured as a percentage of GDP. This includes credit to households (and non-profit organizations) as well as corporate credit to non-financial companies. In this case, the analysis yields a significant coefficient of determination of 55.5 in the best fit, resulting from the polynomial function shown in Chart 1.2.2-d. It is also worth noting that the polynomial fit shows positive elasticity in insurance premium variability in response to increases in private-sector credit, such that when credit is less developed, its increase leads to a greater proportional growth in insurance premium penetration in the economy (premiums/GDP).[4]

It should be noted that, in the case of developing and emerging markets, the relationship between credit and insurance activity is particularly relevant when comparing insurance premiums with the volume of credit to households (and non-profit institutions). This results in a high coefficient of determination of 83.3 in the best fit, derived from the polynomial function shown in Chart 1.2.2-e. Similarly, the polynomial fit shows positive elasticity in insurance premium variability in response to increases in household credit in emerging markets, such that when credit is less developed, its expansion leads to proportionally greater growth in the penetration of insurance premiums in the economy (premiums/GDP).

1.3 The insurance protection gap

1.3.1 Insurance protection gap: an ex-ante definition

When analyzing the extent to which insurance activity intervenes in and is integrated into a country's economic and social functioning, it is generally accepted that the insurance penetration indicator (insurance premiums/GDP) would reasonably reflect this importance. This is because gross domestic product (GDP) represents the monetary value of the final goods and services produced in an economy over the course of a year, that is, the volume of wealth generated annually by a society. Therefore, the fact that premiums represent a larger proportion of that magnitude means, at least indirectly, that insurance, as a mechanism for risk protection and compensation and the channeling of savings, participates and contributes to a greater extent to the process of wealth generation in a society.

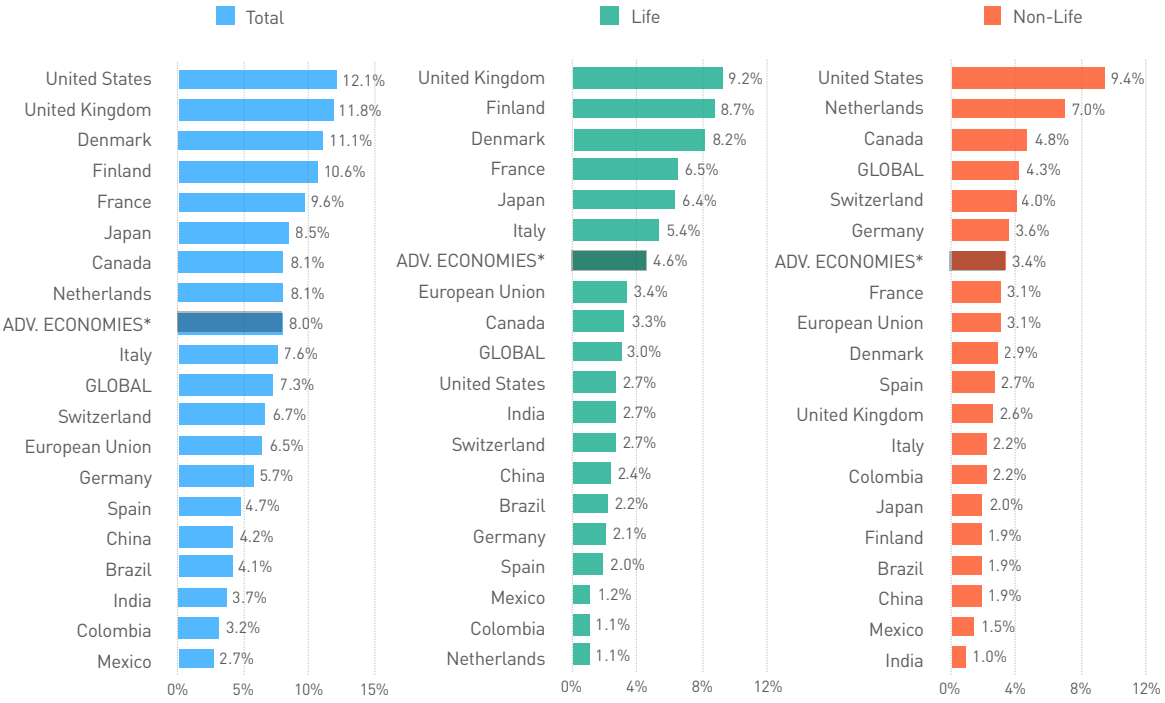
Based on the penetration indicator, it is possible to construct a metric that

Table 1.3.1
Selected economies: penetration in advanced markets
(premiums/GDP)

	Total	Life	Non-Life
2005	8.47%	5.04%	3.43%
2006	8.36%	4.95%	3.41%
2007	8.23%	4.89%	3.34%
2008	8.12%	4.80%	3.32%
2009	8.34%	4.90%	3.44%
2010	8.21%	4.83%	3.38%
2011	8.14%	4.77%	3.37%
2012	8.21%	4.81%	3.39%
2013	7.92%	4.51%	3.41%
2014	7.97%	4.60%	3.37%
2015	8.05%	4.63%	3.42%
2016	7.76%	4.34%	3.43%
2017	7.63%	4.25%	3.38%
2018	7.69%	4.28%	3.41%
2019	7.68%	4.17%	3.52%
2020	7.87%	4.07%	3.79%
2021	7.95%	4.24%	3.71%
2022	7.59%	4.11%	3.48%
2023	7.69%	4.16%	3.53%
2024	7.88%	4.21%	3.67%
Average	**7.99%**	**4.53%**	**3.46%**
Median	**7.96%**	**4.55%**	**3.42%**
Standard deviation	**0.26%**	**0.32%**	**0.12%**

Source: MAPFRE Economics

Chart 1.3.1
Selected economies: penetration indexes, 2024
(premiums/GDP, %)



Source: MAPFRE Economics
* Median insurance penetration of advanced economies, 2005–2024 (United States, Canada, Japan, and the 27 countries of the European Union)

measures the degree of completeness of the role played by insurance in an economy. This is the Insurance Protection Gap (IPG). The IPG is a structural figure that represents the difference between the insurance coverage deemed economically necessary and beneficial for the society (taking as a reference the average penetration levels reached in more advanced economies) and the quantity of such coverage effectively acquired. Its determination helps to identify not only the relative level of underinsurance in a society, but also the potential market for insurance, which is the market size that could be achieved were the gap eradicated.

In an *ex-ante* estimation of the insurance protection gap, the group of markets taken as the benchmark for an "optimal" level of insurance may vary depending on the scope of the intended comparison. Thus, when comparing countries on a global scale, a broad sample of markets from the world's most advanced economies is taken as a reference or "*benchmark*." In other cases, a comparison is made with a group of the most developed economies in the market being studied (e.g., the Eurozone or the European Union). In this regard, Table 1.3.1 presents the evolution of insurance penetration in the world's most advanced markets (aggregate insurance premiums/combined GDP of the selected economies),[5] considering total premiums and a breakdown by the two major insurance segments, Life and Non-Life insurance (United States, Canada, Japan, and the 27 countries of the European Union).

Moreover, considering the median penetration level of advanced economies in the 2005–2014 period, Chart 1.3.1 shows a comparison of penetration in 2024 for a selection of insurance markets, highlighting the existence of suboptimal insurance protection (an

Table 1.3.2-a
Global: economic losses, insured losses, and protection gap

	2015–2024 decade (billions of U.S. dollars)		
	Total economic losses	Insured losses	Protection gap (NatCat Gap)
Latin America and the Caribbean	100	19	81.0%
North America	1,411	801	43.2%
Asia	645	111	82.8%
Oceania	56	33	41.1%
Europe, Middle East, and Africa	385	117	69.6%
Global	2,597	1,081	58.4%

Source: MAPFRE Economics (based on Swiss Re data)

insurance protection gap) in those markets whose penetration falls below that benchmark. In this context, the main goal of this study is to identify the factors that cause insurance protection gaps in order to promote the design of public policies that can help reduce them. MAPFRE Economics periodically conducts a specific analysis of insurance protection gaps for a wide range of markets through the Global Insurance Potential Index (MAPFRE-GIP)[6] and other sector studies, such as the annual reports on the Latin American insurance market[7] and the Spanish insurance market.[8]

It is important to note that, in calculating the benchmark shown in Table 1.3.1, an adjustment has been made to the level of insurance premium penetration in the United States in order to mitigate the effect on penetration figures derived from insurance premiums associated with mandatory health coverage under publicly funded programs such as Medicare and Medicaid. These programs, for vulnerable groups, are managed by private insurance companies specializing in this type of coverage and are linked to the protective role of the Social Security system in the United States, due to its unique healthcare model. In this regard, section 3.5 of this report provides a specific analysis of how the definition of healthcare models and other social coverage can determine that certain risks in some countries fall within the protective scope of Social Security in those countries, with schemes supported by private insurance companies that increase the penetration of insurance in those markets.

1.3.2 Insurance protection gap: an ex-post definition

From a methodological standpoint, the IPG can also be defined from an *ex-post* perspective, expressed as the difference

Table 1.3.2-b
Global: global protection gap (NatCat Gap)

	Global protection gap (NatCat Gap)		
	Average, decade	Percentage covered by insurance	Protection gap
Hurricanes, typhoons, cyclones	2013-2022	40.0%	60.0%
Flooding	2013-2022	19.4%	80.6%
Total climate events	2012-2021	40.7%	59.3%
Earthquakes	2012-2021	14.7%	85.3%
Total natural disasters	2012-2021	38.7%	61.3%

Source: MAPFRE Economics (based on Swiss Re data)

between the economic losses recorded over a specific time period or event and the portion of those losses that were covered through the insurance compensation mechanisms. This is the definition most commonly used when referring to extraordinary risks. For the purposes of the analysis carried out in this report, the term IPG is used primarily in the former sense—that is, as an *ex-ante* measure estimated from the difference between the average penetration achieved by a representative set of advanced *benchmark* economies and that of the market analyzed, except in specific cases where reference is made to protection gaps for damage caused by catastrophic risks. Tables 1.3.2-a and 1.3.2-b present examples of the gaps calculated under *ex-post* parameters for extraordinary risks arising from natural disasters in the main regions of the world and by type of event, respectively.[9]

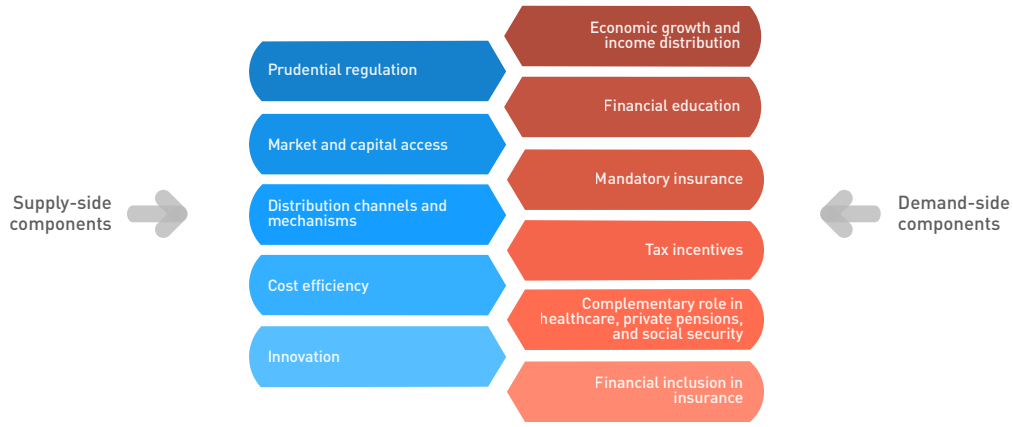
1.4 Components to increase penetration: an analysis of supply and demand

Looking at the factors that drive up insurance penetration levels in the economy, this report uses the same conceptual framework that MAPFRE Economics put forward in its 2017 report on the subject.[10] Within this framework, the aim is to identify the main components that support, in both the short and long term, an increase in the weight of insurance premiums relative to gross domestic product. To this end, a conceptual framework is used to identify the main factors driving this process, from both the *supply* and *demand* perspectives (see Chart 1.4).

First, *on the supply side*, five main components were analyzed: the *prudential regulatory* framework, the mechanisms of insurance companies for *accessing markets and capital*, the *distribution channels and mechanisms* used to deliver products to the population, the *cost-efficiency* framework of insurance companies, and *innovation* in processes and products.

Insurance activity, as part of the financial system, is subject to a framework of *prudential regulations* designed to preserve its solvency in order to protect the interests of policyholders. Accordingly, this regulatory framework is a fundamental aspect of insurance companies' operations and

Chart 1.4
Supply- and demand-side components determining increases in insurance penetration levels in the economy



Source: MAPFRE Economics

performance, as it may affect their ability to generate insurance services. Meanwhile, mechanisms for *accessing markets and capital* are essential to encourage the entry of new participants that expand supply, stimulate competition, and increase market efficiency, as well as to enable existing players to access additional capital for expansion. In this regard, these mechanisms have an impact on the ability to expand insurance supply over the medium and long term. Similarly, given the characteristics of the insurance business model, the *distribution channels and mechanisms* for insurance products are key to expanding the range and coverage of insurance. Likewise, increasing *cost efficiency* (administrative and acquisition expenses) constitutes a prerequisite not only for increasing the supply of these services, but also for making them available to consumers at affordable and competitive prices. Finally, *innovation*, i.e., companies' ability to design and bring new products to market in a timely manner, is another factor that can determine the expansion of insurance supply, providing the population with protection and loss compensation tools that are increasingly tailored to their needs.

On the *demand side*, the study emphasizes the six most relevant factors in explaining the increase in insurance demand: a country's *economic growth environment and income distribution*; the level of *financial education*; the presence of *mandatory insurance*; the application of *tax incentives* to insurance products; the complementary role of insurance *in healthcare, private pensions, and social security*; and the progress of *financial inclusion in insurance*.

From a structural perspective, *economic growth dynamics* and the *income distribution* structure constitute large macroeconomic factors that determine insurance demand. Greater economic dynamism, together with increases in disposable personal income, raises insurance demand, with higher elasticity when penetration levels are relatively low. The income distribution structure is also a factor that affects how personal disposable income raises the consumer's capacity as the economy grows. Also from a structural perspective, the level of *financial education* is a component that helps explain insurance demand levels. Over the medium term, this factor has the potential to change the trend in insurance demand, even when facing sluggish growth in wealth and personal income. In addition to the structural factors, the implementation of public policies has the potential to stimulate insurance demand, using insurance as an tool to achieve greater economic and social objectives. Within this framework, the implementation of *mandatory insurance* (as a means of safeguarding various aspects of public interest), the application of *tax incentives* (as a mechanism to promote better risk management and encourage increased medium- and long-term savings), and the use of insurance in a *complementary role within healthcare systems, private pensions, and social security* constitute essential areas in which insurance can serve as a cornerstone of far-reaching public policies. Finally, by creating pathways for a larger share of the population (particularly lower-income groups) to access risk protection and compensation mechanisms, *insurance financial inclusion* policies also serve to stimulate demand for insurance services, while at the same time contributing to higher overall levels of well-being.

2. Determining factors of insurance penetration on the supply side

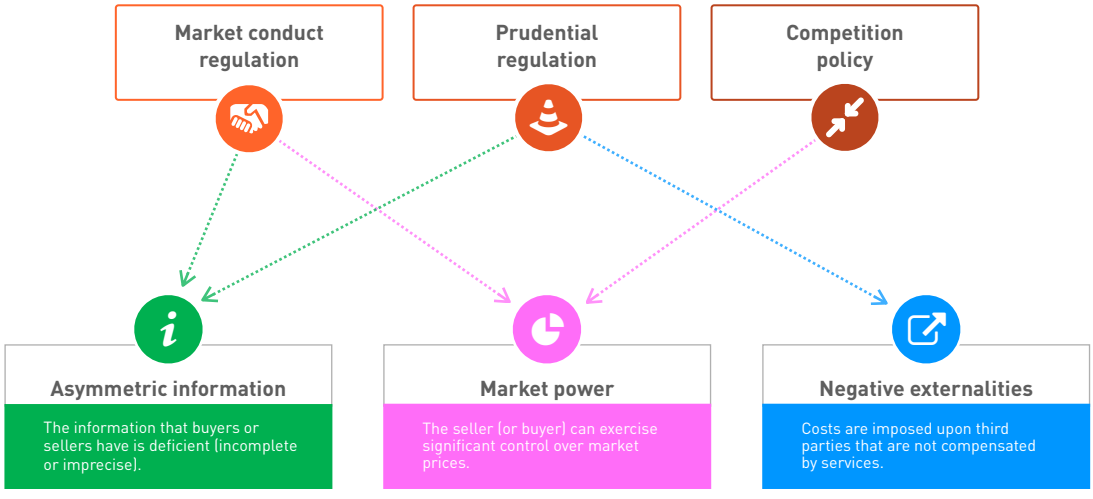
2.1 Prudential regulation

2.1.1 Regulation and markets

Regulation is a factor inherent to the functioning of modern financial markets. However, by its very nature, it is an element that can alter how markets function, primarily on the supply side. The financial markets are subject to regulatory frameworks and supervision, to varying degrees, in all countries worldwide. The existence of such regulations is justified by the pursuit of three main objectives. First, to have a positive impact on the problem of asymmetric information, by seeking to prevent financial users from basing their decisions on information that is deficient, incomplete, or inaccurate. Second, to prevent the lack of competition that may arise in a market due to monopolistic or oligopolistic situations, to the detriment of consumers. And third, to attempt to eliminate or mitigate so-called *negative externalities*, whereby, in situations involving the failure of an institution, consumers do not receive the contracted services and, in some cases, such failures lead to interventions once they acquire systemic dimensions that may result in a deterioration of a country's public finances (moral hazard).

In order to reduce the impact of these market failures on the financial system, the economy, and society in general, governments typically use three public policy instruments: (i) market-conduct regulation; (ii) economic competition policy; and (iii) prudential regulation of financial matters (see Chart 2.1.1). Thus, while regulation seeks to safeguard the public interest in these three areas, preventing asymmetric information, lack of competition, and negative externalities, the application of regulatory measures involves a certain degree of

Chart 2.1.1
Market failures and government intervention through regulation



Source: MAPFRE Economics

interference with market operations, which may have an impact on the supply of financial services. For this reason, the trend in prudential regulation of the financial system, leaving aside periods when a crisis triggers a defensive regulatory reaction, has been evolving toward schemes that, while preserving their original purpose, manage to align participants' incentives within a pro-competitive environment. The aim is to interfere as little as possible with the proper functioning of financial markets and their fundamental role in channeling savings toward productive investment.

Prudential regulation within the financial system has, at times, been shaped by financial crises, leading to a continual adjustment process, whose common denominator has been progress toward risk-based frameworks. These frameworks seek to align public-interest objectives with the creation of incentives to obtain comparative advantages (in a pro-competitive environment), based on the quality of financial institutions' risk management. As such, regulatory frameworks have increasingly refined risk measurement as an essential factor in determining capital requirements and incorporating complementary pillars alongside quantitative requirements (strengthening governance and market discipline) in order to help maintain the solvency and integrity of the financial system. This approach has been followed by organizations that bring together financial supervisors, such as the Basel Committee on Banking Supervision, the International Organization of Securities Commissions, and the International Association of Insurance Supervisors (IAIS). These organizations have made progress in this direction through the definition of regulatory and supervision standards that their members can adopt.

2.1.2 Regulation of the insurance industry

Insurance companies, like the rest of the financial system, are subject to a regulatory framework that covers the three dimensions discussed above: market conduct, competition, and prudential regulation. The latter seeks to address the fundamental elements related to quantitative requirements, governance systems, and the provision of information to supervisors and to the market. First, from a quantitative perspective, major markets have evolved, to a greater or lesser extent, toward risk-based prudential regulatory systems, like Solvency II in the European Union, or the *Insurance Capital Standard* developed by the IAIS. These models are characterized by a broader set of risk factors and the introduction of more complex scenario-simulation techniques for calculating certain capital charges related to underwriting, market, and credit risks, the consideration of interdependencies among risks, and, in some cases, the use of internal models or calculation of regulatory solvency capital at the group level. These systems usually include explicit risk assessment measures, with a predefined time horizon and confidence level, such as value at risk (VaR or tail VaR), which would apply both in the calculation of capital under standard formulas, when the applicable factors or scenarios are calibrated under this explicit measure, or by applying internal models.

Second, prudential insurance regulation also includes a set of governance aimed at fostering more professional (risk-based) management by companies, based on the belief that this is a contributing factor in limiting the probability that a company will become insolvent. Precautionary and intervention measures, provided for in the event of solvency impairment of insurance companies or their groups, are usually designed in the form of an intervention ladder, depending on the severity of the situation. And third, prudential regulation provides for a set of rules on transparency and disclosure of information to the market aimed at improving how the market-discipline mechanism works, as an additional element to encourage sound management by insurers and thus reduce the probability of insolvency.

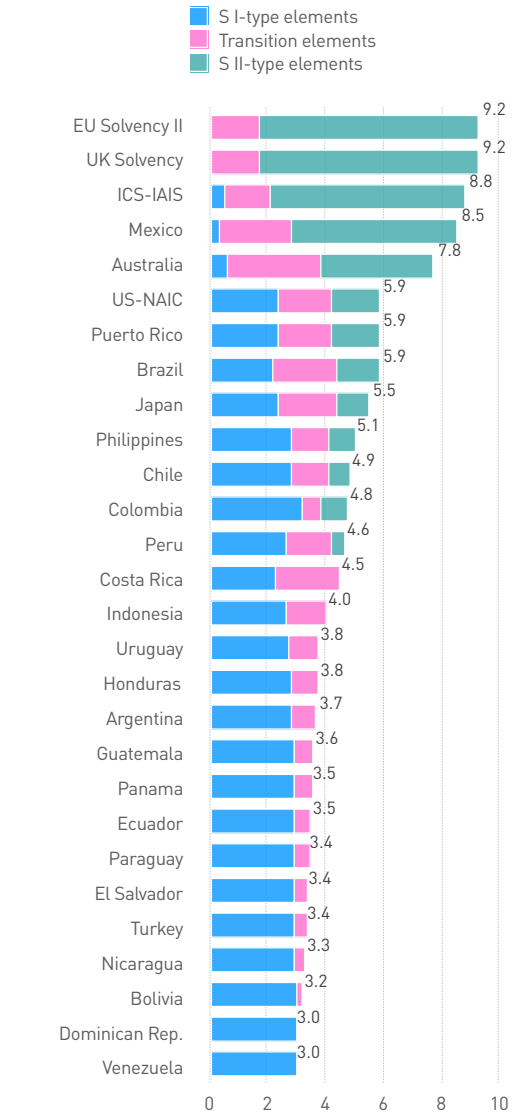
It should be noted that in some jurisdictions, the implementation of these prudential regulations in the three dimensions described above has been accompanied by a fourth element consisting of a relaxation of regulations that traditionally formed part of these frameworks. This relates to limits on investments and to prior supervisory control (in terms of structure and pricing) over products launched onto the market, which still exist in some jurisdictions and may have unintended effects on competition and innovation. Along these lines, the most modern systems (the Solvency II regulations are the paradigm) are characterized by the absence of prior supervisory approval of the products offered by insurance companies, the absence of limits on the range of assets in which insurance companies may invest beyond a general "prudent person" principle (with the only typical restriction relating to the speculative use of derivatives), and the absence of regulatory requirements for investment dispersion. These aspects are instead governed within insurers' own investment policies, taking into account that investments incorporating a higher risk component and greater concentrations will require higher capital risk weight and, more broadly, form part of the company's risk management process.

Finally, although no less important, it should be emphasized that, in general, the effectiveness of regulatory systems, both in insurance and in the financial system, depends not only on the existence of an efficient regulatory and supervisory framework, but also on the extent to which the supervisory authorities responsible for its implementation act with objectivity, consistency, and autonomy in their decision-making. This is essential to protect the public interest, preserve the integrity of the insurance market, and ultimately sustain financial stability. To the extent that supervision is not subject to external pressures (political, market, or special interests), the risk of arbitrary or biased decisions is reduced, which strengthens public confidence in the insurance industry.

2.1.3 Comparative analysis of the regulatory environment

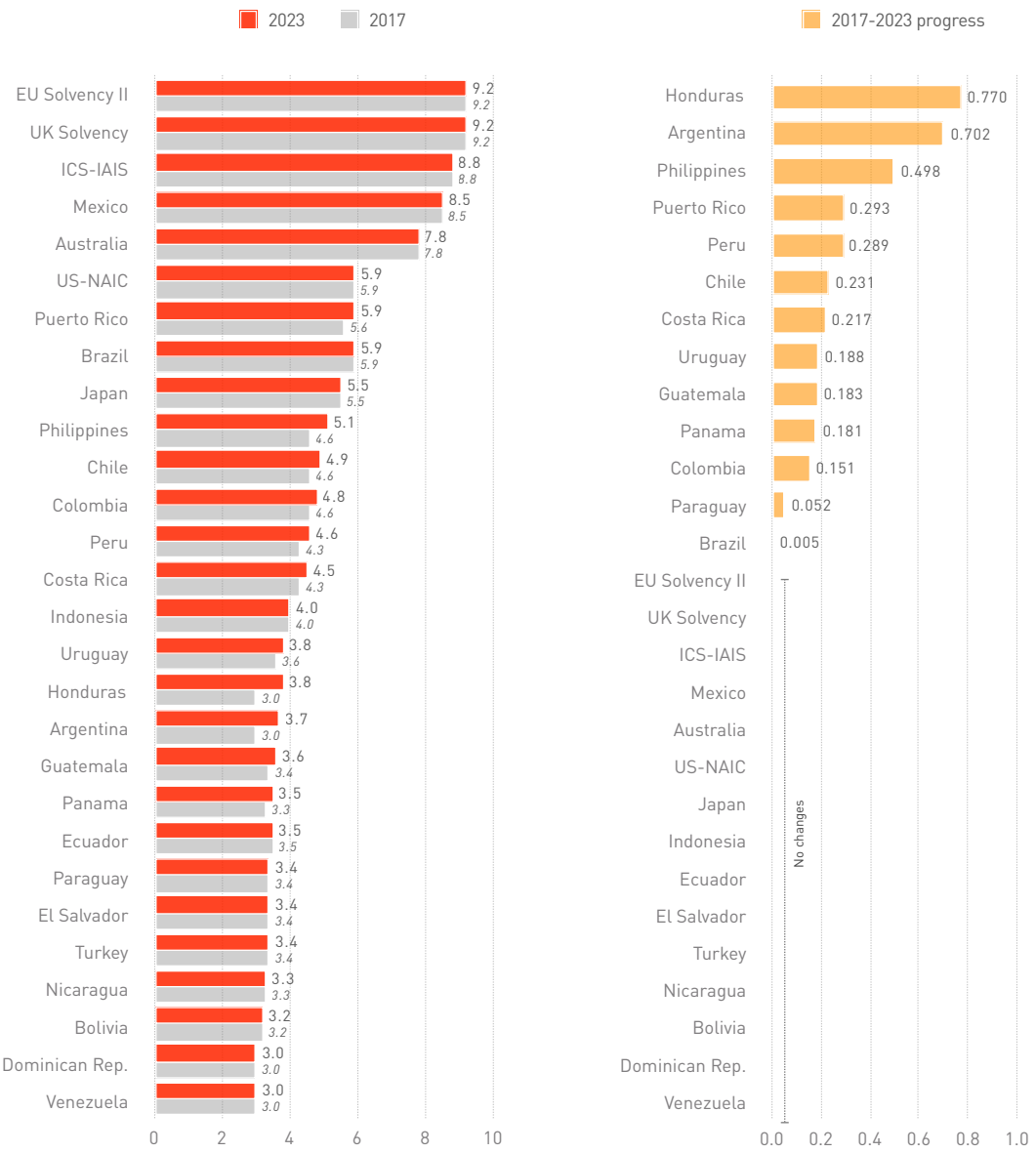
Progress toward risk-based prudential regulations has not been consistent globally, as a result of the difficulties associated with the practical implementation of more complex technical elements for both insurance companies and the supervisory authorities themselves. As a result, in some

Chart 2.1.3-a
Analyzed models: Risk-Based Regulation Proximity Index (I-RBR)



Source: MAPFRE Economics

Chart 2.1.3-b
Analyzed models: change in Risk-Based Regulation Proximity Index (I-RBR), 2017–2023



Source: MAPFRE Economics

countries, this progress has been slower when, for example, market characteristics make it difficult in the short term to have adequate and sufficient infrastructure to implement these systems at the highest level of development. Therefore, the process of convergence toward risk-based regulation in these countries tends to be gradual, advancing in parallel with the development of capabilities within both the industry and among regulators, as well as the creation of the necessary market infrastructure for its implementation.

In order to quantify this advancement process, the Risk-Based Regulation Proximity Index (I-RBR), proposed by MAPFRE Economics (see Box 2.1.3),[11]

Box 2.1.3
Risk-Based Regulation Proximity Index (I-RBR)

In order to provide a comparative instrument to assess the current state of regulatory frameworks in different markets, the use of a Risk-Based Regulation Proximity Index (I-RBR) has been proposed.

The I-RBR is not intended to assess the quality of regulation in each market (nor the effectiveness of market supervision), but rather to identify the rate of progress in terms of the transition from basic risk-based regulatory regimes of the Solvency I type toward prudential frameworks focused on more precise risk management and measurement (Solvency II-type regimes).

In preparing this indicator, a set of elements characterizing a prudential regulatory system was defined and individually assessed for each of the markets analyzed. In general terms, in basic risk-based systems (Solvency I-type), the determining factor of the solvency capital requirement is underwriting risk, with a system based on one or more factors applied to magnitudes considered representative of the level of exposure to insurance risk, such as premiums, loss ratios, or mathematical provisions (in the case of Life insurance). In such regimes, the requirement is accompanied by a set of additional governance and investment standards designed to limit market and credit risks by introducing specific regulatory limits on diversification and dispersion, as well as a closed-list classification of assets considered eligible to cover obligations arising from insurance contracts. These regimes also incorporate prudential elements in the valuation of insurance assets and liabilities.

By contrast, regimes that have advanced toward a purely risk-based prudential regulatory system (Solvency II-type) are characterized by the introduction of more complex scenario-simulation techniques for calculating specific capital charges for underwriting, market, and credit risks; the consideration of risk interdependence, the use of internal models; and calculation of regulatory solvency capital at the group level, among others. Likewise, these systems extend risk analysis not only to the estimation of

Table A.
Elements evaluated in the construction of the I-RBR

Group		Elements of regulatory assessment
A	1	Limits on investments: list of suitable assets
A	2	Limits on investments: percentages of diversification
A	3	Life and Non-Life underwriting risks, not disaggregated
A	4	Prudential interest rate in mathematical provisions
A	5	Prior authorization/registration of policies or technical basis
B	6	Market valuation of assets
B	7	Valuation of technical provisions: better estimation and risk margin
B	8	Reinsurance regulations - counterparty risk
B	9	Underwriting risks by homogeneous groups
B	10	Financial risks
B	11	Mismatching risks
B	12	Operational risks
B	13	Transparency to market - risk profile
B	14	Governance requirements: key functions/risks
B	15	Risk analysis of specific operations at the group level (without capital requirement)
C	16	Explicit risk measures and relationships between risks
C	17	Internal risk modeling
C	18	Stress tests - Dynamic solvency - ORSA
C	19	Market valuations with no asset exceptions
C	20	Discounting of provisions using unadjusted risk-free rates
C	21	Governance requirements: full integration of risk function
C	22	Transparency to market - complete breakdown of risk components
C	23	Regulatory capital at the group level based on risks (with group capital requirement)

Box 2.1.3 (continued)
Risk-Based Regulation Proximity Index (I-RBR)

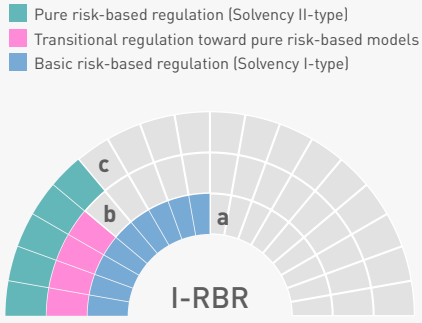
quantitative requirements but also to functions related to governance and market transparency.

Finally, between these two typological poles, there are regulatory systems that, while based on Solvency I-type standards, have incorporated transitional measures moving toward a system based on risk assessment and measurement, more rigorous governance, and higher levels of market disclosure. Accordingly, for the purposes of evaluating the existing regulatory framework in each insurance market analyzed, 23 elements were considered and classified into three groups (see Table A).

The first (Group A) contains elements that are typically closer to a prudential regulation, less sensitive to the particular risk profile of each insurance company (Solvency I-type). The second group (Group B) considers regulatory elements that introduce greater complexity and approach risk-based capital models, representing a movement toward that type of prudential regulation model. And the third group (Group C) includes regulatory elements of greater technical complexity, such as internal risk modeling, the interdependence between risks, and stress tests, which require a computational weight and higher degree of specialization inherent to a more sophisticated risk-based solvency capital system. When analyzing the prudential regulation framework in each market, these elements were evaluated on a scale of 0 to 10, based on their features and the degree of implementation in their respective legislation.

Thus, for the purposes of constructing the I-RBR, the combined assessment of each group of elements was assigned a specific weight. First, Solvency I-type systems were considered to incorporate basic elements of prudential regulation that, to some extent, seek to limit different sources of risk, so Group A elements were assigned a weight of 0.3. Elements reflecting the transition toward Solvency II-type risk-based regulation (Group B) were assigned a weight of 0.6. Finally, a weight of 1 was assigned to those factors considered to be the defining elements of proximity to a Solvency II-type or pure RBC system (Group C).

Chart A.
Construction of the I-RBR



$$\text{I-RBR} = a(p_a) + b(p_b) + c(p_c)$$

where:

- a: evaluation of elements from Group A
- p_a: weight of Group A elements
- b: evaluation of elements from Group B
- p_b: weight of Group B elements
- c: evaluation of elements from Group C
- p_c: weight of Group C elements

The I-RBR is constructed as the weighted sum of the scores for this set of elements, and reaches a value of 10 when a regulatory system is perfectly aligned with pure risk measurement.

Source: MAPFRE Economics

compares the progress of regulatory frameworks toward risk-based systems. It aims to identify progress toward regulation focused on more precise risk management and measurement, strengthened governance of insurance companies, and the existence of a system of greater market transparency and disclosure (such as Solvency II). The I-RBR ranges from 0 to 10, based on the progress of the cited transition process, without ranking the efficiency or quality of a market's regulation or supervision, but rather seeking to exclusively measure the transition of regulatory frameworks toward risk-based regulations, to both establish capital requirements and to consolidate improved risk management.

The latest update of this index, referring to January 2024 (with information from 2023) is illustrated in Charts 2.1.3-a and 2.1.3-b. This update was completed using an analysis of each of the regulatory models considered in the study. As shown by the analysis conducted across different regions, despite progress in this regard, insurance markets around the world are still immersed in regulatory adjustment and implementation processes guided by three dimensions: (i) the process of standardizing regulatory and supervisory practices; (ii) the modernization of solvency systems toward risk-based models; and (iii) progress toward the establishment of a global solvency system that contributes to maintaining global financial stability.

This analysis shows that, in general, progress has been greater in developed markets and there is still ground to be covered in some smaller emerging markets with regard to the implementation of risk-based regulatory solvency capital calculation models, especially relating to the quantitative requirements pillar. Accordingly, some insurance markets still operate under regulatory frameworks that essentially maintain the characteristics of Solvency I-type regimes. Others, while maintaining Solvency I-type regulation, have gradually advanced, to varying degrees, in implementing transitional measures toward risk-based regulation. This progress may be related to the size of these markets and higher levels of insurance penetration within their economies, with markets such as Mexico and Brazil standing out among the most advanced in this process.

As such, the move toward risk-based regulations can stimulate growth in supply, insofar as it enables a more efficient allocation of capital and creates incentives for more professional management by insurance companies. However, it is also important to note that such progress may contribute more to this goal when it is implemented gradually and alongside the development of technical capabilities in both the industry and among regulators, as well as the creation of the market infrastructure necessary for its proper implementation. Otherwise, regulatory progress in markets that lack such infrastructure could lead to unintended consequences, such as the establishment of barriers to entry for certain lines of business.

2.2 Market and capital access

2.2.1 Elements for market entry and the provision of insurance services

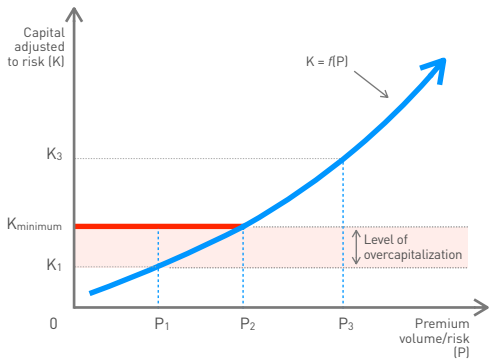
Mechanisms for accessing the insurance market constitute a structural element that determines the supply of insurance services. The authorization processes for new insurance companies, as with other providers of financial services, tend to share common principles aimed at ensuring the technical and financial capability of participants seeking to enter the market. The objective is to provide adequate protection for policyholders through minimum capital requirements, the need to demonstrate sufficient operational capacity to support the risks underwritten, and the suitability and capacity of the companies and their managers to carry out insurance activities. However, in some markets there

are significant differences in the amount of minimum capital required and in the degree of business-line segmentation, which affect the ease with which new participants can enter the market. Such differences may have a significant impact on market access and competitive dynamics, as they can create barriers to entry, resulting in limitations on insurance supply, impacts on competition levels, and, consequently, lower insurance penetration in the economy.

Advanced prudential frameworks, such as Solvency II in the European Union, the United Kingdom, South Africa, Singapore, and Japan, and in Latin America, in markets such as Chile, Mexico, and Colombia, feature differentiation by line of business and proportional calibration of capital requirements. These elements enable more specialized business models and greater product diversity. This approach contrasts with that observed in some relatively smaller markets, where high minimum capital requirements and limited segmentation of authorizations tend to increase average capitalization levels in the industry and, as a result, constrain competitive dynamics by introducing more stringent barriers to market entry, without differentiating among types of activities according to their associated risks and required infrastructure. The existence of differentiated authorizations by lines of business and minimum capital requirements adjusted to risk profiles facilitates the entry of specialized operators and fosters greater competition.

Unlike prudential solvency requirements, which establish capital charges based on the company's operating volume and the level of risk it assumes, minimum capital requirements are independent of these considerations and merely define a minimum entity size presumed to be necessary for the appropriate management of the risks associated with its specialized activities. This situation may lead to high capitalization requirements (not sensitive to parameters such as premiums, claims, and/or technical provisions) for potential entrants, making it difficult for the market to reach an aggregate scale at which capital requirements based on those solvency parameters come into effect. This, in turn, results in the overcapitalization of insurance companies, which ultimately tends to be passed on to consumers in the form of higher prices and to insurers' profitability, compared to other markets where capital requirements are more closely aligned with activity and risk profiles (see Chart 2.2.1).

Chart 2.2.1
Ratio of an insurance company's capitalization levels and premium volume



Source: MAPFRE Economics

2.2.2 Access to capital

Another key factor in sustaining the insurance industry's growth capacity from the supply-side perspective is the ease of access to complementary capital. This is necessary in order to obtain the funds required to increase eligible own funds for solvency requirements if an insurance company perceives an opportunity for business expansion, or to maintain existing supply capacity in the face of rising risk factors. Thus, the availability of complementary financing mechanisms, in addition to new capital contributions from shareholders, may be a determining factor in sustaining the growth of the insurance industry and facilitating entry into new lines of business. In most developed markets, insurance companies can draw on alternative sources to strengthen their

capital, such as reinsurance, financial reinsurance, and even borrowing through credit instruments or debt issuance.

However, the depth and availability of these sources vary significantly between jurisdictions, offering a wider range of possibilities in economies with modern and consolidated prudential systems, such as European countries under the Solvency II regulatory regime, the United Kingdom, or developed financial centers such as Singapore and Hong Kong. In the Latin America region, in those markets with the most advanced regulatory systems, such as Brazil, Chile, and Mexico, we also observe greater development of capital markets and wider use of instruments such as subordinated debt or hybrids that count as capital. By contrast, in countries with smaller markets, such as Bolivia, Paraguay, Honduras, or Ecuador, access to complementary financing tends to be more limited, either due to regulatory constraints or to the shallower depth of their financial markets. In these cases, the insurance companies rely to a greater extent on traditional reinsurance as an alternative source of capital, and within certain regulatory limits. While this may be functional in the short term, it can restrict the capacity for expansion and innovation in the industry over the medium and long term.

Ultimately, among the different models that exist for structuring market-entry requirements and access to capital for insurance companies, the more advanced jurisdictions—those that have achieved greater business-line granularity in authorizations, together with an appropriate balance between proportionality, specialization, and access to complementary capital mechanisms, have more competitive markets, higher aggregate efficiency, and better prospects for expanding insurance supply.

2.3 Distribution channels and mechanisms

2.3.1 Distribution and access to insurance services

In general, distribution channels are an essential element of the insurance industry's business model. Their diversity and efficacy directly impact the ability of insurance to reach the population (measured in terms of penetration) and to increase competition among insurance companies, which is especially critical in developing regions. Over time, insurance distribution channels have evolved significantly, adapting to new consumption patterns, access needs across different segments of the population, and idiosyncrasies of each market.

Among the traditional distribution channels, *exclusive agents and brokers stand out* and continue to play an important role in marketing insurance, especially in the Non-Life segment, thanks to their ability to provide personalized advising and generate trust in the end customer. In parallel, the *bancassurance channel* has gained prominence, especially in Latin America and Asia, where banks lead the distribution of Life and protection insurance. Studies focused on Latin America show that banks and digital sales channels improve insurance uptake, even when prices or characteristics don't change. Accordingly, diversifying distribution channels boosts supply and opens the door to cover new segments that are either uninsured or insufficiently protected.[12] It is worth noting that this model in that region recorded growth above the European average over the 2016–2017 period, driven by the integration of financial and insurance services on a single platform.[13]

Digital distribution represents another axis of transformation for the insurance industry. Comparison sites, mobile apps, and *online* platforms have drastically reduced acquisition costs, facilitating access to standardized products and improving the

user experience. This channel has become established as an effective means of expanding coverage, particularly where fast and direct contracting is valued. Finally, *business partnerships* with *retail* and telecommunications companies and other sectors have allowed for an expansion of the scope of insurance through *co-branding models*, embedded insurance, and *joint ventures*.

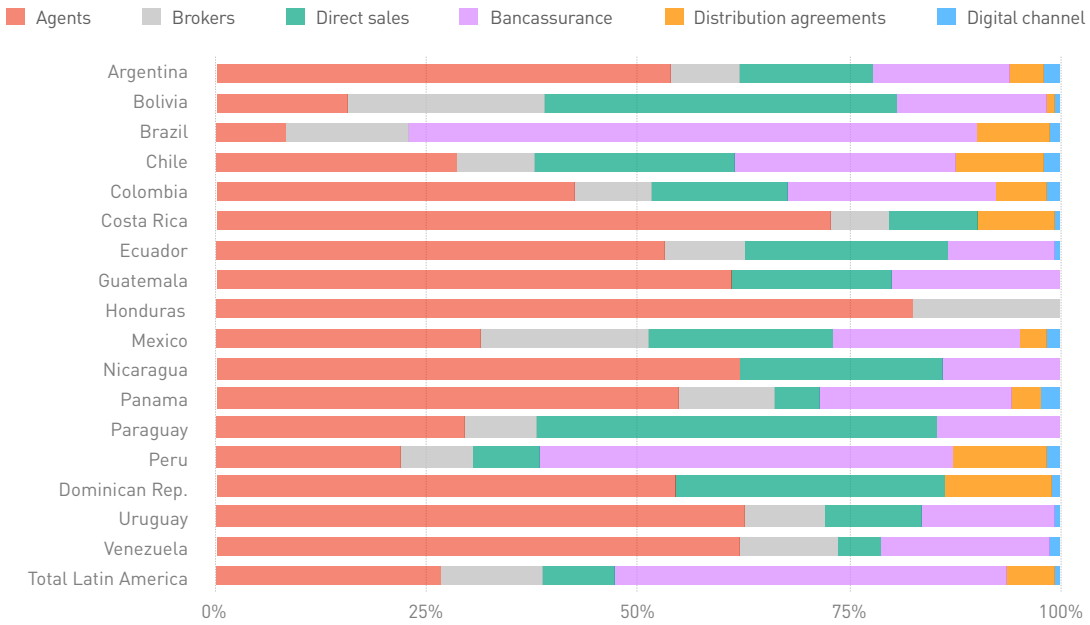
Alternative insurance distribution channels are key to expanding access to financial protection products. By reducing transaction costs,[14] they make it possible to include segments that have traditionally been excluded, especially in contexts with geographical or technological barriers. Channel diversification not only responds to operational needs, but is also an effective strategy for increasing insurance penetration in emerging economies.[15] Channel diversification (from agents to digital platforms and commercial partnerships) improves distribution efficiency and facilitates adaptation to consumer preferences.[16]

Commissions, in turn, play a central role in insurance distribution, as they constitute the main economic incentive for intermediaries who sell insurance products and serve to finance the infrastructure required for these channels to function properly. In general, the greater the need to explain a product, tailor coverage, or manage a customer's risk, the higher the commission tends to be. This is observed in customized, corporate, or long-term insurance, where intermediaries provide significant added value. These commissions are the mechanism through which insurance companies compensate the various channels for their work in sales, advising, and customer management. They therefore have a direct impact on the sector's cost structure, on commercial strategy, and, ultimately, on insurance penetration in the economy.

2.3.2 Distribution channels and commissions

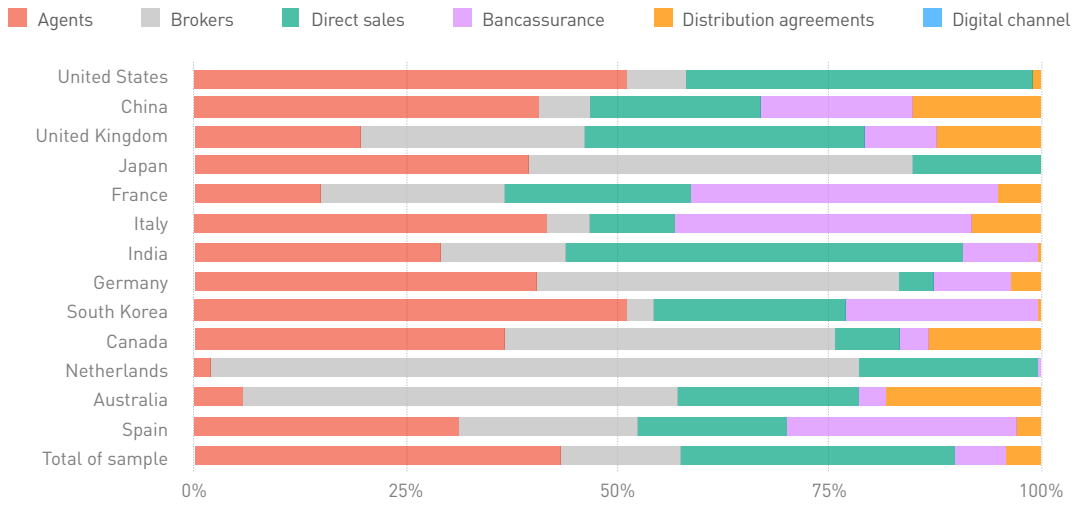
Based on available information related to the weight of the various distribution

Chart 2.3.2-a
Latin America: distribution channel structure
by total insurance market, 2024



Source: MAPFRE Economics (with information from the supervisory bodies)

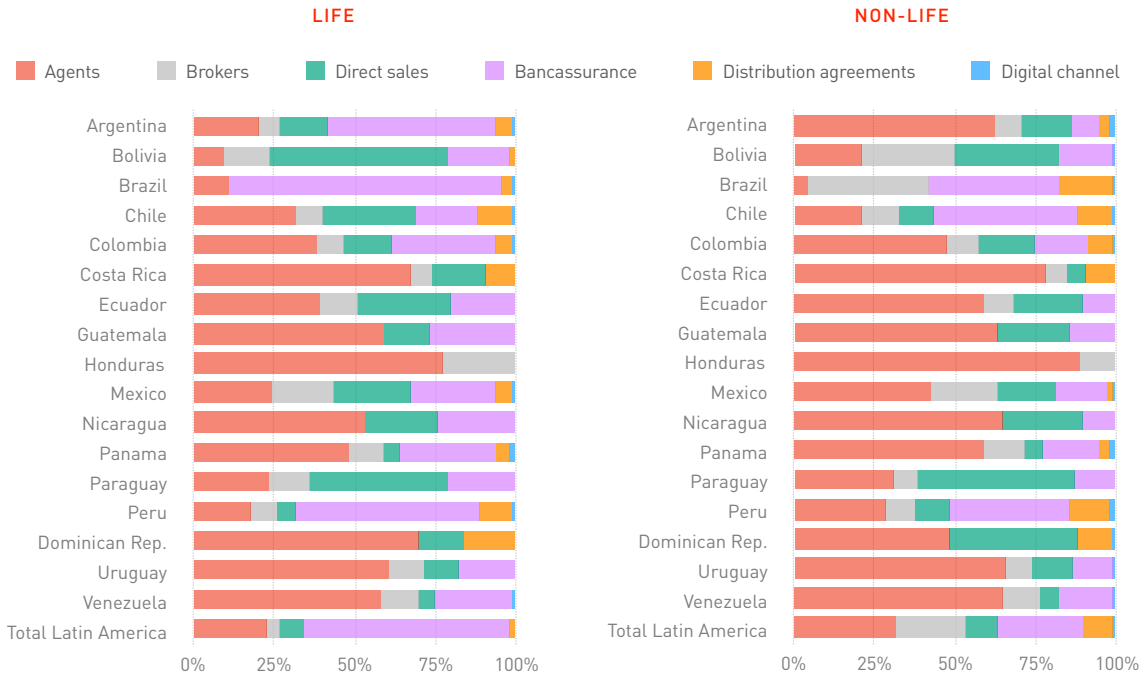
Chart 2.3.2-b
Selected markets: distribution channel structure by total insurance market, 2024



Source: MAPFRE Economics (with information from the supervisory bodies)

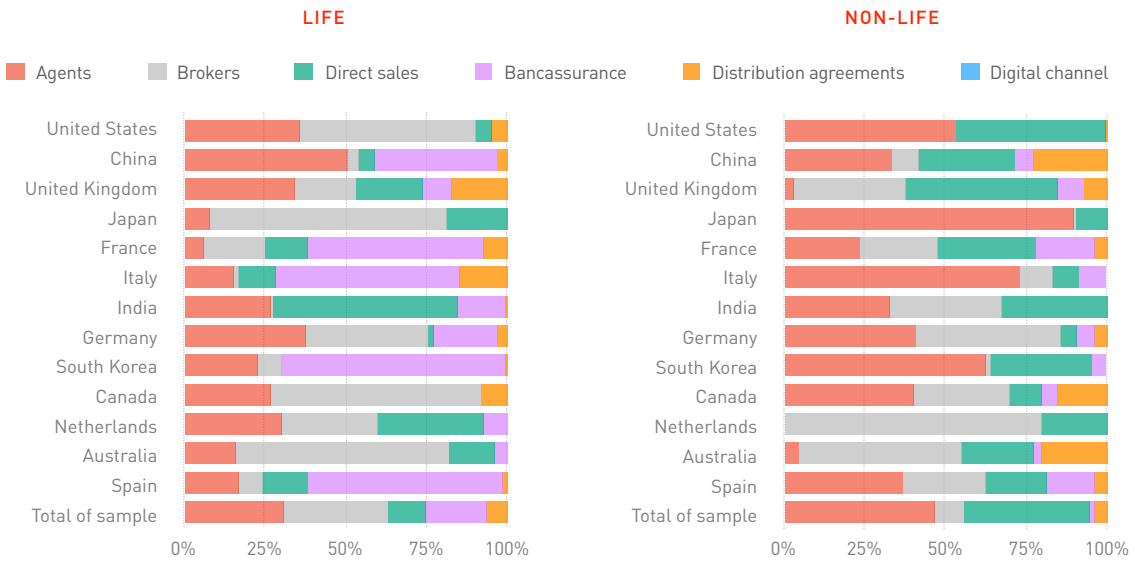
channels in the case of the Latin American countries (see Chart 2.3.2-a), as well as a representative sample of other mature insurance markets (see Chart 2.3.2-b), it can be observed that in Latin America, bancassurance is the main distribution

Chart 2.3.2-c
Latin America: distribution channel structure by Life and Non-Life insurance market, 2024



Source: MAPFRE Economics (with information from the supervisory bodies)

Chart 2.3.2-d
Selected markets: distribution channel structure by Life and Non-Life insurance market, 2024



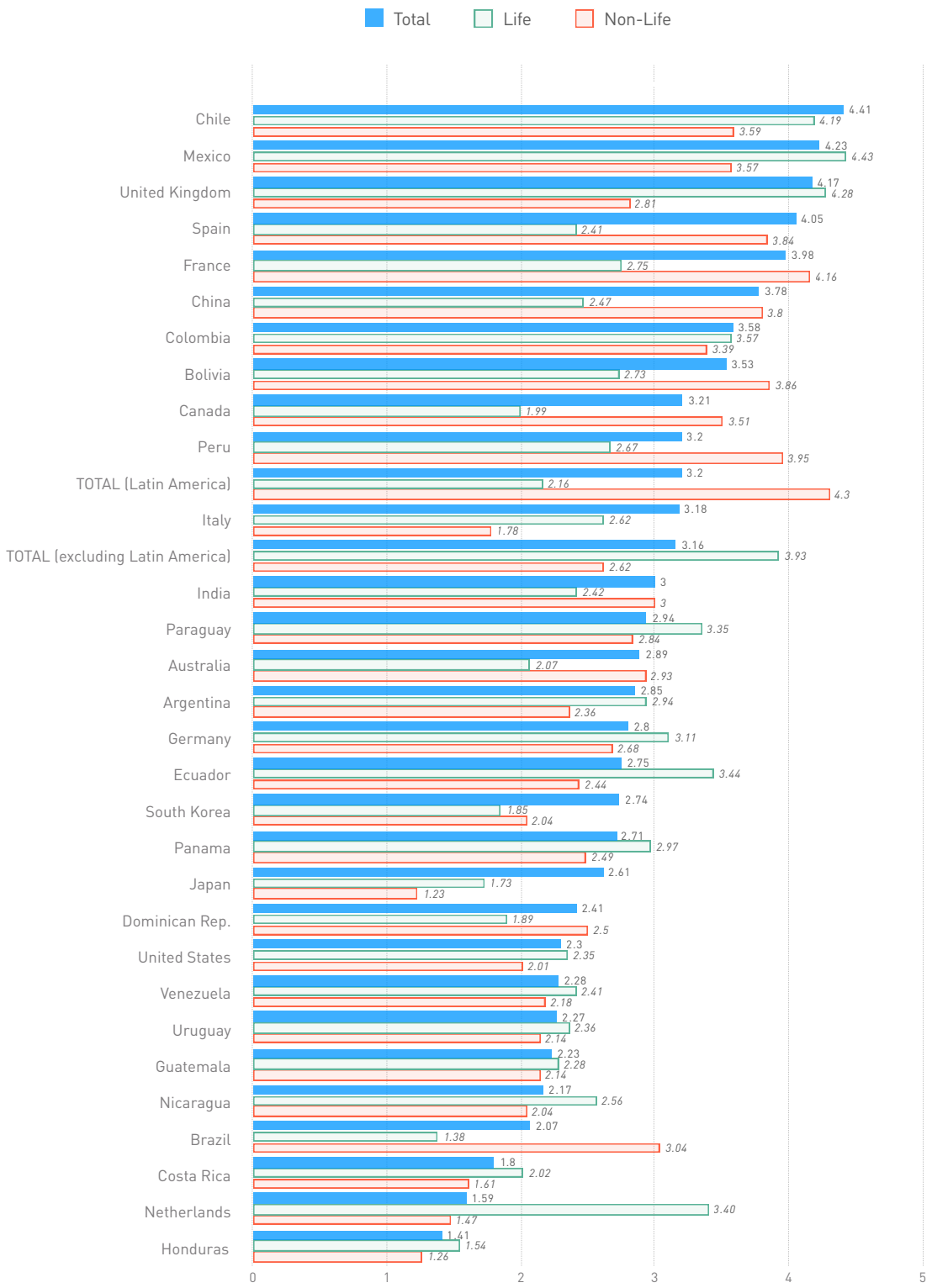
Source: MAPFRE Economics (with information from the supervisory bodies)

channel (with 46.6% of the total), driven mainly by developments in Brazil and Peru. The agent channel (with 26.7%) remains relevant in Central American and Caribbean markets. The digital and *retail* channels are still marginal, although advancing in the cases of Chile and Brazil.

When analyzed by segment, as shown in Chart 2.3.2-c, the predominance of the bancassurance channel in Latin America extends to the Life insurance segment, while in the Non-Life segment, agents remain the most relevant channel on the regional average (31.2%). As for the other international markets analyzed, the average shows more weight in the agent channel (47.1%) and the direct channel (38.8%), with bancassurance limited to 2.1%, except in Europe (France and Italy), where it exceeds 30% (see Chart 2.3.2-d). In the Life segment, bancassurance is the dominant channel in Europe and Asia, while it has minimal weight in Non-Life, where agents and brokers predominate. In general, developed markets are more diversified, with direct channels strongest in the Non-Life segment, versus the high concentration in bancassurance observed in the Life segment.

Based on the information related to the structure of distribution channels in the various insurance markets in Latin America and in the other mature markets analyzed, a distribution-channel dispersion index has been constructed, calculated as the inverse of the Herfindahl index (the greater the channel dispersion, the higher the value of the indicator). The results of this exercise are shown in Chart 2.3.2-e. According to this analysis, greater channel diversity is observed in Latin America, with a less concentrated structure in general versus mature markets, where some countries present models dominated by one channel (brokers and agents). For example, the Netherlands (1.67) and Japan (1.21) are extremely concentrated in specific types of channels (brokers in the Netherlands, agents in Japan), notwithstanding the levels of competition that may exist within each channel. This would suggest that the Latin America region is more open to multi-channel strategies, although with major differences between countries like

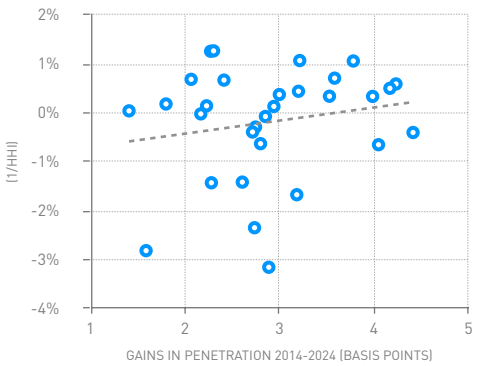
Chart 2.3.2-e
Distribution channel dispersion index by insurance market and segment, 2024
(1 / HHI)



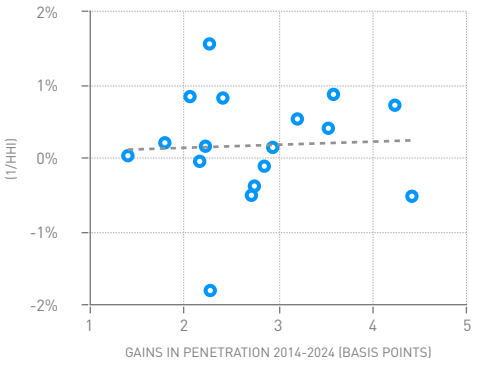
Source: MAPFRE Economics (with information from the supervisory bodies)

Chart 2.3.2-f
Distribution channel dispersion index by region and segment vs. gains in penetration, 2014–2024 (1/HHI)

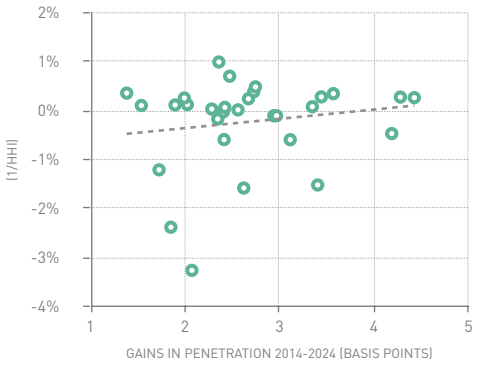
TOTAL OF SAMPLE (TOTAL)



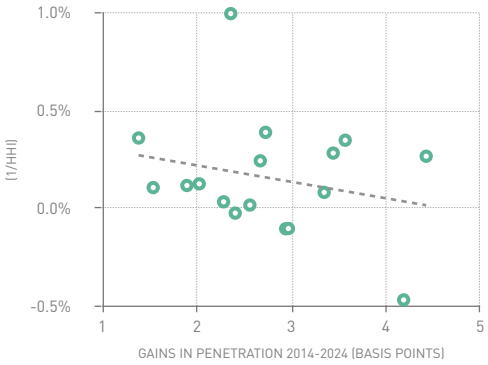
LATIN AMERICA (TOTAL)



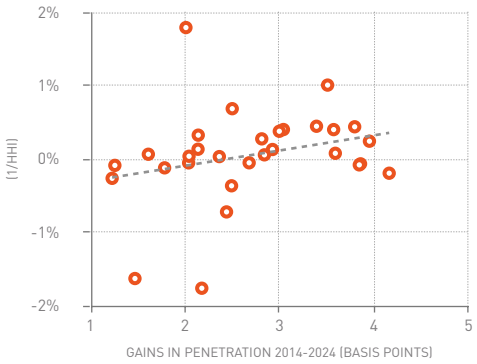
TOTAL OF SAMPLE (LIFE)



LATIN AMERICA (LIFE)



TOTAL OF SAMPLE (NON-LIFE)



LATIN AMERICA (NON-LIFE)

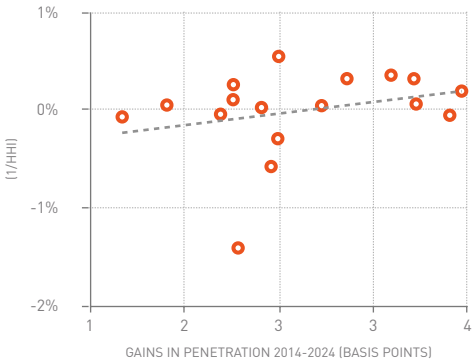
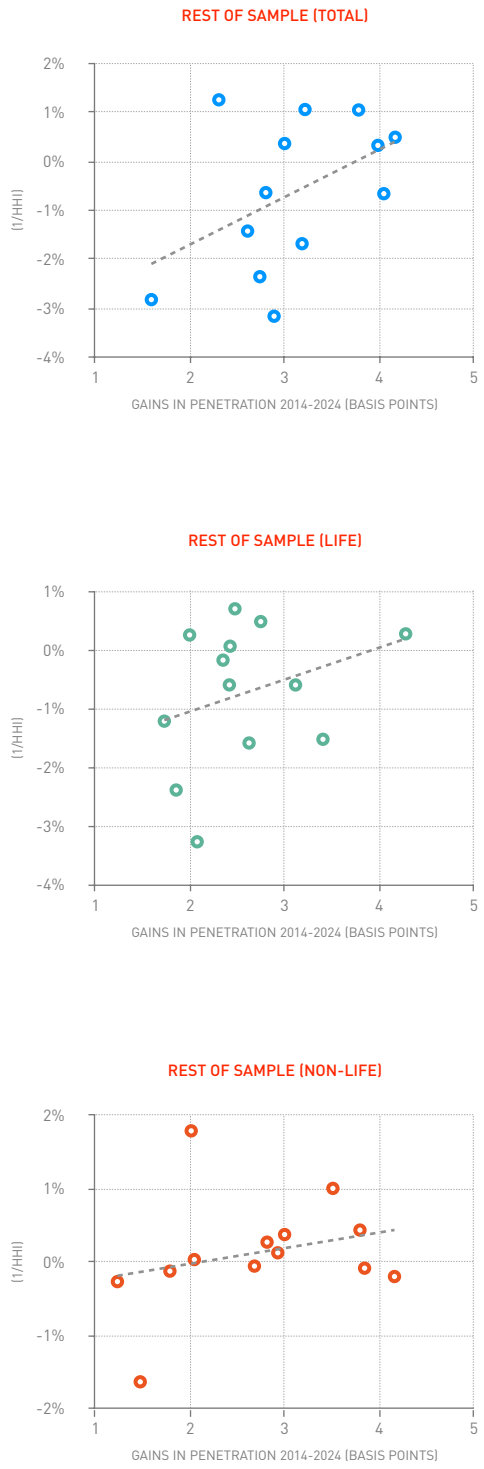


Chart 2.3.2-f (continued)
Distribution channel dispersion index by region and segment vs. gains in penetration, 2014–2024 (1/HHI)



Source: MAPFRE Economics

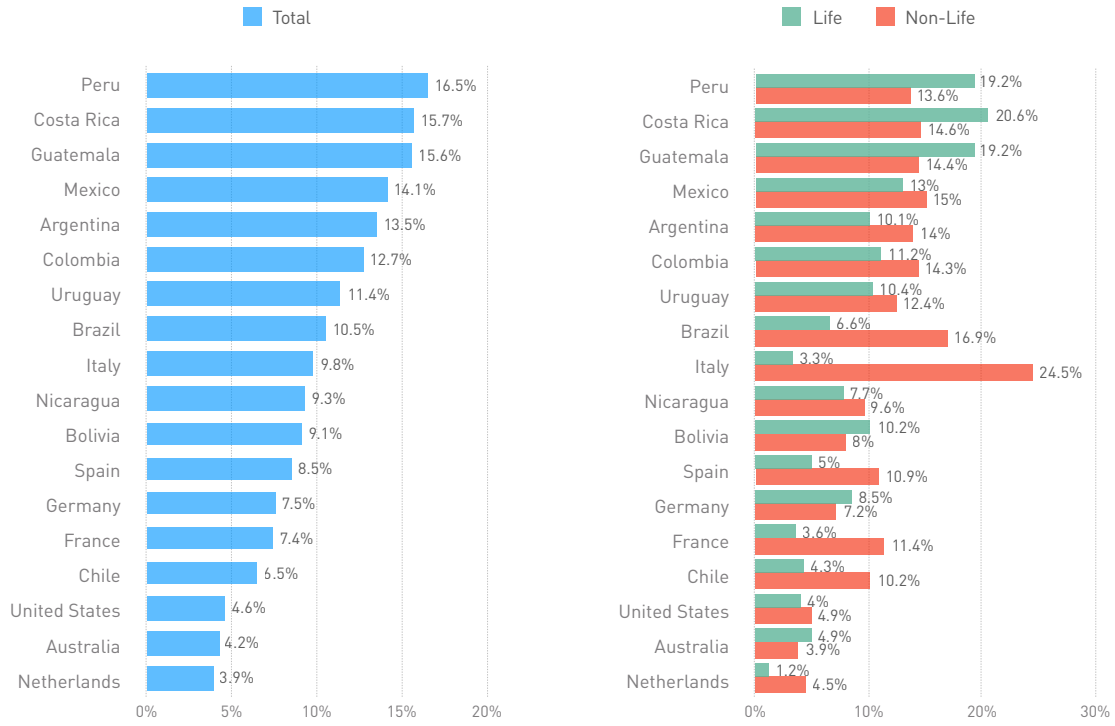
Mexico (4.23) and Chile (4.41), which present greater diversity, while Honduras (1.76) and Guatemala (2.24) are highly concentrated (virtually dominated by the agent channel).

A complementary analysis pointing to the relevance of developing new distribution channels that complement the traditional pathways for delivering products to the society, as a factor supporting increasing penetration, is illustrated in Chart 2.3.2-f. The sub-charts it contains show the relationship between the dispersion of distribution channels and gains in penetration over the 2014–2024 period, broken down by region (Latin America versus the other markets studied) and by insurance segment (total, Life, Non-Life). This analysis appears to indicate that there is a direct relationship between the degree of dispersion in the development of distribution channels and gains in penetration over the last decade. Along these lines, channel diversification appears to contribute more to growth in the Non-Life segment than in Life, especially in Latin America, where the historical concentration in the agent and bancassurance channels limits the impact on the Life segment. In developed markets, the effect seems more moderate, suggesting that channel innovation (digital, *retail*, partnerships) is key to driving penetration in less mature segments and is correlated with lower levels of insurance penetration.

With regard to commission levels associated with the distribution of insurance products in Latin American markets and other economies with larger business volumes analyzed,[17] Chart 2.3.2-g presents an analysis by region and line of business using the latest available data.[18] Furthermore, Chart 2.3.2-h shows a comparative analysis between Latin America markets and other high-volume markets for the different lines of the Non-Life insurance segment, while Chart 2.3.2-i shows the corresponding analysis of the Life and Health segment.

According to this data, commissions in the Latin America region tend to be higher and

Chart 2.3.2-g
Selected markets: commissions on premiums by insurance segment, 2023



Source: MAPFRE Economics (with data from OCDE)

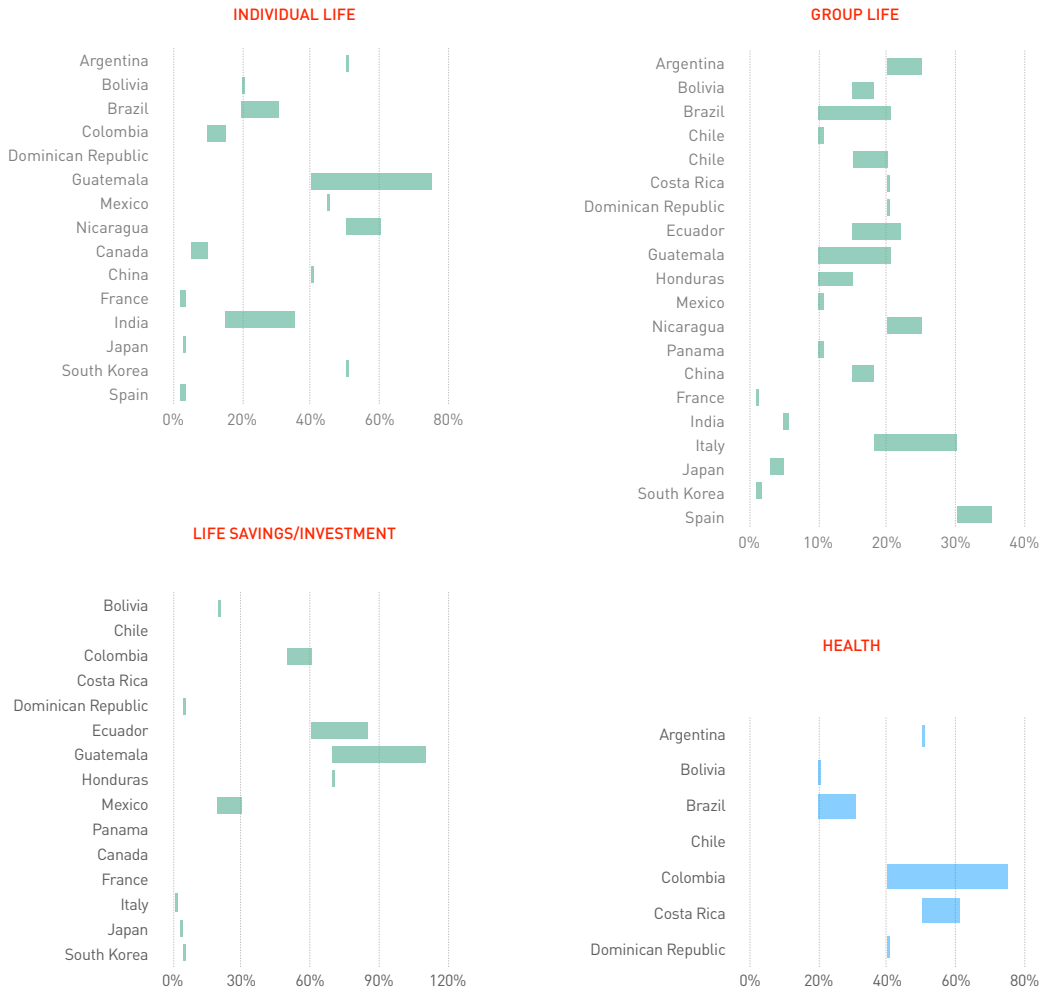
heterogeneous, especially in the Non-Life segment, indicating greater reliance on traditional intermediaries. In contrast, the developed markets show lower and more balanced commission levels, associated with more efficient and digitalized distribution models. Peru (with an overall average commission of 16.5%), Costa Rica (15.7%), and Guatemala (15.6%) lead in commissions as a share of total premiums, well above developed markets such as Italy (9.8%), Spain (8.5%), Germany (7.5%), or France (7.4%), which present significantly lower average levels, with smaller differences between the Life and Non-Life segments.

The aforementioned Chart 2.3.2-h shows the commission ranges applied by intermediaries (from minimum to maximum values) for the different sub-lines of the Non-Life insurance segment in Latin American countries and in the development markets where data is available.[19] As shown, the dispersion of commissions reflects a lack of homogeneity and strong segmentation by sub-line, especially in Latin America, where the ranges are broader and upper limits are higher. This suggests that distribution-cost efficiency depends on product type and the level of competition in each market, reinforcing the need for multi-channel strategies and digitalization to reduce costs and improve transparency. In Latin America, sub-lines such as Motors and Accident insurance show very wide ranges (for example, Argentina and Peru, with upper bounds reaching 20%–25%), indicating a strong reliance on intermediaries and limited standardization. In other markets outside the region, although the ranges are narrower, there is also dispersion in certain niches. China shows high extremes in Property (up to 25%) and Accident (35%) insurance, while

Chart 2.3.2-h
Selected markets: range of commissions in the Non-Life segment

Source: MAPFRE Economics (with data from Axco)

Chart 2.3.2-i
Selected markets: range of commissions in the Life and Health segment



Source: MAPFRE Economics (with data from Axco)

Japan and the United Kingdom display variability in Motors and Accident insurance.

Meanwhile, commissions in the Life segment present wide dispersion depending on the type of product and region. In Latin America, the ranges are especially broad in individual Life and Life savings/investment products, where maximums of between 50% and 85% are observed, reflecting a strong dependence on sales incentives. In other markets, commissions are much lower and more homogeneous, generally between 0.5% and 5%, except on complex products. In Group Life and Health, levels are more moderate (5%–20% in Latin America and 2%–11% in the other markets), while the Life savings/investment segment shows greater disparity, with minimum values in Europe (0.3%-3.0%) versus much greater maximums in Latin America.

It should be noted that the ranges are broader in the Non-Life segment, although they rarely exceed 25% (except occasionally in Aviation or Shipping Cargo). By contrast, in the Life segment, especially in Life savings/investment products, the maximums are much higher (even up to 85%), indicating greater commercial pressure and lower standardization, and suggesting potential risks of excessive costs

and the need for greater transparency, especially in savings/investment products.

Based on the available information, it has not been possible to derive conclusive statistical results showing that a model with greater distribution-channel dispersion necessarily leads to more competitive commission levels. These levels also depend on the regulatory structure, the degree of actual competition, and the compensation strategy in each market. In any case, it can be stated that in developed markets, with lower dispersion in some lines, the commissions are much lower and more homogeneous (generally between 0.5% and 5%). Even in the Non-Life segment, where the relationship between dispersion and penetration is positive, commission ranges in Latin America remain wide.

In conclusion, the analysis confirms that greater channel dispersion (which is desirable for expanding insurance coverage) does not, in itself, guarantee more competition commission levels, since these are also influenced by, among other factors, the level of competition within each channel. In Latin America, where multichannel distribution is widespread, commissions in the Life segment (especially in savings and investment products) reach ranges higher than those observed in developed markets. However, channel dispersion does show a positive correlation with penetration growth, particularly in the Non-Life insurance segment, suggesting that multi-channel distribution contributes to expanding access and boosting supply. Thus, moving toward multichannel models should be understood as a strategy to improve reach and customer experience, rather than as an automatic mechanism for cost reduction. The coexistence of traditional channels with digital options and commercial partnerships can accelerate insurance inclusion, provided it is accompanied by policies that promote efficiency and control over remuneration structures. In this regard, digitalization and the standardization of commissions for complex products, especially in the Life segment, are necessary conditions for achieving a balance between competitiveness, sustainability, and the expansion of the insurance market.

2.4 Cost efficiency

2.4.1 General considerations

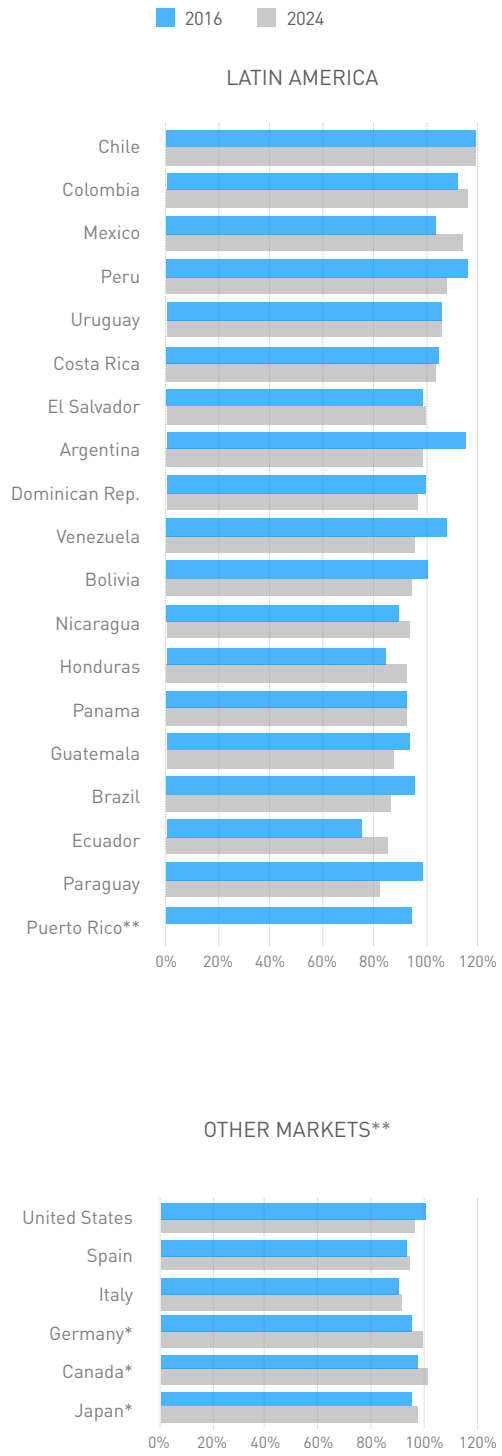
Efficient management by insurance companies is a key factor for the sustainability and competitiveness of the insurance market. Reducing operating costs allows insurance companies to offer more accessible products at more competitive prices,, promoting greater penetration across insurance markets. An optimized cost structure not only impacts the individual profitability of each company, but also affects the overall market dynamics linked to the availability of public goods essential for the sector's growth, such as information and agreements among industry players, which allow these resources to be used efficiently and at lower aggregate costs, generating economies of scale.

Thus, indicators such as the *expense ratio* (expenses as a share of premiums) are essential for assessing efficiency. A lower ratio reflects more efficient management, translating into a greater capacity to adjust prices and improve margins. Likewise, analysis of the *combined ratio* (which includes claims and expenses) permits an assessment of the company's overall competitiveness. In conclusion, cost efficiency not only reflects sound management within an insurance company, but also acts as a catalyst for development of the market as a whole, supporting its strengthening and growth.

2.4.2 Analysis of relative cost efficiency

In some cases, the lack of available information has prevented the establishment of a fully homogeneous comparison across the countries in the sample analyzed. The indicators presented have been estimated using total premiums and costs, since not all markets considered in the analysis allow data to be disaggregated by line of business.

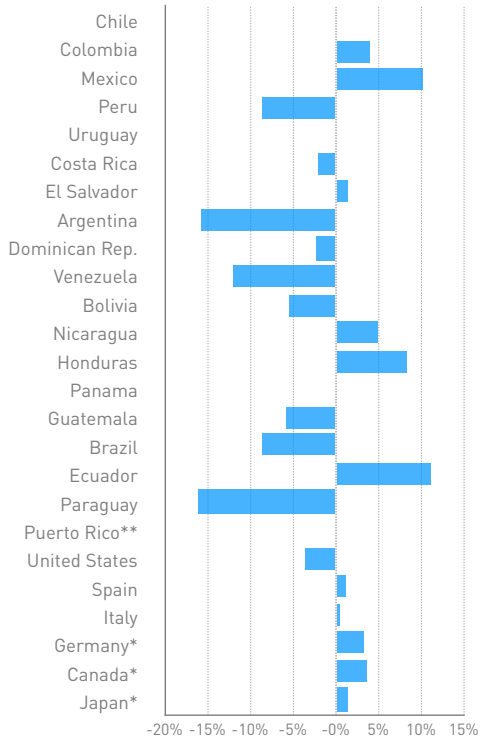
Chart 2.4.2-a
Selected markets: combined ratio range



Source: MAPFRE Economics
(with data from the supervisory bodies and professional associations)

* Data as of 2023
** No 2024 data available

Chart 2.4.2-b
Selected markets: change in the combined ratio, 2016–2024



Source: MAPFRE Economics (with data from the supervisory bodies and professional associations)

* Data as of 2023
** No 2024 data available

This may introduce some distortions when comparing these markets with others in which savings-based Life insurance carries a greater weight. For the more advanced markets, cost ratios corresponding to the Non-Life insurance segment have been used, as in certain cases this is the only segment with information available.

Based on the foregoing, Charts 2.4.2-a and 2.4.2-b present an analysis of the evolution of the combined ratio in the insurance markets of the countries included in the sample, between 2016 and 2024. According to this data, in Latin America, the average combined ratio shows a decline of about 2%, with improvements exceeding 13% in countries like Paraguay and Argentina. This points to improved claims and expense management, which may be associated with factors such as

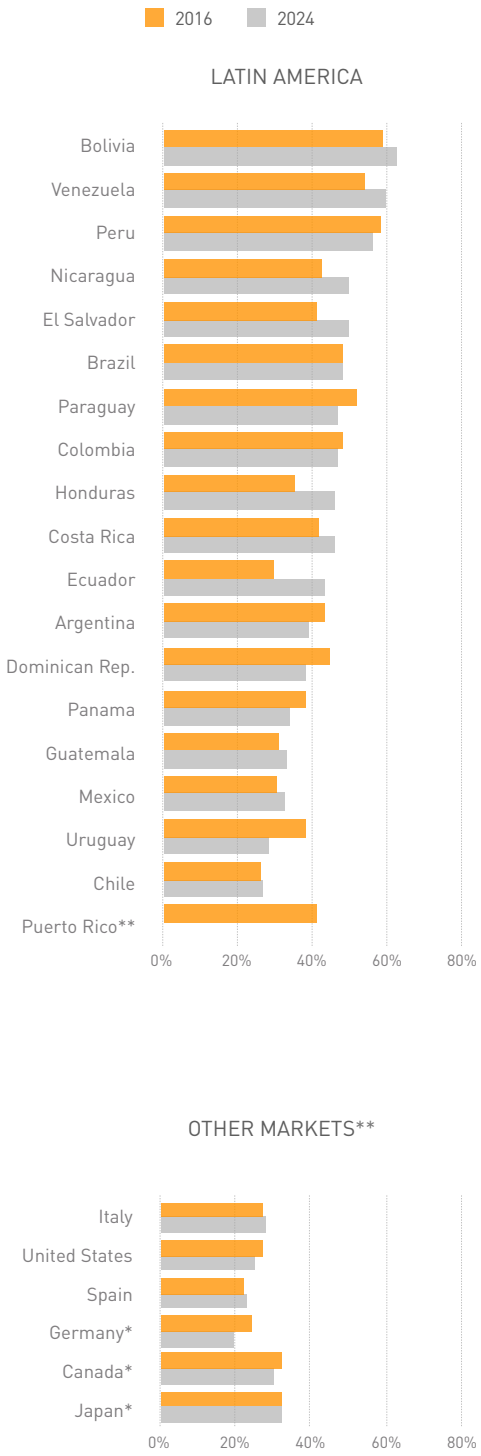
digitalization and cost-control processes, adjustments to underwriting policies, and more prudent pricing practices, among others. By contrast, countries like Ecuador, Mexico, and Honduras show deterioration in their efficiency, presenting increases of more than 8% in the indicator.

This disparity in the results highlights that efficiency depends not only on internal factors within insurance companies, but also on macroeconomic, regulatory, and technological-infrastructure conditions in each country. The mature markets included in the sample show certain stability with moderate increases, with the improvement in the United States standing out at 3.4%. Overall, they exhibit lower volatility than Latin American countries, reflecting more consolidated structures and greater capacity to absorb *shocks*. This indicates that technical efficiency remains a global challenge, albeit with greater instability in emerging economies.

The expense ratio is a key indicator to assess operating efficiency in insurance companies, as it reflects the share of administrative expenses and acquisition costs relative to premiums. A decline in this ratio indicates improved productivity and cost control, while an increase signals operational pressure that could affect competitiveness. As shown in Chart 2.4.2-c, in Latin America the general trend in this ratio is upward, although heterogeneous. The regional average rose from 42.2% to 43.6% between 2016 and 2024, with wide dispersion, reflecting mild cost pressures. Countries like Ecuador, Honduras, El Salvador, and Nicaragua show significant increases, while Uruguay, Dominican Republic, Paraguay, and Argentina reflect notable improvements in this indicator. Meanwhile, the average for the developed markets included in the sample remains stable, with only moderate variations.

These data seem to indicate that the efficiency gap between emerging economies and developed markets is widening. While mature markets are consolidating stable cost

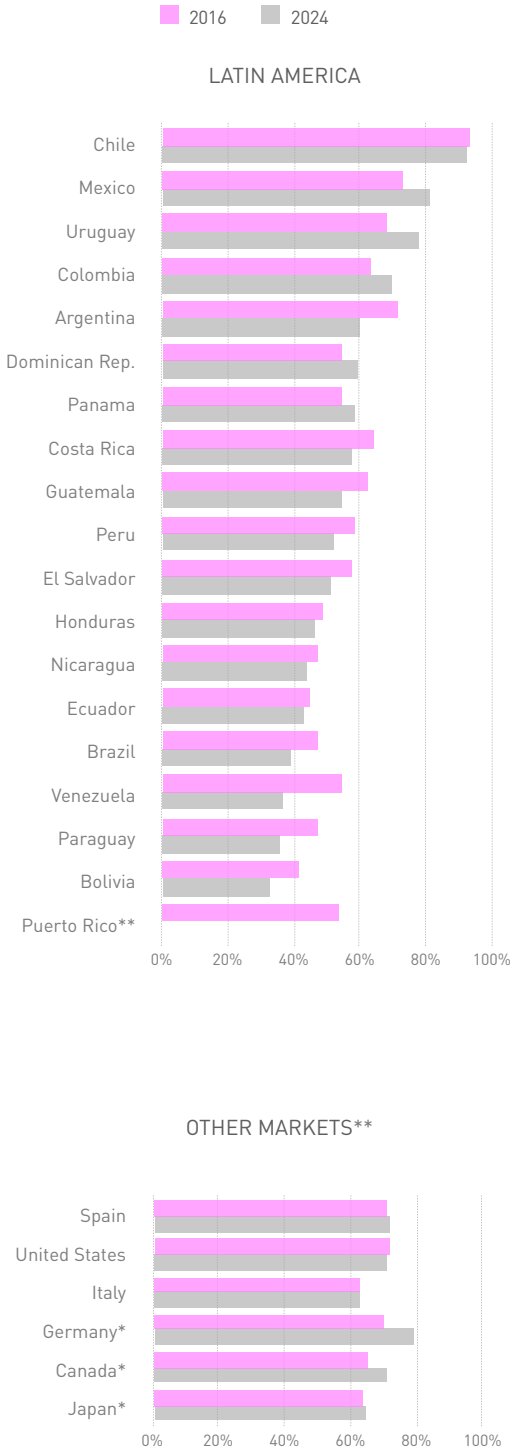
Chart 2.4.2-c
Selected markets: expense ratio range



Source: MAPFRE Economics
(with data from the supervisory bodies and professional associations)

* Data as of 2023
** No 2024 data available

Chart 2.4.2-d
Selected markets: loss ratio range



Source: MAPFRE Economics
(with data from the supervisory bodies and professional associations)

* Data as of 2023
** No 2024 data available

structures, Latin America faces challenges that require aggressive digitalization, automation, and cost control strategies, as well as industry agreements to share infrastructure and data. Reducing the expense ratio is critical to improving competitiveness and sustaining margins in an environment of growing pressure on prices and claims levels. At the same time, it is an indispensable condition for improving the affordability of insurance products and expanding insurance penetration.

In terms of the loss ratio, Chart 2.4.2-d shows that Latin America has improved overall, but with significant contrasts, with some countries achieving significant reductions in this indicator (Argentina and Paraguay), while others (Uruguay and Mexico) have seen increases. Like the expense ratio, the evolution of the loss ratio, with slight adjustments, is more stable in the mature markets included in the sample analyzed. In short, claims management remains critical to sustaining margins, especially in a context of more frequent climate-related events and cost volatility, and is a necessary condition for improving the affordability of insurance products, thus increasing insurance penetration levels in economies.

In conclusion, operational efficiency is the critical factor for the Latin American region. Reducing costs would allow more premiums to be allocated to claims payments, strengthening the social function of insurance and improving the industry's image. This requires digitization, automation, and sector-wide collaboration to standardize processes, share information, and optimize risk management, following the practices of mature markets, whose stability reflects more consolidated structures.

2.5 Innovation

2.5.1 Innovation in insurance products

Innovation has become a strategic necessity for the future of the global insurance

industry, driven by the convergence of evolving consumer demand—seeking an experience of immediacy and personalization similar to that offered by major technology platforms for other products—the emergence of new technologies such as Big Data, Artificial Intelligence (AI), and the Internet of Things (IoT), which enable innovative solutions across many areas of insurance activity, and the appearance of new risks not covered under traditional insurance policies.

One of the most commonly identified barriers to innovation is related to the *cost of implementing new technologies* and the *technological burden of legacy systems*, which are expensive to maintain and difficult to integrate with new digital platforms. Despite this, many traditional operators have not been displaced by the dynamics of this new environment, as had been feared at the beginning of this technological revolution, in which the insurance industry is showing a great capacity for adaptation. Another major barrier is related to regulatory challenges, an area in which the industry still faces significant *structural barriers to large-scale* innovation, either due to regulatory barriers that hinder and delay the launch of new products on the market by imposing strict ex-ante controls, or due to regulatory requirements for the prior approval of technical notes, policies, and, in some cases, rates.

2.5.2 Regulation and introduction of new products

In general, as highlighted in previous studies, international regulatory frameworks have been incorporating different variants of approval mechanisms for products insurance companies intend to bring to market. The origin of this provision lies in the possibility for regulatory bodies to have an *ex-ante* tool to monitor insurance companies' solvency positions and protect consumers. Unlike most financial products, insurance products reverse the production cycle by charging a premium in advance to cover a future benefit. From a solvency perspective, this means that the premium charged must be sufficient to cover the future costs inherent in the policy, not only those related to the benefit itself (claims), but also those related to the sale and management of the product (acquisition and administration). An inadequate estimation of premiums, or inconsistency between premium calculations and the commitments assumed under insurance contracts, may result in significant future losses as claims arise and benefits become payable. This is particularly serious in the case of insurance products involving longer terms. Thus, *ex-ante* control of technical standards and their correspondence with insurance contracts has traditionally been considered a tool for supervisory bodies at the international level to monitor the solvency of insurance companies.

However, more modern regulatory regimes, particularly Solvency II, tend to eliminate these ex-ante controls de facto, in order to free up capacity among supervisors to carry out risk-based supervision, notwithstanding their authority to conduct *ex-post* reviews. In general, Solvency II-type models do not require supervisors to grant prior approval or to receive systematic notification of the general and specific conditions of insurance policies, premium scales, or technical bases used to calculate premium scales and technical provisions, nor of the forms and other documentation that insurers intend to use in their relationships with policyholders or ceding or retroceding companies, leaving only the requirement to submit technical bases for Life insurance.[20]

However, the existence of regulatory requirements related to the introduction of new products, insofar as they are less flexible and efficient, may act as a barrier that detracts from innovation in insurance markets, by making it more difficult to introduce new products adapted to current conditions and emerging consumer needs. This may result in limitations on the expansion of insurance supply, negatively affecting insurance penetration and, ultimately, consumer interest.

An analysis of a series of global markets reveals that there is a wide variety of approaches to insurance companies' initiatives to introduce new products and modify those already marketed in their policy portfolios. Requirements range from the need for prior supervisory authorization of rates to be applied, technical bases used to calculate rates, general and/or specific policy conditions, or a combination of these elements. In certain systems, prior authorization is not required, but referral for registration by the supervisor is, which allows may be used once the respective code has been obtained ("file & use"). Thus, from a purely analytical standpoint, these systems can be characterized into three main types:

- *Free-use model*. Under this system, insurers may launch a new product without obtaining prior authorization or registration from the supervisory authority. This model is characteristic of the Solvency II system, framework, where a more developed risk-management culture within corporate governance allows this to replace prior supervisory oversight, without prejudice to possible *ex-post* supervision.

- *"File & use" model*. This regulatory system requires registration with the supervisory authority before a product can be marketed. Insurance companies in markets operating under this system may begin marketing the new product immediately or after a short waiting period (usually 30 or 60 days), unless the regulator raises an objection during that time. This is a relatively flexible model in which the regulator retains the authority to halt the launch, although it still constitutes an *ex-ante* control. This model is widely used globally, including in many states of the United States, such as Washington, Arizona, Illinois, Virginia, North Carolina, Colorado, Minnesota, Ohio, and Missouri, among others. Japan has also adopted this system, which has evolved from a strict prior-approval regime toward this more flexible model, while maintaining somewhat stricter conditions for business lines it considers essential. It is also used in most Latin American markets, including large markets like Brazil, Mexico, Colombia, Chile, and Peru. Other markets such as Argentina, Bolivia, Nicaragua, Guatemala, and Panama also follow this model, although with stricter product-authorization requirements.

- *Prior authorization model*. Under this regulatory regime, the insurance company must obtain supervisory approval for the insurance product before it can be sold, including authorization for the rate the insurer will charge for the product. A typical example within developed markets is the state of California, whose regulations include Proposition 103, which requires prior approval of rates and rate changes for any insurance product. Other states, such as Florida and New York, have similar but more flexible regulations, affecting only certain lines of business, such as home insurance with catastrophic coverage, and allowing for faster adjustments through the use of provisional rates. In Asia, India also follows a strict system for certain lines of business, such as compulsory motors insurance, agricultural insurance, and certain standardized health coverages. Likewise, in Latin America, only a few relatively small markets, such as Ecuador, the Dominican Republic, and Venezuela, follow this system.

In summary, analysis across a range of global markets shows that there is still a wide diversity of approaches to handling insurers' initiatives to launch new products. These systems range from requiring prior supervisory authorization of rates, technical bases used for calculating rates, the general and/or specific conditions of insurance policies, or a combination of these elements; to systems in which no prior authorization is required but products must be filed for registration with the supervisor and may be used once the corresponding code has been obtained (*file & use*); and finally to the most modern schemes, such as the Solvency II framework, which grant greater freedom by dispensing with *ex-ante* controls, notwithstanding possible *ex-post* supervision.

3. Determining factors of insurance penetration on the demand side

3.1 Economic growth and income distribution

3.1.1 General aspects

From a functional perspective, insurance plays two essential roles: *risk transfer* and *financial intermediation*. The first refers to the ability of insurance to mitigate the uncertainty inherent in economic activity and adverse personal events by redistributing risks among economic agents. In Property & Casualty insurance (the Non-Life insurance segment), this function protects property and liability; and in the case of Life insurance, it allows for the coverage of biometric risks (such as premature death or longevity), protecting the financial stability of the policyholder and their beneficiaries. And, with regard to its intermediation function within the financial system, insurers are able to channel resources into the capital-formation process and thereby facilitate dynamic economic activity.

Economic theory has addressed insurance demand from a perspective that goes beyond simple financial protection. Essentially, insurance acquisition can be understood as an intertemporal consumer decision under uncertainty, in which individuals seek to preserve their level of consumption in the face of potential adverse events that could affect their income or well-being. This view considers insurance not as an investment, but rather as a form of preventive consumption with the main purpose of maximizing expected utility in an uncertain environment. From this standpoint, three fundamental elements explain insurance demand. First, *risk aversion*: consumers prefer a certain level of utility to an uncertain one, even when both have the same expected value. This preference for certainty drives insurance contracting as a mechanisms to avoid drastic fluctuations in income or consumption. Second, *expected-utility maximization* involves individuals making decisions that allow them to achieve the highest possible level of well-being, considering the probability of negative events occurring; insurance helps stabilize consumption by reducing the variance in future income. Finally, *risk transfer* is insurance's operating principle: by paying a premium in the present, individuals guarantee future compensation should an adverse event occur, such as damage to their property, the need to face liability, illness, an accident, or job loss.

This logic of preventive consumption is deeply connected to the permanent-income hypothesis developed by Milton Friedman in 1957. Later, Stigler and Becker shared their ideas on rational behavior, arguing that individuals do not base their spending decisions on current income, but rather on their permanent income, that is, the income they expect to maintain over time. According to this theory, consumption tends to smooth out over time, and temporary income (such as bonuses, prizes, or one-time losses) does not significantly alter consumption patterns. Spending and savings decisions are therefore grounded in rational expectations about future income. Robert Lucas formalized this logic within a dynamic and rational framework, where agents not only have expectations about their income, but also about macroeconomic variables such as inflation, interest rates, and fiscal policies. Thus, intertemporal consumption becomes an optimized decision based on rational expectations about the economic environment.

The relationship between both theories manifests as rational behavior when facing uncertainty. By protecting individuals against

negative shocks that could affect their income (such as illness or unemployment), insurance acts as an instrument to preserve permanent income. From this perspective, consumption remains stable even when current income is affected by temporary events. In other words, insurance makes it easier for individuals to maintain a consistent consumption level in line with their expected income, avoiding sudden adjustments that could undermine their well-being.

This connection is particularly relevant in entrepreneurial contexts, where income tends to be volatile and uncertainty is high. For an entrepreneur, taking out insurance, whether health, income, or third-party liability insurance, is a rational strategy for reducing the risk associated with business activity. By having coverage mechanisms in place, entrepreneurs can take calculated risks without compromising their expected spending levels, which in turn stimulates entrepreneurial initiative. As such, insurance not only protects individuals, but also allows them to make riskier financial decisions without fear of losing their financial stability. Thus, the theory of insurance demand as consumption and the permanent-income hypothesis converge in a comprehensive view of economic behavior under risk, highlighting insurance as a key tool for stability and for both personal and business development.

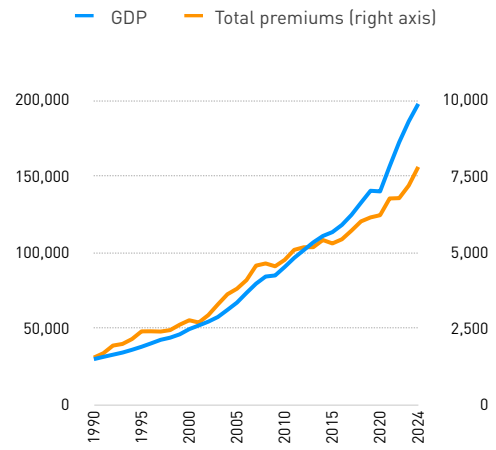
3.1.2 Penetration, economic growth, and income distribution

The trend in insurance premiums is closely linked to key macroeconomic indicators, particularly per capita income and the accumulation of financial assets. Thus, when analyzing global GDP and total premium trends (see Chart 3.1.2-a) over the last thirty-five years, it is clear that both curves show sustained growth, although premiums grew faster than GDP in the 1995–2008 and 2018–2024 periods, and in recent years (2020–2024) the two series converge, indicating an acceleration in GDP growth. This behavior indicates a positive correlation between economic development and the expansion of the insurance industry, consistent with the economic theory that links the increase in national revenue with greater demand for financial and protection products.

Accordingly, the increase in total premiums reflects greater insurance penetration in the economy, and its rapid growth indicates that the proportion of insurance spending relative to the size of the economy is increasing, signaling higher risk awareness and greater financial sophistication (more products and greater insurance coverage). From a technical perspective, growth in total premiums can be interpreted as an indicator that insurance is deepening its role in the economic system and achieving greater penetration. Thus, as GDP grows, businesses and households can allocate more resources to protecting themselves and offsetting their risks, which translates into an increase in policy sales and, ultimately, into an expansion of the insurance market.

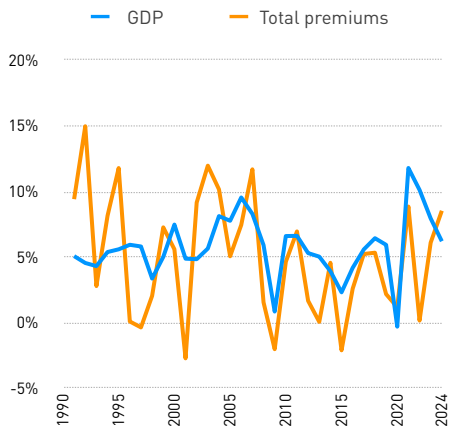
As shown in Chart 3.1.2-b, the pace of expansion of rates of change between GDP and total premiums reveals complex dynamics in the insurance industry, marked by resilience and sensitivity to economic cycles.

Chart 3.1.2-a
Global: change of GDP and insurance demand
(billions of USD)



Source: MAPFRE Economics (with data from the World Bank and the Swiss Re)

Chart 3.1.2-b
Global: pace of expansion of GDP vs. insurance demand
(rates of change %, YoY)



Source: MAPFRE Economics (with data from the World Bank and the Swiss Re)

From 1991 to 2024, GDP shows sustained average growth, with peaks above 9% (in 2006) and occasional contractions, such as in 2020 (-0.3%), reflecting global macroeconomic shocks (the COVID-19 pandemic). In contrast, total premiums are more volatile, with notable increases in 1992 (≈15%) and 2003 (≈12%), but also significant declines in 2009 (-2%) and 2015 (-2.1%), demonstrating their pro-cyclical nature and, therefore, their elasticity in relation to disposable income.

Over the last decade, digitization and diversification have allowed the insurance industry to achieve moderate growth (around 5% during 2017–2019), although the 2020 pandemic introduced an atypical pattern, with negative GDP (-0.29%) compared to positive premiums (1.18%), highlighting the countercyclical function of certain lines of business, such as Health. However, the rebound in GDP growth in 2021 (11.7% vs. 8.8% growth in premiums) and the subsequent slowdown (0.16% growth in premiums in 2022) confirm the need for strategies focused on innovation, efficiency, and penetration in underserved segments. The implicit composite annual growth rate (CAGR) for the period, close to 5%, indicates stability; however, the gap with respect to GDP requires a rethinking and transformation of distribution, *pricing*, and risk management models

The calculation of the CAGR for the 1990–2024 period (see Table 3.1.2) reveals key trends in global GDP performance and worldwide insurance demand over the last 34 years. According to these data, GDP shows a compound annual growth rate of 5.74% between 1990 and 2024, indicating sustained and robust economic growth over the last three decades. From a macroeconomic perspective, expanding GDP means greater consumption, investment, and, in general, a favorable environment for the development of industries such as insurance. Economic growth is also correlated with improvements in per capita income, which increases demand for financial products and asset protection. However, it is important to note that this growth has not been linear; it has been marked by economic cycles, financial crises, and regulatory changes that have influenced market dynamics. Under these premises, a rate of 5.74% is indicative of resilience to external shocks and an

Table 3.1.2
Global: change in GDP vs. insurance premiums
(Millions of USD; CAGR, %)

Indicator	1990	2024	CAGR (%)
GDP	29,575,337	197,428,076	5.74%
Total Premiums	1,530,016	7,799,328	4.91%
Life Premiums	753,341	3,197,641	4.34%
Non-Life Premiums	776,675	4,601,687	5.37%

Source: MAPFRE Economics (with data from the World Bank and the Swiss Re)

economic structure that has been able to adapt to global transformations.

Meanwhile, although the insurance industry grew at a slightly slower pace than GDP, it showed significant growth, with total premiums increasing at a compound rate of 4.91%, indicating solid expansion, albeit at a slower pace than the economy as a whole. This difference can be explained by factors such as insurance penetration in the population, market maturity, and competition with other financial instruments. The Life insurance segment, with 4.34% growth, reflects stable demand, but limited by demographic and cultural variables, while the Non-Life segment, with average growth of 5.37%, is closer to the pace of GDP, driven by increases in Health, Automobile, and Third-Party Liability insurance. From a technical perspective, these figures suggest that the insurance industry has maintained a positive correlation with economic growth, albeit with regional differences, where the procyclicality of insurance demand is more pronounced in emerging economies, given the low level of insurance penetration.

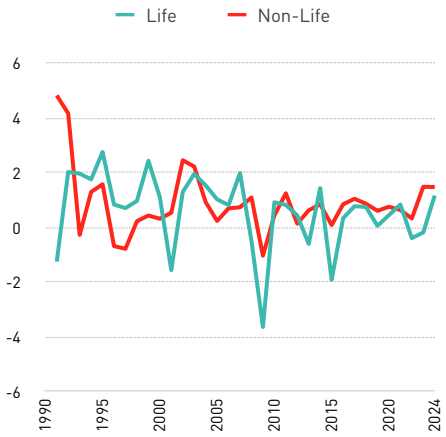
From a strategic perspective, growth rates are a key pillar for assessing the outlook for the insurance industry. A CAGR of close to 5% in premiums reflects the industry's resilience to crises, such as that of 2008 or the pandemic of 2020, albeit with temporary adjustments in demand. For insurance companies, this indicates stable business, but not immune to economic cycles. On the other hand, the fact that growth is lower than GDP highlights the need to innovate in order to regain momentum, especially in Life insurance, which is more sensitive to disposable income and consumer confidence. Initiatives such as digitization, product diversification, and penetration into unserved or underserved segments can help close this gap.

3.1.3 Sensitivity of insurance demand to income level

Income distribution is also a structural factor in understanding the growth in insurance demand. As income distribution improves in an economy, the level of disposable personal income increases and, consequently, the ability to purchase insurance protection increases. To complement the analysis, Chart 3.1.3-a shows the income elasticity of insurance demand relative to GDP. Positive elasticity indicates that insurance premiums are growing faster than the economy, while negative values suggest relative contraction. An analysis of the global market shows that in the early years, especially between 1991 and 1993, there was high elasticity in the Non-Life insurance segment, close to 4, reflecting rapid expansion in a context of economic growth. By contrast, premiums in the Life segment are more volatile, with episodes of negative elasticity in 2008 and 2012, coinciding with financial crises and macroeconomic adjustments. This disparity confirms that the Life segment is more sensitive to disposable income and consumer confidence, while the Non-Life segment maintains a more stable relationship with GDP.

This information is important for assessing the resilience of the insurance industry to economic downturns. Thus, during periods of economic recession, negative elasticity in the

Chart 3.1.3-a
Global: income elasticity of insurance premiums with respect to GDP
(%)



Source: MAPFRE Economics (with data from the World Bank and the Swiss Re)

Life insurance segment indicates vulnerability, forcing insurance companies to design more flexible products with adjusted premiums and coverage tailored to less liquid environments. Meanwhile, the relative stability of the Non-Life segment suggests that it acts as a kind of buffer, given that certain types of insurance (such as Automobile or Health) are perceived as essential.

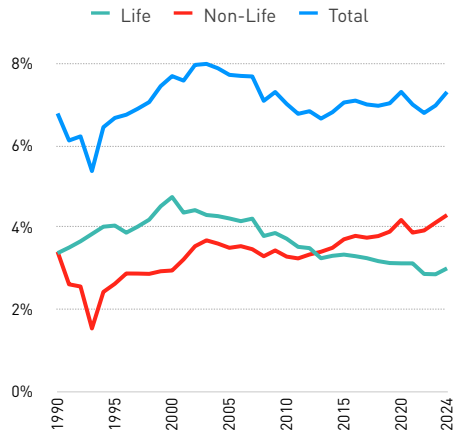
Thus, in periods of economic growth, income elasticity greater than 1 makes insurance a superior good, creating opportunities to innovate and diversify the offering. In the Life segment, this would involve developing savings and investment-linked products, while in the Non-Life insurance segment, the strategy should focus on geographical expansion, digitization, and the extension of risk coverage through integrated packages. Conversely, in crisis scenarios where elasticity tends toward negative values, the sector's resilience depends on its ability to adapt. In Life insurance, this could involve offering flexible plans with adjusted premiums, basic products, and financial education campaigns that maintain the perception of value. In Non-Life insurance, the priority will be to optimize costs, focus on essential coverage such as Health, Home, and Automobile, as well as lines of business linked to trade, small and medium-sized enterprises, and large risks. Understanding these dynamics makes it possible to design robust strategies that ensure stability and competitiveness in changing environments.

Sensitivity of premiums to changes in penetration

At the global level, the overall penetration index, which measures the ratio of insurance premiums to GDP, shows a relatively stable trend of around 6.7%–7.7% over the last three decades, with peaks close to 7.7% in 2000 and lows around 6.1% in 1991 (see Chart 3.1.3-b). This relative stability indicates that the insurance industry maintains a significant correlation with economic activity, but also has a certain defensive character against macroeconomic shocks. In this regard, adjustments can be observed during periods of crisis: for example, following the 2008 financial crisis, the penetration rate fell to 7.08%, and in 2010 it stood at 7.00%, reflecting a contraction in demand for insurance linked to the reduction in disposable income and uncertainty. Starting in 2015, the index regained momentum, reaching 7.30% in 2020, driven by the relative recovery in economic activity. However, in recent years there has been a slight upward trend, with 6.78% in 2022, 6.97% in 2023, and 7.30% in 2024, posing strategic challenges for sustaining growth in a context of weak economic momentum and changes in consumer behavior.

The detailed analysis reveals structural differences between the Life and Non-Life segments. Life insurance penetration, which stood at 3.37% in 1990, peaked in 2000 at 4.73%, but has since trended downward, reaching around 3.12% in 2020 and falling to 3.00% in 2024. This contraction reflects the sensitivity of the Life insurance sector to factors such as disposable income, consumer confidence, and interest rates, which affect demand for savings and pension products. In contrast, the Non-Life

Chart 3.1.3-b
Global: penetration trends
(premiums/GDP)



Source: MAPFRE Economics (with data from the World Bank and the Swiss Re)

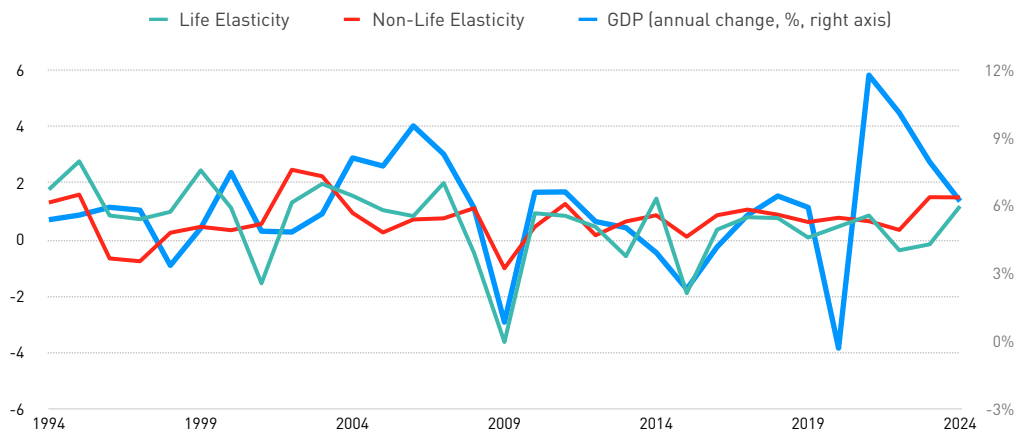
insurance segment shows more dynamic performance, rising from 3.40% in 1990 to 4.29% in 2024, with sustained growth after the pandemic, driven by inflationary adjustments and increased demand for Health, Motors, and Catastrophic Risk coverage. This divergence means that insurance companies must reorient their strategy; while the Life segment requires innovation in flexible and digital products to regain its appeal, the Non-Life segment offers opportunities for expansion through diversification and penetration into unserved or underserved segments.

Sensitivity of insurance demand to income distribution imbalances

Premium elasticity with respect to per capita income can be interpreted as a *proxy* for sensitivity to per capita income, reflecting how insurance demand reacts to changes in the disposable income of economic agents. From a macroeconomic perspective, Life insurance tends to behave as a superior good, with demand growing in stable and expanding economic environments, since it is associated with long-term savings and investment. By contrast, Non-Life insurance, linked to asset protection and durable goods, may show greater resilience in uncertain contexts, where the priority is to protect tangible assets. This divergence explains why, in some periods, the increased sensitivity of Life insurance coincides with a lower response in Non-Life insurance: households allocate resources to financial products when they perceive stability, but prioritize basic coverage in adverse scenarios.

As Chart 3.1.3-c illustrates, the elasticity of Life insurance premiums with respect to per capita income is highly volatile over the 1994–2024 period, reflecting how demand for Life insurance responds sharply to changes in disposable income. During years of economic prosperity, such as 1999 and 2000, significant peaks are observed, indicating that income growth boosted demand for Life products, especially in emerging economies where these insurance policies are perceived as tools for saving and protecting assets. However, in periods of crisis, such as 1997–1998 and during the pandemic in 2020, elasticity falls sharply, even to negative values (-2.402 and -2.075), showing that households prioritize basic consumption over investment in insurance. This dynamic is accentuated in countries with lower per capita income, where demand is more sensitive to economic

Chart 3.1.3-c
Global: GDP trends vs. premium elasticity with respect to per capita income



Source: MAPFRE Economics (with data from the World Bank and the Swiss Re)

shocks, while in developed economies the variation is smaller due to income stability and the mandatory nature of certain products. In macroeconomic terms, the calculated temporal correlation suggests a relatively weak relationship with the historical trend, confirming that external factors such as financial crises and demographic changes also influence GDP growth. From a strategic perspective, for insurance companies, this means designing countercyclical strategies, offering flexible and accessible products in uncertain environments, and promoting Life insurance with investment components during periods of economic expansion.

Meanwhile, the elasticity of Non-Life premiums with respect to per capita income (see Chart 3.1.3-c above) shows a different pattern, with episodes of high sensitivity in recent years, such as 2016 and 2019, associated with credit expansion and the acquisition of durable goods requiring coverage. This elasticity indicates that Non-Life insurance responds mainly to consumption dynamics and asset protection, rather than macroeconomic stability. In times of crisis, such as in 1998 and 2020, elasticity decreases and even becomes negative (-0.52 and -1.294), reflecting that demand for Property & Casualty insurance is also affected when disposable income falls sharply. However, the calculated temporal correlation shows a slight positive relationship, suggesting that, in the long term, the economic trend favors the purchase of these products, especially in developed markets where legal mandates (for example, Automobile insurance) cushion declines in demand. In emerging economies, volatility is higher, as insurance penetration depends on the economic cycle and access to credit. From a macroeconomic perspective, the elasticity of Non-Life insurance confirms that these types of insurance act as less necessary goods, with demand increasing during periods of growth and contracting during recessions, although to a lesser extent than Life insurance. For insurance companies, this means strengthening their supply of basic and digital products in adverse environments and taking advantage of periods of expansion to diversify coverage.

3.2 Financial education

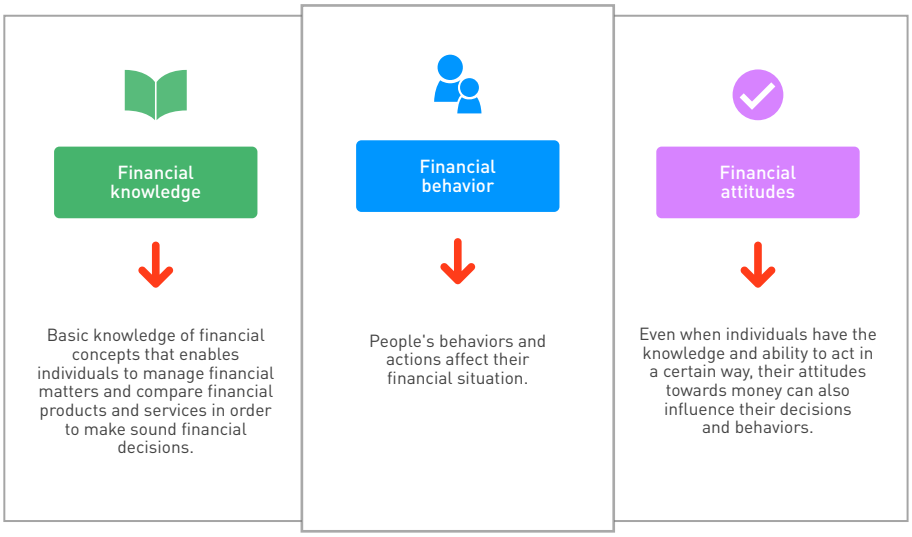
3.2.1 General aspects

As previously established, aggregate demand for insurance is markedly sensitive to the pace of economic growth and a more equitable distribution of disposable income. However, in addition to these factors, another structural element is key to understanding the sustained increase in demand in the medium and long term: the level of financial education. Improvements in financial literacy should lead to an increase in aggregate demand for insurance services, which in turn would promote greater insurance penetration in the economy.

Various studies by the Organisation for Economic Co-operation and Development (OECD) have shown that financial education is a key determinant of citizens' economic well-being and the strength of national economies. Higher financial literacy contributes to better economic decision-making, encourages saving, and reduces excessive household debt.[21] Likewise, the *High-Level Principles on National Strategies for Financial Education,*[22] developed by the OECD International Network on Financial Education (OECD/INFE) (comprising representatives from more than 100 economies, including all G20 members and various international organizations), emphasize that financial education not only strengthens individual resilience but also contributes to overall economic stability.

The OECD[23] defines *financial education* as a combination of financial awareness, knowledge, skills, attitudes, and behaviors that are necessary to make sound financial decisions and thus achieve financial well-being. Through *financial knowledge*, people can make better-informed choices. Meanwhile, *financial behavior* affects people's economic situation and well-being, and *financial attitudes* directly influence their

Chart 3.2.1-a
Global: general elements of financial education



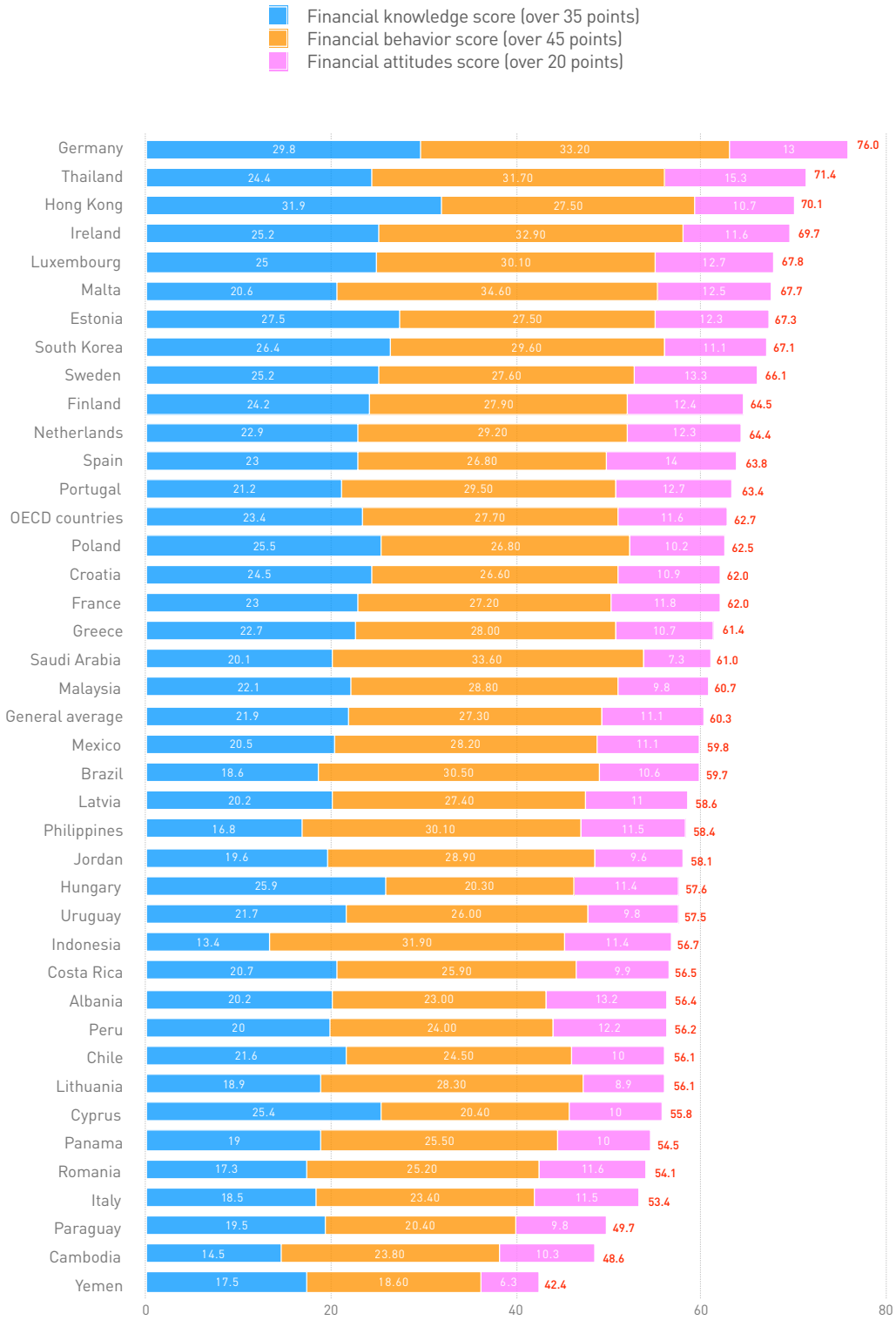
Source: MAPFRE Economics (with data from OECD/INFE 2023)

decisions and behavior, regardless of their knowledge and abilities (see Chart 3.2.1-a).

In the *OECD/INFE 2023 International Survey of Adult Financial Literacy*, the OECD provides a comparison of the 39 countries that participated in the international financial-literacy survey, using the OECD/INFE 2022 toolkit to measure, in this case, general financial knowledge (see Chart 3.2.1-b). The analysis reveals a significant gap between countries, with a global average of 60.4 points and an average of 62.7 points for OECD member countries. Germany leads the ranking with 76.0 points, followed by Thailand (71.4) and Hong Kong (70.1), while Yemen ranks at the bottom with 42.3 points. Countries like Greece (with 61.4 points), Saudi Arabia (61.0), Malaysia (60.7), Mexico (59.8), and Brazil (59.7) are in the middle of the ranking, around the global average and slightly below that of the OECD. These results underscore the need to strengthen financial education and promote responsible habits, tailoring strategies to the specific weaknesses of each region. Likewise, the aforementioned report shows that only one in three adults reaches the minimum level of financial literacy. Specifically, only 33.7% of adults achieve the minimum financial-literacy target, while the average among OECD countries is 38.9%. Germany, Thailand, and Hong Kong lead the ranking with 75.5%, 64.5%, and 59.5%, respectively, showing high levels of preparedness. In contrast, Yemen reports only 3.0%, and countries such as Cambodia and Paraguay are below 15% (see Chart 3.2.1-c).

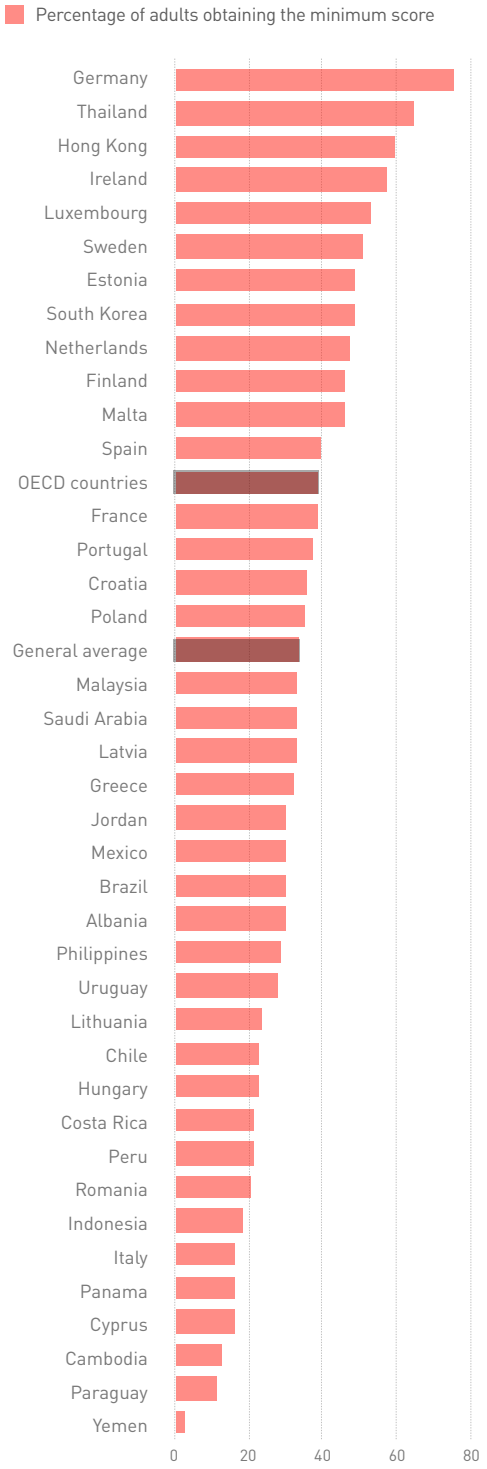
Moreover, even well-known basic concepts remain a major challenge. Chart 3.2.1-e illustrates that, on average across the countries analyzed, adults have a good understanding of basic concepts such as loan interest (83.1%) and the definition of inflation (83.5%), while they show weaknesses in financial calculations, as only 49.3% answer correctly on the calculation of simple interest and 41.7% on compound interest, and only 26.2% are able to understand both concepts together. Among OECD-participating countries, the average exceeds the global mean in all areas, standing out particularly in the time value of money (69.5% vs. 63.5%) and in the calculation of simple interest (55.7% vs. 49.3%). These results show that, although

Chart 3.2.1-b
Selected countries: general financial knowledge



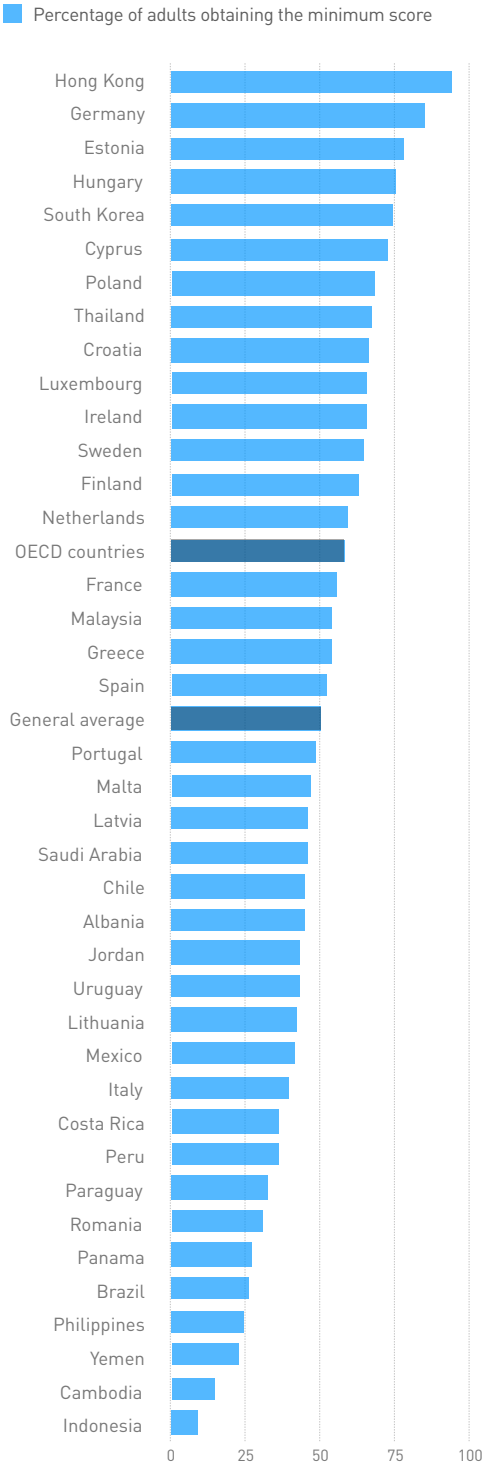
Source: MAPFRE Economics (with data from OECD-INFE 2023)

Chart 3.2.1-c
Selected countries: adults who obtain the minimum target score for basic financial knowledge
(%)



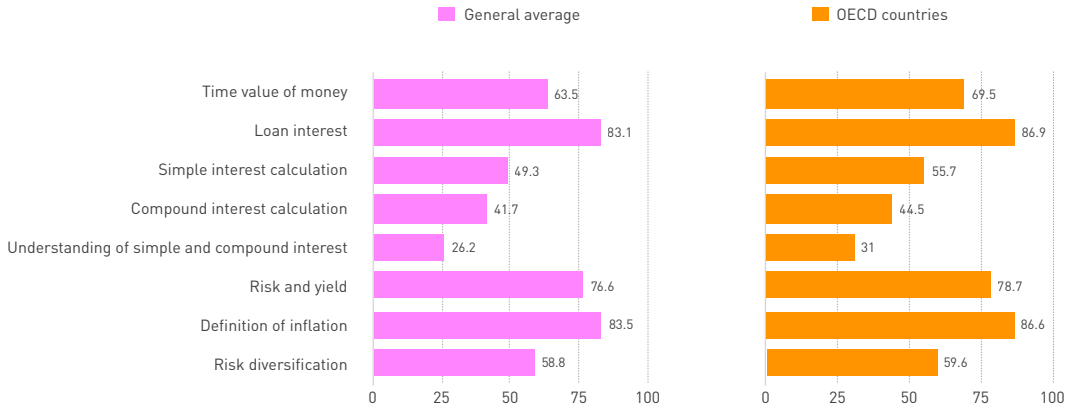
Source: MAPFRE Economics (with data from OECD-INFE 2023)

Chart 3.2.1-d
Selected countries: adults who obtain the minimum target score for financial knowledge
(%)



Source: MAPFRE Economics (with data from OECD-INFE 2023)

Chart 3.2.1-e
Selected countries: financial knowledge
(%)



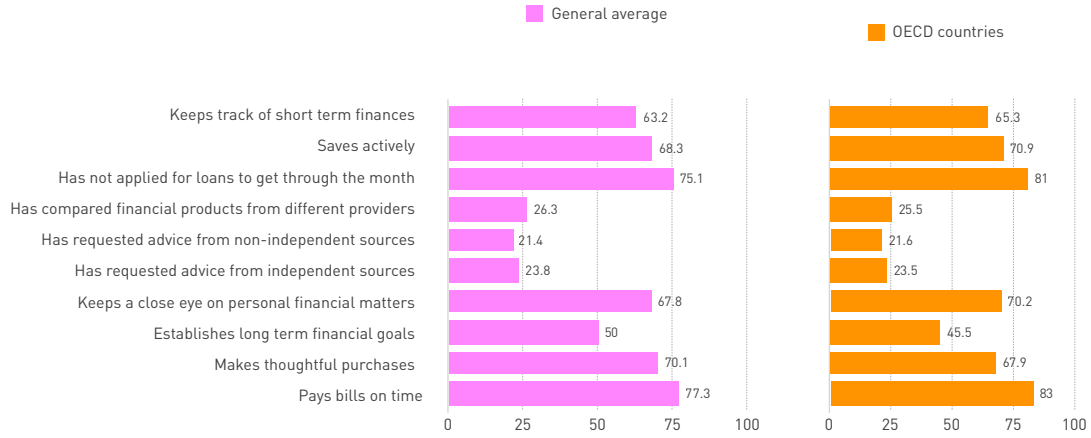
Source: MAPFRE Economics (with data from OECD-INFE 2023)

concepts such as risk and return (76.6%) and diversification (58.8%) are relatively well understood, there is still a significant gap in applied mathematical skills, highlighting the need to strengthen financial education in calculations and more advanced concepts.

As mentioned above, there is a significant global gap in financial education, with wide variations between countries and economies. Chart 3.2.1-d shows the percentage of adults who achieve the minimum score in financial literacy by country. With a global average of 50.1% and 57.7% for OECD-participating countries, Hong Kong (China) leads the way with 93.6%, followed by Germany (84.5%) and Estonia (77.9%). Cambodia and Indonesia lag far behind at 14.2% and 9.2%, respectively, highlighting the urgent need to strengthen financial education in emerging countries.

With regard to financial behavior, although most adults follow basic practices to avoid debt and keep up with payments, informed

Chart 3.2.1-f
Selected countries: financial behavior
(%)



Source: MAPFRE Economics (with data from OECD-INFE 2023)

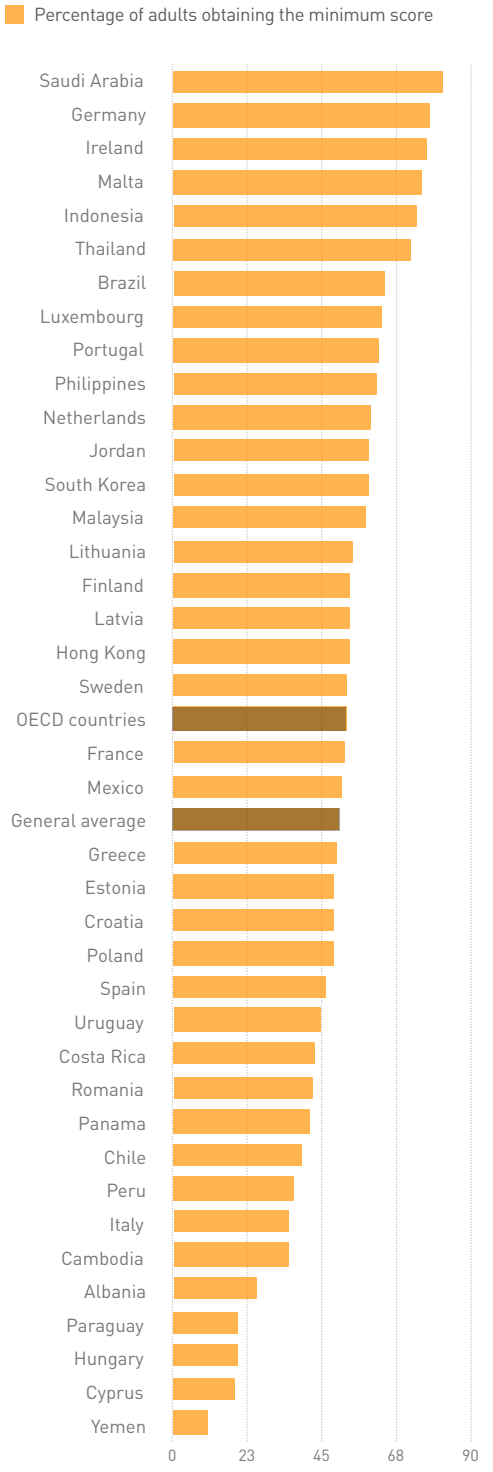
decision-making remains limited, indicating an urgent need to strengthen financial education in areas such as product comparison and advising. The overall average shows strengths and good performance in financial planning and consumer decision-making. However, it falls below OECD-participating countries in savings habits, financial control, and timely payments. As a positive practice, the global average shows that 75.1% of adults do not take out loans to make ends meet and that 77.3% pay their bills on time. However, only 26.3% of adults compare financial products between providers, and just 23.8% seek independent advice before purchasing financial products or services (see Chart 3.2.1-f).

An analysis of financial behavior by economy and country reveals significant differences in financial habits. Some countries, such as Saudi Arabia, Germany, Ireland, and Malta, rank at the top, with over 75% of adults exhibiting appropriate behaviors. In contrast, countries such as Hungary and Cyprus are well below the global average (50.5%), with values close to 20%, and Yemen ranks last with 10.8% (see Chart 3.2.1-g).

Globally, financial literacy varies greatly between countries, with significant inequalities in terms of knowledge and skills. These gaps are particularly visible between men and women, where 35% of men have financial literacy, compared to 30% of women, and between advanced economies and developing countries.[24] Chart 3.2.1-h presents a summary of the countries with the best financial education in 2025,[25] where the 10 selected countries have stood out for various factors, such as the integration of financial education from childhood, the incorporation of workshops and economic simulations, the combination of technology with financial education, involvement of governments and other institutions in financial education, among other key elements.

Certainly, with basic financial literacy, people can take advantage of financial services, thereby supporting financial inclusion,[26],

Chart 3.2.1-g
Selected countries: adults who obtain the minimum score for financial behavior
(%)



Source: MAPFRE Economics (with data from OECD-INFE 2023)

Chart 3.2.1-h
Summary of countries with the best financial education in 2025

FINLAND
A pioneer in education, Finland incorporates applied financial content like family budgets, entrepreneurship, and the use of digital means of payment from an early age.

CANADA
Has had a National Financial Education Strategy since 2015 that is constantly updated. Public schools incorporate practical workshops and real economy simulations.

AUSTRALIA
Combines technology with financial education. The government supports interactive platforms and promotes financial training in vulnerable communities.

NETHERLANDS
Strong focus on practical skills. From elementary school, children are taught how to manage allowances, open bank accounts, and plan expenses.

GERMANY
Noted for its structured focus: financial content starting in high school and collaboration with banks and savings cooperatives.

SINGAPORE
High performance in international tests. Financial education is integrated across various school subjects.

NORWAY
Applies an inclusive and digitalized model, with a strongly encouraged savings culture at home and at school.

SOUTH KOREA
Promotes financial education through mass campaigns and partnerships between the government, banks, and universities.

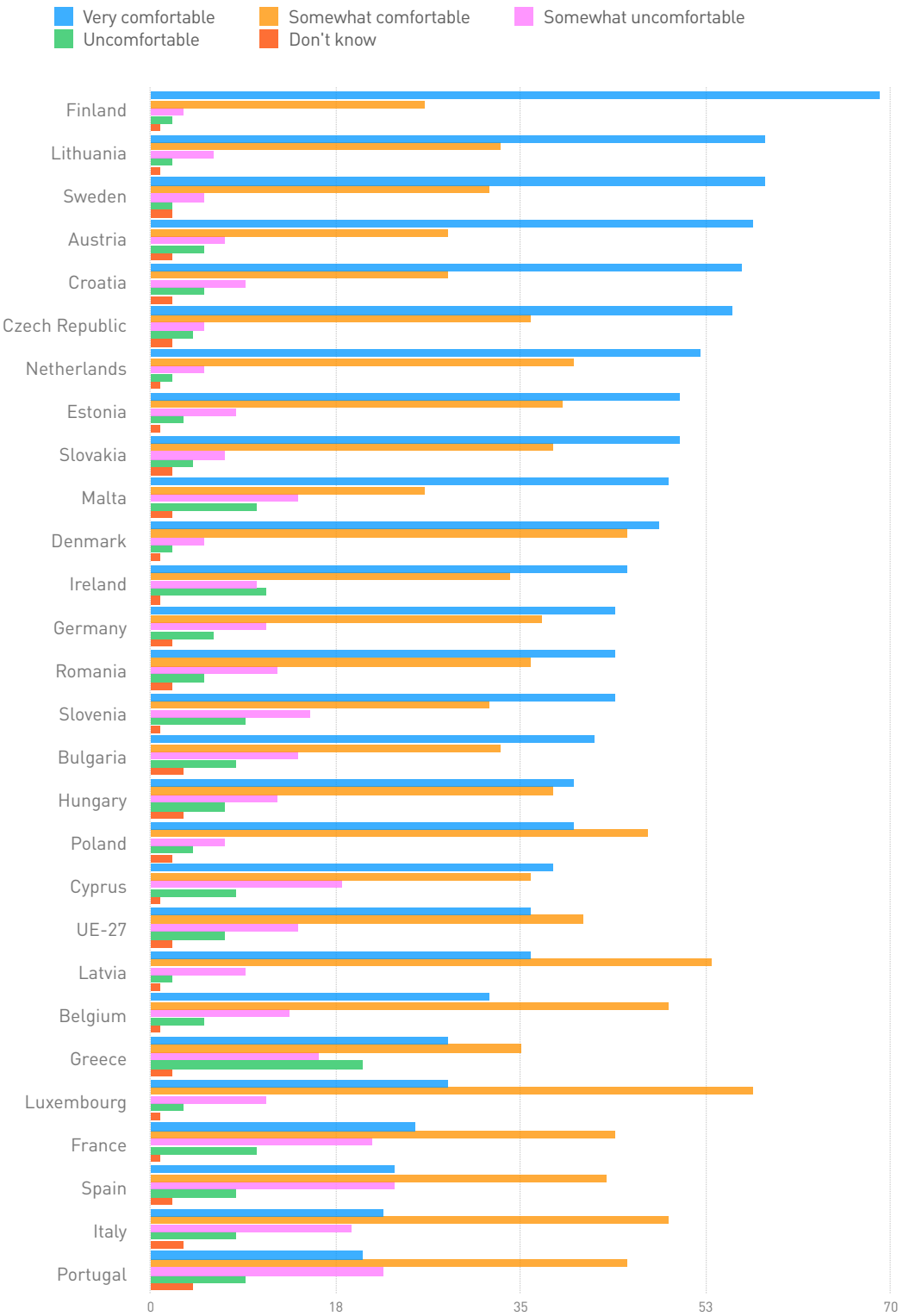
UNITED KINGDOM
Offers programs financed by the State and NGOs that teach about finance starting in elementary school. There are educational mobile apps for all ages.

UNITED STATES
Although uneven across states, financial education has improved significantly through legislation requiring it as a graduation requirement.

Source: MAPFRE Economics (with data from GusFinanzas)

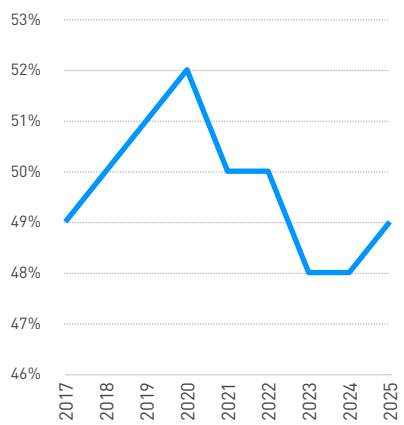
insofar as it allows people to integrate into the formal economic system. For example, having a bank account makes it easier to save money, access credit, send and receive payments, etc. These elements are essential for improving quality of life, reducing poverty, and promoting economic development. Thus, the *World Bank's Global Findex Database 2025*[27] report shows that the current landscape of financial inclusion reflects significant progress in the adult population's access to and use of financial services. Globally, in 2024, 79% of adults confirmed they had a checking account at a financial institution (or an equivalent platform), an increase of 5 percentage points (pp) compared to 2021, and 28 pp since 2011. Progress has been particularly notable in Latin America and the Caribbean, where the

Chart 3.2.1-i
European Union: comfort with digital financial services
(%)



Source: MAPFRE Economics (with data from Flash Eurobarometer 525)

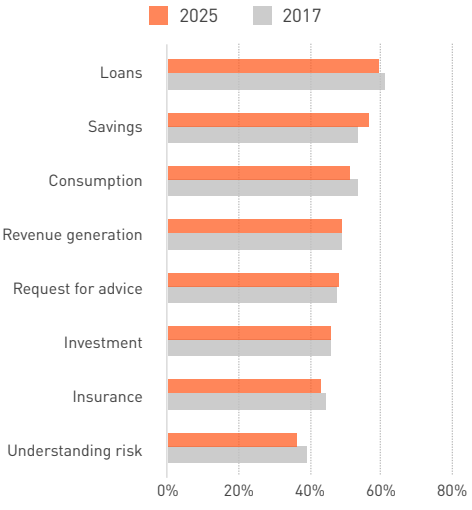
Chart 3.2.1-j
United States: financial literacy among adults
(%)



Source: MAPFRE Economics (with data from TIAA Institute-GFLEC Personal Finance Index, 2017-2025)

percentage of adults with a checking account rose from 22% in 2021 to 37% in 2024, demonstrating a substantial improvement in financial inclusion in the region. These figures show progress in terms of global financial inclusion (a key factor for development),

Chart 3.2.1-k
United States: financial knowledge
(%)



Source: MAPFRE Economics (with data from TIAA Institute-GFLEC Personal Finance Index, 2017-2025)

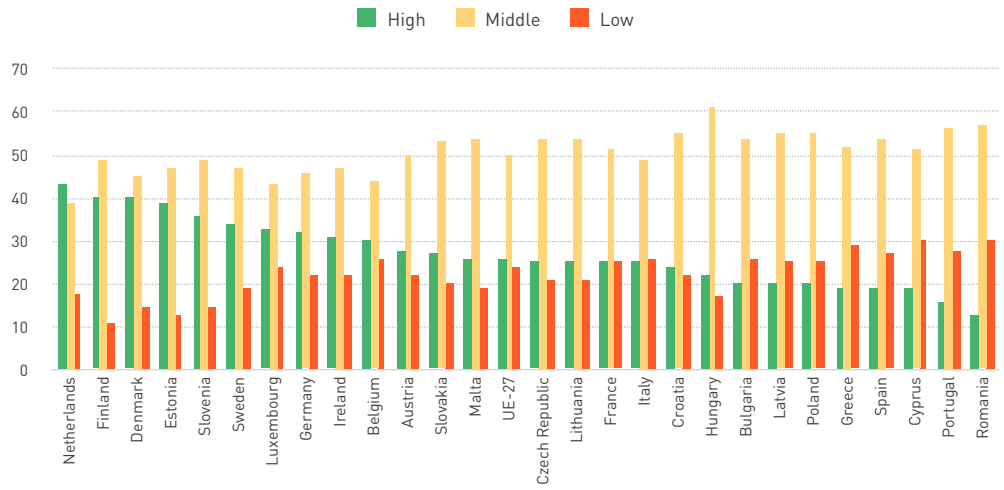
although there is still a long way to go, as according to the report's findings, 1.3 billion adults currently do not have access to banking services.

Moreover, the expansion of mobile phones and internet access has revolutionized financial inclusion by facilitating the use of digital services that enable more people to manage their finances efficiently.[28] Among the most notable benefits are savings through daily deposits, loan management via mobile apps, and insurance purchases. Thus, mobile platforms have significantly expanded the reach of financial services to the population. The European Union's monitoring of financial literacy levels through the *Eurobarometer 525* report[29], with data from 2023, shows the level of comfort citizens feel when using digital financial services, with the majority of participants (77%) feeling comfortable with these types of services, such as online banking, mobile payments, etc. (see Chart 3.2.1-i).

Meanwhile, in the United States, the TIAA-GFLEC Institute's 2025 Personal Finance Index (P-Fin Index)[30] assesses the financial knowledge of American adults through 28 questions in eight key areas. For 2025, the results show that financial literacy remains stagnant: on average, only 49% of responses were correct, the same as in 2017 (see Chart 3.2.1-j). Moreover, the most notable improvements in Americans' financial knowledge between 2017 and 2025 are in saving and in seeking advice from reputable sources of information, with the greatest declines occurring in understanding risk, in the areas of loans and debt management, and in consumption (see Chart 3.2.1-k). This trend points to little progress and some critical areas in decline.

In the European Union, according to the same *Eurobarometer 525*[31] report, on average, 26% of citizens surveyed in the European Union have a high level of financial literacy, while 50% have an average level and 24% have a low level. The results vary significantly between

Chart 3.2.1-l
European Union: level of financial knowledge
(%)



Source: MAPFRE Economics (with data from Flash Eurobarometer 525Re)

countries, with the Netherlands, Finland, Denmark, and Estonia leading the way in financial literacy (see Chart 3.2.1-l).

3.2.2 Financial culture and the development of insurance

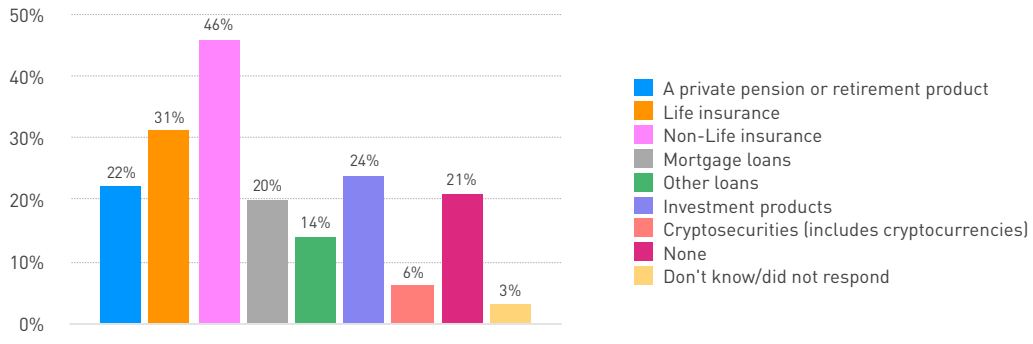
Financial education plays a crucial role in obtaining insurance, as it improves understanding of its benefits in its various forms of protection and reduces distrust of these products. Therefore, countries that implement robust educational strategies tend to achieve higher levels of financial inclusion. Strengthening financial literacy promotes better economic decisions and encourages the use of insurance as a tool for protection and compensation in the event of risks, making financial education a fundamental pillar of economic development and social resilience.

Chart 3.2.2 shows the distribution of citizens in relation to financial products in the European Union, as an example of a geographical area with a higher level of financial literacy than many emerging regions. It indicates that 46% of respondents report owning or having owned a Non-Life insurance policy (home, auto, etc.), and 31% state that they own or have owned a Life insurance policy. As for financial products in general, 24% report having invested in funds, stocks, or bonds, while 22% have a private pension or retirement plan, among other products.

Along these lines, various international studies[32] have shown that financial education has a direct impact on the purchase of insurance. The greater the knowledge about concepts such as risk, savings, protection, etc., the more willing individuals are to purchase various types of insurance. Citizens with greater financial literacy better understand the benefits of insurance and tend to purchase it more frequently. Therefore, financial education improves insurance-purchasing decisions by reducing mistrust and increasing understanding of the available products. In other words, it acts as a catalyst, motivating people to understand the benefits of insuring their well-being against possible unforeseen events.

In conclusion, financial education has become a fundamental pillar, aimed at reducing economic vulnerability and improving citizens' decision-making capacity. International organizations and national governments have implemented various strategies to promote it

Chart 3.2.2
European Union: distribution of financial products
(%)



Source: MAPFRE Economics (with data from Flash Eurobarometer 525

in a structured and sustainable manner, which not only strengthens economic resilience at the individual level, but also contributes to sustainable development and global financial stability.

3.3 Mandatory insurance

3.3.1 General aspects

On the demand side, *mandatory insurance* can increase insurance penetration levels in the economy. This type of insurance has various positive effects on society and the insurance industry, which makes it a valuable tool in the implementation of public policies. First, the policies protect the public interest in various scenarios, mainly those associated with third-party liability. In this context, insurance becomes a source of resources that, through mutualization, provides compensation for losses incurred by citizens in the course of various economic or social activities. Second, by covering third-party liability across a broad spectrum of societal activities, mandatory insurance enhances the role of insurance in both economic and social spheres. And third, mandatory insurance is a tool to raise awareness of prevention and, to that extent, a powerful tool in the financial education process in insurance matters. Exposure to insurance through mandatory coverage enables citizens to become aware of the capacity of this financial instrument to compensate losses and, as a result, to provide economic stability to individuals, families, and businesses. Thus, in addition to its short-term effect on insurance demand, mandatory insurance is an important foundation for medium- and long-term demand growth.

To analyze the effect of mandatory insurance on insurance penetration, this section describes how different countries approach protecting victims of road traffic accidents through mandatory auto insurance, the most representative and widespread form of mandatory insurance. However, it should be noted that, although most mandatory insurance policies fall within the scope of third-party liability, other types of insurance cover the requirement for a guarantee in order to carry out certain activities, which are implemented through bonds and surety insurance. Surety insurance, although not mandatory in itself in all cases, may be required by law or contract to ensure compliance with legal or contractual obligations. Its purpose is to ensure that the insured party receives compensation for losses incurred if the policyholder (contracting party) fails to meet their commitments. Unlike other types of insurance, it does not protect the policyholder against a direct loss, but rather

guarantees the fulfillment of contractual obligations. It has applications in many areas, such as public tenders, construction contracts, supply agreements, leases, tax or customs obligations, among others.

These are also mandatory insurance policies that fall within the social sphere, such as workers' compensation and occupational illness insurance, designed to protect workers in their jobs and ensure their financial stability in the event of unforeseen circumstances. Although this is a key social security benefit, some countries have implemented policies that involve private insurance to manage the healthcare, monetary, and preventive benefits provided by mandatory workers' compensation insurance, creating specific companies that offer this coverage.

In general terms, markets must take into account a number of conditions to ensure the successful introduction of mandatory insurance.[33] The following may be considered key aspects in this regard:

- Existence of a solid insurance market.
- Assessment of the need to make the insurance in question mandatory, based on whether this mechanism solves a problem that could not be addressed through voluntary insurance.
- Assessment of whether the risk in question is insurable, that is, whether it has a random component, whether sufficient information exists to allow it to be measured (estimate its costs and claims frequency), and whether its consequences can be economically valued.
- Establishment of pricing mechanisms for these insurance policies using technical calculations and relevant statistical bases.
- Precise definition of the insured party's liability, insurance coverage, and compensation limits, which will be reflected in the respective insurance policy.
- Implementation of mechanisms to establish effective control over compliance with the mandatory insurance by those subject to the obligation.
- Definition of a mechanism that stimulates competition among insurance companies, so that, without affecting the technical principles that define the sustainability of this activity, consumers can enjoy affordable and competitive prices.
- Establishment of compensation and guarantee mechanisms that allow for the creation of coverage that universally addresses the societal problem that resulted in the establishment of mandatory insurance.
- The existence of adequate reinsurance products so that direct insurance companies can diversify and support the risks they underwrite.

Thus, as a public policy instrument, the use of mandatory insurance, beyond stimulating growth in insurance demand (and thereby increasing insurance penetration in the economy), allows for efficient implementation of the obligation to protect the public interest by using a mechanism for spreading risk and compensating for losses. This approach addresses situations that would otherwise be complex to manage and, ultimately, contributes to raising the overall level of societal welfare.

3.3.2 Mandatory automobile insurance

Mandatory third-party liability insurance for motor vehicles is a legal measure adopted by most countries around the world with the aim of providing prompt compensation for damages suffered by victims of road-traffic accidents and ensuring that drivers assume financial responsibility. Although it is applied almost universally, there are significant differences in terms of its scope, minimum coverage requirements, and control mechanisms.

In the European Union (EU), Mandatory Third-Party Liability Insurance is a legal requirement for driving a vehicle (regulated by Directive 2021/2118). Its main purpose is to guarantee protection for victims of road-traffic accidents, ensuring compensation for damages caused by the driver responsible for the accident, even in cases of insurer insolvency. In most Member States, proof of insurance is a mandatory condition for vehicle registration. In the EU, compliance is monitored by national authorities. In EU countries, mandatory automobile insurance covers third-party liability, including personal damages (bodily injury, medical expenses, and compensation for death or disability of third-party drivers, passengers and pedestrians) and property damage (damage to third-party assets such as vehicles, property, or infrastructure). It should be noted that this coverage does not include damage to the insured vehicle itself or injuries to the at-fault driver, unless additional coverage is purchased. European legislation establishes common minimum coverage requirements, although indemnity limits may vary by country. This purpose of this standardization is to guarantee a basic level of protection across the EU while respecting national jurisdictions.

In the United States, third-party liability for automobiles is mandatory in practically all states. However, there are exceptions, such as in the state of New Hampshire, where no insurance is required if the driver can demonstrate financial responsibility in the case of an at-fault accident. In Virginia, since July 2024, all drivers must have minimum third-party liability coverage, eliminating the previous option to pay a fee of 500 dollars per uninsured motor vehicle. In general, the insurance covers medical expenses, vehicle repair, and other costs of the other driver when the policyholder is responsible for the accident. Each state establishes its own minimum coverage limits and control mechanisms.

Compulsory Third Party (*CTP*) automobile liability insurance is mandatory in all states and territories in Australia. Vehicle registration requires this coverage. In some states (such as New South Wales), CTP insurance can be purchased separately, while in others it is automatically included in the registration process. The insurance covers bodily injury to third parties (drivers, passengers, pedestrians, and cyclists), as well as medical and legal fees arising from accidents caused by the insured driver. It does not cover property damage to the driver's own vehicle or other assets, which require additional policies. Mandatory insurance coverage varies by state and territory based on various factors, such as fault, third-party liability, and compensation.

In South Africa, in contrast, there is no mandatory insurance for private vehicles. Instead, personal damages are covered through a public fund financed by fuel levies on road transport. The Road Accident Fund (RAF) provides mandatory social coverage to all users of South African highways, but does not extend to motor-vehicle drivers who are considered negligent.

All motor vehicles in Japan must be covered by the mandatory insurance (*Jibaiseki Hoken*), as required under automobile accident liability legislation. This mandatory insurance only covers bodily injury or death of victims (drivers, passengers, pedestrians), but not property damage or injuries to the policyholder. This coverage is acquired during the vehicle registration process or *shaken* (technical inspection) and must be renewed every two or three years, depending on the vehicle's age. Penalties for non-compliance are severe and may include fines of up to 500,000 yen and one year in prison. Voluntary supplementary insurance is available to expand coverage.

Most Latin American countries have legislated on the obligation of all motor vehicle owners to take out third-party liability insurance covering any personal injury or property damage caused to third parties. In some countries, insurance also protects the driver of the vehicle causing the damage, provided there are no exclusion

conditions in the policy. In addition, some legal frameworks provide that insurers authorized to operate in this line of business may not refuse to insure a vehicle if it meets the requirements established by law for circulation in the country. In all Latin American countries, mandatory insurance covers personal injury, including compensation for death or disability, medical, surgical, pharmaceutical, and hospital expenses. Another very common type of coverage is funeral expenses and, to a lesser extent, legal defense. In some countries, including Mexico, Nicaragua, Panama, the Dominican Republic, and Venezuela, third-party property damage is also covered. Apart from this coverage, in some countries, this insurance serves a more social function and, in addition to covering third-party damage, its objectives include providing assistance to all victims of traffic accidents, even those caused by uninsured or unidentified vehicles, and, in some cases, the at-fault driver, subject to certain exceptions (such as motor racing or other motorized competitions, accidents resulting from war or earthquakes, suicide, or self-inflicted injuries, among others).

Elements to ensure the effectiveness of mandatory insurance

A key factor in ensuring the proper application, and therefore the effectiveness, of the regulations on mandatory automobile insurance is how the competent authorities *monitor the acquisition and validity* of such insurance. There are various verification systems and international practices for such control, the most widespread being the requirement that the driver or owner of the vehicle must possess the respective insurance certificate or proof of insurance, which in many cases must meet certain established specifications. Other government control mechanisms to ensure compliance with current legislation include a vehicle registration system linked to insurance, which is accompanied by fines and financial penalties for not having insurance or for having insufficient coverage, supervision by traffic authorities, and road safety awareness and education campaigns to promote insurance.

A formal inspection mechanism can be said to exist when there is a record with up-to-date information to verify that the vehicle complies with current regulations. For controls to be effective, a vehicle and insurance registration system is recommended, and these should be connected to enable automatic checks, overcoming legal obstacles related to data protection. In this sense, various mechanisms exist at both the national and multilateral levels. EUCARIS is an initiative by several European countries for cooperation between national registration authorities to exchange data on vehicles, driver's licenses, and personal data. There is no central European database; each country manages its own registry and procedures. National authorities act as a connection point, allowing other government institutions to request information about vehicles from other states. EUCARIS currently has three different applications: one for the exchange of vehicle and driving-license data; another for the exchange of data on vehicle owners/holders and insurance; and a third relating to traffic-offender information.

In the United Kingdom, the Motor Insurers' Bureau (MIB) is a non-profit organization established in 1946 and regulated by the Road Traffic Act 1988, whose main function is to ensure the protection and compensation of victims of accidents caused by uninsured or unidentified drivers. The institution also works closely with law-enforcement agencies and regulatory bodies to detect and reduce the circulation of uninsured vehicles through the use of data and early-warning systems.

In Australia, the National Exchange of Vehicle and Driver Information System (NEVDIS) shares information about vehicles and driver's licenses across state borders. In addition to the information provided by road agencies, NEVDIS also provides information to public and private

sector organizations to facilitate vehicle origin verification, license biographical data comparison, auto insurance underwriting, and vehicle safety recalls.

No doubt the advancement of new technologies will help government authorities ensure that no vehicle circulates without insurance coverage. In this regard, the new EU Motor Insurance Directive establishes that: "Currently, Member States are to refrain from performing checks of insurance on vehicles normally based in the territory of another Member State and in respect of vehicles normally based in the territory of a third country entering their territory from the territory of another Member State. New technological developments, such as the technology allowing automatic number plate recognition, enable the insurance of vehicles to be checked without stopping them and thus without interfering with the free movement of persons. It is therefore appropriate to allow those checks of insurance on vehicles, but only if they are non-discriminatory, necessary, and proportionate, form part of a general system of checks on the national territory which are also carried out in respect of vehicles normally based in the territory of the Member State performing the checks, and do not require the stopping of the vehicle."

Another important aspect to consider in the analysis of mandatory automobile third-party liability insurance is the existence of a *compensation system* that guarantees coverage for all victims involved in a road-traffic accident, thereby creating universal coverage. Guarantee funds are created to compensate individuals who suffer bodily injury in traffic accidents caused by unidentified motor vehicles or by vehicles without compulsory third-party liability insurance. Guarantee systems are normally financed by contributions linked to the premium income of insurance companies.

In the European Union, each Member State has a guarantee fund that compensates road-traffic accident victims for damage caused by vehicles circulating illegally without mandatory insurance, or by unidentified or hit-and-run vehicles. These funds operate under national supervision, such as the Consorcio de Compensación de Seguros (Insurance Compensation Consortium) in Spain, the Fonds de Garantie des Assurances Obligatoires de dommages (FGAO) in France, the Fondo di Garanzia per le Vittime della Strada (FGVS), administered by Consap, in Italy, etc.

Finally, it should be noted that in Latin America there are different institutions that perform this function. To cover claims involving unidentified vehicles, Bolivia has created the Mandatory Traffic Accident Insurance Compensation Fund (FISO), which is made up of mandatory contributions from insurance companies authorized to provide Mandatory Traffic Accident Insurance (SOAT). In Colombia, for accidents without SOAT insurance or unidentified vehicles, compensation is covered by the Catastrophic Events and Traffic Accidents Sub-account (ECAT) of the General Social Security Health System Resource Administrator (ADRES). All insurance companies offering mandatory insurance in Costa Rica, in proportion to their share of the total premiums issued for such insurance, shall be jointly and severally liable up to the coverage limit in cases of unidentified, uninsured, or stolen vehicles, or where the insurer of the vehicle responsible for the accident has been dissolved or declared insolvent. In Peru, the SOAT Compensation Fund covers damages to victims of traffic accidents caused by unidentified or hit-and-run vehicles. Similarly, the Automobile Accident Compensation Administration (ACAA) in Puerto Rico is a public corporation that administers health insurance and compensation services to benefit motor-vehicle accident victims and their dependents.

In conclusion, monitoring the acquisition and validity of insurance policies is considered internationally to be a key factor to ensure the correct application of

mandatory motor insurance regulations by the competent authorities responsible for their implementation and, in general, to guarantee the effectiveness of this public policy instrument.

3.4 Tax incentives

3.4.1 General aspects

A country's fiscal policy can significantly influence the development of its insurance industry, using insurance as a public-policy instrument by applying tax incentives for individuals and businesses. Furthermore, given the important economic and social role played by insurance companies in financial protection, risk management, and their function as institutional investors managing medium- and long-term savings, public policymakers seek to promote the growth of the sector.

Thus, based on an analysis of international experience, the fiscal instruments available to the public sector for this purpose tend to serve a dual purpose. On the one hand, they seek to create incentives to stimulate Life Savings insurance as a complement to pension systems, thereby supporting the co-financing of the social security system. On the other hand, they use insurance to support economic growth, employment, credit, and, ultimately, increased income, through incentives for protection insurance (*e.g.*, through Life Protection, Health, Accident, or Long-Term Care insurance), thereby reducing uncertainty about individuals' present and future incomes.

3.4.2 Selected reference models

An analysis of international experience across a selection of markets identifies several relevant fiscal instruments and incentive systems. These instruments and systems may serve as reference points for good practices in the public policies implemented in the countries analyzed.[34]

Developed countries

Beginning with countries with a higher level of relative development, in the United States, premiums paid by employers for employees' health insurance are not considered taxable income for the employee; they are also deductible from corporate income tax and exempt from social security contributions, representing the most favorable tax treatment among the markets analyzed. There are also health savings accounts (HSA) with tax benefits. Additionally, when employees pay part of the premium, they may do so through *pre-tax payroll deductions*. In the field of Life Savings and Pension insurance, contributions to certain retirement plans and Life insurance policies with a savings component (such as Universal Life) may be deductible with tax deferral and/or benefit from exemptions on investment returns. Subject to certain requirements, funds may be accessed through loans or paid out upon death without income tax liability. Similarly, in some of these products, death benefits received by beneficiaries are often exempt from income or inheritance taxes, subject to certain quantitative and kinship limits, which constitutes a significant tax benefit to promote family financial protection.

In Europe, the United Kingdom offers incentives for employer contributions to pension plans, which may be structured through Life insurance products, widely available in this market, with taxation deferred until benefits are received either as a lump sum or as income. Likewise, certain savings products with a Life component (*Investment Bonds,* or ISAs, which may include insurance), among others, have favorable tax treatment on returns. Italy stands out for offering a percentage deduction (currently 19%) on premiums up to a certain limit applicable to Life, Accident, and Long-Term Care insurance, as well as tax deductions or credits for those who take out private health insurance, subject to defined limits, among other measures.

In Spain, key tax incentives include reductions to the taxable base and the

deduction as a business expense applicable to Health, Life Protection, and Accident insurance (for self-employed individuals and for companies offering such coverage to employees, subject to annual limits in both cases), as well as to Life Savings insurance (contributions to Insured Pension Plans, PPA), which are similar to pension plans and are subject to limits that are currently relatively low. There are also group retirement insurance schemes linked to an employment relationship, offered as a voluntary incentive. These are deductible expenses for the employer, reduce the employer's personal income tax (IRPF) tax base up to the established limits, and their contributions are not considered salary for social security contribution purposes nor subject to payroll tax withholding, thereby providing an incentive for both parties to build a complementary private pension. There are also products that grant exemptions on the returns generated, within certain limits, such as Individual Long-Term Savings Insurance (SIALPs). In addition, certain Life insurance policies with a savings component benefit from tax reductions based on the length of time premiums have been paid, an incentive that rewards long-term maintenance of these policies. There are also exemptions for benefits received from Accident, Illness, Disability, or Long-Term Care insurance, subject to certain limits.

In France, Life Savings insurance premiums (*Assurance Vie*) can benefit from favorable tax treatment (exemptions/reductions) on returns after a holding period, and capital paid by French insurance in the event of death is exempt from inheritance tax, with a generous limit per beneficiary, making these insurance policies very attractive tools for intergenerational savings, as well as relevant instruments worth highlighting. Meanwhile, in Germany, basic Health, Long-Term Care, Life, and Retirement insurance premiums are deductible as "special expenses" (*Sonderausgaben*) up to certain limits. Insurance policies known as *Direktversicherung*are also noteworthy. Under these policies, the company takes out a Life insurance policy to provide the employee's pension. Premiums and contributions are tax-exempt up to a certain annual limit, and income is only taxed when it is received upon retirement. This is one of the main incentives for insurance activity in this country.

In Japan, insurance (*Hokenryo Kōjo*) can be deducted. Life insurance premiums can be deducted (including savings/retirement plans), as well as Health, Long-Term Care, and Earthquake insurance. This deduction reduces the taxpayer's taxable income up to certain limits for each type of insurance. And in South Korea, taxpayers can deduct premiums paid for Life, Health, and Accident insurance (including pension guarantee plans), up to a set limit.

Emerging countries

In Latin America, Brazil stands out as a benchmark with its personal income tax framework for complementary pension products (VGBL/PGBL). Under this framework, insurance premiums paid as contributions to these savings plans may be deductible from the taxable base, up to a certain limit (12% of gross annual taxable income in the case of PGBL plans), and with exemptions on investment returns (in the case of VGBL products). The system also incorporates a structure of incentives and disincentives that allows for partial withdrawals without loss of benefits, with progressive limits, in order to grant a certain amount of liquidity without major consequences, discouraging withdrawals above those limits. It should be noted that, as in other emerging economies, interest rates in these countries tend to be substantially higher than in developed markets, which means incentives that exempt returns on savings insurance products are particularly important. Moreover, in Brazil, payments made to companies providing private health coverage (*health plans and insurance*) are also considered deductible as medical expenses.

In Mexico, certain insurance payments are eligible for personal tax deductions in order to encourage retirement savings and health protection. Thus, Major Medical Expense insurance premiums are income tax deductible annually, provided that the benefit is not paid through an employer-sponsored scheme. In addition, contributions to Pension insurance products (Personal Retirement Plans with an insurance component) are deductible from the taxable base, subject to specific limits. In Colombia, tax incentives for insurance are designed to encourage savings and family protection, within certain limits, in order to stimulate retirement savings. To this end, contributions to life insurance products with a retirement purpose (voluntary pension savings), as well as payments for prepaid medical care or supplementary health plans, may be deductible or treated as tax-exempt income in the income tax return, subject to annual and monthly caps. However, although premiums for pure Life insurance policies covering the risk of death and disability are not deductible, the main incentive for these protection products focuses on the tax treatment of the benefit, since the compensation received for death or disability is exempt from occasional gains tax, applying the rate only on the portion that exceeds a defined threshold. This approach helps ensure that core financial protection for families is not eroded by excessive taxation.

In Asia, taxation in India has historically played a significant role in the development of insurance, as Life insurance premiums (within a combined limit for pension savings products) and Health insurance premiums (up to certain limits per insured person) have been deductible from personal income tax, with the aim of encouraging family financial planning and private health coverage. However, despite these incentives, Life and Health insurance policies are subject to an 18% *Goods and Services Tax* (GST)—with different calculation methods depending on whether the insurance is pure risk or has a savings component—which significantly increases the cost of the product and limits greater insurance penetration in a country where coverage remains low. Thus, while income tax incentives exist in the form of deductions for Life and Health premiums, intended to encourage protection and healthcare coverage, the insurance industry in this country is actively seeking GST reductions or exemptions to improve affordability and align India with international best practices, which avoid penalizing basic protection insurance in order to expand coverage among middle-income households and the most vulnerable segments of the population.

3.4.3 Summary of fiscal policies affecting the insurance industry

Tax incentives for insurance activity

The fiscal policy instruments and incentives used as public policy tools across countries display a wide range of approaches. As observed in the comparative analysis of the markets studied, these systems typically include deductions of insurance premiums from personal and/or corporate income tax, tax exemptions or deferrals on investment returns, and exemptions on benefits, with preferential treatment for Health, Accident, Disability, and Long-Term Care insurance, as well as Life Protection insurance, in the event of death, and group policies for private health insurance and those offered by employers with the aforementioned coverage. This treatment reflects their role as a complement to public social security systems.

With regard to tax incentives for supplementary social protection (private pensions), the tax systems analyzed generally follow, to varying degrees, the Exemption-Exemption-Taxation (EET) scheme for retirement instruments. Under this approach, contributions are deductible or exempt at the time they are made, returns are exempt during the accumulation phase, and only final benefits are taxed during the decumulation phase. This allows for withdrawals to be planned in the form of capital with reductions, where applicable, in the amounts subject to taxation, in the form of annuities (temporary

or lifetime), scheduled withdrawals, or a combination of all of these, in order to defer taxation to times when the insured party is subject to lower marginal income tax rates. This scheme therefore results in substantially lower taxation, particularly in countries with more progressive tax scales, and in many jurisdictions may even result in full tax exemption in cases where the policyholder suffers from some degree of disability at the time of withdrawal. In addition, employer-sponsored group retirement insurance linked to an employment relationship is treated as a deductible expense for the employer, reduces the employee's taxable income within established limits, and is not considered salary for social security contribution purposes nor subject to payroll withholding. This creates a strong incentive for both employers and employees to build private supplementary pensions. Such tax deferral mechanisms act as a powerful incentive to channel savings into pension-oriented insurance products.

These incentives are complemented by tax exemptions on investment returns for Life Savings insurance products, which are commonly present across the sample analyzed as a complement to EET systems, as useful instruments in the accumulation phase. These are particularly relevant as incentives in emerging economies, where interest rates are usually substantially higher than in developed markets, making incentives that exempt returns on savings insurance products particularly relevant. In some markets, these instruments incorporate an incentive-disincentive system that allows partial withdrawals without loss of benefits, subject to progressive limits, in order to grant a certain degree of liquidity without major consequences, discouraging withdrawals above those limits.

Finally, tax incentives applicable to the taxation of benefits and compensation in cases such as death, accidents, disability, long-term care, or health coverage are also worth noting. Although less visible at the time of policy purchase, they can also influence its attractiveness. If benefits are heavily taxed, the effective value of the insured amount decreases, lessening the incentive to purchase the policy. Thus, taxing insurance benefits moderately or exempting them in these cases is considered important to avoid discouraging coverage.

In most countries, Life insurance death benefits are exempt from income tax, as they are considered a transfer *mortis causa*, although they may be subject to inheritance tax if they exceed certain thresholds in terms of amount and kinship, with exemptions in many countries to encourage family protection. For example, in countries such as the United States, in European countries in general, and particularly in the case of the French exemption, the capital paid out by Life Savings insurance in the event of death is exempt from inheritance tax, with a generous limit per beneficiary, making these insurance policies very attractive tools for intergenerational savings.

Tax disincentives in the insurance industry

Conversely, some countries apply additional or specific taxes on insurance that not only increase premiums but also limit the effectiveness of insurance within the framework of public policy. Among the most common levies is the *Insurance Premium Tax* (IPT), a specific indirect tax distinct from VAT that is applied to insurance policies in some countries (exempting them from VAT to avoid double taxation). This tax is calculated as a percentage of the premium amount, with rates varying widely by country, both in terms of their level and the insurance lines to which they apply. However, the global trend in insurance tax policy has been to avoid imposing full VAT on premiums, replacing it with lower, specific taxes or partial exemptions. This approach reflects the recognition that insurance is not just any consumer product, but rather a risk transfer contract that fulfills a social function. Accordingly, insurance benefits are also taxed moderately or exempted, particularly in cases such as death, accidents, disability,

long-term care, or health, so as not to discourage people from taking out insurance.

IPT and other indirect taxes, such as VAT, are added to the cost borne by the policyholder, which may reduce demand. Thus, in recent years, several jurisdictions have considered reducing or eliminating taxes on specific insurance products deemed counterproductive. In India, as previously mentioned, taxation has played a very important role in the development of insurance, as historically income tax deductions have been allowed for Life and Health insurance premiums, in order to encourage family financial planning and private health coverage. However, Life and Health insurance policies are also subject to Goods and Services Tax (GST), which runs counter to the original intent of the public policy, designed to increase coverage among middle-income households and the most vulnerable segments of the country's population.

3.5 Complementary role in healthcare, private pensions, and social security

3.5.1 General aspects

One factor that may influence a short-term increase in insurance penetration from the demand side is the implementation of public policies allowing the insurance industry to participate in specific areas of economic and social activity, such as pension systems (Occupational Risk, Disability and Life Insurance, and Annuities), or in the provision of healthcare services, either as a substitute for or as a complement to public social security systems. Retirement savings, whether organized collectively or individually, supplement public pensions, and tax and social security measures encourage their development.

Retirement savings have a particular influence on Life insurance markets. The demographic pressure caused by the general improvement in life expectancy, accompanied by a significant drop in fertility rates, has meant that virtually all reforms carried out in pension systems in recent decades have been broadly aimed at underpinning their medium- and long-term stability and sustainability, attempting to arbitrate mechanisms that somehow offset the effect these reforms may have on the adequacy of pensions.[35]

Among the most relevant measures and mechanisms governments have implemented to reform pension systems and that may influence the development of Life insurance, are: adjustments to budgetary transfers for pension payments; changes to replacement rates (parametric reforms aimed at balancing public system benefits with individual contributions); creating incentives for companies to set up and manage supplementary pension plans; and establishing tax incentives for voluntary individual medium- and long-term savings, also intended to complement public pensions.

Reference models

In order to illustrate the effect these policies have on the performance of the insurance industry, a number of countries have been selected that have implemented such measures. Some of these countries have among the highest levels of insurance penetration in the economy (premiums/GDP), while others are emerging markets. The goal is to analyze the extent to which these policies have been beneficial in increasing insurance penetration in the respective markets.

In Europe, Denmark has one of the highest Life insurance penetration rates in the region (8.8% in 2024). Life insurance plays an important role as a vehicle for retirement savings and is strongly integrated into the pension system, especially through occupational pension plans. These plans are usually offered as Life insurance with long-term savings components, and are managed by insurance companies or pension funds. Because of this relationship, in order to

understand the significant growth of Life insurance in Denmark in recent decades, we must refer to the Danish pension system. It is structured as a *multi-pillar* system. The first pillar is mandatory, with universal coverage, and consists of two levels: the first is a residence-based public system (*Folkepension*), while the second consists of a series of supplementary plans, the most important of which is the Labor Market Supplementary Pension Scheme (*Arbejdsmarkedets Tillaegspension*, ATP), a mandatory, fully funded pension plan based on group insurance and defined contributions. The second pillar consists of what are known as "occupational pension schemes," established in the early 1990s, which are privately managed and fully funded. Also known as labor market pensions or AMP (*Arbejdsmarkedspensionerne*), these are based on collective agreements between social partners, and the vast majority operate as defined contribution plans. AMP schemes are managed by cross-sector pension funds or Life insurance companies, whose members are exclusively the workers covered by the relevant collective agreements. Finally, the third pillar consists of entirely voluntary supplemental pension plans administered by banks or insurance companies. Occupational pension schemes in Denmark are largely the result of a social pact signed in 1987, when social partners and the government led by Poul Schlüter reached a tripartite agreement known as the Joint Declaration (*Fælleserklæringen*). This agreement included several measures to improve competitiveness (reducing employer taxation, controlling cost developments, and creating more jobs). It also laid the groundwork for the introduction of occupational pensions in large sectors of the private labor market, which until then had been a privilege reserved for public employees and certain groups of private sector officials.

Finland also derives a significant amount of revenue from social security-related products. A characteristic of the Finnish insurance industry is that mandatory insurance lines generate a significant portion of written premiums, due to the importance of employee pension insurance. The earnings-related employment pension insurance, or TyEL, is mandatory insurance that employers must provide to their employees and that self-employed workers must take out for themselves. It is the largest segment of the Life insurance sector in Finland, accounting for 63% of the sector's revenue in 2024. Pension companies, pension foundations, and pension funds are responsible for implementing pension insurance for employees and private-sector entrepreneurs under the Employees' Pensions Act (TyEL) and the Self-Employed Persons' Pensions Act (YEL). An employer may establish a pension institution specifically for its company and manage pension coverage for its workforce through a pension foundation or pension fund. Occupational pension insurance companies mainly manage statutory occupational pension coverage for employees and employers in the private sector.

In Sweden, occupational pensions complement the public pension system and can be guaranteed in various ways, the most common being the payment of premiums by employers into Life insurance and occupational pension schemes. They may also be funded through internal reserves on the company's balance sheet or contributions to pension foundations. Most employers are covered by collective bargaining agreements with unions that include pension plans and professional insurance. Companies without collective agreements can sign agreements with unions or offer non-collective solutions, although these are relatively uncommon for salaried employees. Employees can also supplement their pension benefits with private savings.

In the United Kingdom, the pension system is strongly centered on the second pillar, with the first pillar playing an almost residual role for high-income earners and a limited role for middle-income earners. A distinctive feature of the system is the reform approved in 2014 and progressively implemented from 2016, which sought to simplify the public

pension system by introducing a single-tier state pension, the amount of which is reviewed annually, while establishing a quasi-mandatory second pillar based on mandatory employer contributions, with the option for employees to opt out of participation. Meanwhile, Germany has two individual subsidized plans: *Riester* and *Rürup*. The *Riester* plan is intended for employees with mandatory insurance, while the *Rürup* plan is aimed at self-employed, high-income earners. Both plans offer tax advantages, although the *Riester* also includes direct subsidies. Minimum and maximum contribution levels are regulated, and compliance with certain requirements determines the level of state aid.

The French retirement pension system has traditionally been based on the strength of a public, pay-as-you-go first pillar, which has limited the development of a complementary second pillar of employer-sponsored pensions. However, there are defined benefit, defined-contribution, and hybrid schemes, which may arise from collective bargaining or individual agreements with employees: the PERP (individual), PERE (mandatory occupational), the PERCO (voluntary occupational), and the new PER, which unifies the previous ones. All of these plans allow for tax deductions and offer the option of receiving a lifetime annuity upon retirement, and are managed by insurance companies, mutual insurers, or provident institutions.

Austria offers both mandatory and voluntary occupational pensions, as well as individual pension arrangements. The so-called "Austrian backpack" is an individual severance pay system that was implemented in Austria in mid-2003. That year, the occupational severance fund replaced the former Austrian severance pay system and became known as *Abfertigung Neu* ("new severance pay"). The occupational severance plan is financed by contributions equivalent to 1.53% of employees' monthly salaries and 1.53% of the health insurance contribution base for self-employed workers. These accumulated contributions remain with the employee throughout their entire working life and are not forfeited if the worker voluntarily changes employers, as the new employer continues to contribute to the fund until a potential dismissal or retirement. Once the beneficiary is entitled to withdraw their capital, they can keep it invested or transfer it to a pension fund or insurance policy to receive a monthly pension, or request a lump sum payment.

In South Korea, the second pillar combines severance pay (*severance payment system*) with employer-sponsored pension plans. Employees with more than one year of service receive an amount equivalent to one month's salary for each year worked. Since 2005, companies must establish at least one retirement benefits plan, managed by authorized trustees.

In Latin America, these public policies have influenced the expansion of the insurance industry, especially through its participation in new areas of economic and social activity, by implementing reforms that have allowed the insurance industry to participate in pension systems, disability insurance, Life insurance, annuities, and health services, either as a complement to or as a replacement for public systems. These policies originated mainly in the social security reforms initiated in Chile in 1980 and were subsequently replicated in other countries during the 1990s. These reforms replaced pay-as-you-go systems with individual capitalization models, transferring operational functions from the state to private entities under public regulation. Under this new system, insurance companies offer group disability and survivors' insurance policies, taken out by pension fund administrators, and annuity products, which retirees may choose as their pension payout option.[36]

Brazil's case is unique, as it is not based on explicit participation policies, but rather on tax incentives that have favored the development of products such as VGBL (*Vida Gerador de Benefício Livre*) insurance and

open complementary pension plans. Launched in 2003, VGBL is a Life insurance policy that allows users to accumulate funds to receive monthly income or lump-sum payments, with tax benefits on investment returns. In 2024, it accounted for 46% of the Brazilian insurance sector. In parallel, the open private pension system consists of plans sold by insurance companies authorized to operate in personal insurance lines. Virtually all open private pension products sold on the market correspond to the *Plano Gerador de Benefício Livre* (PGBL) modality. The main difference between the two plans lies in the tax treatment applied to them. In both cases, income tax is only applied at the time of redemption or receipt of benefits. However, under VGBL, tax applies only to investment gains, whereas under PGBL, it applies to the total amount redeemed or received as income.

In addition to pensions, public policies have also allowed insurance to participate in the healthcare domain. The most visible case is that of the United States. Unlike most developed societies today, the United States does not guarantee universal healthcare coverage, or even universal access to healthcare services. This problem can largely be attributed to the tradition of employer-provided health coverage, which is not mandatory. In addition, there are two government programs: *Medicare* and *Medicaid*. The first primarily provides coverage to retirees, granting healthcare (with limits) and a certain level of retirement income support. Meanwhile, *Medicaid* is designed to cover the medical expenses of those individuals in extreme poverty who do not have any income or any other type of equity. Although both programs are public, private insurance companies participate in *Medicare* through *Medicare Advantage* and drug prescription plans, and in *Medicaid* through state contracts.

The Dutch healthcare system provides universal coverage through mandatory health insurance managed by private insurance companies. Insurers that decide to participate in the mandatory coverage system must ensure that the services included in a basic coverage package are available to all their policyholders. They must accept all applicants and cannot differentiate premiums based on the policyholder's health risks.

In countries like Argentina and Colombia, specific entities (Workers' Compensation Insurance Companies and Occupational Risk Administrators) were created to manage mandatory occupational accident insurance. In Costa Rica, the National Insurance Institute, a state-owned entity, has been managing this coverage since 1943. In Puerto Rico, the 1993 healthcare reform allowed insurers to be contracted to provide medical and hospital services to vulnerable populations, including *Medicaid* and *Medicare* beneficiaries. In Brazil, private Health insurance has also grown significantly, driven by tax incentives and the decline in the quality of the public system. According to several authors, the major shift in insurers' participation in the health insurance segment in Brazil occurred in the late 1980s, when the Superintendence of Private Insurance authorized group health insurance and allowed insurance companies to link up with health services. Prior legislation had prohibited such links between service providers and insurance companies. Currently, private Health insurance in Brazil is supervised by the National Agency for Supplementary Health Services (ANS).

In Uruguay, the Banco de Seguros del Estado (BSE), a state-owned insurance company founded in 1911, operates as a monopoly in the field of Workers' Compensation, a mandatory insurance governed by Law 16,074. In 1993, Law 16,426 liberalized the insurance market in Uruguay, with the sole exception of workers' compensation insurance. Finally, Complementary Insurance for High-Risk Work (SCTR) is mandatory insurance in Peru that offers protection to workers engaged in high-risk activities and exposed to workplace accidents or occupational diseases. There are two

types of complementary high-risk work insurance, which the employer must pay in full: SCTR Health and SCTR Pension.

Based on this review of international experience, it can be concluded that when the State transfers part of its responsibilities to private management, it typically pursues objectives related to efficiency and system sustainability. First, it seeks to optimize management by incorporating the technical and operational capabilities of private entities, which reduces costs and improves service quality. It also aims to expand coverage and guarantee access to more diversified benefits, taking advantage of the infrastructure and innovation of the insurance market. Another essential goal is to strengthen the system's financial sustainability by reducing the tax burden and channeling savings into productive investments that contribute to economic development. Finally, these policies seek to distribute risks among multiple actors, increasing the system's stability and promoting resilience against demographic and economic contingencies.

The fact that countries that have implemented individual capitalization-based social security systems have chosen insurance companies to manage one of the pension payout options (life annuities) and to provide insurance guaranteeing the additional contributions needed to finance disability and survivors' pensions reflects the confidence of governments in the technical capacity and experience of the insurance industry in managing long-term savings and the associated financial and demographic risks. Moreover, the involvement of insurance in the provision of healthcare services has enabled governments to provide a greater number of citizens access to quality medical care, either by bringing services for the economically disadvantaged population up to the same standard as those in the private sector, or by contributing to citizens' access to a larger network of services when universal insurance systems are created. In the area of occupational health, private insurance coverage of workplace risks has helped foster a stronger culture of occupational risk prevention than existed under previous systems, thereby contributing to a reduction in workplace accident rates.

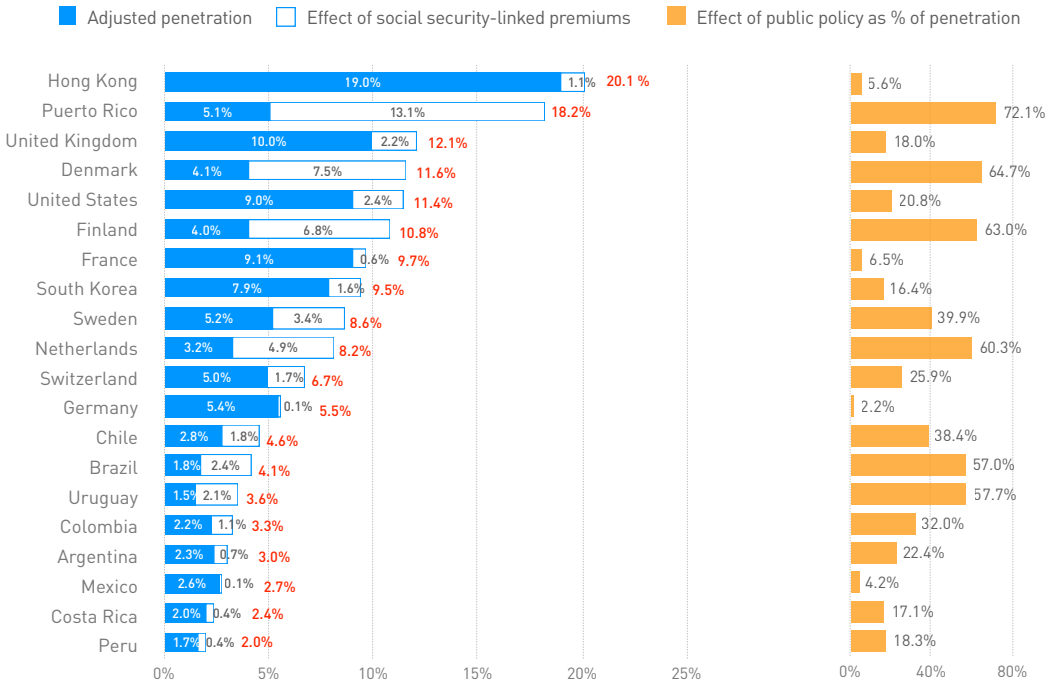
3.5.2 Quantitative impact analysis

Charts 3.5.2-a, 3.5.2-b, and 3.5.2-c present an assessment of the quantitative impact of the policies described above on the size of insurance markets. For the countries analyzed, the volume of premiums collected in 2024 has been obtained, separating from the total those premiums linked to products associated with government policies that transfer part of public responsibilities to the private sector. For a more accurate view of the impact of these measures, Charts 3.5.2-b and 3.5.2-c present this information, distinguishing between premiums directly related to Life insurance, mainly through retirement savings products, and Non-Life insurance, which includes Health insurance and Workers' Compensation insurance.

In the overall analysis, Puerto Rico stands out, where 13.1 percentage points (pp) of the penetration index in 2024 corresponds to the effect produced by Health insurance premiums. This is because the Puerto Rican premium volume includes Health insurance for the poorest populations, which is managed by the private insurance industry but covered by the government's budget. The case of the Netherlands is also related to Health insurance, where premiums collected for basic mandatory insurance account for 4.9 pp of the country's total insurance penetration of 8.2%. Two other noteworthy cases are Denmark and Finland, where insurance related to the second pillar of the pension system adds 7.5 pp and 6.8 pp, respectively, to their insurance penetration indicators.

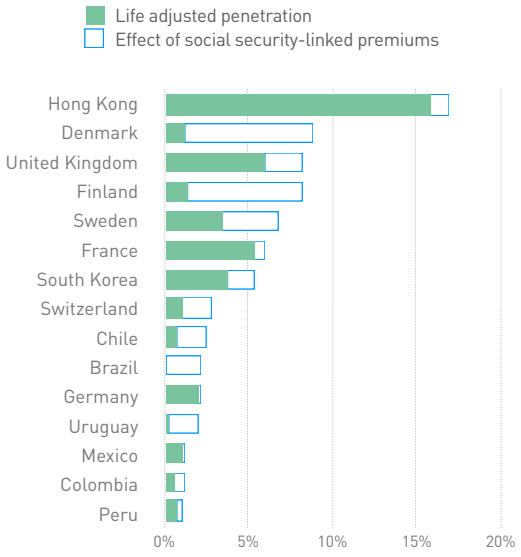
Sweden is also a significant case, as shown in Chart 3.5.2-b, where premiums written by Life insurance and Occupational pension companies contribute 3.4 pp to

Chart 3.5.2-a
Selected markets: insurance penetration adjusted for the effect of social security-linked premiums, 2024
(premiums/GDP, %)



Source: MAPFRE Economics (with data from supervisory bodies in the region and IMF)

Chart 3.5.2-b
Selected markets: Life penetration adjusted for the effect of social security-linked premiums, 2024
(premiums/GDP, %)

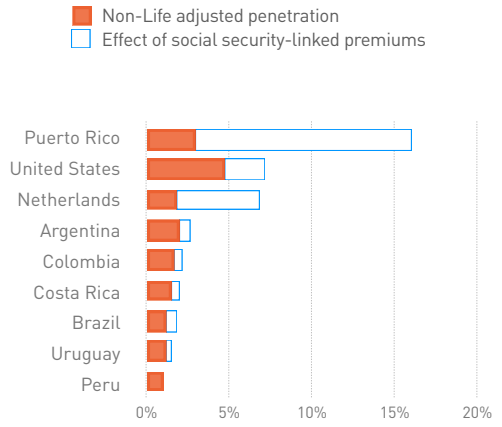


Source: MAPFRE Economics (with data from supervisory bodies in the region and IMF)

the Life insurance penetration rate in the country, which would otherwise stand at 3.4% instead of 6.8%. In South Korea, both Life and Non-Life companies offer retirement products, which together contribute 1.6 pp to the 5.3% Life insurance penetration rate. In countries like Chile, Life insurance penetration reaches 2.5% of GDP, but if premiums linked to social security are excluded, the indicator drops to 0.7%. In Uruguay, Pension insurance accounts for 83.2% of premiums in the Life segment, with the Banco de Seguros del Estado (BSE) concentrating the largest volume.

For Non-Life insurance lines, apart from the aforementioned cases of Puerto Rico and the Netherlands, we should also mention the United States, where *Medicare* and *Medicaid* premiums contribute 2.4 percentage points to the penetration of the country's Non-Life segment. Meanwhile, in Brazil, the revenues of insurance companies authorized to operate in Health insurance

Chart 3.5.2-c
Selected markets: Non-Life penetration adjusted for the effect of social security-linked premiums, 2024
(premiums/GDP, %)



Source: MAPFRE Economics (with data from supervisory bodies in the region and IMF)

have been taken into account, contributing 0.7 pp to the penetration of Non-Life insurance. For the remaining countries, Workers' Compensation insurance, managed by insurance companies, has facilitated greater development of Property & Casualty insurance in those markets.

In conclusion, the experience analyzed shows that public policies enabling the insurance sector to enter new economic and social areas have generated positive results. These benefits are reflected not only in industry growth and increased insurance penetration (with its stabilizing effects and its role as an institutional investor by channeling savings into productive activities), but also, and more importantly, in the insurance industry's ability to enhance the efficiency of policies aimed at solving countries' major economic and social challenges.

3.6 Financial inclusion in insurance

3.6.1 Financial inclusion and insurance penetration

In an increasingly uncertain global environment marked by financial volatility, geopolitical tensions, and climate risks, the importance of mechanisms to protect vulnerable populations with accessible and affordable insurance, such as microinsurance, becomes vitally important. These products help mitigate the economic impact of adverse events and sustain social resilience against possible crises, while also contributing to the push for greater overall societal protection represented by increased insurance penetration levels. However, products with these characteristics also require a solid regulatory framework to guarantee the solvency of insurance companies and, where appropriate, avoid systemic risks. In this case, regulation must balance consumer protection with the flexibility necessary to encourage innovation and mass distribution.

Generally speaking, financial inclusion refers to the process by which the population gains access to a range of financial services (credit, savings, insurance, payment systems, and pensions), as well as financial education mechanisms, with the aim of improving their material living conditions. In the insurance industry, financial inclusion means that different social groups, especially the most vulnerable, can access products that allow them to protect their lives, health, and assets through savings and loss-compensation mechanisms.

Digitization and the use of artificial intelligence can play a key role in reducing costs and improving the distribution of inclusive insurance products, especially in markets with limited physical infrastructure. Digital platforms and mobile payments make it possible to reach excluded segments efficiently and transparently. Emerging risks (such as extreme weather events and cyber threats) have bolstered the need for affordable insurance for vulnerable populations. These products not only protect household assets, but also contribute to economic and social stability in a highly uncertain global context.[37]

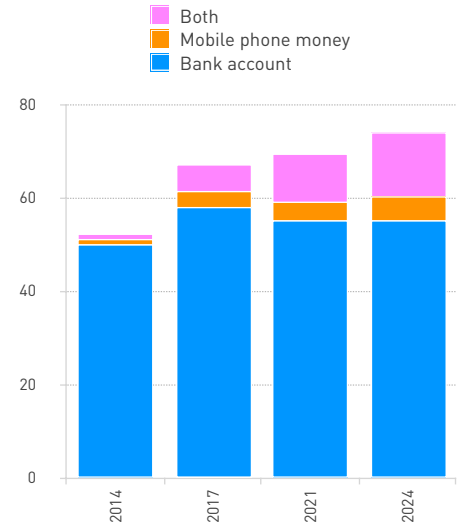
Thus, increasing insurance penetration in the economy does not merely reflect, in quantitative terms, a larger share of annual economic output accounted for by insurance premiums. It also implies, in a qualitative sense, that a growing number of people have access to the benefits of protection, compensation, and risk diversification offered by insurance, thus achieving sufficient economies of scale to allow for adequate mutualization of claims costs. Thus, public policies aimed at financial inclusion (and, in particular, those focused on insurance) can be a powerful tool to boost insurance penetration from both perspectives.

Digitization and financial inclusion: a catalyst for insurance

The 2025 edition of the *Global Findex Database*confirms that digitization is the main driver of financial inclusion in low- and middle-income economies. Between 2021 and 2024, the proportion of adults with a bank account increased from 74% to 79% globally, and in these countries it reached 75%. This progress is largely explained by the expansion of mobile accounts, which now reach 40% of adults in Sub-Saharan Africa and 37% in Latin America and the Caribbean. The convergence between digital connectivity and financial services is evident: 86% of adults own a mobile phone, although gaps in *smartphone* ownership persist, especially in lower-income regions, limiting access to more sophisticated financial applications.

The report also highlights that more than half of accounts in emerging economies are digital, facilitating payments, savings, and transfers. However, lack of income remains the primary barrier for those who are still excluded: 59% of unbanked adults in Sub-Saharan Africa say they do not have enough money to use a bank account. This finding emphasizes that financial inclusion depends not only on technological infrastructure, but also on policies that reduce costs and offer products tailored to vulnerable segments. Chart 3.6.1-a illustrates the evolution of access to bank accounts and the impact of

Chart 3.6.1-a
Low and middle-income economies: adults with a bank account, 2014–2024
(%)

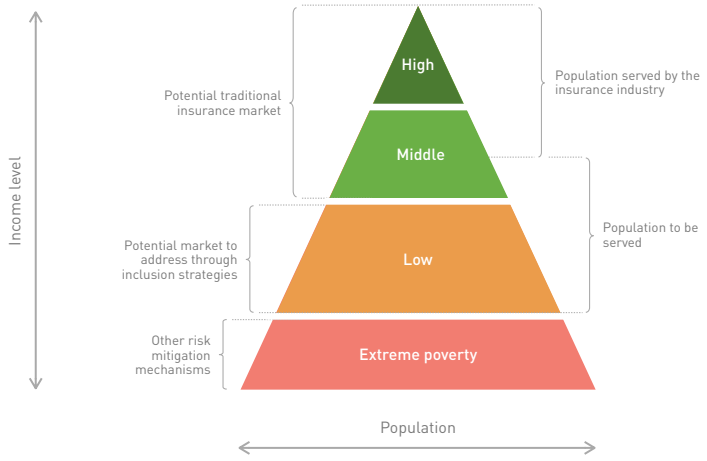


Source: MAPFRE Economics (with data from Global Index Database 2025)

"*mobile money*" over the last decade, reinforcing the argument that digitization is a driver of inclusion.

Moreover, although gender gaps have narrowed (5 percentage points in low- and middle-income countries), income remains the most decisive factor: the difference in account ownership between the poorest and richest households stands at 12 percentage points (pp). This highlights the need for comprehensive strategies that combine digitization, affordability, and financial education to close the remaining gaps.[38] In many economies, both emerging and developed, the challenge of expanding financial inclusion (and thereby increasing insurance penetration) is closely linked to broader patterns of economic and social inequality. Accordingly, inclusion mechanisms must be designed to effectively reach populations at the base of the socioeconomic pyramid, characterized by lower income levels and greater exposure to risk.

Chart 3.6.1-b
Insurance service scheme for different segments of the population



Source: MAPFRE Economics

International experience confirms that digitization and proportional regulation are pillars for financial inclusion and, by extension, for the expansion of insurance in vulnerable populations. While the Economist Intelligence Unit's *Global Microscope* shows that countries with better digital infrastructure and flexible regulatory frameworks were able to distribute financial transfers and services more quickly and effectively during the COVID-19 crisis, the development of microinsurance and *insurtech* platforms points in the same direction: reducing costs, simplifying processes, and leveraging digital channels to reach traditionally excluded segments. This convergence of public policy, technological innovation, and social resilience reinforces the need for comprehensive strategies that combine accessibility, usability, and security, not only for payments and savings, but also for risk-protection mechanisms, thereby consolidating an inclusive and sustainable financial ecosystem.[39] Thus, as Chart 3.6.1-b illustrates, the potential market for traditional insurance tends to cover a large part of the middle- and high-income population. At the other end of the spectrum, people living in extreme poverty will only be able to access insurance products as their income improves. In the meantime, they will be served through alternative social protection mechanisms. Between these two extremes lies a large segment of the low-income population that can benefit from financial inclusion strategies which, moving away from traditional business models, make it possible to offer insurance products with lower transaction costs: essentially, standardized mass-market insurance and so-called microinsurance.

Insurtech: technological innovation for insurance inclusion

Digitalization not only drives financial inclusion, but is also transforming the insurance market through the development of *insurtechs*. According to the report *Insurtech in Emerging Markets* (FSDA & Cenfri, 2023),[40] 481 initiatives have been identified in emerging markets, of which 202 are in Africa, 143 in Asia, and 136 in Latin America. Most were launched between 2017 and 2022, reflecting a significant acceleration in technology adoption. These solutions seek to overcome critical barriers to insurance inclusion: lack of consumer access (63%), lack of customer information (56%), and limited business models (19%).

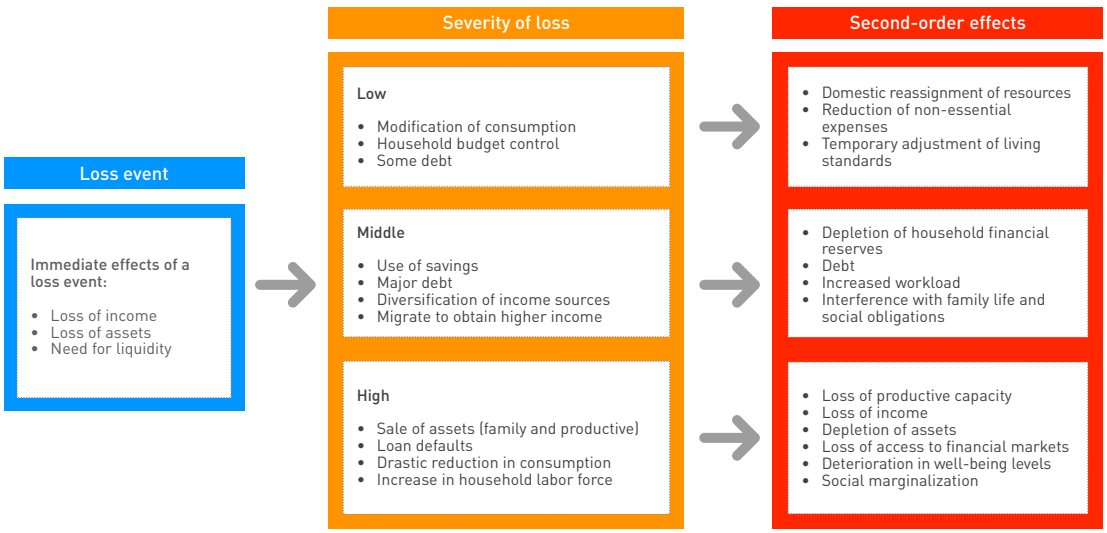
The most common models include digital platforms, *technology* partnerships, parametric insurance, and on-demand products. For example, parametric agricultural insurance uses satellite imagery to trigger automatic payments in response to weather events, while *on-demand* insurance provides temporary coverage activated in real time. These innovations are key to expanding coverage in vulnerable segments, reducing costs, and improving the customer experience, complementing microinsurance and financial resilience strategies.

Strategies for financial inclusion in insurance

As mentioned above, financial inclusion strategies in insurance can have an immediate positive impact on insurance penetration levels by stimulating demand for these products. Thus, although their most significant effects (both from a social perspective and in terms of sustained growth in insurance demand) materialize over the long term, it is important to promote their adoption, since insurance is a financial instrument that contributes to the stability of economic activities and, therefore, to social organization. The absence of risk-transfer mechanisms can lead to losses in income and wealth for households and businesses, with particularly serious consequences for vulnerable low-income groups.

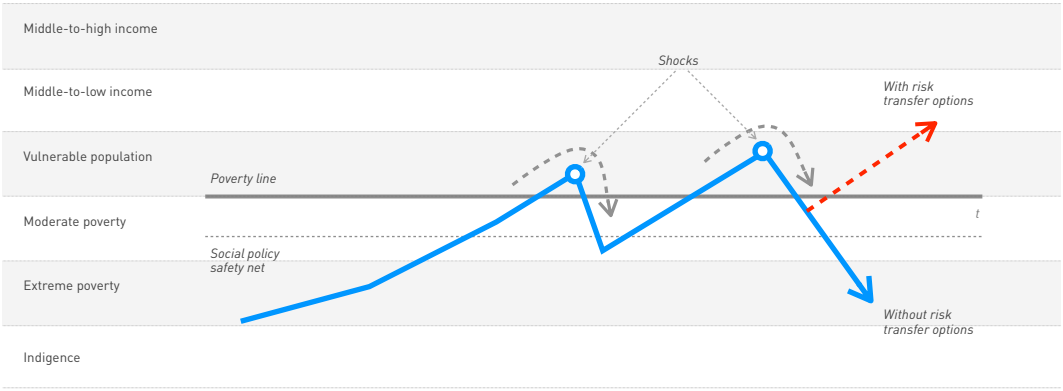
As illustrated in Chart 3.6.1-c, the materialization of risks in the event of a disaster has immediate and medium-term effects for households, depending on the severity of the event. A loss may result in an abrupt reduction in income and assets, as well as urgent liquidity needs, but in the medium term, it may lead to a loss of productive capacity, depletion of wealth, restricted access to credit, a decline in well-being, and ultimately, greater social marginalization. A household progressing along a path of social mobility may fall back into poverty if it faces shocks that affect its assets and income-generating capacity, without having mechanisms such as insurance to transfer risks and compensate for losses. Therefore, access to insurance products can make the difference between achieving social mobility and remaining in a situation of economic and social vulnerability (see Chart 3.6.1-d).

Chart 3.6.1-c
Effect of the materialization of risks in the low-income population



Source: MAPFRE Economics (with data from Monique Cohen and Jennefer Sebstad, "Reducing vulnerability: the demand for microinsurance," *Journal of International Development*, 2005)

Chart 3.6.1-d
Effect of risk materialization on the upward trajectory of well-being among lower-income populations

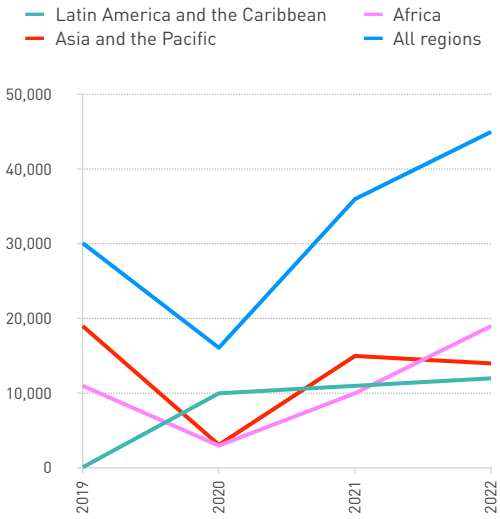


Source: MAPFRE Economics (with data from Monique Cohen and Jennefer Sebstad, "Reducing vulnerability: the demand for microinsurance," *Journal of International Development*, 2005)

Along these lines of analysis, the report *Rethinking the Global Microscope for Financial Inclusion* (Economist Impact, 2021) argues that an inclusive financial system must meet three essential characteristics: *accessibility*, *usability*, and *security*. These pillars ensure that financial services are not only available, but also useful and reliable for the most vulnerable populations. First, *accessibility* means expanding the reach and scale of financial services to segments that have traditionally been excluded. Inclusive insurance, such as microinsurance, can contribute to this goal by offering products with low premiums and basic coverage tailored to low-income households. They also use alternative channels (such as commercial networks, microfinance institutions, and digital platforms) that facilitate transactions in rural areas or regions with limited banking infrastructure.

Meanwhile, *usability* means that products are relevant, simple, and easy to use, promoting their sustained adoption. Insurance products aimed at enhancing financial inclusion should therefore feature straightforward design, clear policy wording, and streamlined underwriting processes; offer flexible premium payment options adapted to irregular income patterns; and leverage mobile technology for policy management and renewal. In this way, they also serve as tools for financial education, strengthening users' understanding of the product. Finally, the concept of *security* guarantees the stability and integrity of the financial system, protecting consumers from risks and crises by offering a safety net

Chart 3.6.2-a
Selected regions: number of registered product customers, 2019–2022
(thousands)



Source: Microinsurance network, 2023. *Microinsurance Outlook Study 2023*

Table 3.6.2
Selected markets: microinsurance indicators

Region	People reached by microinsurance	Percentage of population covered	Weighted average premiums per covered person	Estimated market value of microinsurance in target countries (USD)	Share of the estimated microinsurance market value captured
Countries studied in Africa	Up to 44.1 million	Up to 9.4%	28	6.9 billion	6%
Countries studied in Asia-Pacific	Up to 238 million	Up to 11.9%	13	25.1 billion	21%
Countries studied in Latin America and the Caribbean	Up to 48.4 million	Up to 11.9%	25	9.3 billion	8%
Countries studied in all regions	Up to 330 million	Up to 11.5%	17	41.4 billion	15%

Source: Microinsurance network, 2023. *Microinsurance Outlook Study 2023*

against adverse events (such as illness, death, or natural disasters), thereby reducing economic and social vulnerability.

3.6.2 Microinsurance and inclusive insurance

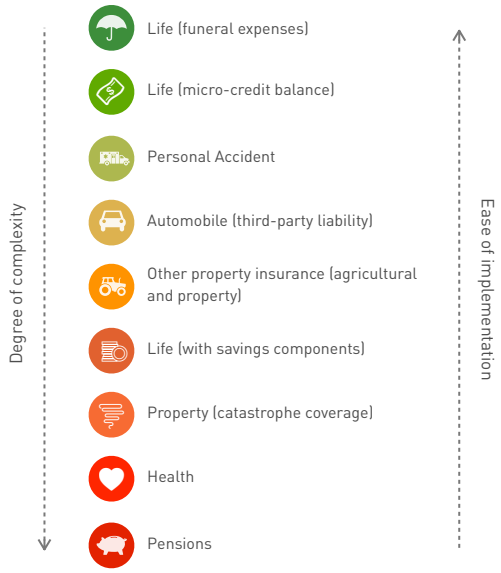
Microinsurance and inclusive insurance can be key tools for increasing penetration, especially in emerging economies. The *2023 Microinsurance Landscape* study[41] reveals that, in the 36 countries analyzed, only 11.5% of the target population (people with incomes between 2 and 20 international dollars per day) have some form of microinsurance, leaving an 88.5% protection gap. This figure contrasts with the growing exposure to health, climate, and asset risks in emerging economies.

In 2022, 330 million people were covered by microinsurance products, reflecting a significant recovery following the decline observed during the pandemic. As a result, the number of policyholders grew by 28% between 2021 and 2022, and premiums increased by 12% (see Chart 3.6.2-a). However, the market captured (5.8 billion dollars) represents only 15% of the estimated potential (41.4 billion dollars), demonstrating a substantial opportunity for the insurance industry (see Table 3.6.2).

Life and Accident microinsurance products are the most widespread (171 million people), followed by Health insurance (72 million) and Agricultural insurance (33.6 million). Digitization is emerging as a key enabler. Although cash remains the primary means of payment in Asia and Africa, mobile money is already used for 15% of products in Africa and 11% globally, and digital platforms are starting to be incorporated into distribution. Examples such as Turaco in Africa and Econet Life in Zimbabwe demonstrate how technology can reduce costs and expand reach, even in environments with limited physical infrastructure.

These data confirm that financial inclusion must go beyond access to bank accounts, incorporating insurance solutions tailored to vulnerable segments. The expansion of microinsurance not only contributes to economic resilience, but also supports progress toward the United Nations SDG 1 (No Poverty), SDG 3 (Good Health and Well-being), and SDG 13 (Climate Action). Advancing an inclusion strategy based on the expansion and use of microinsurance requires addressing three core aspects: (i) identifying the risks that most affect vulnerable populations; (ii) designing products tailored to those risks and the target population; and (iii) establishing a regulatory framework that allows for the effective delivery of those products to that population under conditions of economic and social efficiency.

Chart 3.6.2-b
Potential areas of microinsurance coverage



Source: MAPFRE Economics

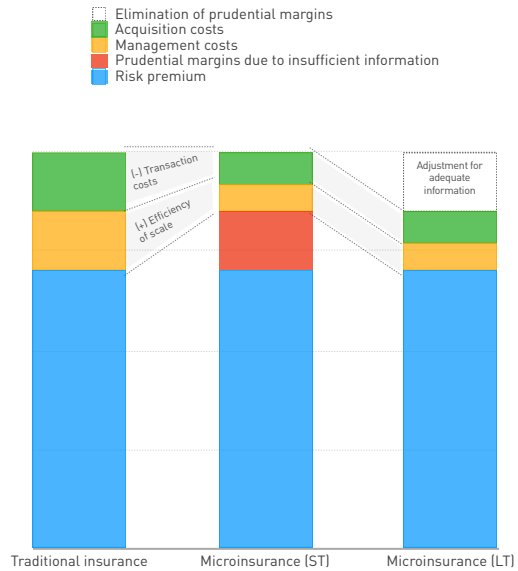
Risk identification

In the process of expanding microinsurance and inclusive insurance, it is essential to identify risks that may have the most severe impact on low-income households due to their loss-to-cost ratio and degree of uncertainty. A loss-to-cost ratio and a degree of uncertainty exceeding normal events (which may be absorbed through regular household income) is the area of risk that can be covered by microinsurance. As Chart 3.6.2-b illustrates, microinsurance is designed to cover events that exceed the absorption capacity of normal family income, such as death, disability, property damage, and health problems. The different types of microinsurance involve varying levels of complexity in their implementation. Accordingly, inclusion policies should initially promote less complex microinsurance products and then gradually expand toward more complex offerings. In addition, vulnerable populations are particularly exposed to catastrophic (low frequency and high severity) risks associated with natural phenomena. In this context, microinsurance, combined with social and financial public policies, must play a critical role in mitigating these impacts.

Microinsurance design

Product design must consider two dimensions: *the type of coverage* and the *technical and contractual characteristics* of the products. In terms of *type of coverage*, microinsurance should include Life insurance (for funeral expenses, outstanding microcredit balances, or savings), Personal Accident insurance, Auto insurance (third-party liability), Property insurance (protection of productive assets against ordinary or catastrophic risks), Health insurance, and Pension insurance. Each of these types presents different levels of complexity, so inclusion policies should start with the simplest products and gradually move toward the most complex ones. As for *technical and contractual characteristics*, microinsurance must be simple, with clear coverage, defined

Chart 3.6.2-c
Expected medium-term trend in microinsurance pricing



Source: MAPFRE Economics

insured amounts, and streamlined underwriting processes. Policies should be written in plain language, with minimal exclusions and payment mechanisms adapted to irregular income. In addition, it is essential to reduce transaction costs through non-traditional channels (commercial networks, microfinance institutions, utility bills) and the intensive use of technology for contracting, administration, and claims payment.

A critical aspect of this last point is calibrating the technical margins included in the premium. In the initial stages, the lack of data may drive up microinsurance prices, but these should be adjusted as sufficient information becomes available to ensure accessibility and sustainability (see Chart 3.6.2-c). Finally, since they are directed at vulnerable populations to mitigate the immediate effects of shocks arising from materialized risks, microinsurance policies must be designed so that compensation is paid almost immediately, with minimal and well-defined documentation requirements.

Microinsurance and regulation

Regulation is a fundamental enabler of accessibility, usability, and security. Substantial regulatory improvements (such as the creation of appropriate standards for inclusive products) have demonstrated a greater impact than incremental adjustments. For microinsurance, this means designing rules that reduce operational friction and distribution costs without sacrificing insurance companies' solvency or transparency toward policyholders. International evidence confirms that a balanced regulatory environment is key to consolidating microinsurance as an effective tool for financial inclusion.[42]

Thus, the expansion of microinsurance requires a regulatory framework that encourages its development without compromising the solvency of insurance companies and, therefore, the protection of policyholders' interests. Regulation should focus on reducing transaction costs and making distribution channels more flexible, rather than artificially lowering safety margins. At the global level, regulatory progress remains limited. Although some countries have implemented specific regulations for microinsurance or mass-market insurance, the market share of these products remains marginal. This highlights the need for regulators and the industry to work together to design sustainable business models that serve the most vulnerable segments.

Extreme risk protection gaps: global implications

The increasing frequency and severity of extreme events, such as flooding, hurricanes, and earthquakes, is widening protection gaps around the world. In 2024, 57% of economic losses due to natural disasters were uninsured, exposing significant vulnerabilities, especially in emerging economies, which have the largest gaps, exceeding 80% in Asia and Latin America. These gaps not only affect households and businesses, but can also amplify systemic risks by transferring losses to the banking sector and public finances.

In this context, microinsurance and other inclusive products are essential to reduce economic and social vulnerability. However, their effectiveness depends on robust regulatory frameworks that guarantee solvency and sustainability, as well as the use of technology to reduce costs and facilitate distribution, all within the framework of public policies designed to address the effects of these phenomena. International evidence confirms that lack of coverage against extreme risks can delay economic recovery and increase inequality, highlighting the urgency of accessible insurance for vulnerable populations.[43]

4. Summary and conclusions

4.1 Considerations regarding the determining factors of insurance supply and demand in global markets

The fundamental role of regulatory frameworks in insurance penetration levels

As this report has demonstrated, regulation plays a fundamental role as a catalyst for insurance activity. Within regulatory frameworks, which cover everything from market access mechanisms to complementary sources of financing, solvency requirements for insurance activity and related investments, the launch of new products on the market, regulations related to market competition, consumer protection, mandatory insurance, taxation and the different options related to the role insurance can play as a complement to or replacement for certain activities that fall within the scope of social security protection, regulatory and public policy decisions may be critical in either stimulating or suppressing insurance supply and demand.

Role of the economic environment in insurance activity

In addition to regulatory frameworks, there are other macroeconomic factors that, to a greater or lesser extent, influence the dynamics of insurance activity, as in other sectors of the economy, and over which public authorities may exert influence. Aspects like the pace of economic activity, particularly consumption, credit to the private sector, per capita income, the level and trajectory of interest rates, the behavior of exchange rates, and the degree of financial volatility influence the demand for insurance products, revenue and cost structures, asset values, and the capacity to manage such assets in relation to liabilities.

The degree to which the insurance industry is conditioned by the main economic and financial variables is explained by the close links that insurance activity maintains with virtually all areas of economic functioning. Thus, a country's income level, measured in both absolute values and structurally in per capita terms, is an economic factor highly correlated with all business lines in a country's insurance industry at an aggregate level. The high correlations between per capita income on parity with buying power and insurance activity, both Non-Life and Life insurance, can also be observed in relation to specific indicators linked to greater insurance activity, such as the automobile fleet, particularly the number of vehicles per person, health expenditure, credit to the private sector, or the population's savings capacity in the different markets.

Regression analyses also show that the best fits for these variables are achieved using polynomial functions, such that increases in per capita GDP have a greater impact on insurance activity the higher a country's income levels. This positive elasticity persists up to very high levels of per capita GDP, beyond which further increases in GDP per capita no longer lead to increases in insurance density. This implies that emerging economies achieving improvements in the per capita income of their population in purchasing power parity terms can see even greater substantial growth in the level of insurance activity in their respective economies.

The insurance industry as a support for the operation of different sectors of the economy

But insurance also acts as a fundamental support for the functioning of the economy as a whole. On one hand, the risk protection and compensation process practiced by the insurance industry is a support function for the various sectors of the real economy (primary activities, industry, and services), through a wide range of liability and property insurance products. These products provide protection not only to households, but also to the entire business fabric of a country, including retailers, self-employed professionals, small and medium-sized enterprises, and large corporations, particularly through global risks insurance solutions. In the case of catastrophic events, insurance and reinsurance provide stability and continuity to the economic process, helping the economy return to normal operating conditions within relatively short periods. This has been clearly demonstrated in markets with high levels of insurance penetration, without prejudice to the significant work that remains to close existing insurance protection gaps—both in these markets and across other types of risk —particularly in emerging economies.

Similarly, the insurance industry plays a very important role in the economy through the support it provides, together with other financial institutions, in the savings-investment process. Through Life insurance with savings components and the management of significant investment portfolios generated on their balance sheets, insurance companies help generate stable domestic savings and support capital formation. In this regard, the insurance industry is one of the main institutional investors worldwide. Through this role, it not only channels savings toward the financing of production activities, but also (due to the characteristics of its business model and its inherent investment function) provides the economic system with a countercyclical stabilizing element.

4.2 General guidelines to expand insurance penetration

Based on an analysis of international experience, including major insurance markets in North America (particularly the United States), Latin America (including Brazil, Mexico, Argentina, Colombia, Peru, and a broad sample of other Latin American markets), Europe (United Kingdom, France, Germany, Italy, and Spain), and Asia (Japan, India, and South Korea), the following section sets out, by way of conclusion to this report, the general lines identified as most important for consideration in the design and updating of public policies that use insurance as an instrument to achieve major economic and social objectives. Through this approach, it is also possible to simultaneously increase insurance penetration, thus expanding the population's protection against the risks to which it is exposed, and strengthening the important role of the insurance industry in channeling medium- and long-term savings.

General aspects of prudential regulation

First, progress in the design and implementation of risk-adjusted regulatory frameworks, aligned with a pro-competitive market vision, is one factor that can support increased insurance penetration from the supply side. Thus, as we have highlighted in previous reports, progress toward risk-based regulation is an element that can stimulate growth in insurance supply and, therefore, increase insurance penetration in the economy, as it enables a more efficient allocation of capital and creates incentives for more professional management of insurance companies based on technical considerations and parameters.

It is equally important to highlight that the international evidence suggests that progress in regulatory modernization can contribute to higher insurance penetration in the economy when it is implemented gradually, in parallel with the development of

technical capabilities within the industry and among supervisory authorities, and alongside the creation of the market infrastructure necessary for its proper implementation. Otherwise, regulatory advancement (which, among other things, would face difficulties in terms of effective compliance) could lead to undesirable consequences, such as the establishment of barriers to entry for certain lines of business, or inefficient allocation of resources, which would ultimately have a negative impact on insurance market penetration.

Innovation and new insurance products

Identifying more efficient and flexible mechanisms to reduce the time and cost involved in bringing new products to market is another key factor in increasing insurance penetration in the economy. This not only helps stimulate innovation and expand the range of insurance products offered, but also allows the population to access new protection solutions in a timely manner that are better aligned with their evolving needs.

Innovation has become a strategic necessity for the future of the global insurance industry, driven by the convergence of evolving consumer demand—seeking an experience of immediacy and personalization similar to that offered by major tech platforms for other products—the emergence of new technologies such as Big Data, Artificial Intelligence (AI), and the Internet of Things (IoT), which enable the adoption of innovative solutions in many areas of insurance activity, as well as the appearance of new risks that would not be covered under traditional insurance policies. One of the most commonly identified barriers to innovation is related to the cost of implementing new technologies and the technological burden of legacy systems, which are expensive to maintain and difficult to integrate with new digital platforms. However, many traditional operators have not been displaced by the dynamics of this new environment, as was feared at the beginning of this technological revolution, in which the insurance industry is showing a great capacity for adaptation. A second major barrier is related to regulatory challenges, an area in which the industry still faces significant structural limitations to large-scale innovation, whether due to regulatory barriers that hinder and delay the launch of new products on the market by imposing strict *ex-ante* controls, requiring prior approval of technical notes, policies, and, in some cases, rates.

To the extent that strengthening risk management functions, as an integral part of insurance companies' governance systems, also means that new products brought to market must have technical and contractual conditions that do not compromise solvency, the regulatory mechanisms designed for this purpose should be adjusted accordingly in order to stimulate and enhance the effectiveness of innovation processes. This is an aspect that should be explicitly considered in regulatory modernization initiatives, such as the framework introduced under Solvency II in the European Union, with a greater degree of freedom without *ex-ante* controls (without prejudice to possible *ex-post* supervision), while moving toward a more modern policyholder protection regime that achieves the necessary balance between adequate protection and preserving market dynamism.

Cost efficiency

Improving cost efficiency within insurance companies makes it possible to increase the relative share of premiums allocated to claims payments. This not only allows insurance to better fulfill its social function of risk mutualization, but also helps improve public perception of insurance companies overall. In general terms, there is still a long way to go in some insurance markets (mainly emerging ones) to take measures that, from a regulatory point of view, help reduce insurance companies' costs, especially acquisition expenses. This may be achieved through regulatory

measures that can stimulate competition, or other measures designed to achieve economies of scale that allow adequate compensation for distribution networks, sufficient to finance the infrastructure necessary to provide distribution services and offer competitive prices.

This effort must advance along two complementary dimensions. On the one hand, it involves improving cost efficiency at the individual company level, through organizational improvements and the growing use of technology as part of risk management. On the other hand, it also involves advancing at the industry level in each country to identify and consolidate the public resources necessary for insurance operations, as well as the market infrastructure that allows them to be managed efficiently, to the benefit of both insurers and consumers. In this latter dimension, as highlighted in previous analyses, industry and professional associations can promote forms of collaboration that are extremely useful. These include, among other initiatives, the development of shared data-use mechanisms (which can support more accurate pricing or underwriting of certain risks), the standardization of basic contractual terms to reduce ambiguity regarding coverage scope (thereby lowering legal costs at the market level), collaborative arrangements for claims management or the provision of certain claims-related services (for example, in the automobile insurance segment), and the standardization of IT protocols governing the exchange of information between insurers as part of insurance operations.

Distribution mechanisms and channels

In general terms, greater diversity in the development of distribution channels for bringing insurance services to consumers tends to be associated with greater gains in penetration over the medium and long term. Therefore, progress toward multichannel distribution models appears to be a prerequisite for stimulating a greater supply of insurance services and the creation of more agile and efficient means of bringing that supply to consumers. Multichannel distribution does not mean the growth of one distribution channel at the expense of another, but rather the creation of complementary channels to serve new segments of the population. Stimulating competition within the different channels is also an important factor in markets where there may be high concentrations of insurance distribution activity in certain specific channels.

Insurance as a public policy tool

Tax incentives

As part of public policies aimed at achieving major economic and social objectives, tax incentives for purchasing insurance are a factor that simultaneously stimulates insurance penetration in the economy, with significant quantitative effects that can materialize in the short and medium term. The broad range of measures adopted in this regard internationally include deductions of insurance premiums from personal and/or corporate income taxes; tax exemptions or deferrals on investment returns; and tax exemptions on benefits, with preferential treatment for Health, Accident, Disability, and Long-Term Care insurance, Life Protection in the event of death, and group policies for private health insurance and those offered by employers providing the aforementioned coverage, recognizing the role insurance plays in protecting individuals and families.

It is worth noting that, in general, as we have observed in previous analyses, although public policies on tax incentives are usually appropriately oriented, efforts to date seem to be biased more toward stability and risk mitigation than savings generation, albeit to varying degrees across countries. The promotion of greater medium- and long-term complementary

savings could undoubtedly help strengthen pension schemes, which are under significant financial pressure in most countries around the world.

The most advanced tax systems analyzed follow, to a greater or lesser extent, the Exemption-Exemption-Taxation (EET) scheme for retirement instruments. Under this framework, contributions are deductible/exempt when made, returns are exempt during the accumulation phase, and only the final benefits are subject to taxation during the decumulation phase. This structure allows withdrawals to be programmed in different forms—lump-sum payments, income streams (temporary or lifetime), scheduled withdrawals, or a combination thereof—often with reductions, where applicable, in the amounts subject to taxation, thereby deferring taxation to periods in which the insured is subject to lower marginal income tax rates. This can result in substantially lower taxation, which is lower the more progressive the tax scales applied in that country are, and in many jurisdictions, there may even be no tax at all in cases where the policyholder suffers from some degree of disability at the time of withdrawal.

In addition, employer-sponsored group retirement insurance linked to an employment relationship is treated as a deductible expense for the employer, reduces the employee's taxable income within established limits, and is not considered salary for social security contribution purposes nor subject to payroll withholding. This creates a strong incentive for both employers and employees to build private supplementary pensions. These types of instruments are not widely available, but in those markets where they do exist, they act as a powerful incentive to channel savings into pension insurance products.

These incentives are complemented by tax relief linked to exemptions on investment returns for savings-based Life insurance products, which, across virtually the entire sample analyzed, are typically added as a complement to EET systems, as useful instruments in the accumulation phase. These are particularly relevant as incentives in emerging economies, where interest rates are usually substantially higher than in developed markets, making instruments that exempt returns on savings insurance products particularly relevant. In some markets, these instruments incorporate an incentive-disincentive system that allows partial withdrawals without losing rights, with progressive limits, thereby providing a degree of liquidity without major consequences while discouraging withdrawals above those thresholds.

Meanwhile, in most developed markets, Life insurance death benefits are exempt from income tax, as they are considered a transfer *mortis causa*, although they may be subject to inheritance tax if they exceed certain thresholds in terms of amount and kinship, with exemptions in many countries to encourage family protection. Thus, in countries like the United States, in European countries in general, and particularly in France, where Life insurance savings benefits paid upon death are exempt from inheritance tax, with a generous limit per beneficiary, these products become highly attractive instruments for intergenerational savings and wealth transfer.

Tax incentives applicable to the taxation of benefits and compensation in cases such as death, accidents, disability, long-term care, or health are also worth noting. Although less visible at the time of underwriting, they can also influence its attractiveness. If benefits are heavily taxed, the effective value of the insured amount decreases, lessening the incentive to purchase the policy. Thus, taxing insurance benefits moderately or exempting them in these cases is considered important so as not to discourage their purchase.

Finally, public policies should eliminate taxes on insurance policies (especially in the case of Life insurance), which significantly increase the cost of the product (such as insurance premium tax or value-added tax) and hinder

insurance penetration, particularly in markets where insurance coverage is low and the aim is to improve affordability in order to expand coverage among middle-income households and more vulnerable segments.

Mandatory insurance

Mandatory insurance, as a public policy instrument, has various positive effects for society and for insurance activity. First, it protects the public interest in a range of situations, primarily those related to third-party civil liability, by safeguarding insured parties against damages that may be suffered as a result of the actions of others. In this context, insurance becomes a source of resources that, through risk mutualization, provides compensation for losses incurred by citizens in the course of various economic or social activities. Second, because mandatory insurance is closely linked to third-party liability, it serves a valuable instrument to raise awareness of prevention and, to that extent, a powerful tool in the financial education process in insurance matters. In this context, in addition to the short-term effect on insurance demand, mandatory insurance is an important foundation for medium- and long-term demand growth.

The most obvious and widespread case internationally is motor third-party liability insurance, designed to protect victims of road-traffic accidents and representing the most common form of mandatory insurance worldwide. However, it is not the only one. There are other types of mandatory insurance that respond to the requirement to provide a guarantee in order to carry out certain specific activities. These are implemented through bonds and surety insurance, which guarantee the fulfillment of contractual obligations and are applied in many areas, such as public tenders, works contracts, supply contracts, leases, tax or customs obligations, and the exercise of certain professional activities, among others. Finally, there are also mandatory insurance policies that fall within the social sphere, such as workplace accident and occupational illness insurance, designed to protect workers in their jobs and ensure their financial stability in the event of unforeseen circumstances. Although this is a key social security benefit, some countries have implemented policies that involve private insurance to manage the healthcare, monetary, and preventive benefits provided by mandatory workers' compensation insurance, creating specific companies that offer this coverage.

Insurance in support of other areas of activity

In certain cases, when designing and implementing public policies, governments decide to rely on the private sector to provide certain services that are considered to be in the public interest because they benefit society as a whole. In doing so, they transfer part of their responsibilities to private management, with the aim of increasing the efficiency of policy execution and exploring new ways to enhance overall social welfare. In the case of the insurance industry, this transfer has been based on governments' recognition of the technical capacity and experience of the insurance industry in managing long-term savings and the risks inherent in insurance products. Thus, international experience shows numerous examples of public policies that allow the insurance industry to participate in specific areas of economic and social activity, such as pension systems (pension savings, workplace hazards, disability and Life insurance, and annuities), or in the provision of healthcare services as a substitute for or complement to public social security systems.

Retirement savings have a particular influence on Life insurance markets. Demographic pressure caused by the general improvement in life expectancy, accompanied by a significant drop in fertility rates, has meant that virtually all reforms carried out in pension systems in recent decades have been broadly aimed at underpinning their medium- and long-

term stability and sustainability, attempting to arbitrate mechanisms that somehow offset the effect these reforms may have on the adequacy of pensions. Similarly, demographic pressure and the aging population are increasing the need for insurance to participate in the provision of healthcare services, in a complementary role to mandatory coverage. This has enabled governments to provide a larger number of citizens with access to quality healthcare, either by aligning services for economically disadvantaged populations with those available in the private sector, or by expanding access to broader healthcare networks through the creation of universal insurance systems.

The experience analyzed reinforces the positive impact of public policies that have enabled the insurance industry to participate in new areas of economic and social activity. On the one hand, in terms of growth in insurance activity and increased insurance penetration, with positive externalities stemming from its stabilizing function through risk compensation, and from its role as an institutional investor by channeling long-term savings into the financing of productive activities. This is shown by the extensive quantitative and country-level analysis presented in Section 3.5 of this study. And, on the other hand, by demonstrating that insurance can contribute to greater efficiency in the implementation of public policies aimed at addressing major economic and social problems, as we have highlighted in previous reports.

Financial education

Financial education is a structural factor that can stimulate growth in demand for insurance in the medium and long term and, with it, an increase in insurance penetration levels in the economy. As highlighted in numerous studies by the Organisation for Economic Co-operation and Development (OECD), financial education is a key factor in citizens' economic well-being and the strength of national economies, where better financial literacy contributes to better economic decision-making. Along the same lines, various international studies have shown that financial education has a direct impact on the purchase of insurance. The greater the knowledge of concepts such as risk, savings, and protection, the better citizens understand the benefits of insurance and tend to purchase it more frequently. It is therefore important to approach this issue from a threefold perspective. First, by expanding the participation of the insurance industry, in coordination with the public sector, to design and implement financial education projects with insurance-specific content. Second, such efforts should be permanent, and therefore grounded in legal and regulatory frameworks that provide certainty, permanence, and effectiveness over the medium term. Third, to achieve a meaningful impact on individual behavior, they must be implemented, as far as possible, through the countries' formal education systems.

Financial inclusion in insurance

Finally, increasing insurance penetration in the economy represents not only the quantitative fact that premiums constitute a larger portion of the wealth a society generates annually, but also, in a qualitative sense, that a growing number of people have access to the benefits of protection, compensation, and risk diversification offered by insurance, thus achieving sufficient economies of scale to allow for adequate mutualization of claims costs. Thus, public policies aimed at financial inclusion (and, in particular, those focused on insurance) can be a powerful tool to boost insurance penetration from both perspectives.

Financial inclusion in insurance means that different social groups, especially the most vulnerable, can access products that allow them to protect their lives, health, and assets through savings and loss compensation mechanisms. In an increasingly uncertain global environment

marked by financial volatility, geopolitical tensions, and climate risks, it is becoming ever more important to have protection mechanisms in place for vulnerable populations, with accessible and affordable insurance, such as microinsurance, to mitigate the economic impacts of adverse events and sustain social resilience in the face of potential crises. However, products with these characteristics also require a solid regulatory framework to guarantee the solvency of insurance companies and financial stability. In this case, regulation must balance consumer protection with the flexibility necessary to encourage innovation and its mass distribution.

Thus, advancing a strategy of financial inclusion in insurance involves three fundamental aspects: (i) identify the risks that most affect vulnerable populations, such as death, disability, property damage, and health; (ii) design products tailored to those risks and the target population; and (iii) establish a regulatory framework that allows for the effective delivery of those products to that population under conditions of economic and social efficiency. It should be noted that low-income populations are particularly vulnerable to catastrophic events (low frequency and high severity, a high degree of uncertainty, and an adverse loss-to-cost ratio), often arising from natural hazards. In this case, microinsurance and inclusive insurance, combined with the support of government social and financial policies, can support these segments of the population when such events occur.

A key aspect in achieving the goal of making microinsurance and inclusive insurance products accessible to vulnerable population groups lies in reducing transaction costs. This entails the need to use non-traditional mechanisms and distribution channels, as well as technology to reduce costs not only in product acquisition and premium payment, but also in management and renewal, and in the payment of claims. From this perspective, prudential regulation should base its incentives on elements that reduce transaction costs, a key aspect in ensuring that this type of insurance is, on the one hand, affordable for the population and, on the other, offers the necessary profitability to enable its marketing, achieving sufficient economies of scale to guarantee its viability.

Digitalization and the use of artificial intelligence can be key to reducing costs and improving the distribution of microinsurance and inclusive insurance, especially in markets with poor physical infrastructure. Digital platforms and mobile payments make it possible to reach excluded segments efficiently and transparently. Emerging risks (such as extreme weather events and cyber threats) have reinforced the need for affordable insurance for vulnerable populations in order to protect household assets, contributing to economic and social stability.

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www.fundacionmapfre.org
Paseo de Recoletos, 23
28004 Madrid

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www.fundacionmapfre.org

Paseo de Recoletos, 23
28004 Madrid