Understanding Life Insurance Demand In European Union: A Multidimensional Perspective

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Abstract
This paper investigates the role of cultural values in shaping life insurance demand across European Union countries. Using an unbalanced panel of 27 economies over the period 2017-2023, we estimate fixed-effects panel regressions to assess the impact of Hofstede's cultural dimensions alongside key economic, socio-demographic, and institutional controls. Life insurance demand is proxied by the logarithm of insurance density, while income, inflation, income inequality, and political stability are included to ensure model robustness. The results confirm that economic factors remain fundamental drivers of life insurance demand: GDP per capita exerts a strong positive effect, whereas inflation significantly discourages long-term insurance uptake. Income inequality and political stability further support demand by enhancing purchasing capacity and institutional trust. Beyond these traditional determinants, cultural values play a substantial and persistent role. Individualism, indulgence, masculinity, uncertainty avoidance, and long-term orientation all exhibit positive and statistically significant effects in the fully specified model, while power distance remains insignificant. Notably, some cultural effects diverge from earlier findings for advanced economies, suggesting that cultural influences may operate differently within mature European insurance markets. Overall, the study highlights the importance of integrating cultural factors into life insurance demand analyses and provides relevant information for policymakers and insurers aiming to promote sustainable market development, especially in times of global uncertainty.
Keywords: Life Insurance, National Culture, Hofstede Dimensions, Panel Data, European Union

Introduction
The demand for life insurance is a key indicator of the development of financial markets and the degree of economic protection of the population, being closely linked to economic prosperity, institutional stability and individual risk behaviors. Although the specialized literature has consistently highlighted the role of income and macroeconomic conditions in

explaining differences between countries, the level of development of insurance markets continues to vary significantly even among economies with similar economic characteristics. This observation has led to a gradual orientation of research towards less tangible factors, such as cultural values and the institutional framework, which can shape financial decisions in the long term.

Over the past decade, the European Union has faced profound structural transformations, characterised by an ageing population, increasing pressures on public pension and healthcare systems, repeated episodes of macroeconomic instability and increasing geopolitical uncertainty. In this context, individual responsibility for financial protection is becoming increasingly important, and life insurance represents an essential tool for managing risks associated with future income, death or loss of work capacity. Thus, the analysis of the determinants of life insurance demand has not only economic but also social relevance, being closely linked to the financial sustainability of households and the resilience of financial systems.

From a theoretical perspective, the decision to purchase life insurance cannot be explained solely by traditional economic variables, such as income or inflation. Recent literature highlights that risk preferences, perception of uncertainty, trust in institutions, and social norms play a key role in shaping financial behavior. Behavioral models and the theory of planned behavior (Ajzen, 1991) suggest that cultural values influence how individuals interpret risk and translate intentions into concrete decisions. In this sense, culture can be viewed as a „deep determinant", shaping both attitudes toward protection and interactions with financial institutions.

The European Union provides a particularly relevant empirical framework for investigating these relationships, as it combines a high level of financial integration and common regulation with persistent cultural differences between member states. Although the single market and the European institutional framework tend to reduce structural disparities, cultural values remain heterogeneous and can significantly influence financial behaviors. This combination of institutional convergence and cultural diversity makes the European space a unique environment for analyzing the interaction between economic, institutional, and cultural factors.

In addition, the period 2017-2023 represents an interval marked by multiple shocks (the COVID-19 pandemic, rising inflation, monetary policy adjustments and geopolitical tensions) that have amplified risk perception and tested the robustness of financial protection mechanisms. In such contexts of increased uncertainty, the role of cultural values may become even more pronounced, influencing how the population reacts to economic instability and decides to use formal protection instruments. Therefore, investigating the demand for life insurance from a multidimensional perspective, which integrates economic, institutional and cultural factors, becomes essential for understanding the persistent differences between European states.

Classic studies on life insurance demand have shown that per capita income is the most robust determinant of insurance consumption (Fortune, 1973; Campbell, 1980; Browne & Kim, 1993; Beck & Webb, 2003), with the relationship between economic development and insurance

demand often following a nonlinear dynamic, specific to market maturation (Chang & Lee, 2012). Subsequent research has emphasized the importance of macroeconomic stability, inflation, and the quality of institutions, especially in emerging economies (Elango & Jones, 2011; Dragoş et al., 2017). More recently, the literature has paid increasing attention to cultural dimensions, highlighting the fact that social and psychological values influence risk perception and the preference for formal financial protection mechanisms. The seminal study by Chui & Kwok (2008) showed that individualism stimulates insurance demand, while masculinity and power distance can have negative effects, conclusions later extended by Gaganis et al. (2019) and nuanced by Trinh et al. (2023), who suggest that cultural effects differ between developed and emerging economies.

In this context, the present study contributes to the existing literature through an integrated analysis of the cultural, economic and institutional determinants of life insurance demand in the European Union countries, using a panel of 27 countries for the period 2017-2023. This period is particularly relevant, being marked by multiple economic and institutional shocks, which can significantly influence the financial behaviors of the population. Unlike some of the previous literature, the present analysis focuses on a relatively mature community bloc, allowing the assessment of how cultural values continue to matter in a context characterized by increasingly developed financial markets and relatively stable institutions. Recent literature (such as Danci, Lazar & Mureșan, 2025) emphasizes a shift in financial research toward interdisciplinary frameworks that integrate behavioral and non-financial factors alongside traditional economic indicators, highlighting the need to analyze financial decisions, such as life insurance demand, through the combined lens of cultural, institutional, and macroeconomic determinants.

The main results indicate that, while economic factors remain fundamental, culture plays a substantial and persistent role in shaping the demand for life insurance. Most of Hofstede's cultural dimensions are found to be significant and have positive effects in the full model, suggesting that values related to autonomy, long-term planning and risk aversion can amplify the demand for financial protection even in advanced economies. The study therefore offers new insights into how culture interacts with macroeconomic and institutional factors and provides relevant implications for both public policymakers and the insurance industry.

We structure the rest of this paper as follows: the next section reviews the literature on the influence of culture and the control variables used in the study on the demand for life insurance, which preceded the research hypotheses on which this paper is based. Then, we present the data source and some relevant descriptive statistics to better understand the sample and the context analyzed, followed by a detailed description of the methodology used in our research. The results and discussion section presents the main results obtained and their alignment with previous studies in the academic literature. Our paper ends with the conclusions and limitations of our research and suggests both directions for future studies and some implications for either policymakers or the insurance industry as a whole.

Literature Review
Numerous studies have analyzed in recent decades the factors that determine the demand for life insurance, trying to explain why the level of market development varies so much between countries. The specialized literature has evolved from strictly economic models,

which emphasized income, inflation or financial development, to a multidimensional approach, which includes cultural, institutional and demographic factors. Life insurance is, by its nature, a complex product, with uncertain future benefits and a strong psychological and social component, which is why the purchase decision depends not only on objective economic variables, but also on the cultural values and institutional environment of each society.

Studies on the demand for life insurance have evolved significantly in recent decades, moving from a purely economic approach, focused on income and price, to a complex one, integrating cultural, institutional, behavioral and psychological factors. The classic literature, represented by authors such as Fortune (1973), Campbell (1980), Outreville (1996), Browne & Kim (1993) and Beck & Webb (2003), has consistently demonstrated that income (GDP per capita) is the main determinant of the demand for life insurance. Income growth increases the ability to pay and the motivation for financial protection, and the relationship between economic development and the insurance market often follows an S-curve, as also shown by Chang & Lee (2012) in a study of 92 countries, over the period 1961-2008, using nonlinear regression models. The authors identified three phases of evolution: initially a weak relationship between income and insurance demand, followed by accelerated growth after reaching a certain development threshold, and finally a phase of market maturation. The same study also highlighted the role of political institutions and government stability: in low-income countries, the quality of governance, control of corruption, and institutional efficiency have a significant positive influence on insurance market development.

From a complementary perspective, Elango & Jones (2011) analyzed a sample consisting only of emerging markets (78 countries) for the period 1998-2008, using panel regression methods. Their results show that demography, especially the dependency ratio, explains the level of insurance demand, while economic and institutional factors determine the rate of growth. Variables such as GDP growth, real interest rate and trade openness have a positive effect, while high inflation negatively affects the market. The same results confirm the importance of financial infrastructure and economic stability for the development of life insurance in emerging economies.

Based on these economic models, recent literature has begun to give increasing importance to the cultural determinant. A landmark study in this regard is that conducted by Chui & Kwok (2008), who analyzed a sample of 41 countries over the period 1976-2001, applying cross-country panel regressions. Using the cultural dimensions proposed by Hofstede (2001), namely individualism, power distance, masculinity and uncertainty avoidance, the authors showed that individualism has a significant positive effect on the demand for life insurance, while masculinity and power distance reduce it. In individualistic cultures, people prefer protection solutions based on personal responsibility, while in hierarchical and collectivist societies there is a greater dependence on informal networks and the state. The results suggest that cultural values shape attitudes towards risk and the perception of the need for financial security.

This perspective was extended by Gaganis, Hasan & Pasiouras (2019), who analyzed the influence of culture on risk taking in the insurance sector, using data for 42 countries and applying GLS cross-section and panel fixed-effects models. They confirmed the relationships

previously identified by Chui & Kwok (2008), but added an important conclusion: in individualistic and low uncertainty avoidance societies, both consumers and companies exhibit higher risk tolerance, which stimulates the demand for insurance products. Therefore, national culture affects not only insurance consumption, but also the risk strategy of companies in the sector.

Another recent study, conducted by Trinh et al. (2023), analyzed a sample of 49 countries (28 developed and 21 emerging economies) for the period 2002-2017, using an advanced econometric methodology of the System GMM type. The research included cultural variables, macroeconomic indicators (income, inflation, financial development) and institutional factors (public health spending, economic freedom). The results demonstrated, among others, that masculinity and uncertainty avoidance have significant effects only in emerging economies, not in developed ones, where the market is already mature. In addition, public health spending and economic freedom have a positive effect on life insurance consumption, confirming that social welfare and a competitive economic environment can stimulate demand. The study by Trinh et al. (2023) thus made an important methodological contribution, controlling for endogeneity and cross-sectional dependence, common problems in previous cross-country studies.

Similarly, Zhang et al. (2024) analyses the differences between developed and developing economies, highlighting that the effects of Hofstede dimensions may be heterogeneous depending on the level of development. These contributions are important, but they also indicate a research gap: there are relatively few studies focusing exclusively on the European Union and on a recent period (post-2017) characterized by successive economic and social shocks, when the role of institutional stability and risk aversion may become more pronounced. Therefore, an empirical investigation dedicated to the EU is justified, testing the robustness of cultural determinants in interaction with macroeconomic and institutional factors in a recent interval.

Also, Dragoș et al. (2017) confirmed, through a study based mainly on the influence of institutional variables, that GDP per capita, the rule of law and educational level remained major determinants of life insurance consumption across Europe, regardless of the methods used for the 32 countries in the sample. In addition, Dragoș, Dragoș & Mureșan (2020) conducted a microeconomic analysis focused on individual behavior. Using a representative sample of 1,579 respondents from Romania, the authors investigated, through logit and multinomial logit models, the differences between the intention and the actual decision to purchase life insurance or a private pension. The study made a significant contribution by introducing an Insurance Knowledge Index, built to measure financial literacy specific to this field. The results showed that specific behavioral factors (trust in insurers, previous experiences, financial counseling) and the level of financial knowledge are important determinants of the actual purchase decision, but not of the declared purchase intention. Also, age and financial resources influence actual behaviors, while formal education and general attitudes towards risk do not have a significant impact. These results are consistent with the behavioral theory of planned action (Ajzen, 1991), which explains the difference between intention and behavior through the perception of control and the level of knowledge. Therefore, the study by Dragoș et al. (2020) brought a new perspective to the specialized literature, focused on the role of knowledge, trust and financial education in the

decision-making process, complementing traditional macroeconomic or cultural explanations.

By comparing all these contributions, as shown in *Table 1*, the specialized literature offers some general conclusions. First, income, measured as GDP per capita, remains the most robust structural determinant, although its effect is mediated by the stage of economic development. Second, institutions and the quality of governance have a stronger influence on emerging markets, where trust in the system is limited. Third, cultural dimensions, in particular individualism, power distance, masculinity and uncertainty avoidance, have shaped attitudes towards risk and protection in previous research, but also depending on the context of the economies analyzed. Last but not least, at the micro level, financial education and knowledge can transform intention into concrete action, reducing the information asymmetry between consumers and insurance companies.

Table 1
The impact of selected variables on life insurance demand in the specialized literature

Variable	Sign of determinants		Insignificant
	Positive	Negative	
GDP/capita	Fortune (1973); Campbell (1980); Beck & Webb (2003); Chang & Lee (2012); Dragoș et al. (2017)		
Individualism	Chui & Kwok (2008); Outreville (2018); Gaganis et al. (2019); Zhang et al. (2024) - only for developing countries	Trinh et al. (2023)	
Indulgence	Zhang et al. (2024) - only for developing countries	Trinh et al. (2023) - only for advanced economies; Zhang et al. (2024) - only for developed countries	
Masculinity		Chui & Kwok (2008); Trinh et al. (2023) - only for emerging economies; Zhang et al. (2024) - only for developed countries	
Uncertainty Avoidance	Chui & Kwok (2008)	Gaganis et al. (2019); Outreville (2018); Trinh et al. (2023) - only for emerging economies; Zhang et al. (2024) - only for developing countries	Chui & Kwok (2008) - when it was estimated using another econometric model
Power Distance	Trinh et al. (2023) - only for advanced economies	Chui & Kwok (2008); Gaganis et al. (2019); Zhang et al. (2024) - only for developing countries	
Long-Term Orientation	Park & Lemaire (2011); Zhang et al. (2024)		Trinh et al. (2023)

Political Stability	Chang & Lee (2012)		Dragoș et al. (2017)
Inflation		Browne & Kim (1993); Beck & Webb (2003); Chang & Lee (2012); Dragoș et al. (2017)	Elango & Jones (2011)
GINI	Elango & Jones (2011); Dragoș et al. (2017)		Beck & Webb (2003)

Source: Personal processing

More recent studies suggest that the relationship between culture and insurance demand in Europe remains unclear and dependent on model specification. For example, Duczkowski et al. (2024) analyze 27 European countries over the period 2004-2020, using Hofstede indicators and Insurance Europe data, to test the influence of culture on insurance demand (both in total by industry and by types, including life insurance). Using econometric models with panel data, the authors conclude that the relationship between national culture and insurance demand is generally relatively weak, and among the cultural dimensions, indulgence appears to be the most robust. This evidence is relevant because it shows that although culture is increasingly investigated in Europe, the results are not convergent, which justifies re-testing the relationship in an alternative econometric framework and in a more recent period, marked by macroeconomic instability.

In parallel, some of the recent literature remains anchored predominantly in macroeconomic and demographic determinants, without integrating culture, which creates a fragmentation of explanations. Srinivasan & Mitra (2024) investigate the determinants of life insurance consumption in 30 OECD countries, for the period 1996-2020, using long-term estimation techniques such as FMOLS and DOLS. The results confirm the positive role of GDP per capita and highlight the importance of factors such as life expectancy, urbanization, education and health spending. However, the approach is predominantly economic and does not explicitly capture the cultural and behavioral mechanisms that can explain persistent differences between countries with comparable economic levels. This direction reinforces the need for multidimensional models, which simultaneously analyze economic, socio-demographic and institutional factors together with cultural values, especially in a heterogeneous space such as Europe.

A relevant contribution to the recent literature is the meta-analysis by Mankaï et al. (2024), which investigates, based on experimental studies, determinants of willingness to pay for rare risks. The authors highlight the fact that cultural dimensions such as power distance and uncertainty avoidance contribute significantly to the observed variations in risk assessment and preference for protection mechanisms. The results suggest that cultural values influence not only aggregate behaviors at the macro level, but also individual decision-making processes, strengthening the argument that culture is a fundamental determinant of insurance demand.

From all these recent results it emerges that the literature remains divided between studies that test culture in Europe but report weak or selective effects, and studies focused on macro determinants for developed economies without explicitly including culture. In addition, many analyses do not cover the period 2017-2023, which justifies investigating life insurance demand in the EU through a multidimensional approach, in a recent context of economic

uncertainty. Thus, we can state that recent literature emphasizes the multidimensional nature of life insurance demand. In addition to traditional economic variables, culture and financial literacy are becoming increasingly important determinants of protective behavior. Differences between countries can no longer be explained exclusively by the level of GDP, but by a combination of social values, institutions, and degree of financial education, which, together, shape the „cultural risk profile" specific to each individual or society.

In light of all these contributions, the literature highlights a series of limitations and inconsistencies that justify further analysis. On the one hand, studies focused on the macroeconomic determinants of life insurance demand, carried out mainly on OECD or global samples, do not systematically integrate cultural dimensions, which leads to a partial perspective on financial behavior. On the other hand, research that includes national culture reports heterogeneous results, dependent on the sample structure and the period analyzed, and few of them focus exclusively on the European Union space in a recent period characterized by heightened economic uncertainty. In addition, the post-2017 period is still not sufficiently explored in the literature dedicated to life insurance. Therefore, the present study contributes to the existing literature through a panel analysis applied to the 27 European countries, which simultaneously integrates Hofstede cultural dimensions, macroeconomic variables, socio-demographic factors and institutional indicators, providing a multidimensional perspective on the demand for life insurance in a recent context of economic volatility. Thus, the research not only tests the robustness of previous results in the European framework, but also assesses the extent to which cultural values continue to influence financial protection behaviors in a period of systemic shocks.

Research hypotheses
Based on the literature, it can be clearly observed that the demand for life insurance is influenced by both economic and cultural factors. GDP per capita remains the main structural determinant of the development of the life insurance market, but recent studies using Hofstede's (2001) cultural model show that national cultural values shape attitudes towards risk, preference for financial protection and the role of individual responsibility. Dimensions such as individualism, power distance, masculinity, uncertainty avoidance, long-term orientation and indulgence influence how individuals perceive future risks, dependence on the state or family and the willingness to use formal financial instruments, such as life insurance. In this context, the present study aims to simultaneously test the effect of income and Hofstede's cultural dimensions on the demand for life insurance, formulating the following hypotheses:

H1: *GDP per capita has a direct and significant effect on the demand for life insurance* (Beck & Webb, 2003).
H2: *Individualism has a direct effect on the demand for life insurance.* In more individualistic cultures, individuals tend to take responsibility for their own financial protection and family security, and are more willing to use insurance products (Chui & Kwok, 2008; Gaganis et al., 2019).
H3: *High power distance has a negative effect on the demand for life insurance.* Societies with rigid hierarchies and high dependence on authority rely more on the state or informal support networks, which may reduce the appeal for private protection solutions (Chui & Kwok, 2008; Gaganis et al., 2019).

H4: *Masculinity has a negative effect on the demand for life insurance.* In cultures oriented towards competition, performance and risk-taking, the need for financial protection through insurance is often underestimated, which may lead to lower demand for life policies (Chui & Kwok, 2008; Trinh et al., 2023).

H5: *High uncertainty avoidance has a positive effect on the demand for life insurance.* In societies where individuals are more sensitive to uncertainty and risk, insurance products are perceived as appropriate tools for reducing uncertainty about the future (Outerville, 2018; Gaganis et al., 2019).

H6: *Long-term orientation has a positive effect on the demand for life insurance.* Cultures that value long-term planning, saving, and investing for the future are more likely to use life insurance products, which certainly involve long time horizons (Park & Lemaire, 2011).

H7: *Indulgence has a negative effect on the demand for life insurance.* In indulgent societies, oriented towards immediate consumption and short-term satisfaction of needs, the willingness to sacrifice present consumption for future financial protection should be lower, which may limit the demand for insurance (Trinh et al., 2023).

These hypotheses integrate both the contributions of previous academic literature and the cultural perspective, providing a coherent conceptual framework for the empirical analysis of the relationship between economic development, national cultural values, and life insurance demand.

Data and Descriptive Statistics

The empirical analysis is based on a sample of all European Union Member States (27 countries), with the exception of Luxembourg, which was excluded due to extreme values of life insurance density (considered an outlier), to which Norway was added, due to its comparable level of economic development and complete data availability. The period analyzed is 2017-2023, determined by the accessibility and consistency of the available data for all variables included in the model. Thus, the analysis includes 27 cross-sections (countries) and 7 annual periods, resulting in an unbalanced panel of 177 observations.

The period 2017-2023 is highly relevant as it captures a series of major macroeconomic and institutional events (post-sovereign debt crisis, COVID-19 pandemic, recent inflationary waves) that can significantly influence consumer behavior in terms of purchasing life insurance. In this context, the model aims to investigate the impact of cultural values on life insurance demand, while controlling for the main economic, institutional and socio-demographic factors identified in the literature (Beck & Webb, 2003; Outreville, 2018; Chui & Kwok, 2008; Park & Lemaire, 2011; Gaganis et al., 2019; Chang & Lee, 2012; Trinh et al., 2023). The dependent variable is the life insurance density (DENS_INS), calculated as the value of gross premiums collected from life insurance compared to the total population of each country. To ensure the normality of the distribution, the variable was expressed in natural logarithm (LN_DENS). The model includes six cultural variables (Hofstede dimensions) and three control variables: one purely economic (GDP per capita), one institutional (political stability) and two socio-demographic (inflation and income inequality). *Table 2* presents the definitions, units of measurement and official data sources.

Table 2

Description of variables and data source

Variable	Variable acronym	Variable definition	Data source
DEPENDENT VARIABLES			
Life insurance density	DENS_INS / LN_DENS	The value of gross premiums collected for life insurance compared to the total population; subsequently expressed in natural logarithm	EIOPA - European Insurance and Occupational Pensions Authority https://www.eiopa.europa.eu/tools-and-data/insurance-statistics_en#premiums-claims-and-expenses
INDEPENDENT VARIABLES			
Control			
Income	GDP_CAPITA	GDP per capita expressed in dollars	World Bank - World Development Indicators (WDI) - https://databank.worldbank.org/source/world-development-indicators
Political Stability and Absence of Violence/Terrorism	POL_STAB	Composite indicator measuring the perception of the likelihood of political instability and violence (score between -2.5 and +2.5; high values = stability)	World Bank - World Governance Indicators (WGI) - https://www.worldbank.org/en/publication/worldwide-governance-indicators
Inflation	INFLATION	Annual rate of change in the consumer price index (CPI), annual average (%)	World Bank - World Development Indicators (WDI) - https://databank.worldbank.org/source/world-development-indicators
Income inequality index	GINI	Measures the distribution of income among individuals; values between 0 (perfect equality) and 100 (maximum inequality)	World Bank - World Development Indicators (WDI) - https://databank.worldbank.org/source/world-development-indicators
Cultural			

Individualism	INDIV	The degree to which individuals perceive themselves as independent of groups. High values = increased individual autonomy	Hofstede Insights - https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/
Indulgence	INDUL	Reflects the extent to which a society allows for the free satisfaction of desires and emotions; high values indicate an orientation towards personal satisfaction and freedom	Hofstede Insights - https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/
Long-Term Orientation	LTO	Indicates the degree to which society values perseverance, long-term planning, and saving	Hofstede Insights - https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/
Masculinity	MASC	Measures preference for competition, success, and performance; high values = societies oriented toward results, not toward care and cooperation	Hofstede Insights - https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/
Power Distance	PD	Measures the degree of acceptance of hierarchy and power inequalities in society;	Hofstede Insights - https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/

		high values = high acceptance of authority	
Uncertainty Avoidance	UA	Reflects a society's level of discomfort with ambiguity and uncertainty; high values indicate a preference for clear rules and structures	Hofstede Insights - https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/

Source: Personal processing

The analysis of descriptive statistics, as shown in *Table 3*, highlights the existence of significant cultural differences between the countries in the sample, which justifies the inclusion of the six Hofstede dimensions in the model.

Table 3

Descriptive statistics of the used variables

VARIABLE	MIN	MAX	MEAN	STANDARD DEVIATION
DENS_INS	20.56720086	11032.47096	1404.134523	2128.202199
INDIV	30	100	65.8889	15.8841
INDUL	13	78	43.44444	19.39232
LTO	32	71	51.963	9.12337
MASC	5	100	43.4815	24.8491
PD	11	100	52.037	20.5587
UA	23	100	71.8889	21.1807
GDP_CAPITA	8696.689304	109269.5206	37212.65551	21142.51085
POL_STAB	-0.081244044	1.271649122	0.671424103	0.272800381
INFLATION	-1.247983556	19.70504615	3.680862253	3.798228826
GINI	23.2	41.3	30.7458	3.8637

Source: Personal processing

The *INDIV* dimension shows considerable variation within the European sample, from low values, characteristic of Eastern European countries such as Cyprus, Bulgaria or Romania, where collectivist social structures predominate, to very high values in Northern and Western European countries such as the Netherlands, Denmark or Sweden, where personal autonomy and individual responsibility are dominant cultural norms. The mean of around 66 indicates a general European orientation towards individualism, but the high standard deviation reflects important structural differences between countries.

A wide dispersion is also observed in the case of *INDUL*. Countries such as Latvia, Lithuania, Estonia, Bulgaria or Romania register low scores, suggesting more restrictive societies, oriented towards self-control and compliance with social norms, while Nordic and Western states, such as the Netherlands, Denmark or Sweden, present high values, associated with

personal freedom, tolerance and a more relaxed lifestyle. This dimension highlights one of the most pronounced cultural differences in the sample.

LTO has a moderate average level and relatively low variability, suggesting that most European countries share a combination of traditional and pragmatic orientation. Values between 32 and 71 indicate a balance between maintaining traditions and strategically adapting to the future.

In the case of the *MASC*, the very wide range of values (from 5 to 100) reflects deep cultural contrasts. Nordic countries, such as Sweden or Norway, register very low scores, characteristic of societies oriented towards cooperation, equality and quality of life, while states such as Slovakia, Hungary or Austria show high values, corresponding to competitive cultures, focused on achievements and performance.

The *PD* shows significant variations, from extremely low values in egalitarian countries (e.g. Austria, Ireland, Norway, Denmark or Sweden) to high values in countries in southern and eastern Europe (such as Slovakia or Romania, which are former communist countries), where hierarchical relations are more pronounced. The average around 52 suggests a moderate level of hierarchization across the entire sample analyzed.

The *UA* has one of the highest average values (around 72), indicating a general preference of European populations for predictability, clear rules and stability. However, the differences are large: southern cultures, such as Greece or Portugal, show very high uncertainty avoidance, while the Nordic or Baltic states show somewhat lower values.

These cultural differences are accompanied by significant economic disparities. *GDP per capita* ranges from around €8,700 in emerging economies such as Romania or Bulgaria to over €109,000 in mature economies in Northern and Western Europe. *Political stability* is generally positive, although some countries register negative values at certain times, suggesting more fragile institutional contexts. *Inflation* rates show high volatility, from episodes of deflation to extreme levels of almost 20%, reflecting different exposures to macroeconomic shocks. In contrast, *income inequality (GINI coefficient)* is relatively homogeneous within the sample, with an average of around 31.

These results together highlight the structural diversity of Europe, both culturally and economically, justifying the analysis of how these differences influence the demand for life insurance in the countries analyzed.

Methodology

First, according to the *Figure 1*, the distribution of life insurance density shows a strong asymmetry to the right, reflecting major differences between the countries analyzed in the period 2017-2023. The mean of approximately €1,404 per capita is considerably influenced by the extremely high values of some countries with highly developed markets, while the median of only €550 confirms that half of the observations are below this level. The large discrepancy between the mean and the median, together with the positive skewness (2.50) and high kurtosis (9.59), indicate a very uneven distribution, with most countries concentrated in the lower density area and with a few advanced economies clearly

outperforming the rest of the sample. The extreme values best illustrate this diversity: the minimum density of approximately €20 per capita is characteristic of some countries in South-Eastern Europe (Bulgaria or Romania), where income levels, financial education and insurance culture are lower. At the opposite end, the maximum density of over €11,000 reflects mature markets such as Ireland, where life insurance is an important component of financial planning, driven by both high incomes and a high degree of financial intermediation and institutional trust. Also, the standard deviation of over €2,128 highlights the extremely high variation between countries, highlighting the existence of structural differences in the development of life insurance markets. The Jarque-Bera test, with an associated probability of 0.0000, confirms the non-conformity to the normal distribution, which justifies the use of logarithmic transformations or robust methods in the subsequent econometric analysis.

To correct this problem and approximate the distribution of the variable to a normal form, the natural logarithm was applied, so that the dependent variable used in the model is LN_DENS. The logarithmic transformation is standard in the life insurance literature (Beck & Webb, 2003; Chui & Kwok, 2008; Chang & Lee, 2012), because: (1) it reduces the influence of extreme values and stabilizes the variance; (2) it improves the linearity of the relationship between the variable and its predictors; (3) it allows an intuitive economic interpretation: the coefficients can be interpreted as elasticities or percentage variations in the demand for life insurance. Thus, the use of the logarithmic form is justified both statistically and from the perspective of coherence with the international empirical literature.
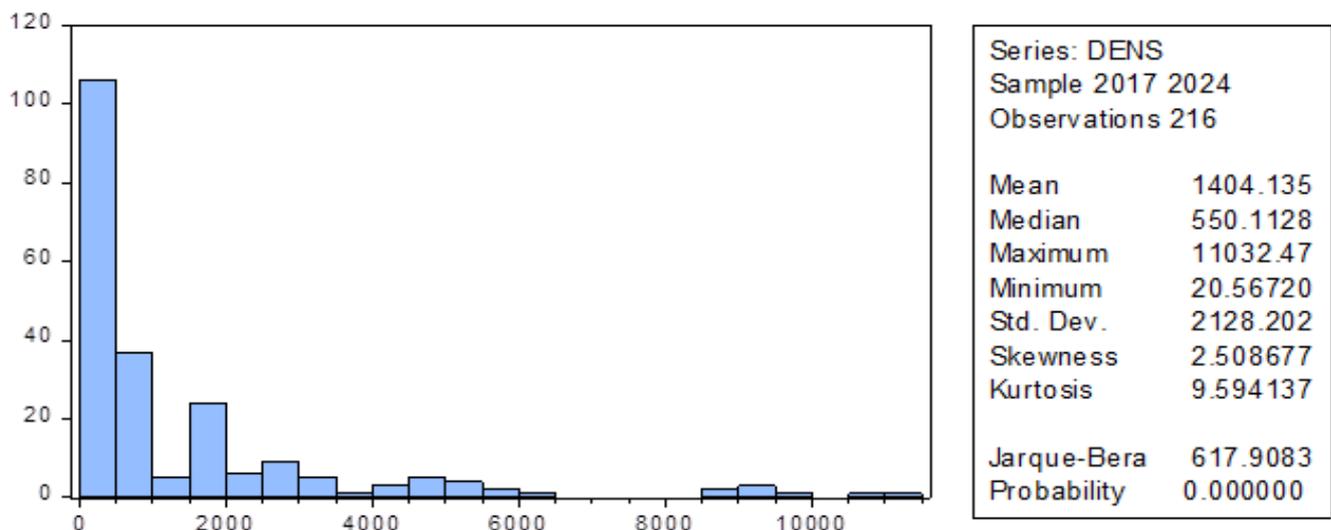

Figure 1. The distribution of life insurance density
Source: Personal processing in E-Views

To identify possible multicollinearity problems between the independent variables, the correlation matrix was calculated. According to the classical literature, the alarm threshold is represented by absolute correlation coefficients greater than 0.7, in which case the respective variables should not be entered simultaneously in the same regression.

Table 4
Correlation matrix (independent variables + control variables)

	GDP_CAPITA	INDIV	INDUL	LTO	MASC	PD	UA	GINI	INFLATION	POL_STAB
GDP_CAPITA	1.00	0.53	0.68	0.26	-0.13	-0.66	-0.62	-0.34	-0.09	0.45
INDIV	0.53	1.00	0.44	0.57	-0.36	-0.52	-0.47	-0.42	-0.11	0.38
INDUL	0.68	0.44	1.00	0.07	-0.11	-0.46	-0.30	-0.40	-0.27	0.33
LTO	0.26	0.57	0.07	1.00	-0.32	-0.37	-0.40	-0.24	0.00	0.10
MASC	-0.13	-0.36	-0.11	-0.32	1.00	0.31	0.24	-0.11	0.00	-0.24
PD	-0.66	-0.52	-0.46	-0.37	0.31	1.00	0.59	-0.00	0.10	-0.46
UA	-0.62	-0.47	-0.30	-0.40	0.24	0.59	1.00	0.28	0.00	-0.49
GINI	-0.34	-0.42	-0.40	-0.24	-0.11	-0.00	0.28	1.00	0.03	-0.43
INFLATION	-0.09	-0.11	-0.27	0.00	0.00	0.10	0.00	0.03	1.00	-0.09
POL_STAB	0.45	0.38	0.33	0.10	-0.24	-0.46	-0.49	-0.43	-0.09	1.00

Source: Personal processing in E-Views

The results in *Table 4* show that none of the correlations between *GDP_CAPITA* and the six cultural dimensions exceed the threshold of 0.7. Also, the correlations between the cultural variables are moderate, which is expected for dimensions that come from the same theoretical framework Hofstede (2001), but without raising serious multicollinearity problems. Therefore, all seven variables, GDP per capita and the six cultural dimensions, can be used simultaneously in the same econometric model.

In addition to the cultural and GDP per capita variables, the model includes three control variables with consistent use in the specialized literature, namely the GINI coefficient, the inflation rate and political stability. The reason for their inclusion is twofold: (1) these variables directly influence the purchasing power and financial behavior of the population, being recognized economic and institutional determinants of the demand for life insurance; and (2) their inclusion allows the isolation of the cultural effect itself, ensuring the robustness of the estimates.

Analyzing the correlation matrix, it can be seen that no control variable exceeds the threshold of 0.7 in correlation with the other independent variables, which indicates the absence of serious multicollinearity problems. The *GINI* coefficient shows moderate negative correlations with cultural variables (for example, -0.42 with individualism and -0.40 with indulgence), which suggests that income inequality is not structurally superimposed on European cultural values. Similarly, the *inflation* rate has very low correlations, located around the value of -0.10, which indicates a macroeconomic variation independent of cultural dimensions, being influenced rather by the fluctuations of the business cycle. The indicator regarding *political stability* shows moderate correlations, but below the critical threshold, with individualism (0.38) and indulgence (0.33), which reflects the existence of institutional patterns in the EU, without affecting the econometric validity of inclusion in the model.

Theoretically, each of these variables plays an important role in determining the demand for life insurance, according to international studies. The *GINI* coefficient captures the distribution of income and the real ability of the population to purchase insurance products, being used in studies such as Beck & Webb (2003) or Elango & Jones (2011). *Inflation* affects the real value of future benefits and is consistently identified as a negative determinant of the demand for life insurance (Browne & Kim, 1993; Chang & Lee, 2012). *Political stability* is essential for contractual trust and for the development of long-term financial markets, an aspect highlighted in particular in the works of Chang & Lee (2012) or Dragoș et al. (2017) and in recent studies on emerging economies (Trinh et al., 2023). Therefore, the inclusion of these control variables is both statistically justified, as it does not raise multicollinearity issues, and theoretically grounded, contributing to obtaining robust estimates of the effect of culture on life insurance demand.

The empirical analysis uses a panel data model for the 27 countries in the sample, over the period 2017-2023, which allows capturing both cross-sectional and time series variation. The use of panel data is preferable to purely cross-sectional data, as it improves the efficiency of the estimates and reduces the problem of omitting unobservable, time-constant variables that can affect the demand for life insurance. In addition, time fixed effects were introduced to control for shocks common to all countries, such as European macroeconomic fluctuations, the COVID-19 crisis or the increase in inflation in the period 2021-2023.
The methodology followed a gradual, two-stage approach:
(1) The baseline model, which includes only cultural variables and GDP per capita, to capture the „pure" effect of culture on life insurance demand.
$$ln(DENS_{it}) = \alpha_i + \lambda_t + \beta_1 GDP\_CAPITA_{it} + \beta_2 INDIV_i + \beta_3 INDUL_i + \beta_4 MASC_i + \beta_5 UA_i + \beta_6 PD_i + \beta_7 LTO_i + \varepsilon_{it}$$
(2) Subsequently, to increase the robustness and ensure a complete specification of the models, control variables were added one by one: inflation, income inequality and political stability. This model allows the assessment of the effect of culture conditional on economic, institutional and socio-demographic factors that can influence the demand for insurance.
$$ln(DENS_{it}) = \alpha_i + \lambda_t + \beta_1 GDP\_CAPITA_{it} + \beta_2 INDIV_i + \beta_3 INDUL_i + \beta_4 MASC_i + \beta_5 UA_i + \beta_6 PD_i + \beta_7 LTO_i + \beta_8 INFLATION_{it} + \beta_9 GINI_{it} + \beta_{10} POL\_STAB_{it} + \varepsilon_{it}$$

In the first stage, only the cultural dimensions and income were analyzed, in order to estimate the fundamental relationship (Chui & Kwok, 2008). In the second stage, control variables were introduced, in line with the specialized literature (Beck & Webb, 2003; Chang & Lee, 2012; Dragoș et al., 2017; Trinh et al., 2023), which allows increasing the robustness of the coefficients, verifying the stability of the cultural effects, identifying a final model with the most complete specification and theoretical substantiation, respectively reducing the risk of omitting relevant variables. Therefore, the adopted methodology combines the advantages of panel data with a rigorous econometric model of the Fixed Effects type, estimated in both the simple and the extended version. This approach allows identifying the effect of culture on the demand for life insurance, controlling for economic, institutional and socio-demographic factors, and provides a robust picture comparable to the international academic literature.

Results and Discussion

This section presents and analyses the results of econometric estimations based on panel data models. As detailed in the methodological part, the estimation followed a progressive approach, starting with a basic model, which included only cultural dimensions and the level of GDP per capita, in order to capture the direct effect of culture on the demand for life insurance. Subsequently, in order to improve the robustness and specification of the model, control variables (GINI coefficient, inflation and political stability) were gradually introduced, which led to a substantially improved final model from a statistical point of view. The evolution of the coefficient of determination (R^2) shows a systematic increase as the control variables are added, confirming their relevance in explaining the variation in life insurance density. In the full model, almost all cultural and economic variables become significant at the usual thresholds of 1%, 5% or 10%, except for a single cultural dimension (PD) that does not reach the minimum level of significance, suggesting that the model is well specified and adequately captures the determinants of life insurance demand in the analyzed countries.

Table 5
Econometric results obtained after applying the models

	LN DENS	LN DENS	LN DENS	LN DENS
GDP_CAPITA	4.82E-05*** (5.29E-06)	4.67E-05*** (5.43E-06)	4.35E-05*** (5.34E-06)	4.23E-05*** (5.17E-06)
INDIV	0.007735 (0.005284)	0.015383** (0.005893)	0.014930** (0.005707)	0.015585** (0.005518)
INDUL	0.029994*** (0.004473)	0.033310*** (0.004793)	0.026915*** (0.005001)	0.030277*** (0.004925)
LTO	0.004944 (0.008353)	0.006308 (0.008603)	0.006038 (0.008330)	0.017833** (0.008718)
MASC	0.010837*** (0.002546)	0.013454*** (0.002899)	0.013167*** (0.002808)	0.016483*** (0.002872)
PD	-0.002716 (0.004059)	0.001588 (0.004822)	0.000115 (0.004695)	0.007134 (0.004981)
UA	0.011179** (0.003945)	0.008095** (0.004078)	0.005720 (0.004009)	0.007371* (0.003902)
GINI	-	0.045280** (0.021565)	0.032372 (0.021217)	0.078473*** (0.024319)
INFLATION	-	-	0.121061*** (0.035256)	-0.125602*** (0.034092)
POL_STAB	-	-		1.049441*** (0.297748)
C	1.179212* (0.665557)	-0.969914 (1.231651)	0.576607 (1.274782)	-2.921375* (1.581887)
	R^2 = 0.7789	R^2 = 0.7902	R^2 = 0.8045	R^2 = 0.8186
No. Obs.	189	177	177	177

Source: Personal processing in E-Views
***, **, * significant at 1%, 5% and 10%

The *first model*, presented in the first column, captures the relationship between cultural dimensions and life insurance demand, controlling exclusively for the level of economic development measured by GDP per capita. This basic model shows that *GDP_CAPITA* is, as expected, a strong and significant determinant at 1%, confirming the central role of economic development in stimulating the demand for life insurance. Among the cultural variables, *INDUL*, *MASC* and *UA* have positive and significant coefficients, indicating that in indulgent, competitiveness-oriented and risk-averse societies, the demand for financial protection is higher. In contrast, *INDIV*, *PD* and *LTO* do not show statistical significance in this initial model, suggesting either an overlap with unobserved constant structural variables or the need to introduce additional control factors to highlight their real effect. Even without additional macroeconomic or institutional variables, the model explains a high proportion of the variation in life insurance density, as indicated by the R^2 value.

The *second specification of the model* introduces the first socio-demographic factor, namely the *GINI* coefficient, to capture the role of income distribution in determining insurance demand. By including this variable, the model becomes better specified, and the *GINI* coefficient turns out to be positive and significant. This result suggests that, in economies characterized by higher inequality, insurance demand tends to be supported by middle- and high-income segments of the population, which have the resources to invest in financial protection. With the introduction of this variable, some cultural dimensions, such as *INDIV*, gain in statistical significance, indicating that their effect becomes clearer once income distribution is controlled. The model shows a slight increase in the coefficient of determination, which confirms its explanatory contribution.

The *third specification*, in the third column, also considers the impact of *INFLATION*, a fundamental macroeconomic variable in determining financial behavior. The introduction of the inflation rate leads to a further improvement in the model, and its negative and significant coefficient indicates that inflationary pressures discourage the purchase of life insurance, as they reduce the real value of the insured amounts and increase financial uncertainty. By including inflation, some of the cultural variables retain their significance, suggesting that their effect is robust, but their magnitude varies slightly, reflecting the interaction between cultural values and economic conditions. The presence of inflation in the model contributes to a better capture of the European macroeconomic context in the period 2017-2023, and the coefficient of determination continues to increase.

The last column represents the *full model*, which includes both the cultural variables and all control variables: *GDP_CAPITA*, *GINI*, *INFLATION* and *POL_STAB*. This is the most robust and well-specified model, with the highest explanatory power of all the variants analyzed. Most of the cultural variables become statistically significant and retain their signs in this model, indicating that the effect of culture on life insurance demand is clear and persistent even when macroeconomic, social and institutional conditions are controlled. *INDIV*, *INDUL*, *MASC*, *LTO* and *UA* have positive and significant coefficients, confirming that cultural values significantly shape financial protection behaviors.

A higher level of *INDIV* is associated with a significant increase in life insurance density. In more individualistic societies, people tend to rely more on personal financial solutions for risk management, which increases the demand for life insurance. This result confirms the

literature (Chui & Kwok, 2008; Gaganis et al., 2019), which shows that individuals in such societies prefer private protection mechanisms, not informal social networks.

INDUL presents a positive and strongly significant coefficient in the final model, suggesting that European societies with higher levels of indulgence show a higher demand for life insurance. This result indicates that preferences for personal freedom, expression of desires and a lifestyle oriented towards well-being may facilitate the adoption of financial protection instruments, as consumers seem more willing to allocate resources to secure future living conditions. Interestingly, this result is not in line with the conclusions of Trinh et al. (2023), who identified a negative effect of indulgence in advanced economies, suggesting that in such societies the orientation towards immediate consumption could reduce the propensity to formal saving, including the purchase of life insurance. The difference between the two results can be explained by the particularities of the European sample used in the present study, characterized by a fairly mature financial infrastructure, a relatively high level of financial education and institutional trust for a good part of the countries analyzed, factors that may mitigate the potential orientation towards short-term consumption associated with indulgence. In this context, indulgence might reflect a preference for freedom of choice and financial autonomy, rather than a tendency to avoid long-term financial instruments.

In the final model, *MASC* shows a positive and significant coefficient, indicating that, in the countries analyzed, a higher level of cultural orientation towards competition, performance and material success is associated with a higher demand for life insurance. Thus, individuals from more „masculine” societies seem to show a stronger preference for financial protection instruments, suggesting a greater concern for the economic security of the family and for maintaining material status in the event of a major risk. This result is surprising, as it contradicts a significant part of the existing literature. For example, Chui & Kwok (2008) and, more recently, Trinh et al. (2023) systematically find a negative relationship between masculinity and the demand for life insurance, arguing that societies with high levels of masculinity tend to favor risk-taking, financial autonomy and an orientation towards immediate gain, which would reduce the desire for long-term protection instruments. The result obtained in the European sample, however, suggests a possible reversal of this relationship in relatively advanced economic contexts. A plausible explanation for this positive effect within the EU countries (excluding Luxembourg) + Norway is that masculinity may manifest itself differently in a mature financial environment, characterized by high access to insurance, strict regulations, high degree of financial market penetration and a high level of economic education. In such developed societies, the orientation towards performance and individual responsibility could lead not to the avoidance of financial protection instruments, but to their strategic use to consolidate socio-economic status and to protect the family, considered essential elements of personal fulfillment. Also, the current European culture may combine masculine values with an increasing emphasis on financial responsibility towards the family and on resource planning in the context of demographic uncertainties. Thus, although the masculinity coefficient is contrary to traditional results in the international literature, it may reflect institutional, demographic and socio-economic particularities of the analyzed region, where cultural norms manifest differently from the structures observed in Asian or emerging economies, where most previous studies have been conducted.

UA has a positive and significant coefficient, indicating that in societies characterized by a higher aversion to ambiguous situations, the demand for life insurance is higher. From a behavioral point of view, individuals who feel discomfort in the face of uncertainty tend to prefer financial instruments that reduce the variability of future outcomes. Life insurance, by its nature of stabilizing financial and family risks, thus becomes a natural choice in a cultural environment marked by heightened risk sensitivity. This result is in line with the conclusions of Chui & Kwok (2008), who find a positive effect of uncertainty avoidance on insurance demand in their international analysis. However, the literature is not uniform: studies such as those of Gaganis et al. (2019) and Outreville (2018) report a negative effect, especially in emerging economies, suggesting that risk aversion may discourage interaction with formal financial institutions. Also, Trinh et al. (2023) identify negative effects for emerging economies. The positive result in the present study is, however, coherent with the European context, where financial markets are better developed, rules are stable, and the high level of risk aversion translates into the search for safe protection mechanisms, not their avoidance. *LTO* reflects the importance given to planning, future investments and financial discipline. The positive and significant coefficient suggests that in countries where the population has a strong cultural orientation towards the future, the demand for life insurance is higher. This is logical, since life insurance is a typical financial instrument for managing long-term risks, and societies with such cultural values are more inclined to invest in products that offer future benefits. This result is in agreement with the literature, in particular with the findings of Park & Lemaire (2011), which show that long-term orientation is a positive determinant of insurance demand, especially in developed economies. The result is also consistent with studies on saving behavior in "future-oriented" cultures. However, it is important to note that Trinh et al. (2023) found an insignificant effect in their analysis on advanced economies. The difference may reflect the specifics of the European sample used in this study, where the orientation towards sustainability, financial prudence and planning is deeply established and translates into a stronger demand for life insurance.

Also, all control variables are significant and show the theoretically expected signs, confirming the robustness of the final model and its alignment with a large part of the existing literature. Thus, *GDP_CAPITA* positively influences the demand for life insurance, a result fully consistent with classical studies that highlight the role of economic development in the expansion of the insurance market (Fortune, 1973; Campbell, 1980; Beck & Webb, 2003; Chang & Lee, 2012; Dragoş et al., 2017). The *GINI* coefficient, which captures the degree of income inequality, is also positive and significant, which is found in the literature showing that markets characterized by economic polarization can generate a more active segment of consumers of insurance services (Elango & Jones, 2011), even if some studies have also found insignificant relationships from this point of view (Beck & Webb, 2003). *INFLATION* has, as expected theoretically and empirically, a pronounced negative effect on the demand for life insurance, in line with the results obtained by Browne & Kim (1993), Beck & Webb (2003), Chang & Lee (2012) and Dragoş et al. (2017), who argue that inflationary pressures erode the real value of future benefits and discourage consumers from contracting long-term policies. Regarding *POL_STAB*, the positive and significant effect confirms the argument that the development of insurance markets is closely linked to the quality of institutions, the predictability of regulations and general trust in the state, the result being similar to the conclusions of Chang & Lee (2012), even if the literature occasionally reports insignificant effects in certain regions (Dragoş et al., 2017).

Notably, the only cultural variable that remains insignificant in the full model is *PD*, suggesting that social hierarchies and acceptance of authority are not essential determinants of insurance demand in the contemporary European context, a result consistent with some studies (Trinh et al., 2023).

Overall, however, the *final model* provides the most faithful and robust description of the phenomenon analyzed, demonstrating that cultural, as well as economic, socio-demographic, and institutional factors contribute significantly to explaining variations in life insurance demand for the countries included in the sample.

Conclusions, Limitations and Future Research Directions
The panel econometric analysis conducted on the 27 European countries during the period 2017-2023 confirms the multidimensional nature of life insurance demand and highlights the interaction between economic, institutional and cultural factors. The results obtained are largely in line with the classical literature, but also bring important nuances for the contemporary European context, marked by successive economic shocks, sharp increases in inflation and geopolitical uncertainty.

Consistent with fundamental studies (Fortune, 1973; Beck & Webb, 2003; Chang & Lee, 2012), GDP per capita remains the most robust determinant of life insurance demand, while inflation exerts a significant negative effect, confirming the hypothesis that macroeconomic instability discourages long-term financial contracts. Also, the positive effect of political stability validates the conclusions of the institutional literature (Chang & Lee, 2012), highlighting the role of trust in institutions in a period characterized by high economic volatility. The positive GINI coefficient is in line with the results obtained for advanced markets (Elango & Jones, 2011; Dragoş et al., 2017), suggesting the existence of a segment of the population with a high purchasing power of insurance products.

On the cultural dimension, the results partially confirm the research hypotheses formulated in this paper, as well as the conclusions of the existing literature. Individualism and long-term orientation maintain their positive effects, in agreement with Chui & Kwok (2008), Gaganis et al. (2019) and Park & Lemaire (2011), indicating that values related to autonomy and planning favor the demand for insurance. In contrast, the results for indulgence and masculinity contradict some recent studies conducted for advanced and emerging economies (Trinh et al., 2023), suggesting that, in the European context, these dimensions may stimulate, rather than discourage, financial protection behaviors. Uncertainty avoidance has a significant positive effect, confirming the behavioral hypothesis according to which risk aversion determines the use of insurance instruments in economies with relatively mature financial markets. Power distance remains insignificant, a result compatible with recent literature and indicating a diminution of the role of social hierarchies in explaining financial behaviors in Europe.

Therefore, the main contribution of this study is to demonstrate that cultural values continue to influence life insurance demand even in a relatively mature European context, and their effects may differ from those previously identified for emerging economies or for more macroeconomically stable periods. The analysis of a recent period, characterized by multiple

economic shocks, represents an element of novelty and allows the assessment of the robustness of these relationships under conditions of high uncertainty.

The study, however, has some limitations that need to be mentioned. First, Hofstede's cultural dimensions are treated as constant over time, which does not allow for capturing possible short-term cultural changes. Second, the use of aggregate macroeconomic indicators does not capture individual behaviors or heterogeneity within each country. Future research directions could include microeconomic, regional, or even individual-level analyses, the use of alternative measures of culture and social trust, and the exploration of nonlinear relationships or interactions between culture and institutional stability.

From a policy perspective, the results suggest that stimulating demand for life insurance requires more than economic growth. In a context marked by recurrent macroeconomic shocks, authorities can contribute by maintaining price stability, strengthening the institutional framework, and promoting financial education, adapted to the cultural specificities of each country. Fiscal and regulatory policies that encourage long-term saving can also reduce the negative effects of inflation and uncertainty.

For the insurance industry as a whole, the results indicate the need for a differentiated, culturally sensitive approach. In individualistic and future-oriented societies, the emphasis may be on personal responsibility and financial planning, while in cultures with high uncertainty avoidance, communication may highlight stability, security and predictability of benefits. Thus, adapting products and communication strategies to local cultural values may contribute to increasing the density and penetration of life insurance in the European Union, especially in countries where financial education in this regard still seems to be poor, with sufficient room for improvement.

Therefore, the results support the idea that the development of the life insurance market cannot be understood only through the lens of traditional economic variables, but requires a multidimensional approach, in which culture, institutions and macroeconomics interact to determine the financial behavior of the population. In the European context, where insurance markets are increasingly mature, and cultural differences between states are well defined, these conclusions become all the more relevant for the development of informed and effective public policies.

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