



Bancassurance in the European Financial Sector: A Cross-Country Analysis

Dr. Jannes Rauch*

Research Fellow, University of Cologne, Department of Risk Management and Insurance Kerpener Str. 30, 50937 Cologne, Germany

***Corresponding Author:** Dr. Jannes Rauch, Research Fellow, University of Cologne, Department of Risk Management and Insurance Kerpener Str. 30, 50937 Cologne, Germany

Abstract: We analyze the determinants of the success of bancassurance activities in the European life insurance industry at the country level. We use a sample of 120 country-year observations for aggregate insurance markets from 15 European countries for the years 2004-2017 to analyze if the share of bancassurance sales is affected by the countries' regulatory environment, access channels to banking business, riskiness of the banking sector and insurance market development. Moreover, we examine the relative importance of these determinants and analyze the impact of the financial crisis of 2007-2009 on bancassurance sales. Our results indicate that the success of bancassurance activities strongly depends on various country level factors, in particular the access channels to banking business and the insurance market development. Moreover, the results indicate that bancassurance activities remained stable in the aftermath of the crisis, indicating the reliability of this distribution channel for insurance firms. These results are highly valuable for both regulators and managers of financial firms.

Keywords: Bancassurance, Banking, Insurance, Regulation

1. INTRODUCTION

Bancassurance is one of the most important collaboration models within the European financial service sector. The regulations that led to a distinct separation between banking and insurance have been relaxed in many countries during the last decades, leading to a more integrated financial sector in the European Union. For banks, additional revenue provided by selling insurance policies is particularly important in the current low interest environment, while for insurance companies, banks are a major distribution channel in some European countries, accounting for around 50% of all life insurance sales in 2017.¹ However, while bancassurance is a major distribution channel in some European countries, it only plays a subordinated role in others. For example, in Germany, only 18.7% of life insurance premiums are sold via banks in 2017. Given the ongoing process of integration within the European financial services industry and the rising importance of bancassurance activities, knowledge on the factors which explain the heterogeneity between countries regarding the success of bancassurance models is an open question that is relevant for various stakeholders. Against this background, we add to the literature a country level analysis on the determinants of bancassurance sales in the European life insurance industry.

Our research builds on a vast set of studies analyzing the development of bancassurance models (e.g. Staikouras, 2006) and the effect of combining activities of different types of financial firms, for example regarding their stock price performance (e.g. Carow, 2001) or conglomeration benefits (e.g. Baele, de Jonghe and Vander Vennet, 2007). However, very little research has been conducted regarding the determinants that explain the amount of insurance business written via bancassurance channel, and the existing literature has been mostly descriptive in nature. This paucity can mainly be explained by the lack of data, as disclosure requirements vary widely, and most regulatory frameworks around the world do not require insurance firms (or banks) to disclose the amount of business written via bancassurance. A notable exception is provided by Chen et al. (2009) who identify and measure the determinants of bancassurance at the firm level, using a dataset of 71 banks from developed and developing countries. They find that banks' amount of business via

¹ See Insurance Europe Insurance Industry Database (<https://www.insuranceeurope.eu/insurancedata>).

bancassurance channel is affected by various factors, such as company size and the regulatory environment. Our study extends the existing literature by providing an analysis of the determinants of bancassurance at the country level for a sample of 15 European insurance markets. As data on the proportion of bancassurance written is available at the country level by the *Insurance Europe Insurance Industry Database*,² our research overcomes the data restrictions faced by researchers that aim to analyze bancassurance sales at the firm level. In addition, we add to the literature an examination of the relative importance of major determinants of bancassurance and an analysis of the time trends of bancassurance in Europe, in particular a comparison of the share of bancassurance sales before and after the financial crisis of 2007-2009.

For our analysis, we use publicly available information provided by Insurance Europe on the amount of life insurance premiums written via bancassurance channel at the country level for the years 2004-2017.³ The sample contains 120 country-year observations for aggregate insurance markets from 15 European countries. We include country level factors provided by the World Bank and Insurance Europe to analyze their impact on the countries' bancassurance activities. In particular, we examine inter country differences in the countries' *regulatory environment, access channels to banking business, riskiness of the banking sector and insurance market development*.

By way of preview, our results indicate that these country level factors have a significant effect on the success of bancassurance sales in the European financial sector. We show that a lower restrictiveness with respect to the regulations that restrict banks and insurance firms to engage in other parts of the financial service industry and better access channels to banking business (measured by the amount of bank branches within a country and access to online banking) stimulate insurance sales. In contrast, a higher degree of risk in the banking sector discourages insurance sales via banks. The results reveal that in particular the development and size of the countries' insurance market and the density of bank branches within a country determine the success of bancassurance activities. Finally, we show that bancassurance activities remained stable in the aftermath of the crisis, indicating the reliability of this distribution channel for insurance firms, irrespective of the economic and sector specific conditions.

Our research contributes to the literature by providing evidence on the impact of country characteristics on bancassurance activities in Europe. While previous papers have either focused on the determinants of bancassurance activities at the firm level (Chen et al., 2009) or have been descriptive in nature (Staikouras, 2006), we add an analysis at the country level that provides evidence on the factors that promote the success of insurance sales via banks. Given the increased importance of the bancassurance channel for insurance firms and the ongoing process of consolidation within the European financial services industry, our results are valuable for both regulators and managers. For regulators, our results indicate how regulatory environments should be designed if further integration of the European financial sector should be achieved and insurance sales via banks be stipulated. For managers of banks and insurance firms, our research provides evidence on environments that determine the success of bancassurance operations, in particular when entering new markets or designing growth strategies.

The remainder of this paper is organized as follows: The next section provides the Literature Review and the Hypotheses Development. This is followed by the Data and Methodology sections, respectively. The Results appear in the succeeding section, and the Conclusion follows.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Bancassurance is basically the provision of and selling of banking and insurance products by the same organization under the same roof (Elkington, 1993; Ricci, 2012a).^{4,5} It represents one of the most

² Insurance Europe is the European insurance and reinsurance federation. Through its 37 member bodies - the national insurance associations - Insurance Europe represents all types of insurance and reinsurance undertakings. See <https://www.insuranceeurope.eu/> for further information. The *Insurance Industry Database* is an interactive tool detailing the latest data from the European (EU and non-EU members) insurance industry. The data is provided by Insurance Europe members.

³ Our research focuses on the life insurance sector only because the bancassurance channel plays a subordinated role in the non-life insurance sector, as non-life products show less similarities with banking products (Ricci, 2012a).

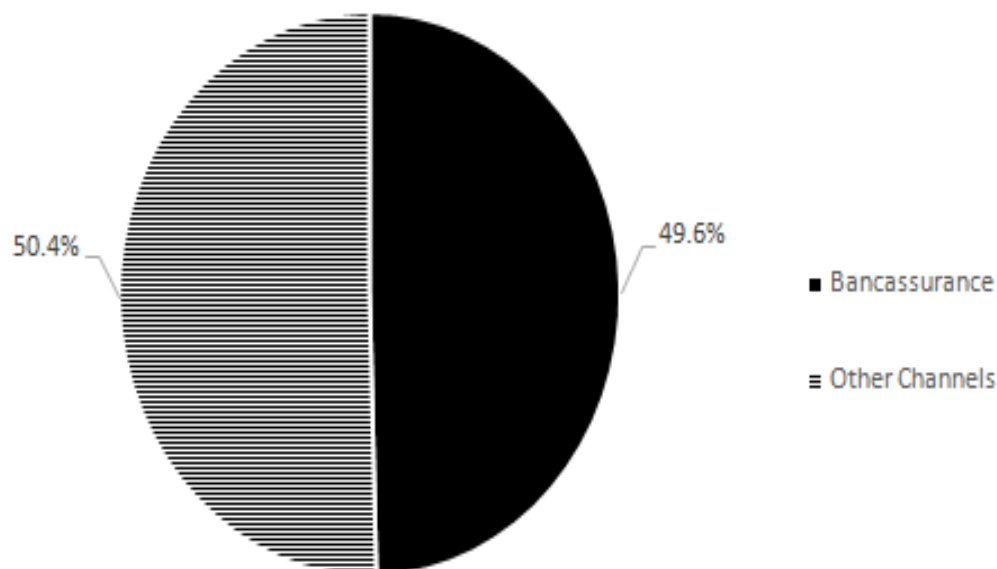
⁴ See Fiordelisi and Ricci (2012) for a comprehensive literature overview on bancassurance.

⁵ The literature provides alternative definitions of the term bancassurance (e.g., Ricci, 2012a).

important collaboration models within the financial sector, combining the services of two major parts of the financial system. Its evolution has been promoted by various trends, such as advances in technology, globalization and in particular, the ongoing process of deregulation (Artikis, Mutenga and Staikouras, 2008), that removed the barriers between different sectors of the financial industry.⁶ In the US, the *Gramm–Leach–Bliley Act* removed the restrictions to consolidation and conglomeration in the financial sector in 1999 (Ricci, 2012a). In Europe, the *Second Banking Directive* in 1989 removed obstacles between different sectors of the financial services industry (Starita, 2012). This led to the establishment of strong bancassurance systems in many European countries, in particular with respect to the distribution of life insurance policies.

Table 1 shows that in 2017, bancassurance accounts for around 50% of life insurance sales within Europe⁷, providing evidence of the importance of this distribution channel for the European life insurance sector.⁸ Table 2, however, shows that the share of life insurance business written via bancassurance channel strongly varies between countries. While it accounts for 70-80% in countries like Turkey, Portugal and Italy, it only accounts for less than 20% in Germany or Slovenia. Moreover, the share of bancassurance business within countries shows large variations over time. For example, in Turkey, the share of bancassurance increased from 46.0% to 81.2% between 2008 and 2013, while in Belgium it decreased from 51.9% to 37.7% between 2012 and 2015.⁹ These strong variations between countries and within countries over time indicate that bank-insurance structures differ depending on various factors, such as the legal, operational or financial sector-specific features of the different countries (Staikouras, 2006).

Table 1. *Distribution mix life insurance (% of GWP) in Europe (2017)*



Notes: The table shows the %-share of life insurance gross written premiums of bancassurance channel (black) and all other channels (shaded) in Europe based on a sample of countries which publish the share of bancassurance channel in the year 2017, including: Belgium, Germany, Spain, France, Greece, Croatia, Italy, Luxembourg, Malta, Poland, Portugal, Slovenia and Turkey. The data is provided by the Insurance Europe Insurance Industry Database.

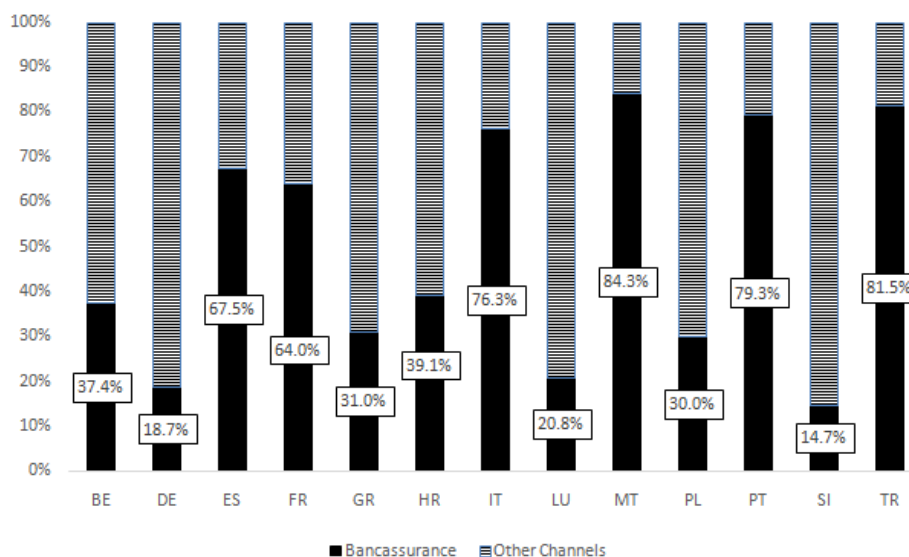
⁶ See Starita (2012) for additional information the global process of (de)regulation within the financial industry.

⁷ Based on a sample of countries which publish the share of the bancassurance channel in the year 2017, including: Belgium, Germany, Spain, France, Greece, Croatia, Italy, Luxembourg, Malta, Poland, Portugal, Slovenia and Turkey.

⁸ For non-life insurance, the share of the bancassurance channel is much lower and amounted to 7.4% in 2017 in the European insurance industry. This is probably due to the fact that, compared to life insurance, P&C products show less similarities with banking products, making it more difficult to provide branch staff with the right competences (Ricci, 2012a). Our research therefore focuses on bancassurance sales in the life insurance sector.

⁹ See Insurance Europe Insurance Industry Database (<https://www.insuranceeurope.eu/insurancedata>).

Table 2. Life distribution channels (% of GWP) in Europe (2017)



Notes: The table shows the %-share of life insurance gross written premiums of bancassurance channel (black) and all other channels (shaded) for various European countries for the year 2017. The data is provided by the Insurance Europe Insurance Industry Database.

Bancassurance can take different forms, in particular cross-selling agreements between banks and insurers, cooperation between independent partners or control by ownership (Ricci, 2012a, Caratelli, 2012; Chen et al. 2009). In the first case, the connection between both partners is loose, but at the same time flexible and associated with low costs and effort. The second type can for example be achieved via strategic alliances or a joint venture between a bank and an insurance company. The third case represents a highly connected and stable model, but at the same time, it can increase the firms’ complexity and can be associated with high costs. The optimal structure for each bancassurance arrangement depends on a variety of factors, such as market factors, strategic factors and operational factors (Staikouras, 2006).

The benefits and drawbacks of removing the restrictions within the financial sector have been extensively discussed in the literature. One of the major advantages is that combining banking and insurance activities can lead to economies of scope and hence increased cost efficiency (Ricci, 2012a; Niehaus, Rauch and Wende, 2019). Such synergies can be achieved because fixed costs (such as IT and staff costs) can be allocated to more products if similar types of products are offered. Moreover, for banks, additional revenue provided by selling insurance policies is particular important in the current low interest environment. For insurance companies, banks are a major distribution channel, and provide access to new customer segments that could not be accessed without the bank as an intermediary. Due to frequent interaction with customers, banks can have a deep knowledge of the respective financial needs, that can be used to sell insurance policies. The drawbacks include in particular increased complexities and (in case of control by ownership) a potentially higher level of risk of the combined entity. Nurullah and Staikouras (2008) provide evidence that insurers’ volatility and probability of bankruptcy increases when they merge with banks. This holds in particular in times of crisis: Baluch, Mutenga and Parsons (2011) show that insurance firms that are closely linked to the banking sector – such as insurance firms with banking affiliates - have been among the most affected victims of the financial crisis of 2008.¹⁰ Carow (2001) states that lower entry barriers for banks lead to a reduction of economic rents of insurance companies and change the competitive structure within the insurance sector.

The literature on bancassurance and conglomeration in the financial sector is vast and can in general be subdivided into three categories (Artikis, Mutenga and Staikouras, 2008):¹¹ Theoretical/qualitative

¹⁰ A prominent example is the German insurer Allianz SE, that owned Dresdner Bank during 2001 and 2008. Allianz experienced a significant loss due to multi-billion writedowns by Dresdner Bank during the financial crisis.

¹¹ See Ricci (2012b) for a comprehensive review of the literature on empirical studies in the field of bancassurance.

articles, empirical studies that analyze the impact of combining banking and insurance business on risk and performance and research that analyzes the impact of bancassurance-related events (such as regulatory announcements or M&A-activities) on the stock prices of banks and insurers. For example, regarding theoretical/qualitative articles, Staikouras (2006) reviews the market trends and highlights the differences among major European countries with respect to bancassurance activities, while Artikis, Mutenga and Staikouras (2008) provide a survey of the bank-insurance trends including insights into the underlying dynamics and corporate structures of financial conglomerates. Studies that analyze the impact of conglomeration in the financial sector include Baele, de Jonghe and Vander Vennet (2007), who show that higher shares of non-interest income affects franchise values of diversified banks positively, but increases their systematic risk. Nurullah and Staikouras (2008) examine risk-return effects of European banks' diversification into insurance business, finding that such diversification increases banks' risk. For event studies, Carow (2001) analyses market reaction of banks and insurers to the Office of the Comptroller of Currency (OCC) and Supreme Court rulings preceding the Gramm–Leach–Bliley Act in 1999, indicating a negative stock price response of insurance companies, while banks' stock prices remain mostly unaffected. Fields, Fraser and Kolari (2007) show that bancassurance merger announcements provide positive wealth effects, but leave the risk profile of acquiring firms mostly unaffected.

While the impact of bancassurance combinations on risk and performance and the stock price reaction to bancassurance-related events are empirically vastly analyzed, few research has been conducted on the determinants that explain the amount of business written via bancassurance channel. This paucity can mainly be explained by the lack of data, as disclosure requirements vary widely, and most regulatory frameworks around the world do not require insurance firms (or banks) to disclose the amount of business written via bancassurance. We are only aware of the study of Chen et. al. (2009) who analyze the determinants of bancassurance at the firm level, using a dataset of 71 banks from developed and developing countries. Their results indicate that banks' amount of business via bancassurance channel is affected by various factors, such as company size and the regulatory environments. Given the strong variations between countries and within countries over time, an analysis of the determinants of bancassurance success at the aggregate, country level will provide additional, valuable insights for a variety of stakeholders. We therefore add to the literature a country level examination of factors that affect the amount of life insurance business written via bancassurance channel.

Our research is motivated by related studies that analyze the impact of country characteristics on insurance firms' performance and strategic choices. For example, Altuntas, Berry-Stölzle and Wende (2015) and Altuntas, Garven and Rauch (2018) show that the capitalization and risk management strategy of insurance firms not only depend on the firm's own characteristics, but are also affected by the environment in which they operate, e.g. the quality of the country's governance or its economic development. Building on previous research in the field of bancassurance, we expect that the variations between countries with respect to bancassurance activities are also strongly dependent on the countries' regulatory, operational and sector-specific environments.

In particular, we expect that the countries' *regulatory environment* strongly determines the success of bancassurance activities. Regulations on ownership of financial firms from another sector, and on sales of insurance products through banking networks, are a precondition for the success of this channel (Caratelli, 2012). The current degree of bancassurance activities is the result of a process of deregulation that removed the barriers between banks and insurance activities. Regulations that restrict or promote bank and insurance combinations are therefore major determinants of bancassurance activities. In particular, we expect that low restrictions regarding the ability of insurance firms to own banks promote bancassurance activities. Such control by owners presents a major bancassurance model, hence the possibility to own bank subsidiaries will provide additional ways – in addition to cross-selling agreements between banks and insurers and cooperation between independent partners – for insurers to promote banking business (Ricci, 2012a, Caratelli, 2012). We therefore formulate our first hypothesis as follows:

H1a: Low restrictions regarding the ability of insurance firms to own banks increase the share of the bancassurance channel.

Apart from financial sector specific regulations such as the above, we expect that the overall regulatory environment within a country determines the success of bancassurance activities. In

particular, we assume that the ability of the government to formulate and implement sound policies and regulations leads to environments in which banks and insurers can agree on mutually beneficial terms, and customers can trust that the agreed contracts and terms are reliable. We therefore expect that a higher degree of regulatory quality affects insurance sales of banks.

H1b: A higher degree of regulatory quality increases the share of the bancassurance channel.

An important aspect that influences the success of bancassurance activities are the customers' *access channels to banking business*. We assume that a better access to banking services will be beneficial for bancassurance activities, as it provides a direct point of contact with the customer and hence the possibility for cross-selling activities. In particular, the density of bank branches within a country is expected to drive sales of insurance policies, as bancassurance has been particularly successful in countries where the financial industry is characterized by a strong orientation towards the relationship banking model (Ricci, 2012a). Bank branches provide an excellent opportunity to build up a strong client relationship and hence gain a knowledge on their overall need for financial products. Hence, we formulate the following hypothesis:

H2a: A higher density of bank branches within a country increases the share of the bancassurance channel.

Another major channel that allows customers to access banking service is provided by the internet. In recent years, online banking has grown in importance and provides a major access channel to banking services for many customers. Once customers have accessed the banks' online services, they will also have access to insurance products offered by banks. A better access to online banking is strongly related to the share of internet users within a country. Without access to the internet itself, the use of online banking is restricted for many inhabitants, while a high share of internet users within a country is related to a higher usage of online banking. We therefore formulate the following hypothesis:

H2b: A higher share of internet usage within a country increases the share of the bancassurance channel.

Moreover, we assume that the success of bancassurance within a country strongly depends on the *riskiness of the banking sector*. As customers prefer financial products from those institutions that are financially sound and avoid purchasing products from unstable financial firms (Martinez Peria and Schmukler, 2001), we assume that a high degree of risk in the banking sector will deter customers from accessing banks, but rather access insurance services via other channels (such as agents or brokers). Hence, we formulate the following hypothesis:

H3: A higher riskiness of the banking sector within a country decreases the share of the bancassurance channel.

Finally, regarding *insurance market development*, we assume that in countries with a larger and more developed insurance sector, bancassurance activities are promoted by large insurance firms that can engage in various activities and distribution channels simultaneously and also handle the respective costs. Moreover, large insurance markets can build up larger lobbying activities that influence regulations in favor of bancassurance activities (Chen et al., 2009).¹² We therefore formulate the following hypothesis:

H4a: A larger and more developed insurance sector increases the share of the bancassurance channel.

In addition, Chen et al. (2009) state that the overall demand for insurance products affects the success of the bancassurance industry. Given that higher wealth increases the country's demand for life insurance - as life insurance products becomes affordable with rising income and the need to protect dependents from future income losses resulting from the wage earner's unforeseen death increases (Browne and Kim, 1993; Outreville, 1996; Li et al., 2007) – such measures are expected to be important determinants of the countries' bancassurance activities. Hence, we formulate the following hypothesis:

H4b: A higher level of wealth within a country increases the share of the bancassurance channel.

¹² We note, however, that some well developed insurance markets such as Germany show relatively low levels of bancassurance when looking at this factor in isolation.

Finally, we analyze time trends of bancassurance, in particular a comparison of the share of bancassurance sales before and after the financial crisis of 2008. As the financial crisis emerged from the banking sector, it may have affected the sector's reputation negatively from a customer's point of view. Given the turmoil in the banking sector during the crisis and the ongoing problems of the European banking sector – such as low profitability due to the low interest environment or a high share of non-performing loans, in particular in southern Europe – consumers might lose their trust in the banking sector and be deterred from accessing banking services. This in turn has a negative impact on bancassurance sales. We therefore assume that the share of life insurance business written via bancassurance channel has decreased in the aftermath of the financial crisis when compared to the remaining years.

H5: The share of the bancassurance channel has decreased in the aftermath of the financial crisis.

3. DATA AND METHODOLOGY

3.1. Data

Our analysis includes country level information on the share of gross written premiums written via bancassurance channel from the European insurance industry database provided by Insurance Europe. We focus on life insurance business only, as the bancassurance channel plays a subordinated role in the non-life sector, as the products share fewer similarities to banking business.¹³ The database includes information on the different distribution channels for 32 European countries (including non-EU members) for the years 2004-2017 (448 country year observations). However, for the bancassurance channel, the database includes missing information for various countries and years, leading to an initial sample of 158 country year observations for the years 2004-2017. The data are then merged with country level data from various sources (*The World Bank's Survey of Bank Regulation*, the *World Bank's Worldwide Governance Indicators*, the *World Bank's World Development Indicators* and the *Insurance Europe-European Insurance Industry Database*). Due to the unavailability of several of those country level measures for some countries and years, our sample is further reduced, resulting in a final sample of 120 observations from 15 European countries for the years 2004-2017. The final sample includes EU members and non-EU members (Croatia and Turkey).

3.2. Methodology

Our empirical analysis consists of three steps: First, we analyze the country level determinants of bancassurance sales in the European life insurance sector. Second, we assess the relative importance of each country level determinant. Third, we analyze time trends of bancassurance, in particular a comparison of the share of bancassurance sales before and after the recent financial crisis.

In order to identify determinants of bancassurance sales in the European life insurance sector, we estimate the following fixed effects panel regression at the country level (i) of the following form for the years (t) 2004-2017:

$$Banc_{it} = \alpha + \beta CountryFactors_{it} + \delta CountryFE + \varepsilon_{it} \quad (1)$$

where *CountryFactors* denotes a vector of country specific factors that are expected to affect the share of bancassurance activities,¹⁴ *CountryFE* are fixed country effects, and ε_{it} is the error term. *Banc* is the dependent variable, defined as the share of gross written premiums written via bancassurance channel in country i in year t provided by the Insurance Europe Insurance Industry Database.¹⁵

CountryFactors includes two measures of the countries' *regulatory environment*: *Non-bank fin. firms owning banks*, a measure of restrictions on non-bank financial firms (such as insurance firms) owning banks (Barth et al. 2006). The measure is provided by the World Bank's Survey of Bank Regulation and takes value from 1 to 4, where 1 denotes "Unrestricted" and 4 denotes "Absolutely restricted".¹⁶ We assume that low restrictions regarding the ability of insurance firms to own banks increase the share of bancassurance channel (H1a). In addition, we include *Regulatory quality*, an indicator of the

¹³ Insurance Europe Insurance Industry Database (<https://www.insuranceeurope.eu/insurancedata>).

¹⁴ We assume that other factors, such as the countries' cultural, legal, and in particular tax-related features affect the bancassurance activities (Staikouras, 2006; Artikis, Mutenga and Staikouras, 2008). However, indicators to measure these factors are not available for the broad set of countries in our sample.

¹⁵ Table 8 provides a detailed overview and description of all variables included in our analyses.

¹⁶ See Barth et al. 2006 for additional information.

ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. The indicator is provided by the World Bank's Worldwide Governance Indicators, and is measured in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5, where better scores indicate higher standards of regulatory quality. We assume that a higher degree of regulatory quality increases the share of the bancassurance channel (H1b).

To analyze the effect of the customers' *access channels to banking business* on the success of bancassurance activities, we include measures of *Internet usage* (in % of population: Internet users are individuals who have used the Internet in the last 3 months) and *Bank branches* (commercial bank branches per 100,000 adults). Both measures are provided by the World Bank's World Development Indicators. We assume that a higher density of bank branches (H2a) and a higher share of internet usage (H2b) within a country increase the share of the bancassurance channel.

Moreover, we include a measure of the countries' *riskiness of the banking sector*. As customers prefer financial products from financially sound institutions, we include *Bank non-performing loans* (Bank nonperforming loans to total gross loans in %), a major indicator of the degree of soundness within the banking sector. The measure is provided by the World Bank's World Development Indicators. We assume that a higher riskiness of the banking sector (measured by a higher share on nonperforming loans) within a country decreases the share of the bancassurance channel (H3).

Finally, we include measures of the countries' *insurance market development*. We include *Total insurance premiums*, a measure of the overall size of the insurance market provided by Insurance Europe. It includes the sum of all direct gross written premiums of the country's domestic markets plus branches of enterprises from EU/EEA countries and enterprises operating through EU freedom of services (FOS). We assume that a larger and more developed insurance sector increases the share of bancassurance channel (H4a). In addition, we include measures of wealth, in particular the countries' *GDP per capita*, provided by the World Bank's World Development Indicators. We assume that a higher level of wealth within a country increases the share of the bancassurance channel (H4b).

Second, in order to assess the relative importance of each country level factor, we follow Lemmon, Roberts and Zender (2008) and Altuntas, Garven and Rauch (2018) and conduct a standard analysis of covariance (ANCOVA). This allows us to decompose the variation in bancassurance sales across countries attributed to each explanatory variable. Following Lemmon, Roberts and Zender (2008), we compute the fraction of the Type III partial sum of squares of a specific variable relative to the model sum of squares based on equation (1), measuring how much variation of our dependent variable, *Banc*, is explained by each country level factor included in *Country Factors*. Thus, we divide the partial sum of squares for each country level factor by the aggregate partial sum of squares across all country level factors in equation (1). This provides a normalization, hence the relative importance of all factors sums up to 100%.

Third, we test if the share of life insurance business written via bancassurance channel has changed in the aftermath of the financial crisis when compared to the preceding years. We follow the related literature and define the period of the financial crisis as the years 2007-2009.¹⁷ Hence, we define the years 2010-2017 as *post-crisis period* and compare the share of bancassurance in this time period to the preceding years 2004-2009. We use a t-test to analyze if the differences in our variable of interest, *Banc*, between the post-crisis period and the remaining years is significant.¹⁸ We assume that the share of the bancassurance channel has decreased in the aftermath of the financial crisis (H5).

4. RESULTS

4.1. Descriptive Results

Table 3 provides the descriptive statistics for the years 2004-2017 for all countries in our sample. The table indicates that the share of life premiums written via banks amounts to 51.3%, showing that more

¹⁷ The exact starting and ending point of the financial crisis are difficult to determine and subject to discussion within the literature. We follow Bekaert et al. (2014), Baur (2012) and the Bank for International Settlements (BIS, 2009) and define the year 2007 as starting point and 2009 as ending point to make our research directly comparable to previous papers.

¹⁸ For robustness, we also conduct a Kruskal-Wallis analysis to examine differences between the years after the financial crisis and the remaining years. The results are not affected by the use of this methodology.

than half of all life insurance sales are conducted via bancassurance channel. This indicates the importance of this distribution channel for the European life insurance industry. In addition, the table indicates a great variation between countries and over time, as the share of bancassurance ranges from 5.1% to 87.3%. Similarly, the remaining country level variables indicate strong variations, indicating significant differences regarding the countries' characteristics.

Table 3. *Summary Statistics*

Variable	Obs	Mean	Std. Dev.	Min	Max
Banc	120	51.3	24.9	5.1	87.3
Non-bank fin. firms own banks	120	2.0	0.3	1.0	3.0
Regulatory quality	120	0.9	0.4	0.0	1.8
Internet usage	120	65.5	14.6	15.5	98.1
Bank branches	120	44.4	19.7	12.9	104.2
Bank non-performing loans	120	7.9	7.7	0.1	45.6
Total insurance premiums	120	45.3	62.1	0.3	211.7
GDP per capita	120	29.2	18.4	7.4	113.6

Notes: The table shows summary statistics for the country level variables used in the regression analyses. The variables are defined in Table 7. All variable values are reported over the 2004 to 2017 time period.

Table 4 provides the countries included in the sample, including the amount of observations per country and the mean of *Banc* for the years 2004-2017. In particular, it is worth noting that average life premiums written via banks (indicated by *Banc*) ranges from 10.0% in Slovenia to 81.4% in Malta during our observation period.

Table 4. *List of countries in sample*

Country	Obs	Banc
Belgium	12	44.6
Germany	3	19.9
Spain	12	65.9
France	10	62.6
Greece	5	31.2
Croatia	11	24.6
Italy	13	72.9
Luxembourg	4	21.4
Malta	8	81.4
Poland	9	32.4
Portugal	11	80.5
Romania	2	21.8
Sweden	1	45.0
Slovenia	10	10.0
Turkey	9	74.4

Notes: The table shows the amount of country-year observations (Obs) and the average share of bancassurance sales via banks (Banc) included in our sample for the period 2004-2017.

4.2. Empirical Results

Table 5 provides the empirical results for our analyses. The results for all factors from equation (1) are included. All regressions are conducted for the years 2004-2017 and include fixed country effects.

Table 5. *Regression results: Impact of country level factors on bancassurance sales*

Dependant Variable	Banc
Non-bank fin. firms own banks	-7.190** (3.046)
Regulatory quality	-4.875 (5.056)
Internet usage	0.437*** (0.079)
Bank branches	0.374*** (0.090)
Bank non-performing loans	-0.426** (0.182)

Total insurance premiums	0.271*** (0.073)
GDP per capita	0.107 (0.224)
Constant	12.847 (12.235)
R ²	0.396
Adjusted R ²	0.267
Observations	120

*Notes: The table shows the results of regression analyses from equations (1) for all countries in our sample for the years 2004-2017. The dependant variable is the share of bancassurance sales via banks (Banc). All regression analyses include country fixed effects. Country-level factors are described in Table 7. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.*

The results provide empirical support for most of our hypotheses. We find that low restrictions regarding the ability of insurance firms to own banks increase the share of bancassurance channel (H1a), as indicated by the negative, significant coefficient of *Non-bank fin. firms own banks* in Table 5. This is consistent with Chen et al. (2009), who show that the share of premiums written via bancassurance channel of insurance firms is affected by the countries' level of financial deregulation. It shows that the possibility of insurance firms to own banking subsidiaries provides a major way to offer insurance services to its customers and hence drives insurance sales via bancassurance. Though it is not a necessary condition, as bancassurance can also be arranged via cross-selling agreements or cooperation between independent partners, many (in particular, large) insurance firm prefer to own banking affiliates, as it provides a stable, longterm oriented collaboration model (Chen et al., 2009).

In contrast to financial sector specific regulations such as the restrictions for insurers to own banks, we do not find that the overall regulatory environment within a country determines the success of bancassurance activities (H1b). The coefficient of *Regulatory quality* in Table 5 is not significant, indicating that the country's overall regulatory environment plays a subordinated role regarding the success of bancassurance activities. Instead, financial sector related policies that directly affect the design of bancassurance activities are relevant. This provides valuable insights for regulators, as it provides information on how regulatory environments that increase the integration of the financial services industry should be designed to promote their success.

Regarding the customers' *access channels to banking business*, our results indicate that a better access to banking services strongly promotes bancassurance activities, as we find that a higher density of bank branches within a country increase the share of bancassurance channel (H2a), indicated by the positive, significant coefficient of *Bank branches*. This shows that a direct point of contact with the customer, that is provided by bank branches, provides the possibility for cross-selling activities and hence promotes sales of insurance policies by banks. Similarly, we find that a higher share of internet usage within a country increase the share of bancassurance channel (H2b). A higher share of internet users within a country leads to a better access to online banking, which is a major access channel to banking services in recent years. As for bank branches, the results show the importance of access channels to banking services for the success of bancassurance, as cross-selling of insurance products is strongly facilitated once a touch point to the client has been established. Once customers have accessed the banks' online services, they will also have access to insurance products offered by banks. These results illustrate that, apart from the regulatory environment, the success of bancassurance strategies strongly benefits from customers' *access channels to banking business*, providing valuable insights for managers of financial firms.

Moreover, our results indicate that a higher riskiness of the banking sector within a country decreases the share of bancassurance channel, as indicated by the significant, negative coefficient of *riskiness of the banking sector*. This provides empirical support for hypothesis H3. It shows that a high degree of risk in the banking sector deters customers from accessing banks, and instead access insurance services via other channels (such as agents or brokers). For regulators, this shows that the riskiness of the banking sector affects not only the banks, but also the overall financial system. Policies aiming to increase the integration of the financial sector and promoting bancassurance in particular should therefore especially focus on the soundness of the banking industry.

Finally, regarding *insurance market development*, we find that in larger and more developed insurance sectors, the share of bancassurance activities is higher compared to smaller insurance markets,

indicated by the significant, positive coefficient of *Total insurance premiums*. This provides empirical support for hypothesis H4a, consistent with Chen et al. (2009). It appears that such activities are promoted by large insurance groups and the respective environment that includes lobbying activities. However, we do not find evidence that the level of wealth within a country affects the success of bancassurance activities, as the coefficient of *GDP per capita* is insignificant.

Overall, our results indicate that the success of bancassurance within a country is strongly affected by various country characteristics. This is consistent with related studies that show that insurance firms' performance and strategic choices (such as their level of capitalization and risk management strategy) not only depend on the firm's own characteristics, but are also affected by the environment in which they operate (Altuntas, Berry-Stölzle and Wende, 2015; Altuntas, Garven and Rauch, 2018). For regulators and managers of financial firms, this provides valuable knowledge regarding the success of bancassurance strategies, as it indicates environments in which those strategies can succeed and how regulatory environments should be shaped in order to promote bancassurance activities.

Table 6 presents the results of the variance decomposition analysis (ANCOVA) of equation (1), aiming to decompose the variation in bancassurance sales across countries attributed to each explanatory variable (Lemmon, Roberts and Zender, 2008; Altuntas, Garven and Rauch, 2018). The %-ratios indicate the Type III partial sum of squares for each factor by the aggregate partial sum of squares across all effects in the model. Our results indicate that the variance is strongly determined by *Bank branches* and *Total insurance premiums*, together explaining around 80% of the total variation. This shows that the customers' access to banking services and the level of development of insurance markets particularly drive the success of bancassurance activities, while other factors (such as *Regulatory quality*) only have a negligible effect.

Table 6. *Variance decomposition analysis: Relative importance of country level factors*

Variable	Type III partial sum of squares	%
Non-bank fin. firms own banks	14.1	0.1%
Regulatory quality	86.7	0.6%
Internet usage	590.9	3.9%
Bank branches	5792.9	37.9%
Bank non-performing loans	295.7	1.9%
Total insurance premiums	6328.0	41.5%
GDP per capita	2157.1	14.1%
Sum	15265.3	100.0%

Notes: The table presents a variance decomposition for equation (1). We compute the type III partial sum of squares for each factor in equation (1) and then normalize each estimate by the sum across the effects (Lemmon, Roberts and Zender, 2008). Variable denotes the factors in equation (1), the second column includes type III partial sum of squares for each variable and the third column the share of type III partial sum of squares for each variable of total type III partial sum of squares.

Finally, our analysis of time trends of bancassurance compares the share of bancassurance sales before and after the financial crisis of 2007-2009. The results are provided in Table 7. It can be seen that the mean of *Banc* in the aftermath of the financial crisis (52.2%) is similar to the mean in the remaining years (49.0%). Moreover, the table shows that the difference between both means (3.2%) is statistically not significant, as indicated by a t-test. Hence, our results do not provide empirical support for our hypothesis H5, that is, we do not find evidence that the share of bancassurance channel has decreased in the aftermath of the financial crisis. Though the financial crisis may have affected the banking sector's reputation negatively from a customer's point of view and led to ongoing problems of the European banking sector, the overall share of bancassurance business has not been affected by this development. Apparently, customers have not been deterred from accessing banks to purchase insurance policies. This provides valuable information for both managers and regulators of financial firms, as it shows that bancassurance is a very stable and reliable distribution channel, irrespective of the economic or sector specific conditions.

Table 7. *Time trend: Differences between Bancassurance sales in the aftermath of the financial crisis*

Variable	Obs	Mean	Std. Dev.	Min	Max
Banc (pre-Crisis)	32	49.0	24.2	5.1	87.3
Banc (post-Crisis)	88	52.2	25.2	6.7	84.3
Diff		-3.2			
Ho: Diff = 0					

Ha: Diff < 0	Pr(T < t) = 0.2708			
Ha: Diff != 0	Pr(T > t) = 0.5417			
Ha: Diff > 0	Pr(T > t) = 0.7292			

Notes: The table shows the results of a t-test to test if the mean of Banc after the financial crisis, Banc (post-Crisis), differs from the mean of Banc in the remaining years, Banc (pre-Crisis). Diff denotes the differences between Banc (post-Crisis and Banc (pre-Crisis). The null-hypothesis of the t-test is that Diff equals 0.

Table 8. Country level factor’s description and source

Variable	Description	Source
Banc	The share of gross written premiums (life insurance) written via bancassurance channel in country.	Insurance Europe
Non-bank fin. firms own banks	Restrictions on non-bank financial firms owning banks. Takes a value from 1 to 4: 1 = Unrestricted - Nonbank financial firms may own 100% of the equity in a commercial bank. 2 = Permitted - Nonbank financial firms may own 100% of the equity in a commercial bank, but prior authorization or approval is required. 3 = Restricted - Limits are placed. 4 = Absolutely restricted.	World Bank
Regulatory quality	Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.	World Bank
Internet usage	Internet usage in % of population: Internet users are individuals who have used the Internet (from any location) in the last 3 months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc.	World Bank
Bank branches	Commercial bank branches per 100,000 adults: Commercial bank branches are retail locations of resident commercial banks and other resident banks that function as commercial banks that provide financial services to customers and are physically separated from the main office but not organized as legally separated subsidiaries.	World Bank
Bank non-performing loans	Bank nonperforming loans to total gross loans (%): Bank nonperforming loans to total gross loans are the value of nonperforming loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of specific loan-loss provisions). The loan amount recorded as nonperforming should be the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue.	World Bank
Total insurance permiums	The sum of all direct gross written premiums of the country’s domestic markets plus branches of enterprises from EU/EEA countries and enterprises operating through EU freedom of services (FOS).	Insurance Europe
GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars.	World Bank

Notes: The table shows all firm and country level characteristics used in our analyses, including a detailed description of each variable and the source.

5. CONCLUSION

Bancassurance is one of the most important collaboration models within the European financial service sector. In recent years, various trends such as advances in technology, globalization and in particular, the ongoing process of deregulation (Artikis, Mutenga and Staikouras, 2008) led to a strongly integrated financial sector and made bancassurance a major distribution channel in many European countries. However, as the share of bancassurance sales in the European life insurance industry exhibits a large degree of heterogeneity, this research aims to identify factors which affect the success of bancassurance sales as the country level.

Our dataset includes 120 country-year observations for aggregate insurance markets from 15 European countries provided by Insurance Europe on the amount of life insurance premiums written via bancassurance channel at the country level for the years 2004-2017. We include country level factors provided by the World Bank and Insurance Europe to analyze their impact on the countries’

bancassurance activities. Moreover, we analyze the relative importance of these determinants and analyze the time trends of bancassurance, in particular if bancassurance sales have been affected by the financial crisis of 2007-2009.

Our results indicate that the success of bancassurance sales in the European financial sector is strongly affected by various country characteristics. In particular, the regulations that restrict banking activities in other financial sectors and the density of bank branches within a country determine the success of bancassurance activities. Moreover, we show that bancassurance activities remained stable in the aftermath of the crisis, indicating the reliability of this distribution channel for insurance firms irrespective of economic and sector specific conditions.

We contribute to the literature an analysis of the determinants of bancassurance sales at the country level and hence provide evidence on factors that promote the success of a major distribution channel in the life insurance sector. These findings are highly valuable for regulators of insurance firms, as they indicate how regulatory environments should be designed if further integration of the European financial sector should be achieved and insurance sales via banks be stipulated. As bancassurance represents a major distribution channel for life insurers in most European countries, regulations that strengthen this channel lead to stable income streams and hence promote the stability of the life insurance sector. For managers of financial firms, our research provides evidence of environments that determine the success of bancassurance operations, in particular when entering new markets or designing growth strategies. The current market environment is challenging for life insurers, as in particular the low interest environment deteriorates the conditions for life insurance business. Hence, receiving stable streams of (new) business from the bancassurance channel is a major success factor in the life insurance industry, and knowledge under which conditions bancassurance cooperations are successful are particularly valuable nowadays.

REFERENCES

- [1] Altuntas, M., Berry-Stölzle, T. R., & Wende, S. (2015). Does one size fit all? Determinants of insurer capital structure around the globe. *Journal of Banking & Finance*, 61, 251-271.
- [2] Altuntas, M., Garven, J., & Rauch, J. (2018). On the corporate demand for insurance: evidence from the global reinsurance market. *Risk Management and Insurance Review*, 21(2), 211-242.
- [3] Artikis, P. G., Mutenga, S., & Staikouras, S. K. (2008). A practical approach to blend insurance in the banking network. *The Journal of Risk Finance*.
- [4] Baele, L., De Jonghe, O., & Vander Vennet, R. (2007). Does the stock market value bank diversification?. *Journal of Banking & Finance*, 31(7), 1999-2023.
- [5] Baluch, F., Mutenga, S., & Parsons, C. (2011). Insurance, systemic risk and the financial crisis. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 36(1), 126-163.
- [6] Bank for International Settlements. Monetary, & Economic Dept. (2009). *BIS quarterly review*. Bank for International Settlements, Monetary and Economic Department.
- [7] Barth, J. R., Caprio, G., & Levine, R. (2006). *Rethinking bank regulation. Till angels govern*.
- [8] Baur, D. G. (2012). Financial contagion and the real economy. *Journal of Banking & Finance*, 36(10), 2680-2692.
- [9] Bekaert, G., Ehrmann, M., Fratzscher, M., & Mehl, A. (2014). The global crisis and equity market contagion. *The Journal of Finance*, 69(6), 2597-2649.
- [10] Browne, M. J., & Kim, K. (1993). An international analysis of life insurance demand. *Journal of Risk and Insurance*, 616-634.
- [11] Caratelli, M. (2012). *The Bancassurance Market in Europe*. In *Bancassurance in Europe* (pp. 53-85). Palgrave Macmillan, London.
- [12] Carow, K. A. (2001). The wealth effects of allowing bank entry into the insurance industry. *Journal of Risk and Insurance*, 129-150.
- [13] Chen, Z., Li, D., Liao, L., Moshirian, F., & Szablocs, C. (2009). Expansion and consolidation of bancassurance in the 21st century. *Journal of International Financial Markets, Institutions and Money*, 19(4), 633-644.
- [14] Elkington, W. (1993). Bancassurance. *Chartered Building Societies Institute Journal*, 47, 2-2.
- [15] Fields, L. P., Fraser, D. R., & Kolari, J. W. (2007). Bidder returns in bancassurance mergers: Is there evidence of synergy?. *Journal of Banking & Finance*, 31(12), 3646-3662.
- [16] Fiordelisi, F., & Ricci, O. (2012). *Bancassurance in Europe: past, present and future*. Springer.

- [17] Lemmon, M. L., Roberts, M. R., & Zender, J. F. (2008). Back to the beginning: persistence and the cross-section of corporate capital structure. *The Journal of Finance*, 63(4), 1575-1608.
- [18] Li, D., Moshirian, F., Nguyen, P., & Wee, T. (2007). The demand for life insurance in OECD countries. *Journal of Risk and Insurance*, 74(3), 637-652.
- [19] Martinez Peria, M. S., & Schmukler, S. L. (2001). Do depositors punish banks for bad behavior? Market discipline, deposit insurance, and banking crises. *Journal of Finance*, 56, 1029-1051.
- [20] Niehaus, G., Rauch, J., & Wende, S. (2019). Regulation and the connectedness of insurers to the banking sector: International evidence. *Risk Management and Insurance Review*.
- [21] Nurullah, M., & Staikouras, S. K. (2008). The separation of banking from insurance: Evidence from Europe. *Multinational Finance Journal*, 12(3/4), 157-184.
- [22] Outreville, J. F. (1996). Life insurance markets in developing countries. *Journal of Risk and Insurance*, 263-278.
- [23] Ricci, O. (2012a). The Development of Bancassurance in Europe. In *Bancassurance in Europe* (pp. 5-25). Palgrave Macmillan, London.
- [24] Ricci, O. (2012b). Studying the Bancassurance Phenomenon: A Literature Review. In *Bancassurance in Europe* (pp. 139-178). Palgrave Macmillan, London.
- [25] Staikouras, S. K. (2006). Business opportunities and market realities in financial conglomerates. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 31(1), 124-148.
- [26] Starita, M. G. (2012). The Regulatory Framework. In *Bancassurance in Europe* (pp. 86-114). Palgrave Macmillan, London.

AUTHOR'S BIOGRAPHY



Dr. Jannes Rauch, is a research fellow at the department of risk management and insurance, University of Cologne. He holds a PhD in business finance from University of Cologne. His research interests include interconnectedness in the financial services industry, financial sector regulation and strategic management of financial institutions. His professional experience comprises numerous consulting projects in the fields of corporate strategy and M&A for financial institutions and startups.

Citation: Dr. Jannes Rauch. "Bancassurance in the European Financial Sector: A Cross-Country Analysis" *International Journal of Managerial Studies and Research (IJMSR)*, vol 8, no. 12, 2020, pp. 01-14. doi: <https://doi.org/10.20431/2349-0349.0812001>.

Copyright: © 2020 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.