



Bancassurance: Stale or Staunch?

A pan-European country analysis

ERASMUS UNIVERSITY ROTTERDAM ERASMUS SCHOOL OF ECONOMICS MSc Economics & Business Master Specialisation Financial Economics

Abstract

The purpose of this research is to identify the critical drivers in bancassurance as a distribution channel of insurances. Therefore a more realistic industry outlook is defined. First, a global comparison of bancassurance is given as conducted in four different business models. The descriptive section is extended by an analysis of previous literature. Subsequently, a quantitative country-level assessment is performed. The analysis both studies the effects on life- and non-life insurances. To measure their impact on the proportional size of bancassurance, the following factors are examined; market concentration, Internet usage, size of the insurance market, level of deregulation and bank branch density. The empirical results indicate that all five variables affect bancassurance. However, the evidence for size of the insurance market only holds for the non-life sample. Size of the insurance market (only in non-life), branch density and Internet usage constrained bancassurance performance. Contrarily, market concentration and the level of deregulation are perceived to facilitate bancassurance. Overall results are stronger in the non-life sample except for Internet usage. This results are derived from a panel study among 17 European countries over 3 years and in-house industry analysis of pan-European operating retail banks by PwC. Furthermore, this research provides an increased understanding of country-specific bancassurance development as well.

Keywords: Bancassurance, Financial Services, Financial Intermediation, Panel Study,

Europe

Author: O.C.W. Jongeneel

Student number: 298870

Thesis supervisor: Prof. dr. E. Pennings
Co-reader: Dr. B. Karreman
Finish date: August 2011





Preface and Acknowledgements

The combination of both an academic and a consultancy practitioners perspective has shown to be a fruitful one for the virtuosity of this topic. It has been a privilege to apply university trained skills into a practical context. This research would not have been possible without the support of PwC and the Erasmus university's department of Applied Economics. I would like to express special thanks to Enrico Pennings for guiding me through this process. His feedback was always been clear-cut and constructive. Furthermore I am thankful to Martijn Ars. His unconditioned coaching along the way helped me to pursue better results. Thanks a lot for helping me to find my way within PwC and of course for your patience. I am also grateful to the CEA for providing me with the key bancassurance distribution data. Moreover I am indebted to Meindert de Boer for assisting me in the preparation of the dataset. Besides I am grateful to Bas Karreman for his suggestions and involvement as a coreader Finally, I would like to thank everyone that has expressed their interest in this topic and thus motivated me in this research.

NON-PLAGIARISM STATEMENT

By submitting this thesis the author declares to have written this thesis completely by himself/herself, and not to have used sources or resources other than the ones mentioned. All sources used, quotes and citations that were literally taken from publications, or that were in close accordance with the meaning of those publications, are indicated as such.

COPYRIGHT STATEMENT

The author has copyright of this thesis, but also acknowledges the intellectual copyright of contributions made by the thesis supervisor, which may include important research ideas and data. Author and thesis supervisor will have made clear agreements about issues such as confidentiality.

Electronic versions of the thesis are in principle available for inclusion in any EUR thesis database and repository, such as the Master Thesis Repository of the Erasmus University Rotterdam





List of Acronyms

BA Bank Assurer

BIS Bank for International Settlements CEA Comité Européen des Assurances CRM **Customer Relationship Management**

EU **European Union**

EVA Economic Value Added GDP **Gross Domestic Product** IFA Independent Financial Advisor

IMD International Institute for Management Developments

ITU **International Telecommunications Union**

N/A Not Available

NOPAT Net Operating Profit after Taxes

OECD Organisation for Economic Co-operation and Development

OLS **Ordinary Least Squares**

ROA Return on Assets

SIC Standard Industrial Classification SME **Small and Medium Enterprises**

USD **United States Dollar**

Table 1 Country Abbreviations

dountry Hobi eviations								
AT	Austria	HR	Croatia	PT	Portugal			
BE	Belgium	IT	Italia	Sl	Slovenia			
BG	Bulgaria	LT	Lithuania	SK	Slovakia			
DE	Germany	MT	Malta	TR	Turkey			
ES	Spain	NL	Netherlands	UK	United Kingdom			
FR	France	PL	Poland	USA	United States of America			





Table of Contents

Pretac	ce and Acknowledgements	i
List of	Acronyms	ii
Table	of Contents	iii
List of	Tables and Figures	iv
1.	Introduction	1
1.1	PwC	1
1.2	Bancassurance	1
1.3	Thesis setup	3
2.	Theoretical Background	4
2.1	Conceptualization and scope	4
2.2	Bancassurance motives	5
2.3	Critical factors for bancassurance	8
2.4	Potential pitfalls in bancassurance	16
2.5	Bancassurance practices around the globe	17
2.6	Bancassurance models	19
2.7	Life versus Non-Life market	22
2.8	Extended literature review	2 3
3	Methodology	25
3.1	Data description	25
3.2	Hypotheses	27
3.3	Empirical model	28
4	Results	29
4.1	Full Bancasurance Distribution	30
4.2	Life Distribution through Bancassurance	31
4.3	Non-Life Distribution through Bancassurance	32
5	Conclusion	34
Refere	ences	37
Consu	ılted Websites	39
Apper	ndix	40
A: E	Bancassurance Distribution by Country	40
B: 0	Control Variables	43
C: F	Researched Variables	44
D: (Correlation Matrices	48





List of Tables and Figures

Table 1: Country Abbreviations	page ii
Table 2: Bancassurance Models	page 21
Table 3: Shared Descriptive Statistics	page 26
Table 4: Diversification Diagram	page 26
Table 5: Regression Results – Total	page 30
Table 6: Regression Results – Life	page 31
Table 7: Regression Results – Non-Life	page 33
Figure 1: Diagram of Bancassurance Opportunities	Page 7
Figure 2: Diversification Diagram	Page 23





1. Introduction

This part will shortly elaborate on the main topic bancassurance. First a clear definition is set for the reader in order to understand the focus of this research. In the end of this section the structure of this work will be given. As mentioned in the preface this thesis has been written with the support of PwC. Therefore a short outline of the Financial Services (FS) business unit of PwC Advisory will be given first. Accordingly, the added value of the research will be made clear.

1.1 PwC

PwC is a professional services firm with a limited liability partnership structure. The firm employs more than 161,000 people worldwide as service provider in 154 countries. The expertise from PwC stretches upon the following 4 key areas;

- Assurance
- Tax & Human Resource Services (HRS)
- Advisory
- Firm Services

All four Lines of Service (LoS) share the same corporate values. However, they serve different needs. Therefore they are governed independently and client information sharing among the LoS stays strictly limited for confidentiality reasons. Assurance covers the accounting, audit & control practice in place to improve the quality of information. The second pillar employs tax and HRS professionals. Tax offers corporations fiscal solutions to minimise tax burden. Besides, HRS offers management tools to boost people's effectiveness. The FS business unit – that helped realising this research – is part of Advisory. Advisory ranges from consultancy on sustainability to crisis management and corporate finance issues. Though, within Advisory there is especially a strong focus on performance improvement and strategy. Furthermore FS specialises on a specific set of clients in the finance industry such as banks and insurers. Finally Firm Services internally facilitates the other LoS in working effectively next to each other.

1.2 Bancassurance

Bancassurance, also known as 'allfinanz' describes a package of financial services that can fulfil consumers banking and insurance needs. In fact, financial institutions can offer a combination of both banking and insurance services at the same time. Bancassurance as a way of financial conglomeration has appealed widespread attention in the world of academics and business. It offers consumers a 'one-stop-shop' option for a larger range of financial product. This form of a complete financial conglomeration has rapidly grown since the 1980s when interest margins on loans decreased steadily and banks started exploring new sources of revenue. As from the early 1990s, bancassurance has become a major distribution channel in many insurance markets. The





sales channel is particularly present in South European markets, but the business the business model is used in other regions as well. Noteworthy is the growth of bancassurance in a broad set of emerging economies. The opportunity to tap from different client segments combined with the chance to offer one-stop-shop financial services have globally persuaded both banks and insurance companies to merge their activities. In a few regions the bancassurance integration has been constrained by regulation. For example later approval for bancassurance was granted in the U.S. financial system through the layout of the Gramm-Leach-Bliley Act (1999). This law repealed part of the 1933 Glass-Steagall Act¹. The distribution of insurance products through a bank's distribution channel brings diversification advantages by generating non-interest related income. Both insurers and banks are financial intermediaries that pool savings of individuals to channel these funds to the capital markets. The bancassurance model could eventually create cross-selling business synergies for banks that in turn can lead to cost savings through economies of scope. On top of that, financial conglomeration puts institutions in a position to become full service financial firms. To offer a wider range of services is beneficial for bank assurers (BAs) that opt for relationship management and could in the end bring comparative advantages over regular commercial banks and insurers. Nevertheless, there are also advantages embedded in financial institutions that operate separately. A bank or insurance company usually builds upon a larger experience in offered services. This will often be reflected in a stronger reputation for excellence in the particular market of interest. And obviously, separated institutions are generally smaller and are therefore argued to be more efficient and flexible. Over time it remains to be seen whether bancassurance will sustain as a fully integrated business model. At first glance, it seems that the structure of cross equity holding has become a matter of the past. E.g., as seen with Allianz selling Dresdner, ASR was sold by Fortis plus more recently Rabobank divesting in Eureco and ING splitting its Nationale Nederlanden insurance activities². Insurances have become more universal (e.g. car-, healthcare- and travel insurances). The same holds for banking services. On top of that, financial services are increasingly ordered from distance due to the evolved e-commerce sales channel. Consequently, this has led to stronger competition in the markets for financial services. Furthermore, consumer attitude proves to be a key driver for bancassurance. Consumers must feel comfortable when buying a broad range of financial products such as insurances. For example, the in 2006 discovered swindle in the life insurances market, harms the reliability of financial conglomerates as full

 $^{^{1}}$ The Glass-Steagall Act disallowed expansion across different service providers in the financial industry in the US.

 $^{^2}$ A nuance should be given in the split up of ING which evidently also took place in the light of the European Commission's coerced redeem of the government funding. However, this choice remains to be strategically driven as well.





financial service providers. A sound understanding of consumer behaviour and local legislation can help to examine in what way insurance services could optimally be sold to consumers. This paper examines these and other factors that foster the position of bancassurance as a distribution channel. Finally for an in-depth analysis in this paper the key attributes of existing bancassurance practices are reviewed.

1.3 Thesis setup

This research aims to create an enhanced understanding of the relevant factors that affect performance of the bancassurance model. Developing from this, the latter part of the research attempts to identify to what extent specific individual critical factors foster predefined categorised bancassurance business models. The existing organisational structures for corporate cooperation that will be dealt with in chapter 2.6, are the following; distribution agreement, strategic alliance, joint venture and conglomerate. The paper will first explain how bancassurance has emerged over time. Therefore, the motives for the structural expansion of commercial banks into insurances will be given first in chapter 2.2. There is a substantial contribution in financial literature that deals with the diversification effects of bancassurance. Verweire (1999) was among the first to examine the consequences of horizontal expansion in the financial services industry as a whole. To that date, the mere part of research on diversification neglected the effects of the bancassurance business model, as conducted in different models. Also the mere part of prior literature focused on direct wealth effects upon bancassurance. Less research is available on critical factors that drive bancassurance performance. Hence, the remainder of the research will examine factors that (or that not) foster the distribution of insurances via the banking channel. Despite the scarcity of empirical work, a clear consensus can be found in some bancassurance driving factors. Others are seen to be less valid and require a stronger rationale. Finally, Internet availability, market concentration and bank branch density have not been stipulated before. Therefore these variables form a deepened focus of this research and will be highlighted in section 3 and 4. All presumed relevant critical factors are further explained in chapter 2.3. The threats that are seen to be relevant in bancassurance practices are discussed in chapter 2.4. Subsequently, chapter 2.5 informs about the major bancassurance markets that exist worldwide. Special attention will be paid to the specific market conditions that are seen to determine the existence of different BAs. Section 2 concludes in chapter 2.8 with a recapitulation of prior research in the overall field of financial conglomeration and the bancassurance business model. Literature with a contribution to bancassurance structures, bancassurance motives and assessment of critical factors will deserve priority over the extensive work on hand on general specialisation versus conglomeration





performance in the financial industry. Section 3 and 4 comprise the setup and respectively the results of the panel study. 17 countries have been have been examined in the 2006-2008 time frame on critical factors of insurance distribution through bancassurance. A separation is made between three products mixes; total, life and non-life. The conclusions for the business model are finally provided in section 5.

2. Theoretical Background

Section 2 defines the boundaries of this research. First, a general notion will be given on the features of bancassurance. Thereafter this section disentangles the available bancassurance models. Furthermore an introduction to the determinants that are widely reckoned to have an impact on the shape and prosperity of 'nowadays' bancassurance is reviewed. Hence this part provides validation for the hypotheses under review in the latter part of the research. Finally, an extended retrospection on the existing literature will be incorporated to clarify the existing knowledge in the bancassurance spectrum.

2.1 Conceptualization and scope

The research is confined to the concept of bancassurance. A detailed specification of the framework that under review will be reviewed is therefore needed. There is some disarray concerning the definition of bancassurance. The most apparent distinction is made between mere banks selling insurances over the counter and adversely insurers distributing banking products. The latter description is regularly referred to as 'assurfinance'. Germany, Switzerland and Austria use the broader definition of 'allfinanz'. One that denotes all financial institutions which offer a whole set of complementary products next to its core activities. Bancassurance can be seen as a joint effort of banks and insurers to provide insurances to the bank's client base. Basically, this specification comes down to the concept of a 'one-stop-shop' financial institution³. The CEA⁴ defines bancassurance as: "the provision of insurance services by banks in an integrated approach". For the follow-up, this paper will adhere to this definition. Given that the aim of this research is to identify market developments and variables that foster classified bank's expansion behaviour in the distribution of insurances, this is more suitable.

 3 Business model aimed to fulfil all the financial needs of a customer in one place.

⁴ The CEA (Comité Européen des Assurances) is a European insurance and reinsurance federation that consists of 33 member bodies, such as the Dutch "Verbond van Verzekeraars". The CEA represents all types of insurance and reinsurance undertakings, (e.g. pan-European companies, monoliners, mutuals and SMEs).





2.2 Bancassurance motives

For a better understanding of the bancassurance business model development, this chapter elaborates on the rationale for this specific cooperation between retail banks and insurers. Within the framework, advantages of diversification, efficiency and other benefits are explained.

2.2.1 Bank's perspective

There are many potential benefits to be realized by bancassurance strategies. It has to be urged that potential refers to the opportunities of bancassurance. Those opportunities do not always necessarily work out well. The current developments ask for an updated review. Nonetheless there are also embedded risks that lie in the expansion into insurances for banks. The threats of those risks are covered in chapter 2.4. This chapter will solely elaborate on the potential advantages. Levy-Lang (1990) found valid grounds for economies of scope based on observed close similarities (e.g. financial risk management, liquidity creation) between banks and insurers. Frinquelli et al. (1990) noticed in the same year that once banks have established a customer contact for one service, they could leverage this contact with small incremental costs to sell additional services. This is a clear example of potential economies of scope that are often put forward by responsible managers. Economies of scope arise from similarities that may occur among the assets that are in place to run the business. One of the best examples of economies of scope is probably a grocer that expands to become a supermarket. The investments in cash desks, marketing, staff training, location and workforce can easily be allocated over a larger product set. However, in order to maximize economies of scope, a close overlap in product input is favoured. This overlap is similar to bancassurance, since both components deliver financial services. Both saving products and insurance products are means of pooled savings. Economies of scale are also mentioned as a pivotal argument to adopt a bancassurance strategy. There are also cost reductions to be attained, but not as a result of combined input efficiencies. Economies of scale are achieved when the output of a business is rather similar. The base of scaled economies in bancassurance lies for the mere part at the insurer. However, part of those efficiency benefits also applies to banks that have chosen for bancassurance. Basically, the more insurance products a bank (branch) sells, the more experience it will gain along with scale advantages, and ultimately the marginal selling costs can decrease. A research by Staikouras (2006) showed that banking and insurance businesses have more commonalities than differences. Thus, this study supports motivations to attain economies of scope and economies of scale, which can be converted in cost reductions. Both categories of cost effectiveness put banks in an advantageous position compared to brokers and (tied) agents.





Another motive to opt for a bancassurance strategy to boost profits, is additional revenue generation. Insurance sales offer a new source of turnover for a bank and are therefore considered to increase the earnings. Since insurance and commercial banking products are closely related to each other, banks could seek for cross-sell opportunities. Banks can spot developments in the customer's life cycle and seize the occasion by unlocking insurance opportunities. The assumption is that banks have all the financial information of customers. Hence, they are able to serve products that connect to the individual needs of the actual customers base at the right time. For instance, clients may give signals that regularly correlate with the need of complementary products (e.g. mortgage application, career change, divorce, births etc.). Therefore, banks do not just have access to a large potential client base; the core operations also generate valuable 'warm-leads'. A 2006 Milliman research' found that cross-sell ratings are the highest in Italy, Spain and France, with a record cross-sell ratio of 99 per cent in Italy among personal loans (mortgages included) and creditor insurances in 2006. Essentially creditor insurances on loans are mandatory in Italy unless the client has abundant reserves (i.e. savings). Creditor insurances cover the lender in the situation of deficient interest payments due to disability or death of the borrower. Likewise there are also 'tied-selling' practices on the Dutch market. For instance specific property insurance is obliged to be taken together with mortgage contracts. The cross-sell opportunity contributes in profit via either build-in margins (ownership) or direct commission (distribution agreement / joint venture). Young (1990) found evidence that insurance premiums in the USA consist of 14-19 per cent of sellers' commission fee. It has to be mentioned that increased earnings are not the single result of direct income due to cross-sell. Providing a set of financial products to the same captive client base stimulates customer loyalty, which in turn supports the long-term earnings. Besides, it enables the bank to improve the relationships with its customers. And, by being a one-stop-shop financial institution, a (commercial) bank seizes the opportunity to grow in significance. The insurance operations can feasibly lift on the leverage of the bank's brand equity. The extended market dominance is beneficial for the brand awareness and is likely to appeal even more customers.

Last but not least, there are advantages of risk diversification that can be realised from implementing the bancassurance strategy. Insurers face a specific risk profile that differs from operators in the market for traditional banking services. In fact, a traditional wisdom is that one should not put all the eggs in the same basket. Hence insurances can be a matter of risk diversification as well. Estrella (2001) found risk reduction for commercial banks that engage in non-traditional banking activities. It should be noted though, that this risk reduction might be part of the increased size of a bank. In the end, like observed during the recent financial crisis,

 5 Milliman Research Report. Milliman is an US based independent actuarial and consultancy firm.

<u></u>





some 'systemic' banks are regarded to be too big to fail and were saved from bankruptcy by national authorities. The motives mentioned above are visualised in figure 1.

Diagram of Bancassurance Opportunities Risk **Profitability** Diversification Adverse Size Market 🏻 Increased Cost Reductions Revenues Direct Customer Economies Economies Size of Scope of Scale Loyalty Income Commission Margin

2.2.2 Insurer's perspective

This part is explicitly not meant to sum up the perceived benefits of assurfinance or assurbanking. This would represent the inverted bancassurance business model in which the insurer provides banking services. Overall these arguments would be somewhat similar to the motives mentioned in the previously covered bank's perspective part. Moreover the base for insurers engaging into retail banking services is less compelling, since basic banking products yield lower margins compared to insurance products. Thus, instead, it is more interesting to ascertain the financial performance of insurers that distribute their products via the banking channel. In other words why should insurers engage in partnership agreements with banks to expand from more conventional distribution channels (e.g. direct sales, brokers and agents). Expansion in distribution channels will not necessarily yield additional earnings. It could also eventually cannibalize the conventional sales. Therefore, it is necessary to gain a better understanding of the sales channels that exist next to bancassurance. Direct sales is such a sales channel. Direct sales denote the part for which the insurance company itself is able to sell insurance products in a direct link to the customer. Next to banks, brokers and agents are seen

 \bigcirc

⁶ "BA-opp's" stands for bancassurance opportunities that are embedded in bancassurance strategies.

[&]quot;ρ" denotes rho and reflects the correlation between market movements and operations.





to be key sales channels for insurances. The line between the brokers' - and agents' channel is often blurred. Both act as an intermediary. One clear distinction nonetheless holds. That is, an agent acts as a representative of the insurer and made a prior engagement in a contract with the insurer that gives the right to sell a set of insurances against periodically fixed terms and conditions. A broker has not, and, as such, the broker has more independency. A broker provides the insurer with information about the prospect and vice versa. However, the broker steps back when the contract is bound. Some other sales channels that subsist (e.g. post offices, supermarkets, department stores) do not make up for a significant amount of sale since those channels are hardly represented in the more valuable life insurance market.

For an insurer it does not make that much of a difference what intermediate distribution channel it appeals to as long as it contributes to the sales. This closely relates to the key drivers for insurers to facilitate in cooperation with banks. With little effort they can gain from extra sales points. According to Cap Gemini (2009) a mature-market insurance customer holds on average 5.2 policies, though, the 'share-of-wallet'⁷ for a single insurer is on average limited to the range of 1.1 to 1.5 policies. Thus, multi-distribution – for instance through bancassurance – carries the potential to grant insurers an additional growth source. For insurers, it is critically important to retain and increase the 'share-of-wallet' in all possible ways as economies of scale occur mainly at the insurer's level (see paragraph 2.2.1. p.5). On top of that the diversification of distribution channels clearly reduces risks for the insurer as well, since there will be representation in more varied pools of prospects. To date, literature on the risk effects that are potentially associated with insurers involved in bancassurance is – in contrast to the bank's perspective – not available. This seems obvious since banks usually initiate bancassurance and absorb most of the wealth effects too. Nonetheless, the rationale for risk reduction at the insurer remains evident.

To conclude, insurers have the same motives as banks for bancassurance. However, the means of achieving them differ and are affected by different variables.

2.3 Critical factors for bancassurance

The business drivers and performance of bancassurance depend on numerous variables. This chapter discusses the most cited factors to take into consideration for the viability of the bancassurance model.

600

⁷ The proportion of consumer's total expenses for a product/service that is purchased at one individual supplier.





2.3.1 Regulatory Regime

Across the world, the rise of bancassurance as a distribution channel for insurances has been impeded by regulation. The institutional regulatory environment is critically important in for roll out of bancassurance practices. If the condition of a supportive regulatory regime is not met, then banks are (in part) blocked from diversification into assurance. This was seen in the United States from 1933 to 1999 as a result of the Glass-Steagall Act (1933). Due to the regulatory constraints marked by the Glass-Steagall Act, commercial/depository banks, investment banks, security brokers and also insurance companies could not consolidate. In the UK the 1986 Financial Services Act put a hold on the up rise of bancassurance development. Up till now, several markets still do not allow for full consolidation in the financial services industry. Some protectionism can be found in emerging markets in South-East Asia that force foreign investors into constricted forms of control (i.e. no further integration than joint ventures). Canada is an extraordinary example since cross-equity holdings are allowed between banks and insurers. However, banks in Canada are de facto prohibited to sell insurances through bank offices. The Anglo-Saxon economies are considered to be relatively deregulated. Nonetheless, traditionally powerful unions and also the presence of powerful insurance lobbies have restricted the national development of bancassurance⁸. For Europe as a whole, Solvency II⁹ is set to mark a shift in the regulation for the insurance industry aimed to protect policyholders. Solvency II, which is inspired on Basel II, will call for governance towards more transparency, higher capital reserves and tighter risk management. Therefore, Solvency II compliance will put pressure on adequate portfolio management. A fundamental shift towards products with small capital requirements is expected. The higher costs associated with capital intensive services are expected to be passed on to the consumer. At least, Solvency II will certainly restrain an integrated bancassurance conglomerate practice due to the burden of stronger regulatory compliance. Another development in regulation is the Basel III¹⁰. This accord is due for implementation in 2013 as well. The new Basel accord will replace the 2004 Basel II accord. Basel III is anticipated to tighten capital buffer requirements. Special attention has to be paid for the topic of so-called 'off balance sheet activities'. These activities will be further restricted in order to limit risk. The tendency is to set more stringent legislation in order to strive for a more resilient financial sector. As such, Basel III sets forth on the course of regulation as prescribed in Basel II. The most important lesson from Basel II for banks is that it is indeed necessary to focus

⁸ White, (1990)

⁹ Solvency II is a EU directive that will come to effect from the beginning of 2013. It forms a set of requirements, which insurers in the EU will ultimately have to obey to.

¹⁰ The Bank for International Settlements (BIS) designated the Basel Committee on Banking Supervision to continue in safeguarding banks stability by setting more rigorous regulation on banking. Basel III as a result will set more stringent requirements for the banking industry.





on portfolios that create most value in respect to the regulatory capital they require¹¹. There exists a strong agreement in academic literature on the effect of deregulation on business performance. It is either argued that deregulation shortens the pace of innovation directly or indirectly by pushing rather inefficient incumbent market players with relative inefficiencies out of the domestic market. Furthermore Carow (2001) scrutinizes this for bancassurance and finds positive effects of deregulation for all parties involved (i.e. insurers, banks and consumers). Chen et al. (2009) recently underlined this view, stating that deregulation has a positive impact on bancassurance¹².

However, regulatory changes do not only impose permitted sales channels or levels of consolidation. Another global tendency can be found in the restriction of tied-selling, as a way of duty-bound product bundling. This form of coercive cross-selling should not be confused with preferential pricing in package deals. Preferential pricing implies that the supplier offers more favourable terms - such as a lower combined price - by linking services or products. The difference is that the customer is not given a separated alternative in tied-selling offerings. Okeahalam (2008) found empirical evidence that product bundling indeed reduce service fees to the customer. Especially the more mature markets for financial services are increasingly restricting tied-selling.

It remains to be seen what the (perceived) impact of new banking and insurance legislation will be. Hereafter the presented research in section 3 and 4 will give an updated view on this topic.

2.3.2 Technological Pressures

The technological environment is changing rapidly. The fast pace of technological developments requires market players to adjust their strategies. Financial innovation in technology and products seems to increase in priority as a determinant to create a competitive edge in the financial services industry¹³. Hereby product innovation in bancassurance is driven by the embedded potential of product mixes and packages in which insurance and banking products are combined. Embracing technology also allows for more advanced delivery methods of financial services. E.g. bancassurance can very well be applied to 'multi-dynamic channel' delivery. This model entails a service model design with multiple communication and sales points. Such format enables the BAs to reduce costs and to build closer relationships. However, adequate cross channel management is of key interest in this. All channels should by carefully integrated in order to share customer information. Hence, technological support for a 'multi-



¹¹ Insurance – Bridging risk and capital, Countdown to Solvency II, PwC, 3 May 2008

¹² Bancassurance performance was measured by premium income of a set of 71 international banks.

¹³ Goedee et al. (2008)





dynamic channel' network is essential. This means integrating and managing the infrastructure and systems architecture in channels to realize customers' expectations. The aim is to ensure that synergies between channels are realised to ensure that the same services are available from each one, and that customer experience is consistent. Software development, takes a leading role as a major source of channel alignment. Moreover, the rise of the Internet has changed the landscape dramatically. According to ITU¹⁴ worldwide Internet usage rose with 444.6 per cent from 2000 to 2010 to a penetration rate (measured as a percentage of population) of 28.7 per cent. Similarly, Eurostat computed that over the last 10 years the EU-27 region took a tremendous leap with an Internet usage rise of 257.8 per cent to a penetration rate of 67.6 per cent. In the EU-27 region the Netherlands takes the second position with an actual penetration rate of 88.6 versus Sweden on the first position with 92.5 per cent¹⁵. This growth may be quite important since confidence in e-commerce 16 seems to increase similarly. Ecommerce serves customers that search for convenience and time saving. For a long time consumers were fairly prudent in e-commerce purchase decisions. Previously, financial services were ranked among jewellery and healthcare products as items that consumers abandoned as trustworthy in e-commerce. As far as it concerns financial products, this barrier appears to be taken away soon though. Thus far, in the Netherlands - where Internet usage throve quickly more than half of the population¹⁷ made at least once a purchase via e-commerce. Just less than 30 per cent of the Dutch consumers that purchased with e-commerce, claim that they would not buy financial services via Internet¹⁸. Additionally, this amount is expected to decrease when growth of confidence in Internet upholds. Internet Technology changes consumer preferences. Furthermore market research by GfK panel services demonstrates that consumers are becoming more and more inclined to buy insurances on the Internet. Simultaneously an increasing proportion of people use the Internet-banking platform. These developments enable crossselling opportunities for retail banks through Internet. Another example of technology application lies in the supportive function for enhanced e-customer relationship management. Ecustomer relationship management facilitates in comprehension of customers' needs and in turn intensifies relationships. This is of vital interest for servicing and retaining clients throughout their entire life cycle. Contrarily, though, the same technology can also give consumers access to alternatives and allow competitors to compete in key parts of the value chain of the BAs. An apparent example of this can be found in the intermediation channel

¹⁴ International Telecommunications Union is the UN agency for IT and communication issues.

¹⁵ ITU, June 2010: According to CBS this penetration rate will augment up to 95 % by the end of 2010.

¹⁶ E-commerce stands for the digital market place for products and services via computer networks.

¹⁷ 2010 CBS data: 8.8 mil. 'Adaptors' in 2010 vs. 3.2 mil. In 2002

¹⁸ GfK Panel Services 2009





'independer.nl'. This website compares insurance products in the Netherlands. Internet technology changes customer preferences in a way that customers are getting more receptive for e-insurance. All in all, chances for BAs with respect to the technological environment are manifold and are widely seen to be the largest growth opportunity for the future. Embracing the opportunities of e-commerce and streamlining a multi-channel approach can benefit BAs significantly. The research in section 4 will scrutinize the impact of e-commerce on bancassurance performance.

2.3.3 Product Complexity

In recent years the product range in the insurance sector has grown tremendously as a result of a more demanding customer base. Customer empowerment has led to an increase in tailormade insurance products. Hereby it increased the complexity of insurance products. Moreover, complexity stemmed from a multipart pension scheme. In an extensive pension provision, there are three pillars to be discerned. The first pillar is a mandatory participation in the pension system by the government. In most countries this state pension is just a minimal compensation to protect the retired population against poverty. Other countries enriched this facility up to 90 per cent of pension arrangements¹⁹. The second pillar is build up by participation in an occupational pension scheme for which the employer can opt for pension fund asset management. The size of this second layer is determined by legislation, tradition - which is nurtured by culture – and the chosen social security partners. Third, one can accrue individual savings that are eligible for life insurances. As pension structures within this pillars get more complicated, the role for independent financial advisors (IFAs) becomes more viable. Complexity in the way in which pensions are structured works is advantageous for IFAs, (i.e. brokers and agents). Countries like Germany, the UK and the Netherlands have more mature markets for private pensions. The maturity comes from a relatively long history wherein individuals and employers can influence in which assets pension savings are invested. Often this maturity is enhanced by wealth and strict regulation on pension investments. Moreover, in general the previously mentioned developments have coincided with a trend for less opacity in insurances. For a long time, insurance companies gained from excessive margins due to the opacity in the insurance market. It induced 'unethical behaviour' which led to a wave of scepticism. E.g. in 2006 a turning point was marked in the Dutch market for life insurances when the national watchdog AFM revealed swindle with major domestic insurers. The AFM encountered

¹⁹ The 'Latin-Europe cluster' consisting of France, Italy, Spain and Portugal is known for generous first pillar pension compensations that range from 70 to 90 per cent. A rate of 40 to 50 per cent is more common in developed economies. Most former USSR areas have much smaller first pillar pension retirement perquisites.





extraordinary pricings dissembled by a disproportionate amount of opacity. At the same time the UK competition Commission reviewed insurance distribution and simplification of Payment Protection Insurances (PPI's)²⁰ and tightened the supervision in the insurance market. France and Poland similarly intensified product-tying restrictions that are now proposed in an EU directive to ban insurance-tied sales by the European Commission. A similar tendency is observed throughout the rest of the world. Consequently, is has led – and will continue to lead – to further restrictions forced by regulatory reforms. In fact, it will call for more transparency and thus put a downward pressure on fees and commissions. However, this does not necessarily affect the level of product features to be incorporated. As brought to by a company statement by Credit Agricole's Life insurance undertaking, Predica:

"Long-term insurances are likely to develop more extensive features. However, with respect to the market demand and regulatory reforms, the requisite is to explain the purpose and concept of the product in simple terms. Even if the nature of the product entails complex features".²¹

Another downward pressure on insurance's margins is caused by Internet aggregation websites (often denoted as aggregators), which have shown a tremendous potential over the last decade²². In the UK, aggregators account for over 45 per cent of insurance policy sales²³. Aggregators are especially dominant for relatively simple personal lines, such as motor and home insurance. At first glance, this trend seems to affect mainly agents and brokers. Bancassurance has a more dominant position in countries where insurance products are simpler and evidently have more similarity with banking products. Nevertheless, there is more to be reviewed. Low-cost penetrators in the market for life insurances, e.g. 'BeFrank' and 'brandnewDAY' offer products that directly compete with the direct sales and the bancassurance channel. The rise of low-cost penetrators will irreversibly prelude an era of squeezed insurance margins and simple product offerings. Competition from those lower-cost channels via Internet may have an adverse impact on the profitability of bancassurance.

2.3.4 Fiscal Treatments

Tax legislation can favour bancassurance development. There are notable country examples in Europe where bancassurance took off as a consequence. They are mostly characterized by certain favourable tax regimes. These are respectively; France, Italy and Spain. Together with

²¹ Credit Agricole, Industry Outlook, 2007



²⁰ Retail Distribution Review, 2009

²² A good national example of aggregation can be found on www.independer.nl

²³ The British Insurer's European Committee (BIEC)





Portugal they form part of the so-called 'Latin-Europe' region in which bancassurance prospers. Tax incentives appeared to be stimulating the development of bancassurance amidst a low level of regulation. France, for instance left life insurance products eligible for tax deductibility up till 1995. The tax advantages, comprised; exemption from inheritance tax, absence of tax from capital gains after eight years and deductibility of taxes up to 25 per cent of life insurance premiums. Italy and Spain showed similar tax benefits. Though, heading towards the end of the 1990s the associated tax agreements were mainly withdrawn. Before, BAs have been able to leverage their captive base of banking clients. The positive tax treatment applied especially to simple single premium life products. Therefore BAs were able to adjust low cost, simple products for long-term savings that proved to be an attractive alternative compared to the rather complex offerings by traditional channels. Yet, after the tax restructurings bancassurance in the 'stimulated' countries showed strong resilience as seen by the French life insurance distribution figures from 2001 to 2006. According to the CEA, BAs gained market share from 60 per cent in 2001 to 64 per cent in 2006. Grounds for this enlargement can be found in the fact that BAs expanded the general sales force with more specialised financial advisors compete with the direct- and intermediation channel. Bancassurance in Spain and Italy maintained akin results with growth respectively up to 63 and 68 per cent in 2006 in the distribution of life insurances. Countries that did not offer tax benefits on simple life insurance products evolved in 'weaker bancassurance markets'. As a result, alternative distribution channels grew much more solid. Especially in Germany, the Netherlands and the United Kingdom (UK) the established position of intermediaries became embedded in the market.

2.3.5 Socio Economical Pressures

Cultures differ and accordingly the market environments for insurances differ (Hofstede 2003). There is a substantial difference in insurance expenditures per capita among countries. In 2008 insurance premiums made up for 13.6 per cent of Gross Domestic Product (GDP) in the UK. In contrast, Turkey spend in the same year just 1.2 per cent of GDP on insurances. The insurance expenditures as a proportion of GDP are considered to reflect the level of risk appetite of citizens as it mirrors to what extent unfortunate losses are covered. At first glance GDP per capita itself, proves to be explanatory too when it comes down to insurance expenditures. In turn, the relative insurance expenditures depend upon the maturity of the insurance market and so does the level of competition, which is reckoned to limit bancassurance potential. Moreover, for bancassurance there are multiple selling strategies. Bancassurance sales are either sold via brick-and-mortar retail branches or direct sales. The most common ways for direct bancassurance sales are through Internet (e-commerce/insurance) or by telephone contact. For





entrustment, brand experience, personalised service and from a Customer Relationship Management (CRM) perspective branches are from great value. Though, physical presence leads to higher cost of sales, which can be unfavourable in competitive markets. Yet nowadays, in certain areas characterized by vigorous economic growth, high local population density – such as emerging markets - more branches are set up. The difference in retail bank branch density among countries suggests variations in cross-sell ratios on insurances. According to OECD sources, Southern European countries have a relatively higher bank branch presence. For example in 2008 Portugal had on every 1919 citizens one retail bank office; for Germany this was 7360. Internet usage and e-commerce is a parameter to be further scrutinized with respect to the retail bank's physical presence decision. Another trend to be taken into account is the increasing popularity of packaging service products. Time is valued more, therefore consumers are seeking for less contractual engagements. This convenience has already been widely offered in media and telecom services where product packaging became a significant value driver²⁴. If margins, and thus fees are diminishing and the demand for a one-stop-shop financial service provider strengthens, intermediaries will suffer and consequently more benefits are to be reaped by the bancassurance distribution channel. Albeit tied-selling is likely to be abandoned by regulation, the effect of product bundling can be easily achieved by offering package discounts. At last, a positive feature that is likely to favour bancassurance is that banks have a great potential of (re) gaining trust as safe haven institutions to put away savings because of their scale and the diversification of assets. Systemic banks lie at the heart of the financial system and are strictly supervised, as they are considered too big to fail. Finally, it has to be mentioned, that the USA, form a peculiar region because consumers put an entrenched trust in brokers and agents (that have ties with insurers itself).

2.3.6 Market concentration

An important element of this research is to determine the effect of market concentration on the size of bancassurance distribution. To date, as far as been published, no study has investigated the effect of market concentration in the retail-banking sector as a determinant of bancassurance success. The market concentration ratio (CR(n)) can take values from nearly 0 per cent to 100 per cent. CR(n) values close to 0 denote that a market is in perfect competition. On the other hand CR(n) values that approach 1 – and thus signal high market concentration – are associated with an explicit oligopoly or even monopoly market. The rationale for the CR(n) factor can be found in the size of potential synergies to be leveraged. A dominant market player obtains a relatively large captive client base for which it increases the advantages derived from





economies of scale and scope. As such, a high market concentration for retail banks can induce bancassurance insurance distribution. Despite this, some experts perceive stronger diversification benefits for retail banks that operate in markets of perfect competition. It may provide retail banks with unique selling points that others lack. And if comparable services are being served it can possibly still foster monopolistic competition. As such, this variable may still support the advantages of a one-stop-shop financial service provider. The research in section 4 will show the possible impact of this issue.

2.3.7 Strength of alternative channels

A common market rule is that the level of competition shapes the amount of profits to be made. As the strength of competition of alternative channels increases, then less can be gained from bancassurance diversification strategies. The maturity of the market usually signals the existence of higher levels of competition. Kim and Mauborgne (2005) devoted the blue ocean theory on this in which they claim that business practices sustain better in an uncontested market space. As been illustrated in paragraph 2.3.4., 'Latin-European' bancassurance thrived due to favourable tax regimes. After being established in the South European markets BAs deterred the competition, which has kept the competing distribution channels on distance. Due to regulatory environments and embedded product complexities, the North European area favoured a strong intermediary channel. The Netherlands and the UK both show a relatively long history of insurance. As a result, the direct channels have locally unfolded in a key position that withheld the rise of bancassurance. Therefore the strength of established channels is argued to limit the scope of bancassurance.

2.4 Potential pitfalls in bancassurance

The perceived benefits have been extensively illustrated in chapter 2.2. However, there are also challenges. There are certainly some risks related to the implementation of the bancassurance business model. First of all, the alignment with the insurer can bring far-reaching challenges. Management issues like who is in charge of client relationship management, trade-off in product design as well as the split-up of product marketing expenditures and build-up of commissions should be resolved. Additionally the integration of back offices, databases and other information systems are defiant. Any form of rivalry among the merged entities may lead to 'ring-fencing' of products or client base fragmentation. Benoist (2002) calls these both means of "cannibalisation between banking and insurance that represent a real risk for bancassurance". Other setbacks that are linked with weak integration and operational deficiencies are brand dilution or so called image risks. Furthermore, pursuing synergies creates additional costs. In this

_

²⁵ Ring-fencing of product offerings illustrates a business' loath for product adjustments.





respect Nayyar (1992) distinguishes three cost drivers, viz.; incentive degradation, governance costs and bureaucratic distortions²⁶. Hence an aligned culture and reputation among the involved banks and insurers is of utmost importance for sound bancassurance setups.

Nevertheless, it should be noted that the mentioned factors of internal 'early failure' are manageable and should thus be able to be controlled. Still, there are some bottlenecks that are exogenous by nature and which possibly undermine the bancassurance model. Certain markets are saturated in terms of insurance penetration. In such circumstances, insurances might be oversold to the targeted client base. Also, sceptics doubt the nowadays' advantages of high street banks compared to sales channels without physical presence. For instance, Fields et al. (2007) claim that banks do not have unique selling points that are powerful enough to withhold other market entrants to enter in the insurance business. The critics believe that it is rather difficult for banks to establish a competitive edge over other retailers. A recent Ernst & Young survey found that 45 per cent of the respondents lost faith in the banking industry after the 2008 financial crisis. Adversely, retailers and even post-offices, at the same time, have some apparent capabilities to compete with BAs. For example supermarket chains like Tesco and Carrefour have for example been successfully leveraging the strength of their trusted brands for financial services. Besides, alike retailers usually boast on more regular customer contact and extensive customer data. Furthermore the scepticism increased with concerns over customers that might be reluctant to bind all financial services with one and the same partner (i.e. lack spread in asset allocation). Adversely, proponents in bancassurance argue that product bundling is into fashion for due to package discounts and convenience. And they play down the threat of retailers, as new market entrants as they are merely seen to target the less profitable non-life offerings.

2.5 Bancassurance practices around the globe

The bancassurance model initially evolved in Europe. The first recorded settlement of bancassurance was in 1860, when the CGER savings bank from Belgium started to sell mortgage-linked insurances. From this, bancassurance in Belgium build up a solid position in life insurances with over 40 per cent in today's market share for life insurances. From a European perspective, the 'Latin-European' countries and Austria rank higher in bancassurance presence than Belgium. Portugal leads in bancassurance distribution with 61.8 per cent of the total insurances sold by BAs. As illustrated in 2.2.3 France, Spain and Italy have a more or less comparable pension scheme structure as Portugal. On top of that a more specific driver in this area was seen in Italy,

²⁶ Incentive degradation addresses issues of moral hazard. Whereas, governance costs are driven by incongruent goals between management and subordinates. Nayyar (1992) refers to bureaucratic distortions when non-rational behaviour emerges from major changes in the corporate portfolio.





where bancassurance distribution accelerated after the introduction of the 1990 Amato Law that allowed shared equity bancassurance structures. Additionally, the growth in Italy and France was enhanced by favourable tax treatments that were introduced in the 90s (2.3.4). Still, the growth of bancassurance in the European region stemmed from life insurance distribution. Bancassurance distribution in the market for non-life insurances stays limited. Also, investments in non-life sales remain fairly low. An explanation is provided in chapter 2.6. However, the cluster of Germany, the Netherlands and the UK, stayed behind in general in terms of bancassurance emergence compared to the 'Latin-European' countries. Though, as being demonstrated by mergers of ING-NN, Allianz-Dresdner and the Lloyds-TSB portfolio, the same bancassurance offerings existed in this region from the early 90s. Nevertheless, according to recent data from 2008, bancassurance distribution remained relatively small with an average cluster proportion of nearly 10 per cent on total insurance sales. The relative lag in penetration coincides with a high maturity in the market for financial services and especially the maturity in the local insurance sector. This has led to competition from well-rooted IFAs. Nonetheless, Europe ranks much higher in bancassurance distribution rates than North America. According to SCOR, a leading reinsurance company, in 2005 hardly 20 per cent of all US Banks sold insurances against nearly 90 per cent in many Western European countries. Therefore, up to 2007 less than 3.8 per cent of total insurances were sold by BAs in the US. As seen in paragraph 2.3.1., this is mainly a result of the long constraining Glass-Steagall Act that hampered bancassurance integration. In turn, the US bancassurance is mostly limited to distribution agreements. Additionally, so far US banks have focused on the 'hard-to-get' wealthy class. Further integration with insurers could possibly benefit more as consumers ask for higher levels of customisation. Canada has a concentrated retail banking market. However, the leverage of the relatively large individual client bases is strictly limited by 'Federal Charters'. In fact, only loan protection and travel insurances can be sold through bank branches. This rare legal restriction is similarly found in Switzerland with laws on banking secrecy. The spread of bancassurance in the Arab world hampers for different reasons. Muslim countries show lower (no more than 1 per cent of the regions GDP) penetration rates of insurance due to cultural and religious factors. Generally people in the area count rather on family solidarity. Besides Islamic 'sharia' prohibit usury, a classification where insurance products are often considered to belong to. Instead, the little demand for insurance is served by IFAs and deters bancassurance to unfold. Moreover, there is very few presence of Bancassurance in the remainder of Africa and Central America. BAs are keener to exploit the potential in emerging markets. Asia has recently been easing the regulatory environment for foreign investments such as in Bancassurance undertakings. However, the opportunities are limited to at best joint ventures as cross-holdings. Individual





legislative frameworks still differ tremendously in Asia though. Besides, local banks are prudent in setting up cross-holdings and sharing client databases. In general, more Western markets of Asia (e.g. Taiwan, Singapore, South Korea, Hong Kong) have opened up sooner and have consequently surged forward in bancassurance. It reveals the potential for the emerging regions in Asia where public and private 'readiness' rapidly increases. Comparable developments occurred in Eastern Europe where growth rates are still soaring. The previous Communist sphere undermined trust in the financial system. In Poland, for example - that joined the EU in 2004 as a rather developed country in the region – just a third of the population used a bank account when the country became a EU member. This infancy thrived BAs to gain a market share from 11 to 30 per cent from 2006 to 2008. Finally, bancassurance established fairly well in Latin America. BAs such as BBVA, Banco Santander and HSBC moved to Brazil long since the 1970s. Besides, insurers chose to join forces with the extensive local network of retail banks rather than to deploy greenfield operations. This has been an expansion strategy that thrived for foreign insurers in Spain before as well. Also, throughout the continent there has not been an impediment on financial services groups to exist. It has led to a mature market offering by international BAs. However in contrast with Europe the concept has been less sophisticated with low insurance penetration rates and even more particular, it is driven by non-life offerings.

2.6 Bancassurance models

A point of attention in this research is to resolve the question in what way the bancassurance practice would function optimally. There are multiple ways to extend company's activities. The aim is to achieve optimised synergies and a smooth blend in of corporate cultures as the bancassurance model shifts towards a higher degree of integration. Bancassurance structures vary widely, with the extent of financial control and the degree of operational integration being the most critical variables. Each business model has its benefits and limitations. It should be noticed that some countries do not permit (partial) bancassurance practices and therefore admit fewer bancassurance business models due to regulatory constraints. Benoist (2002) described the adequate choice of an appropriate bancassurance business model as a key determinant for future bancassurance performance. A bank that starts to expand its operations in insurances pursues a strategic horizontal diversification strategy. In general there are 4 forms of expansion; distribution agreement, strategic alliance, joint venture, acquisition. The quality of the model's response to organisational challenges differs. Each form embraces a different level of acquirer's commitment and accordingly a different level of integration. Hence, every bancassurance business model should adhere to a specific strategy. Nowadays there is a tendency of loosened ties between banks and insurers. Recent (partial) splits suggest that cross equity holdings have





become a matter of the past. For example the Dutch ING banking group will diverge from insurance in an intended IPO-split of the insurance division. Furthermore Allianz has sold the majority stake in Dresdner, ASR has been separated from Fortis' banking activities and Standard Life divested the Standard Life Bank. Contrarily, a distribution agreement bancassurance model requires very little commitment, as there is no need to purchase any stake in the cooperating insurance companies. Moreover, the involved entities do not or barely share customer base information. Commitment increases when moving into other more tied agreements. An engagement in a financial services group requires the largest commitment since the acquirer has to purchase a majority stake in order to gain full control in the targeted insurance company. Thus, through a majority stake in an either internally setup – or either acquired insurer, banks could form a so-called financial services group. This is a group of subsidiary companies linked together offering various types of products. Between the distribution agreement and a financial services group one could distinguish the strategic alliance and joint venture options for expansion into bancassurance. Those two combined with distribution agreements are so called financial conglomerates 'sensu lato'. Though there is no cross-equity ownership, the involved parties still strive for potential distribution synergies and economies of scope. To sum up, a description – with the associated benefits and downsides – of the four bancassurance practices is given in table 2 on the next page.





Table 2 Bancassurance Models

Business model	Description	Market conditions	Advantages	Shortcomings
A. Distribution agreement	The bank acts as a distributor, offering stand-alone insurance products from multiple insurance companies	 Usually regulatory constraints require banks to work with multiple insurance companies. Customers prefer advisor independence. 	 The model requires limited upfront investments. Little setup time The model avoids lockin with single insurance company. 	
B. Strategic alliance	The bank sells products from a single insurance company only.	Regulation or tax treatments may not allow for a close integration of banking and insurance activities.	 Bank can benefit from competition between insurance providers by selecting the one most suitable insurance company. The model still requires relatively low upfront investments Allows for customer database sharing 	 integration since involved parties still operate as separate entities. Some investments in IT, MIS and sales force are
C. Joint venture	Both bank and insurer create a jointly owned company.	Regulations allow a high level of integration and do not prevent for sale of insurance products by the branch staff nor the exchange of customer data between a bank and an insurance company	company have mutual ownership of products and customers • Enlarged customer database through database mergers • Strong and long term commitment, as well as	 The model requires significant upfront investments. Insurer might feel a lack of control over distribution channel strategies. Harder to balance power and separate contributions between involved parties. Relatively slow market offering due to a more complicated model structure.
D. Financial services group	Bank and insurance o company are subject to a parent company.	Comparable to the market conditions upon joint venture	 Operational benefits by full integration of products and systems No limits to the utilization of shared customer databases Same corporate culture One-stop-shop that provides the full spectrum of financial products 	significant upfront investments. Risk of brand dilution if one of the integrated entities performs poorly.

²⁷Grinyer & Yasai-Ardekani (1981): for governing purposes, large organisations require more expenses in overhead than 'monoliners' since there is an increased amount of communication links. On a certain point this effect outweighs the economies of scale/scope effects and will therefore result in organizational inefficiencies.





To summarise, it is argued that the model should be tailored to the local market conditions. Wu *et al.* (2009) showed that executives generally prefer the financial services option. However, this might be driven by personal incentive schemes. The issue in bancassurance remains that it is difficult to determine what market conditions are prevalent in time and across geographic locations. Nevertheless a sound understanding of what conditions and strategies drive the individual models success rate can be essential for the purpose of designing adequate bancassurance practices. For this reason the impact of certain measures on the effectiveness of these separately classified models will show to be a major objective of this research. Swiss Re's²⁸ Sigma (2007) differentiated socio-economic, cultural and – the earlier discussed – regulatory environments together with market infrastructure and consumers preferences are the foremost determinants to take into consideration for developing the best performing bancassurance business model. More explicit variables that can be derived from these determinants are previously addressed in chapter 2.3.

2.7 Life versus Non-Life market

Bancassurance emerged much stronger in the market for life insurances compared to non-life insurances. The CEA distribution data – that were used for this research in section 3 – reveal that bancassurance in Europe had a market share of respectively 6.2 per cent for non-life, and 43.9 per cent for life insurances in Europe²⁹. A reason for this can be found in the nature of life insurance products and retail banking products. They are seen to have close similarities as they both pool individual funds for unforeseen future events. Life insurances are designed as long-term products, for which confidence in the issuing company is indispensable. Banks are still considered as more resilient and trustworthy institutions compared to insurers. The aftermath of the credit crunch turmoil, in which systemic banks received funding from governments, have further established confidence in major banking corporations. For sure, the reputation of banks in general has dramatically been damaged. Nevertheless, there is an increased awareness that banks are essential for economic stability. Additionally, this deep-seated position is empowered by recent tightened regulatory reforms and government bailouts. Life insurance products involve higher stakes of investments for a larger time horizon and hence call for more priority on financial security. Another 'raison d'être' for the deviating market shares is the insight that

²⁸ Swiss Re is a consultant with global presence in economic research and has a strong expertise in the field of reinsurance. Sigma is the annually published Swiss reinsurance report on developments of the market for insurances by Swiss Re.

²⁹ Proportions resemble an unweighted index of the European set of countries outlined in the descriptive data chapter (3.1).



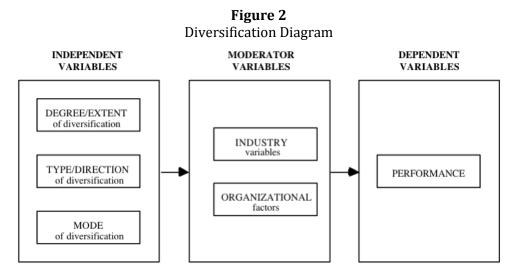


banks have in customers' financial state of affairs which they can use to target specific needs. This advantage is stronger for life related products as they depend more upon the individual welfare. On the contrary, the nature of non-life insurances deviates from banking services more significantly and hence, requires additional training and motivation. In the end the argument of synergies in life insurances for bancassurance appears to be stronger.

2.8 Extended literature review

Much has been done on general diversification strategies. An ongoing debate is centralised on whether diversified firms outperform specialised counterparts. One can observe a certain disagreement for the questioned outperformance of diversifiers in general.

Carter (1977) and Grant & Jammine (1988) first found value creation in diversification. Later on, Berger & Ofek (1995) and Lang & Stulz (1994) contributed to the debate on bancassurance by showing contradictive results. Lloyd & Jahera (1994) added ambiguity revealing no significant effects on value creation of diversified versus specialised firms. Obviously, reason for his can be found in the existence of alternative data and methodologies for diversification- and performance measurement. Datta *et al.* (1991) cleared up complexity in a general framework with key variables for fruitful diversification strategies. There are alternative ways of diversification. The interesting feature of the Datta *et al.* integrated model is that it addresses the multidimensionality of diversification strategies. As being illustrated in figure 2 below, the Datta *et al.* study incorporates the effect of varying cultures, the set mode³⁰, the level of alliance integration and strategic fit.



Verweire (1999) showed that the abovementioned framework applies perfectly well for financial services diversification. However for performance measurement, there is a less generalised

.

 $^{^{30}}$ A company can either take a stake in an existing firm (M&A) or rollout an internal diversification program. These methods are then called non-organic - and respectively organic growth.





approach. There is still a discussion on whether accounting-, market-, EVA-31 or Balanced Scorecard³² based measurements should be used as performance benchmarks. Accounting- and market based performance indicators are nonetheless paramount in diversification research. Accounting performance can also be used when non-listed firms are included. However, it is backward looking and it can be subject to managerial manipulation. Therefore, a considerable amount of researchers followed to apply market based measures. A limitation herewith is that one then has to imply the assumption of semi-strong market efficiency. One of the often applied market based methodologies that has been used to measure performance in financial diversification is the application of Tobin's q. Tobin's q reflects the ratio of the firm's market value to the replacement value of its assets. Involved researchers compared the average q of specialised - versus diversified firms³³. Lang and Stulz (1994) enhanced this by introducing a 'pure-play comparison' that controlled for industry effects. Basically they decided to measure the q of diversified conglomerates with the average of combined pure single-segment firms that resembled the conglomerates. One year later Berger and Ofek (1995) used a price-to-earnings multiplier analysis to examine the wealth effects of diversification. Genetay (1996) then presented the first application of P/E-multiplier and Tobin's q on bancassurance performance. He found results that bolster bancassurance strategies; this is in contradiction to the prior literature on corporate diversification by Lang and Stulz (2004) and Berger and Ofek (1995). Verweire (1999) followed with the same supporting conclusions based upon expert analysis and found favourable outcomes which also involved lower company risk. Additionally, he found evidence that organic growth leads to higher profits in bancassurance. Non-organic growth on the other hand is better for business risk reducing. Moreover, support for bancassurance practices can be found in studies by Singh & Montgomery (1987) and Flanagan (1996); both studies conclude that the interrelated diversifiers outperform unrelated diversifiers. And, as shown in chapter 1.2, banks and insurers do share a lot in common in terms of business models. A new methodology for measuring the wealth effects of bancassurance was presented by Fields et al. (2007). To date, they performed the broadest event-study done on bancassurance. They

.

³¹ EVA = Economic Value Added = Imputed residual wealth = = Net Operating Profit After Taxes (NOPAT) - (Capital * Cost of Capital)

³² A measure developed by Kaplan and Norton (1992) based on a multidimensional concept that for example includes internal business-, customer- and innovation perspectives.

³³ The level of diversification herein was often derived from (Multi) SIC-classification data. The Standard Industrial Classification (SIC) system is often called a continuous measure of diversification. This continuous measure is rather objective, however, it lacks to tap the level of relatedness. At the odds of SIC application one can therefore also observe some diversification studies that apply categorical measures. That methodology is much more sensitive to subjectivity though and is thus less suitable for academics. There is a way in between both called entropy index (Davis and Thomas, 1993) that allocates diversification synergies that provides in that case a valid alternative. But this method is rather complex to apply.





analysed 129 handpicked bancassurance transactions in an event-study using direct stock returns and ROA-effects as wealth creation indicators. Fields et al. (2007) found with strong significance a + 1 per cent abnormal return for bidders in bancassurance takeovers. In general, there is widespread support for bancassurance strategies and its benefits in academic literature. However, in reality we have seen BAs with poor results rethinking their strategies. The multidimensionality of diversification gives rise to complexity for which glossy predictions may be less reliable. At least, one could argue that prior research has predominantly focused upon the (direct) corporate wealth effects of (bancassurance) conglomerate structures versus standalone firms. Very few has been researched on the implications of macro-economic indicators on bancassurance. A long-term quantitative analysis of 'success' in bancassurance operations is cumbersome, as available data on bancassurance remained scarce. Company disclosure requirements and the more detailed country level statistics improve the means for more accurate analysis of bancassurance business models. With respect to this, Chen et al. (2009) published an interesting research in which multiple factors are tested upon the impact they might have on bancassurance revenue. This research finds that the BA's percentage of insurance income is subject to; the size of the individual bank, the level of deregulation, GNI per capita and inflation. Nonetheless, there still are more macroeconomic and firm-level factors to be taken into account. Hence, the priority of the continuing research presented in section 3 is to extend the academic spectrum in this specific field.

3 Methodology

The continuing study carries out a panel study among a set of 17 European countries over a 3-year period from 2006 to 2008. This section delineates the framework of the quantitative research that has been conducted. From the background information of section 2 there are several determinants proposed to be tested upon their impact upon country-level insurance distribution through bancassurance. Consequently, the hypotheses and a corresponding empirical model are formulated. But first a description of the data that are used will be given.

3.1 Data description

The cross-sectional and time-series data over a 3-year interval are collected from various institutions. The 17 included countries have national insurances bodies that are affiliated with the umbrella reinsurance federation CEA. The CEA provided the required insurance distribution data. The countries that tell apart the proportion of insurance distribution through bancassurance insurance are essential to the research. These date are used as a dependent variable in the quantitative analysis. Furthermore, CEA provided extensive information about country-to-country insurance penetration rates. Internet access data are registered by





Eurostat³⁴ and form the proxy for e-commerce potential. Demographic data are collected from the 'CIA World Fact book'. The World Bank development database has been used to benchmark gross domestic product (GDP) figures. Data required for commercial bank's country concentration (C-5) was obtained from 'Bankscope'. The banking statistics that denote the amount of retail bank branches is obtained from the OECD data source. An important feature of this data source is that the structure of the financial system is reflected with the primary banking sector – as a collector of deposits and provider of debt – in detail. At last, figures about the competitiveness and regulatory environment from the examined countries were drawn from the 'World Competitiveness Yearbook' that is annually issued by the IMD³⁵. The summary of descriptive statistics is presented in both tables 3 and 4.

Table 3Shared Descriptive Statistics:

	Mutual GDP PC POP INT DEREG C 5								
Mutual	Mutual GDP_PC		INT	DEREG	C_5				
Mean	30240	32018760	0.51	0.592076	0.732628				
Median	35789	27573005	0.49	0.577095	0.723058				
Maximum	51686	71892808	0.86	0.85864	0.957974				
Minimum	5719	2007711	0.14	0.38523	0.486374				
Std. Dev.	14274	25351826	0.16	0.137634	0.138102				
# of Obs.	36	36	35	36	36				

GDP_PC: Gross Domestic Product per capita (in \$)

POP: Countries' inhabitants

INT: Population with Internet access at home (in %) DEREG: IMD World Competitiveness Scoreboard Scores

C_5: Cumulative market share of 5 largest retail banks, measured by total loans outstanding

Table 4 Individual Descriptive Statistics:

Specific	BA_DIS (total)	BA_DIS (life)	BA_DIS (non-life)	INS_PEN (total)	INS_PEN (life)	INS_PEN (non-life)
Mean	0.263	0.455	0.061	0.073332	0.032515	0.030478
Median	0.301	0.460	0.061	0.059739	0.031199	0.029151
Maximum	0.631	0.873	0.120	0.179329	0.077613	0.087452
Minimum	0.023	0.064	0.004	0.012399	0.001579	0.010740
Std. Dev.	0.190	0.242	0.039	0.041168	0.021229	0.017513
# of Obs.	34	39	39	36	42	42

BA_DIS: percentage of insurances sold through retail banks INS_PEN: percentage of insurance expenses out of GDP

26

³⁴ Turkish 2006 and 2008 figures extracted from the Computer Industry Almanac.

³⁵ International Institute for Management Developments, Lausanne.





3.2 Hypotheses

Chapter 2.3 summed up seven variables that are predominantly considered to be the prime determinants of bancassurance. Some of them are rather 'soft' in a way that they cannot be captured by numerical data that would fit this study. Sheer examples of this can be found in for instance in tax diverging treatments, product complexity and previously in regulation. The state of regulation in a country can be derived from the IMD World competitiveness Scoreboard. Additionally, the IMD-scores take into account the the concern of fiscal treatments. Nonetheless, it should be noted that this score omits the favourable tax treatments on bancassurance products specifically that exist in certain countries. Due to other data constraints, product complexity is excluded from the empirical model. Moreover, the strength of alternative channels is moreover left out, as it would cause endogeneity. The usage of Internet will serve as an indicator for the level of technology. Additionally, the density of bank branches will reflect the impact of socio economic conditions. Furthermore, chapter 2.3 discussed the associated consequences of market concentration. This effect is included by the cumulative market share of the five largest local retail banks. Besides, though without particular expectations on the signal (+/-) and significance, the size of national insurance markets has been incorporated in the model. This variable can be interpreted as an illustration of individuals risk appetite in socio economic behaviour. And finally, for the purpose of inquisitiveness, population and GDP per capita are integrated.

Accordingly, the following hypotheses are proposed;

- 3.2.1. Retail banking sector concentration proxy |C_5|: "consolidation in the retail banking market fosters bancassurance undertakings."
- 3.2.2. Internet usage proxy |INT|: "retail banks are better able to grasp the opportunities of e-commerce than competing distributers of insurance products. In fact, the more people connected on the Internet, the larger the share of insurances sold through bancassurance."
- 3.2.3. Size of insurance market proxy |INS_PEN|: "the level of country's demand for insurance products shapes the size of a national bancassurance industry."
- 3.2.4. Level of deregulation | DEREG|: "regulation works as an impediment for bancassurance. Therefore, the less regulation, the more profound bancassurance as a national industry will be."





3.2.5. Bank branch density proxy |OUTR|: "local presence supports bancassurance. There is a positive relationship between the quantity of branches that retail banks hold and the size of bancassurance as a distribution channel within a country."

Each factor will be tested on impact on the distribution of life-, non-life- and both life- and non-life insurances combined together as sold through BAs.

3.3 Empirical model

The previous chapter introduced five hypotheses to be tested for their explanatory power on the size of national bancassurance industries. Based on similar research on consumer behaviour GDP per Capita and Population are additionally added to the model. This is illustrated the following empirical model:

$$BA_DIS = f\left(GDP_PC \mid POP \mid C_5 \mid INT \mid INS_PEN \mid DEREG \mid OUTR\right)$$
 (Equation 1)

where GDP_PC, Gross Domestic Product / capita in USD; POP, population; C_5, retail banking sector concentration proxy; INT, internet usage proxy; INS_PEN, size of insurance market proxy; DEREG, level of deregulation; OUTR, bank branch density proxy.

In due course the linear structure of the proposed model becomes:

$$BA_DIS = \alpha_0 + \alpha_1 (GDP_PC) + \alpha_2 (POP) + \alpha_3 (C_5) + \dots$$

$$\dots \alpha_4 (INT) + \alpha_5 (INS_PEN) + \alpha_6 (DEREG) + \alpha_7 (OUTR) + \varepsilon$$
 (Equation 2)

However, as being illustrated in chapter 3.1, certain variables comprise relatively extreme numbers. Therefore a 'Box-Cox analysis' has been conducted. Three of the independent variables require a logarithmic conversion. Respectively these are; GDP_PC, POP and OUTR. Therefore the model to be used for testing will be:

$$BA_DIS = \alpha_0 + \alpha_1 \left(Log(GDP_PC) \right) + \alpha_2 \left(Log(POP) \right) + \alpha_3 (C_5) + \dots$$

$$\dots \alpha_4 (INT) + \alpha_5 \left(INS_PEN \right) + \alpha_6 \left(DEREG \right) + \alpha_7 \left(Log(OUTR) \right) + \varepsilon$$
(Equation 3)

This study attempts to show the different impacts that the introduced factors may have, specifically for the life and non-life market. Hence, BA_DIS will be regressed with three dependent variables: BA_DIS (Total); BA_DIS (Life); BA_DIS (Non-Life). The dependent variable can take values ranging from 0 to 100 per cent. The OLS method allows for estimates that exceed this range, ergo an ordinary OLS would not fit this model. Logit-, Probit- and Tobit-





censored models can overcome this restriction. Yet the most consistent estimates will be derived through Tobit-, since the dependent variables' values are scattered between 0 and 1. The tobit methodology takes this into account, and thus the Tobit censored regression methodology will be applied. Finally, two dummies will be included in the model. An intercept dummy will be included for the 'Latin-European' cluster of countries (i.e. France, Italy, Portugal and Spain). Bancassurance distribution in this region is bolstered by comparable pension schemes and tax treatments. Besides, the extraordinary 2008 financial crisis clearly affected the BAs distribution data. As this economic shock seems to be temporal a 2008-year dummy is added as an intercept.

4 Results

In this section the outcomes of the quantitative study are presented per product mix (Total & (Non-) Life) in table format. The corresponding correlation analyses are included in appendix D. Tests on joint significance that have been conducted are based upon log likelihood interpretation. This is done to enable comparison between the estimations of the restricted- and unrestricted odel. Chapter 4.2 and 4.3 will discuss the deviations from the combined model. The correlation matrices were also examined. The only potential source of hampering multicollinearity is found among Internet usage and the level of deregulation. The following three different significance levels are differentiated: 10; 5 and 1 per cent.





4.1 Full Bancasurance Distribution

Table 5 displays the results of the seven regressions that have been run on bancassurance distribution as a full sample of all insurances sold through retail banks.

Table 5Regression Results
Dependent Variable: BA_DIS (Total)

	Dependent variables Di-Die (Total)							
Total	# 1	# 2	# 3	# 4	# 5	# 6	# 7	
constant	0.195	0.202	-0.092	-0.839	-0.920	-0.186	4.920	
Constant	(0.40)	(0.42)	(-0.21)	(-1.61)	(-1.66*)	(-0.27)	(6.45***)	
LE_dum	0.319	0.320	0.332	0.259	0.266	0.312	0.271	
LL_ddiii	(6.98***)	(6.97***)	(8.26***)	(5.23***)	(5.14***)	(5.48***)	(10.69***)	
2008_dum		0.010	0.032	0.048	0.041	0.056	0.074	
2008_ddiii		(0.24)	(0.85)	(1.33)	(1.07)	(1.46)	(3.93***)	
Log(GDP_PC)	0.020	0.019	-0.050	0.071	0.068	0.012	0.004	
LOG(GDF_FC)	(0.59)	(0.55)	(-1.37)	(1.12)	(1.08)	(0.17)	(0.09)	
Log(POP)	-0.014	-0.014	0.019	0.009	0.014	-0.003	-0.216	
Log(FOF)	(-0.76)	(-0.76)	(1.01)	(0.50)	(0.64)	(-0.15)	(-10.26***)	
C_5			0.573	0.534	0.548	0.333	-0.992	
<u> </u>			(3.26***)	(3.24***)	(3.26***)	(1.62)	(-4.80***)	
INT				-0.501	-0.433	-0.532	-0.742	
				(-2.27**)	(-1.49)	(-1.86*)	(-5.63***)	
INS_PEN					-0.320	-0.402	0.084	
					(-0.41)	(-0.54)	(0.22)	
DEREG						0.544	0.971	
						(1.67*)	(3.55***)	
Log(OUTR)							-0.070	
							(-2.47**)	
Obs#	34	34	34	34	34	34	29	
Log likelihood	25.42	25.45	30.08	32.47	32.55	33.90	52.99	

^{* 10} per cent significance level

The results show the level of variance explained in the dependent variable of the proposed hypotheses. Significance is found for all variables. Therefore *market concentration, Internet usage, level of deregulation* and *bank branch density* can be seen as significant determinants of bancassurance as a distribution channel. However, evidence on the effect of the control variables (*GDP per capita & population*) and the *size of the insurance market* is weak. The most striking observation is the observed negative coefficient of *Internet usage*. This indicates *that Internet usage* may undermine the position of bancassurance. Or it could demonstrate competitors in the distribution of insurances to be more successful in e-commerce. Secondly, market concentration of the five largest retail banks, as proxied by the loans outstanding on balance sheet generally proves to have a positive impact on bancassurance distribution. Only in the sixth regression the variable decreases in terms of significance. And when Croatia (2007; 2008) and Slovenia are excluded from the sample in regression # 7, then the coefficient turns in sign to minus. The sign of *deregulation* does not change in the seventh regression. Deregulation

^{** 5} per cent significance level

^{*** 1} per cent significance level





is consistently significant. The null hypothesis is rejected and hence regulation is found to be a positive determinant of bancassurance in the 'total' sample. Fourth, although to be interpreted with care, the *branch density* proxy is significant and little but negative. This contradicts the expectation. Besides, a chi square analysis reveals that the parameters in regression 6 are jointly significant $(p=0.01)^{36}$.

4.2 Life Distribution through Bancassurance

Table 6 displays the results of the seven regressions that have been run on bancassurance distribution in the life-insurance market.

Table 6Regression Results
Dependent Variable: BA_DIS (Life)

		Depend	ent variable	. הר בות (הו	iej		
Life	# 1	# 2	#3	# 4	# 5	# 6	# 7
constant	1.734	1.745	1.235	0.313	0.585	-0.627	2.136
constant	(3.42***)	(3.41***)	(2.38**)	(0.47)	(0.90)	(-1.03)	(1.59)
LE_dum	0.429	0.430	0.434	0.328	0.248	0.287	0.297
LL_duiii	(6.70***)	(6.69***)	(7.26***)	(4.32***)	(2.95***)	(5.23***)	(7.43***)
2008_dum		0.009	0.036	0.050	0.060	0.080	0.076
2000_uuiii		(0.15)	(0.66)	(0.96)	(1.19)	(2.44**)	(3.03***)
Log(GDP_PC)	-0.055	-0.056	-0.110	0.049	0.032	0.028	0.085
LOG(GDI _r C)	(-1.23)	(-1.24)	(-2.32**)	(0.55)	(0.38)	(0.47)	(1.53)
Log(POP)	-0.051	-0.051	-0.014	-0.030	-0.033	0.028	-0.122
LOB(I OI)	(-2.80***)	(-2.80***)	(-0.61)	(-1.32)	(-1.50)	(1.39)	(-3.38***)
C_5			0.579	0.513	0.423	0.469	-0.306
C_3			(2.47**)	(2.29**)	(1.93*)	(2.51**)	(-0.97)
INT				-0.677	-0.821	-1.089	-1.061
				(-2.08**)	(-2.57**)	(-5.14***)	(-6.95***)
INS_PEN					3.079	1.154	-0.421
					(1.91*)	(1.13)	(-0.41)
DEREG						0.620	0.559
2 220						(2.20**)	(1.53)
Log(OUTR)							-0.016
							(-0.35)
Obs #	39	39	39	39	39	35	29
Log likelihood	15.47	15.48	18.32	20.37	22.12	37.66	42.84

^{* 10} per cent significance level

As can be expected the results for 'life' explain an important part of the 'total' sample. Therefore somewhat similar patterns are observed. Added value should come from a particular comparison to 'non-life' in the next chapter. Nevertheless there are some slight differences to be observed with 'total' as well, and some effects are more profound. First of all, the sample for 'life' is larger in the first six regressions. Whereas, addition of *market concentration*, size of the insurance market and Internet usage (#5) remains jointly significant on a p=0.01 level³⁷. Second,

^{** 5} per cent significance level

^{*** 1} per cent significance level

 $^{^{36}}$ In log likelihood comparison with the restricted model in regression # 2. (2*(33.90 – 25.45) = 16.90 16.90 > 13.28 (critical value p = 0.01; df = 4)

³⁷ 13.28 > 11.34 (critical value p = 0.01; df = 3)





the results for market concentration decrease a bit in both magnitude and significance. The opposite occurred to Internet usage where the observed effects from before in 'total' gained in terms of significance. This shows that the rise of Internet usage especially is associated with a weaker position of BAs in the life insurance market. This observation is in conflict with the conclusions from chapter 2.3. Typically, online competitors are aggressive in simple low-cost life product offerings. Another noticeable effect is the size of the insurance market coefficient in regression five. The positive coefficient is only significant (p=0.10), in this regression, however with a relatively large strength. With respect of the test, the level of deregulation shows diverging results compared to the 'total' picture. Firstly, the positive effects are more significance. Secondly, the results flatten out in the seventh regression when the significance on the level of deregulation decreases. Among the formulated hypotheses, there is only reason to reject the null hypothesis for Internet usage (in #7). Sequentially bank branch density cannot be indicated as a significant determinant of bancassurance distribution in the 'life' sample. While the ultimate (fully unrestricted) samples of both 'total' and 'life' count 29 observations, there are differences in the type of sample. In the last 'total' sample the United Kingdom (2006-2008) is included. This country is lacking in 'life' but instead Germany (2006-2008) is included. Ceteris paribus one may therefore conclude that the importance of the parameters adhere rather to the UK than to Germany. On top of that, Lithuania (2007) enhances the differences in regression six as an additional observation compared to regression sic in 'total'. And, in the regressions before, the sample differences are also driven by the presence of Lithuania (2006) and Malta (2006-2008). In general it has to be stipulated that tiny sample deviations should not change results tremendously. Although, this is more likely to occur in smaller sized samples such as the ones that were used for this research.

4.3 Non-Life Distribution through Bancassurance

As been pinpointed in the former two chapters there is a slight difference in sample among the product mixes that are examined. The differences are due to data restrictions and can be seen in appendices A and C. Nevertheless, for clarity reasons, they will now be described. The countries included in the overall 'non-life' sample are nearly equal to those in 'life'. Yet, Malta (2006-2008) is dropped and replaced for the UK (2006-2008). Data on bank branch density and regulation, unlike with the UK, is not available for Malta. Hence, the corresponding regressions include three observations more in the last two regressions when compared to the 'life' sample.





Table 5Regression Results

Dependent Variable: BA_DIS (Non-Life) Non-Life #1 # 2 # 5 #6 # 7 #3 #4 -0.319 -0.439 -0.450 -0.143 0.165 -0.317 -0.516constant (-2.95***)-2.95***) (-4.23***)(-3.08***)(-3.74***)(-0.99)(0.61)0.004 0.004 0.002 0.001 -0.011 0.018 0.026 LE_dum (0.35)(0.19)(0.33)(0.06)(0.78)(1.29)(1.81*)-0.0020.003 0.004 0.012 0.019 0.025 2008 dum (-0.16)(0.33)(0.35)(2.22**)(2.64*** (1.16)0.010 -0.003 0.010 -0.0020.010 -0.028 -0.064Log(GDP_PC) (-3.11***) (1.17)(1.18)(-0.36)(-0.09)(0.59)(-1.72*)0.016 0.016 0.025 0.025 0.025 0.019 0.026 Log(POP) (5.16***)(5.10***) (5.47***)(3.92***)(3.65***)(3.65***)(4.78***)0.144 0.144 0.133 0.068 0.046 C_5 (3.16***)(3.16***)(3.13***)(1.69*)(0.72)-0.007 -0.142 -0.160 -0.142INT (-0.11)(-1.77*)(-2.34**)(-1.94*)1.077 0.527 0.811 **INS PEN** (2.51**)(2.22**)(1.36)0.270 0.452 **DEREG** (4.18***) (5.09***)-0.019 Log(OUTR) (-1.68*)Obs# 39 39 39 38 32 39 39 79.05 Log likelihood 79.07 83.50 83.51 86.43 91.27 78.96

The Non-Life results render relatively high log likelihood in the unrestricted model. This signals that the estimates are accurate. Still, the unrestricted model in regression five increases explanatory power³⁸, using a p=0.01 significance level. Overall the parameters' coefficients for the 'non-life' sample are smaller as in the product mixes before. Bancassurance sensitivity for determinants is more profound in the 'life' sample. This comes as no surprise, as descriptive statistics show larger distribution proportions for the bancassurance 'life' sample. However, in terms of significance levels, there are interesting results to be derived. Market concentration increased in overall significance and consistently shows to be a facilitator for bancassurance. This is in line with earlier conclusions that consolidation in the retail banking sector leaves opportunities to be gained with economies of scale. Moreover, evidence for Internet usage as a (negative) bancassurance determinant decreased in significance compared to the 'life' regression. An explanation for this can be found in the fact that competition in the e-commerce market is less fierce. Some banks took advantage of this and successfully gained market share via Internet sales (e.g. in the Netherlands & the UK), whereas banks in other countries considered non-life to a less attractive business segment. The sign and significance of the test on size of the insurance market also reflects this thought.

(A)

^{* 10} per cent significance level

^{** 5} per cent significance level

^{*** 1} per cent significance level





Backed by a stronger significance than 'life'³⁹, it is found that a higher demand for 'non-life' reinforces bancassurance distribution rates. Also, the *level of deregulation* increased in significance. As a matter of fact, deregulation is consistently measured as a positive determinant for the level of bancassurance in a country. The same consistency is shown by the variable *bank branch density* with a low significance level (p=0.10). However, one should bear in mind that this effect is accompanied by less significance (nil in 'life') and smaller samples.

5 Conclusion

This study tries to extend the knowledge of bancassurance by investigating country level bancassurance development. As far as known, this is the first time that bancassurance is proxied by the share it has in insurance distribution. The first part of this thesis zoomed in on the origin and dimensions of bancassurance. Diversification in bancassurance is often called universal banking. BAs are characterised by integrating both insurance and banking services in the product portfolio. The dissertation studied to what extent the demarcation lines between the insurance and banking sector blurred.

Subsequently, the report gave a rundown of the prevalent factors in literature that are believed to affect the shape of present bancassurance. Likewise the intricacies and major threats in running bancassurance operations were discussed. There exist different strategies to overcome pitfalls. One of them is to find a suitable bancassurance model that suits to the attributes of a local market. Four bancassurance models have been derived that each carries varying challenges and advantages. The models differ from small to high levels of mutual integration; distribution agreement, strategic alliance, joint venture and consolidation in a financial services group. Furthermore, the global existence of bancassurance was studied. A consistent pattern is observed between established markets with fiscal stimulus features on bancassurance and relatively new markets with possible regulatory restrictive pressures. Bancassurance flourished in countries with undeveloped insurance markets. In those countries BAs are usually better of than competitors that setup greenfield operations from scratch. The advantage is driven by the initial speed and costs of establishment, simplicity of product offerings and the trustworthy positions that local banks hold. Bancassurance in 'Latin Europe' and Latin America seems to thrive for these reasons. Chapter 2.3 and 2.4 addressed other perceived determinants based on literature review and PwC in-house expert analysis. From hence a quantitative research framework was constructed to test the following factors on significance;

³⁹ Regression results with demand for life (instead of non-life) insurances as input.





- Market concentration
- Internet usage
- Size of the insurance market
- Level of deregulation
- Bank branch density

Market concentration, Internet usage and bank branch density as independent variables are new to this field of academics. Factor analysis unveiled significance for all factors as determinants of country's strength in bancassurance as a distribution channel for insurances as a whole (non-life & life). The robustness of the first four variables has been checked and confirmed by log likelihood analysis. However, significance changes depending on available country sample and examined product mix. Market concentration predominantly had a positive impact on bancassurance proportions. The same positive impact was consistently found for the level of deregulation. The size of the insurance market only occurred to be significantly and positive in the 'non-life' regressions. Both Internet usage and bank branch density came out as determinants leading to contraction of bancassurance proportions. Though, evidence for bank branch density remained weak. The effect of Internet usage is more profound in the 'life' sample. This supports the finding that BAs have been more successful in 'non-life' offerings through Internet.

Furthermore, strategic market research learned that a trend for more simplicity in insurance policies is on the rise. This trend has several implications. Operators like 'independer.nl', 'BeFrank' and 'brandnewDAY' establish solid market positions in a mature insurance markets like the Netherlands. 'Independer.nl' undermines the value chain as a conspicuous intermediator in showing the most affordable products on sale. Domestic country examples of 'BeFrank' and 'brandnewDAY' grew as low-cost champions by offering simple crystal clear offerings in e-commerce models. Moreover the self-conducted research revealed that the up rise of Internet facilitated the market place for insurances to shift. Nonetheless, BAs have so far been lagging to keep up with this fast-paced development in especially the market for lifeproducts. Besides, it has been pointed out that preferential pricing forms a viable alternative for coercive tied-selling, which is, nowadays increasingly prone to regulatory restrictions.

These rather recent developments call for a renewed approach in successful bancassurance operations. As margins on insurances are 'squeezed-out' BAs should look for low-cost offerings with simple transparent conditions. Incorporating an integrated e-commerce strategy is thereby indispensable. Product bundling with preferential pricing may give BAs an edge over other distributors as it enables them to stretch up the portfolio range of financial services. On top of that, retail banks still benefit from well-anchored trust in particularly emerging markets.





Seamless alignment with insurers in a hybrid model (strategic alliance or joint venture) is the way forward to leverage this trust effectively in emerging markets. And lastly, it has to be stipulated that banks' captive client base intelligence forms a trump card in competition from other distribution channels. This feature leaves opportunity to offer well-targeted product offerings to the client in congruence to its financial requirements, at the right time.

The conclusions of the quantitative section are based on limited sample size. Extension of this country data on bancassurance proportions would increase the strength of the conclusions. The recent CEA provision of bancassurance distribution rates paves the way for further quantitative research. Additionally data on deregulation could now also be derived from the World Economic Forum (WEF). The WEF publishes the 'Global Competitiveness Index' similar to the IMB World Competitiveness Yearbook. However the WEF started measuring the institutions and the level of bureaucracy specifically for an extended range of major and emerging countries. Finally, strategic issues are hard to proxy. The bancassurance business model to be applied in actual markets and up to date product design/needs are examples of this diversification issues. Further research with a focus on expert group decision techniques and respectively consumer research seems interesting, input from for instance Likert rating scale questionnaires might therefore be suitable.





Benoist, G., 2002, Bancassurance: The New Challenges, *The Geneva Papers on Risk and Insurance, Blackwell Publishers*, Vol. 27, No. 3 July 2002, pp. 295-303.

Bergendahl, G, 1995, The profitability of bancassurance for European banks, *International Journal of Bank Marketing 13*, pp. 17-28.

Berger, P.G., Ofek, E., 1995, Diversification's effect on firm value, *Journal of Financial economics 37*, pp. 39-65.

Carow, K.A., 2001, Citicorp-Travelers Group merger case study: Challenging barriers between banking and insurance, *Journal of Banking and Finance 25*, 1553-1571.

Carter, J.R., 1977, In search of synergy: a structure-performance test, *The Review of Economics and Statistics* 59, pp. 279-289.

Chen, Z., Li, D., Moshirian, F., Szablocs, C., 2009, Expansion and consolidation of bancassurance in the 21st century, *Journal of International Financial Markets, Institutions & Money 19*, 633-644.

Casu, B., Girardone, C., Molyneux P., 2006, Introdution to Banking, *Pearson Education*, Harlow, pp. 70; 160-191; 212-220; 317-450,

Datta, D.K., Rajagopalan, N., Rasheed, A.M.A., 1991, Diversification and performance: critical review and future directions, *Journal of Management studies 28*, pp. 529-558.

Ernst & Young, 2005, Industry report, Bancassurance: a winning formula.

Estrella, A., 2001, Mixing and matching: prospective financial sector mergers a market valuation, *Journal of Banking and Finance 25*, 2367-2392.

Fields, J.P., Fraser, D.P., Kolari, J.W., 2007, Bidder returns in bancassurance mergers: Is there evidence of synergy?, *Journal of Banking & Finance 31*, pp. 3646-3662.

Flanagan, D.J., 1996, Announcements of purely related and purely unrelated mergers and shareholder returns: reconciling he relatedness paradox, *Journal of Management 22*, pp. 823-835.

Frinquelli, A.M., Mitra, R., Alexandre, M.M., Davis, S.I. 1990, Banks and Insurance Companies Square off in a Distribution War, *Salomon Brothers*, New York.

Genetay, N., 1996, Bancassurance and risk: empirical investigation in the United Kingdom, *doctoral dissertation*, Gwynned.

Goedee, J., Reijnders, W.J.M., Van Thiel, D., 2008, Bankieren in 2020: de impact van consumentenvertrouwen en technologische ontwikkelingen, *FT Prentice Hall.*

Grant, R.M., Jammine, A.P., 1988, Performance differences between the Wrigley/Rumelt strategic categories, *Strategic Management Journal 9*, 333-346.

Grinyer, P.H., Yasai-Ardekani, M., 1981, Strategy, Structure, Size and Bureaucracy, The *Academy of Management Journal*, Vol. 24, No. 3 September 1981, pp. 471-486.

Heij, De Boer, Franses, Kloek en Van Dijk, 2004, Econometric Methods with Applications in Business and Economics, pp. 443-491.





Hofstede, G.H., 2003, Culture's Consequences: comparing values, behaviors, institutions, and organizations across nations, 2nd edition, *Sage Publications*.

Hoschka, T.C., 1994, Bancassurance in Europe, *The MacMillan Press Ltd.*, Houndmills.

Kaplan, R.S., Norton, D.P., 1992, The balanced scorecard –measures that drive performance, *Harvard Business Review*, pp. 71-79.

Kim, W.C., Mauborgne, R., 2005, Blue Ocean Strategy, *Harvard Business School Press*.

Levy-Lang, A., 1990, Banking strategies for the 1990s, Financial Institutions in Europe under New Competitive Conditions, *Kluwer Academic Publishers*, Massachusetts.

Lang, L.H.P., Stulz, R.M., 1994 Tobin's q, corporate diversification and firm performance, *Journal of Political Economy 102*, pp. 1248-1280.

Lloyd, W.P., Jahera, J.S. Jr., 1994, Firm-diversification effects on performance as measured by Tobin's *q, Managerial and Decision Economics* 15, 259-266.

OECD, 1993, Financial Conglomerates, *The Organisation for Economic Co-operation and Development*, Paris.

Nayyar P.R., 1992, On the measurement of corporate diversification strategy, *Strategic Management Journal 11*, pp. 219-235.

Okeahalam, C.C., 2008, Does bancassurance reduce the price of financial service products?, *Journal of Financial Services* 33, 147-162.

SCOR, 2005 Industry Focus: Bancassurance, Analysis of Bancassurance and its status around the world.

Singh, H., Montgomery, C.A., 1987, Corporate acquisition strategies and economic performance, *Strategic Management Journal 8*, pp. 377-386.

Staikouras, S.K., 2006, Business opportunities and market realities in financial conglomeration. *The Geneva Papers on Risk and Insurance 31*. pp. 124-148.

Verweire, K., 1999, Performance consequences of financial conglomeration with an empirical analysis in Belgium and the Netherlands.

White, M.D., 1990, US bancassurance in the US and abroad, Life Insurance International, London.

Wu, C-R, Lin, C-T, Lin, Y-F, 2009, Selecting the preferable bancassurance alliance strategic by expert group decision technique, *Expert Systems with Applications 36*, pp. 3623-3629

Young, R., 1990, Insurance Company costs and cost allocation, *A Guide to Insurance Management,* The Macmillan Press Ltd.





www.abi.org.uk/

www.bis.org

http://ec.europa.eu/internal_market/insurance/solvency/index_en.htm

http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/

http://statline.cbs.nl/statweb/?LA=en

http://www.einsuranceprofessional.com/artsing.html

 $http://www.gfk.com/imperia/md/content/ps_benelux/nieuwsbrieven/finance/online_winkelmandje_bevat_meer_polissen.pdf$

http://www.itu.int/en/pages/default.aspx

http://www.turkstat.gov.tr

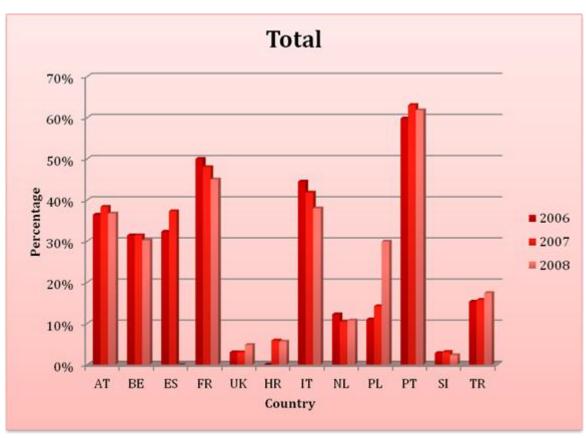




This final section provides an overview of the data that has been used in this research. Please consult chapter 3.1 for a detailed source description.

A: Bancassurance Distribution by Country

Graph ADistribution of Insurances by Retail Banks per Country:



Source: CEA

Country statistics not available:

Bulgaria

Ireland

Latvia

Malta

Slovakia

Country statistics partly not available:

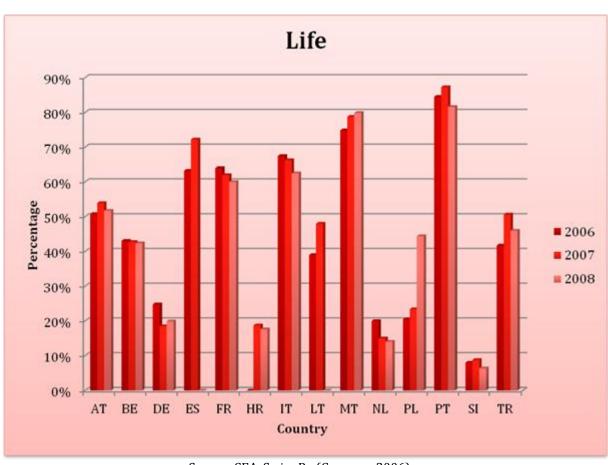
Croatia

Spain





Graph BDistribution of Life-Insurances by Retail Banks per Country:



Source: CEA, Swiss Re (Germany 2006)

Country statistics not available:

Bulgaria

Ireland

Slovakia

Country statistics partly not available:

Croatia

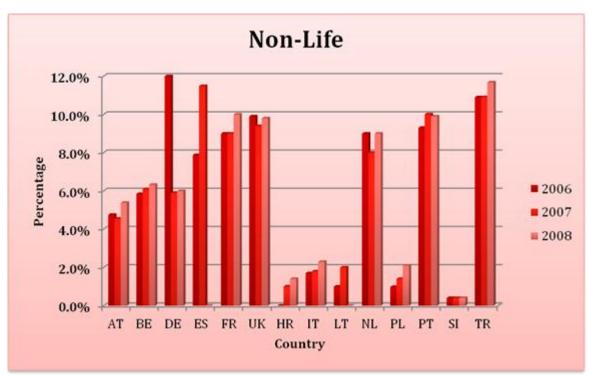
Latvia

Spain





Graph CDistribution of Non-Life Insurances by Retail Banks per Country:



Source: CEA, Swiss Re (Germany 2006)

Country statistics not available:

Bulgaria

Ireland

Slovakia

Country statistics partly not available:

Croatia

Latvia

Spain





Table AGDP per Capita (in USD):

	2006	2007	2008			
AT	39357	45980	50744			
BE	37768	43163	47827			
BG	4263	5401	6871			
ES	30298	35335	39618			
FR	36644	40216	44539			
UK	38691	44883	43410			
HR	9490	11412	15436			
IT	31733	36244	39436			
NL	39875	45514	51686			
PL	8790	10912	13687			
PT	18157	20694 22730				
Sl	18556	22621	27202			
SK	10120	13755	17406			
TR	5719	9234	11047			
DE	35266	40014	44347			
LT	8308	10720	13279			
MT	13918	15863	18460			

Source: World Development Indicators database (GDP) CIA World Factbook (Population)

Table BNumber of Inhabitants:

	2006	2007	2008		
AT	8192880	8199783	8205533		
BE	10379067	10392226	10403951		
BG	7385367	7322858	7262675		
ES	40397842	40448191	40491052		
FR	60876136	63713926	64057792		
UK	60609153	60776238	60943912		
HR	4494749	4493312	4491543		
IT	58133509	58147733	58145320		
NL	16491461	16570613	16645313		
PL	38536869	38518241	38500696		
PT	10605870	10642836	10676910		
Sl	2010347	2009245	2007711		
SK	5439448	5447502	5455407		
TR	70413958	71158647	71892808		
DE	82422299	82400996	82369552		
LT	3585906	3575439	3565205		
MT	400214	40188	403532		

Source: CIA World Factbook





Table C Internet Usage:

	2006	2007	2008
AT	0.52	0.60	0.69
BE	0.54	0.60	0.64
BG	0.17	0.19	0.25
ES	0.39	0.45	0.51
FR	0.41	0.49	0.62
UK	0.63	0.67	0.71
HR	N/A	0.41	0.45
IT	0.40	0.43	0.47
NL	0.80	0.83	0.86
PL	0.36	0.41	0.48
PT	0.35	0.40	0.46
Sl	0.54	0.58	0.59
SK	0.27	0.46	0.58
TR	0.14	0.20	0.26
DE	0.67	0.71	0.75
LT	0.35	0.44	0.51
MT	0.53	0.54	0.59

Source: Eurostat, Computer Industry Almanac, Turkstat (Turkey 2008)

Table DLevel of Deregulation:

	2006	2007	2008		
AT	0.793	0.832	0.750		
BE	0.681	0.715	0.687		
BG	0.509	0.487	0.514		
ES	0.584^{40}	0.612	0.575		
FR	0.608^{41}	0.626	0.660		
UK	0.714^{42}	0.754	0.719		
HR	0.390	0.385	0.452		
IT	0.435^{43}	0.483	0.469		
NL	0.759	0.859	0.805		
PL	0.400	0.427	0.480		
PT	0.528	0.560	0.547		
Sl	0.516	0.552	0.579		
SK	0.574	0.577	0.594		
TR	0.471	0.452	0.455		
DE	0.686^{44}	0.780	0.747		
LT	N/A	0.611	0.562		
MT	N/A	N/A	N/A		

Source: IMD World Competitiveness Scoreboard

⁴⁰ Catalonia region: 61.262

⁴¹ Ile-de-France region: 66.498

⁴² Scotland region: 63.465

⁴³ Lombardy region: 47.315

⁴⁴ Bavaria region: 75.543





Table ESeparated Insurance Coverage:

	Life Pre	emiums to GI	OP ratio	Non-Life Pr	emiums to G	DP ratio
	2006	2007	2008	2006	2007	2008
AT	0.028	0.027	0.026	0.033	0.032	0.031
BE	0.064	0.065	0.056	0.029	0.028	0.029
BG	0.004	0.004	0.004	0.022	0.022	0.023
ES	0.024	0.022	0.025	0.030	0.030	0.030
FR	0.078	0.072	0.063	0.031	0.031	0.031
UK	0.115	0.144	0.102	0.037	0.035	0.034
HR	0.008	0.008	0.007	0.021	0.021	0.021
IT	0.047	0.040	0.035	0.025	0.024	0.024
NL	0.048	0.046	0.044	0.087	0.085	0.084
PL	0.020	0.022	0.031	0.015	0.016	0.016
PT	0.056	0.057	0.066	0.028	0.027	0.026
Sl	0.017	0.018	0.017	0.038	0.037	0.037
SK	0.015	0.016	0.016	0.017	0.016	0.015
TR	0.002	0.002	0.002	0.011	0.011	0.011
DE	0.034	0.033	0.032	0.036	0.035	0.034
LT	0.005	0.008	0.005	0.012	0.013	0.014
MT	0.033	0.042	0.032	0.022	0.023	0.016

Source: CEA

Table FJoint (Life & Non-Life) Insurance Coverage:

	Total F	Premiums to G	DP ratio
	2006	2007	2008
AT	0.061	0.059	0.058
BE	0.093	0.093	0.085
BG	0.025	0.027	0.027
ES	0.054	0.052	0.055
FR	0.109	0.103	0.094
UK	0.151	0.179	0.136
HR	0.029	0.029	0.028
IT	0.072	0.064	0.059
NL	0.136	0.132	0.128
PL	0.035	0.037	0.046
PT	0.084	0.084	0.092
Sl	0.056	0.055	0.054
SK	0.032	0.031	0.031
TR	0.013	0.013	0.012
DE	0.070	0.067	0.066
LT	0.018	0.021	0.018
MT	0.056	0.064	0.048

Source: CEA







Table GC-5 Retail Banks (in per cent):

	2006	2007	2008		
AT	88.52	89.34	84.74		
BE	95.44	95.80	94.27		
BG	57.13	67.73	66.74		
ES	77.03	78.25	79.19		
FR	63.53	62.66	63.19		
UK	64.37	70.43	69.79		
HR	74.35	74.03	74.24		
IT	53.76	58.76	61.64		
NL	91.94	89.71	85.71		
PL	50.36	51.16	48.64		
PT	86.33	85.30	85.90		
Sl	70.58	68.79	67.39		
SK	76.38	76.91	76.84		
TR	61.97	59.94	60.43		
DE	60.95	61.02	54.63		
LT	92.12	90.57	89.73		
MT	82.90	87.96	92.54		

Source: Bankscope

Table HBreakdown of Included Retail Banks:

	Total extracted from Backscope	After deduction of double-counts	After deduction of banks with loans N/A
AT	122	97	74
BE	136	100	36
BG	50	38	23
ES	305	147	60
FR	542	374	151
UK	502	266	126
HR	77	59	30
IT	513	269	143
NL	154	89	37
PL	128	72	46
PT	82	44	23
Sl	54	30	15
SK	38	25	15
TR	173	61	31
DE	409	329	178
LT	27	15	10
MT	22	13	12

(Including cooperative banks)





Table IRetail Banks' Outreach (inhabitants/branches):

	2006	2007	2008
AT	9482.5	9624.2	9780.1
BE	1206.7	1229.7	1259.7
BG	N/A	N/A	N/A
ES	2676.1	2602.5	2598.9
FR	3252.5	3497.9	3626.0
UK	5612.0	5843.9	5888.3
HR	N/A	N/A	N/A
IT	2349.7	2200.0	2149.9
NL	4771.8	4597.8	4865.6
PL	10189.5	9286.0	8362.4
PT	2166.2	2016.1	1918.6
Sl	N/A	N/A	N/A
SK	5055.2	5173.3	4471.6
TR	9710.9	8821.0	7788.2
DE	7182.8	7359.9	7359.7
LT	N/A	N/A	N/A
MT	N/A	N/A	N/A

Source: OECD Banking Statistics





Table JCorrelation Analysis for BAs in the Insurance Market as a Whole:

Total	BA_DIS	LE_DUM	NUM 2008	LOG (GDP_PC)	LOG (POP)	C_5	INT	INS_ PEN	DEREG	LOG (OUTR)
BA_DIS	1.000									
LE_DUM	0.770	1.000								
NUM2008	0.014	-0.064	1.000							
LOG(GDP_PC)	0.121	0.132	0.133	1.000						
LOG(POP)	-0.313	0.202	-0.018	-0.317	1.000					
C_5	0.175	-0.147	-0.032	0.530	-0.843	1.000				
INT	-0.286	-0.304	0.253	0.792	-0.385	0.509	1.000			
INS_PEN	-0.185	-0.032	-0.025	0.683	-0.107	0.356	0.758	1.000		
REG	-0.199	-0.348	0.015	0.763	-0.504	0.717	0.836	0.660	1.000	
LOG(OUTR)	-0.523	-0.542	0.012	-0.402	0.235	-0.409	-0.074	-0.261	0.000	1.000

Table KCorrelation Analysis Life Insurance Market:

Life	BA_DIS	LE_DUM	NUM 2008	LOG (GDP_PC)	LOG (POP)	C_5	INT	INS_ PEN	DEREG	LOG (OUTR)
BA_DIS	1.000									
LE_DUM	0.809	1.000								
NUM2008	-0.036	-0.064	1.000							
LOG(GDP_PC)	-0.028	0.141	0.143	1.000						
LOG(POP)	-0.150	0.165	-0.016	-0.295	1.000					
C_5	0.119	-0.093	-0.061	0.477	-0.866	1.000				
INT	-0.527	-0.315	0.249	0.783	-0.300	0.398	1.000			
INS_PEN	0.283	0.438	0.002	0.555	-0.324	0.386	0.358	1.000		
REG	-0.373	-0.350	0.026	0.758	-0.442	0.624	0.838	0.283	1.000	
LOG(OUTR)	-0.498	-0.556	0.012	-0.380	0.280	-0.446	022	-0.693	0.034	1.000

Table KCorrelation Analysis Non-Life Insurance Market:

Non-Life	BA_DIS	LE_DUM	NUM 2008	LOG (GDP PC)	LOG (POP)	C_5	INT	INS_ PEN	DEREG	LOG (OUTR
BA_DIS	1.000									
LE_DUM	0.050	1.000								
NUM2008	-0.003	-0.062	1.000							
LOG(GDP_PC)	0.003	0.087	0.139	1.000						
LOG(POP)	0.126	0.096	-0.010	-0.228	1.000					
C_5	0.170	0.001	-0.027	0.511	-0.722	1.000				
INT	0.009	-0.355	0.247	0.793	-0.215	0.424	1.000			
INS_PEN	0.190	-0.173	-0.015	0.562	-0.278	0.467	0.769	1.000		
REG	0.233	-0.386	0.023	0.769	-0.353	0.550	0.847	0.687	1.000	
LOG(OUTR)	-0.021	-0.568	0.015	-0.340	0.304	-0.555	0.015	-0.043	0.067	1.000

