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MARKETING CHANNELS AND AGENCY PROBLEMS IN SPANISH INSURANCE INDUSTRY

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ABSTRACT

The goal of the paper is to test for Spanish market the hypothesis that insurance companies marketing channel is a mechanism to solve agency problems between owners, managers and policyholders. Spiller (1972) findings showed that common stock companies with tradable residual rights get higher benefits than mutual insurance firms do. On the other hand, Mayers and Smith (1982, 1988) and Fama and Jensen (1983 a, b) recognize that insurance companies' ownership structures are efficient mechanisms for dealing with agency problems. The differences in efficiency will be a function of the conflict of interest between management, policyholders and owners of residual claims. In parallel, other authors study cost differences in marketing channels. Joskow (1973) shows empirically that exclusive agents are more cost efficient than independent agents. Later on, in the 90's, the survivorship of both types of channels is a signal of their efficiency. Their differences in cost could be due to inefficiency but they can also be explained because independent agents provide more services. Empirical studies show a close relation between marketing channel, ownership structure, company portfolio of products and services that is a function of agency problems between insurers, policyholders and agents.

This paper tries to confirm or reject the previously mentioned hypothesis for the Spanish insurance market. Spanish insurance industry is in a midst of deep transformations as a consequence of people changes in behavior about financial products and services. Nowadays, more people is concerned about its future, including its retirement, which along with its improved financial culture have made them more sophisticated in demanding financial products and services. In this scenario, insurance products and services appear as alternatives that it is worth to consider. In 1996, insurance firms are the third in the Spanish ranking of financial intermediaries' equity after banks and saving banks but the first as savings collectors.

Our results seem to confirm that agency problems related with ownership and control structure in the insurance industry support insurance firms specialization in different lines of business. Thus, mutual insurance firms specialize in automobile insurance, common stock companies owned by financial institutions specialize in life insurance and common stock companies owned by mutual specialize in life insurance and travel assistance. The later have their business portfolio more concentrated than insurance companies owned either by families or by non-Spanish financial institutions. Furthermore, we have observed that those companies with lower levels of business concentration and that commercialize property and casualty insurance use agents, as their main marketing channel, in a higher proportion than the rest of companies. Therefore, it seems that insurance companies owned by families and/or non-Spanish financial firms focus on lines of insurance with higher managerial discretion, which increases agency problems between policyholder and management. However, they commercialize their products through independent agents that it is a way to alleviate this problem. On the other hand, mutual firms and companies owned by mutuals rely on their own branch network to channel their products because they specialize in lines of insurance with low managerial discretion which reduces agency problems between management and policyholder.

KEY WORDS: insurance firms, marketing channels, ownership and control structure.

1. INSURANCE FIRMS AS FINANCIAL INTERMEDIARIES: AN AGENCY THEORY PERSPECTIVE

Insurance firms are included in the Spanish financial system as non-bank financial intermediaries. However, these companies financial intermediation role is subsidiary of its main function: to insure again risks. From the perspective of agency theory, financial intermediaries contribute to reduce or even eliminate information asymmetries between savers and investors through the generation and transmission of relevant information. Besides, they also help to get rid of agents opportunistic behavior once funds have been transferred between the parts (Azofra, 1995). Insurance companies, in particular, are pioneers in taking into account the problems of asymmetric information: adverse selection and moral hazard.

Furthermore, within agency theory framework, we consider the firm as a nexus of treaties with legal entity but unable to set its goal. Then, each firm stakeholder will have its aims and responsibilities within the company. As a result, company behavior is the equilibrium point resulting from stakeholders' fight to achieve their particular goals.

Financial contracts related with firm capital and ownership structure are well documented for non financial firms or even for banking firms. There are a great number of works dealing with agency relations between insiders, outsiders, owners, and/or lenders. However, insurance companies have some peculiarities that make their study attractive. In this sense, financial contracts in the insurance industry set not only firm ownership and control structure but also firm marketing channel.

2. OWNERSHIP AND CONTROL STRUCTURE IN THE INSURANCE INDUSTRY

Spiller (1972) was the pioneer in the analysis of the relation between ownership structure and results for USA insurance companies. His findings show that incorporated or common stock companies with tradable residual rights get higher benefits than mutual insurance firms do. Therefore, it could be accepted the hypothesis that capital markets monitor management.

On the other hand, Mayers and Smith (1982, 1988) and Fama and Jensen (1983 a, b) recognize that insurance companies' ownership structures are efficient mechanisms for dealing with agency problems. These authors focus their research in finding the reasons that explain why some ownership structures are more efficient than others depending on the lines of insurance. The differences in efficiency will be a function of the conflict of interest between management, policyholders and owners of residual claims.

Within the insurance industry there are two main ways of assigning ownership rights: common stock insurance companies and mutual insurance companies. Both types of ownership structures limit the risk held by most of the participants either by fixed payments contracts or by contracts with payments indexed with firm profits. Those who get net cash flow rights or residual claims hold residual risks[1]. These residual claims are at the core of each organization. Then, uncertainty affects only the owners of residual claims, one of the three main participants, which increases survival probabilities for these firms because the other firm agents

monitoring costs become lower than in other industries (Fama and Jensen 1983b). Thus, residual claims explain insurance companies' survivorship because these claims are a comparative advantage to solve agency problems.

Furthermore, the relations one can observe in insurance companies among its three main participants are different depending on the firm ownership structure: mutual or common stock. The differences are not only in the nature of residual claims but also in the type of agency problems and in the way to deal with those problems.

Common stock insurance companies' residual claims are tradable. This feature permits the specialization between the shareholder, who bears the risk, and the management, who takes firm decisions. But it creates the problem of ownership and control separation (Bearle and Means, 1932). Besides, in common stock insurance companies there is the separation between shareholder and policyholder. Thus, risk must be shared among these three participants which introduces two types of conflict of interest: between managers and shareholders and between policyholders and shareholders.

Managers and shareholders not always share the same goal. For this reason, managers can damage shareholders interests when they appropriate or misuse resources than in normal circumstances will go to shareholders or when they get compensations above market standards (Arruñada, 1990).

Mayers and Smith (1982) analyze conflict of interest between policyholders and shareholders from the assumption that agency problems between managers and shareholders can be controlled without costs. Under this assumption, shareholders have incentives to behave opportunistically because they can increase the value of their shares at the expense of policyholders once the policy has been issued. But policyholders know shareholders incentives and they set premiums rationally taken into account their expectations about shareholders expected behavior. As a result, those insurance companies that set limits in the policy about policyholders wealth expropriation are able to charge higher premiums (Mayers and Smith, 1988).

One of the advantages of mutual insurance companies to common stock ones is that in the former owners and policyholders are the same. Then, there is no agency costs between shareholders and policyholders, but these lower agency costs are compensated with the higher agency problems they have in dealing with the separation between ownership and management.

Mutual insurance companies' residual claims are not tradable because they can not be stripped away from their clients' policies but they are redeemable rights. Owners of residual claims and policyholders can give back to the company their redeemable rights at a previously set price (Fama and Jensen, 1983 a). However, mutual firms' ownership structure excludes the corporate control market and the financial market as external control mechanisms. Notwithstanding, the redeemable feature of residual claims introduces a control mechanism for this type of ownership structure: policyholders can call their claims reducing management resources (Fama and Jensen, 1983 a).

[1] Residual risk is the difference between expected cash inflows and committed cash outflows

3. MARKETING CHANNELS IN THE INSURANCE INDUSTRY

Within Spanish insurance industry there are several types of marketing channels: agents, bank branches and/or insurance company branches. The use of agents is the main marketing channel, about 70% of all insurance policies are sold through this channel. These agents can be either exclusive or independent. In particular, exclusive agents concentrate most of the business. However, this is changing because companies are introducing new marketing channels: direct marketing (by phone, mail, etc), direct sales in the company branches or sales in bank branches (bancassurance).

Law 9/1992[2] regulates private insurance in Spain. This law has been partially modified by the classification and supervision of private insurance law (30/1995) and by the 10/9/96 law. The main goal of law 9/1992 is to regulate agents' business activity. In this sense, the law establishes the relations between agents and insurance firms[3].

There are two types of agents: exclusive and independent. Exclusive agents have to promote insurance policies on behalf of the insurer in a continuous and stable way. In exchange they get a commission. The main characteristics of exclusive agents are the following:

1. Exclusive agents work for only one insurer. This creates an image of close relation with the insurance company.

2. The insurer is the owner of policy payments at maturity. When the relation between the insurer and the exclusive agent ends clients' information belongs to the former (Grossman y Hart, 1986).

3. The communications and payments of policyholder to the agent have the same effect as they were done directly to the insurer.

4. Exclusive agents don't intervene in setting compensations. They pay for operative costs but they get some help from the insurer about market research, sales force training, office equipment, and advertising. They focus on sales (Barrese and Nelson, 1992).

5. Exclusive agents are compensated with commissions on sales. However, the get higher commissions for new policies than for renewed ones.

6. They follow insurer instructions about business location and products scope (Etgar, 1977).

On the other hand, independent agents have the following characteristics:

[2] This law issued april 30th includes the principles of the EEC Commision about insurance agents (Recomendation 91/48/EEC, december 18th).
[3] Insurance firms' employees are not considered agents. Besides, firms' agreements for policy distribution are not regulated by these law.

1. An independent agent works for several insurers. Thus, they have no preferences by a particular insurance company.

2. Independent agents have the rights over premiums. The insurers have no rights over independent agent portfolio of clients. At any moment the independent agent can recommend its clients a different insurer (Grosmman y Hart, 1986).

3. Independent agents offer professional advice to their clients about the policy that best fits their needs. Furthermore, they have to help policyholders with their claims against insurers.

4. These type of agents get a higher commission, are more independent of insurer but have lower administrative support than exclusive agents.

5. Independent agents decide about business location, range of products and services, advertising, data processing, etc (Etgar, 1977).

6. Policyholder payments to independent agents are not considered payments to the insurer until the later sends the receipt to the client.

Nowadays there is a new trend in channeling insurance services. The new channels to market these services are the branches of banks and savings banks. The introduction of banking intermediaries in the insurance business started in the 80's. In particular life insurance is the business in which banks are more interested (expansión, 16/6/97). Banks have experienced reductions in their traditional sources of profits that have force them to look for new products to commercialize through their extensive and costly branch network[4]. Furthermore, banks have accumulated information about their clients that they can use to improve either product commercialization or risk assessment.

Banks have a comparative advantage in dealing with life insurance because this particular line of insurance has some similarities with their traditional banking business. On the other hand, property and casualty insurance requires specific knowledge that banks not always have to deal with. Banks have introduced in the insurance business creating their own insurance company, buying one of the companies in the industry, making a joint venture or building distribution agreements.

Insurance firms can distribute their products and services with their own sales force. Company sales points have a commercial goal, are in small branches, and have scarce administrative help. On the other hand, direct marketing let company to sell their products directly to the clients through mailing, phone, and, nowadays, internet. The main advantage of direct marketing is its low distribution costs, however companies

[4] Spain is the European country with the highest branch density with more than 33.000 bank branches (Expansion, 16/6/97). The market for bank products is saturated whereas the market for insurance services and products has growth potential, in particular for life insurance. However, the success of the bancassurance strategy requires to get new money from old clients and to prevent substitution effect among insurance products.

have to expend more in advertising. Besides, people still prefer to deal with other person face to face instead of by phone or mail.

Joskow (1973) shows empirically that in 1967 exclusive agents are more cost efficient than independent agents because they have lower subscription costs. Then, he advises to change from independent to exclusive agents. Later on, in the 90's, both types of marketing channels are analyzed using agency theory framework[5].

The survivorship of both types of channels is a signal of their efficiency. Independent agents are more expensive than exclusive agents for insurance companies. Their differences in cost could be due to inefficiency but they can also be explained because independent agents provide more services. Empirical studies show a close relation between marketing channel, ownership structure, company portfolio of products and services that are a function of agency problems between insurers, policyholders and agents[6].

Policyholders pay in advance premiums to the insurer with the promise to receive a previously agree compensation if a specific event occurs. This arrangement could induce an opportunistic behavior by insurer management if managers decide not to pay the compensation included in the policy. Mayers and Smith (1981) suggested that the use of independent agents to channel insurer products could alleviate managers opportunistic behavior because independent agents are better equipped than exclusive agents to control policyholders wealth expropriation by management. Thus, independent agents are able to affect management decisions about claims because they can advise their clients to change from one insurer to another (Kim, Mayers and Smith, 1996). In particular, the role of independent agents is more relevant when the process to set client compensation is long, costly and complex. There are lines of insurance where managers have managerial discretion to set compensations because there are not actuarial tables, the legal system is not well defined, there are frequent disagreements about claims, there are scarce information about claims distribution, etc. Managerial discretion opens the door for opportunistic behavior that increases contractual costs. The marketing channel chosen can help to control management opportunistic behavior, then marketing channel election should be different depending on lines of insurance (Kim, Mayers and Smith, 1996).

As we have seen previously, mutual firms have higher monitoring costs than common stock insurance companies which have biased mutual companies to specialize in those insurance lines that require low managerial discretion. Furthermore, independent agents marketing channel is more efficient for those companies with higher managerial discretion. Therefore, ownership structure and marketing channel should be correlated.

Insurer and agents share some of the insurance industry costs, for instance, sales force training, advertising, building clients database, or product development. The problem is to decide what proportion of

[5] See, for instance, the works of Nelson and Barrese (1992), and Kim, Mayers and Smith (1993 y 1996)

[6] Kim, Mayers and Smith (1993 and 1996) support their studies on Marvel (1982), Grossman and Hart (1986) and Sass and Gisser (1989) previous works over alternative marketing channels as a way to reduce contractual problems between policyholder and agent. Besides, Kim, Mayers and Smith (1996) add the problems between insurer and policyholder.

those costs are assumed by each of them. Therefore, there is post-contractual opportunistic behavior by both: agents and insurers.

Independent agents can expropriate insurer investments in advertising channeling clients attracted by the commercials of a specific insurer to a competitor product with lower advertising effort but with higher commission fee for the agent. To deal with this problem Marvel (1982) proposes the use of exclusive agents instead of independent ones. Exclusive agreements between insurer and agent protect the former ownership rights and investments. The works of Kim, Mayers and Smith (1993, 1996), Marvel (1982) and, Grossman and Hart (1986) show empirically that those companies that commercialize their products through exclusive agents have the highest ratios of advertising expenditures over net premiums. Then, insurance companies that rely heavily on advertising should channel their products through exclusive agents because it will protect their ownership more efficiently[7]. Exclusive agents should be preferred for those companies with high investment in advertising and with high risk of agent opportunistic behavior.

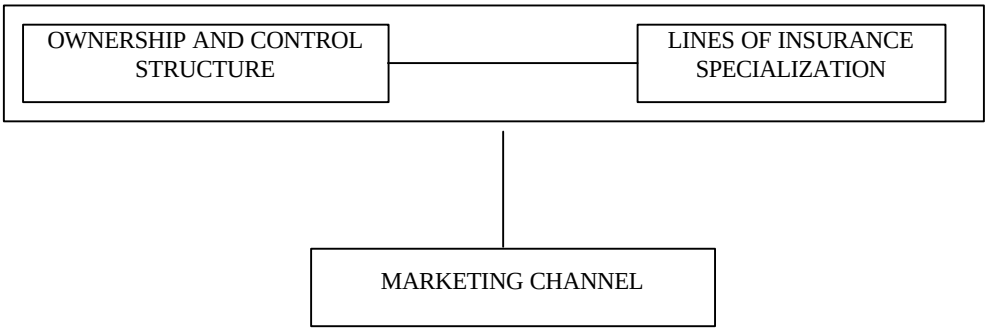
Insurers, on the other hand, can behave opportunistically expropriating agents wealth. Agents expend their resources to maintain or increase their portfolio of clients[8]. Thus, when insurers have the ownership over policies renewal they can reduce renewal commissions expropriating agent investment to maintain the clients (Kim, Mayers and Smith, 1993). This problem can be alleviate if agents have the right to collect payments at policy maturity (Grossman y Hart, 1986). Thus, the agent can advice their clients to change insurer[9].

4. HYPOTHESIS, DATA, AND METHODOLGY

The goal of this paper is to contrast empirically the following statement:

The marketing channel chosen by each insurer should be related with the company ownership and control structure. Management monitoring costs depend on company ownership structure. The company marketing channel is an efficient mechanism to control agency problems. Thus, mutual insurance companies have higher agency problems between managers and owners-policyholders than common stock companies do. To control agency problems mutual firms will specialize on insurance lines that require low managerial discretion. On the other hand, common stock insurance companies will suffer smaller agency problems between managers and owners that will favor their specialization on insurance lines that require high managerial discretion. However, in these companies arise agency problems between managers and policyholders that can be alleviate using alternative marketing channels.

[7] Marvel (1982) concludes that exclusive agents will be more efficient for life insurance sales than independent agents because the market is homogeneous which benefits insurers that centralize advertising and research.
[8] Independent agents expend their time and abilities to satisfy client needs. They know that a satisfied client will renew their trust in the agent services (Grossman and Hart, 1986).
[9] Grossman and Hart (1986) show in their study that companies give their agents rights over payment at maturity on those insurance lines where policy renewal is not guaranteed. However, if policy renewal is almost certain insurance companies use to keep the rights over payments at maturity. Thus, 65% of property and casualty insurance in USA are commercialize through independent agents but only 12% of life insurance.



The database built for the study is the result of a lengthy and dedicated collection of data from the following fonts:

1. Dirección General de Seguros of Spanish Ministerio de Economia y Hacieda provided insurance companies annual financial statements.

2. The Institute for High studies on finance and insurance provided the annual report about insurance distribution in Spain.

3. The association UNESPA publishes annually a report that includes data about the premiums and income collected for each company desegregated by insurance lines.

4. INESE library has a recompilation of insurance companies' annual reports.

5. Data provided by COFESA.

The sample includes 111 insurance companies divided in 34 mutual companies and 77 common stock firms. Companies on the sample have about 66% of total insurance market share. The data refers to 1996.

There are three categories of variables in our study:

1. Ownership and control structure variables. Table 1 shows the two variables under this category. FORMJUR is a dummy variable that takes value 1 if the company is a mutual firm or 0 otherwise. The second variable is ESPYC and it takes values one to five as described on table 1.

Table 1:Ownership and control structure variables	
FORMJUR	=0 common stock companies =1 mutual insurance firms
ESPYC	=1 common stock companies whose main shareholder is a Spanish financial institution =2 common stock companies whose main shareholder is a family. =3 common stock companies whose main shareholder is a non Spanish financial institution =4 common stock companies whose main shareholder is a mutual firm =5 mutual company

2. Marketing channel variable. This variable takes three values one, two or three, as stated on table 2, depending on the main distribution channel of each company.

Table 2: Marketing channels variables	
ESTCOM	=1 The main marketing channel is traditional agent. =2. The main marketing channel is bank branches =3. The main marketing channel is company branch network.

3. Insurance firms specialization variables. The 22 variables of table 3 represent each of the 22 lines of insurance considered by UNESPA. Each of the variables measures the proportion of direct premiums collected in that line of insurance (PDS_{LP}) over the total direct premiums collected by the company (PDS).

$$ESPEC_L = PDS_{LP}/PDS$$

Table 3: Lines of insurance			
1	Life	12	Credit
2	Accident	13	Caution
3	Health	14	Legal defense
4	Automobile	15	Travel assistance
5	Cascos transportation	16	Death
6	Cargo	17	Commercial multiple peril
7	Fire	18	Ownership community multiple peril
8	Farm owner multiple peril	19	Home owner multiple peril
9	Burglary	20	Industrial multiple peril
10	Ingeniery	21	Other multiple peril
11	Civil liability	22	Other property and casualty lines

The hypotheses are tested with two techniques: parametric analysis and contingent tables. We use the first technique to study the relation between ownership structure and company specialization. Contingent tables allow us to study the association between ownership structure and marketing channels. Thus, we perform two contingent tables: between FORMJUR and ESTCOM to analyze the relations between firm legal form and marketing channel, and between ESPYC and ESTCOM to study the relation between type of owners and marketing channel. Both techniques are available in SAS statistical package.

5. RESULTS

5.1. Ownership and control structure and specialization

Table 4 shows the results from mean differences parametric test between mutual and common stock insurance firms for each line of insurance. In particular, we detect highly significant differences in two lines of

insurance: life insurance (espec1) and automobile insurance (espec2). Common stock insurance companies have, on average, a higher volume of premiums in life insurance whereas mutual firms have higher volume of premiums in automobile insurance. Other lines of insurance where there are statistically significant differences between mutual and common stock companies are cascos transportation (espec5), civil liability (espec11), and home owner multiple peril (espec19). Mutual insurance firms have far more premiums that common stock companies do in cascos transportation and civil liability, whereas common stock insurance companies collect more premiums in home owner multiple peril.

Mutual insurance firms concentrate their business activity in automobile insurance. Table 5 shows that 67.5% of the premiums they collected in 1996 were from this line of insurance. However, their market share in this line of insurance is only 45.8 % because mutual total volume of premiums is only 17% of the sample. On the other hand, common stock insurance companies get 56.6% of their premiums from life insurance where they have a market share of 98%. Furthermore, common stock firms have a market share of 54% of automobile insurance line. This is the business in which mutuals concentrate[10]. Finally, it seems mutual companies are not interested in credit and death lines of insurance.

Table 4: Mean differences parametric test between mutual and common stock firms for each line of insurance

	COM. STOCK FIRMS (0)	MUTUALS (1)	TESTS
Variables	**Mean (Median)**	**Mean (Median)**	**T VALUE**
ESPEC1	0.45013 (0.27)	0.03 (0)	**7.8405*** **
ESPEC2	0.037532 (0.01)	0.048824 (0.045)	-1.1038
ESPEC3	0.085584 (0)	0.055588 (0)	0.6831
ESPEC4	0.185584 (0)	0.374706 (0.295)	**-2.5978** **
ESPEC5	0.002338 (0)	0.086765 (0)	**-1.8425***
ESPEC6	0.005325 (0)	0.008529 (0)	-0.6023
ESPEC7	0.006883 (0)	0.014706 (0)	-1.1771
ESPEC8	0.011688 (0)	0.078824 (0)	-1.5944
ESPEC9	0.00039 (0)	0.031176 (0)	-1.0473
ESPEC10	0.004935 (0)	0.002353 (0)	0.9005
ESPEC11	0.016364 (0)	0.102941 (0)	**-1.9291***
ESPEC12	0.010519 (0)	0 (0)	0.6711
ESPEC13	0.002727 (0)	0.000294 (0)	0.9303
ESPEC14	0.020519 (0)	0.013235 (0)	0.6570
ESPEC15	0.034935 (0)	0.012353 (0)	1.2269
ESPEC16	0.034416 (0)	0.005 (0)	1.6376
ESPEC17	0.007922 (0)	0.010882 (0)	-0.5545
ESPEC18	0.005974 (0)	0.032059 (0)	-1.1452
ESPEC19	0.054675 (0)	0.021471 (0)	**1.9252***
ESPEC20	0.016623 (0)	0.014118 (0)	0.3057
ESPEC21	0.00039 (0)	0.013235 (0)	-1-1185
ESPEC22	0.001558 (0)	0.04 (0)	-1.2950
N	77	34	

***significant at 1% level
**significant at 5% level
*significant at 10% level

[10] Something similar can be seen in farm owner multiple peril.

Table 5: 1996 direct premiums by lines of insurance and legal status								
	MUTUAL FIRMS			COM. STOCK FIRMS			TOTAL BY LINE	
	Millions Spanish ptas	L%	O%	Millions ptas	L%	O%	Millions ptas	L%
1 (LIFE)	21350,37	1,86	5,12	1127778,62	98,14	56,60	1149128,99	100,00
2 (ACCIDENT)	20191,32	25,70	4,85	58372,31	74,30	2,93	78563,63	100,00
3 (HEALTH)	18802,11	13,78	4,51	117659,38	86,22	5,91	136461,49	100,00
4 (AUTOMOBILE)	281375,57	45,84	67,53	332434,22	54,16	16,68	613809,79	100,00
5 (CASCOS TRANSPORTATION)	6645,14	36,93	1,59	11349,31	63,07	0,57	17994,45	100,00
6 (CARGO)	2041,41	13,02	0,49	13641,90	86,98	0,68	15683,31	100,00
7 (FIRE)	4238,73	21,05	1,02	15901,19	78,95	0,80	20139,92	100,00
8 (FARM OWNER MULTIPLE PERIL)	6347,80	42,41	1,52	8619,64	57,59	0,43	14967,44	100,00
9 (BURGLARY)	385,12	17,59	0,09	1803,90	82,41	0,09	2189,02	100,00
10 (INGENIERY)	2054,36	15,12	0,49	11532,76	84,88	0,58	13587,12	100,00
11 (CIVIL LIABILITY)	20448,97	35,30	4,91	37474,30	64,70	1,88	57923,27	100,00
12 (CREDIT)	0,00	0,00	0,00	4645,08	100,00	0,23	4645,08	100,00
13 (CAUTION)	149,66	8,96	0,04	1520,39	91,04	0,08	1670,05	100,00
14 (LEGAL DEFENSE)	8582,53	32,17	2,06	18092,78	67,83	0,91	26675,31	100,00
15 (TRAVEL ASSISTANCE)	8973,45	32,25	2,15	18850,52	67,75	0,95	27823,97	100,00
16 (DEATH)	49,60	0,07	0,01	67421,26	99,93	3,38	67470,86	100,00
17 (COMMERCIAL MULTIPLE PERIL)	1734,43	9,24	0,42	17039,14	90,76	0,86	18773,57	100,00
18 (OWNERSHIP COMMUNITY MULTIPLE PERIL)	2068,14	13,35	0,50	13424,86	86,65	0,67	15493,00	100,00
19 (HOME OWNER MULTIPLE PERIL)	4171,91	5,43	1,00	72637,62	94,57	3,65	76809,53	100,00
20 INDUSTRIAL MULTIPLE PERIL)	3314,10	8,52	0,80	35595,51	91,48	1,79	38909,61	100,00
21 (OTHER MULTIPLE PERIL)	1096,79	29,72	0,26	2593,25	70,28	0,13	3690,04	100,00
22 (OTHER PROPERTY AND CASUALTY LINES)	2634,64	39,52	0,63	4032,38	60,48	0,20	6667,02	100,00
	416656,15		100,00	1992420,32		100,00	2409076,47	

L% indicates the percentage of the total direct business premiums of a given line accounted for by firms with the indicated ownership structure.

O% indicates the percentage of the total direct business premiums of a given ownership structure accounted for by a particular line of insurance.

The analysis is complemented considering the identity of main owner. Thus, we distinguish five categories: common stock companies whose main shareholder is a Spanish financial institution (PROPFIN), common stock companies whose main shareholder is a family (PROPPRIV), common stock companies whose main shareholder is a non Spanish financial institution (PROPEXT), common stock companies whose main shareholder is a mutual firm (FILMUT) and mutual companies (MUTUAL). Tables 6 and 7 show the results. Common stock insurance companies whose main shareholder is a financial institution have more life insurance than any other type of insurance firms. Therefore, life insurance is their main business in the Spanish Market. Mutual firms are at the bottom of the ranking, however they are the companies with more automobile insurance business. Here, common stock companies owner by a Spanish financial institution rank at the bottom. Life and automobile insurance are, respectively, first and second per volume of premiums in Spanish insurance market.

Common stock companies whose main shareholder is a mutual firm have the whole business of credit and caution whereas insurance companies owned by families specialize in death insurance. Furthermore, there are differences statistically significant in the lines of insurance of civil liability, legal defense and travel assistance. Thus, mutual companies are the firms with more business in civil liability, common stock companies owned by a family are the firms with more business in legal defense, and common stock companies owned by a mutual firm are the firms with more business in travel assistance.

The main line of insurance for mutual companies is automobile insurance: 67,5% of premiums collected by these firms and 45,84% of total premiums on the sample. On the contrary, common stock insurance firms owned by a financial institution or by a mutual company specializes in life insurance: 89,04% and 90,31% of premiums collected for these companies, respectively, come from this line of insurance. Besides, insurance companies owned by financial institutions have 45,3% of all sample insurance premiums. Common stock firms owned by mutual companies collect almost all premiums from credit and caution insurance lines. Family controlled insurance firms specialize in death. They collect more than 95% of Spanish death premiums. At the same time this line of business represents 31,97% of all the premiums they get. Insurance companies owned by a mutual firm collect 96,12% of credit premiums and 68,45% of caution premiums in the sample.

Therefore, we observe some relation between specialization and ownership structure. Thus, the two main lines of insurance of those firms with family ownership are death (31,9% of their premiums) and life insurance (22,25%). Life and automobile insurance represents more than 68% of the premiums collected by companies owned by a foreign financial institution. However, the firms whose business is more concentrated in one or two lines of insurance are those where main shareholder is a Spanish financial institution or a mutual company. Both of them concentrate on life and automobile insurance. The former collects 89 % of their premiums from life insurance and 8,62 % from automobile insurance whereas the later collects 90,3% and 3,4% respectively. Finally, the firms that offer farm owner multiple peril insurance are either mutual or common stock companies owned by a non Spanish financial institution.

Table 6: Mean differences parametric test among ownership and control structures for each line of insurance						
	PROPFIN (1)	**PROPPRIV (2)**	**PROPEXT (3)**	**FILMUT (4)**	**MUTUALS (5)**	**TESTS**
Variables	**Mean (Median)**	**Mean (Median)**	**Mean (Median)**	**Mean (Median)**	**Mean (Median)**	**F VALUE**
ESPEC1	0.698 (1)	0.217 (0.105)	0.404634 (0.19)	0.323333 (0)	0.03 (0)	**11.64*****
ESPEC2	0.0255 (0)	0.051 (0.055)	0.043902 (0.04)	0.011667 (0)	0.048824 (0.045)	1.37
ESPEC3	0.1 (0)	0.105 (0)	0.060732 (0)	0.175 (0)	0.055588 (0)	0.42
ESPEC4	0.018 (0)	0.161 (0.08)	0.281463 (0.23)	0.13 (0)	0.374706 (0.295)	**5.09*****
ESPEC5	0 (0)	0.001 (0)	0.004146 (0)	0 (0)	0.086765 (0)	1.89
ESPEC6	0 (0)	0.005 (0)	0.008537 (0)	0.001667 (0)	0.008529 (0)	0.90
ESPEC7	0.0085 (0)	0.007 (0.01)	0.007073 (0)	0 (0)	0.014706 (0)	0.70
ESPEC8	0.0375 (0)	0.002 (0)	0.003171 (0)	0 (0)	0.078824 (0)	1.41
ESPEC9	0.001 (0)	0 (0)	0.000244 (0)	0 (0)	0.031176 (0)	0.61
ESPEC10	0.004 (0)	0.003 (0)	0.006585 (0)	0 (0)	0.002353 (0)	0.60
ESPEC11	0.0015 (0)	0.02 (0.03)	0.024634 (0)	0.003333 (0)	0.102941 (0)	**2.09***
ESPEC12	0 (0)	0 (0)	0.000244 (0)	0.133333 (0)	0 (0)	**5.01*****
ESPEC13	0 (0)	0 (0)	0.000244 (0)	0.033333 (0)	0.000294 (0)	**4.93*****
ESPEC14	0.001 (0)	0.091 (0)	0.015854 (0)	0 (0)	0.013235 (0)	**2.69****
ESPEC15	0.001 (0)	0.007 (0)	0.038293 (0.01)	0.171667 (0)	0.012353 (0)	**2.30***
ESPEC16	0 (0)	0.22 (0)	0.010976 (0)	0 (0)	0.005 (0)	**8.08*****
ESPEC17	0.001 (0)	0.014 (0.005)	0.010732 (0)	0.001667 (0)	0.010882 (0)	1.36
ESPEC18	0.001 (0)	0.012 (0.01)	0.007561 (0)	0.001667 (0)	0.032059 (0)	0.77
ESPEC19	0.0995 (0)	0.058 (0.06)	0.039268 (0.03)	0.005 (0)	0.021471 (0)	1.97
ESPEC20	0.0015 (0)	0.018 (0)	0.02561 (0)	0.003333 (0)	0.014118 (0)	1.47
ESPEC21	0 (0)	0.002 (0)	0.000244 (0)	0 (0)	0.013235 (0)	0.70
ESPEC22	0 (0)	0.003 (0)	0.00122 (0)	0.006667 (0)	0.04 (0)	0.94
N	20	10	41	6	34	

***significant at 1% level
**significant at 5% level
*significant at 10% level

Table 7: Direct premiums for 1996 by lines of insurance and ownership and control structure																	
	MUTUAS			PROPFIN			PROPPRIV			PROPEXT			FILMUT				
	Mill. Ptas	L%	O%	Mill. Ptas	L%	O%	Mill.ptas	L%	O%	Mill. ptas	L%	O%	Mill. ptas	L%	O%	mill.ptas	L%
1 (LIFE)	21350,37	1,86	5,12	521231,73	45,36	89,04	44947,90	3,91	22,25	410726,07	35,74	39,57	150872,92	13,13	90,31	1149128,99	100,00
2 (ACCIDENT)	20191,32	25,70	4,85	1686,89	2,15	0,29	9464,89	12,05	4,68	46530,87	59,23	4,48	689,66	0,88	0,41	78563,63	100,00
3 (HEALTH)	18802,11	13,78	4,51	50454,03	36,97	8,62	1436,09	1,05	0,71	60058,09	44,01	5,79	5711,17	4,19	3,42	136461,49	100,00
4 (AUTOMOBILE)	281375,57	45,84	67,53	739,06	0,12	0,13	31586,08	5,15	15,63	297162,97	48,41	28,63	2946,11	0,48	1,76	613809,79	100,00
5 (CASCOS TRANSPORTATION)	6645,14	36,93	1,59	3,08	0,02	0,00	364,91	2,03	0,18	10979,66	61,02	1,06	1,66	0,01	0,00	17994,45	100,00
6 (CARGO)	2041,41	13,02	0,49	6,69	0,04	0,00	878,37	5,60	0,43	12734,68	81,20	1,23	22,16	0,14	0,01	15683,31	100,00
7 (FIRE)	4238,73	21,05	1,02	556,41	2,76	0,10	1491,64	7,41	0,74	13851,26	68,78	1,33	1,88	0,01	0,00	20139,92	100,00
8 (FARM OWNER MULTIPLE PERIL)	6347,80	42,41	1,52	1537,37	10,27	0,26	748,09	5,00	0,37	6334,18	42,32	0,61	0,00	0,00	0,00	14967,44	100,00
9 (BURGLARY)	385,12	17,59	0,09	87,05	3,98	0,01	262,37	11,99	0,13	1454,48	66,44	0,14	0,00	0,00	0,00	2189,02	100,00
10 (INGENIERY)	2054,36	15,12	0,49	223,59	1,65	0,04	952,28	7,01	0,47	10356,89	76,23	1,00	0,00	0,00	0,00	13587,12	100,00
11 (CIVIL LIABILITY)	20448,97	35,30	4,91	71,96	0,12	0,01	4700,73	8,12	2,33	32615,51	56,31	3,14	86,10	0,15	0,05	57923,27	100,00
12 (CREDIT)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	180,18	3,88	0,02	4464,90	96,12	2,67	4645,08	100,00
13 (CAUTION)	149,66	8,96	0,04	0,00	0,00	0,00	0,00	0,00	0,00	377,27	22,59	0,04	1143,12	68,45	0,68	1670,05	100,00
14 (LEGAL DEFENSE)	8582,53	32,17	2,06	34,13	0,13	0,01	2329,05	8,73	1,15	15729,60	58,97	1,52	0,00	0,00	0,00	26675,31	100,00
15 (TRAVEL ASSISTANCE)	8973,45	32,25	2,15	42,02	0,15	0,01	1267,35	4,55	0,63	16805,54	60,40	1,62	735,61	2,64	0,44	27823,97	100,00
16 (DEATH)	49,60	0,07	0,01	8,23	0,01	0,00	64588,76	95,73	31,97	2824,27	4,19	0,27	0,00	0,00	0,00	67470,86	100,00
17 (COMMERCIAL MULTIPLE PERIL)	1734,43	9,24	0,42	52,16	0,28	0,01	3471,57	18,49	1,72	13471,79	71,76	1,30	43,62	0,23	0,03	18773,57	100,00
18 (OWNERSHIP COMMUNITY MULTIPLE PERIL)	2068,14	13,35	0,50	35,23	0,23	0,01	4774,84	30,82	2,36	8588,91	55,44	0,83	25,88	0,17	0,02	15493,00	100,00
19 (HOME OWNER MULTIPLE PERIL)	4171,91	5,43	1,00	8587,55	11,18	1,47	21141,80	27,52	10,46	42793,72	55,71	4,12	114,55	0,15	0,07	76809,53	100,00
20 INDUSTRIAL MULTIPLE PERIL)	3314,10	8,52	0,80	51,24	0,13	0,01	5664,95	14,56	2,80	29818,03	76,63	2,87	61,29	0,16	0,04	38909,61	100,00
21 (OTHER MULTIPLE PERIL)	1096,79	29,72	0,26	2,39	0,06	0,00	648,72	17,58	0,32	1942,14	52,63	0,19	0,00	0,00	0,00	3690,04	100,00
22 (OTHER PROPERTY AND CASUALTY LINES)	2634,64	39,52	0,63	0,00	0,00	0,00	1305,19	19,58	0,65	2584,86	38,77	0,25	142,33	2,13	0,09	6667,02	100,00
	416656,15		100,00	585410,81		100,00	202025,58		100,00	1037920,97		100,00	167062,96		100,00	2409076,47	

L% indicates the percentage of the total direct business premiums of a given line accounted for by firms with the indicated ownership structure
O% indicates the percentage of the total direct business premiums of a given ownership structure accounted for by a particular insurance line

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5.2. Ownership and control structure and marketing channel

Common stock companies use the agent (MEDTRAD) as the main marketing channel to commercialize their products and services with bank branches (BCASEG) in second place. However, mutual insurance firms have built their own branch network (OFENT) that along with agents are their preferred marketing channels. Common stock companies don't use their own branch network and mutual firms don't use bank branches at all as marketing channels (see table 8).

Insurance firms owned by a financial institution commercialize their products mainly through bank branches, whereas the rest of companies' main marketing channel is the traditional agent. The companies whose main shareholder is a mutual firm commercializes more products through their own branch network than family and non-Spanish financial institution owned insurance firms.

Tables 9 and 10 show contingent tables analysis for the relation between mutual versus common stock companies and marketing channel, and between main owner identity and marketing channel. In both cases the null hypothesis of not relation is rejected. The analysis (see table 11) reveals that common stock insurance companies commercialize more than 55% of their policies through agents and 33,87% through bank branches. On the other hand, mutual firms commercialize 66,58% of their business through agents and 33,22 through their own branch network.

It is not a surprise that if the main shareholder of an insurance company is a bank, it commercializes more than 92% of their services through bank branches. On the other hand, common stock companies owned by a family or a mutual or mutual themselves scarcely use bank branches as a marketing channel for their products. These insurance companies rely on a mix of agents and own branch networks for channeling their products. Mutual firms and companies where the main shareholder is a mutual are the companies with more premiums collected though own branch network. Common stock companies owned by a foreign financial institution rely heavily on agents, 85,54% of their business is commercialize that way.

Table 8	**MARKETING CHANNEL**			
LEGAL STATUS	MEDTRAD	BCASEG	OF.ENT	TOTAL
MUTUALS	16 (47%)	1 (3%)	17 (50%)	34 (30,6%)
STOCKS	47(61%)	25 (32,5%)	5(6,5%)	77(69,4%)
PROPFIN	0	19 (95%)	1 (5%)	20
PROPPRIV	9(90%)	0	1 (10%)	10
PROPEXT	33(80,5%)	6(14,6%)	2(4,9%)	41
FILMUT	5(83,3%)	0	1(16,7%)	6
	63	26	22	111

Table 9				
FREQUENCY **PERCENT** **RESIDUAL**	**MEDTRAD**	**BCASEG**	**OFENT**	**TOTAL**
STOCKS.	47 43,703 3,297	25 18,036 6,964	5 15,261 -10,26	77 69,37
MUTUALS	16 19,297 -3,297	1 7,964 -6,964	17 6,739 10,261	34 30,63
TOTAL	63	26	22	111

	56,76	23,42	19,82	100,00
CHI-SQUARE Value 32,115 p-valor=0,001				

Table 10

FREQUENCY PERCENT RESIDUAL	**MEDTRAD**	**BCASEG**	**OFENT**	**TOTAL**
PROPFIN	0 11,351 -11,35	19 4,6847 14,315	1 3,964 -2,964	20 18,02
PROPPRIV	9 5,676 3,324	0 2,342 -2,342	1 1,982 -0,982	10 9,01
PROPEXT	33 23,27 9,730	6 9,604 -3,604	2 8,126 -6,126	41 36,94
FILMUT	5 3,405 1.595	0 1,405 -1,405	1 1,189 -0,189	6 5,41
MUTUAL	16 19,297 -3,297	1 7,964 -6,964	17 6,739 10,261	34 30,63
TOTAL	63 56,76	26 23,42	22 19,82	111 100,00
FISHER´S EXACT TEST P-VALOR=1.94 E-17				

Table 11

	MEDTRAD			**BCASEG**			**OFENT**				
	PDS (Millones)	L%	O%	PDS (Millones)	L%	O%	PDS (Millones)	L%	O%	PDS (Millones)	L%
S.A.	1101466,27	55,28	79,88	674893,2	33,87	99,87	216060,79	10,84	60,95	1992420,26	100,00
MUTUA	277395,95	66,58	20,12	858,23	0,21	0,13	138401,83	33,22	39,05	416656,01	100,00
	1378862,22		100,00	675751,43		100,00	354462,62		100,00	2409076,27	

	MEDTRAD			**BCASEG**			**OFENT**				
	PDS (Millions)	**L%**	**O%**	**PDS (Millions)**	**L%**	**O%**	**PDS (Millions)**	**L%**	**O%**	**PDS (Mllions)**	**L%**
PROPFIN	0,00	0,00	0,00	543111,27	92,77	80,37	42299,58	7,23	11,93	585410,85	100,00
PROPPRIV	129544,26	64,12	9,40	0,00	0,00	0,00	72481,32	35,88	20,45	202025,58	100,00
PROPEXT	887828,25	85,54	64,39	131781,93	12,70	19,50	18310,69	1,76	5,17	1037920,87	100,00
FILMUT	84093,76	50,34	6,10	0,00	0,00	0,00	82969,20	49,66	23,41	167062,96	100,00
MUTUA	277395,95	66,58	20,12	858,23	0,21	0,13	138401,83	33,22	39,05	416656,01	100,00
	1378862,22		100,00	675751,43		100,00	354462,62		100,00	2409076,27	

L% indicates the percentage of total direct business premiums of a given legal status or ownership and control structure accounted for by marketing channels.
O% indicates the percentage of total direct business premiums of a given marketing channel accounted for by a firm with the indicates ownership and control structure.

CONCLUSIONS

Our results seem to confirm that agency problems related with ownership and control structure in the insurance industry tend to specialize insurance firms in different lines of business. Thus, mutual insurance firms specialize in automobile insurance, common stock companies owned by financial institutions specialize in life insurance and common stock companies owned by mutual specialize in life insurance and travel assistance and monopolize the business of credit and caution. The later have their business portfolio more concentrated than insurance companies owned either by families or by non-Spanish financial institutions. In particular, common stock insurance firms owned by families specialize in death whereas those insurance companies whose

main shareholder is a non-Spanish financial institution are the less specialized although their main lines of business are: home owner multiple peril, life, automobile and civil liability.

Furthermore, our result seems to indicate an association between ownership structure and marketing channel. In this sense, common stock insurance companies whose main shareholder is a family or a non-Spanish financial institution use traditional agents to commercialize their products and services. However, insurance companies owned by Spanish financial institutions rely, almost exclusively, in bank branches to distribute their products. This marketing channel is scarcely use by mutuals and common stock companies owned by mutuals which commercialize an important percentage of their policies thought their own branch network, more than any other type of insurance companies.

When policy renewal is not guaranteed there is a higher probability that renewal right belongs to the agent, but if policy renewal is almost certain then the insurer will keep renewal rights controlling marketing channel. Thus, among insurance lines, life insurance policies renewal are the more certain whereas property and casualty policies renewal are the more uncertain. Therefore, those companies that specialize in life insurance, common stock companies owned by a Spanish financial institution, commercialize their products through bank branches.

Furthermore, Spanish banks have increased their interest in insurance business. Thus the use of bank branches to commercialize insurance products allows them to improve efficiency when there is over capacity in Spanish extensively branched banking system. Besides, savings patterns in Spain are changing with people demanding insurance products as alternatives to the traditional banking products, in particular life insurance. Therefore, insurance companies owned by a Spanish bank have take advantage of bank branches to commercialize their products at the time they have solve agency problems in the exchange between deposits and life insurance policy within the same financial conglomerate. Banks have great opportunities in life insurance because they can use some of their capabilities due to the similarities between this line of insurance and the traditional banking services. This is not true for other lines of insurance like property and casualty where they have to deal with problems for which they have not the required abilities.

We have observed that those companies with lower levels of concentration and that commercialize property and casualty insurance use agents as their main marketing channel in a higher proportion than the rest of companies. Therefore, it seems that insurance companies owned by families and/or non-Spanish financial firms focus on lines of insurance with higher managerial discretion, which increases agency problems between policyholder and management. However, they commercialize their products through independent agents that it is a way to alleviate this problem. On the hand, mutual firms and companies owned by mutuals rely on their own branch network to channel their products because they specialize in lines of insurance with low managerial discretion which reduces agency problems between management and policyholder.

Therefore, the results of this paper seem to confirm the hypothesis proposed. Insurance firm ownership and control structure determines marketing channel chosen by each company.

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