

DETERMINANTS OF INTERNATIONAL INSURERS' PARTICIPATION IN FOREIGN NON-LIFE MARKETS

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ABSTRACT

Mirroring the trend in the broader marketplace, the global insurance industry is steadily moving toward increased liberalization and deregulation. This study seeks to develop the first empirical model that examines the importance of foreign market characteristics as they relate to the participation of international insurers in the non-life business of those countries. The analysis reveals that market structure is an important factor in determining whether international insurers participate in a given foreign market. In addition, for markets that are not competitive, removing trade barriers would significantly improve the desirability of those countries as host markets. The results also suggest that countries with higher gross domestic product tend to attract more involvement from international insurers. While this research focuses on the markets of industrialized countries, the findings will provide significant implications for those emerging markets that have not yet collected relevant data on a number of the variables included in this study.

INTRODUCTION

The global insurance industry has been experiencing significant movement toward greater deregulation and internationalization. Evidence of this trend is reflected by the fact that recent years have seen a rapid growth in global trade, foreign direct investment (FDI), and portfolio investment in insurance services (Swiss Re, 2000b). Both economic theory and insurance literature suggest that the free flow of insurance services across national boundaries will aid a host country's economic development by introducing additional competition and enhancing the social welfare of the national market (e.g., Smith, 1970; Carris, 1990; Skipper, 1996). In practice, however, application of this concept has been uneven.

While significant research has investigated the demand and supply of insurance on an international basis (e.g., Beenstock et al., 1988; Outreville, 1990, 1996; Browne and

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Kim, 1993; Browne et al., 2000), much remains to be understood. The goal of this study is to develop the first empirical model examining the importance of market characteristics as they relate to the participation of foreign insurers. The article focuses on the non-life insurance business.¹

Identifying factors affecting the involvement of international insurers is important for policymakers seeking to encourage foreign participation in their respective insurance markets. In addition, an increased understanding of the determinants of international insurers' involvement in foreign markets will facilitate the process of globalization of the insurance industry.

The next section provides a brief overview of the nature of international trade in insurance, followed by "Prior Research on International Insurance Establishment Trade," which reviews previous literature relating to international insurance services. "Host Market Characteristics Affecting International Insurers' Participation in Foreign Markets" presents the hypotheses associated with factors affecting international insurers' involvement in foreign countries. "Data and Methodology" presents the data structure and methodology adopted in this study. "Results" discusses the empirical results, followed by concluding comments.

BACKGROUND INFORMATION ON INTERNATIONAL INSURANCE TRADE

One can categorize international insurance trade into two basic forms: cross-border or establishment trade. Cross-border trade occurs when the buyer purchases insurance from an insurer domiciled in another country. Establishment trade is an insurance transaction where the buyer and insurer are both located in the same country but the insurer is foreign-owned. Such foreign-owned entities include branch operations, agencies, and subsidiaries. Due to varying cultures, languages, and regulations, it is often crucial for foreign insurers to be established locally in these host markets in order to compete effectively.² Even though establishment trade has been a relatively more important vehicle than cross-border trade in delivering services to foreign markets on a global basis,³ this does not imply that the development of the international insurance trade is nearing full globalization—much work remains.

The reasons for the lack of complete globalization are complex. Some explanations cite governmental policies, such as regulations that hinder international insurers' access

¹ The definition for non-life insurance business follows usual European Union (EU) and Organisation for Economic Cooperation and Development (OECD) conventions that recognize accident and sickness insurance business written by life insurers as non-life insurance premiums.

² An example of this preference for locally established insurance services, despite efforts to create a "borderless" international insurance market, can be found in the EU, where cross-border trade barriers have been largely removed but market penetration has been extremely limited without the establishment of a physical presence in a given national market. A fuller discussion of these issues is in the CD-ROM entitled *European Insurance Handbook: EU and EEA States* (PricewaterhouseCoopers 2000). Readers should note that these efforts aimed at the reduction of barriers associated with the EU insurance marketplace are not captured specifically in the international business climate (IBC) variable introduced later in this article. The IBC rating reflects the broader spectrum of general business trade barriers.

³ In 1999, cross-border trade represented only 1.9 percent of non-life business and 0.6 percent of life insurance (Swiss Re, 2000a).

to potential host markets (Skipper, 1986, 1987). Other factors that affect insurers' decisions to engage in international operations may be due to managerial concerns, such as a lack of knowledge of foreign markets, or may possibly be related to characteristics unique to a given national marketplace (Schroath and Korth, 1989). Nonetheless, no study has yet been undertaken investigating how these factors affect international insurers' involvement in foreign markets.⁴

PRIOR RESEARCH ON INTERNATIONAL INSURANCE ESTABLISHMENT TRADE

Industry interest in insurance establishment trade across national boundaries has increased significantly in recent years. This is largely due to the global trends in deregulation and liberalization of the insurance industry. Discussions related to worldwide insurance market access are common in industry reports and trade journals; however, only a few academic studies have investigated this topic.

Skipper (1986, 1987) discussed the nature of insurance trade barriers and provided a rationale for market protectionism with regard to the provision of insurance services. Skipper (1996) also delivered a speech, "The Role of Foreign Insurers in Transition Economies and Developing Countries," at the United Nations Conference on Trade and Development in Switzerland. The major thrust of this speech was to espouse the benefits of greater foreign participation in the insurance markets of the world. While barriers related to the free flow of insurance services across national boundaries have been identified and the benefits of removing trade barriers have been argued, the degree to which these barriers actually impact international insurers' participation in foreign countries is still not understood. Schroath and Korth (1989) and Zimmerman (1999) have provided insight on this issue using qualitative survey methods, but no empirical study has yet been undertaken.

A number of studies have investigated issues related to the determinants of FDI in various industries, but only a few have included insurance-specific content. Bagchi-Sen (1995) analyzed the temporal variation in the effects of location determinants on FDI in finance, insurance, and real estate. The findings suggest that FDI in financial services is influenced by economic and legislative factors. Moshirian (1997) measured the determinants of FDI in insurance services in the United States, and Moshirian (1999) studied the outward international insurance services provided by the United Kingdom and Germany. He concluded that insurance premiums and the national income of the host countries contribute to the expansion of multinational insurance companies. Thus far, these studies have been limited to time-series analyses of individual countries due to the lack of sufficient cross-sectional data. Furthermore, these studies have typically focused on the investment of financial assets, leaving unanswered questions regarding the actual involvement of foreign insurers via FDI in those host markets.

HOST MARKET CHARACTERISTICS AFFECTING INTERNATIONAL INSURERS' PARTICIPATION IN FOREIGN MARKETS

The objective of this study is to examine the relationship between a set of foreign market characteristics and the involvement of international insurers in those markets. This section identifies and discusses the hypothesized relationship that various

⁴ This article refers to the level of premium volumes generated through establishment trade as international insurers' involvement in a foreign market.

foreign marketplace factors have with regard to the participation of international insurers in those markets.

Market Structure

From the perspective of an international insurer, the market concentration of the insurance industry within a given foreign market plays a significant role as to the desirability of that market. Other things being equal, one can hypothesize that international insurers would prefer relatively competitive markets, as opposed to oligopolistic markets where dominant market players may effectively inhibit open competition.⁵ This article derives the variable used to measure the degree of market concentration in the host country using the Herfindahl Index (HI). Summing the squared market shares of each insurer in the market and multiplying the result by 10,000 determine this index. In a monopolistic market, the HI would be 10,000, and the index would become smaller as the market becomes more competitive—suggesting either more companies competing in the market and/or market share becoming more evenly distributed among the competitors. Following the National Association of Insurance Commissioners' (NAIC) criteria for defining a competitive marketplace, this analysis considered countries with HI measurements greater than 1,800 to be noncompetitive (NONCOMP) and assigned a value of one for the dummy variable.⁶

Trade Barriers

Trade barriers, both formal and informal, inhibit the establishment trade of insurance services. To varying degrees and with various motives, adverse governmental policies exist in virtually every country. Commonly cited barriers related to international insurance trade can be classified into three categories: (1) those related to establishment within the host countries, (2) those related to access to the domestic markets in these host countries, and (3) those related to insurer operations in host countries (Skipper, 1987). The IBC rating, developed by the Political Risk Services Group,⁷ identifies the degree to which a market is liberalized. The IBC rating is based on a number of factors,

⁵ International insurers generally lack dominant positions in oligopolistic OECD marketplaces. Within the group of 20 OECD countries included in this study, only two countries had foreign market share positions in excess of 50 percent (Hungary and the Czech Republic), while 15 (75 percent) had less than 20 percent of the market controlled by foreign suppliers. In addition, Hungary is the only country in the study that was identified as a noncompetitive market where foreign interests had a more than 50 percent market share.

⁶ Due to some missing observations in 1995 and/or 1996, this study interpolated a handful of HI values based on subsequently reported values. When those reported values consistently and significantly deviated from 1,800 (i.e., either significantly above or below the threshold of 1,800), one presumed that the missing observation matched the binary characterization of those subsequent observations. Due to the limited number of reported observations for any given country (the maximum number of observations was four), any interpolated *continuous* value would be highly suspect. However, given the relative stability of the reported HI observations for any given country, one could derive the *binary* characterization of a missing observation from the subsequently reported values.

⁷ The Political Risk Services (PRS) Group is a data collection organization that reports (both qualitatively as well as quantitatively) on the financial, economic, and social circumstance of more than 100 countries. The IBC index used in this study was taken from the *Political Risk Yearbook* published by the PRS Group. The PRS Group generated this variable using a

including tariff and nontariff barriers to trade, equity restrictions, tax discrimination aimed at foreign business, restrictions on operations, currency exchange controls, repatriation restrictions, and labor costs.⁸ In essence, this index quantifies the level of political support offered by a host country for liberalized business-related policies. Countries are rated on a scale from 0 to 100, with 100 being the highest degree of liberalization. One expects that a country with higher levels of liberalization, and a correspondingly higher IBC rating, would represent a comparably more favorable market environment for international insurers. One therefore would expect this variable to share a positive relationship with the participation of foreign insurers in a given market. Figure 1 describes the relationship between a country's IBC rating and the premium written by foreign insurers on a per capita basis.⁹

The empirical model also includes an interaction term of a given country's market structure (NONCOMP) and the IBC index variable. In light of the competitive structure of a given market, this variable will identify the influence of trade barriers in attracting foreign insurance establishment trade.

Insurance Demand

One can hypothesize that, from the perspective of international insurers, a strong demand for insurance in the target host country would be a desirable characteristic. Previous studies have consistently found gross domestic product (GDP) to be one of the most important factors in explaining the level of national non-life insurance consumption (Outreville, 1990a, 1990b; Beenstock et al., 1988; Browne et al., 2000). This study uses GDP per capita as a proxy for insurance demand, and one can anticipate that countries with higher GDP would attract more international insurer involvement.

FDI

Following important clients has been cited as one of the major reasons for service firms to expand internationally (Skipper, 1998). For example, when IBM invests in operations abroad, domestic support service providers, such as banks and insurers, tend to expand in a similar fashion. In doing so, these service providers protect their relationship with those international firms. Thus, one can expect a positive relationship between the level of FDI and the level of international insurer participation in a given host market.

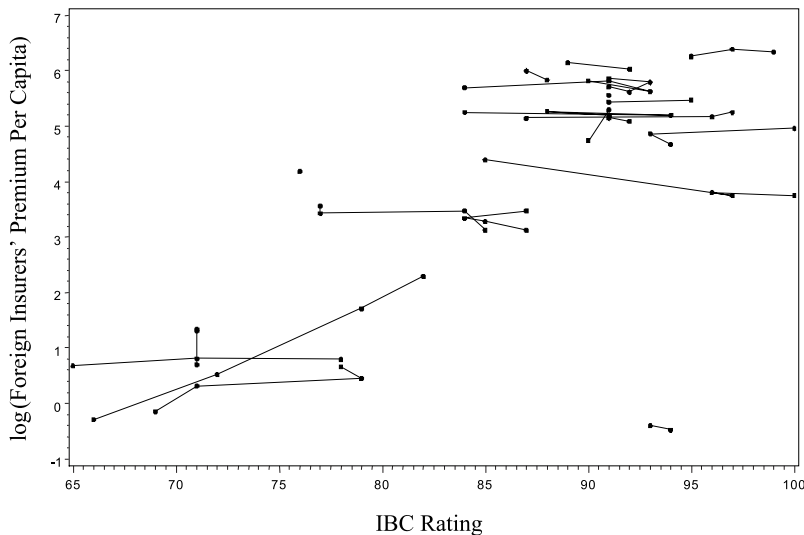
proprietary algorithm. However, a discussion of the factors included in this algorithm is on the company's Web site at <http://www.prsgroup.com>.

⁸ While other measures of liberalization might be more specific to the insurance industry, e.g., capitalization requirements, such data are not readily available across the complete array of countries included in this study.

⁹ The premium amount is presented in the form of log transformation. Each line represents the observation of a given country across multiple time periods. As can be seen from the graph, the sample is not balanced, i.e., any given country may have from one to four years of reported observations. The plot shows, in general, that a country's IBC rating and foreign insurers' premium volume share a positive relationship. However, the level of foreign insurers' premium volume does not usually fluctuate significantly for a given country, i.e., the lines are generally relatively horizontal.

FIGURE 1

IBC Rating Versus Per Capita Premium Written by Foreign Insurers



Profitability

International insurers are more likely to enter markets in which they believe they can establish profitable operations. A market with a relatively high premium structure¹⁰ may present itself as a desirable market to those insurers because they may see opportunities to obtain comparably higher profits due to competitive advantages, such as superior underwriting capabilities, economies of scale, name recognition, etc. In addition, due to their potential ability to underprice their competition, international insurers may be able to capture greater market share. The inverse of loss ratio for non-life insurance lines (PROFIT) is used as a proxy measuring the potential profitability. One can hypothesize that markets with a lower loss ratio (and therefore higher reciprocal value), representing a greater profit margin for insurers, would be attractive to international insurers.

¹⁰ One might expect insurance price to be correlated with market structure. However, previous literature has not offered consistent findings regarding the relationship shared by concentration ratios and loss ratios. Chidambaran et al. (1997) and Bajtelsmit and Bouzouita (1998) found that the concentration ratio is positively related to profit margin, and Carroll (1993) found a negative relationship between the HI and statewide profitability. Ippolito (1979) found an insignificant relationship between concentration ratios and loss ratios, and Cummins and Harrington (1987) found inconsistent results between these two variables when analyzing different lines of insurance. In this study, we use a dummy variable, instead of a continuous index, to control for market structure. Our empirical model found no collinearity between the profitability and market structure variables.

The actual price of insurance is significantly affected by market interest rates and, thus, the model includes a variable capturing this effect (INT).¹¹ Given the same level of investment return, countries with a lower loss ratio have a higher insurance price. Without controlling for this effect, the PROFIT variable in the model would not truly be representative of the insurance price of the marketplace.¹² However, insurance loading fees include not only insurer profits but also costs, such as premium tax and other expenses. Therefore, the inverse of loss ratio may not accurately reflect the profits received by insurers. This proxy may suffer to the degree that the inverse of loss ratio does not correlate with the profit margin of insurers. For example, a low loss ratio may be the result of high premium tax or minimal flexibility in setting the premium rate due to governmental regulation.¹³

DATA AND METHODOLOGY

Data Characteristics

For the purpose of the study, international insurers' participation in a given foreign market is measured by premiums written on a per capita basis by local establishments of those insurers (FOREIGNPREM). Such local establishments include branches and agencies of foreign insurers as well as domestic companies controlled by foreign interests.¹⁴ Data on the insurance premium written by foreign undertakings were derived from the *Insurance Statistics Yearbook* published by the OECD. Appendix 1 reports the sources of data used in this empirical analysis.

¹¹ Market interest rate is measured by the difference between the long-term government bond yield and inflation. We used long-term government bond yield because it closely approximates a "risk-free" market rate that is not subject to the volatility of short-term fluctuations. For most countries included in the analysis, the interest rate data came from the International Monetary Fund (IMF). In such cases, the term of the long-term government bond yield followed the IMF's definition. In general, the terms were greater than 10 years (but the actual term varies by country). For countries that do not have data available through the IMF (i.e., the Czech Republic, Hungary, Poland, and Turkey), we collected such data through national banks or government authorities from individual countries. In such cases, we chose the longest term available in those countries.

¹² Assuming the same level of operating expenses, interest rates impact the loss ratio in two ways. First, given the timing differential between the receipt of premium and payment of claims, one can expect a positive relationship between interest rate and loss ratio (see, for example, Myers and Cohn, 1987; Cummins, 1991). Second, underwriting cycle theory suggests that when interest rates are high in the marketplace, insurance prices will be low (see, for example, Doherty and Kang, 1988), which again suggests a higher loss ratio.

¹³ Given that this empirical analysis used fixed-effect models, one can expect that the effect of government regulation will be captured by state-specific intercepts.

¹⁴ Certain countries may report lower premium volumes written by foreign undertaking due to regulatory or reporting biases. This may occur if the host country has not allowed for the establishment of foreign branches (i.e., Mexico, and Poland before 1999). Countries belonging to the EU have underreported the presence of foreign branches within their national markets. Since July 1994, when the third-generation directives came into force, branches of foreign companies within the EU have only been subject to supervision by their country of origin. Since then, the results of foreign branches from other EU member countries have not appeared in the statistics of the host EU countries. Therefore, the amount of insurance written by foreign branches in those EU countries could have been underestimated.

TABLE 1
Summary Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
FOREIGNPREM	157.51	165.93	0.62	593.64
NONCOMP	0.22	0.42	0.00	1.00
IBC	86.35	9.11	65.00	100.00
GDP	19273.97	11951.94	2795.00	43640.00
FDI	338.71	375.10	0.32	2126.21
PROFIT	1.73	0.53	0.94	3.57
INT	5.05	6.98	-3.66	46.38

The empirical analysis is based on cross-sectional and time-series data on OECD countries from 1995 to 1998. Due to a lack of data availability, the analysis excludes nine countries.¹⁵ This leaves 63 observations in the empirical model.¹⁶

Table 1 reports the summary statistics of the variables. As can be seen, 14 out of 63 observations (22.2 percent) have HI ratings higher than 1,800 and are therefore classified as NONCOMP markets due to the heavy concentration of market share. All of the countries under consideration in this study have relatively high IBC ratings—ranging from 65 to 100, with an average of 86.35. This suggests that most of the countries included in this study, which are developed markets, are likely to have relatively more liberalized markets. The average of the inverse of loss ratio is 1.73, which suggests an average loss ratio of 62.5 percent. After adjusting for inflation, the real interest rates range from -3.66 percent (Poland in 1995) to 46.38 percent (Turkey in 1996), with an average of 5.05 percent.

Estimation Methodology

Given the nature of the data, we employed a panel data fixed effects model to control for country effects that were not otherwise accounted for by other explanatory variables included in the models.¹⁷ The regression specification is:

$$\begin{aligned} \log(\text{FOREIGNPREM})_{it} = & \alpha_i + \beta_1 \text{NONCOMP}_{it} + \beta_2 \text{IBC}_{it} + \beta_3 (\text{IBC} * \text{NONCOMP})_{it} \\ & + \beta_4 \log(\text{GDP})_{it} + \beta_5 \log(\text{FDI})_{it} + \beta_6 \log(\text{PROFIT})_{it} \\ & + \beta_7 \log(\text{INT})_{it} + u_{it}, \end{aligned}$$

where the subscript i represents the country ($i = 1, 2, \dots, 20$) and t represents time ($t = 1, 2, 3, 4$), and α_i is country-specific intercepts; FOREIGNPREM is the premium written per capita by international insurer in host markets; NONCOMP is the dummy

¹⁵ Including Belgium, France, Greece, Iceland, Ireland, Italy, Luxembourg, New Zealand, and Sweden.

¹⁶ Appendix 2 identifies the countries and associated years for which observations have been made that are included in the sample for this study.

¹⁷ The Hausman test rejects the hypothesis that the random effects model is in favor of the fixed effects model, also checked for the endogeneity of the variable PROFIT. The empirical result supports the model, assuming no such endogeneity.

TABLE 2
Fixed Effects Panel Data Models

Independent Variables	Coefficient	Standard Error
INTERCEPT	-8.72	5.12
NONCOMP	-2.28**	1.14
IBC	-0.003	0.01
IBC*NONCOMP	0.03**	0.01
Log(GDP)	1.11**	0.46
Log(FDI)	0.04	0.05
Log(PROFIT)	-0.39*	0.22
Log(INT)	0.44***	0.10
-2 Log Likelihood		25.0

*Significant at 10 percent level.

**Significant at 5 percent level.

***Significant at 1 percent level.

variable, equal to 1 if the market has HI > 1,800 and 0 otherwise; IBC is the International Business Climate Index; GDP is gross domestic product per capita; FDI is foreign direct investment per capita; PROFIT is the inverse of loss ratio; INT is the real interest rate; and u_{it} is random error terms.

RESULTS

Table 2 presents the empirical results. Most of the coefficients are statistically significant with the hypothesized signs. The White test suggested that the model is free from heteroskedasticity.

The market structure variable (NONCOMP) is negative and statistically significant, which supports the hypothesis that comparably competitive markets are more likely to include the participation of international insurers. The interaction term of market structure and IBC is positively significant, with a coefficient that is smaller than that of NONCOMP.¹⁸ The positive sign of the interaction term suggests that the negative effect of a noncompetitive market is not as pronounced in countries with liberal regulations. In other words, if a market has lower trade barriers (and therefore a higher IBC), the degree to which market concentration deters foreign involvement is not as significant. For example, assuming that a country has an IBC rating of 65 and is a noncompetitive market, the decrease in premium-written per capita by international insurers is about 28 percent,¹⁹ compared to a comparable marketplace that has a

¹⁸ Therefore, the overall effect of the NONCOMP variable is negative.

¹⁹ Because the dependent variable is in the form of a log transformation, its percentage change due to the change in a dummy independent variable can be measured by $e^{\beta} - 1$. Taking a partial differentiation of the empirical model with respect to NONCOMP identifies the marginal impact of the market structure on the premium volume written by foreign insurers. Specifically, the effect of market structure on foreign insurers' premium volume equals $[e^{(-0.28+0.3IBC)} - 1]$ percent. For example, when the IBC rating is 65, the function is equal to -0.28 percent.

competitive insurance environment. This decrease is 13 percent when the IBC rating is 80.

The overall effect of the international business climate on international insurers' involvement also depends on the market structure of the host country. The positive sign of the interaction term suggests that, given that a market is noncompetitive, a relatively more liberal environment will tend to have higher levels of foreign involvement than will markets that are highly regulated, to the disadvantage of foreign companies. Such behavior may be reflective of a business strategy in which the international insurer believes it can fill a niche market and avoid the usual difficulties associated with direct competition with the dominant players in a liberalized market. Differentiating the model with respect to the IBC rating reveals that an additional rating point in the IBC index is associated with a 2.7 percent increase in the premium volume written by foreign insurers when the market is not competitive.²⁰

The insurance demand measure, GDP per capita, is positive and statistically significant. The coefficient suggests that the level of premium written by foreign insurers increases by 1.11 percent when GDP increases by 1 percent. This result supports the hypothesis that countries with higher GDP, and therefore higher insurance demand, attract more international insurers' involvement.

The FDI variable is not statistically significant. This suggests that, while following major clients abroad has been cited as a major motivator in the establishment of operations abroad, pursuit of such clients does not necessarily suggest a significant international insurance presence in a given market. This result may also be because the data used in this study are aggregated across lines. Future study utilizing disaggregated data would further add to our understanding of the effect of FDI on international insurers' involvement in a given marketplace.

The profitability variable is negative and statistically significant at the 0.1 level, which seems to contradict the comparative advantage argument presented earlier. A possible explanation of this finding is that a country may have a higher insurance price due to high premium taxes imposed by the host-country government. As a result, international insurers may have fewer opportunities to compete on price, which makes that target market less attractive. Alternatively, a market may have a lower premium structure due to the additional competition offered by the presence of international insurers. Unfortunately, data identifying the pre- and post-foreign involvement periods are not available.

The INT variable is positively significant. This is consistent with previous research related to the underwriting cycle in which the supply of insurance is high as investment return increases (see, for example, Fung et al., 1998). Other things being equal, a 1 percent increase in the real interest rate in a host country is associated with a 44 percent increase in premium written by international insurers.

²⁰ One can measure the percentage change in a log-transformed dependent variable due to the change in an independent variable by the coefficient of the corresponding independent variable. Therefore, one can measure the change in premium volume written by foreign insurers due to changes in the IBC rating by differentiating the equation with respect to the IBC rating. When NONCOMP is set to be equal to one, the percentage change in the premium volume written by the international insurer is equal to $-0.003 + 0.03 = 0.027$.

CONCLUSION

This study investigates the determinants of international insurers' involvement in foreign markets, focusing on factors describing the desirability of those markets. The analysis reveals that market structure is an important factor in determining the participation of international insurers in foreign markets. In addition, for markets that are not competitive, reducing trade barriers would significantly improve the desirability of those markets. The results also suggest that countries with higher GDP tend to include more international insurers' involvement.

While this research focuses on the markets of the industrialized countries of the OECD, these findings also have implications for emerging markets as they develop and become increasingly integrated into the world economy. Despite the fact that emerging markets still account for a relatively small²¹ proportion of the world's insurance premium volume, the high growth potential in those markets has stimulated significant interest on the part of international insurers. It is expected that the globalization of international insurance trade will continue²² as trade barriers are reduced and the structure of local insurance markets matures. The outcomes associated with this research allow for a better understanding of issues surrounding this internationalization and provide a broader foundation for further empirical investigation of the subject.

APPENDIX 1

Variable Definition and Data Sources

Variable	Definition
FOREIGNPREM	Premium written by locally established international insurers in host markets per capita (OECD)
IBC	International Business Climate Index (PRS Group)
NONCOMP	Dummy variable = 1 if market has HI > 1,800; 0 otherwise (Axco)
GDP	Gross domestic product per capita (PRS Group)
FDI	Foreign direct investment per capita (PRS Group)
PROFIT	Inverse of loss ratio (Axco)
INT	Real interest rate (IMF, as well as national banks for some individual countries)

Sources:

1. OECD, *Insurance Statistics Yearbook*
2. PRS Group, *Political Risk Yearbook*
3. Axco Insurance Information Services
4. Swiss Re, *Sigma*
5. IMF, *International Financial Statistics*

²¹ OECD nations accounted for 93.10 percent of the world's non-life insurance market in 1999 (Swiss Re, 2000a).

²² The General Agreement on Trade in Services (GATS) has as one of its core objectives the continued liberalization of the world's service industries. With continued liberalization, it is anticipated that the emerging markets will receive increasing attention as their economies continue to grow.

APPENDIX 2

Countries and Years in the Sample

Country	Year(s)	Country	Year(s)
Australia	1995-1998	Mexico	1996-1998
Austria	1995-1998	Netherlands	1996-1997
Canada	1995-1996	Norway	1996-1998
Czech Republic	1995-1998	Poland	1995-1998
Denmark	1995-1998	Portugal	1995-1998
Finland	1997-1998	Spain	1995-1997
Germany	1995-1998	Switzerland	1995
Hungary	1998	Turkey	1995-1998
Japan	1995-1998	United Kingdom	1997-1998
Korea	1995-1998	United States	1995-1998

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