CROSS-BORDER M&As IN THE FINANCIAL SECTOR: IS BANKING DIFFERENT FROM INSURANCE?

by Dario Focarelli and Alberto Franco Pozzolo*

Abstract

This paper investigates what factors might help explaining the asymmetry in the degree of internationalization between banking and insurance, by thoroughly comparing in a unified framework the determinants of cross-border M&As in the banking and in the insurance sectors. The empirical analysis is conducted considering all countries involved in cross-border M&As in the financial sector between 1995 and 2003, a larger sample than previous studies on financial M&As, allowing us to control for a wide set of home- and host-country characteristics affecting the pattern of internationalization. The results show that the internationalization of banks and insurance companies follow similar patterns. In particular, the economic integration (the so called "follow the client" hypothesis) is an equally important determinant for both the banks' and the insurance companies' internationalization strategy, while risk diversification is more important in insurance, possibly because supply factors are less relevant in determining the market equilibrium. Finally. our results provide support to the hypothesis that implicit barriers to foreign entry are more important in explaining the behavior of banks than that of insurance companies, although only when the target firm is located in a G10 country.

JEL-classification: E30, G21, G22, F21, F23
keywords: international banking and insurance, foreign direct investment

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1 Introduction

The worldwide integration of financial markets has reached in recent years a historical peak, exceeding and indeed favoring the increase in international trade. This evolution is part of the overall process of economic integration, prompted by the removal of institutional barriers (e.g., capital controls during the Eighties) that has led to an increase in portfolio financial transactions, in greenfield foreign direct investment (FDI) and in cross-border mergers and acquisitions (M&As) in all sectors of economic activities.

Firms have reacted to the intensification of competition in the internal and international markets by increasing their scale of operations. M&As have been particularly frequent in the financial sector, thanks also to the widespread process of deregulation that has permitted the integration of financial activities such as banking, asset management and insurance. According to Thomson Financial, the annual average number of transactions that involved a financial company in the world increased from 954, between 1990 and 1995, to 1,556 between 1996 and 2000; it went back to 1,436 in the 2001-2003 period (table1, panel A). The decline in recent years, which is linked with the slump in share prices, has been concentrated in the G10 countries, Spain and Australia (hereafter, G10) where the annual average number of deals rose from 728 to 1,005 between the first two periods, and returned to 739 in the last period (table1, panel B). In fact, the number of deals in the non-G10 countries increased from 226 between 1990 and 1995 to 551 between 1996 and 2000, and to 697 between 2000 and 2003.

While mergers and acquisition grew significantly, a sizeable and increasing share was cross-border (table 2, Panel A). In particular, 14 per cent of all M&As between 1990 and 1995 was cross border, increasing to 20 per cent between 1996 and 2000 and to 22 in following three years (table2, panel A). While the pattern was similar within G10 countries (table2, panel B), it was even faster towards non-G10s, where the share of cross-border M&As has been on average three times larger than that in the G10s (32 per cent in term of number and 42 per cent in term of value in the entire period under observation; table2, panel C).

International mergers and acquisitions are one of the most important means used by financial firms to expand their activities across national borders; however, their incidence in the financial sector has been lower than in the manufacturing sector.[1] The incidence of cross-border M&As has not been uniform within the financial sector itself. The share of cross-border transactions in the insurance

[1] Focarelli and Pozzolo (2001) show that the share of cross-border over total M&As in the financial sector of OECD countries varies significantly across sectors of economic activity. In the period 1990-1999, it was 12.9 per cent in the banking industry, 29.5 per cent in the insurance sector, 35.3 per cent in manufacturing, the most internationalized.

industry was, between 1990 and 2003, much higher than that in the banking sector, not only within the OECD but also in less developed countries.

Between 1990 and 2003, cross-border transactions in the insurance industry were 30 per cent of all deals with disclosed conditions, significantly higher than the 14 per cent recorded in the banking sector. The share was higher both in the G10 countries (respectively, 24 per cent and 8 per cent) and, although by a much lesser extent, in the remaining countries (respectively, 45 per cent and 31 per cent).

A recent literature has addresses themes related to cross-border flows of products or ownership in the financial services industry, focusing in general on the implications of foreign entry into local banking systems, either from the perspective of risk management by the investing firms and parents or from that of host countries, skeptical about foreign entry (Goldberg, 2004). Much less attention has been paid to the fact that the insurance industry has been experiencing significant movements toward greater deregulation and internationalization.[2]

The objective of the paper is to investigate what factors might help explaining the asymmetry in the degree of internationalization between banking and insurance, by thoroughly comparing the determinants of cross-border M&As in the banking and in the insurance sectors. The empirical analysis is conducted in a unified framework and considering all countries involved in cross-border M&As in the financial sector between 1995 and 2003, a larger sample than previous studies on financial M&As, allowing us to control for a wide set of home- and host-country characteristics affecting the pattern of internationalization.

Our results show that the internationalization of banks and insurance companies follow similar patterns. In particular, the economic integration (the so called "follow the client" hypothesis) is an equally important determinant for both the banks' and the insurance companies' internationalization strategy, while risk diversification is more important in insurance, possibly because supply factors are less relevant in determining the market equilibrium. Finally, our results provide support to the hypothesis that implicit barriers to foreign entry are more important in explaining the behavior of banks than that of insurance companies, although only when the target firm is located in a G10 country.

The rest of the paper is organized as follows. Section 2 briefly surveys the major contributions of the literature on the determinants of the patterns of internationalization in the banking and insurance sectors. Section 3 presents the econometric model and describes the data used in the empirical

[2] Only recently, Moshirian (1997 and 1999) and Ma and Pope (2003) have examined the determinants of international insurers' participation in foreign markets.

analysis. Section 4 presents the results of the empirical analysis and some robustness checks. The major implications of the results are discussed in the final section.

2 The determinants of financial firms' internationalization

The process of internationalization in the financial industry has been the focus of a significant amount of research, both theoretical and empirical. Two aspects, in particular, have attracted most of the attention of researchers and policy makers: the effects of foreign financial intermediaries for the hosting country, and the overall patterns of internationalization in the financial sector.

Many authors have tried to understand what are the effects of the presence of foreign financial enterprises for the hosting country. The interest on this line of research is motivated by the concern shown by policy makers when they see that part of the financial sector in their country falls under the control of foreign investors. Indeed, many criticisms have been moved in the past to the behavior of foreign financial enterprises, typically to foreign banks. For example, they have been accused of focusing on larger clients, thus reducing the availability of credit to small and medium enterprises; to leave countries in financial distress, thus increasing the risk of a crisis; to amplify the country's sensitivity to the world business cycle, with negative effects on the stability of the economy. Almost all these criticisms have been proven faulty by the most recent empirical research,[3] but there still remain at least a number of theoretical problems on how to conduct supervision on multinational financial institutions (Repullo, 2001; Calzolari and Loranth, 2003 and 2005).

A parallel strand of research, mainly empirical, has tried to understand the patterns of internationalization in the financial sector, focusing on why enterprises in one country choose to expand in another country (see, among others, Buch, 2002; Buch and DeLong, 2004; Focarelli and Pozzolo, 2005). On this respect, many similarities have been found with foreign direct investment (FDI) in the manufacturing sector (Goldberg, 2004), although in the case of financial services, factors such as geographical and cultural proximity are more important than cost advantages in shaping the pattern of cross-border expansion.

As it is clear from the previous discussion, large part of the literature on the internationalization in the financial services sector is focused on banking, while only a few papers have analyzed the determinants of cross-border expansion of insurance companies. In the following, we briefly survey the major results of these two strands of literature.

[3] For a critical survey, see Goldberg (2004) and Pozzolo (2005).

2.1 Banks

The empirical literature on bank internationalization is quite vast. The most recent contributions have contrasted the two major theories put forward in the past. On one side, the 'follow the client' hypothesis, stating that bank cross-border expansion is a by-product of the internationalization in the manufacturing industry, because banks simply follow their home clients when they operate abroad. On the other side, a more recent strand of literature emphasizing that in a number of cases the pattern of banks' cross-border expansion is independent of the relationship with the clients in the origin country and it is shaped instead by the possibilities of making profits by supplying financial services in the foreign market.

This debate has not reached a definitive conclusion. Indeed both explanations of the patterns of bank foreign expansion look important, possibly to a different degree depending on the countries considered. The search for profit opportunities, which was a more neglected hypothesis in the past decades, seems to be more important in the case of expansion towards lower and middle income countries with significant potential growth opportunities (for example, the former eastern European countries that recently joined the European Union or are expected to do so in the coming years). The follow the client hypothesis, on the other hand, seems more important in the case of expansion towards more developed countries.

A way of presenting the major results of the empirical literature on bank internationalization is to group the most important determinants into three sets, as we did in a previous paper (Focarelli and Pozzolo, 2005): indices of the degree of integration between home and destination countries; measures of the profit opportunities offered by the host economy, in particular with reference to its perspective economic growth; and characteristics of the institutional and regulatory framework of the destination country.

With respect to the first set of determinants, a very large number of studies has found that integration between home and destination countries – measured by geographical distance, by the volume of bilateral trade flows or bilateral FDI or by linguistic and institutional proximity – is one of the major determinants of the pattern of bank internationalization.[4] With regard to profit opportunities, Focarelli and Pozzolo (2005) find that, within the OECD, banks are more likely to expand to countries where per-capita GDP is lower, the level of education is higher, credit and financial markets are larger and the rate of inflation is lower, all measures that are associated with higher expected economic

[4] A non exhaustive list, starting from contributions of the Eighties, includes Goldberg and Saunders (1980 and 1981), Ball and Tschoegl (1982), Nigh, et al. (1986), Goldberg and Johnson (1990), Grosse and Goldberg (1991), Sagari (1992), ter Wengel (1995), Brealey and Kaplanis (1996), Miller and Parkhe (1998), Yamori

growth; Magri et al. (2004) show that the relative profitability of the banking activity is a significant variable explaining foreign banks presence in Italy. Finally, there is evidence that banks prefer to expand towards countries where the degree of competition with domestic banks is lower, for example because local banks are less efficient (Focarelli and Pozzolo, 2005), and where the institutional framework is more favorable to banking activities, because there is a high quality legal and institutional set-up and low regulatory restrictions on banking activities (Berger et al., 2003).

2.2 Insurance companies

Practitioners seem to share a wide consensus that the high growth potential, especially in emerging economies, is one of the major factors attracting foreign insurers (Swiss Reinsurance Company, 2000), but academic analyses of the pattern of insurance companies cross-border expansion are much scanter.[5]

In a series of papers, Moshirian analyzes the pattern of FDI in the insurance industry (Moshirian, 1997 and 1999, and Li and Moshirian, 2004), showing that FDI in the insurance sector are an increasing function of the national income of the country of destination, proxying for the potential demand for insurance services; of the size of the insurance market and of the overall financial development in the country of origin of the investment, a likely measure of the efficiency of the investor; and of the difference in wages and in the cost of capital between the origin and the destination countries, proxying for cost advantages. Most interesting, the empirical analysis shows that FDI in insurance are a complement of both trade in insurance services and of FDI in banking.

Ma and Pope (2003) investigate the determinants of international insurers' activity in the non-life markets analyzing a panel of OECD countries. The results show that insurers are more present in countries with higher GDP and when the integration between origin and destination countries, measured by bilateral manufacturing FDI, is stronger. In addition, Ma and Pope (2003) show that foreign presence is higher in countries where competition, measured by market concentration, is

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(1998), Williams (1998), Berger et al. (2003), Buch (2000 and 2003), Buch and Delong (2004) and Focarelli and Pozzolo (2005).

[5] According to a study by Swiss Reinsurance (Sigma Re, 2000), three "push factors" and three "pull factors" can provide an explanation of the expansion of insurance companies towards less developed countries. The push factors are: a) the incentive to follow existing customers operating abroad, related to the surge in trade and foreign direct investment in the manufacturing sector (similar to the "follow the client hypothesis in the case of foreign bank expansion; b) the higher expected economic growth in less developed countries; c) the possibility to benefit from efficiency gains from diversification and economies of scale. The pull factors are: a) the stronger demand for cover coming from developing countries, and related to strong economic growth and increasing international trade; b) the stronger capital requirements related to the increase in risks and more stringent solvency regulations); c) the requirement for more know-how intensive services.

stronger and, in the case of less competitive markets, where liberal business-related policies gain stronger political support.[6]

A recent paper by Outreville (2005) uses rank correlation measures to study the foreign presence of the 30 largest transnational insurance corporations, finding that they are more likely to expand toward countries that are geographically closer, with larger market size, more efficient legal environment, more developed telecommunication systems and higher level of education.[7]

A parallel strand of literature has analyzed the determinants of the development of the insurance sector, mostly on a comparative basis.[8] A recent and comprehensive study on a panel of 68 countries over the period 1961-2000 by Beck and Webb (2002) shows that the life insurance market is larger in countries with: higher income, a more developed banking sector, lower inflation and a higher old dependency ratio.[9] Further, they find that religious and institutional characteristics also have some explanatory power of the cross-country differences in the level of development of the life insurance sector. Contrary to expectations, Beck and Webb (2002) find that the level of schooling and, most surprising, life expectancy does not robustly affect the size of the market for life insurance.

Part of the evidence provided by Beck and Webb (2002) is consistent with the findings of the previous literature, albeit indeed more robust. Browne and Kim (1993), studying 45 under-developed and developed countries, show that the size of the life insurance market is positively correlated with the level of income and negatively with that of inflation, while life expectancy at birth is not. Outreville (1996), studying 48 developing countries, also finds that the life insurance market is larger in countries where the banking sector is more developed and where life expectancy at birth is higher. The relationship between real interest rates and the development of the life insurance market has also been analyzed by a number of authors, without reaching a consensus. Outreville (1996) finds that the real interest rate and the lending rate are not a significant determinant of the life insurance market size, while Rubayah and Zaidi (2000) show that interest rate offered by banks on normal saving is negatively correlated with the demand for life insurance, while lending rates on bank borrowings is not significant. De Panphilis (1977), using time series data for the US, Browne and Kim (1993), and Beenstock et al. (1986), using data from 10 OECD countries between 1970 and 1981, also find that the development of the life insurance market is negatively correlated with the size of the social security

[6] Ma and Pope (2003) also find that foreign presence is stronger in countries where profitability in the insurance sector is lower. This result is consistent with a higher level of competition, and therefore of accessibility of the foreign market, but the authors are cautious in providing this interpretation of their result.

[7] Some authors have studied the effects of international mergers and acquisitions (M&As) in the banking sector and between banks and insurance companies. Cummins and Weiss (2004) find that cross-border M&As create on average small negative excess returns to the bidder company, and positive excess returns to the target, consistent with the evidence of Amihud et al. (2004) for cross-border M&As in banking. Fields et al. (2005) find that mergers between banks and insurance companies generate positive excess returns to the bidder company.

[8] For a survey, see Schlag (2003).

transfers. Finally, a time series study by Schwebler (1984) on German data shows that the size of the life insurance market is positively correlated with the saving rate.

Overall, the evidence on the determinants of the development of the insurance market, mostly in the life business, can supplement the scarce evidence on the determinants of cross-border activities in the insurance sector. Indeed, assuming that insurance companies are profit maximizing firms, it seems reasonable to expect that, for given levels of competition and accessibility, they will expand towards countries with a higher expected rate of growth of the insurance market.

3 The set up of the empirical analysis

The major hypothesis under empirical scrutiny in this paper is that the peculiarities of banking relative to insurance activities might produce a differential pattern of internationalization. In practice, that the determinants of the pattern of internationalization of insurance companies are substantially different from those of banks.

3.1 The econometric setup

The empirical analysis aims at comparing banks' cross-border M&As with those of the insurance companies. The dependent variable Y_{ij}, is defined as the number of cross-border M&As between country i of the bidder company and country j of the target company: We estimate the following negative binomial regression model:[10]

$$Pr\,(Y_{ij} = y_{ij}) = \frac{e^{-\nu_{ij}\mu_{ij}}\,(\nu_{ij}\mu_{ij})^{y_{ij}}}{\Gamma(y_{ij}+1)} \qquad y_{ij} = 0,\ 1,\ 2,\ \ldots, \qquad (1)$$

and:

$$\mu_{ij} = e^{\beta' \boldsymbol{x}_{ij}} \qquad (2)$$

where $\Gamma(y_{ij}+1)$ is a Gamma distribution with mean 1 and variance α; $\boldsymbol{x}_{ij}$ is a matrix that includes vectors of characteristics of the bilateral relationship between country i and country j, of the country of the bidder company, i, or of the country of the target company, j. The product of the number of countries of origin times the number of potential countries of destination of the M&As gives the number of observations used in the estimation.

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[9] The old dependency ratio is the share of the population aged 65 and older.
[10] In unreported regressions we obtained similar results by using the Poisson regression model.

3.2 Data and summary statistics

Data on M&As

Information on M&As are from the Security Data Corporation's (SDC) Platinum Worldwide Mergers and Acquisitions Database. Each record includes general information about the target and acquiring firms, such as the country of residence and the SIC code of its primary economic activity. Records also include general information about the deal, such as its value, the effective date of realization and the percentage acquired by the bidder, if conditions and terms of the transactions are disclosed. We included in our analysis all the transactions reported in SDC for which information is disclosed and that involve significant acquisition of value (defined in the database as "acquisition of a major interest") as well as transactions that involve a change in control (defined in the database as "an acquisition that increases the stake of the acquiring institution from less than 50% to 50% or more of the ownership shares of the target institution").

We define a deal as cross-border when the nationalities of the target and the acquiring firms are different. This definition does not coincide with that adopted by SDC, which refers to the ultimate parent firm's nationality of the bidder institution, that we used instead in compiling tables 1 and 2.

We consider deals that took place between 1990 and 2003. Moreover, in order to limit the number of countries that in theory could host a target firm, but in practice are not significant hosts and therefore would add noise to our estimates, we restrict our sample in the following way: we define as potential host-countries those where at least 2 deals took place in both the insurance and the banking sectors between 1990 and 2003, ending up with 37 potential host-countries, and as origin-countries those countries where at least one local firm (financial or non-financial) was a bidder in a cross-border deal during the sample period, either in the financial or in the non-financial sector, ending up with 47 origin-countries. In total, we have 1,702 possible combinations of potential home- and host-countries in which the host- and the home-country differ.

Table 3 reports the breakdown by destination country of deals in all sectors of economic activity. We have 403 cross-border deals in the banking sector and 231 in the insurance sector (Table 3, Panel A). The share of cross-border deals in the two sectors amounts, respectively, to 8.0 per cent and 22.6 per cent of total deals (Table 3, Panel B). In the banking sector the destination countries with the smallest shares are Malaysia (2.2 per cent) and the United States (2.3); those with the largest share are Poland (58.1 per cent) and Peru (50.0). In the insurance sector the countries with the smallest shares are the United States (8.7 per cent) and Australia (13.0); those with the largest share are Hong Kong (78.6 per cent) and Colombia, Lithuania, Poland and Peru (75.0). The unweighted average of the 37 countries' share of cross-border M&As is 26.7 per cent in the banking sector and to 41.8 in the insurance sector.

Tables 4 and 5 report, for the insurance sector and the banking sector, respectively, the breakdown of cross-border deals by home- and host-country. The United States are home of institutions that were bidder in the largest number of cross-border deals in the insurance sector (40), closely followed by the United Kingdom (36); Bermuda, Canada, France, Italy, Netherlands and Switzerland registered from 10 to 20 deals, all the other countries fewer than 10. In the banking sector, institutions from the United States were bidder in the largest number of cross-border deals (61), followed by those of the United Kingdom (26). Institutions from Canada, France, Netherlands, Singapore and Spain were bidder in number of deals comprised between 15 and 22.

3.3 Data on countries

Data on GDP, population, and saving ratios are from the Penn World Tables, version 6.1. Data on bank credit, stock market capitalization and the old dependency ratio are from the World Bank database. Data on bilateral trade, distance, corporate taxation, common language and common colonization are from Andrew Rose's web site.[11] Insurance penetration is from Beck and Webb (2002). Price earning ratios are from Datastream; control premia from Morck et al. (2005) and regulatory restrictions on domestic banking activities are from Barth et al. (2000).

All the variables considered are averages over the whole sample period, when available, or of the longest available period; overall, they all have a high degree of cross-country variability (table 6).

4 Econometric results

4.1 Basic model

Table 7 presents the results of the estimates of basic specification of the empirical model described by equations (1) and (2). Panel A reports the coefficient estimates and the elasticities of the equation for the incidence of bank cross-border M&As; panel B those for insurance companies; panel C reports the statistics of the test for the difference in the values of the coefficients between banks and insurance companies. All estimations include fixed effects for the countries of origin and of destination, although the coefficients are not reported.[12]

[11] Data are available at http://faculty.haas.berkeley.edu/arose/RecRes.htm.

[12] Due to multicollinearity problems, some country dummies were dropped from the estimation. All major results are confirmed also using less robust specifications (unreported) that exclude, respectively, origin country dummies, host country dummies, or both.

4.1.1 Determinants of cross-border M&As

Economic integration

A number of characteristics of the bilateral relationship between origin and destination countries have an economic and statistical significant impact on the number of cross-border M&As. Consistent with the findings of the previous literature, these are more likely when trade relationships are stronger (with an elasticity of 0.99 and 0.83, respectively for banks and for insurance companies), when the same language is spoken (0.07 and 0.07) and when in the past there were colonial relationships between the two countries (0.01 and 0.01).

Size and economic development

In a large number of financial activities risk diversification is associated with higher returns. As a result, financial firms located in countries of smaller size and with a lower level of economic development might have a stronger incentive to expand their activities abroad. At the same time, bigger countries should attract a larger share of investment because they have more diversified economic activities. However, two effects could work against the benefits of diversification provided by bigger countries. First, lower per capita GDP levels can proxy for higher growth prospects, in particular within countries that are expected to converge to a common growth path. Second, larger countries are typically more capable of putting forward stronger implicit barriers to foreign entry.

In order to capture the effect of risk diversification we include as explanatory variables both the size of the country, proxied by its population, and its degree of development, measured by per capita GDP. The coefficients of the home country variables provide some support to the presence of a risk diversification effect, but only for banks. While the size of the home country has a small and not statistically significant effect on the number of cross-border bank M&As (the elasticity is –0.11), the effect of per capita GDP is sizeable (the elasticity is –1.49) and statistically significant at the 1 per cent level. In the case of insurance companies the effects are economically small and statistically insignificant.

Contrary to what the risk diversification effects would suggest, smaller and less developed countries are more likely to attract foreign investors. In particular, insurance companies are more likely to merge with or acquire companies in countries that are less populated (the elasticity is –0.71, significantly different from zero at the 5 per cent level) and have a lower per capita GDP (–2.00, significant at the 1 per cent level). In the case of banks, only per capita GDP significantly influences the number of cross-border M&As, with a strong (elasticity of 1.74) and statistically significant effect (p-value of less then 1 per cent).

Financial market development

Financial market development is clearly a crucial determinant of the patterns of internationalization of bank and insurance companies. With respect to the country of origin, two opposing forces are likely to be in place. On the one hand, companies operating within more developed financial systems and larger banking or insurance markets are likely to be more efficient, and therefore more capable of exploiting profit opportunities abroad. On the other hand, more developed domestic industries might also provide larger diversification opportunities and higher prospects of economic growth, thus reducing the incentives to internationalize.

The results show that banks and insurance companies are indeed more likely to expand abroad if they operate in countries where the ratio of stock market capitalization to GDP is higher (with elasticities of 1.24 for banks and 0.96 for insurance companies, respectively significant at the 1 and 5 per cent level), indicating a positive effect of the financial market development on the propensity to expand abroad of both banks and insurance companies.

The effect of both the banking and the insurance sector development in the country of origin is not significant for banks' decision to expand abroad. On the contrary, insurance companies are more likely to expand abroad if they are based in country with a larger banking sector (with an elasticity of 1.95, significantly different from zero at the 1 per cent level) and a smaller insurance industry, measured by the value of insurance premiums over GDP (with an elasticity of –0.40, significantly different from zero at the 5 per cent level). A possible explanation of these results is that the size of the banking sector is not only a measure of the industry's development, but also a proxy of overall financial depth, while this is not true, at least to the same extent, for the insurance sector. In banking, the two opposing forces mentioned above cancel each other, while in the insurance sector the presence of larger profit and diversification opportunities when the market is more developed has a prevailing effect, thus reducing the incentives to expand abroad.

The characteristics of the financial markets in the destination countries seem also to affect the pattern of internationalization through a number of different and possibly opposing forces. The degree of development of the stock market in the destination country has a positive and significant effect on the entry of foreign banks (elasticity of 0.44 and p-value of less than 10 per cent), consistent with the hypothesis that financial depth fosters economic growth and therefore the profit opportunities for financial firms. The effect is not significantly different from zero in the case of insurance companies.

Banks are also more likely to merge with institutions operating in countries with a smaller banking sector (the elasticity is –0.74, significant at the 1 per cent level), possibly because they fear stronger competition or because in this case entry is more difficult due to explicit and implicit barriers. For insurance companies the effect is smaller (elasticity of –0.55), but still significant at the 10 per cent level.

Finally, countries with a higher insurance penetration are more likely to attract cross-border M&As in the insurance sector (with an elasticity of 0.24), consistent with the diversification hypothesis, while there is no evidence that the decisions of banks are influenced by the size of the insurance market.

Institutional and economic characteristics

A number of institutional and demographic characteristics of the origin and destination countries have a significant effect on the pattern of internationalization of banks and insurance companies.

The saving rates impact on the growth prospects of financial companies, and therefore on their desire to diversify their decisions of cross-border activities. Indeed, *a priori*, the effect is unclear: smaller saving rates imply lower demand for financial assets, affecting profit opportunities of both banks and insurance companies, but also higher demand for highly profitable financial products to be used as a shield against temporary income fluctuations, offered most often by banks. Although not very strong, our results are consistent with this latter interpretation: the coefficient of the saving rate of the country of origin is positive and significant for banks and negative, although not significantly different from zero, for insurance companies (the elasticities are 0.61 and –0.66, respectively). With respect to the destination countries, results are even weaker as none of the two coefficients is significantly different from zero.

Corporate taxation is potentially one of the key factors explaining the patterns of internationalization. However, in our analysis we only find that banks are more likely to expand abroad if corporate taxation is higher in their home country (with an elasticity of 2.02, significant at the 1 per cent level), while no other coefficient is significantly different from zero.

The demographic structure of the population might also influence the internationalization patterns. A higher old dependency ratio might reduce the demand for banking services and is also likely to be positively correlated with social security expenses, that typically crowd-out insurance products. Our results on this issue are however quite ambiguous, indicating that banks are more likely to expand abroad if the old dependency ratio is high, but they also tend to expand preferably towards countries with the same characteristic; the elasticities are in both cases quite substantial (0.95 and 1.31, respectively). On the contrary there are no significant effects in the case of insurance companies.

Cross-border M&As are less numerous for banks when the host country is a member of the G10 (with an elasticity of –0.14, and a p-value of 0.19) while they are more numerous for insurance companies (elasticity of 0.12 and p-value of 0.30). Although, taken singularly, both the coefficients are not significantly different from zero, they are significantly different from each other at the 10 per cent level, providing some support to the hypothesis that larger countries put forward implicit barriers

against the entry of foreign banks, while they are less concerned with the entry of foreign insurance companies.

Finally, in order to capture the presence of implicit barriers to the entry of foreign firms we also include as a dependent variable the log value of the total number of M&As involving as target a firm based in the destination country, a variable that measures the overall degree of market contestability. A coefficient equal to 1 is consistent with the hypothesis that the market is contestable for foreigners as well for domestic competitors, while a negative coefficient is consistent with the "national champions" hypothesis (Vives 2001; Carletti and Hartmann 2002), which predicts that a large number of domestic M&As are fostered by local authorities in order to reduce the likelihood of the foreign entry. Our results show that countries with a more higher number of insurance M&AS have also a higher number of cross-border M&As (with an elasticity of 0.64, not significantly different from 1), while the elasticity for banks is equal -0.01, which is significantly different from 1 to the 1 per cent level.

4.1.2 Differences between banks and insurance companies

Although the patterns of internationalization of banks and insurance companies share many similar characteristics, some interesting differences emerge.

Characteristics of the bilateral relationships, measuring economic integration, have a similar effect on the number of cross-border M&As of banks and insurance companies. All three variables included in the empirical specification (bilateral trade, common language and colonial relationships) have coefficients of similar magnitude, suggesting that the economic integration (the so called "follow the client" hypothesis) is an equally important determinant for both the banks' and the insurance companies' internationalization strategy.

Characteristics of the origin country have instead a rather different effect across the two sectors. Insurance companies are more likely than banks to expand abroad if they are based in a country with a higher per capita income, a larger banking system and a smaller insurance industry (although this coefficient is statistically different from zero only at the 27 per cent level). One possible explanation is that insurance companies have a higher propensity to expand abroad when their local markets are relatively small and the growth prospects (proxied by per capita income and development of the banking system) are not strong, suggesting that they might face difficulties to expand domestically because the market is more demand driven than it is in banking. The other important difference with banks is that insurance companies' decisions seem to be less affected by taxation and the demographic structure of the population, possibly because these characteristics are already captured by the size of both the banking and the insurance markets.

Turning to the characteristics of the destinations, we find that insurance companies are more likely than banks to enter countries with a lower stock market capitalization, with a higher market contestability and to enter G10 countries. The last two results, in particular, provide evidence supporting the hypothesis that insurance companies face lower implicit or explicit barriers to entry in foreign markets.

Finally, the higher explanatory power of the estimates of the patterns of internationalization in banking (R-square equal to 0.44) than in insurance (R-square equal to 0.31) suggests that widespread diversification, as suggested for example by an International CAPM model, is less likely for banks, possibly because their behavior is more constrained by the role of regulations and asymmetric information.

4.2 Robustness checks

4.2.1 Developed and developing countries

In order to verify whether there are significant differences in the determinants of foreign expansion in the financial sector between developed and developing countries we have estimated the model in equations (1) and (2) for the two sub-samples of G10 (table 8) and non-G10 destination countries (table 9).[13]

The effect of economic integration (measured by bilateral trade, common language and, when appropriate, common colonization) is stronger for non-G10s, suggesting that the "follow the client" hypothesis is more relevant when the destination countries are at an early stage of development, possibly because in this case it is more difficult to acquire information about potential targets unless strong links are already in place.

The degree of economic development in the origin countries, measured by per capita GDP, has different consequences within G10s and non-G10s. For more developed countries the effect is positive, in particular in the case of insurance companies, while for less developed countries it is instead negative, suggesting that companies are more likely to expand abroad towards countries at similar stages of development.

Financial depth, measured by the ratio of stock market capitalization to GDP, has a more sizeable effect on the patterns of international expansion towards non-G10s, possibly because in this case access is more dependent on efficiency considerations than on the ability to by-pass barriers to

[13] The two specifications are not identical, because some variables cannot be estimated in both sub-samples (common colonization, insurance penetration in the destination country and, due to multicollinearity problems, the constants).

entry. The development of the local industry is only significant in the case of M&As of insurance companies, quite surprisingly with a strong negative effect, suggesting that diversification considerations matter more with respect to expansions towards less developed countries.

Also the effect of characteristics of the destination countries is substantially different in the case of G10s and non-G10s. Lower per capita GDP has a strong economic effect in increasing the attractiveness for foreign investors among G10 countries, consistent with the interpretation that within countries at similar stages of development, lower per capita GDP indicates higher growth prospects, along the convergence path. Higher stock market capitalization and lower development of the banking sector increase the number of incoming M&As within developing countries, while the effect is non significant for non-G10 destinations. Finally, corporate taxation has a significant effect on the cross-border M&As of banks and insurance companies towards non-G10s as destination countries, while the effect is smaller and only significant in the case of banks when G10s are considered, possibly because of the effects of agreements on cross-border taxation among more developed countries.

Interestingly, the log value of the total number of M&As, a variable which attempts to capture implicit barriers to the foreign entry, has a very different effects for banks in the case of G10 and non-G10 countries. In particular, we find that the larger is the number of domestic M&As the lower is the number of foreign banks' entry in the case of G10 destination countries (the elasticity is significantly different from both 0 at the 10 per cent level and 1 at the 1 per cent level). This result is consistent with the "national champions" hypothesis we discussed above. On the contrary, the coefficient is positive and not significantly different from 1 either for banks in the case of non-G10 countries or for insurance companies in the case of both G10 and non-G10 countries.

Overall, these results suggest that M&As towards non-G10 countries are more sensitive to economic integration, profit expectations and prospects of overall economic growth than those toward G10s. A tentative explanation, encompassing all these facts, is that economic factors are more relevant in explaining the behavior of investors towards less developed countries than they are within economies where implicit economic barriers to foreign access can play a stronger role, in particular for banks.

4.2.2 Intensive and extensive margins

Table 5 shows that in the large majority of country pairs in our sample there have been no cross-border M&As, neither in banking nor in the insurance sector. This suggests that the results of our analysis might be driven more by the number of countries having at least one bilateral relationship –
that we call "extensive margin" – than by the relative number of M&As across country pairs – the "intensive margin". In order to address this issue, we have estimated the model in equations (1) and (2)

on the sub-sample of 308 country-pairs having at least one cross-border M&A, including an Heckman correction term accounting for the sample selection bias.

Table 10 presents the probit estimates on the probability that each country pair has registered at least one cross-border M&A during the sample period. The results are similar to those obtained using the negative binomial specification on the whole sample, suggesting that the extensive margin has an important role in shaping the pattern of cross-border M&As in the banking and insurance sectors. The only major difference is that a number of variables that in the negative binomial specification are not significantly different from zero, become significant with the probit.[14] Moreover, the tests for the differences in the effects between banks and insurance companies are significant in the probit specification also for insurance penetration, population and old dependency ratio in the destination countries.

Table 11 presents the results of the estimates of the negative binomial specification on the sub-sample of country-pairs with at least one cross-border M&A. Also in this case, the results have the same sign of those obtained from the estimation of the model on the whole sample, suggesting that also the determinants of the intensive margins have a significant effect on the overall patterns of internationalization. The coefficient of the Mill's ratio, measuring the effect of excluding country pairs with no bilateral M&As, is positive and significant for banks, negative and not significantly different from zero for insurance companies. However, while for banks the estimates on the whole sample and those on the sub-sample are very similar, in the case of insurance companies the latter estimates give smaller coefficients, so that only a few of them remain significantly different from zero.

4.2.3 Additional explanatory variables

A final set of regressions tests the robustness of the results to the inclusion of additional explanatory variables in the basic specification. The reasons for not including these variables in the basic specification are twofold: first, in same cases the information is not available for the entire sample; second, some variables turn out to be insignificant and their inclusion would only amplify the multicollinearity problems that typically affect empirical cross-country analyses.

Higher control premia both in the origin and destination countries are associated with a lower number of cross-border M&As, although the effects are only significant in the case of banks (panel A). While for destination countries this result suggests that foreign investors find more difficult to enter less contestable markets and that they are not willing to pay such premia, in the case of origin countries this might signal lower incentives for profit searching abroad, and possibly lower efficiency

(see, Morck et al., 2005, for a discussion of the relationship between control premia and corporate efficiency). Consistent with this last interpretation, higher bank industry concentration in the origin country has a negative effect on the number of cross-border M&As (panel B), although the effect is not significantly different from zero in all other cases.

Price earning ratios can have two opposite effects on the corporate activity of financial enterprises. On the one hand they signal better growth prospects, on the other they imply higher acquiring prices and a lower cost of external finance. Indeed, the results reported in panel C of table 12, although being significant only for insurance companies, are consistent with both interpretations. Higher price-earning ratios in the origin country increase the number of cross-order M&As, possibly because the lower cost of capital and the higher acquiring cost effects prevail. In the destination country, higher price-earning ratios reduce instead the number of M&As, because they imply high acquiring prices. This is also consistent with the hypothesis that foreign investors are not interested in acquiring companies that have *per se* good growth prospects, but instead prefer to target inefficient enterprises that might become profitable only after the injection of external know-how.

Finally, contrary to our expectations and to the results of Buch (2003), Buch and DeLong (2004) and Focarelli and Pozzolo (2001 and 2005), regulations in the financial sector are not found to contribute explaining the pattern of financial companies internationalization. In particular, stronger regulatory restriction to banking activities, limitations to bankassurance and limitations to control of non-financial firms by part of banks have no significant effects on the number of cross-border M&As. One possible justification, although limited to the case of destination countries, is that these variables are likely to be strongly correlated with the total number of M&As, our proxy for contestability.

Additional unreported results also show no significant effects of the ratio of social security transfers to GDP, possibly because this effect is more robustly captured by the old dependency ratio, and of the share of banks under public control.

5 Conclusions

The empirical analysis presented in this paper shows that the internationalization of banks and insurance companies follow similar patterns, driven by economic integration and profit opportunities.

In particular, characteristics of the bilateral relationships have an impact on the decision to expand abroad of similar magnitude, suggesting that the economic integration (the so called "follow

[14] In particular, the G10 dummy and the common colonization dummy become significantly different from zero; the coefficient of the saving rate in the origin country is negative and significantly different from zero, instead of positive and not significantly different from zero.

the client" hypothesis) is an equally important determinant for both the banks' and the insurance companies' internationalization strategy.

Characteristics of the origin country have instead a rather different effect across the two sectors. In particular, the results show that insurance companies have a higher propensity than banks to expand abroad when their local markets are relatively small and the growth prospects (proxied by per capita income and development of the banking system) are not strong, while companies' decisions seem to be less affected by taxation and the demographic structure of the population. These results are broadly consistent with the hypothesis that risk diversification is more important in insurance, possibly because supply factors are less relevant in determining the market equilibrium.

Contrary to the previous empirical evidence, and to our *a priori*, measures of stronger regulatory restrictions in banking activities and of higher explicit barriers to foreign entry have not proven to be a significant cause of differences in the pattern of internationalization of banks and insurance companies. However, our results provide support to the hypothesis that implicit barriers to foreign entry are more important in explaining the behavior of banks than that of insurance companies, although only when the target firm is located in a G10 country. In particular, the results show that the number of cross border M&As is negatively correlated to the log value of the total number M&As for banks in the G10 countries, while it is positively correlated and the coefficient is not significantly different from 1 for insurance companies and banks in the non-G10 countries. These results suggest that in the G10 countries there is a strong segmentation between domestic and foreign M&As in banking and are consistent with the "national champions" hypothesis, according to which national authorities of G10 countries are prone to promote domestic merger in order to reduce the likelihood of foreign banks' entry while are less concerned with the entry of foreign insurance companies.

Table 1

M&As in the financial sector

Source: Thomson Financial , SDC Platinum

	Total (1)	Banks (2)		Insurance Companies (3)	
	(a)	(b)	(b/a)	(c)	(c/a)
Panel A: World					
		1990-1995: yearly averages			
Number	954	561	59	129	14
Number (disclosed)	505	332	66	58	12
Value $ mln.	76,824	56,711	74	10,358	13
		1996-2000: yearly averages			
Number	1,556	780	50	215	14
Number (disclosed)	866	492	57	106	12
Value $ mln.	360,825	243,333	67	65,030	18
		2001-2003: yearly averages			
Number	1,436	594	41	155	11
Number (disclosed)	747	338	45	72	10
Value $ mln.	178,194	110,632	62	33,552	19
		1990-2003: overall values			
Number	17,813	9,046	51	2,312	13
Number (disclosed)	9,604	5,462	57	1,094	11
Value $ mln.	2,799,653	1,888,828	67	487,952	17
Panel B: G10 Countries					
		1990-1995: yearly averages			
Number	728	439	60	100	14
Number (disclosed)	387	265	68	45	12
Value $ mln.	66,367	49,187	74	8,895	13
		1996-2000: yearly averages			
Number	1,005	537	53	144	14
Number (disclosed)	602	363	60	75	12
Value $ mln.	324,709	218,947	67	59,099	18
		2001-2003: yearly averages			
Number	739	367	50	87	12
Number (disclosed)	406	224	55	44	11
Value $ mln.	142,823	85,819	60	30,401	21
		1990-2003: overall values			
Number	11,612	6,418	55	1,578	14
Number (disclosed)	6,548	4,078	62	780	12
Value $ mln.	2,450,214	1,647,313	67	440,064	18

Table 2

Share of Cross-Border M&As in the financial sector (*percentages*)

Source: Thomson Financial , SDC Platinum

	1990-1995	1996-2000	2001-2003	1990-2003
Panel A: World				
	Total			
Number	16.5	21.8	22.0	20.1
Number (disclosed)	13.7	19.7	21.9	18.3
Value $ mln.	11.4	18.7	23.1	18.3
	Banks			
Number	12.1	16.2	19.2	15.3
Number (disclosed)	9.8	14.6	19.4	13.8
Value $ mln.	8.3	11.0	25.1	13.0
	Insurance Companies			
Number	28.1	35.6	32.0	32.4
Number (disclosed)	24.1	33.2	30.7	29.8
Value $ mln.	25.9	31.9	23.0	29.3
Panel B: G10 Countries				
	Total			
Number	12.2	15.0	15.6	14.1
Number (disclosed)	9.6	13.0	15.0	12.2
Value $ mln.	10.2	15.5	17.8	15.0
	Banks			
Number	8.1	9.2	11.6	9.2
Number (disclosed)	6.3	7.8	12.2	7.9
Value $ mln.	6.8	6.6	18.9	8.6
	Insurance Companies			
Number	23.1	26.4	17.2	23.6
Number (disclosed)	19.9	27.4	20.3	23.6
Value $ mln.	28.6	31.5	20.1	28.8
Panel C: Other Countries				
	Total			
Number	30.5	34.1	28.7	31.5
Number (disclosed)	27.1	34.8	30.2	31.5
Value $ mln.	18.6	47.7	44.7	41.5
	Banks			
Number	26.6	31.6	31.6	30.2
Number (disclosed)	24.0	34.0	33.6	31.0
Value $ mln.	18.1	50.3	46.5	43.1
	Insurance Companies			
Number	44.9	54.1	51.2	51.1
Number (disclosed)	38.5	47.4	47.6	45.2
Value $ mln.	9.8	36.4	51.5	34.5

Table 3

Cross-border M&A's Distribution by Country

Source: Thomson Financial , SDC Platinum.

Country	Panel A: Number of cross border M&As				Panel B: % of total M&As			
	Banks	Insurance Companies	Other firms	Total	Banks	Insurance companies	Other firms	Total
Argentina	11	4	142	157	35.5	36.4	55.9	53.0
Australia	13	3	317	333	13.1	13.0	23.0	22.2
Belgium	9	6	86	101	34.6	66.7	57.3	54.6
Brazil	14	5	166	185	35.0	71.4	47.4	46.6
Canada	8	7	577	592	7.3	23.3	20.5	20.0
Chile	5	4	88	97	38.5	44.4	61.5	58.8
Colombia	6	3	32	41	37.5	75.0	61.5	56.9
Denmark	5	2	83	90	38.5	22.2	49.1	47.1
Estonia	2	2	20	24	28.6	33.3	40.0	38.1
Finland	3	1	82	86	20.0	14.3	29.4	28.6
France	26	14	416	456	22.8	50.0	44.6	42.4
Germany	13	6	390	409	29.5	31.6	63.7	60.6
Hong Kong	18	11	288	317	15.5	78.6	32.5	31.2
Indonesia	15	6	109	130	48.4	54.5	54.2	53.5
Ireland	8	2	113	123	53.3	25.0	60.1	58.3
Israel	2	1	72	75	15.4	16.7	39.3	37.1
Italy	10	8	194	212	6.7	21.1	32.7	27.1
Japan	7	11	86	104	5.8	28.2	6.7	7.2
Lithuania	7	3	28	38	87.5	75.0	58.3	63.3
Malaysia	8	5	107	120	2.2	17.2	6.8	6.1
Mexico	13	6	89	108	38.2	37.5	53.0	49.5
Morocco	1	1	9	11	25.0	33.3	60.0	50.0
Netherlands	7	7	204	218	36.8	63.6	61.8	60.6
Norway	4	2	129	135	10.8	22.2	39.0	35.8
Peru	5	3	38	46	50.0	75.0	57.6	57.5
Philippines	7	6	68	81	22.6	42.9	43.6	40.3
Poland	18	6	178	202	58.1	75.0	46.5	47.9
Portugal	6	3	44	53	16.2	42.9	32.4	29.4
Singapore	8	4	163	175	17.0	30.8	26.2	25.6
South Africa	5	3	112	120	11.1	13.0	20.4	19.4
South Korea	4	5	75	84	22.2	55.6	26.1	26.8
Spain	17	13	183	213	27.4	44.8	35.4	35.0
Switzerland	5	2	103	110	15.6	50.0	66.5	57.6
Thailand	10	1	103	114	27.0	14.3	40.2	38.0
United Kingdom	32	24	895	951	9.6	17.1	18.9	18.3
United States	66	35	1,494	1,595	2.3	8.7	12.2	10.2
Venezuela	5	6	33	44	22.7	54.5	62.3	51.2
Total	403	231	7,316	7,950	8.0	22.6	22.0	20.2
unweighted avg. of countries	11	6	198	215	26.7	40.0	41.8	39.6

Table 4

Cross-border M&A's in the Insurance Sector

(rows: markets of origin; columns: markets of destination)

Source: Thomson Financial , SDC Platinum.

Country	Argentina	Australia	Belgium	Brazil	Canada	Chile	Colombia	Denmark	Estonia	Finland	France	Germany	Hong Kong	Indonesia	Ireland	Israel	Italy	Japan	Lithuania
Australia		.											1						
Belgium			.								1								
Bermuda				.							1								.
Brazil	1				.														
Canada						.													
Chile							.	2			1								
Colombia								.											
Denmark									.										1
Estonia										.									1
Finland									1		.								
France		1	1	1	2						.	1		1			1	2	
Germany			1						1		2	.			1		4		
Hong Kong													.						
Ireland															.				
Italy				1							4	2				1	.		
Japan																		.	
Malaysia													2	3					
Netherlands			2		1	1							1						
New Zealand		1																	
Oman																.			
Philippines																			
Poland																			1
Portugal																	1		
Singapore													6	1					
South Africa																			
Spain	2					1	1												
Sweden																			
Switzerland						1					1	1					1	1	
Trinidad/Tob.																			
United Kingdom		1	1		2			1		1	2	1			1		1	1	
United States	1		1	3	2	1		1			2	1	1	1				7	
TOTAL	4	3	6	5	7	4	3	2	2	1	14	6	11	6	2	1	8	11	3

Cross-border M&A's in the Insurance Sector

(rows: markets of origin; columns: markets of destination)

Source: Thomson Financial , SDC Platinum.

Country	Malaysia	Mexico	Morocco	Netherlands	Norway	Peru	Philippines	Poland	Portugal	Singapore	South Africa	South Korea	Spain	Switzerland	Thailand	United Kingdom	United States	Venezuela	Total
Australia																3			4
Belgium				2													2		5
Bermuda																2	7		10
Brazil																			1
Canada										1						1	8		10
Chile																			3
Colombia																		1	1
Denmark								1											2
Estonia																			1
Finland				1															2
France			1	1					2			1	2			3			20
Germany	2							3				1					2	1	18
Hong Kong							1									1			2
Ireland																1			1
Italy														1			2		11
Japan							1												1
Malaysia	.						2												7
Netherlands		2		.				1					2				4		14
New Zealand																			1
Oman																2			2
Philippines							.			1									1
Poland								.											1
Portugal									.										1
Singapore	2									.									9
South Africa											.					1			1
Spain						1	1		1				.					1	8
Sweden					1											1			2
Switzerland		1		1	1								4	.		1	2		15
Trinidad/Tob.																		1	1
United Kingdom	1	1		1		1		1		1	2	1	5	1		.	8	1	36
United States		2		1		1	1			1	1	2			1	8	.	1	40
TOTAL	5	6	1	7	2	3	6	6	3	4	3	5	13	2	1	24	35	6	231

Table 5

Cross-border M&A's in the Banking Sector

(rows: markets of origin; columns: markets of destination)

Source: Thomson Financial , SDC Platinum.

Country	Argentina	Australia	Belgium	Brazil	Canada	Chile	Colombia	Denmark	Estonia	Finland	France	Germany	Hong Kong	Indonesia	Ireland	Israel	Italy	Japan	Lithuania
Argentina	.																		
Australia		.	1										1						
Austria																			
Bahrain									.							.			.
Belgium			.								2								
Bermuda			.				1												.
Canada	1	1			.									1					
Chile	1					.													
China													5						
Colombia							.												
Denmark								.											
Ecuador							2												
Estonia									.										2
Finland								1	2	.									2
France	1		2	1							.	3			1		2		
Germany			1			2					2	.		2					1
Hong Kong		2		1									.						
Indonesia														.					
Ireland															.				
Israel					1											.			
Italy	1		1								2	1					.		
Japan														1				.	
Kuwait																.			
Latvia																			1
Lebanon											1					.			
Luxembourg											2						2		
Malaysia		1											3	3					
Mexico	1																		
Netherlands		3	2	2			1				1	1							
Philippines																			
Portugal				1															
Singapore		3											5	8					
South Africa																1			
South Korea																			
Spain	2			4		2	1												
Sweden			1					4		3		2	1						1
Switzerland																			
Uganda																.			
United Kingdom	1	2	1								9	5	1		7		1		
United States	2			5	7	1					7	1	2			1	5	7	
Venezuela	1						1												
Vietnam		1																	
TOTAL	11	13	9	14	8	5	6	5	2	3	26	13	18	15	8	2	10	7	7

Table 5 continued

Cross-border M&A's in the Banking Sector

(rows: markets of origin; columns: markets of destination)

Source: Thomson Financial , SDC Platinum.

Country	Malaysia	Mexico	Morocco	Netherlands	Norway	Peru	Philippines	Poland	Portugal	Singapore	South Africa	South Korea	Spain	Switzerland	Thailand	United Kingdom	United States	Venezuela	Total
Argentina													1						1
Australia																2	11		15
Austria									1										1
Bahrain														1			1	.	2
Belgium				1				2					1						6
Bermuda																	1		2
Canada		1											2	1		1	24		32
Chile						1												1	3
China										1									6
Colombia																		1	1
Denmark					1														1
Ecuador																		1	3
Estonia																			2
Finland					1			1			1						1		9
France			1			1		2	1				3	1		2	1		22
Germany				1				3								3	4		19
Hong Kong	2									3					1	3			12
Indonesia				1													1		2
Ireland								1								4	1		6
Israel																			1
Italy								1					3						9
Japan															1	1	1		4
Kuwait															1				1
Latvia																			1
Lebanon																			1
Luxembourg													1						5
Malaysia	.						3			3	4			1		1			19
Mexico		.																	1
Netherlands				.				4					2		2	3	6		27
Philippines	1						.												1
Portugal									.				3						4
Singapore	3						3			.					1				23
South Africa											.					4			5
South Korea								1				.					1		2
Spain		6				2			3				.				1	1	22
Sweden				1	2			1								2			18
Switzerland														.			1		1
Uganda		.															1	.	1
United Kingdom		1		3					1				1		1	.	7	1	42
United States	1	5						2		1		4		1	3	6	.		61
Venezuela																		.	2
Vietnam																			1
TOTAL	7	13	1	7	4	4	6	18	6	8	5	4	17	5	10	32	63	5	397

Table 6

Country Summary Statistics

Source: Bank Credit/GDP, Stock market capitalization and the Old dependency ratio are from the World Bank data base; GDP per capita and population are from the Penn World tables; Corporate taxation is from Adrew Rose's website (http://faculty.haas.berkeley.edu/arose/RecRes.htm); Insurance penetration is from Beck and Webb (2002).

Country	Bank credit/ GDP	Insurance penetration	GDP per capita	Population	Corporate taxation	Saving ratio	Old depend-ency ratio	Stock market capitaliza-tion/GDP
Argentina	0.202	0.021	11,171	34.1	35.0	14.4	9.2	0.421
Australia	0.824	0.083	24,400	18.1	30.0	23.3	11.8	0.889
Austria	1.006	0.054	22,459	7.9	34.0	24.0	15.1	0.158
Belgium	0.766	0.064	22,392	10.1	39.0	27.2	15.9	0.657
Brazil	0.283	0.022	6,941	159.0	15.0	14.4	4.8	0.317
Canada	0.653	0.064	24,953	29.3	26.1	28.4	12.1	0.947
Chile	0.561	0.033	9,557	14.2	16.0	20.9	6.7	0.840
China	1.130	0.017	3,303	1198.9	30.0	24.1	6.5	0.311
Colombia	0.193	0.021	5,506	38.6	35.0	8.6	4.5	0.154
Denmark	0.805	0.064	25,335	5.2	30.0	27.4	15.0	0.537
Ecuador	0.330	0.006	3,705	11.3	25.0	19.5	4.4	0.070
Estonia	0.226	0.015	8,599	1.5	35.1	5.7	13.2	0.184
Finland	0.554	0.078	21,647	5.1	29.0	29.2	14.3	1.346
France	0.849	0.082	21,216	57.8	33.3	24.7	15.2	0.724
Germany	1.148	0.063	21,875	80.8	25.0	24.1	15.6	0.481
Hong Kong	1.589	0.045	25,651	6.2	16.0	27.9	9.9	3.022
Indonesia	0.345	0.010	3,716	192.2	30.0	20.2	4.3	0.249
Ireland	0.918	0.093	22,197	3.7	16.0	34.0	11.3	0.618
Israel	0.789	0.053	16,563	5.5	36.0	16.0	9.4	0.489
Italy	0.677	0.047	21,202	57.2	36.0	23.9	16.7	0.438
Japan	1.120	0.113	24,272	125.2	30.0	32.1	15.1	0.669
Korea, Rep.	0.703	0.109	14,647	44.9	27.0	36.4	6.0	0.392
Kuwait	0.508	0.008	23,386	2.2	55.0	23.3	1.7	0.688
Latvia	0.156	0.017	6,902	2.5	22.0	2.3	13.5	0.057
Lithuania	0.120	0.009	6,952	3.6	24.0	4.9	12.4	0.111
Luxembourg	1.062	0.039	39,612	0.4	30.0	41.0	13.9	1.609
Malaysia	0.952	0.043	9,486	20.7	28.0	39.2	4.0	1.630
Mexico	0.182	0.015	7,921	90.6	35.0	19.0	4.4	0.250
Morocco	0.470	0.025	3,755	26.4	35.0	5.8	4.1	0.303
Netherlands	1.267	0.091	22,905	15.4	34.5	27.5	13.3	1.274
New Zealand	1.061	0.060	18,066	3.7	33.0	22.6	11.6	0.507
Norway	0.658	0.042	26,261	4.4	28.0	35.3	15.8	0.370
Oman	0.370	0.011	16,668	2.0	30.0	31.0	2.5	0.237
Peru	0.233	0.011	4,548	23.8	27.0	16.5	4.4	0.233
Philippines	0.403	0.014	3,292	68.8	32.0	10.4	3.6	0.608
Poland	0.241	0.024	8,465	38.4	28.0	17.1	11.2	0.124
Portugal	1.130	0.052	14,702	10.1	30.0	16.9	15.3	0.448
Singapore	1.044	0.054	24,939	3.5	24.5	57.8	6.4	1.520
South Africa	0.657	0.139	7,475	39.6	30.0	9.2	4.4	1.573
Spain	0.905	0.051	16,803	39.7	35.0	23.7	15.6	0.654
Sweden	0.577	0.057	22,175	8.7	28.0	25.8	17.4	1.082
Switzerland	1.602	0.109	25,381	6.9	21.0	30.9	14.7	2.293
Thailand	0.953	0.025	6,754	58.2	30.0	32.8	5.2	0.404
Trinidad & Tob.	0.297	0.053	9,775	1.3	35.0	15.9	6.2	0.533
United Kingdom	1.246	0.120	21,180	58.2	30.0	18.0	15.8	1.529
United States	0.582	0.088	31,179	265.9	35.0	20.8	12.5	1.341
Venezuela,	0.093	0.020	6,731	22.0	34.0	22.1	4.1	0.080
Mean	0.690	0.050	15,886	62.2	29.8	22.9	10.0	0.710
Median	0.658	0.047	16,668	18.1	30.0	23.3	11.3	0.507
Min	0.093	0.006	3,292	0.4	15.0	2.3	1.7	0.057
Max	1.602	0.139	39,612	1198.9	55.0	57.8	17.4	3.022

Table 7

The Determinants of Cross-border M&As (full sample)

The empirical model in equations (1) and (2) has been estimated using a Negative binomial specification, where the dependent variable is the number of cross-border M&As in the banking and insurance sectors between each pair of countries where at least 2 mergers have taken place in the sample period (1990-2003). Variables are defined in section 4 of the main text: (D) stands for destination (target) country data, (O) for origin (bidder) country data, (B) for bilateral data. The estimate also includes unreported country dummies. The marginal effect of each explanatory variable is calculated at the mean level for continuous variables and it is the effect of a discrete change from 0 to 1 in the case of dummy variables. Standard errors are corrected for heteroskedasticity using the White (1980) procedure. The symbol *** indicates a significance level of 1% or less; ** between 1 and 5%; * between 5 and 10%.

VARIABLES		Panel A: Banks		Panel B: Insurance companies		Panel C: Diff. Test
		Coeff. (*Std. err.*)	Marg. effect	Coeff. (*Std. err.*)	Marg. effect	χ^2
Constant		6.60	3.30	7.84	3.92	0.01
		(8.68)		*(10.09)*		
No. of M&As (log)	D	-0.01	-0.01	0.64 **	0.64	3.77 *
		(0.22)		*(0.25)*		
G10	D	-0.92	-0.15	0.77	0.12	2.71 *
		(0.70)		*(0.74)*		
Trade (log)	B	0.99 ***	0.99	0.83 ***	0.83	1.34
		(0.08)		*(0.10)*		
Common colonization	B	1.54 ***	0.01	1.93 ***	0.01	0.27
		(0.40)		*(0.65)*		
Common language	B	0.85 ***	0.07	0.76 ***	0.07	0.10
		(0.20)		*(0.21)*		
GDP per capita (log)	O	-1.49 **	-1.49	0.45	0.45	3.29 *
		(0.58)		*(0.90)*		
	D	-1.74 ***	-1.74	-2.00 ***	-2.00	0.08
		(0.55)		*(0.72)*		
Credit/GDP	O	-0.44	-0.16	1.95 ***	0.69	9.46 ***
		(0.46)		*(0.63)*		
	D	-2.11 ***	-0.74	-1.58 *	-0.55	0.29
		(0.56)		*(0.82)*		
Stock market capitalization	O	1.24 ***	0.47	0.96 **	0.37	0.32
		(0.31)		*(0.38)*		
	D	1.16 *	0.44	-0.37	-0.14	3.32 *
		(0.65)		*(0.53)*		
Insurance penetration	O	-4.33	-0.11	-15.17 **	-0.40	1.20
		(7.51)		*(6.50)*		
	D	-2.71	-0.07	8.71 *	0.24	1.96
		(6.42)		*(4.97)*		
Saving ratio	O	0.05 *	0.61	-0.06	-0.66	4.54 **
		(0.03)		*(0.04)*		
	D	0.00	-0.03	0.02	0.19	0.34
		(0.02)		*(0.03)*		
Corporate taxation	O	0.14 ***	2.02	0.04	0.64	3.67 *
		(0.03)		*(0.04)*		
	D	0.01	0.17	0.00	-0.05	0.11
		(0.03)		*(0.04)*		
Population (log)	O	-0.11	-0.11	0.02	0.02	0.22
		(0.16)		*(0.22)*		
	D	-0.06	-0.06	-0.71 **	-0.71	2.60
		(0.30)		*(0.28)*		
Old dependency ratio	O	0.19 ***	0.95	-0.02	-0.12	2.93 *
		(0.06)		*(0.11)*		
	D	0.26 ***	1.31	0.07	0.34	2.47
		(0.09)		*(0.08)*		
No. observations			1,520		1,520	
Explained variance			0.44		0.31	

Table 8

The Determinants of Cross-border M&As (G10 destination countries)

The empirical model in equations (1) and (2) has been estimated using a Negative binomial specification, where the dependent variable is the number of cross-border M&As in the banking and insurance sectors between each pair of countries where at least 2 mergers have taken place in the sample period (1990-2003) and where the destination country is either a G10, Spain or Australia. Variables are defined in section 4 of the main text: (D) stands for destination (target) country data, (O) for origin (bidder) country data, (B) for bilateral data. The estimate also includes unreported country dummies. The marginal effect of each explanatory variable is calculated at the mean level for continuous variables and it is the effect of a discrete change from 0 to 1 in the case of dummy variables. Standard errors are corrected for heteroskedasticity using the White (1980) procedure. The symbol *** indicates a significance level of 1% or less; ** between 1 and 5%; * between 5 and 10%.

VARIABLES		Panel A: Banks		Panel B: Insurance companies		Panel C: Diff. Test
		Coeff. (*Std. err.*)	Marg. effect	Coeff. (*Std. err.*)	Marg. effect	Chi^2 (*prob*)
Constant		–		–		
No. of M&a (log)	D	-1.65 *	-1.65	1.51	1.51	4.92 **
		(0.88)		*(1.11)*		
Trade (log)	B	0.90 ***	0.90	0.66 ***	0.66	1.57
		(0.12)		*(0.15)*		
Common colonization	B	–		–		
Common language	B	0.19	0.02	0.43	0.04	0.39
		(0.26)		*(0.29)*		
GDP per capita (log)	O	0.85	0.85	5.21 ***	5.21	4.71 **
		(0.79)		*(1.85)*		
	D	-5.31 ***	-5.31	-3.27	-3.27	0.45
		(1.75)		*(2.45)*		
Credit/GDP	O	-0.59	-0.21	2.76	0.98	2.57
		(0.63)		*(1.99)*		
	D	-6.11 **	-2.97	-0.22	-0.11	4.22 **
		(2.69)		*(1.01)*		
Stock market Capitalization	O	0.70 *	0.26	-0.53	-0.20	2.68
		(0.42)		*(0.61)*		
	D	5.15 **	2.55	-0.57	-0.28	3.95 **
		(2.23)		*(1.79)*		
Insurance Penetration	O	8.60	0.22	9.99	0.26	0.01
		(8.37)		*(12.02)*		
	D	–		–		
Saving Ratio	O	-0.02	-0.20	-0.22 ***	-2.53	5.56 **
		(0.04)		*(0.08)*		
	D	-0.07	-0.88	0.12 *	1.48	4.86 **
		(0.06)		*(0.06)*		
Corporate taxation	O	0.09 **	1.26	-0.05	-0.79	2.94 *
		(0.04)		*(0.07)*		
	D	0.02	0.26	-0.04	-0.55	0.26
		(0.04)		*(0.10)*		
Population (log)	O	-0.27	-0.27	-0.35	-0.35	0.05
		(0.19)		*(0.29)*		
	D	2.03 *	17.78	2.03	-10.22	2.82 *
		(1.14)		*(1.51)*		
Old dependency ratio	O	0.02	0.13	-0.32	-1.60	1.83
		(0.07)		*(0.24)*		
	D	0.24	1.72	-0.22	-1.61	3.59 *
		(0.18)		*(0.16)*		
No. observations			492		492	
Explained variance			0.28		0.10	

Table 9

The Determinants of Cross-border M&As (non-G10 destination countries)

The empirical model in equations (1) and (2) has been estimated using a Negative binomial specification, where the dependent variable is the number of cross-border M&As in the banking and insurance sectors between each pair of countries where at least 2 mergers have taken place in the sample period (1990-2003) and where the destination country is not a G10, Spain or Australia. Variables are defined in section 4 of the main text: (D) stands for destination (target) country data, (O) for origin (bidder) country data, (B) for bilateral data. The estimate also includes unreported country dummies. The marginal effect of each explanatory variable is calculated at the mean level for continuous variables and it is the effect of a discrete change from 0 to 1 in the case of dummy variables. Standard errors are corrected for heteroskedasticity using the White (1980) procedure. The symbol *** indicates a significance level of 1% or less; ** between 1 and 5%; * between 5 and 10%.

VARIABLES		Panel A: Banks		Panel B: Insurance companies		Panel C: Diff. Test
		Coeff. (*Std. err.*)	Marg. effect	Coeff. (*Std. err.*)	Marg. effect	Chi^2 (*prob*)
Constant		5.17	2.58	7.05	3.53	0.01
		(11.81)		*(16.47)*		
No. of M&a (log)	D	0.50	0.50	1.36 **	1.36	1.36
		(0.38)		*(0.65)*		
Trade (log)	B	1.07 ***	1.07	0.90 ***	0.90	0.86
		(0.12)		*(0.13)*		
Common colonization	B	0.84 *	0.01	1.15 *	0.01	0.15
		(0.46)		*(0.65)*		
Common language	B	1.01 ***	0.09	0.97 ***	0.08	0.01
		(0.26)		*(0.28)*		
GDP per capita (log)	O	-3.19 ***	-3.19	-1.20	-1.20	2.90 *
		(0.76)		*(0.89)*		
	D	0.05	0.05	-0.68	-0.68	0.13
		(1.17)		*(1.63)*		
Credit/GDP	O	-0.53	-0.19	1.82 **	0.65	5.25 **
		(0.65)		*(0.78)*		
	D	-1.31	-0.37	-0.78	-0.22	0.09
		(0.84)		*(1.49)*		
Stock market Capitalization	O	1.46 ***	0.56	1.15 **	0.44	0.26
		(0.41)		*(0.49)*		
	D	-0.54	-0.18	-1.53	-0.50	0.42
		(1.11)		*(1.02)*		
Insurance Penetration	O	-7.62	-0.20	-19.29 **	-0.51	0.71
		(10.29)		*(9.27)*		
	D	-8.98	-0.19	-1.12	-0.02	0.23
		(11.06)		*(11.28)*		
Saving Ratio	O	0.12 ***	1.43	0.03	0.29	2.14
		(0.04)		*(0.05)*		
	D	-0.06	-0.70	-0.04	-0.41	0.13
		(0.04)		*(0.06)*		
Corporate taxation	O	0.15 ***	2.12	0.07 *	1.01	1.83
		(0.04)		*(0.04)*		
	D	-0.19 **	-2.74	-0.16 *	-2.19	0.10
		(0.08)		*(0.09)*		
Population (log)	O	0.14	0.14	0.21	0.21	0.03
		(0.25)		*(0.36)*		
	D	-0.01	-0.01	-0.62 *	-0.62	1.52
		(0.36)		*(0.33)*		
Old dependency ratio	O	0.34 ***	1.73	0.14	0.74	2.27
		(0.07)		*(0.10)*		
	D	0.00	-0.01	-0.07	-0.29	0.10
		(0.14)		*(0.17)*		
No. observations			1,028		1,028	
Explained variance			0.78		0.75	

Table 10

The Determinants of Cross-border M&As (Probit estimate)

Probit estimates where the dependent variable equals 1 if there is at least one cross-border M&A between the country pair considered and zero otherwise. The sample includes all countries where at least 2 mergers have taken place in the sample period (1990-2003). Variables are defined in section 4 of the main text: (D) stands for destination (target) country data, (O) for origin (bidder) country data, (B) for bilateral data. The estimate also includes unreported country dummy variables. The marginal effect of each explanatory variable is calculated at the mean level for continuous variables and it is the effect of a discrete change from 0 to 1 in the case of dummy variables. Standard errors are corrected for heteroskedasticity using the White (1980) procedure. The symbol *** indicates a significance level of 1% or less; ** between 1 and 5%; * between 5 and 10%. The number of observations is the sum of those on banks and on insurance companies.

VARIABLES		Panel A: Banks		Panel B: Insurance companies		Panel C: Diff. Test
		Coeff. (*Std. err.*)	Marg. effect	Coeff. (*Std. err.*)	Marg. effect	Chi^2 (*prob*)
Constant		3.68 *(6.08)*	4.32	6.33 *(4.71)*	8.97	0.12
G10	D	-0.72 * *(0.39)*	-0.33	0.57 *(0.47)*	0.22	4.38 **
Trade (log)	B	0.66 *** *(0.07)*	1.70	0.71 *** *(0.09)*	1.84	0.26
Common colonization	B	0.97 *** *(0.37)*	0.02	0.92 *(0.60)*	0.01	0.00
Common language	B	0.63 *** *(0.15)*	0.16	0.65 *** *(0.17)*	0.13	0.00
GDP per capita (log)	O	-1.04 ** *(0.43)*	-2.69	0.56 *(0.59)*	1.45	7.61 ***
	D	-0.99 ** *(0.43)*	-2.56	-1.29 ** *(0.52)*	-3.33	0.17
Credit/GDP	O	-0.52 *(0.34)*	-0.53	0.86 ** *(0.36)*	0.75	6.12 **
	D	-1.02 ** *(0.42)*	-1.02	-1.74 *** *(0.50)*	-1.43	1.05
Stock market Capitalization	O	0.75 *** *(0.22)*	0.82	0.83 *** *(0.23)*	0.84	0.05
	D	0.78 *** *(0.23)*	0.84	0.20 *(0.27)*	0.18	2.31
Insurance Penetration	O	-0.68 *(4.79)*	-0.05	-10.55 ** *(4.55)*	-0.74	1.85
	D	-6.56 * *(3.83)*	-0.50	5.79 *(3.76)*	0.37	4.31 **
Saving Ratio	O	0.04 ** *(0.02)*	1.25	-0.07 *** *(0.02)*	-1.97	13.14 ***
	D	-0.01 *(0.02)*	-0.20	0.01 *(0.02)*	0.33	0.47
Corporate taxation	O	0.09 *** *(0.02)*	3.70	0.02 *(0.03)*	0.58	4.44 **
	D	0.01 *(0.02)*	0.58	0.01 *(0.02)*	0.31	0.02
Population (log)	O	-0.12 *(0.10)*	-0.31	-0.15 *(0.12)*	-0.39	0.05
	D	-0.15 *(0.11)*	-0.39	-0.39 *** *(0.13)*	-1.00	1.85
Old dependency ratio	O	0.12 *** *(0.04)*	1.81	-0.03 *(0.07)*	-0.37	5.92 **
	D	0.15 *** *(0.05)*	2.20	0.05 *(0.06)*	0.55	
No. observations			2,712			
Wald χ^2 goodness of fit			984.73			

Table 11

The Determinants of Cross-border M&As (Negative binomial with Heckman correction)

The empirical model in equations (1) and (2) has been estimated using a Negative binomial specification, where the dependent variable is the number of cross-border M&As in the banking and insurance sectors between each pair of countries where at least 2 mergers have taken place and where at least one cross-border M&A has taken place in the sample period (1990-2003). Variables are defined in section 4 of the main text: (D) stands for destination (target) country data, (O) for origin (bidder) country data, (B) for bilateral data. The estimate also includes unreported country dummies. The marginal effect of each explanatory variable is calculated at the mean level for continuous variables and it is the effect of a discrete change from 0 to 1 in the case of dummy variables. Standard errors are corrected for heteroskedasticity using the White (1980) procedure. The symbol *** indicates a significance level of 1% or less; ** between 1 and 5%; * between 5 and 10%. The number of observations is the sum of those on banks and on insurance companies.

VARIABLES		Panel A: Banks		Panel B: Insurance companies		Panel C: Diff. Test
		Coeff. (*Std. err.*)	Marg. effect	Coeff. (*Std. err.*)	Marg. effect	Chi^2 (*prob*)
Constant		-3.73	-1.64	4.34	2.44	1.31
		(4.45)		*(5.46)*		
No. of M&As (log)		-0.12	-0.12	0.19	0.19	2.81
		(0.13)		*(0.14)*		
G10	D	-1.03 **	-0.25	-0.18	-0.04	2.27
		(0.43)		*(0.36)*		
Trade (log)	B	0.95 ***	0.95	0.08	0.08	16.83 ***
		(0.15)		*(0.15)*		
Common colonization	B	1.90 ***	0.05	0.45	0.01	6.33 **
		(0.34)		*(0.47)*		
Common language	B	0.99 ***	0.20	0.24	0.04	7.18 ***
		(0.17)		*(0.23)*		
GDP per capita (log)	O	-1.64 ***	-1.64	-0.15	-0.15	8.83 ***
		(0.39)		*(0.31)*		
	D	-1.66 ***	-1.66	-0.39	-0.39	3.62 *
		(0.46)		*(0.49)*		
Credit/GDP	O	-0.62 **	-0.30	0.49	0.20	4.53 **
		(0.28)		*(0.44)*		
	D	-2.34 ***	-0.95	-0.50	-0.16	6.73 ***
		(0.38)		*(0.60)*		
Stock market Capitalization	O	1.28 ***	0.76	-0.17	-0.09	14.26 ***
		(0.26)		*(0.28)*		
	D	1.13 ***	0.52	0.08	0.03	5.32 **
		(0.39)		*(0.25)*		
Insurance Penetration	O	-3.49	-0.14	0.43	0.02	0.24
		(3.91)		*(6.90)*		
	D	0.31	0.01	3.49	0.09	0.41
		(3.49)		*(3.55)*		
Saving Ratio	O	0.05 ***	0.78	0.03	0.32	0.64
		(0.02)		*(0.02)*		
	D	0.00	0.01	0.01	0.13	0.26
		(0.01)		*(0.02)*		
Corporate taxation	O	0.14 ***	2.16	0.03 *	0.37	11.02 ***
		(0.03)		*(0.02)*		
	D	0.02	0.38	0.03	0.35	0.02
		(0.02)		*(0.02)*		
Population (log)	O	-0.10	-0.10	0.18 **	0.18	5.55 **
		(0.08)		*(0.09)*		
	D	0.09	0.88	0.05	0.38	0.03
		(0.19)		*(0.16)*		
Old dependency ratio	O	0.18 ***	1.27	-0.03	-0.18	13.98 ***
		(0.05)		*(0.03)*		
	D	0.28 ***	1.73	0.09 *	0.44	5.91 **
		(0.06)	-1.64	*(0.05)*	2.44	
Mill's ratio	O	1.62 ***		-0.12		
		(0.35)		*(0.36)*		
No. observations			154		154	
Explained variance			0.78		0.56	

Table 12

The Determinants of Cross-border M&As (Robustness checks)

The empirical model in equations (1) and (2) has been estimated using a Negative binomial specification, where the dependent variable is the number of cross-border M&As in the banking and insurance sectors between each pair of countries where at least 2 mergers have taken place in the sample period (1990-2003). Variables are defined in section 4 of the main text: (D) stands for destination (target) country data, (O) for origin (bidder) country data, (B) for bilateral data. The estimate also includes unreported country dummies. The marginal effect of each explanatory variable is calculated at the mean level for continuous variables and it is the effect of a discrete change from 0 to 1 in the case of dummy variables. Standard errors are corrected for heteroskedasticity using the White (1980) procedure. The symbol *** indicates a significance level of 1% or less; ** between 1 and 5%; * between 5 and 10%. The number of observations is the sum of those on banks and on insurance companies.

		Panel A: Control premium				Panel B: Industry concentration				Panel C: Price-earnings ratio			
VARIABLES		**Banks**		**Insurance companies**		**Banks**		**Insurance companies**		**Banks**		**Insurance companies**	
		Coef. *(s.e.)*		**Coef.** *(s.e.)*		**Coef.** *(s.e.)*		**Coef.** *(s.e.)*		**Coef.** *(s.e.)*		**Coef.** *(s.e.)*	
Constant		4.04		5.84		9.18		39.31		-37.08		-53.71	
		(10.93)		*(11.74)*		*(16.68)*		*(31.82)*		*(23.14)*		*(54.54)*	
No. of M&As (log)	D	-0.06		0.46	*	0.07		0.51		-0.45		0.53	*
		(0.27)		*(0.26)*		*(0.45)*		*(0.33)*		*(0.42)*		*(0.32)*	
G10	B	-0.82		0.59		-0.32		0.28		-1.41		1.73	
		(0.94)		*(0.66)*		*(1.63)*		*(1.04)*		*(1.74)*		*(1.19)*	
Trade (log)	B	0.94	***	0.70	***	0.95	***	0.74	***	0.73	***	0.54	***
		(0.11)		*(0.11)*		*(0.09)*		*(0.11)*		*(0.13)*		*(0.13)*	
Common colonization	B	1.97	***	2.13	***	1.88	***	2.31	***	-18.59	***	-17.46	***
		(0.47)		*(0.69)*		*(0.46)*		*(0.76)*		*(1.44)*		*(1.75)*	
Common language	B	0.78	***	0.98	***	0.98	***	0.86	***	0.81	**	1.14	***
		(0.23)		*(0.22)*		*(0.22)*		*(0.23)*		*(0.34)*		*(0.33)*	
GDP per capita (log)	O	-2.08	***	-0.27		-5.48	**	-0.39		4.15		5.29	***
		(0.72)		*(0.67)*		*(2.45)*		*(0.73)*		*(6.11)*		*(1.83)*	
	D	-1.05	*	-1.71	**	-0.10		-1.96		-1.37		-2.51	***
		(0.59)		*(0.73)*		*(1.17)*		*(1.48)*		*(1.07)*		*(0.87)*	
Credit/GDP	O	-0.73		2.22	***	-4.50	**	1.19		6.48		14.79	***
		(0.60)		*(0.79)*		*(2.23)*		*(1.06)*		*(8.39)*		*(4.10)*	
	D	-1.57	***	-1.43	*	0.83		-1.66		-2.36	*	-1.53	
		(0.57)		*(0.82)*		*(1.81)*		*(1.94)*		*(1.27)*		*(1.30)*	
Stock market	O	1.01	***	1.57	***	0.57		0.56		-0.46		5.14	***
Capitalization		*(0.35)*		*(0.43)*		*(0.47)*		*(0.57)*		*(1.96)*		*(1.64)*	
	D	0.87		-0.30		0.07		-0.48		2.25	*	-0.80	
		(0.83)		*(0.54)*		*(1.62)*		*(0.96)*		*(1.35)*		*(0.73)*	
Insurance Penetration	O	-1.21		-22.56	**	52.76	*	5.76		-31.29		-168.16	***
		(7.72)		*(9.38)*		*(30.69)*		*(13.87)*		*(34.74)*		*(53.21)*	
	D	-6.18		4.98		-8.55		20.33	**	-6.85		20.36	**
		(7.18)		*(4.96)*		*(10.84)*		*(8.86)*		*(10.23)*		*(10.10)*	
Saving Ratio	O	0.07	**	-0.03		0.20	**	0.00		-0.29		-0.70	***
		(0.04)		*(0.03)*		*(0.10)*		*(0.04)*		*(0.42)*		*(0.23)*	
	D	-0.04		0.01		-0.04		0.02		-0.01		0.11	**
		(0.03)		*(0.03)*		*(0.04)*		*(0.05)*		*(0.07)*		*(0.05)*	
Corporate taxation	O	0.14	***	0.06		-0.04		0.03		0.19	*	0.42	***
		(0.03)		*(0.04)*		*(0.10)*		*(0.06)*		*(0.10)*		*(0.14)*	
	D	0.04		0.02		0.13		0.02		0.04		-0.03	
		(0.04)		*(0.04)*		*(0.08)*		*(0.09)*		*(0.06)*		*(0.05)*	
Population (log)	O	0.03		0.26		-0.65	**	0.13		-0.30		-0.29	
		(0.20)		*(0.19)*		*(0.29)*		*(0.23)*		*(0.49)*		*(0.44)*	
	D	-0.10		-0.51	*	-0.08		-0.56		0.79		-0.02	
		(0.44)		*(0.27)*		*(0.73)*		*(0.43)*		*(0.87)*		*(0.45)*	
Old dependency ratio	O	0.21	***	0.06		0.57	**	0.06		-0.50		-0.82	***
		(0.07)		*(0.07)*		*(0.25)*		*(0.09)*		*(0.69)*		*(0.31)*	
	D	0.17		0.08		0.01		0.09		0.33	*	0.05	
		(0.11)		*(0.09)*		*(0.25)*		*(0.21)*		*(0.20)*		*(0.10)*	
Additional explanatory	O	-0.07	*	-0.09		-8.37	*	0.18		0.42		0.37	**
variable		*(0.04)*		*(0.06)*		*(4.33)*		*(1.86)*		*(0.62)*		*(0.14)*	
	D	-0.02	*	-0.01		1.58		-0.64		-0.01		-0.06	**
		(0.01)		*(0.01)*		*(1.53)*		*(1.22)*		*(0.01)*		*(0.03)*	
No. observations		1,746				1,570				1,016			

The Determinants of Cross-border M&As (Robustness checks)

VARIABLES		Panel A: Restrictions to banking				Panel B: Bankassurance				Panel C: Bank control of non financial firms			
		Banks		Insurance companies		Banks		Insurance companies		Banks		Insurance companies	
		Coef. *(s.e.)*		Coef. *(s.e.)*		Coef. *(s.e.)*		Coef. *(s.e.)*		Coef. *(s.e.)*		Coef. *(s.e.)*	
Constant		-1.23		8.84		1.08		10.04		-1.20		9.92	
		(10.73)		*(16.31)*		*(13.63)*		*(14.88)*		*(10.72)*		*(12.32)*	
No. of M&As (log)	D	0.38		0.63	**	0.37		0.70	**	0.28		0.63	**
		(0.30)		*(0.27)*		*(0.30)*		*(0.29)*		*(0.32)*		*(0.27)*	
G10	B	0.68		0.94		0.58		0.72		0.26		0.94	
		(1.05)		*(0.75)*		*(1.02)*		*(0.72)*		*(1.21)*		*(0.75)*	
Trade (log)	B	0.96	***	0.70	***	0.97	***	0.71	***	0.95	***	0.70	***
		(0.10)		*(0.11)*		*(0.10)*		*(0.11)*		*(0.10)*		*(0.11)*	
Common colonization	B	1.73	***	2.08	***	1.71	***	2.08	***	1.75	***	2.07	***
		(0.44)		*(0.69)*		*(0.44)*		*(0.70)*		*(0.43)*		*(0.69)*	
Common language	B	0.89	***	0.94	***	0.86	***	0.96	***	0.84	***	0.94	***
		(0.20)		*(0.20)*		*(0.20)*		*(0.20)*		*(0.20)*		*(0.20)*	
GDP per capita (log)	O	-1.16		-0.46		-1.70		-0.60		-2.11	**	-0.46	
		(1.73)		*(0.72)*		*(1.35)*		*(1.55)*		*(0.82)*		*(0.72)*	
	D	-0.86		-1.33	*	-0.82		-1.43	*	-0.76		-1.33	*
		(0.65)		*(0.76)*		*(0.63)*		*(0.73)*		*(0.61)*		*(0.76)*	
Credit/GDP	O	-1.68		2.18	***	-0.71		2.19	**	-1.20		2.18	***
		(1.52)		*(0.84)*		*(0.55)*		*(0.85)*		*(1.92)*		*(0.84)*	
	D	0.13		-0.56		0.06		-0.24		-0.28		-0.57	
		(0.89)		*(0.96)*		*(0.83)*		*(0.97)*		*(0.95)*		*(0.96)*	
Stock market Capitalization	O	1.21	***	1.45	***	1.18	***	1.48	***	1.37	***	1.45	***
		(0.31)		*(0.40)*		*(0.36)*		*(0.48)*		*(0.34)*		*(0.40)*	
	D	-0.48		-0.63		-0.45		-0.58		-0.20		-0.63	
		(0.94)		*(0.62)*		*(0.93)*		*(0.65)*		*(1.00)*		*(0.62)*	
Insurance Penetration	O	-2.75		-15.07	*	-1.86		-14.53		0.38		-15.10	*
		(8.74)		*(8.03)*		*(9.61)*		*(10.68)*		*(6.37)*		*(8.03)*	
	D	0.00		5.41		-0.02		4.26		-0.98		5.40	
		(6.86)		*(5.02)*		*(6.90)*		*(4.83)*		*(6.91)*		*(5.02)*	
Saving Ratio	O	0.06	*	0.01		0.07		0.01		0.08	***	0.01	
		(0.03)		*(0.04)*		*(0.04)*		*(0.05)*		*(0.03)*		*(0.04)*	
	D	-0.07	**	0.00		-0.06	**	0.00		-0.05	*	0.00	
		(0.03)		*(0.03)*		*(0.03)*		*(0.03)*		*(0.03)*		*(0.03)*	
Corporate taxation	O	0.13	***	0.09	**	0.12	**	0.09		0.14	***	0.09	**
		(0.04)		*(0.04)*		*(0.05)*		*(0.06)*		*(0.05)*		*(0.04)*	
	D	0.04		0.03		0.05		0.06		0.05		0.03	
		(0.04)		*(0.04)*		*(0.04)*		*(0.04)*		*(0.04)*		*(0.04)*	
Population (log)	O	0.03		0.44	**	0.11		0.41	*	0.07		0.44	**
		(0.17)		*(0.22)*		*(0.21)*		*(0.23)*		*(0.20)*		*(0.22)*	
	D	-0.78		-0.67	**	-0.76		-0.80	**	-0.56		-0.67	**
		(0.49)		*(0.30)*		*(0.48)*		*(0.32)*		*(0.54)*		*(0.30)*	
Old dependency ratio	O	0.19	*	0.12		0.22	**	0.12		0.25	***	0.12	
		(0.11)		*(0.08)*		*(0.09)*		*(0.11)*		*(0.08)*		*(0.08)*	
	D	-0.07		-0.02		-0.06		-0.02		-0.03		-0.02	
		(0.14)		*(0.11)*		*(0.14)*		*(0.11)*		*(0.14)*		*(0.11)*	
Additional explanatory variable	O	-0.74				-0.37		0.09		-0.15			
		(1.15)				*(0.70)*		*(0.87)*		*(0.59)*			
	D	0.09				0.05		0.29		-0.10			
		(0.27)				*(0.24)*		*(0.22)*		*(0.23)*			
No. observations		2,184				2,184				2,118			

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