Jakubik, Petr; Zafeiris, Dimitris

Working Paper

Impact of Mergers and Acquisitions on European Insurers: Evidence from Equity Markets

IES Working Paper, No. 12/2016

Provided in Cooperation with:
Charles University, Institute of Economic Studies (IES)

Suggested Citation: Jakubik, Petr; Zafeiris, Dimitris (2016) : Impact of Mergers and Acquisitions on European Insurers: Evidence from Equity Markets, IES Working Paper, No. 12/2016, Charles University in Prague, Institute of Economic Studies (IES), Prague

This Version is available at:
https://hdl.handle.net/10419/174179

Institute of Economic Studies, Faculty of Social Sciences
Charles University in Prague

Impact of Mergers and Acquisitions on European Insurers: Evidence from Equity Markets

Petr Jakubik
Dimitris Zafeiris

IES Working Paper: 12/2016

Institute of Economic Studies,
Faculty of Social Sciences,
Charles University in Prague

[UK FSV – IES]

Opletalova 26
CZ-110 00, Prague
E-mail : ies@fsv.cuni.cz
http://ies.fsv.cuni.cz

Institut ekonomických studií
Fakulta sociálních věd
Univerzita Karlova v Praze

Opletalova 26
110 00 Praha 1

E-mail : ies@fsv.cuni.cz
http://ies.fsv.cuni.cz

Bibliographic information:
Jakubik P., Zafeiris D. (2016). "Impact of Mergers and Acquisitions on European Insurers: Evidence from Equity Markets" IES Working Paper 12/2016. IES FSV. Charles University.

Impact of Mergers and Acquisitions on European Insurers: Evidence from Equity Markets

Petr Jakubik[a,b]
Dimitris Zafeiris[a,b]

[a]Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague, Smetanovo nabrezi 6, 111 01 Prague 1, Czech Republic
Email: petr.jakubik@eiopa.europa.eu
[b]European Insurance and Occupational Pensions Authority
Email: dimitris.zafeiris@eiopa.europa.eu

June 2016

Abstract:
The current macro-economic and financial conditions remain extremely challenging for the European insurance sector. Under the ongoing low yield environment insurers are changing their business models and looking for new investment and business opportunities to improve their profitability and the overall solvency positions. This is also reflected in an increasing interest in mergers and acquisitions to achieve sufficient returns. However, there is no clear answer in the literature whether this strategy brings the expected positive results. This study empirically tests the effects of mergers and acquisitions (M&A) on share prices of European insurers via an event study. Our results do not confirm the positive impact of such strategies on acquirers' share prices delivering abnormal returns for shareholders.

1. Introduction

Although it is generally assumed that yields will remain low for the foreseeable period of time, the ongoing debate on whether the present levels represent the new "normal" or the gradual move back to the long-term averages should be expected, is still non-conclusive. Nevertheless, a moderately prevailing view among economists and analysts point out that the so-called "low for long" scenario is more likely than a gradual increase of interest rates to the previous levels. This poses increasing risk for financial stability especially for the European life insurance companies with long-term liabilities and the significant portion of guaranteed return products. Those insurers are struggling to maintain a reasonable level of profitability and to match the obligation towards policyholders. As a response they are changing their business models and looking for new investment and business opportunities including mergers and acquisitions.

The recent surge in consolidation activity in the insurance sector revives one of the fundamental debates in financial literature whether mergers are value enhancing for shareholders. There is a considerable amount of contradicting research studies trying to explain the rationale behind and the impact of consolidating activities. Based on the economic theory, any impact on the valuation due to a merger should be the result of changes in the net cash flows steaming from synergies or alternatively lower riskiness of the combined entity. The synergies are based on economies of scale and economies of scope while lower risk is associated with diversification benefits (Cummins and Weiss, 2004). When large conglomerates include various lines of business or various geographical areas of activity, this could potentially limit the income volatility of the firm and consequently reduce firm's specific risk. Market intelligence also suggests arguments ranging from outright balance sheet growth to regulatory implications.

Although the majority of studies find valuation gains for target firms, the impact on acquirers – usually the initiators of a consolidation process – is still inconclusive. A survey of the relevant literature by Martin and Sayrak (2003) makes reference to the fact that although conventional wisdom suggests that large diversified institutions trade at discount compared to the market (the

diversification discount), there is a number of studies that supports the contrary. In order to obtain a holistic view, we collect market information on the European insurance sector to identify any patterns that could help to link mergers and acquisitions literature with the empirical results. The topic of consolidation activity in the insurance sector poses a significant interest not only due to the potential impact to shareholder wealth but also on the perception of riskiness and/or stability of the sector. In the aftermath of the recent financial crisis, such activities are viewed not only in terms of, sometimes short-term, shareholder profit or loss, but also in a broader financial stability perspective. From this point of view, discussions on issues such as the market perception of the riskiness of large diversified entities versus smaller, focused entities, becomes extremely relevant.

This article is organised as follows. First, we present a literature overview of the alternative rationales for mergers and acquisitions activities and the corresponding results. Second, we describe the theoretical framework applied in this study. Third, data sample for the empirical part is described. Fourth, the results of our empirical analysis are discussed. Finally, we conclude based on the obtained results and identify areas that deserve further work.

2. Related studies

There is an extensive and diverse literature on the rationale and impact of M&A activity, mostly based on commercial firms, but more limited for the financial sector and, particularly, the insurance sector. We distinguish three main categories and further elaborate on the literature directly or indirectly relevant to the insurance sector. The first category includes research based on production theory assumptions, the second category refers to literature discussing diversification benefits while the third category includes references which cannot be directly linked to the two main categories mentioned but still exhibit theoretical and practical relevance to the discussion, such as merger induced systemic risk effects.

Cost and Revenue Economies

Bruner (2002) conducts a survey on the impact of M&A activity by summarising the evidence of 130 studies between 1971 and 2001. For the purposes of this survey, four approaches for measuring M&A impact are discussed. (i) Event

studies. They assess the impact of the merger by calculating abnormal returns to shareholders as the difference between the returns realised post-merger versus the returns predicted by a market model. (ii) Accounting studies. These studies assess the impact of M&A activity by analysing the financial statements, profitability and performance of firms pre and post consolidation. They can be less controversial than event studies as they are not based on any market model assumptions. (iii) Surveys of executives and (iv) Clinical-case studies. The survey concludes that overall M&A activity is beneficial as it presents mostly neutral impact for acquiring firms and positive impact for target firms' shareholders. Consistent to the above, Campa and Hernando (2004) study the shareholder value creation of European M&As and find acquirer's shareholders receive cumulative average abnormal returns close to zero after the announcement of a merger while target firm's shareholders receive significant cumulative average abnormal returns. An interesting finding of this study is that mergers in industries that have been under government control or operating in heavily regulated frameworks are less beneficial than mergers in unregulated industries.

For the insurance sector, Berger, Cummins and Weiss (1999) identify economies of scope that may derive either from cost or revenue sources. They discuss cost scope economies when combining Life with P&C insurance within a firm due to lower costs associated with shared databases, IT infrastructure and logistics. Revenue economies of scope can be present due to sharing clientele and creating 'one stop shop' for all insurance needs of customers. Upon recognition of potential diseconomies of scale, the authors test if scope economies vary according to scale and product mix and outline a regression analysis of scope economies to assess the types of firms most likely to realise scope economies. They construct an alternative methodology to measure scope economies which uses separate cost, revenue and profit functions for life and P&C and includes data for specialists in the own functions. The results suggest that the realisation of scope economies depend on the size, type and business model of the insurer. Large, insurers with vertical distribution systems tend to realise profit scope economies as opposed to small institutions with horizontal distribution systems.

Cummins and Weiss (2004) assess the impact on shareholder value after the unprecedented wave of mergers and acquisitions in the European financial sector

that followed the deregulation of financial services, with the exception of solvency requirements, during the early nineties. By conducting a standard market model event study methodology, the authors try to capture the market expectations as the best proxy for the net effect of M&A activity on the present value of the expected net cash flow of firms. The results of the analysis demonstrate that European M&As in the insurance sector generated small negative cumulative average abnormal returns (CAARs) for acquirers. These negative returns were more profound for domestic consolidation activity while for cross border transactions the impact was neutral. On the contrary, for consolidation targets the results seem to demonstrate overall gains that in some cases were significant. These findings are broadly consistent to the conventional wisdom in the M&A literature that suggests null to negative impact on shareholders wealth of acquiring firms in the commercial sector (Bruner 2002).

On a more recent study on the insurance sector in Europe, Cummins, Klumpes and Weiss (2015) find small but statistically significant gains for acquirers, at least for some windows of the event study. Results also suggest large and significant gains for targets in the overall sample. Although these findings are consistent to the findings referring to target firms, they are not consistent with prior literature suggesting that European M&As were neutral for acquiring insurers.

Corporate diversification (Conglomeration versus strategic focus hypothesis)

Martin and Sayark (2003) survey the literature on corporate diversification. In order to streamline the voluminous and quite diverse literature on the topic, existing literature is classified in three categories according to the conclusion they reach on the impact of corporate diversification on shareholder value.

The first category includes research claiming that large, diversified firms destroy value, have a lower Tobin's Q (Montgomery and Wernerfelt 1998, Lang and Stulz 1994 and Servaes 1996) and trade at a discount of approximately 15 per cent when compared to the sum of their parts.

The second category of relative literature advocates that corporate diversification does not destroy value. It is a series of research that challenges the link between market discounts and diversification, claiming that most firms

were trading at a discount before the decision for diversification (Graham 1999, Lang, Ofek and Stulz 1996).

The third category of research claims that diversified firms don't trade at a discount but at a significant premium and that the different conclusions of other research is the result of wrong estimations. A major argument for the existence of diversification premium is based on the existence of internal markets where firms can seek cheap internal capital (Hadlock et al.).

Specific to the insurance sector, Liebenberg and Sommer (2008) use a sample of P&L insurers over the period 1995-2004 and conclude that diversified firms underperform specialised firms and that this underperformance is actually measured as 1 per cent over return on assets or 2 per cent over return on equity by using Tobin's Q. As P/L insurers can choose to focus on a specific line of business or expand to more lines of business, thus achieving a more diversified corporate portfolio, they pose a good sample to assess the impact of diversification on shareholder value. The authors' model accounting and market performance as a function of a binary diversification indicator and a range of other performance correlates. Findings suggest that undiversified insurers outperform diversified insurers as the costs and inefficiencies of diversification outweigh the potential benefits and risk reduction. There are also interesting results with respect to some of the control variables as both size and capitalization are positively related to accounting performance suggesting that customers are willing to pay an increased premium for insurers they perceive lower insolvency risk. The relation between size and performance may also be explained in terms of scale economies as discussed in the previous section.

Cummins, Klumpes and Weiss (2015) by using the same event study methodology as in the case of the overall impact of M&A activity on insurers' shareholders, find evidence of outperformance of focusing rather than diversifying consolidation transactions and conclude that acquiring insurance companies should be very sceptical over cross-industry acquisitions.

Other relevant literature

Stoyanova and Grundl (2014) investigate the link between regulatory frameworks and merging decisions. More specifically, the authors perform an analysis of Solvency II framework and, in particular, the standard formula. A

model is applied in order to assess an insurer's decision to merge in order to take advantage of regulatory geographic diversification benefits and conclude that the framework may be the source of M&A activity.

Weiss and Mühlnickel (2013) study the relationship between consolidation in the insurance industry and systemic risk by analysing a sample of global domestic and cross-border mergers. By using Marginal Expected Shortfall as a measure of acquiring insurance companies' contribution to moderate systemic risk, in combination to lower tail dependence coefficients as a second measure of extreme systemic risk, they find mixed empirical evidence in support of a destabilizing effect of consolidation in the insurance industry. While the results indicate a strong positive relationship between M&A activity in insurance and moderate systemic risk, this effect does not carry over to extreme systemic risk.

2. Description of methodology applied

In order to identify the potential impact of consolidation activity on shareholder wealth, we use equity prices as the channel of information on shareholder expectations after the announcement of such an activity. An event study measures the impact of an economic event, such as the announcement of a M&A, by using financial market data. In our analysis we employ an economic model event study, based on MacKinlay (1997), in particular using the Capital Asset Pricing Model (CAPM) to calculate expected returns. Given rationality in equity markets, the effects of an event should be reflected in observed security prices and a measure of the event's economic impact can be constructed using equity prices collected over a relatively short period of time. We use daily returns in order to estimate expected and abnormal returns. We define the 10 days event window from one day before the announcement (t-1) until 8 days after the announcement (t+8). Then we calculate abnormal return as a difference between observed market and expected return for time $\tau = t-1, \dots, t+8$.

Daily expected returns are defined for all acquirers i and all time periods $\tau = t-1, \dots, t+8$ as

$$R_{i,\tau}^{m} = r_f + \beta_i (r_{i,\tau}^{m} - r_f) \qquad (1)$$

where

r_f is risk free rate,

β_i is beta of the security i,

$r_{i,\tau}^m$ is expected relevant market return for the security i and time τ.

Furthermore, abnormal return for the security i and time τ corresponds to

$$AR_{i,\tau} = R_{i,\tau} - R_{i,\tau}^m \quad (2)$$

where

$R_{i,\tau}$ is observed return for the security i and time τ

We further need to aggregate the abnormal return observed trough the time and across the securities. Given N events, the sample aggregated abnormal return for period τ is calculated as

$$\overline{AR}_\tau = \frac{1}{N}\sum_{i=1}^{N} AR_{i,\tau} \quad (3)$$

The average abnormal return can be then aggregated over the event window to obtain cumulative abnormal return.

$$\overline{CAR} = \sum_{\tau=t-1}^{t+8} \overline{AR}_\tau \quad (4)$$

The null hypothesis that the abnormal returns are zero could be tested via the following test statistics (MacKinlay 1997).

$$\theta_1 = \frac{\overline{CAR}}{var(\overline{CAR})^{\frac{1}{2}}} \quad (5)$$

where

$$var(\overline{CAR}) = \sum_{\tau=t-1}^{t+8} var\left(AR_{i,\tau}\right) \quad (6)$$

and $var\left(AR_{i,\tau}\right)$ corresponds to variance of the abnormal returns at time τ for $i = 1, \dots, N$.

This test statistics has asymptotically standard normal distribution. However, with the null hypothesis either a mean or variance effect might drive the results. In our case we are interested only in the mean effect. Hence, we expand the null hypothesis to allow for changing variance. This can be done by using cross section variance of cumulative abnormal returns in the testing statistics (Boehmer at al 1991).

$$\theta_2 = \frac{\overline{CAR}}{var(\widehat{CAR})^{\frac{1}{2}}} \quad (7)$$

where

$$var(\widehat{CAR}) = var(\sum_{\tau=t-1}^{t+8} AR_{i,\tau}) \quad (8)$$

where the variance of abnormal cumulative returns is calculated for the sample including securities $i = 1, \dots, N$.

Moreover, as a robustness check, we use a non-parametric test based on the following statistics (Corrado 1989).

$$\theta_3 = \frac{1}{N}\sum_{i=1}^{N}(K_{i,0} - 2)s(K) \quad (9)$$

where

$K_{i,0}$ is the rank of the of the abnormal return in the event day,

$$s(K) = \sqrt{\frac{1}{10}\sum_{\tau=t-1}^{t+8}\left(\frac{1}{N}\sum_{i=1}^{N}\left(K_{i,\tau} - 2\right)\right)^2} \quad (10)$$

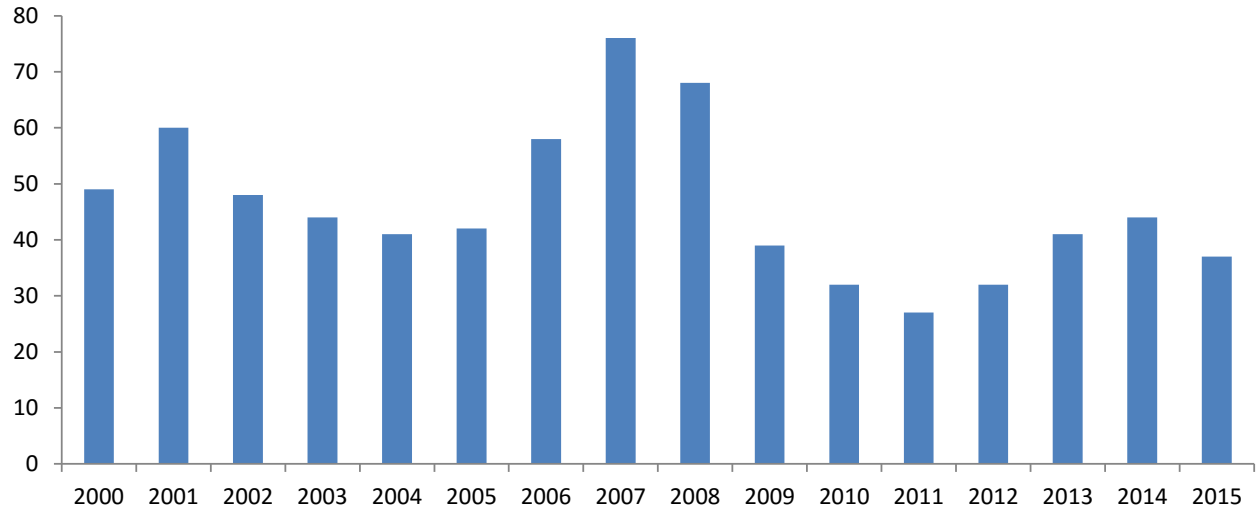
This test statistics has also asymptotically standard normal distribution.

3. Data sample and descriptive statistics

The purpose of our data sample is twofold. First, we want to assess market developments in European M&A activity during the last 15 years and, second, we try to identify any relationships between observed transactions and the rationales or incentives for consolidation.

We construct our sample based on Bloomberg © data for the period 2000-2015 for M&A activity in Europe where either the acquirer or target was an insurance company. Our sample database refers then to 1718 cases. However, in order to further analyse the data, we need to adjust for data availability and suitability to the analysis. We therefore filter our results by selecting only the acquirers that are listed in stock exchanges and for which information on the deal amount is available. This way, we construct a sample consisting of 738 transactions and the market observations (Figure 1).

Figure 1: European Insurers M&A (number of transactions)

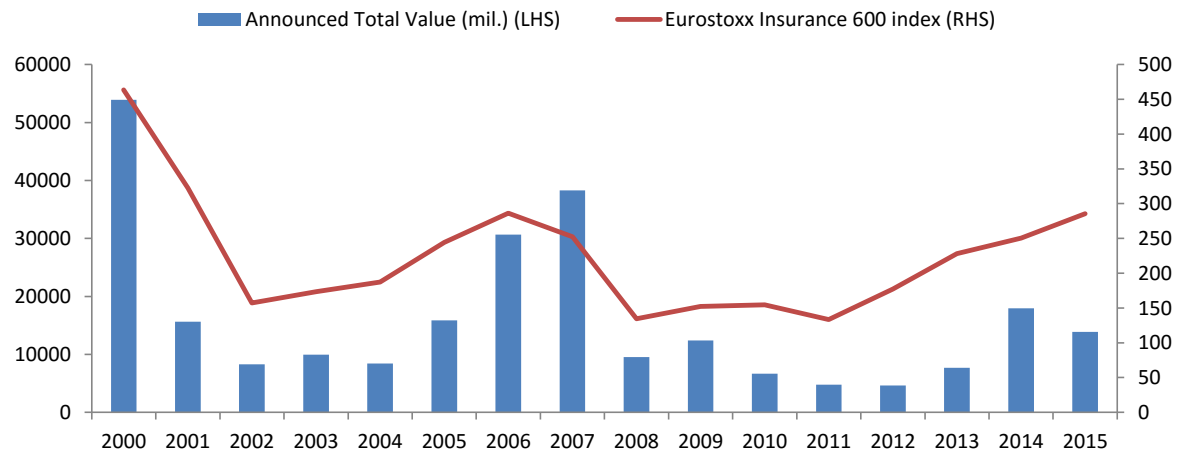


Source: Bloomberg

Notes: Data filtered for listed acquirers, completed or pending transactions with deal amount data.

An initial overview of the data indicates that there is a significant variation in M&A activity through time and that this variation can partially be explained by economic factors and equity market performance (Figure 2).

Figure 2: M&A activity (deal value) and Eurostoxx Insurance 600



Source: Bloomberg

Notes: Data filtered for listed acquirers, completed or pending transactions with deal amount data.

The overall picture indicates that there seems to be some degree of correlation between market performance and consolidation activity. Picks in activity followed a strong equity market performance in the late nineties and 2006-2007 and a significant drop is observed in the aftermath of the global financial crisis in 2008. Improvement in the last few years coincides with overall market

performance but does not seem to confirm the expectations of a M&A activity peak due to the Solvency II introduction. On the contrary, EU consolidation activity seems to lag behind the US although a few more years of observations would be needed before concluding entirely in this respect.

If we were to focus our analysis to the 'decision maker' we would have to select M&A activity where the acquirer was an insurer. In such a case, our sample would refer to 444 cases. In order to use this sample for an event study based on market returns, the following information is needed: market prices at all observation periods, beta at T-2 for the acquirer as well as sub-sector[1] and country of domicile of both acquirer and target. Our study sample is thus limited to 343 transactions that fulfil the above requirements.

In order to assess the geographic focus of these transactions, we distinguish our sample into 'domestic' and 'cross border' transactions and observe for any trend through time. At least for our sample, there is a shift in focus from domestic into cross-border consolidation activities in the last years which may be attributed to the internationalisation of markets and, particularly, the creation of a single market in the EU. Furthermore, differentiating between 'Diversifying' versus 'Focusing' transactions in our sample, based on the subsector of the merging entities, yields interesting results (see Table 1 and 2).

Table 1: Type of consolidation - sectoral/geographical (number of transactions announced)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Diversifying	7	10	14	12	6	5	14	18	20	12	11	4	10	9	16	14	182
Focusing	10	17	11	13	9	15	18	16	15	6	4	1	8	6	8	4	161
Cross-border	8	12	11	15	8	10	20	26	19	12	11	5	12	10	16	13	208
Domestic	9	15	14	10	7	10	12	8	16	6	4	0	6	5	8	5	135
Number of transactions	**17**	**27**	**25**	**25**	**15**	**20**	**32**	**34**	**35**	**18**	**15**	**5**	**18**	**15**	**24**	**18**	**343**

Source: Bloomberg

Notes: Data filtered for listed acquirers, completed or pending transactions with deal amount data.

Although with variations through time, there is a clear tendency of firms to pursue diversifying or complementary activities when engaging in M&A activities rather than following a focused approach. This tendency deserves further

[1] The following classifications where used: Life/Health Insurance, Property/Casualty Insurance, Multi-line Insurance, Reinsurance, Insurance Brokers, Financial Guarantee Insurance

analysis, particularly when considering the contrary or, in the best case, inconclusive discussions on the topic in the relevant literature.

By viewing our sample in terms on announced deal size rather than number of transactions, we get similar results for the geographical focus but conflicting results for the sectorial focus.

Table 2: Type of consolidation - sectoral/geographical (total value of transactions announced, in EUR millions)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Diversifying	18119	5196	1412	2237	125	4890	3590	6233	4623	3274	1621	88	1267	2327	4839	3006	62844
Focusing	21432	2215	3281	2448	1116	7264	21832	13804	2106	3450	470	330	1078	3277	9154	6843	100101
Cross-border	25528	2404	1425	3320	1167	10666	19227	17907	4679	4352	1880	418	1651	2551	12395	9577	119147
Domestic	14024	5007	3268	1365	74	1487	6194	2131	2050	2371	210	0	694	3053	1598	272	43798
Total	**39551**	**7411**	**4693**	**4685**	**1241**	**12153**	**25421**	**20038**	**6729**	**6724**	**2091**	**418**	**2345**	**5604**	**13993**	**9849**	**162945**

Source: Bloomberg

Notes: Data filtered for listed acquirers, completed or pending transactions with deal amount data.

4. Empirical Results

Despite the overall average positive Cumulative Abnormal Returns (CAR), our analysis did not reject the null hypothesis for any of the statistics considered (equation 5, 7, 9, see Table 3).

Table 3: Statistical results

	Average CAR	**Test statistics θ_1**	**Test statistics θ_2**	**Test statistics θ_3**
Total Sample	2.82%	0.233	0.242	0.935
Diversifying	1.13%	0.132	0.131	0.940
Focusing	3.59%	0.327	0.352	0.930
Cross-border	1.89%	0.220	0.221	0.880
Domestic	2.90%	0.255	0.271	1.019

Although the average cumulative abnormal return is positive for the whole sample, the test statistics cannot be rejected even at the confidence level 20 per cent for which the absolute value of tested statistics would need to be greater than 1.282.

Furthermore, the existence of average positive cumulative return is higher in case of consolidation activity within the same sector while it is less positive for diversification oriented activity. When looking at the impact of geographical activity, there seems to be slightly more positive results for domestic activities compared to cross-border (see Table 4 and 5). However, for none of those cases we could reject hypothesis of no presence of abnormal cumulative returns. Hence, the results suggested from the descriptive statistics don't seem to be statistically significant.

Table 4: Share of cases with positive abnormal cumulative returns (in per cent)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Diversifying	43	50	50	50	50	60	79	22	65	50	55	25	50	67	31	71	52
Focusing	70	71	82	62	89	60	56	50	47	17	25	0	88	50	50	50	60
Cross-border	63	67	73	67	75	70	80	27	53	33	36	20	58	70	38	62	55
Domestic	56	60	57	40	71	50	42	63	63	50	75	-	83	40	38	80	56
Total	**59**	**63**	**64**	**56**	**73**	**60**	**66**	**35**	**57**	**39**	**47**	**20**	**67**	**60**	**38**	**67**	**55**

Source: Bloomberg

Notes: Data filtered for listed acquirers, completed or pending transactions with deal amount data.

Table 5: Average cumulative abnormal returns (in per cent)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Diversifying	2.82	-0.11	-0.36	2.18	1.82	0.68	2.33	-3.39	3.15	-0.70	0.24	-2.92	1.89	2.74	-0.80	7.41	1.13
Focusing	4.90	7.42	7.11	0.24	11.42	3.23	2.72	0.69	-1.07	-1.55	-2.82	-8.60	16.62	1.70	1.16	0.64	3.59
Cross-border	3.96	6.70	6.47	0.61	8.99	3.05	4.62	-2.15	0.38	-1.46	-0.35	-4.06	1.90	4.61	-0.60	2.76	1.89
Domestic	4.12	2.97	0.14	2.01	5.97	2.13	-0.90	0.73	2.48	-0.03	-1.20	-	21.51	-2.24	0.77	14.09	2.90
Total	**4.04**	**4.63**	**2.92**	**1.17**	**7.58**	**2.59**	**2.55**	**-1.47**	**1.34**	**-0.98**	**-0.58**	**-4.06**	**8.44**	**2.33**	**-0.14**	**5.91**	**2.28**

Source: Bloomberg

Notes: Data filtered for listed acquirers, completed or pending transactions with deal amount data.

5. Conclusion

The topic of M&A activity and its impact on shareholder value remains ambiguous in the literature and there is a scope for further work, especially in the insurance sector. Although the studies indicate neutral to negative results for acquirers, firms continue engaging in M&A activities in particular at the current low yield environment. Our study tries to contribute to the debate on the impact of consolidation activity through a market model event study, as introduced by MacKinlay (1997). The results of our analysis indicate that within the European insurance sector, when the acquirer is an insurance undertaking, there are no significant positive abnormal returns. Although some differences that depend on whether consolidation activities are diversifying or focusing on the same business can be observed, none of them proofed to be statistical significant.

Our finding on the impact of corporate (as opposed to portfolio) diversification on the value of an insurer is in line with the portfolio theory. Any reduction of firm-specific risk claimed by the diversification proponents could be better performed by the investors themselves by holding a diversified portfolio of firms specialising in different lines, probably more effectively than a firm that diversifies its activities. Hence, there should be no reward or premium paid by the markets and, to the extent that conglomeration includes increased costs or intra group subsidies for less efficient business lines, there may even be a penalty, a diversification discount. Yet, we observe firms still engaging in diversification of activities either through M&A transactions or organic growth. Further research of the topic would be of added value, supplementing the analysis of consolidation impact based on event studies with a study based on the methodology of Berger and Ofek (1995) that would include also insurers not engaging in M&A activities and comparing the sum of the parts of their individual business lines to the valuation of the diversified entity.

Bibliography

Berger A., Cummins J., Weiss M., Zi H. (1999): Conglomeration versus strategic focus: Evidence from the Insurance Industry, Center for Financial Institutions Working Papers 99-29, Wharton School Center for Financial Institutions, University of Pennsylvania.

Berger A., DeYoung R., Udell G. (2001): Efficiency barriers to the consolidation of the European financial services industry, European Financial Management, vol. 7, no. 1, 2001, pp. 117-130.

Berlin, M. (1999): Jack of All Trades? Product diversification in Nonfinancial firms, Business Review, May, pp. 15-29.

Berger, P., Ofek, E. (1995): Diversification's effect on firm value, Journal of Financial Economics vol. 37, no. 1, pp. 39–65.

Boehmer, E., Musumeci, J. and Paulsen, A. (1991): Event-Study Methodology under Conditions of Event-Induced Variance, Journal of Financial Economics, vol. 30, no. 2, pp. 253-272.

Bruner R., (2001) Does M&A Pay? A Survey of Evidence for the Decision-Maker, University of Virginia Darden School Foundation, Version 2.3.

Campa J., Hernando I. (2004): Shareholder Value Creation in European M&As, European Financial Management, vol. 10, no. 1, pp. 47-81.

Corrado, Ch. (1989): A nonparametric Test for Abnormal Security-Price performance in Event Studies, Journal of Financial Economics, vol. 23, no. 2, pp. 385-395.

Mackinlay C. (1997): Event Studies in Economics and Finance, Journal of Economic Literature, vol.XXXV, pp. 13-39.

Cummins, D., Klumpes P., Weiss, M. (2015): Mergers and Acquisitions in the Global Insurance Industry: Valuation Effects, The Geneva Papers, no. 40, pp. 444-473.

Cummins J., Weiss M. (2004): Consolidation in the European Insurance Industry: Do Mergers and Acquisitions Create Value for Shareholders? The Brooking/Wharton Conference, Public Issues Confronting the Insurance Industry, January.

Elango B., Yu-Luen Ma (2008): An investigation into the diversification–performance relationship in the US property–liability insurance industry, Journal of Risk and Insurance, vol. 75, no. 3, pp. 567–591.

Focarelli D., Pozzolo A. (2008): Cross-border M&As in the financial sector: Is banking different from insurance? Journal of Banking & Finance vol. 32, no. 1, pp. 15–29.

Graham, J. (1999): Herding among investment newsletters: Theory and evidence. Journal of Finance, vol. 54, pp. 237-268.

Huang, X., Zhou, H., Zhu, H. (2010): Assessing the systemic risk of a heterogeneous portfolio of banks during the recent financial crisis, BIS Working Papers, no. 296.

Huang, X., Zhou, H., Zhu, H., (2009): A framework for assessing the systemic risk of major financial institutions, Journal of Banking & Finance vol. 33, no. 11, pp. 2036–2049.

Klumpes P. (2016): Does M&A Add Value in the Long Run? – Evidence from the International Insurance Industry, Newsletter Insurance and Finance, The Geneva Association.

Lang, L., Ofek, E., Stulz, R. (1996): Leverage, investment, and firm growth, Journal of Financial Economics, vol. 40, no. 1, pp. 3–29.

Lelyveld, I., Knot, K. (2008): Do financial conglomerates create or destroy value? Evidence for the EU, DNB Working Paper, no. 174.

Liebenberg A., Sommer D. (2008): Effects of corporate diversification: Evidence from the property-liability insurance industry, The Journal of Risk and Insurance, 2008, vol. 75, no. 4, pp. 893-919.

Lins, K., Servaes, H. (2002): Is corporate diversification beneficial in emerging markets? Journal of Financial Management vol. 31, no. 2, pp. 5-31.

Martin, J., Sayrak, A. (2003): Corporate diversification and shareholder value: a survey of recent literature, Journal of Corporate Finance vol. 9, n. 1, pp. 37-57.

Montgomery, C., Wernerfelt, B. (1998): Diversification, Ricardian Rents, and Tobin's q, The RAND Journal of Economics, vol. 19, no. 4, pp. 623-632.

Stoyanova R., Grundl H. (2014): Solvency II: A Driver for Mergers and Acquisitions?, The International Association for the Study of Insurance Economics, pp. 1018-5895.

Weiss G., Muehlnickel J. (2013): Consolidation and Systemic Risk in the International Insurance Industry, Technische Universitaet Dortmund, Working Paper.

IES Working Paper Series

2016

1. Jiri Skuhrovec, Jan Soudek: *zIndex – Benchmarking Municipalities in Public Procurement*
2. Diana Zigraiova: *Management Board Composition of Banking Institutions and Bank Risk-Taking: The Case of the Czech Republic*
3. Tomas Havranek, Roman Horvath, Ayaz Zeynalov: *Natural Resources and Economic Growth: A Meta-Analysis*
4. Roman Horvath, Lorant Kaszab: *Equity Premium and Monetary Policy in a Model with Limited Asset Market Participation*
5. Jana Votapkova, Pavlina Zilova: *Determinants of Generic Substitution in the Czech Republic*
6. Vojtech Korbelius, Michal Paulus, Tomas Troch: *Life Expectancy and its Determinants in the Czech Republic*
7. Jiri Kukacka, Jozef Barunik: *Simulated ML Estimation of Financial Agent-Based Models*
8. Jiri Schwarz, Martin Stepanek: *Patents: A Means to Innovation or Strategic Ends?*
9. Yao Wang: *What are the biggest obstacles to growth of SMEs in developing countries? - A picture emerging from an enterprise survey*
10. Hana Dzmuranova: *Risk Management of Demand Deposits in a Low Interest Rate Environment*
11. Jan Hajek: *Real Exchange Rate Misalignment in the Euro Area: Is the Current Development Helpful?*
12. Petr Jakubik, Dimitris Zafeiris: *Impact of Mergers and Acquisitions on European Insurers: Evidence from Equity Markets*

All papers can be downloaded at: http://ies.fsv.cuni.cz

Univerzita Karlova v Praze, Fakulta sociálních věd
Institut ekonomických studií [UK FSV – IES] Praha 1, Opletalova 26
E-mail : ies@fsv.cuni.cz http://ies.fsv.cuni.cz