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Editorial

Issues in Risk, Insurance and Finance

by Etti Baranoff[1]

This issue of the Insurance and Finance (IF) newsletter is devoted to a mix of three topics of major importance in the world of risk and insurance. The first article relates to longevity risk and pension transfer products. The second is an article on systemic risk that discusses whether the insurance business model can generate systemic risks. The third topic is mergers and acquisitions (M&A) in the insurance industry, a phenomenon that has increased in the current economic environment.

The first article is our 'Featured Insurer Corner', which presents an interview with John Strangfeld, Chairman and CEO of Prudential Financial, Inc. The interview focuses on Prudential's products that offer solutions to longevity risk. The insurer is helping individuals and institutional customers grow and protect their wealth through its life insurance, annuities, retirement-related services and investment management businesses.

The second article, by Christian Thimann, Member of the Executive Committee, AXA Group, provides a non-technical exposition of the systemic risk differences between banks and insurers as players in the financial sector. He suggests that the FSB's macro regulation tools be different for insurers and banks. Loss absorbency is key to the differentiation between insurers and banks. The difference between the loss absorbency capacity of insurers and bankers is demonstrated by the fact that insurers have achieved what is currently considered for banks, a partial loss absorption capacity of liabilities beyond equity, i.e. a form of bail-in. Thimann also debates the differences between systemic risk and a systemic role. Overall, the study is a strong illumination of systemic risk issues and financial stability in insurance.

The last paper featured here serves as an introduction to our upcoming Symposium on Insurance Strategies (formerly the Insurance and Finance Seminar) to take place on 6 November 2015 in London, hosted by Aviva. The topic of this year's symposium is 'Consolidations in Insurance: What is it about?'. Following last year's event that included discussions on the potential consequences of alternative capital and the excess liquidity in the market, this year's event focuses on consolidations as one of the outcomes. The paper is 'Mergers and Acquisitions in the Global Insurance Industry: Valuation Effects' by J. David Cummins, Paul Klumpes and Mary A. Weiss. It is a summary of an event study examining value creation by acquiring firms and target companies. The results indicate that both cross-border and within-border transactions lead to substantial value

1 Research Director, Insurance and Finance, The Geneva Association.

creation for targets, and that the within-industry gains are significantly larger. The authors' findings support the general contention that M&A deals are more likely to be value creating for targets than for acquiring firms.

The Newsletter closes with the Announcement of the 11th Symposium on Insurance Strategies at Aviva in London on 6 November 2015 addressed to the Members of The Geneva Association, their senior executives and invited experts.

Featured Insurer: Prudential Financial Inc.

Interview with John Strangfeld—Shifting Retirement Risks (Back) to Insurers[2]

by Etti Baranoff

John Strangfeld is Chairman and Chief Executive Officer of Prudential Financial, Inc., a financial services leader with operations in the United States, Asia, Europe and Latin America. With nearly 140 years of life insurance and asset management expertise, Prudential is focused on helping individual and institutional customers grow and protect their wealth through its life insurance, annuities, retirement-related services and investment management businesses.

Q1. Retirement readiness is a critical issue in the U.S. and countries around the world. How can life insurers help meet that challenge?

Retirement readiness is a big challenge and a big opportunity, and meeting retirement challenges is one of the major growth drivers for our industry.

You may ask what's new about this. 'What's new' is not the macro forces…they have been prevalent for some time. What's new is the way we can participate. I suggest this is a step-function opportunity to take our business to an entirely different level.

Let's bring it down to the essence of what we do, what we have done for many years, helps people manage risks. We help protect against the financial consequences of dying early and the risks of outliving retirement savings.

More specifically, we assume risks are better borne by an institution than by an individual. The risks that seem random to an individual—a pool of one—become much more predictable when pooled across large numbers of people.

That leads to our ability to provide cost-effective retirement solutions and take financial uncertainty out of the equation for individuals.

Q2. You've talked about bringing these risks 'back' to insurers. Why is that?

Decades ago, defined benefit pension [DB] plans were the norm in corporate America. And insurance companies managed a significant portion of pension risks.

Over the years, management of those risks was assumed by many employers, on their balance sheets and through their own or third-party investment management resources. Today, it is increasingly shifting to employees, as defined contribution [DC] plans have grown in popularity and are replacing pension plans. The result is a significant burden on individuals.

2 This Q&A discussion draws on a speech delivered by Mr Strangfeld at the International Insurance Society's 51st Annual Global Insurance Forum on 16 June 2015 in New York, NY.

But we can help fill the retirement protection gap by shifting longevity and investment risks back to insurers. We have the expertise and scale to manage them much more effectively than individuals or even employers.

In the process, we can increase both our impact on society and our share of the broader financial services marketplace.

That's the premise. It's up to us collectively as an industry to make it a reality.

Q3. How can the insurance industry embrace that reality?

Let's look at two key needs: helping employers and helping individuals.

First, we have a significant role to play in helping employers deliver on their pension promises.

Today, there is a spectrum of solutions available to manage or even transfer pension risk, including liability driven investing, longevity insurance and pension risk transfer.

The U.K. has been the leader in **longevity insurance**, with over 20 transactions closed to date. Global reinsurers play an important role by providing the capacity necessary to assume longevity risk.

At Prudential, we have participated in 10 pension longevity risk transactions in the U.K., covering over USD 35 billion of pension benefits.

The participation of global reinsurers in assuming U.K. longevity risk is a compelling example of how the global reinsurance community can strengthen a domestic insurance market.

Then there are pension risk transfer (PRT) solutions—often called buy-outs and buy-ins—which are the most complete risk transfer solutions. In these transactions, all risks associated with a pension obligation transfer from the employer to the insurer.

PRT has been around for decades. In fact, Prudential has been offering buy-out solutions to plans since 1928. What is new is how PRT has been updated, adapted and delivered with scale during this decade.

Since 2007, USD 240 billion in pension liabilities have been transferred through PRT solutions. The largest of these transactions have taken place in the U.K., the U.S. and Canada, where a total of 39 transactions have exceeded USD 1 billion in liabilities.

The U.K. market is the most developed. Over 20 per cent of the companies in the FTSE 100 that have pensions have completed PRT transactions—companies like British Telecom, Astra Zeneca and British Airways.[3]

The PRT trend has crossed the Atlantic…and it does not need to reach anything close to a 20 per cent penetration to be a really big number.

In the U.S., GM, Verizon, Motorola, Kimberly-Clark and Bristol-Myers Squibb represent plan sponsors that have transferred USD 1 billion or more of pension risk.

Earlier this year, the Bell Canada transaction by Sun Life, and reinsurers RGA and SCOR, established the Canadian longevity insurance market.

Q4. Prudential is recognised as a leader in PRT. Could you give us some more colour about how Prudential got into the business?

Like most things in life, it was not exactly a linear experience.

In 2006, we created a dedicated team to examine plan sponsor needs and what it would take to assume pension obligations in a large-scale and sustainable way.

In fact, in 2007, I made a presentation to our Board about new ideas in the works, and PRT was one of those ideas. It had the scale, promise and fit with our capabilities to make it a natural opportunity for us.

Had I known the timeline for development, I would have held off on the presentation for a few years. Despite being off on the timing, we were indeed on to something.

3 See Lane, Clark and Peacock (2015) 'Buy-ins, Buy-outs and Longevity Swaps', from *http://www.lcp.uk.com/our-services/pensions/buy-ins-buy-outs-and-longevity-swaps/*

It was an R&D initiative that we sustained through the financial crisis. We made a very conscious decision to 'keep the pedal down' rather than trim it back.

We developed our capabilities and engaged with sponsors and regulators for about five years before doing our first transaction in 2011. In 2012, we had a breakthrough when we executed a U.S. buy-out transaction with General Motors, covering USD 25 billion of pension liabilities.

Our original PRT team was only five people. Today, it is a business system of over 150 dedicated professionals and many others across the company who provide support to the team and our clients.

Q5. What is driving the trend towards PRT?

There are five converging factors:

The first is capital markets volatility. Twice in recent years, U.S. corporate pension plan sponsors saw their funded status fall by 30 per cent or more. U.K. and Canadian pension funds fared only slightly better.[4]

The second is legislation that created more rigorous and increased pension funding requirements, resulting in cash flow volatility for the plan sponsor.

Third is increased accounting transparency that makes pension losses more readily apparent.

The fourth factor is increasing longevity. According to Prudential analysis, new longevity assumptions will add approximately 6 per cent to the accounting liabilities of the typical U.S. pension plan.

Lastly, and perhaps most importantly, defined benefit plans have increasingly become legacy obligations, rather than part of the value proposition for current employees.

Q6. Why do you think insurers are the appropriate intuitions for assuming pension risks?

Life insurers take on substantial mortality risk, which makes us well suited to also manage longevity risk. In addition:

- we have the actuarial skills to measure, model and manage longevity risk;
- we have the investment capabilities to manage large-scale transactions and the experience investing assets to meet long-dated liabilities; and
- we have the operational and service capabilities to take on large groups of new customers—the millions of people ultimately receiving the pension payments.

That said, there is a critical talent and culture aspect, as well. These solutions are complex. They require a business culture that supports and encourages company-wide collaboration, and a talent management strategy that ensures the right expertise at every point in the process.

Put another way, PRT solutions require multiple skills and disciplines from the insurer, delivered in a way that creates a single client experience. To us, that's as much a cultural capability as it is technical.

Q7. What is the key advantage PRT offers employers?

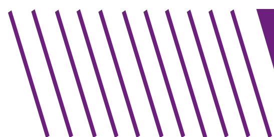
Pension risk transfer will play an important role in helping employers keep their pension promises. At the same time, it provides insurers with an attractive growth opportunity that leverages core strengths.

In a sense, you can think of pension risk transfer as an opportunity of the present arising from corporate commitments of the past.

Q8. Let's turn our attention from the employer to the individual. How can insurers help individuals meet their retirement needs?

Our industry has a critical role in helping individuals who cannot rely solely on pension benefits or social insurance programmes to achieve secure retirements.

4 See: Ehrhardt, J.W., Perry, A.L. and Wadia, Z. *Milliman 2015 Corporate Pension Funding Study*, Milliman, Inc.; *Aon Hewitt Global Pension Risk Tracker*, from *https://pensionrisktracker.aon.com*; and Towers Watson (2015) *Canadian Pension Finance Watch*, from *http://www.towerswatson.com/en-CA/Insights/Newsletters/Americas/pension-finance-watch-canada*



This theme is certainly not new. But again, we believe there are step-function opportunities ahead.

The shift away from defined benefit plans has placed tremendous responsibility on individuals' shoulders. It's up to them to:

- join a retirement plan;
- contribute enough;
- invest appropriately; and
- at the right time, convert their savings into retirement income.

That's a lot to ask of people—it's a lot of 'do it yourself.' And it presents a lot of opportunities for suboptimisation, neglect and unrealistic expectations.

When individuals take on these responsibilities, they also take on the risks that go with them, risks that few are well-equipped to manage.

Just as employers are increasingly transferring pension risks to insurance companies, individuals are also in need of a trusted counterparty that can assume many of their retirement risks and, in the process, narrow that gap.

Q9. How specifically can insurance companies help deliver retirement security?

We can help in three key ways:

- expanding retirement plan coverage;
- enhancing savings; and
- guaranteeing retirement income.

First, let's look at expanding retirement plan coverage. The workplace is perhaps the most effective and efficient platform to promote retirement savings and to create pension-like outcomes. That's especially true for less affluent households, which might not be as likely to work with a financial advisor.

However, not everyone has access to a retirement plan at work. In the U.S., only about half of all workers at small employers are covered by a retirement plan. Those who are not covered are persons with disproportionately lower incomes, women and people of colour.[5]

Retirement plan coverage must be expanded. Our industry is working with policymakers to recommend solutions to do just that.

In the U.S., Prudential has worked with policymakers and influencers to put forth a proposal for a multiple employer plan that would allow small employers to band together to jointly offer a retirement plan, lowering costs and easing administrative burdens.

Q10. How can insurers help enhance retirement savings?

Whether inside or outside of a workplace plan, people need to save enough to adequately fund their own retirements. This is no easy task.

In fact, the Center for Retirement Research estimates that half of U.S. workers are at risk of not being able to maintain their standard of living in retirement.

Clearly, government, employers and the financial services industry, working together, must continue to promote and facilitate retirement saving.

As an example, in the U.S., legislation passed in the last decade has eased the way to modifying DC plans in ways that make good savings and investing behaviour 'automatic'.

It is becoming common for plans to automatically enrol employees, increase their contribution rates and adjust their asset allocations.

5 See Bureau of Labor Statistics and United States Census Bureau (2014) Statistics of U.S. Businesses—Employee Benefits in the United States (2011 data), March, from *http://www.census.gov/econ/susb/*

These automatic features help overcome participant inertia and other behavioural challenges that create barriers to retirement security. They are having an impact in terms of higher enrolment and higher contribution levels.

For insurers who are also DC plan providers, like Prudential, it is incumbent upon us to offer redesigned, fully-automated DC plans.

Q11. How should we approach the challenge of guaranteeing retirement income?

Saving is only half the battle. DC plans must go further and make it easier, even automatic, to convert savings into income that cannot be outlived. Policymakers can do more to facilitate this.

Although social insurance programmes that provide an income stream exist in many countries, they are only part of the solution. They must be supplemented by income from workplace plans and personal savings.

The opportunity for insurers is clear: only annuity products can guarantee a stream of income for life—whatever the length of that life is. And only insurance companies can offer annuity products.

Yet, today, the retail annuity marketplace represents just a small fraction of accumulated savings.

In the U.S., there is about USD 2 trillion in individual annuity products. That may sound like a big number. But it represents only about 5 per cent of the more than USD 40 trillion in private DC plans and personal savings accounts.[6]

Having 5 per cent of total savings in the form of income for life is not optimal.

Q12. How can we increase ownership of annuities?

The relatively low utilisation of annuities is a puzzle researchers and providers have been trying to solve for years.

There is a clear and growing need for individuals to create their own streams of retirement income. Yet, individuals are reluctant to give up control of the assets they took years to save.

Compounding this is the complexity associated with annuity products. Complexity that, in many respects, is of our own creation.

Sometimes, the best innovation—and the most challenging—is creating simplicity, not complexity.

Our challenge is to meet the need for guaranteed retirement income in different, more creative and more simplified ways.

In sum, helping more individuals and employers create more certain retirement outcomes—in easy, comprehensible, public-policy supported ways—is a key challenge and a clear opportunity for our industry.

Is a capital surcharge the right instrument to control systemic risk in insurance?[7]

by Christian Thimann[8]

That insurance companies are different from banks is well known. But it is less known why these differences should apply to the regulation of insurance companies when it comes to controlling possible systemic risk. Do large insurance companies differ significantly from large banks or can one essentially base their systemic regulation on one framework devised for systemically important banks? Would capital surcharges for insurance function in the same way as for banking in controlling systemic risk? And what about leverage, is that the same in insurance as in banking?

6 Source: ICI, Federal Reserve Board Flow of Funds, (LIMRA, Cerulli and Prudential analysis).

7 For the complete paper see *The Geneva Papers on Risk and Insurance—Issues and Practice* 40(3): 359-384 (2015).

8 Member of the Executive Committee, AXA Group, and Affiliated Professor at the Paris School of Economics.

Closer inspection of the balance sheet structure and the functioning of insurance compared with banking shows that there are more differences than similarities between insurance and banking. And it also shows that three crucial concepts for controlling systemic risk—capital, leverage and loss absorption capacity—are very different in insurance.

Banks and insurance in systemic interaction compared

Specifically, there are four main differences and two similarities between insurance and banking with regard to systemic interaction.

Institutional interconnectedness: the first key difference between banks and insurers with regard to systemic risk is that banks operate within a system, namely the banking system, while insurers do not. Banks are institutionally interconnected through unsecured and secured interbank lending. The fact that there is a central bank demonstrates further that banks function, and can only function, within a system. Insurers are not institutionally interconnected; they are stand-alone operators in institutional terms. There exists no 'insurance system' and no 'central insurer' comparable to a central bank. It is sometimes argued that insurers and reinsurers together constitute a system that resembles the banking system. But such a parallel overlooks the functions and size of reinsurers, which only take up portions of the primary risks of insurers. Hence, as there exists no 'insurance system', the notion of systemic risk also needs to be thought of differently for insurers.

Maturity transformation: banks engage in maturity transformation combined with leverage; they transform short-term liabilities into longer-term assets. Insurers do not engage in maturity transformation. They pursue a liability-driven investment approach, trying to match their asset profiles with their liability profiles. Since they are funded long-term, insurers are essentially 'deep-pocket' investors. This makes them react very differently to downward market pressure compared with a short-term funded or leveraged investor.

Liquidity risk: liquidity risk is inherent in banking, but not in insurance. Banks risk being liquidity-short, because deposits are the largest item on banks' balance sheets and these deposits are predominantly short-term, withdrawable at will and held exclusively by trust.

Insurance liabilities are less fugitive and insurers are actually liquidity-rich. The liabilities for insurance of general protection, property, casualty and health are not callable at will. They relate to exogenous events that policyholders do not influence. The part of liabilities that are theoretically callable concerns those parts of life insurance business that are not annuities. But there are often penalties for early withdrawal, and tax benefits might vanish.

Money, credit and payment function: banks deal with the payment function: they create credit and their liabilities constitute money. This means that they are a means of payment and entail a public good function in a market economy. As money is by definition systemic, the money creation by banks is the core of their systemic nature, and the disruption or risk of disruption to this function has immediate adverse implications on the real economy. The second unique role commercial banks have is that they organise the payment function, coordinated by central banks to do so. The multiplicity both of issuers of money and of payment mechanisms is indeed a common feature in all developed economies.

Insurers' liabilities do not constitute money but represent an illiquid financial claim. Moreover, insurers do not provide essential financial market utilities and are less integrated into the financial market infrastructure, and often have no formal links to their national central banks. In particular, they are not an organisational part of the payments system, where the smallest interruption would cause turmoil for the economy.

Two similarities between banks and insurers

The role as financial intermediaries: just like banks, insurers are financial intermediaries as far as their life insurance business lines are concerned. Their liabilities represent financial claims for policyholders, and their assets are predominantly financial assets. Insurers collect savings, intermediate between savers and investors, channel

funds, and fulfil a function of capital allocation in the economy. They are indeed important sources of funding for the real economy.

The role as investors: just like banks, insurance companies are large investors in financial markets. They receive insurance premiums against a promise to cover adverse events and carry savings forward. The premiums are invested in a diversified portfolio of assets, encompassing government and private sector bonds, equities, loans, infrastructure finance and other assets.

The roles of leverage, capital, and loss absorption capacity and implications for systemic regulation of insurance

The chief enemy of systemic risk control is leverage. Leverage is inherent in banking and quasi-absent in insurance. 'Banking is all about leverage', says Stefan Ingves, Chair of the Basel Committee for Bank Supervision.

For insurers, the largest liability consists of policyholder reserves. Insurers do not raise debt to purchase financial assets to cover liabilities towards policyholders. They do so mainly to finance mergers and acquisitions and to a lesser extent to establish a cash buffer if needed or to buy fixed assets. For insurers, a leverage ratio would better not be defined as equity over assets (as for banks) but as equity over debt, or the inverse, which is often referred to as the gearing ratio.

This difference has major implications for regulation. For banks, capital surcharges can actually control leverage because they slow down asset acquisition, also by slowing credit growth; this is the process of deleveraging. Insurers can reduce the debt gearing but they cannot reduce their insurance assets because this would imply cancelling insurance contracts with existing policyholders, which is generally not allowed.

The linchpin of bank systemic regulation is capital. In addition to restraining leverage, higher capital charges for banks raise the costs of balance sheet growth and augment the immediate loss absorption capacity of individual institutions to shocks, which in turn limits the pass-through of such shocks to the system.

To the extent that liquidity risks begin to materialise, banking capital can help stem an initial outflow by helping to tap market funding or central bank resource, for which sufficient capital levels are a precondition. While robust capital levels do not protect depositors directly, they can be seen as providing a first protection against deposit outflows or other liquidity shortages.

In insurance, capital serves essentially to ensure that the last policyholder gets paid. First all assets are wound down, which typically can take many years, and to be sure that there are enough assets to cover eventually all liabilities including under adverse market conditions. Regulators demand more assets than liabilities from the outset, which is what establishes capital.

Hence, whereas in banking, capital enters the sequence of adverse events at the beginning, in insurance it enters the sequence of adverse events at the end. This difference has an important implication for systemic regulation because it changes the effectiveness of capital surcharges. Raising capital levels for banks increases their buffer to withstand shocks and therefore helps avoid the chain of systemic contagion when it unravels. Raising capital for insurers, in contrast, essentially means that there are (even) more assets available to cover the liability stream than otherwise, but has no crisis prevention or stabilisation function because those assets would be used at the end of a potential wind-down. In that sense, capital in insurance does not 'buy time' to handle a sudden shock, as it does for banking.

Loss absorption capacity: for banks, the loss absorbency on the liability side is mostly confined to the equity tranche. There have been recent market and regulatory initiatives to raise the degree of loss absorption through debt contracts converting into equity (conditional convertibles or CoCos) and through the formalisation of bail-in rules allowing for the write-down of subordinated debt, but these efforts remain limited in scope.

In insurance, the bail-in is built in—there is an inherent loss absorption capacity in the form of beneficiary participation in a significant part of life insurance contracts. In these contracts policyholders participate in the

gains and losses of the investments linked to their policies. Hence, there is a built-in loss absorbency function in insurance on top of the equity tranche. In practice, when a bank is hit with a loss on its asset side, there is very little loss absorbency on the liabilities side because all deposits are redeemable at par (and their value does not fluctuate with the market). In insurance, parts of the policyholders represent investments in participating contracts, where policyholders participate in financial market movements on the upside as well as on the downside, at least to a certain extent. This is why there is higher 'loss absorbency' (and benefit participation) in insurance compared with banks.

The FSB/IAIS framework to deal with systemic risk

The regulatory strategy that the FSB has laid out for the implementation of insurance regulation foresees virtually the same three-pronged approach that was applied to banks: enhanced supervision at group level; the preparation of risk management and recovery plans; and the call for higher capital requirements. But as has been argued above, capital does not function in the same way in insurance as it does in banks. Capital surcharges therefore do not control systemic risk.

If one wanted to control systemic risk in insurance, the following four-pronged approach would be more effective:

1. limit and regulate non-insurance activities, scrutinising especially activities that would entail leverage combined with maturity transformation;
2. control whether insurance products are well managed (through pricing and reserves) and whether risks are appropriately hedged;
3. if derivatives are used for hedging, make sure that they are sufficiently collateralised so as to avoid cascading of risks in case of counterparty defaults;
4. as for balance sheet management tools, such as securities lending, limit the volume to a tolerable share of the balance sheet.

This approach would not only be effective but also ensure that capital is available for long-term investments and not double-layering on reserves that should already be sufficient to deal with risks, especially in a Solvency II type framework where capital is determined on a stressed basis and an encompassing risk scenario that already involves aspects of systemic risk.

Mergers and Acquisitions in the Global Insurance Industry: Valuation Effects[9]

by J. David Cummins,[10] Paul Klumpes[11] and Mary A. Weiss[12]

Introduction and motivation

In recent months, the mergers and acquisitions (M&A) market for insurance has become more active as a result of a combination of low interest, rates, capital availability and competition demands. This raises the question of whether M&As for insurance are value adding and whether such considerations are conditioned by cross-border, industry sector and size considerations. Thus, the objective of this paper is to determine whether M&As in the global insurance market create value for shareholders by studying the stock price impact of M&A transactions on

9 For the complete paper see *The Geneva Papers on Risk and Insurance—Issues and Practice* 40(3): 444-473 (2015).
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11 Nottingham Trent University.
12 Department of Risk, Insurance & Healthcare Management, Temple University.

target and acquiring firms. We do find positive added value for the targets more than the acquirers. The U.S. was a particularly fertile environment for M&As during the sample period but targets achieved market value gains globally.

Motives for M&A

Two principal hypotheses have been developed concerning the effects of M&As on targets and acquirers—the value-enhancement or synergy hypothesis and the hypothesis that M&As are primarily driven by non-value-enhancing behaviour by managers. Value-enhancing motivations include achieving economies of scale and scope, improving X-efficiency, gaining market power, achieving earnings diversification and improving other aspects of financial performance. Non-value-enhancing motivations include various agency theoretic explanations such as managerial hubris, empire-building, increasing manager compensation, and expense preference behaviour.

Although M&As may arise from both value-maximising and non-value-maximising motives, on balance we argue that M&As are likely to create value for targets and acquirers. Insurance is a competitive industry, and it is unlikely that firms with predominantly non-value-maximising behaviour will succeed or survive in the long run. In addition, the prior literature provides evidence that M&As are associated with efficiency gains in both life and P-C insurance.

Data

The analysis is based on M&A transactions that were obtained from the Thomson SDC database. In selecting the sample, we capture all change in control transactions during the sample period 1990 through 2006 where either the acquirer or target was an insurance company. A change in control transaction is defined as an acquisition that increases the stake of the acquiring institution from less than 50 per cent to 50 per cent or more of the ownership shares of the target institution. We decided to use the universe of transactions rather than a sample to improve the statistical results. The sample period was selected to bracket the introduction of the European Union's third generation Insurance Directive and other deregulatory measures around the world in other countries such as Australia, Japan and the Netherlands. Insurance companies were defined as all firms with four-digit Standard Industrial Classification (SIC) codes in the insurance industry. The stock price data for the event study are obtained from the Thomson Datastream database.

Because either the target or the acquirer had to be an insurer, transactions are included in the sample where insurers are acquired by non-insurance firms such as banks, other financial firms and industrials, and where insurance firms acquire non-insurers, as well as within the insurance industry (insurer-to-insurer) transactions. Countries were included in the study if they have well-developed insurance markets or have significant developing insurance markets.

The standard event study methodology is used. The analysis involves computing the returns for each of the transactions in our sample using stock price data. For each transaction included in the study, the event study methodology computes the *abnormal return* associated with a specified event, controlling for the predicted return on the stock on the same day.

There are at least 150 'deals' in each year of the sample period with a total of 4,068 deals over the entire sample period. The number of deals peaked during the late-1990s with more than 300 transactions taking place each year from 1996 through 2000. Deal volume exceeded USD 120 billion per year from 1997–2001 and exceeded USD 100 billion in 2003, 2005 and 2006. Total deal value for the entire period covered by the study is more than USD 1.3 trillion.

As expected, the largest number of transactions in terms of targets was within North America (1,200), 1,073 in the U.S. and 127 in Canada. The U.S. thus accounts for 54.5 per cent of all transactions and North America for 61.0 per cent. The next largest number, 668, involved European targets, with the largest number of targets in the U.K. (278) and France (75). Thirty-two transactions involved Bermuda targets, and there were only 57 target transactions in Asia. Overall, there were 1,968 total transactions. There were 1,628 within-border and 340 cross-border transactions (17.3 per cent cross-border). For the cross-border transactions, the vast majority were intra-region (e.g., within

Europe, North America, or Asia-Pacific) rather than cross-region. Overall, total deal value amounted to USD 729.7 billion for the sample period, an average of USD 42.9 billion per year. The U.S. dominates with 52.6 per cent of total worldwide deal value, measured by target transactions, followed by the U.K. (12.8 per cent), Switzerland (9.6 per cent) and the Netherlands (5.0 per cent). Others with significant deal volume include France, Belgium and Italy. Cross-border deals dominate in Australia, Bermuda, Germany, the Netherlands and Switzerland. Overall, 78.5 per cent of the deal volume (USD 572.9 billion) represented within-border transactions.

There were a substantial number and volume of M&A deals involving insurance firms during our sample period (1990–2006). Considering all deals, there were 4,068 deals with a total deal value of more than 1.3 trillion. Approximately 45 per cent of deals (41 per cent of deal volume) were cross-industry, meaning that the acquirer was from the insurance industry and the target was from some other industry.

Focusing on change in control deals, the largest number of deals in terms of targets was in the U.S. (1,073 deals), and the next largest number (668) involved European targets. There were only 57 target transactions in Asia. The high number of deals in the U.S. and Europe supports the argument that M&As are more likely in markets with high insurance penetration.

Findings and conclusion

The overall results indicate that there are small and statistically significant gains for acquirers in the (-1,+1) and (-2,+2) event windows. There are large and highly significant gains for targets based on the overall sample. The finding of small positive gains for acquirers is consistent with prior insurance research for the U.S. but not consistent with prior literature showing that European M&As are value neutral for acquirers. The finding of large positive gains for M&A targets is consistent with results of prior research.

Breaking the results out by country/region, we find small significant market value gains for acquirers in the U.S. and Europe but not in Asia. We find significant market value gains for targets in the U.S., Europe and Asia. The gains for targets are larger in the U.S. than they are in Europe or Asia. Thus, the U.S. was a particularly fertile environment for M&As during our sample period, but targets achieved market value gains globally.

Breaking down the results into cross-border and within-border (domestic) transactions, we find small positive gains in the shortest windows for acquirers and substantial gains for targets in both cross-border and within-border transactions. The gains are similar in magnitude for the cross-border and within-border transactions, suggesting cross-border deals do not create competitive or efficiency disadvantages.

We also compare M&A transactions within the insurance industry with transactions where the acquirer is in the insurance industry and the target is in some other industry. The results show that acquirers realise small market value gains from within-industry transactions but that cross-industry gains are either value-neutral or lead to market value losses for acquirers. There are large and significant market value gains for targets in both within and cross-industry transactions, but the gains are larger for within-industry deals. Hence, the results provide further support for the strategic focus hypothesis—focusing deals are more likely to create value than diversifying deals.

Further research is needed to identify the longer-term effects of M&A transactions, to investigate the impact of the recent financial crisis on the global insurance M&A market generally, and to incorporate some information concerning the level of disclosure, regulation and corporate governance effectiveness in the period surrounding M&A deals. Further analysis of cross-border transactions based on more detailed data would also be valuable to investigate the driving factors motivating cross-border transactions. A more detailed analysis of the characteristics of targets and acquirers in general, such as their size and financial ratings, and efficiency effects, would help to elucidate the motivations for M&As.

Announcement

11th Symposium on Insurance Strategies

(formerly Insurance and Finance Seminar)

'Consolidations in Insurance: What is it about?'

Hosted by Aviva, 6 November 2015, London, U.K.

This 11th symposium, kindly hosted by Aviva, brings together selected top executives from the international insurance sector and leading insurance experts from the wider financial community, academia and government. It will facilitate an exchange of views, best practices and experience on consolidation in the insurance and reinsurance industry.

Mark Wilson, Chief Executive Officer of Aviva will provide a keynote speech.

The draft agenda is as follows:

Session 1: CEOs views: 'What are the drivers and trends of consolidation in insurance'.

Session 2: Views from outside (investment analysts, academics and outside experts): 'What is behind the current trend for consolidation? Does it create value?'.

Session 3: CFOs, CIOs, CROs and key executive views from the inside: 'Perspectives on consolidation including technical elements of the transaction'.

This exclusive event comprises a very limited number of participants to guarantee an active exchange of opinions and high-level discussions. An overview of last year's event, the 10th Insurance and Finance seminar, is available on our website *here*.

Call for Papers

Risk Theory Society Annual Seminar

1–3 April 2016, St. John's University, New York, New York

Submissions due 15 December 2015

The Risk Theory Society is a group of economists, financial economists and actuaries who undertake theoretical and applied research in the areas of insurance economics, financial economics related to insurance markets, actuarial science, and more generally, in the economic analysis of risk and uncertainty. Membership in the society is earned by presenting a paper at the annual seminar and forfeited by missing two consecutive meetings.

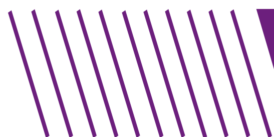
The society invites interested parties to submit papers for the 2016 meeting. Each paper accepted for the meeting is given one hour and fifteen minutes for presentation and defence by the authors. The first twenty minutes of that time are reserved to be free of interruption other than for questions of clarification. After the grace period, discussion is typically vigorous.

Over the past 10 years, the number of submissions ranged from 42 to 69 with an average of 51. Ten papers were selected each year. Although we accept submission of a five-page abstract, most submissions and most accepted papers were in full draft or essentially completed form. Submissions are due on 15 December 2015. The program committee will notify authors of accepted papers by end of January 2016, or soon thereafter. Accepted papers must be completed and sent for posting on the Risk Theory Society web page by 1 March 2016.

Submissions should be e-mailed as attachments in the Adobe Portable Document Format (pdf) by 15 December 2015, to:

Professor Greg Niehaus, Secretary of the Risk Theory Society, Darla Moore School of Business,
University of South Carolina, e-mail: *gregn@moore.sc.edu*

For more information, contact Greg Niehaus or visit the Risk Theory web site at *http://aria.org/rts*. For details regarding local arrangements for the 2016 Seminar, please visit the website or contact Professor Mark Browne at *brownem1@stjohns.edu*.



THE RESEARCH PROGRAMME ON INSURANCE AND FINANCE

The research programme on insurance and finance comprises academic and professional research activities in the fields of finance where they are relevant to the insurance and risk management sector.

The programme is dedicated to making an original contribution to the progress of insurance through different initiatives in the field of insurance and finance. It engages in: highlighting issues of key importance, promoting studies of the function of finance in insurance, discussing the relevance of financial concepts and instruments to the industry, detecting new and promising theoretical developments and diffusing knowledge and the results of research worldwide.

The Geneva Association

The Geneva Association is the leading international insurance think tank for strategically important insurance and risk management issues.

The Geneva Association identifies fundamental trends and strategic issues where insurance plays a substantial role or which influence the insurance sector. Through the development of research programmes, regular publications and the organisation of international meetings, The Geneva Association serves as a catalyst for progress in the understanding of risk and insurance matters and acts as an information creator and disseminator. It is the leading voice of the largest insurance groups worldwide in the dialogue with international institutions. In parallel, it advances—in economic and cultural terms—the development and application of risk management and the understanding of uncertainty in the modern economy.

The Geneva Association membership comprises a statutory maximum of 90 Chief Executive Officers (CEOs) from the world's top insurance and reinsurance companies. It organises international expert networks and manages discussion platforms for senior insurance executives and specialists as well as policymakers, regulators and multilateral organisations. The Geneva Association's annual General Assembly is the most prestigious gathering of leading insurance CEOs worldwide.

Established in 1973, The Geneva Association, officially the 'International Association for the Study of Insurance Economics,' has offices in Zurich, Switzerland and is a non-profit organisation funded by its Members.

The Geneva Association Insurance and Finance Newsletter, N° 16, September 2015

This newsletter for finance directors, senior financial managers in insurance companies and researchers in the field of finance is published by The Geneva Association as an information and liaison bulletin to promote knowledge and understanding of financial issues in insurance. It also fosters contacts between finance experts at insurance companies and at universities and other institutions with an interest in insurance. Any suggestions concerning the content or layout of the newsletter are welcome. Please notify us if you are interested in receiving this publication regularly.

Editor: Etti Baranoff, etti_baranoff@genevaassociation.org

Available at www.genevaassociation.org

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FORTHCOMING CONFERENCES OF THE GENEVA ASSOCIATION

2015

October

20	Munich	**9th Geneva Association Meeting of Chief Investment Officers**, hosted by Allianz Investment Management (by invitation only)

November

4	Rüschlikon	**11th Annual Liability Regimes Conference** on 'Mastering Accumulation and Bodily Injury Exposures in a Rapidly Changing Environment', hosted by Swiss Re (by invitation only)
6	London	**11th Symposium on Insurance Strategies** (former Insurance and Finance Seminar) 'Consolidations in Insurance: What is it about?', hosted by Aviva
16-17	Singapore	**12th Health and Ageing Conference** on 'Insuring Health-Care for the Elderly in Asia', co-organised with the Singapore College of Insurance
17-19	Rüschlikon	**11th Chief Risk Officer Assembly**, on 'Technological and Societal Change', organised by Swiss Re (by invitation only)

December

3	Paris	**COP-21 Event** 'Special Session on Climate Change and the Insurance Sector', co-organised with the OECD (by invitation only)

2016

February

26	Zurich	**32nd Regulation and Supervision (PROGRES) Seminar**

March

tbc	The Hague	**18th Meeting of the Annual Circle of Chief Economists (ACCE)**, hosted by BB Group N.V. (ACCE members only)

May

tbc	tbc	**10th Geneva Association Meeting of Chief Investment Officers**, hosted by Allianz Investment Management (CIO members only)

June

8-11	Rome	**43rd General Assembly of The Geneva Association**, hosted by the Italian Members (Members only)

September

19-21	Nicosia	**43rd Seminar of the European Group of Risk and Insurance Economists (EGRIE)**

November

tbc	tbc	**12th Annual Liability Regimes Conference**
tbc	London	**12th Symposium on Insurance Strategies,** hosted by Aviva
tbc	Hannover	**13th Health and Ageing Conference**, hosted by Hannover Re
28-29	Munich	**12th Chief Risk Officer Assembly**, organised by Munich Re