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Reinventing Re/Insurance for the Twenty-First Century*

by Alan Punter**

Overview of research

The re/insurance industry is at a strategic crossroads. The industry is just emerging from over a decade of relatively low growth and poor profitability. However the danger is that the current, potentially short-term, hardening of the market will prevent many industry players selecting and implementing the strategic decisions that are needed to provide the basis of a sustainable long-term future for the risk-transfer business. Some major non-life re/insurers are showing signs of "retreating from risk" and seeking new revenues in life insurance and/or funds-management businesses. This research paper analyses the current situation and trends in the industry, and cautions against this strategy. Instead it argues that what is necessary is a more fundamental "root and branch" review of the industry's structure and operations, as well as the products and services it offers.

1. The challenge

By no stretch of the imagination can the non-life re/insurance industry be said to delight its stakeholders. To their owners/shareholders, most re/insurance companies have delivered low growth and poor profitability over the last 10 to 15 years. To its customers/policyholders, the re/insurance industry has provided products that are becoming less relevant, at a delivery cost that is seen as being too high, and with service satisfaction levels that are hardly satisfactory.

The conventional answers to these industry ills are to increase premium rates (to improve profitability) and to seek salvation through "convergence" with the financial services industry. Convergence in this context can mean several things. It is generally taken to mean placing some underwriting risk, usually property catastrophe risk, directly into the capital markets; but this so-called insurance-linked securitization activity, whilst innovative and interesting, is not yet material to the industry as a whole. In fact, there is a greater level of transaction activity at present in placing risks from the capital market, particularly credit-related risks, into the re/insurance industry.

The greater level of convergence or crossover activity between the re/insurance sector and other sectors of financial services is in "wealth management" rather than risk manage-

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ment. Wealth management here is taken to cover life and health, savings and asset-management products and services. Increasingly the major insurers and reinsurers are diverting resources away from non-life business, particularly on the corporate book, and into either non-life personal business, or more often into life and asset-management operations. This strategy is driven by a reducing appetite on behalf of many carriers to accept the volatility inherent in property/casualty business, and to target instead less risky classes of business. This trend has been labelled the "retreat from risk" by some commentators.

This paper argues that, whilst the re/insurance industry does face significant challenges, this "retreat from risk" does not serve its longer-term strategic interests. Instead the proposal is that the re/insurance industry needs to undertake a more fundamental root and branch review of its structure and operations in order to provide risk-transfer products and services that truly meet the needs of its current and future clients.

This paper first diagnoses the current status of the non-life re/insurance industry, in order to determine the issues that need addressing and their urgency. Second, it explores possible solutions, drawing lessons from other sectors of the financial services sector. Finally, some key results and recommendations are proposed.

2. Research analysis

The non-life re/insurance industry is not working too well. The general situation was very well summed up in the following extract from a research report issued by Schroder Salomon Smith Barney on 29 May 2001:

> Established wisdom has always held that general insurance is an inherently unprofitable business because too much capital, fuelled by the longest bull market in history, is chasing too little premium. In a market with few barriers to entry and with existing operators wedded to the business from cradle to grave, competition and capital (both directly supplied and offered indirectly through cheap reinsurance) are always in abundance. Insurers offer an undifferentiated product where costs are unknown to the supplier at the point of sale and can often be inflated subsequently by the governments and the judiciary. Buyers are driven by price, with service quality hard to assess at the outset. Switching costs are negligible so that the costs of business acquisition often cannot be recouped. In such as a business mode, it is hardly surprising that profits have been under pressure.

The financial performance of the re/insurance industry has been terrible in recent years; the rating agency Fitch continues to maintain a negative rating outlook for the industry. As it notes in its Special Report on U.S. property/casualty insurers, 2000 was another poor year. According to the Insurance Service Office (ISO), the U.S. property and casualty insurance industry reported its third consecutive decline in underwriting profitability for the year 2000 with a combined ratio of 110.5 per cent, and underwriting losses setting a new record at US$33 billion, despite low catastrophe losses of US$4.3 billion, at less than half the ten-year average of US$9.1 billion. The industry statutory surplus declined by 4.5 per cent and return on equity was an anaemic 6.2 per cent. Likewise the property/casualty reinsurance reported negative results for 2000, despite more favourable loss experience for the year. The Reinsurance Association of America (RAA) reported a combined ratio of 114.2 per cent. The increase in reinsurance industry surplus from US$12 billion to US$24 billion over the last decade has been driven primarily by outstanding investment results and not by favourable operating results.

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Or as Standard & Poor's put it in a commentary published on 19 June 2001, "The property/casualty sector stands out as the reddest flag on the insurance ratings horizon. Ravaged by years of underpricing, especially in workers' compensation business, and with reserve deficiency approaching 10 per cent, it has endured more than 20 downgrades by Standard & Poor's in the first half of 2001 alone, with no upgrades."

2.1. From a shareholder perspective

Shareholders are attracted by profits and growth. Unfortunately non-life insurance is a no- or low-growth industry; gross non-life premium volumes declined 0.1 per cent in real terms in 1998 and grew by only 1.2 per cent in 1999 (Swiss Re, *Sigma*). Also the owners of re/insurance companies have not received appropriate risk-adjusted returns on capital, as illustrated by the following table of comparative returns on equity for the five years 1994–1998:

Return on equity, %	**Minimum**	**Average**	**Maximum**	**Range**
Property/casualty insurance	5	14	23	18
Diversified financial*	15	18	20	5
Commercial banks	16	16	17	1
Fortune 500	13	14	14	1

* Financial services with large p/c/ units
Best's Review, January 2000.

The property/casualty industry seems in fact to display inverted risk-return performance characteristics, by yielding below-average returns for above-average risk. Re/insurance companies do face conflicting pressures on the level of capital they should have on the balance sheet. Policyholders, insurance regulators, credit-rating agencies, all, in principle, want a re/insurer to have as much capital as possible for greatest security; shareholders want a re/insurer to have as little capital as possible for greatest return on capital.

Research on capital adequacy and risk-adjusted profitability of the various segments within the U.S. property/casualty industry reported by RMS and ERisk (Press release, 18 April 2001) indicates that the average risk-adjusted return on capital (RAROC) is low at 10 per cent, and is skewed in favour of non-catastrophic lines of business.

There are three basic approaches to correcting such risk-adjusted return on capital performance: (a) reduce risk, (b) increase returns, and/or (c) reduce capital.

2.1.1. Solution approach (a): reduce risk

The losses incurred by re/insurers are increasing, both from individual events (as Figure 1, catastrophe losses produced by Munich Re, shows) and from the overall accumulation of losses. Karl Wittmann was quoted as saying, at the IUA 2001 biennial seminar, that natural catastrophes had cost Munich Re €400 million in 2000, despite there being no major event. "I bet we did not earn a single penny in premiums from this business. This has to change or there will be no reinsurance industry."

The financial stability of the re/insurance industry, however, is not only threatened by

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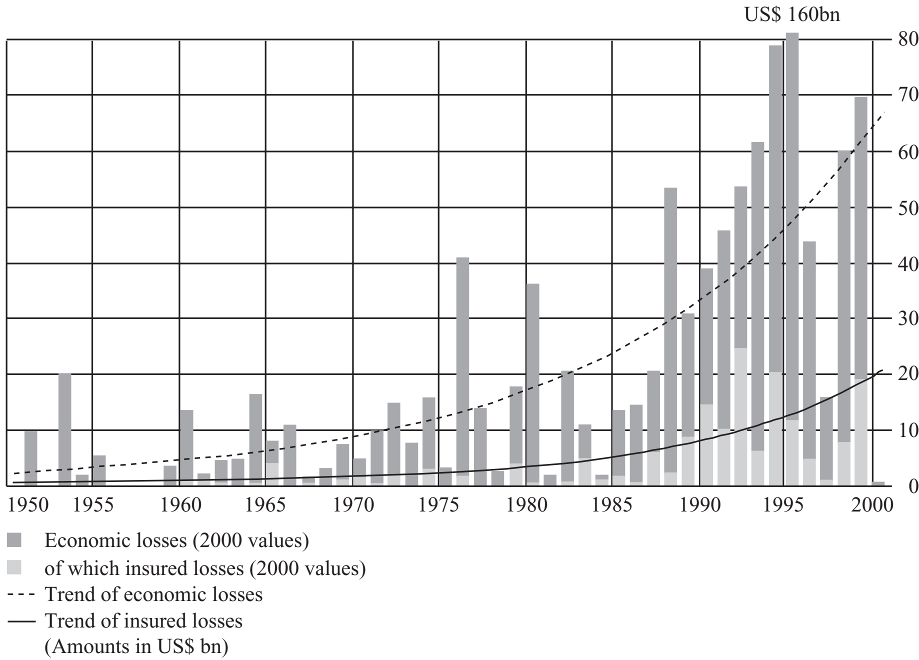

Figure 1: Losses from major natural catastrophes
Source: MunichRe

current and future loss patterns, but also old losses. This could be labelled the "old premium, new losses" phenomenon. Despite not having been in commercial use for several decades, asbestos-related claims are still increasing in quantity and quantum. Latest estimates by Tillinghast Towers-Perrin and AM Best both put the total cost of asbestos losses at around $200 billion, with the insurance industry paying around US$125 billion, about half of which is not yet reserved. Add to this the ongoing litigation of tobacco-related losses and the potential for significant liability settlements for mobile phones, deep vein thrombosis, stress in the workplace, lead-based paints, mould damage, aided and abetted by the growing "compensation culture" and lawyers working on a contingent-fee basis.

Another phenomenon is the growing shorter-tail risks, which pose significant loss potential, the "new risks, new premium?" phenomenon. Much of today's world of risk did not exist ten years ago (*National Underwriter*, 14 May 2001). Risks such as business interruption, digital risk, brand and reputational risk, either did not exist or their potential to cause significant economic losses was not appreciated.

There have been several significant recent examples of the business interdependency exposures now faced by businesses. In 1999 the earthquakes in Taiwan were not severe enough to cause substantial property damage to the PC chip fabrication plants, but they did shake and damage the silicon wafers used to make integrated circuits. Very shortly after that, computer makers such as Dell issued profit warnings because of the worldwide shortage and high price of computer chips. Another example was the fire in 2000 at a Philips semiconductors plant in Albuquerque, New Mexico. The cost of the physical damage was

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around US$15 million, but the contingent business interruption losses experienced by Ericcson and Nokia, who used parts from the Philips plant for their mobile phones, will probably exceed US$485 million. Only by significantly increasing our understanding of such interdependencies can such risks be managed and financed.

Speaking at the Airmic conference, Rick Hudson, group director, underwriting and claims, RoyalSunAlliance, said: “Investors shun volatility to earnings, especially big shock volatility. Top-end commercial insurance and reinsurance is notoriously volatile and this has been an important driver for some companies to exit this sector.” He added, “Our research shows customers were underpaying for the catastrophe part of their risk.”

Not surprisingly, many major re/insurers have been evaluating their strategy and positioning in the non-life market. “The world’s non-life insurers have adopted a strategy of diversification for the next five years. Over 50 per cent expect to be broad-based financial service players by 2005, up from 22 per cent today” (EIU report, “Property & Casualty: Mapping the future”). This diversification strategy is taking various forms and can be characterized as a “retreat from risk”. Some re/insurers have withdrawn from particular classes of business, or have disposed of complete operations that were perceived to have low profitability and/or, perhaps more significantly, high volatility. Other carriers are seeking to grow their life and health and third-party asset-management businesses, at the expense of their non-life operations. Life and health is seen as a business with higher growth prospects, and lower volatility.

A clear example of this strategy is exemplified by CGNU. Following the merger of CGU (itself formed by the merger of Commercial Union and General Accident) with Norwich Union, CGNU was reclassified from the FTSE general insurance sector to the life sector in May 2000. Since then it has withdrawn from the global risks market, sold its Lloyd’s operations to Berkshire Hathaway and its U.S. non-life business to White Mountains, both with big write-offs. It has sold other non-life operations around the world, whilst also investing in life and bancassurance businesses in Europe and elsewhere.

Another example is ACE, which has announced that it is looking to make acquisitions in the personal-lines sector. ACE started off in Bermuda as an excess casualty operation, then bought Tempest Re, and then paid US$3.45 billion for the international and U.S. property casualty business of Cigna. The current balance of ACE International’s book of net written premiums is two-thirds property/casualty and one-third accident and health; ACE is now looking to shift this to one-third property/casualty, one-third accident and health, and one-third personal lines (*Insurance Day*, 31 January 2001).

Further examples include the following: Winterthur first sold its active reinsurance business to PartnerRe and then its Winterthur International operations (insuring large multinational corporate property and casualty risk) to XL; U.S.-based Cigna quit the reinsurance business; Generali announced that it will discontinue writing all non-life treaty reinsurance business; Gerling Re pulled out of the onshore energy reinsurance market; and Zurich Financial Services is looking to spin off its Zurich Re operations (which standalone is one of the world’s top ten reinsurers).

One counter-example is RSA, which has been focusing on developing its non-life business, and there has been speculation that it is considering splitting, or even selling off, its life business: “The life business can absorb an awful lot of capital and does not achieve good results” (*Insurance Times*, 10 May 2001); “Chief Executive Bob Mendelsohn said that a team was looking at how to release capital from the life business. Options included disposal, reinsuring the business or securitising revenues” (*Evening Standard*, 10 May 2001).

The other business that the major re/insurers have been moving into is third-party asset

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management. But the funds-management business is very competitive, with low margins and a need for very large scale to achieve the necessary efficiencies. Not all the ventures of major re/insurers into asset management have been as successful as expected. Zurich Financial Services made a number of high-profile acquisitions of fund managers, including Scudder and Kemper in the U.S. However, Zurich has now hired two investment banks to review future ownership options for its U.S. asset-management business, because of disappointing performance.

2.1.2. Solution approach (b): increase returns

The simplest responses to low profitability are, wherever possible, to increase underwriting profits and to lower operating expenses.

As the financial results reported above showed, the re/insurance industry has been through an extended period of soft market conditions, but the insurance and reinsurance markets have been hardening significantly since late 2000 in most classes of business. An overall average is difficult to compute, but many rate increases are in the range of 15–20 per cent. The fact that multi-year programmes have become very hard to secure suggests that further price increases are anticipated by the supply side of the market. However the mere act of increasing premium rates does not necessarily translate into increased written premiums and returns. In fact a hardening market tends to drive the better quality business out of the traditional market, with clients taking higher retentions and making greater use of alternative risk transfer and captives.

Several reports by consultants into the insurance industry have highlighted the need and opportunity to cut operating costs. For instance, McKinsey estimated the total frictional costs of the worldwide non-life insurance industry at around US$140 billion. One way of reducing fixed costs is through mergers and acquisition consolidation activity; but despite the high level of insurance in M&A activity in recent years, Moody's reported that consolidation has had much less impact than expected on costs, or as seen in other sectors such as banking.

Another way of cutting costs is the greater adoption of information technology. The primary role for IT has been seen by many as lying in distribution, replacing some of the functions of a broker. However, such disintermediation has made little progress in non-life business, except in personal-lines classes. The greater contribution from IT probably lies in delivering efficiency on the administrative side of the business, particularly in the international subscription market that is London. Very few of the many attempts over past years to simplify and/or automate the processes of moving paper and money around the market have achieved significant success.

2.1.3. Solution approach (c): reduce capital

If a re/insurer has more capital than is necessary to write the level of apparently profitable premium available, then financial theory suggests that any excess capital should be returned to shareholders. If this is not done, then the return on capital will be diluted. However there are few examples of re/insurance companies doing this; more often excess capital has been used to expand market share (not always profitably) or to diversify through acquisitions (again sometimes with somewhat dubious rewards), or just kept on the balance sheet for "a rainy day". One explanation for such contrary behaviour is the "agency problem", where managers' motivations may not always be aligned with the owners' interests.

What is required is a more flexible form of capital structure for re/insurers. This was one of the strengths of the traditional Lloyd's one-year syndicate model, where capital was

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essentially raised afresh each year, and so the target capital level could be increased or reduced each year as was appropriate to the prevailing market conditions. If premium rates were high, then more capital could be sought; if rates were low, with less profitable business around, then the capital raised could be lowered. This flexible capital base was combined with a low fixed, high variable business cost base.

Re/insurers need to enhance their capital-management skills by making greater use of instruments such as hybrid capital and/or contingent capital. Such forms of capital have a cost nearer to debt (and hence are cheaper than equity), but can perform as quasi equity. The few issues to date of contingent and hybrid capital have been given good reviews by the credit-rating agencies.

The conventional wisdom is that credit-rating agencies require re/insurers to have as much equity capital or surplus as possible. However this is not true; Standard & Poor's have gone on the record (as reported in *Insurance Day*, 31 May 2001) as inviting reinsurers to consider accepting a downward revision of their credit ratings as a means of improving their overall financial performance. The number of companies with triple-A ratings in the sector was "absolutely incredible" when it was considered that the average corporate ratings were closer to triple B. S&P predicted a "slow revolution" in the reinsurance sector's approach to credit ratings, which would require the adoption by reinsurers of increasing detailed capital-allocation models and the restructuring of their businesses into new subsidiaries and other legal entities.

One of the anomalies in the insurance industry as opposed to other financial services sectors, is that triple-A re/insurers receive no extra payment, despite their greater security as a counterparty than any other carrier on the same subscription policy, even if that carrier is only double- or even single-A. Therefore there is no explicit return on the extra capital needed to maintain a triple-A rating; so unless a triple-A rating is strictly necessary, it is a sign of capital inefficiency.

2.2. From the policyholder perspective

It appears that corporate policyholders hold the traditional insurance product and service in low regard, as evidenced over the past decade by the low worldwide growth of non-life premiums, increase in number of captive formations and premium volumes written by captives, and growth of self-insurance techniques, all during the longest softest insurance market cycle. Other issues include the worsening reputation of the industry in settling claims: increasingly re/insurers appear to be hiding behind their lawyers on any difficult claims, where the industry mantra seems to be "sue first, pay later (maybe)".

Aon has been conducting a biennial risk management and risk financing survey of the leading U.K. corporations for some while. Over the years the risks that most concern the corporations have increasingly become "business" risks, rather than the traditional "insurance" risks, such as fire and employers' liability (which headed the list in 1995). In the 2001 survey, the top two risks were "loss of reputation" and "failure to change", followed by "business interruption". When asked in what risk areas was the purchase of adequate insurance cover a problem, the answers were "loss of reputation/brands", "business interruption", "product liability", "computer crime" and "environmental".

The presence of loss-of-reputation/brand-protection issues at the top of the list confirms the increasing importance of such "intangible" assets as the key driving forces behind a corporation's wealth generation, rather than "physical" assets (such as plant, property and equipment) that insurance has traditionally provided protection for. "Either directly or

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indirectly, the majority of every organisation's value is made up of reputation. Brands alone are valued in millions – in some cases billions – of pounds. Most of the other intangible assets – skills, knowledge, know-how, strategic alliances, relationships – are almost entirely dependent on the organisation's reputation with the relevant stakeholders." In a recent conference presentation, Matthew Frost, Head of Risk Financing at Diageo plc, reported on their brands-damage project, in which 139 possible risks to the major brands in Diageo's portfolio of businesses were identified. For each risk, the likelihood and magnitude of impact were assessed. He also commented that "insurance solutions were invalid for over 60 per cent of risks, and ... we continue to buy insurance in silos. More work needs to be done in evaluating the potential impact of Brand Risk on companies, but perhaps then the 'All Risks of Loss or Damage to the Brands' policy may be created."

Business interruption, in second place on the list of risks for which insurance cover was a concern, reflects the widespread adoption of "lean" production systems, with minimal ("just-in-time") inventory, and corresponding high dependence on suppliers and customers (both internal and external) in today's business value-added chains.

2.2.1 Solution approach (d): new products

Overall the insurance market is failing to keep up with the needs of its corporate clients; the percentage of respondents in the Aon U.K. survey saying that the insurance market was generally meeting business needs fell from 82 per cent in 1999 to 71 per cent in 2001. Typical comments made by respondents included: "no real cover for many key business risks", "slow to adapt", "lack of genuine flexibility", "multiyear/multiline is a great idea but difficult to get", "poor service" and "limitations in policy wordings".

The significant need for new risk management and financing solutions for the emerging major areas of risks facing corporations was also confirmed by a research report by MacTavish (reported in Morgan Dean Stanley Witter *Equity Research*, 20 November 2000). The key findings included:

(a) Corporations are exposed to a considerable amount of risk that they are not covering, but would like to;
(b) The same corporations acknowledged that risk management is not a core competence for them;
(c) So far, suppliers have failed to capture this opportunity;
(d) Innovative product creation and design are required for success.

Historically, insurance has been largely about covering risks to assets, rather than risks to earnings. The major threat to a corporation's share price is missing its earnings forecasts. Therefore any risk that can threaten earnings becomes a "killer" risk, and as shown above the offerings and appetite of the traditional insurers and reinsurers have increasingly been shown wanting.

These remarks are confirmed by the "EIU Research Report (2001) on Enterprise Risk Management, Key Findings": "Non-traditional risks pose the greatest threat. Executives reported that their most significant risks aren't those traditionally managed by risk management or treasury departments. The top three are customer loyalty, competitive threats and operational failure. These are also among the risks companies believe they manage least well."

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3. Summary of results and recommendations

3.1. Reduce frictional costs

The frictional costs embedded in the existing structure and operations of the re/insurance industry do need to be radically reduced. This can be achieved by a combination of process re-engineering and wholesale adoption of IT for all processing. However, this only presents a necessary but not a sufficient condition for future success.

3.2. Convergence is not the answer

Convergence between the re/insurance industry and other sectors of the financial services industry does not provide a sustainable long-term future for the existing re/insurance companies. This strategic option of "bancassurance" has not yet delivered the expected returns for most companies that have tried it. The lack of true synergy between insurance and banking operations is also signalled by the lack of convergence activity in the U.S. Despite all the efforts to repeal the Glass–Steagall Act of 1933 by the passing of the Gramm–Leach–Bliley Financial Modernization Act in 1999, there have been far fewer cross-sector acquisitions and mergers than expected, particularly involving insurance companies.

Likewise, the retreat-from-risk strategy may lower volatility of financial performance, but will also result in levels of performance below the expectations of current shareholders. The level of competition and scale of operation required to succeed in banking sectors, such as funds management, is beyond most existing re/insurance companies.

3.3. Disaggregation is the answer

This author believes that success lies in fully exploiting and responding to the existing and future needs of corporate insurance policyholders for risk transfer. Their shareholders in turn want to transfer volatility, and so there is a sustainable demand for the right risk-transfer product, delivered at the right cost; but achieving this will require a radical restructuring of the current re/insurance industry.

Here there is a lesson to be learnt from the current restructuring going on in the life insurance industry. A new "industrial" model has been adopted by some of the larger and more successful life companies, such as Axa, Skandia and Prudential. The old traditional model of a fully vertically integrated insurance company (with one company performing all the functions from product design, distribution, servicing through to asset management) has been disaggregated, aided by the use of open-architecture internet technology. In the new industrial model, each company will specialize in just one or two stages in the value-chain, e.g. manufacturing (i.e. product design), distribution, or asset management.

The reason for this approach is that only very few companies can achieve sustainable success as a generalist across all stages of the value chain. Unless the stages in the value chain are more clearly separated, then one outcome is usually cross-subsidization across stages and acceptance of mediocre performance across the board, rather than expectation of excellence in each stage. Also, if an insurance company more clearly separates the manufacturing and distribution processes, then research and manufacturing can more efficiently be done centrally, and "products" customized and marketed locally. Another consequence of disaggregation is that companies from outside the traditional industry can enter and compete successfully in one stage if they have particular skills, such as in distribution (e.g. retailers, supermarkets or other companies with customer contact such as Virgin).

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Size, i.e. scale, is a necessary condition for achieving acceptable margins in each stage of the chain. Investment in IT is the main way to achieve scalability. However size is not necessarily a sufficient condition for success by itself; focus or specialization is also required to achieve success in each part of the value chain that any company participates in.

The lesson for the non-life industry is to achieve the necessary focus, specialization and scale by disaggregating the range of functions performed by the typical re/insurer. The functions within the corporate non-life industry should be segregated into product design, distribution, servicing and risk-bearing. The role of product design will be carried out by organizations that probably currently operate within the brokerage sector; distribution and servicing by brokers and insurers; risk-bearing predominately by organizations currently recognized as reinsurers. There will be increasingly less value-added (or capital efficiency) by insurance companies having to have a balance sheet capable of retaining significant risk; and little value-added for reinsurance companies to build distribution and service networks. Focus on specialization and scale will reduce frictional costs and increase service levels.

3.4. . . . combined with integrated capital management for re/insurance companies

The re/insurance companies that remain in the industry as risk-bearers face various categories of risk, not just catastrophe losses:

- Liability or hazard risk
  - Rating risk: losses are greater than expected
  - Coverage risk: scope of risk is greater than expected
- Asset or financial risk
  - Capital-market risk: adverse movements in value of investments or exchange rates, fall in liquidity of assets
  - Credit risk: on premiums receivable and reinsurances recoverable
  - Reinsurance risk: programme does not perform as expected
- Business risk
  - Operational risk: due to failures of systems, processes and/or people
  - Regulatory risk: actions by regulators, tax authorities, courts, credit-rating agencies
  - Strategic risk: impact on pricing and customers of actions by competitors, or changing economic, political and industry trends

All this argues against the traditional silo approach to risk management and for a much more portfolio or integrated approach to capital management, and particularly a wider consideration of the role of reinsurance as a capital–management tool. By way of analogy between insurance and reinsurance, the EIU Research Report cited earlier also reported in its key findings that 84 per cent of companies in their survey believed that enterprise risk management can improve their P/E ratio and cost of capital. Apart from any capital efficiencies to be gained from such an integrated approach to risk and capital management, it also provides a much better basis for risk regulation and corporate governance.

4. Further research

This root and branch restructuring of the re/insurance industry needs to be supported by a programme of other research and development, covering a wide range of topics:

- Further developments in risk modelling (beyond natural hazards) to allow tracking of

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accumulations and better pricing of non-catastrophe risks;

- Development in risk-transfer product design to achieve more transparent claims triggers (and hence faster claims settlements processes) and more earnings-related coverages for corporates that address their real economic income exposures;
- Research into valuing and understanding the risk exposures that really concern business managers, such as brandnames and intangible assets.

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