



International Association for the
Study of Insurance Economics

Études et Dossiers

Etudes et Dossiers No. 319

MORE XL

**'P-PPP' – 'Partnership in Prevention,
Precaution and Protection**

Zürich, 20 - 21 September 2006

&

4th ART of CROs, 2006

Rüschlikon, 17 – 18 October 2006

November 2006

Working Paper Series of The Geneva Association

© Association Internationale pour l'Etude de l'Economie de l'Assurance

The Geneva Association Working Paper Series “Études et Dossiers” appear at irregular intervals about 10 - 12 times per year. Distribution is limited.

The “Études et Dossiers” are the working paper series of The Geneva Association. These documents present intermediary or final results of conference proceedings, special reports and research done by The Geneva Association. As they contain work in progress or summaries of conference presentations, the material must not be cited without the express consent of the author in question.

Layout & Distribution: Valéria Kozakova

Insurance Buyers – Are you Properly Covered?

Tileman Fischer

Geneva Association - Uninsured Industrial Risks – The limits of current insurance solutions and their causes

Table of contents

1. Insurability vs Uninsurability: Reality Check
2. Doubtful and/or wrong arguments for risks being deemed uninsurable
3. Groups of industrial risks (generally) not insured (insurable or not!)
4. Most relevant uninsured industrial risks (to the industrial client)
5. In comparison: Top 10 risks facing UK Companies in 2005 (insured or not)
6. Reasons for industrial risks being uninsured (insurable or not)
7. What do most uninsured industrial risks have in common?
Factors related to their nature
8. What do most uninsured industrial risks have in common?
External factors
9. Main obstacles / “road blocks” to covering these risks
 - 9.1 Clients’ perception
 - 9.2 Insurers’ perception
 - 9.3 Brokers’ perception
10. General observations as regards the different perspectives
11. What could be the strategy to overcome the “road blocks”
 - 11.1 General options
 - 11.2 Particular options

1. Insurability vs Uninsurability: Reality Check

- Not all industrial risks are insured (for a variety of reasons)
- These risks are (should be) either insurable or uninsurable
- In principle: the concepts should be mutually exclusive, however:
- We have failed to define an objective borderline between insurability and uninsurability.

In fact, the borderline may be very fine

- The criteria of insurability are either not totally clear or not universally accepted
- The following examples may illustrate this phenomenon:

2. Insurability vs Uninsurability: Reality Check

> Doubtful and/or wrong arguments for risks being deemed uninsurable

- Argument: Uninsurability because of lack of historical data
 - Fact is: many risks being insured without sufficient risk information and loss experience.
 - There is ample evidence; example:
 - First ocean going vessels some 300 years ago (insured by Lloyd's)
 - First satellite launch (not insured, but 2nd was!), first offshore risks, biotech risks etc.

➤ Solution:

Data could be collected in course of time and future cover adjusted accordingly, price could be higher than potentially actuarially calculated in future, proxies of comparable risks (data) may be utilized (analogies)

2. Insurability vs Uninsurability: Reality Check
> Doubtful and/or wrong arguments for risks being deemed uninsurable

- Argument: Uninsurability because of anti-selection
 Basic logic: Insurability does not mean insurer has to accept risk!
- Differential pricing and more sophisticated underwriting and risk selection a must!
- Meaningful retention / “co-insurance” with client, sub-limits, i.e. alignment of interest is essential
- Risk mitigation initiatives as pre-condition

} Solution

- Argument: Uninsurability because of lack of spread / small number of risks
- Number of coinsurers may be increased to spread risk
- Higher price to be charged per policy
- Individual risk may be put in basket of non correlating risks or swapping of risks
- Compulsory insurance?

} Solution

T. A. Fischer, Geneva Association, 2006 5

2. Insurability vs Uninsurability: Reality Check
> Doubtful and/or wrong arguments for risks being deemed uninsurable

- Argument: Uninsurability of Strike (related) risks because of being contrary to public policy
- Yes, such a cover could be abused to the disadvantage of the employees and/or the insurer
- Yes, such a cover could be unethical and in conflict with public policy
- However: a Fire-LOP cover may or may not exclude strikes. This should be insurable in terms of the policy, because: setting fire is not a normal strike action, i.e. the fire LOP cover is not contrary to public policy

Counterexample

- Argument: Uninsurability of the Gulf wind-storm risk
- Frequency of events has increased (no matter of being a result of climate change or not!)
- Frequency becomes more difficult to model
 >> this may define the limits of insurability!
- Whilst severity and capacity issues may be solved by the introduction of limits, otherwise: viz example above „lack of historical data“

T. A. Fischer, Geneva Association, 2006 6

3. There are two groups of industrial risks (generally) not insured (insurable or not!)

- Non traditional, emerging and / or intangible risks
 - General definition:
 - risks of companies relating to the **development of their (new) products** (or services) and
 - the demand for them, as well as
 - **risks relating to maximize the companies' profit**
 - Examples: brand damage, new risks such as EMF, Pandemics
- (More) traditional and / or tangible risks
 - General definition:
 - risks of companies that influence their **ability to (physically) produce** and
 - supply their products and services, and
 - risks, that (as a consequence) may **influence the demand** for them
 - Examples: computer based risks (hacking, virus), transmission and distribution lines (T&Ds), terrorism, BI – without physical damage

T. A. Fischer, Geneva Association, 2006

7

4. Most relevant to the industrial client are the following uninsured industrial risks:*

- The research revealed as key risk areas in general:
 - Risks to their earnings (Balance Sheet, P&L, share price), as opposed to risks to their assets
- In particular (general ranking):
 - Entrepreneurial risks, i.e. risks normally to be borne by the owner / shareholder of the industrial client, mainly: 1. brand damage, 2. loss of reputation, 3. loss of market (share), overall: share price collapse
 - Computer based risks (crime, hacking, virus)
 - BI without physical damage (contigent BI), i.e. business continuity risks
 - Product Liability (tampering, recall)
 - Environmental Liability (e.g. more stringent as per new EU – Directive)**
 - Terrorism (incl. political risks)**
 - Natural catastrophes without limits (e.g. for infrastructure companies, T&D, Gulf wind-storm risks)**
 - Performance risks**
 - Emerging risks, e.g. nanotechnology risks (not yet excluded), EMF

* Relevance may vary per industry group or market (e.g. liability cover in Asia rare/low)
 **Generally only limited cover available, if any

T. A. Fischer, Geneva Association, 2006

8

5. In comparison: Top 10 risks facing UK Companies in 2005 (insured or not – ranked 1 - 10)*

- Loss of Reputation
- Business Interruption
- Failure to change
- Product Liability/Tamper
- Impact of legislation/regulation
- Physical Damage
- Employee accidents
- Terrorism
- Corporate Governance
- Professional Indemnity

* AON survey 2005 of UK industrial clients on the question: What are the top ten greatest risks facing your organisation?

T. A. Fischer, Geneva Association, 2006

9

6. Reasons for industrial risks not being insured - insurable or not

General Comment:

Not all uninsured industrial risks are not insured because of a lack of insurance solutions.

Reason: The client may well decide, not to transfer the risk*

- No risk transfer because of conscious decision/no demand by client
 - because of risk retention by client,
e.g. due to a strong balance sheet the risk is borne by the client
 - because of price or cost/benefit imbalance from the client's viewpoint,
e.g. product recall, tampering, terrorism
 - because of asymmetrical information,
i.e. the client being well aware of his risk profile, with the consequence:
the "good" risks are retained, the bad are transferred

* The sequence reflects the importance for the clients (according to the research so far)

T. A. Fischer, Geneva Association, 2006

10

6. Reasons for industrial risks not being insured - insurable or not

- because of availability of non-insurance solutions, i.e. solutions offered by e.g. banks for foreign exchange/ interest rate fluctuations (hedging!)
- because of lack of awareness, i.e. the client may not know the risk or underestimates it, e.g. in relation to terrorism, D&O (mainly referring to the wide scope of liability), supplier's risk vs the producer (e.g. just in time delivery issues)
- because of risks core to business, e.g. oil price risk for oil industry being the key value generator, therefore this risk is not being transferred (the opportunities are greater than the risks)
- Special case: Ransom demand following a kidnapping. This is normally not regarded as an uninsurable risk. The client may decide to retain or transfer it. But in case of a transfer a silence clause would conceal the existence of the cover

T. A. Fischer, Geneva Association, 2006

11

6. Reasons for industrial risks not being insured - insurable or not

- Shortfall of solutions, options, alternatives, e.g.
 - Entrepreneurial risks, brand damage, loss of reputation (accidental and gradual)
 - Share price collapse
 - R&D failures
 - Performance Guarantees/Warranties
 - Business Interruption without physical damage (contingent BI)
 - Terrorism, political risks, war
 - Computer crime
 - Multi-line-, multi-year covers
 - Shortage of capacity: natural catastrophes
 - EMF, T&D,
 - Unavailability of coverage because of legal or moral reasons (public policy), e.g. liability risks beyond gross negligence (Ford Pinto case), product liability risks for land mines, punitive damages?, speculative business risks (being not compatible with the concept of insurance)

T. A. Fischer, Geneva Association, 2006

12

7. What do most uninsured industrial risks have in common?

Factors related to their nature:*

- Risks more defined by impact on business than by the cause of loss, e.g. lack of clear trigger (e.g. lack of R&D, of quality control, of brand cultivation)
- Enterprise risk character (e.g. failure to innovate)
- Combination of risk factors** (e.g. brand damage/loss of reputation)
- Difficulty in evaluating risk, assessing frequency and severity and / or defining trigger (e.g. EMF, Nanotechnology) and
- Difficulty in measuring loss or damage
- Lack of historical data (typical for emerging risks)
- In general: There is a distinct challenge/difficulty to assess these risks rationally and adequately price for it. The multiplicity of risk factors taken plus the poor data quantity and quality and the unclear frequency make the risk assessment and risk management particularly difficult

* Most of these factors apply to emerging risks

** E.g. consumer goods sold in USA: the genuine product risk plus litigious environment and consumer protection mentality; or in general: human error plus technical deficiency

T. A. Fischer, Geneva Association, 2006

13

8. What do most uninsured industrial risks have in common? (cntd.)

External factors:

- No clear position of insurance industry (e.g. entrepreneurial risks)
- Unclear demand, unclear awareness by clients (e.g. terrorism)
- Lack of experience (e.g. EMF)
- High degree of uncertainty resulting in difficulty to price coverage adequately (nanotechnology risks)
- Lack of homogeneous portfolio (e.g. performance risks)
- Lack of capacity (e.g. natural catastrophes, e.g. Gulf wind-storm risks)
- Lack of reinsurance protection (e.g. capacity risks such as EQ and other Nat. Cat risks)
- Insufficient dialogue between clients and insurers on these risks to creating potential solutions (this is not only the task of the insurers, it is in the clients' interest to work on these solutions)
- Perhaps an overall mindset issue of the three parties involved to deal with uncertainty and "sail in uncharted waters"

T. A. Fischer, Geneva Association, 2006

14

9. Main obstacles / “road blocks” to covering these risks:

9.1. Clients’ Perception

- Inadequate (high) pricing, cost/benefit imbalance
- Limited cover, i.e. policy limits imposed by insurers
- Structural limitations, i.e. fragmented structure of cover (no multi-line cover)
- Overconfidence in own risk management, in own technical solutions
- No demand, own risks being underestimated
- Insurers offer (traditional) products only, but no tailor-made solutions for client’s individual risk profile (potential preference for banks for credit risks or fidelity)
- Insurers lack the necessary degree of understanding of the client’s business (asking too much questions?)
- Lack of dialogue between the parties concerned
- Insurers not being innovative enough, not entrepreneurial, risks not within their strategy (ROE, EVA), potentially even “risk averse”?
- (Mis)conception about insurers: too much thinking “post loss”, not enough on assisting clients to securing/increasing continuity and success of their operations
- Clients may be unaware of the logic: the greater the degree of uncertainty, the higher the potential premium should (must) be

T. A. Fischer, Geneva Association, 2006

15

9. Main obstacles/ “road blocks”:

9.2. Insurers’ perception

- (Some of the) intangible risks are subject to high moral hazard, e.g. through manipulation of trigger (e.g. event cancellation, cat. bonds)
- Risks like loss of market or lack of innovation should stay with the clients, the client’s shareholders should be exposed to these risks
- Industrial companies do / must make mistakes, but on their own peril, i.e. insurers cannot / should not provide cover to guarantee their profits (e.g. Reliance case, pot. BAE case)
- “Non-alignment” of interests between client and insurer, if only bad risks are being transferred (asymmetric information) or – in other words:
- Insurers are inclined to take anti-selection as a fact of life
- Loss potential (for a particular risk) may be too high for the insurance industry
- No adequate reinsurance protection available
- Clients see risk transfer too much as a cost factor, but not as an added value, not as substitution of capital
- ART – solutions with regard to the Marsh/Spitzer issue?
- “Only the foolhardy take risks when the rules are unclear” (P. Bernstein, Against the Gods)
- A basic worry: Would the analysts favourably look at any innovative move to covering (some of) these presently uninsured risks?

T. A. Fischer, Geneva Association, 2006

16

9. Main obstacles/"road blocks" (cntd.):

9.3. Brokers' perception

- Insurers are lacking "entrepreneurial spirit" or business acumen when risk taking
- Insurers do not like to insure risks, which they regard as client's entrepreneurial risks, e.g. loss of market, lack of innovation
- Insurers are inclined to put too much emphasis on replacement and repair, i.e. perception of more "after the event thinking", but not on business continuity
- Insurers may not be innovative enough, e.g. as regards emerging risks
- Insurers are scaling down ART solutions (because of the Marsh/Spitzer issues)
- In general:
Brokers are not risk-takers. Therefore, there is a leaning or rather a habit to present each and every risk in the best possible light. And conversely, they are – at least – disappointed, if the risk in question cannot be placed in the market

T. A. Fischer, Geneva Association, 2006

17

10. General observations as regards the different perspectives

- Insurers – when risk taking – do not generally think in investment terms
 - They do not make a risk related "discounted cash flow calculation", i.e.
 - They are normally not used to approach new products and / or to respond to emerging risks under investment considerations, where the learning curve or data collection phase may serve as the investment phase (to build up a portfolio in an insurable manner)
 - They prefer, not to insure "prototypes". What about their role as "enabler"?
 - Could Insurers be more open to these issues?
- Clients tend to look at insurance as cost factor, not as value and substitution of capital (viz. above)
 - Clients may have to change their settled mode of thinking here and apply a more realistic approach, but
 - Insurers may have allowed this to happen (with the help of the broker?), have insurers "conditioned" clients like that? And:
 - Clients may underestimate their (contractual) obligation to prevent or mitigate losses

T. A. Fischer, Geneva Association, 2006

18

10. General observations as regards the different perspectives

- Insurers are generally reluctant to invest in new developments, by first paying potential claims, before achieving an adequate return (e.g. in a new product, where demand should be big).
 - Attitude may have to change
- Clients may have the tendency to (only) insure, when and where and for what risk cover is cheaply available.
 - Attitude may have to change
- Clients may transfer only “bad” or “difficult” risks, or buy only unbundled services, where they think, insurers can contribute (BP case in the early 90s).
 - Attitude may have to change
- Clients (may) underestimate risks, that they principally would want to insure (include), but only for free (e.g. terrorism) or for an inadequate price (e.g. D&O, recall, viz. above).
 - A more realistic or balanced approach may be appropriate

11. What could be the strategy to overcome the “road blocks”

11.1. General options

- Insurers to better demonstrate competence not only in risk transfer techniques, but also in understanding their clients' business: precondition for providing individual insurance solutions
- Insurers to offer rather partial solutions than no solution at all, e.g. adequate caps
- Insurers to more intensively manage relationships with clients on an ongoing basis, particularly strengthen the dialogue with them on traditional and non-traditional insurance solutions
- Clients to better identify and assess (and mitigate) their own risks and to regard risk transfer as added value, not as cost only. The design of tailor-made insurance solutions is a two-way track (viz. above), not only the task of the insurer
- Clients to accept that a secure risk transfer provides not only safety, but also capital (or cash flow) relief, i.e. frees capital for entrepreneurial activities and therefore has its price
- Both parties may approach insurance, as if it would have been invented today: how would they interact (differently)?

11. What could be the strategy to overcome the “road blocks”

11.1. General options

- Both parties to coordinate to potentially utilize capital markets to increase capacity (e.g. through securitization, where and when needed)
 - Both parties to look for safety as the desired result, i.e. see to prevent damage or loss, secure continuity and increase the success of the clients' operation (work together on pre-loss objectives)
 - Insurers to continue to meet the market needs and apply their capabilities to meet the demands of a globalized world of risks
 - Clients to accept, however, that there are limits
- Insurers to more anticipate longer-term trends and resulting market needs, and to respond in an innovative manner
- Innovations based on a robust strategy, implemented on a plausible, growth generating business plan
- to move in the focus of industrial insurers
 - It is to be anticipated that the investor community would support this*

* According to the research

T. A. Fischer, Geneva Association, 2006

21

11. Some (obvious) options to overcome the “road blocks”

11.2. Particular options

- Insurers to review criteria for the “uninsurability” of industrial risks (such as: lack of historical data, anti-selection, viz. above). Insurers to review their own “killer arguments”. They could apply e.g. analogies and additional risk assessment tools (e.g. brand value calculation measures and improved modeling techniques for natural hazards) to better quantify risks and thus making them manageable. All must include stringent accumulation control techniques
- Pool solutions
 - Aviation (Luftpool, Germany)
 - Pharmaceutical (Pharmapool, Germany)
 - Terrorism (SASRIA, South Africa; Pool Re, England; Earthquake Indonesia)
 - Natural catastrophes (Consortio, Spain; Nat Cat, France)
 - Same option may be a solution for other risks (e.g. flood, emerging risks), to enlarge risk community
- Cat. Bonds for securitizing natural hazards
- Limited solutions through exclusions, time excesses, policy limits (viz. above)
- What if the insurance industry does not provide solutions to these challenges? Someone else may? Would this be acceptable for the industry?

T. A. Fischer, Geneva Association, 2006

22