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CLOSING THE GAP: UNDERINSURANCE IN ASIA'S INDUSTRIAL SECTOR



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Investment in Asian infrastructure projects continues to grow exponentially. Many of these projects, however, are not adequately insured, with organisations insuring their assets by as much as 60% less than their true current replacement value.

Businesses, industries and economies across Asia cannot be sustained over the long term unless the level of underinsurance is reduced.

This paper explores factors contributing to underinsurance, possible solutions, and the reasons a business should view accurate and regular insurance valuations as a vital tool in their risk management armoury.

Information contained in this paper was sourced from a variety of organisations as indicated, with substantial input by independent industrial valuation experts, John Foord.

1. UNDERINSURANCE – A CRITICAL ISSUE

A boom in infrastructure spending is underway across Asia. As economies grow and urbanization advances, demand for the rapid rollout of infrastructure is soaring.

The Asian Development Bank (ADB) estimates about \$8 trillion in new infrastructure investments will be required in the region between 2010 to 2020 to support current levels of economic growth¹. That means, on average Asia will invest around \$750 billion per year during this period.

With a myriad of infrastructure projects already underway and more in the pipeline, the economic viability of many of the businesses involved may be at risk due to inadequate levels of insurance. Statistics show that organisations across Asia insure their property assets for approximately 30-60% less than their true current replacement value.

Quite often, the extent of underinsurance becomes apparent to businesses only when it is too late. The consequences can be unexpected and severe, significantly reducing the ability of businesses to recover in the event of a large loss. For example, of those businesses affected by

a major fire, approximately 70% either do not reopen or go out of business within three years of the fire.

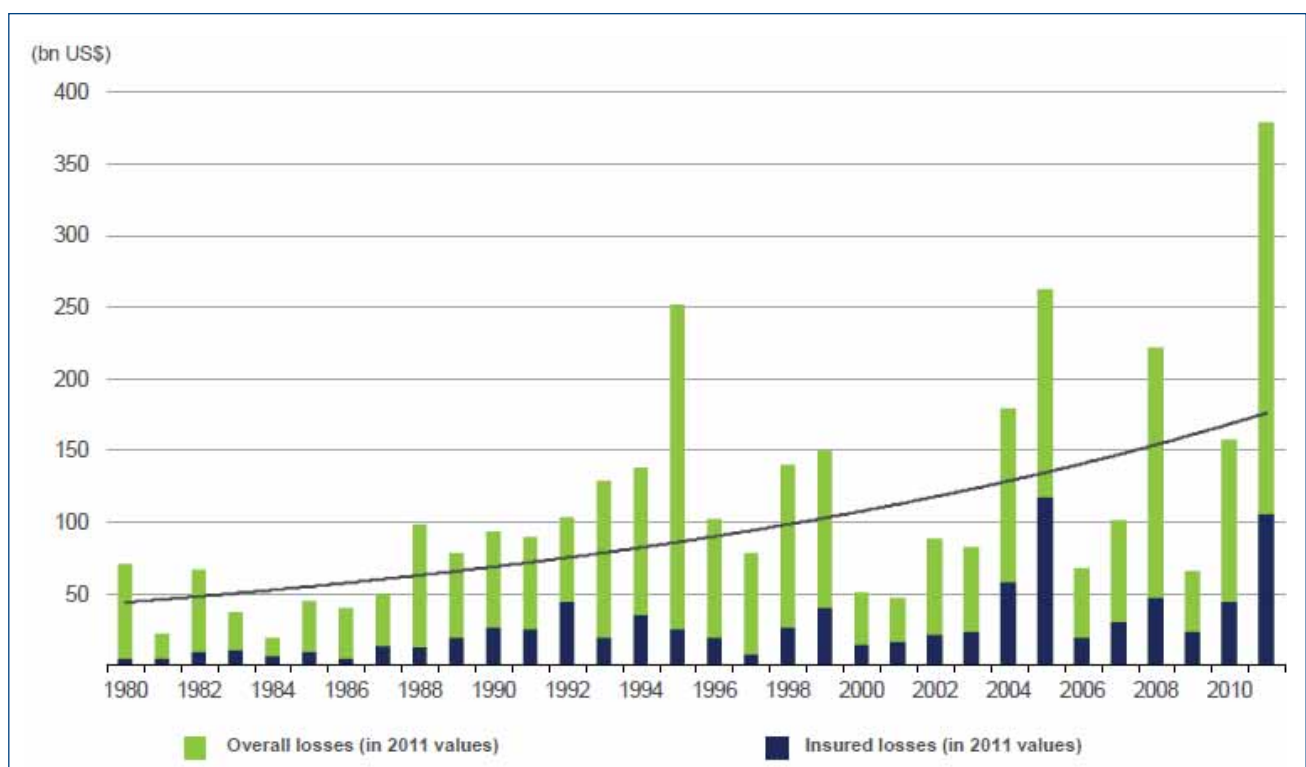
The incidence of such large losses is likely to rise, given the frequency of natural disasters affecting Asia and the rapid expansion of many of its industrial zones in areas vulnerable to earthquakes, storms and flooding.

If the existing high levels of underinsurance remain unchecked, the gap between economic losses and insured losses is likely to widen further, as demonstrated in **Figure 1**. This has the potential to affect not only individual businesses and sectors, but also whole economies, as governments are called upon to finance recovery efforts.

The long term sustainability of businesses and economies is reliant on ensuring insurance accurately reflects the level of risk and the true replacement value of assets.

¹ 'Infrastructure for a Seamless Asia': Report by Asian Development Bank and Asian Development Bank Institute September 2009, p.1

FIGURE 1: GAP BETWEEN ECONOMIC AND INSURED LOSSES



Source: Munich Re

2. WHY DO BUSINESSES UNDERINSURE THEIR ASSETS?

Many businesses are unaware that their insurance is not adequate to cover the cost of replacement of assets. Quite often, it only becomes apparent when it is too late, and the consequences can be unexpected and severe. While a number of factors can contribute to a business underinsuring, the main causes fall into two key categories – inaccurate valuations; and perceived affordability.

INACCURATE VALUATIONS

The sum insured is one of the most important parameters in property insurance. It is the limit of indemnity in the event of a claim and at the same time the basis for calculation of the premium.

Determining realistic sums insured and new replacement values is very complex. The most common contributor to underinsurance is inaccurate insurance valuations, through which the actual exposure is underestimated (or, conversely it can be overestimated leading to excessive premiums). Inaccurate valuations generally occur if a business:

- *Relies on internal technicians*
Engineers and technicians possess a depth of knowledge about machinery that is often unparalleled. However, it is unrealistic to expect them to have either the time or the motivation to keep up to date with valuation concepts and methodologies. This means a technician may be unaware of the range of add-on risk assessment items, such as civil works, fees, debris removal, compliance with local regulations and statutory authority requirements, special tooling and technical drawings.
- *Relies on asset registers and inflation indices*
Even if an asset register is correct and up to date, its nature and inherent function are incompatible with valuation. An asset register is a fiscal record mainly showing capital costs and net book values, with its primary purpose to calculate depreciation charges. Registers often lack a descriptive content necessary for accurate valuation and disposals are invariably not regularly recorded.



MANAGING THE RISK OF NATURAL DISASTERS – THAILAND FLOODS EXAMPLE

Many of Asia's rapidly expanding industrial zones are in areas vulnerable to earthquakes, storms and flooding. An organisation's approach to managing these risks must include accurate asset valuations and adequate insurance protections.

A recent example of the extent of damage caused by natural disaster was the devastating flooding across Thailand in the second half of 2011. In addition to claiming more than 560 lives, the floods severely disrupted the country's manufacturing operations, forcing the closure of at least seven major industrial estates and more than 14,000 businesses, suspending the production of cars, electronics and other goods, severely disrupting the supply chains of many international companies, and damaging critical infrastructure.

The World Bank has estimated the total value of economic damage and losses at THB1,425 billion (US\$45.7 billion) at 1 December 2011² or more than 10% of GDP, with the largest losses – THB 1,007 Bn (US\$ 32 billion) – felt in the manufacturing sector.

Thailand's Permanent Secretary for Finance said the seven industrial estates had insurance coverage of around THB600 billion (US\$19.5 billion), 30% of which may eventually be paid out³.

² [Rapid needs and impacts assessment of the Thailand floods by The World Bank and Global Facility for Disaster Reduction and Recovery, Media Release, 13 December 2011](#)

³ [Guy Carpenter: "Update: Floods In Thailand" 3 November 2011](#)



- *Relies on historical costs*

Historical costs will not reflect the current cost of replacement of assets. Often an Engineering Procurement Contract (EPC) is negotiated to build a plant. However in the time it takes for construction, a number of factors will have changed which might significantly affect a valuation. These include current commodity prices, foreign currency movements, technological advances, original cost bidding effects, and labour costs through to the possible valuation implications resulting from climate change effects. The need for up-to-date valuations of these factors for insurance purposes is critical.

- *Doesn't consider major loss inflation*

Following major events, there can be an element of post loss inflation (escalation of expected claims cost) due to demand pressures arising from significant re-building work with a limited supply of builders and materials which increases "normal" re-building costs.

- *Doesn't consider extra cost of reinstatement*

In addition to post loss inflation, the re-building following damage can trigger a requirement to comply with current building codes. This is referred to in commercial insurance packages as extra cost of reinstatement, which may not have been included in initial valuations.

PERCEIVED AFFORDABILITY

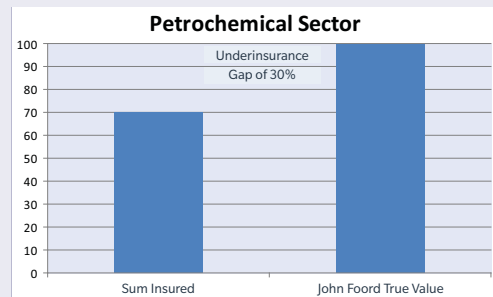
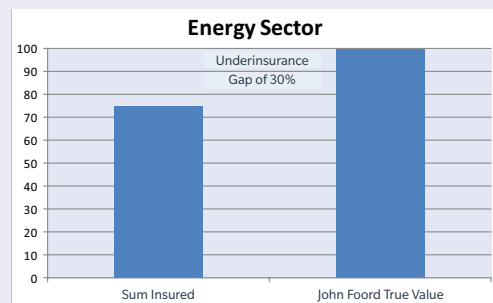
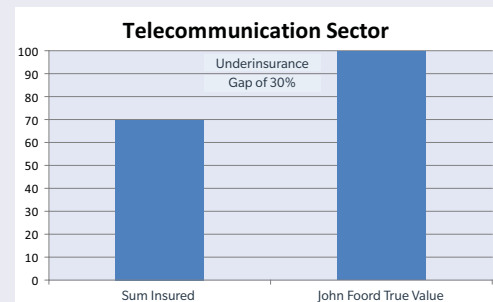
Some businesses may rationally choose to underinsure or not insure, opting instead to accept risk exposure. Some take this decision based on the perceived affordability of the premium without full consideration of the cover provided; others decide they have the balance sheet strength to take on their own risk, in effect 'self-insuring'.

Others may also give a low priority to seeking independent insurance valuations or adequate information on insurance policies, and may choose not to hold their businesses accountable to high risk management principles which assess likely frequency and severity and risk of ruin.

INDUSTRIES MOST AT RISK OF UNDERINSURANCE

Statistics show that organisations across Asia insure their property assets anywhere from 30 - 60% less than their true current replacement value. An assessment by expert valuers, John Foord, has found that three sectors in particular have high levels of up to 30% underinsurance – the telecommunication, energy and petrochemical sectors.

The data from John Foord represents the difference between the sum insured on the asset and the actual new replacement value. This gap represents the level by which the asset is underinsured.



3. IMPLICATIONS

The potential consequences of under and non-insurance are significant, and can adversely impact a broad number of stakeholders including:

INDIVIDUAL BUSINESSES

A business which fails to adequately insure is at risk of experiencing significant financial loss and potential failure. By failing to have an accurate assessment of what exactly these assets are worth and what it would cost to reinstate

them, companies are leaving themselves exposed to a substantial hit to their balance sheets.

An inaccurate valuation can also trigger the application of the ‘Average Clause’, which is included in most insurance policies. Under this clause, when a property is insured for less than its full value, the property owner bears a corresponding proportion of any loss. For example, if a building which is worth \$1,000,000 is insured for only \$500,000, and it suffers a partial loss of, say, \$400,000, the amount paid under a policy with a 100% Average Clause would not be \$400,000. Rather it would be a proportion of that loss amount, calculated as follows:

EXAMPLE: AVERAGE CLAUSE

$$\frac{\text{SUM INSURED}}{\text{FULL VALUE OF THE PROPERTY}} \times \frac{\text{THE AMOUNT OF THE LOSS}}{1} = \frac{\$500,000}{\$1,000,000} \times \frac{\$400,000}{1} = 50\% \times \$400,000 = \$200,000$$

INSURANCE INDUSTRY

Lower sums insured place pressure on insurers to cover risk exposure of a smaller portfolio and impacts on premiums to those who choose to insure correctly. If profitability declines due to a diminishing number of customers it may result in insurers withdrawing from particular classes of insurance, potentially putting pressure on market premiums due to less competition.

ECONOMIES

Economies, particularly in developing countries, can be disrupted by underinsurance in the case of major event losses such as natural disasters. An important part of the recovery aspect of disaster management is its funding, much of which can be borne by insurers. Insurance can deliver cash quickly to fund recovery when it is most needed and relieves governments of pressures for relief money at such times. This can hasten an otherwise slow and frustrating recovery process, curbing productivity losses and poverty.

4. POSSIBLE SOLUTIONS

Addressing the level of underinsurance and non-insurance requires action on a number of fronts.

ACCURATE VALUATIONS ARE VITAL

Given the complexities and risks involved in accurately valuing the replacement cost of assets, it makes good business sense to appoint an insurance valuation expert. An independent, defined, accurate, professional approach to valuation devolves the burden of determining the replacement value from the business.

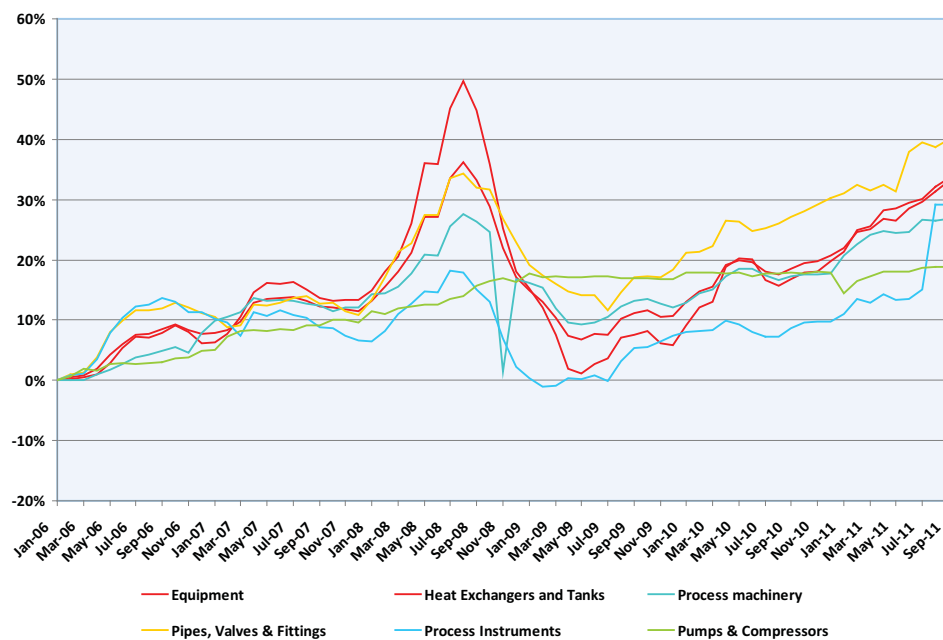
Appointing an independent valuer is also becoming more important as insurers are increasingly sensitive to the risks of underinsurance and are scrutinising organisations which prepare their own insurance value assessments. Some insurers are looking for assurances that declared values have been independently verified.

A further benefit of having an independent valuation prepared is that, in the event of a major insurance event, loss adjusters and insurers will work with an independent valuation report, thereby eliminating any confusion and inaccuracies, leading to a timely and unambiguous claims and settlement process.

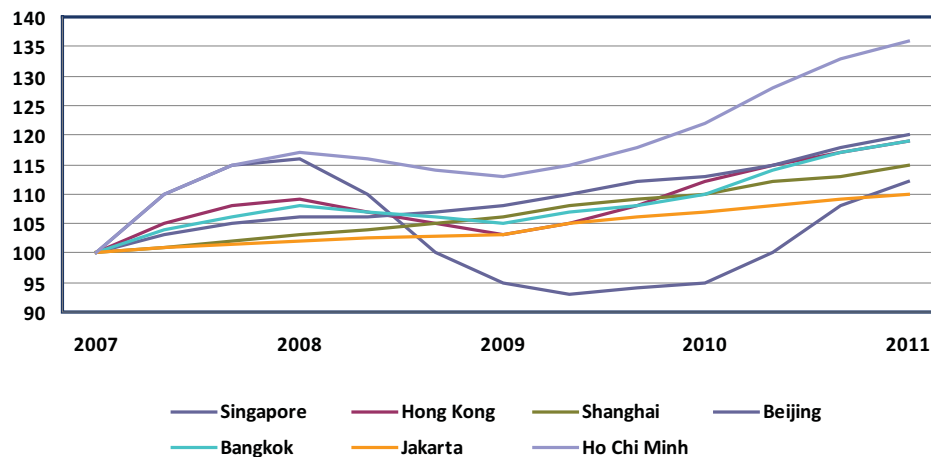
EXTERNAL FACTORS CAN SIGNIFICANTLY AFFECT VALUATIONS

Commodity price volatility and the rising cost of raw materials such as steel are fuelling a rise in rebuilding costs for refineries and petrochemical facilities, with 2011 costs exceeding the previous high of 2008. This upward trend is showing no signs of turning, particularly in the case of continued high and relatively stable crude oil pricing. In addition, an upturn in construction activity is placing an added premium on labour and equipment costs. The need for up-to-date valuations of plants and facilities for insurance purposes is critical. Failing to do so exposes firms to the risk of underinsurance.

John Foord Database - Equipment Price Index



Asian Cities Construction Cost Movements



REGULAR “HEALTH CHECKS” AND INDEXATION

Factors affecting the replacement value of a business are constantly changing. For example, world commodity prices, foreign currency exchange rates, labour and technology costs are never fixed. To ensure valuations remain accurate, property should be regularly assessed. In most cases, it is recommended a valuation is undertaken once every two to three years. Indexation should also be applied to annual renewals to ensure coverage keeps pace with increases in variable costs.

UNDERSTANDING POLICY COVERAGE

As a vital tool in a business’s risk management armoury, it is important to choose the right insurance cover, to help a business face the world of property risk successfully.

Once an independent asset valuation is obtained, an insurance broker can provide specialist, personalised advice and act as a business’s advocate in the insurance market.

A broker can identify the full spectrum of a business’s property exposures and to provide a solution to help avoid, mitigate, or transfer risk, tailored to specific needs and strategic goals, helping to maximize protection and minimize total cost of risk, regardless of the organization’s size or location.

Brokers continually analyse trends that could impact clients’ programs and risk profiles and can keep an organisation informed – via personal interaction or through industry focused broker-led workshops – enabling them to improve an organisation’s strategic and tactical decision-making.

HOW THE RIGHT LEVEL OF COVER IS CALCULATED

An experienced valuer will calculate new replacement cost using their technical capability and experience, by determining correct capital cost estimations, benchmarking and analysing specific replacement cost factors. The process of valuation follows a consistent series of steps. See Chart below.



SOURCE: JOHN FOORD

5. CONCLUSION

As Asian economies continue to boom, businesses are investing heavily, particularly in infrastructure, to meet soaring demand.

Every one of these businesses should have a robust and holistic risk management plan to secure its long term viability. Fundamental elements of that plan must be strategies to mitigate risk, preserve the health and safety of employees, transfer risk, ensure business continuity and protect the balance sheet.

In the event of a major loss – such as a significant disruption to operations caused by floods; or the total destruction of a factory or plant caused by fire or earthquake – a robust program of insurance based on an accurate asset valuation will minimise the financial losses incurred, both to the business and its supply chain.

This should include business interruption and contingent business interruption insurance.



Too often, companies across Asia are not adequately insuring their assets, with some insuring for up to 60% less than their true current replacement value.

To address this problem, businesses should consider appointing independent valuation experts and insurance brokers to provide expert assistance to guide to the right level of cover.

This investment will not only give businesses the peace of mind that comes from knowing insurance coverage is adequate, it can make the difference between a business withstanding a large loss or not.







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