MINING MARKET REVIEW

FEBRUARY 2009

GLOBAL MARKETS INTERNATIONAL

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INTRODUCTION

A combination of the credit crisis and record Property Damage and Business Interruption mining claims has created dynamics in the market that have not been experienced by buyers and sellers before. The purpose of this report is to help companies make the best risk management decisions in this environment.

Whilst AIG has made the headlines, the insurance and reinsurance industries have (so far) survived the credit crisis in much better shape than most other financial sectors. Whilst average balance sheet capital positions of insurers will have dropped by an average 25% to 30% in 2008 - for reinsurers an average 15% to 20% - the market as a whole is still able to provide sufficient capacity for most buyers' risk transfer needs. Whilst avoiding disaster, the insurance markets have little room for financial manoeuvring due to the need to protect remaining capital. Raising significant new capital is not possible at present and any further reduction in insurers' financial ratings could create a fatal tipping point. As a result, the markets are now much more selective about the industry and clients they wish to underwrite and the terms they are prepared to offer.

Against this background, the mining industry handed the insurance markets a record year of property claims, some USD 3.5 billion against a sector premium of USD 600 million: on average, mining underwriters lost approximately 6 dollars for every dollar of premium income. The timing couldn't have been worse. The reaction to this is that some underwriters have decided not to write mining risks in the future, and many have cut back the capital they are prepared to allocate to the sector, preferring less volatile risk classes. The result of which is that both insurance rates and self-insured retentions have increased.

The economic climate has also hit the mining industry hard with commodity prices and profits significantly down. This has created cash flow problems for many companies, with even the giants of the industry having to look very closely at every use of capital, which includes insurance. We therefore have a classic "insurance market crunch" scenario where the buyer has less to spend, the market price for the product is rising and in shorter supply.

Steve Higginson,
Mining Practice Leader

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A common trend in this environment has been that those buyers with a deep knowledge of their risk profiles and good enterprise risk management strategies have been able to secure competitive terms by trading lower policy and peril sub-limits and/or higher self-insured retentions for continued protection of the largest and most complex risk exposures.

The large number of major mining claims has, interestingly, created a service ‘expectation gap’ between many clients and the markets due to the slow pace of the claims settlement process. Only a few markets have grasped the PR advantages available to them from differentiating their claims service against their peers’ in the shop window of the industry.

Whilst the primary focus has been on the Property insurance market, there have been developments that impact the mining industry in Accident & Health, Construction, Directors and Officers, Kidnap and Ransom, Marine, Liability, and Terrorism insurance and we also provide detailed commentary on these important risks classes in this report.

We hope you will find the insights and data helpful in developing and executing the most appropriate risk strategy for your company.

PROPERTY DAMAGE/ BUSINESS INTERRUPTION

All change.

RECENT MARKET BACKGROUND 2002 - 2008

Between 2002 and 2004, a number of insurers withdrew from the operational mining insurance sector. This was mainly due to the number and size of losses in this area, together with the technical challenges that the industry presented, particularly relating to underground coal.

These industry losses were adversely affecting their treaty reinsurance arrangements and a simple way of 'cleaning up' the results was to withdraw from mining.

Those that continued writing the sector did so at increased terms and conditions where they could enforce restricted coverage, increased deductibles and substantial premium increases.

At the same time, in other areas of the Property market, premiums in general were falling. However, the shortage of supply and continued demand for mining risks meant that those insurers who remained in the market enjoyed significantly improved loss ratios.

In addition, the sector had stayed largely immune to the major Natural Catastrophe losses of 2005. Accordingly, an increasing number of insurers re-entered the mining sector with a renewed sense of confidence.

In general, this proved to have been a financially sound decision. Once again, available capacity for the major global mining accounts increased and limits of USD 1.5 billion or greater were both feasible and competitively priced.

Concurrently, the commodity boom with its demands on the mining industry seemed unstoppable. Prices of commodities such as gold, copper and platinum - for example - continued reaching record levels. Famously, the price of iron ore doubled overnight, with no dampening of demand. This only fuelled increased production levels in all mining areas, and translated into record levels of investment and project development. Mines were working to capacity and possibly beyond tolerance levels.

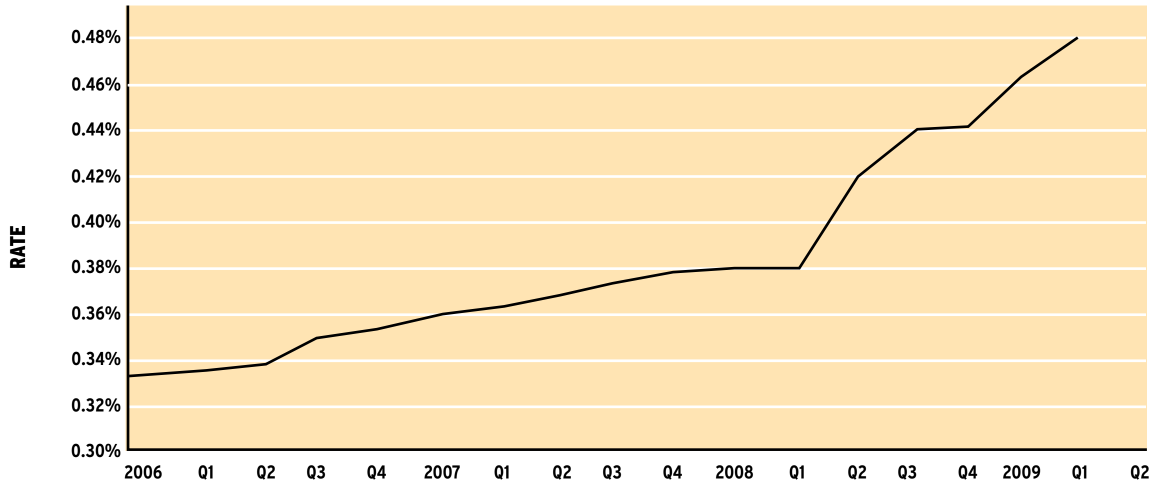
In the insurance sector, though, insurers who had previously been cautious about mining risks now felt they could participate in these substantial programmes at a level they ascertained was removed from realistic risk exposure.

That was until we reached the end of 2007 and the beginning of 2008. Over this period, the industry saw some very large "risk" losses, influenced by the record commodity prices. The quanta of these loss estimates tested clients' insured programmes as never seen before; driven in particular by the Business Interruption element of these policies. Unsurprisingly, this resulted in a rapid hardening of terms, conditions and pricing together with a withdrawal of available capacity.

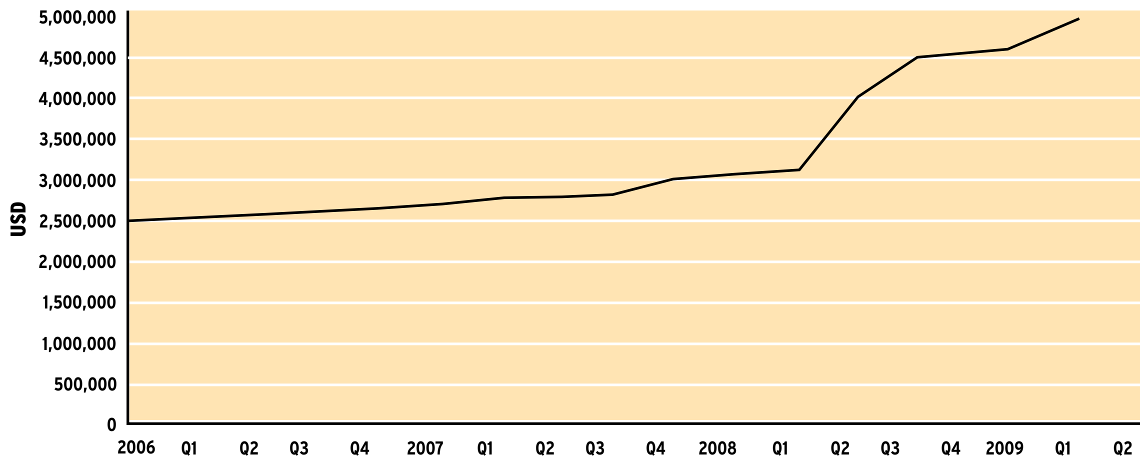
Clients and their advisors have sought to protect themselves from these adverse market changes by using positive differentials. Good representation of risk profiles and positive enterprise risk management (ERM) strategies together with realistic targets have been used to secure the best available renewal terms. Trading lower policy limits or reducing sub-limits together with accepting higher self-insured retentions are just some of the tools that have been used to achieve more favourable results.

RECENT EVOLUTION OF RATES AND RETENTIONS IN MINING

AVERAGE RATE VS TIME



AVERAGE RETENTION VS TIME



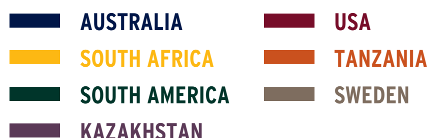
Willis maintains a detailed database of rate and retention movements for mining risks; the above graphs show the average rate and self-insured retention movements over the past three years. We have included captive retentions and used average daily Business Interruption values, synthesising them into one, single monetary amount for the retention element.

ANALYSIS OF 2008 MINING CLAIMS

The sector's gross loss reserves for 2008 exceed USD 3.5 billion (excluding losses reserved or settled below USD 50 million) for operational risk. This compares with an approximate annual premium income of USD 600 million.

With commodity prices nearing peak levels, relatively modest Property losses produced greatly magnified Business Interruption claims. The charts below show by territory and type the claims that contributed to this sector showing losses of some 6 times the annual premium income for mining.

TERRITORY



CAUSE

At the Willis Latin America Natural Resources Conference in Miami in October 2008, Munich American Risk Partners observed that there was no discernible pattern to the causes of losses in 2008. There was a spread between Natural Catastrophes, Fire, and Machinery Breakdown, but a disparity as to where the costs arose within the claims: approximately 80% of claims were attributable to the Business Interruption sections of the policies. This unexpected ratio has led some markets to question their contractual exposure and liabilities.

The broker's and underwriter's challenge is to provide clarity in the contract before the event occurs. It is their role and responsibility to establish contract certainty that anticipates problems such as those relating to Business Interruption coverage – and to negotiate away as far as is possible areas of opacity or ambiguity. Such contracts should articulate the role and powers of the Lead Insurer(s) and the commitments of the subscribing markets, thereby facilitating the claims handling process.

Nevertheless, the unprecedented level of demand for commodities led to some very unusual pressure and exposure for the mining insurance market and, in turn, has given rise to some particular challenges in claims management.

Firstly, as much of the mining activity tends to be concentrated in the Americas, Africa, and Australia, this is where the majority of losses has occurred. It has therefore been in these areas that the expertise to service large mining insured losses has been required, but as the numbers of skilled loss adjusters with mining industry experience are limited, in 2008 these resources were stretched to levels not seen before.

Such specialists increasingly needed to have not just the skills necessary to resolve very complex Business Interruption issues but also a good understanding of accounting and mine management as a prerequisite for the job.

Secondly, a downtime of even a few days at a mine would have had an almost immediate effect on the global price of the commodity it produced at the peak of the bull market.

This in turn, would make adjusting a Business Interruption claim challenging as clients argue they would have been earning the prevailing global price had their mine been operational. Insurers argue that to pay the claim on such a basis would allow the insured to benefit from his misfortune, contrary to the principle of Indemnity.

If the intent of the policy is to restore the insured to the position they would have been in prior to the event, then the challenge for the loss adjuster is to try to identify the effect of the outage at the mine on the world commodity price, and remove this factor from the claim quantum.

However, for those mining clients who have multiple operations and are not reliant upon a single source of production, there will inevitably be a benefit from the "bounce" at the unaffected mines.

Minimising the duration of a service interruption can substantially reduce claim quantum. Much risk management time and effort will be invested in looking for replacement equipment or alternative solutions to mitigate the effects and costs of a production outage.

Equipment manufacturers were stretched to capacity with over-extended order books resulting in long lead-in times. They sought to keep pace with the miners' demands for new equipment but with little success. Such full order books also left limited capacity for manufacturers to repair damaged items or to replace items that were lost or damaged. This phenomenon alone fuelled the spiralling Business Interruption losses and exposures.

Finally, the past 18 months or so have seen increasing pressure upon supply of power to the mining sector. The problems experienced in South Africa have been well documented but the power supply difficulties are a matter of concern for miners globally. The long-term implications for complex machinery from sudden, unplanned, load-shedding are yet to be quantified.

In conclusion, the 2008 combination of high commodity prices, increased pressure to extract ever-greater volumes of ore, and slow repair chains has led to large number of increasingly complex Business Interruption claims. This has occurred in territories where there are insufficient mining specialist adjusters to service all the claims which in turn has led to an increase in claims disputes between contractual parties.

More recently, commodity prices have trended sharply downwards: however, the impact of this on mining talent and equipment shortages is only filtering through.

CAPACITY

As highlighted earlier in the report, 2008 saw the start of a reduction of available capacity for operational mining risks. This will undoubtedly continue throughout 2009, with two key areas of concern being Machinery Breakdown and Natural Catastrophe exposure.

At the time of publication at least 12 insurers have withdrawn or are considering withdrawing from the sector. Insurers have also been affected by their own insurance arrangements (reinsurance). Reinsurers have influenced the restriction of available capacity to the sector and have increased the prices for it. Our market analysis shows that from a 2007 maximum of USD1.75 billion this will probably fall to between USD 1 billion and USD 1.25 billion by the end of 1 Quarter 2009.

CAT BONDS

Risk and insurance buyers have been challenged to identify and qualify alternative insurance solutions to the products provided by the traditional market.

Major events with low frequency but high severity can be protected in alternative financial markets where the use of sophisticated methodologies and modelling software can create parametric-based products.

As they are not based on the principle of Indemnity, parametric triggers entail a wholly different approach to the conventional loss event used in the traditional insurance market. For example, a parametric trigger can be activated where no actual loss has occurred, but a seismic event of a certain magnitude has occurred, in a certain area, as previously defined.

These Alternative Risk Transfer mechanisms are often referred to as Catastrophe Bonds. In practice, few of these instruments (it should be noted they are not technically insurance solutions) have been sold. They have proved technically and commercially insufficient to draw clients away from conventional forms of cover. The current financial banking crisis will have, if anything, confirmed this wariness.

Nevertheless, we keep an open mind. One lesson from the misfortunes of the banking community is that, at some point, the complexity of financial instruments becomes excessive, and eventually, we return to the basics.

ENTERPRISE RISK MANAGEMENT

Enterprise Risk Management (ERM) represents a thorough change to risk perception and how organisations deal with it. ERM deals with a broad scope of risk management behaviours that involve all business risks comprehensively and systemically. It considers all risks in relation to each other, and consolidates them into a single profile. It expands the scope of risk management practices beyond physical and financial exposures to long-term business strategy, competition, human capital and operational exposure. In addition, ERM can identify occasions when risk can be a competitive advantage instead of a threat. It also encompasses all elements of an organisation and how it manages risk and whether it works or fails. This applies not just to losses but to reducing uncertainty and ambiguity.

In the mining sector, ERM has key applications particularly with regard to Operational risks (including environmental and community/stakeholder issues), IT and Human Resources (Health and Safety).

Underwriters are now seeking more information of company ERM practices as part of their risk evaluation process.

CLAIMS SERVICE

Why so slow?

CLAIMS SERVICE

Every so often events conspire to produce results for an insurance market sector or industry that are so substantially different from anything that has gone before that they change the market.

For example, a new stand-alone Terrorism market developed after 9/11 and, following Hurricanes Katrina, Rita and Wilma, the market for hurricane/flood risk in the USA - particularly for Offshore Oil and Gas risks - changed significantly. The mining losses of 2008 have had a similar market-transforming impact on policy terms and conditions. Additionally, how these large claims are being handled is different from previous market practice.

Each claim has its own special set of circumstances and set of underwriters but, in general, large mining risks are placed on a subscription basis with a recognised mining leader or joint leaders setting the lead terms. The broker then completes 100% of the programme with following markets taking different shares and layers with often up to 50 individual underwriters participating.

Each individual insurer can set their own terms, but, generally, the principle was accepted that the lead underwriter(s) had a deep understanding of the risk and exposures as well as the claims handling expertise that would allow them to represent the whole market's interests during negotiation of the claim. The brokers kept the whole market regularly updated and facilitated communication between the market and the insured.

However, the effect of recent events in the mining sector is that insurers are increasingly managing these claims by committee, sometimes with ten or more participants, with each subscriber wanting a say in how the claim is handled. The result of this is that - like committees everywhere - progress is made at the pace of the slowest member of the group. The situation is further complicated by disagreements between committee members over which loss adjusters and experts to appoint; in one case the loss adjuster was replaced twice.

The consequence of this is that insureds are becoming frustrated with what they see as unreasonable delays in settling their claims, often creating a firming of their negotiating position and disillusionment with the insurance markets. Risk Managers are having difficulties explaining these delays to their own senior management, who do not always appreciate or have the time to fully appreciate the nuances of policy interpretation and complexities of Business Interruption claims and have cash flow at the forefront of their minds. This leaves a belief that the product and service they have purchased is not performing, with obvious consequences for all parties, and the increased use of lawyers in the process.

This cannot be good for the reputation of insurers and their long-term relationships with their clients. Many of these underwriters will have placed great emphasis on service and business partnerships with clients when writing the risk.

In many circumstances the referral to lawyers means the opportunity to negotiate a compromise settlement is reduced or lost with the markets paying the same in the end and – on occasions – more than would have been available from negotiating an early deal. Furthermore, both sides have substantial legal costs. Many markets, clients, and brokers agree this is an unsatisfactory situation with only the lawyers smiling. The mining market must address this problem or be accustomed to a culture where their clients reach for the lawyers every time they have a claim. Such a scenario will only continue to add cost, and reduce the efficiency of the market. This is particularly so for the London Market where cost advantages over other market locations are already coming under pressure.

Having made these observations, we are pleased to say that some markets are now trying to improve this situation, as they become aware of the damage to their company's reputation, ironically occasioned by the actions of competitors on market committees. These markets are increasingly insisting upon claims procedures which give more authority to the lead underwriter(s) and restrict the number of markets permitted to form a claims committee.

This is a practice all brokers should support and promote for the good of their clients and the market.

ACCIDENT AND HEALTH

Greater protection of human assets.

ACCIDENT AND HEALTH

Corporate responsibility for the safety and protection of employees continues to increase on a global basis. Accidents and illnesses that occur in the workplace and on business travel and the corresponding medical expenses and potential need for repatriation are being given more and more priority.

Anticipating and meeting these evolving needs, Willis' Accident and Health team has been working with a number of insurers to develop enhanced Personal Accident and business travel products.

Furthermore, whilst overseas emergency medical evacuation of employees and the associated costs have become more and more important for employers, the security of individuals must also be considered.

FOCUS ON MINING

Whilst the number of deaths and accidents in the mining industry has declined over the decades, it still remains a very hazardous activity with a significant rate of injury. Thousands of miners die and suffer injuries from work-related accidents each year, with the rate of deaths and injuries varying widely depending on the country, company, type of mine, process, machinery - even on the extracted material itself. There is also the question of what one might, however technically inaccurately, term 'moral hazard': a miner's life is worth more according, as with all commodities, to its availability on the market.

Developing countries have the worst accident record; however, 72 miners lost their lives in the United States in 2006 alone with thousands suffering injuries.

Poisonous gases, explosive natural gases, dust explosions, collapses, flooding and the operation of mining equipment are the major causes of death and injury.

GENERAL MARKET SOLUTIONS

Personal Accident policies provide financial protection for individuals suffering temporary or permanent disabilities including the associated emergency medical costs and repatriation.

In this way, mining corporations can protect contractual benefits payable to employees which can be particularly important in the event of a serious incident involving a large number of employees. Accidental Death and Permanent Disablement benefits are generally provided on the basis of a multiple of annual salary, as required. Coverage can be provided on a world-wide 24-hour basis.

COVERING THE TARGET: SPECIFIC PROBLEMS, SPECIFIC SOLUTIONS

Specific policies can be put in place to cater for key personnel within a corporation and ensure that full cover and protection is available, whatever the occupational duties of individuals. This is so whether personnel are conducting exploration work in physically or politically hazardous locations, senior key individuals are travelling together in one single conveyance or personnel are working underground on-site.

ALERT24

In an exclusive partnership with Control Risks (CR), a leading Risk Management Consultancy / Security Company, Willis has created **ALERT24**, a Personal Accident and / or Business Travel Product uniquely providing Preventative Risk Management and Crisis Management Advice to organisations against a wide variety of security risks, to help protect an organisation's key assets: its personnel.

CR's services are covered as benefits under a Personal Accident insurance product.

PREVENTATIVE RISK MANAGEMENT

Organisations have a duty of care towards employees, and the security consultancy and information service of CR is able to provide advice on the mitigation of risks to personnel through consultancy provided as part of our offering. These services include but are not limited to:

- Crisis Management Planning and Training
- Training for Security Managers and Coordinators
- Hostile Environment Training

CRISIS MANAGEMENT ADVICE

ALERT24 incorporates Emergency Crisis Management Advice and Temporary Security Measures provided by Control Risks and its partners to help clients with the management and security costs of a threat or security incident, in order to reduce the risk of death, injury or sickness to Insured Persons. Services may include, but not be limited to:

- Effective Crisis Management Support and Coordination
- Liaison with Police, Military, Government and Aid Agencies
- 24-Hour Telephone-based Language Interpreter Service
- Development and Implementation of Evacuation Plans

The unique combination of Group Personal Accident/Business Travel insurance with the services of Control Risks provides clients with a comprehensive protection and enables Risk Managers to budget for Crises and Emergencies.

MARKET OUTLOOK

The Accident and Health insurance market has experienced a trend of lower rating on the majority of business over the past two years, although approaching the end of 2008 rates are beginning to stabilise with the possibility of increased rates in the latter half of 2009.

Terrorism remains a constant threat throughout the world, and Terrorist incidents frequently result in personal injury and loss of life. There is no shortage of 'soft' targets – such as the sort of hotels frequented by executives as the recent, tragic events in India remind us. However, to date Terrorism has not had the impact on the rating rationale of insurers that some predicted.

Personal Accident products continue to evolve, particularly in respect of Global Personal Accident and Travel Insurance solutions. Accident and Health capacity continues to increase in the London insurance market and competitive pricing can still be seen for medium-to-large risks of high quality, as insurers consider the sector to have a relatively constant loss overall loss ratio with acceptable margins.

Insurers are also concentrating on enhancing products to provide wider policy benefits and nuclear, chemical and biological coverage is becoming more and more important for a wide range of clients.

Whilst the immediate future looks stable for the A & H market, changing macro-economic conditions and the unknown of future Terrorism events means that things could change quickly and must be monitored closely, reflecting the greater consideration given to the protection of human assets as a common theme.

CONSTRUCTION

Still attractive.

CONSTRUCTION

In the context of the prevailing market conditions, the mining sector is regarded very favourably by the market.

PREVAILING MARKET CONDITIONS

Whilst there are a number of issues specifically affecting the mining construction insurance market, these must be viewed within the context of the prevailing conditions of the wider construction insurance market.

This has enjoyed a sustained period of good underwriting results and, therefore, remains very positive with a keen appetite for well-managed risks utilising proven processes and high standards of quality control. The overall market leadership panel remains consistent and welcome significant mid-market capacity has returned over the last couple of years.

During the last twelve to twenty-four months, premium softening has occurred in specific market industry sectors. At this stage, the outlook for 2009, as with other lines of insurance, is unclear. Clearly, in 2009, some market hardening will be experienced, however, it is too early to speculate on the types of risk or locations which would be most affected.

It is currently estimated that the total construction capacity is in the region of +/- USD 2.5 billion on an Estimated Maximum Loss (EML) or Probable Maximum Loss (PML) basis in respect of markets that have an S&P credit rating of "A-" or above.

Global competition is increasing with substantial market centres forming, for example, in the Middle East, Asia and Australasia. These are actively competing with the larger, more established market centres of London and Continental Europe. This proliferation of underwriting hubs means that it has become increasingly important at the outset of a marketing strategy to evaluate, not only which markets to approach, but where to access them for the optimal response.

MINING CONSTRUCTION MARKET CONDITIONS

In the context of the prevailing market conditions, the mining sector is regarded very favourably by the market. The dramatic emergence of the BRIC economies during the 1990s and 2000s together with the subsequent growth of the global economy has greatly increased the demand for raw materials. This has lead to numerous new major mining projects leaving the drawing board with vast premiums being generated for the market.

The key factor, however, that has resulted in mining being seen very much as the "jewel in the crown" of construction underwriting is the fact that there have been few significant claims, maximising profitability for underwriters in this sector.

This is largely due to the fact that, unlike the energy and power generation sectors, where the introduction of new technologies has surged ahead, mining projects have retained proven and traditional processes.

such activities as tunnelling and wet works... have focused the attention of underwriters, and may restrict coverage and increase rates as opposed to the core mining processes.

CHALLENGES

Despite this very promising picture, however, there are a number of issues which continue to raise concern in the market.

Central to these is that, whilst the construction market for mining has seen relatively few major claims, the operational mining market has recently suffered from a spate of serious losses leading some underwriters to scrutinise mining business accepted by their construction divisions.

Further, the majority of ore deposits tend to be located in challenging parts of the world, either in terms of regions that are prone to political instability such as central Africa - see Exclusive Analysis' section on Terrorism later in this review - or that have unpredictable climates, difficult topography; or are, simply, very remote as in the case of Western Australia and parts of South America. This latter challenge presents another issue, in that new-build mines usually require a whole raft of associated infrastructure such as roads, railways and ports to link them to the outside world.

It is these risks, which may include such activities as tunnelling and wet works, that have focused the attention of underwriters, and may restrict coverage and increase rates - as opposed to the core mining processes.

Underwriters also focus particular attention on and provide very limited capacity for Delay in Start-Up (DSU) coverage, concentrating in particular on the calculation of sums insured. Over the past few years the price of metals and raw materials has fluctuated greatly on the international markets. Therefore, it is possible that estimated DSU values when the policy incepts may be very different to the actual DSU exposure at the time of loss: the devil is in the detail. The Willis Specialist Wordings team is dedicated to removing such uncertainty.

We would also expect similar caution on smelting projects where there is a reliance on power generation capability. We would work with our clients to identify their exposure to factors that could delay the handover of a project, such as the availability and access to infrastructure and power.

OUTLOOK

Having highlighted the above, however, insurers essentially are seeking well-managed projects by risk-aware clients. A client that is actively able to deliver this, together with a client that takes a proactive approach to the implementation of risk management measures, is a client who will always receive a far better response from the insurance sector.

In addition, we have noted that a significant proportion of the projects which are undertaken in challenging territories is somewhat balanced by clients' appetite for taking larger retentions, of between USD 5-20 million in some cases.

In general, therefore, we anticipate mining capacity to remain sufficient for even the largest developments and that the construction insurance market will continue to actively seek out and engage with this type of business.

DIRECTORS AND OFFICERS

Stable for mining risks but hardening for financial institutions.

DIRECTORS AND OFFICERS

CURRENT MARKET CONDITIONS

The problems for certain insurers documented earlier in this report apply similarly to the D & O markets. Insurers are looking at how to recapitalise their weakened financials through premium increases and risk selection - and the consequences of the credit crisis on insureds' balance sheets.

The resultant clients' risk profile leads D & O insurers to put much more effort into the underwriting due diligence process. This in turn varies substantially depending on the actual industry segment being underwritten, which in basic terms can be subdivided between the financial institution sector and the commercial sector. The former has been heavily affected by the sub-prime/credit crunch and general economic downturn so that the D&O market for financial institutions has hardened with significant premium increases, capacity management and tightening of coverage not seen since the last hard market of 2001/02. The commercial sector, into which mining companies would fall, is still competitive and not showing signs of hardening – yet!

Insurers are still actively competing for clients whose risk profile fits their desired portfolio. In order to achieve a "good" renewal, with flat premium and broad cover tailored to the client's individual requirements, it is important to undergo a thorough risk profile analysis prior to renewal. This enhances the positive aspects and demonstrates sound risk management responses for those areas that underwriters might focus on as being negative (examples might be a highly-leveraged balance sheet, merger and acquisition activity, and pollution issues). How long this buyer's market lasts will be influenced by reinsurance treaty renewals, insurers' balance sheets, and potential increasing claims frequency and severity brought on by the economic crisis.

HOT TOPICS FOR D&O COVERAGE FOR MINING COMPANIES

Pollution exclusion/bodily injury exclusion: UK Environmental Law and Health & Safety legislation
Besides potential civil liability, a director can be prosecuted under Health & Safety and Environmental legislation where a Health & Safety or environmental offence has been committed by the company and such offence is committed with the consent, connivance of or is attributable to neglect on the part of any director or other senior officer of the company. Examples of the offences that could fall into this category are:

(a) causing or knowingly permitting any poisonous, polluting matter or any solid waste matter to enter any controlled waters (Water Resources Act 1991) and/or dealing with waste in an improper manner (Environmental Protection Act 1990).

(b) failing to ensure so far as is reasonably practicable, the health, safety and welfare at work of employees.

The Environmental Protection Act poses dangers for directors and officers since it places onerous responsibilities on them so that they can incur personal liability in the absence of intent or negligence. The other concern is that the potential class of claimants is also large: for example, shareholders, stakeholders, regulatory bodies, employees and third parties who have been affected by their action.

Pollution/environmental cover under the policy

A standard D&O policy will exclude claims brought against the directors and officers for pollution or bodily injury related incidents. Whilst it is fair to agree with D&O insurers that the D&O policy should not pick any claim directly related to a pollution event (such as clean up costs) or injuries sustained by employees during the course of their work, the management liability that could arise out of these events needs to be covered.

The exclusions should be amended to give cover in the event:

(a) a director or officer is investigated by a regulator for a pollution incident or a bodily injury/corporate death

(b) a director or officer is sued by shareholders if the company's balance sheet is adversely affected by such an incident

(c) third parties make pollution claims that name the directors and officers affected.

Alternatively a specific layer of broad D&O cover could be purchased which covers the directors and officers for claims that are non-indemnifiable by the company. Such a policy is called a Side A DIC (Difference in Conditions) policy and would not have any pollution or bodily injury exclusion. One of the attractions of such a policy is that whilst it usually sits as an excess layer it will respond on a primary basis to provide the appropriate cover if the main D&O programme has specific exclusions.

Reducing reporting requirements for offerings of securities, acquisitions, outside directorship positions: The mining sector has been looking at consolidation, with a number of mergers and acquisitions planned or recently cancelled. Such M&A activity often leads to companies needing to raise additional funds through debt or equity offerings. It is desirable to keep mid-term reporting of such material changes in risk to a minimum, partly because it places a severe burden on the risk manager to make sure all changes are reported which, in the case of a large multinational mining company, can be difficult to police – but also because it means the D&O contract covers such changes automatically.

Offerings: The standard D&O policy requires the company to report any offering of securities (debt or equity) when they are planned and underwriters have the opportunity to amend the terms and conditions and levy an additional premium; it is possible to amend the policy so that any offering of securities below a pre-agreed percentage or private placement of debt is automatically covered. The only reporting requirement would be a major offering of equities that either increases the company's market capitalisation by 25% (the threshold depends on size of market capitalisation at inception) or that occurs in the USA.

Acquisitions: It is preferable to agree language that covers any small acquisition up to a pre-agreed threshold of the company's assets at inception (normally 25%). Depending on the size of the company sometimes the threshold can be further enhanced to only apply to acquisitions of entities listed in the USA.

Outside Directorship positions: The D&O policy normally covers outside directorship positions that the directors and officers assume at the company's request on not for profit organisations. It is possible to extend the cover automatically to any position taken up on an entity as long as the entity is not listed in the USA.

Global as opposed to local cover: The validity of D&O programmes which state they offer worldwide cover and do not have local policies in "non admitted" countries continues to cause debate within the insurance industry.

There is a consensus forming that compliance will dictate that local policies will have to be issued in countries where it is clear that non-admitted policies are not permitted. The D&O insurance industry has responded with several insurers offering solutions of varying usefulness. This issue is important because, unlike other lines of insurance, D&O claims can affect an individual's finances especially in countries where indemnification by the company is not legally permitted. In these countries personal assets of the directors and officers are at risk. Also if it is found to be illegal to make payment from the global non-admitted policy it may well result in fines and penalties in that country and in rare instances threats of imprisonment.

Broad D&O cover for non-indemnifiable claims (so called "CODA" or Side A DIC policies)
Insolvency cover – of the company and/or underlying insurers

In the section relating to pollution exclusion/bodily injury exclusion (above) reference is made to a specific policy that can be purchased that only protects the directors and officers in the event the company either cannot or does not indemnify them, thereby protecting the directors' and officers' personal assets. (The standard D&O policy also gives this cover alongside balance sheet protection for the company when indemnification is made, but usually the terms of such a policy are tighter because of the company cover). This broad policy is purchased as an excess form at the top of the standard D&O programme and operates on a Difference in Conditions basis so that it can become primary insurance in the event the main D&O cannot respond due to restrictive coverage.

Another valuable feature is that this broad form policy will respond if the company becomes insolvent and therefore cannot provide indemnification to the directors and officers: if the underlying insurer becomes insolvent the policy responds similarly. In these uncertain times with insurers' balance sheets being adversely affected by the economic crisis this insolvency cover has become very attractive to clients. If one of these polices is purchased it should be with an insurer with a very strong balance sheet.

Climate change.

Governments around the world are passing laws that reduce the amount of greenhouse gas emissions and require mining companies to disclose climate change information. In addition shareholder action groups are proposing resolutions at annual meetings to limit the company's carbon emissions. As this two-pronged focus intensifies so pressure will be increased on directors and officers to be open about carbon emissions and address steps to reduce them. From a D&O perspective claims could be brought by shareholders, regulators or third parties affected by the emissions. The carveouts to the pollution and bodily injury exclusions addressed above should be negotiated in order to provide cover for the directors and officers for a "climate change" claim.

CONCLUSION

In difficult times, companies and individuals look to blame someone else in order to help their own situation. Just as professional advisers will be held accountable for due diligence and other advice, so will directors and officers be challenged for decisions that they did or did not make in the running of their company. When financial performance is strong, there is less need for scrutiny. When investments are written off, hostile takeovers pulled, financial commitments reneged upon, the situation is quite different. People will point the finger!

Market abuse is punishable in the UK by the FSA by an unlimited fine or public censure so D & O policies need to be able to respond accordingly.

FRONTIER RISK: KIDNAP AND RANSOM, EXTORTION, PIRACY

It is estimated that over USD 500 million is paid in ransom demands every year.

FRONTIER RISK: KIDNAP AND RANSOM, EXTORTION, PIRACY

Those working in extractive industries are considered targets not least because of the remote locations of work sites - but also due to resentment from local communities at perceived profiteering at the expense of indigenous people and land.

KIDNAP WORLD SUMMARY

Although Latin America continues to see the highest number of kidnaps-for-ransom worldwide, its share of the total has diminished during the last two years. Fewer than 50% of the world's kidnaps-for-ransom now occur in Latin America. However, four Latin American countries do occupy positions among the top ten kidnapping countries and three of these are in the top five, namely Venezuela, Mexico and Colombia.

In the past, Africa has not featured among the top kidnapping regions of the world, with only South Africa, Nigeria and Algeria reporting sporadic cases. However, from January 2006, kidnap-for-ransom in Nigeria began to make international headlines. In 2007, 172 foreign nationals were abducted in the Niger Delta area, a 239% increase compared to 2006. Nigeria is now considered to be among the world's most high risk kidnapping countries, ranking third in the top ten list.

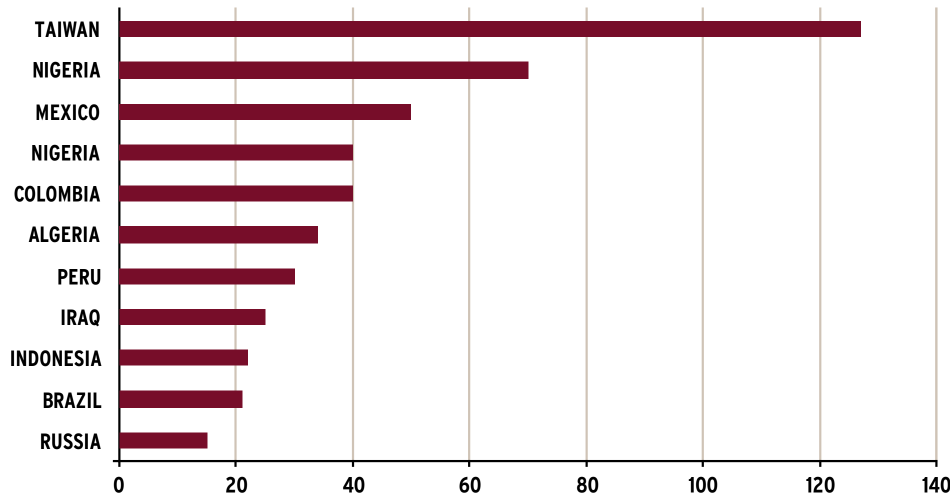
Kidnaps-for-Ransom Worldwide 2007 Top Ten Countries in Absolute Terms

1 VENEZUELA
2 MEXICO
3 NIGERIA
4 PAKISTAN
5 COLOMBIA
6 INDIA
7 HAITI
8 AFGHANISTAN
9 BRAZIL
10 IRAQ

From a purely mining perspective, all of these countries either already carry heavy to light exposure, or are the subject of prospecting – itself a particularly hazardous activity unless the proper protection and training is in place.

It is estimated that over USD 500 million is paid in ransom demands every year, but concrete statistics are hard to obtain as many cases go unreported. The table on the following page illustrates some of the larger demands known to Control Risks between 2002 and 2007.

LARGE RANSOM DEMANDS



Figures in USD Millions

KIDNAPPING AND EXTORTION

Those working in extractive industries are considered targets not least because of the remote locations of work sites but also due to resentment from local communities at perceived profiteering at the expense of indigenous people and land. This risk is compounded by a perception of wealth for those connected to large companies operating in this sector and the value of the product in which they deal.

Illegal detention (also a covered peril under a standard Kidnap and Ransom policy) continues to be a concern for mining clients as less scrupulous governments have been known to detain staff in order to exert pressure on licensing or contract negotiations.

PIRACY AND THE GULF OF ADEN

As 10% of the world's heavy shipping passes through the Gulf of Aden – some 20,000 vessels each year – the marked increase in piracy incidents off the Somali coast has been of considerable concern. The cargo - unless manifestly precious – is seldom the target for the raiders. An ambitious attempt to ransom back some tanks to their original owners has focused global attention rather sharply.

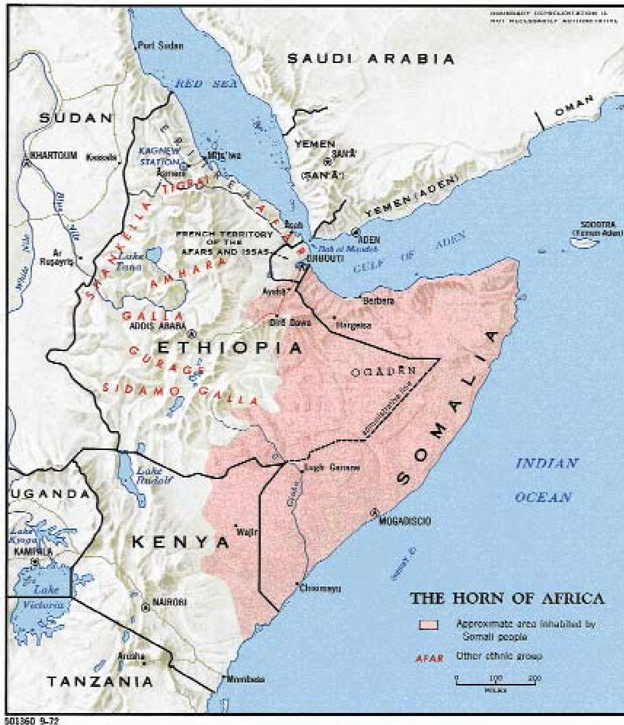
The Special Contingency Risks (SCR) Team has been monitoring the situation here and has observed with interest the changing tactics of pirates who have increasingly been using kidnapped crew as bargaining leverage. Control Risks does not predict any imminent improvement in the situation here with forecasts generally suggesting that the risk to operators will continue to deteriorate until lawlessness in Somalia is brought under control. At the beginning of October, 2008, the EU agreed to assemble a combined anti-piracy force to operate in these waters. However, as the UN force and nearby French bases seem to have previously had negligible preventative effect, the outcome of this gesture remains to be measured.

2004	2007	
329	263	number of attempted or committed attacks worldwide
53%	82%	percentage of attacks involving hostage-taking or kidnap
132	50	attacks in Indonesia and Malacca Strait
2	44	attacks off Somalia coast and Gulf of Aden

Control Risks

2007	2008	
58		victims recorded in seven countries including Colombia, Niger, Turkey, Brazil, Indonesia, the Philippines, and Iran

(Control Risks): NB Up-to-date and accurate data often much delayed due to nature of sector.



MARKET UPDATE

Premiums in the kidnap and ransom market remain stable and continue to be driven by territory and number of employees. There have been marked increases across the market for clients with specific exposure in Nigeria, Pakistan or off the coast of Somalia as underwriters respond to the deteriorating situation in those areas. SCR have observed more willingness from insurers to broaden terms by offering certain extensions to the standard cover for no additional premium where before they may have charged. SCR has also been able to obtain more competitive pricing for longer periods.

Insurers continue to offer allowances within the premium to enable clients to undertake preventative training such as crisis management planning or security audits of company facilities. The **ALERT24** product outlined in the Accident & Health section of this Market Review has clear potential applications here.

The Kidnap and Ransom market is characterised by the relationships insurers have with crisis response providers who provide expert assistance to clients throughout an insured incident. Following Kroll's decision to exit the K&R market and the subsequent sale of Kroll Security International to Garda Global at the end of 2006, the entire specialist kidnap response unit of Kroll was sold to ASI Global.

In April 2007 Travelers announced their change in response partners from Kroll to ASI Global with whom they now have an exclusive relationship. Hiscox continues to retain the exclusive response services of Control Risks (CR) as their crisis response consultants. CR are recognised as the world leaders in terms of kidnap and extortion related response, having responded to incidents in all continents over the past 25 years. Below is a table outlining current response partnerships.

Carrier	Hiscox	AIG	Travelers	Chubb	PIA	ACE
Response Consultant	Control Risks	Thomas Clayton Consultants (Triple Canopy)	ASI Global	Ackerman Group	Corporate Risk International	NYA International (Armor Group)
Relationship	Exclusive	Exclusive	Exclusive	Non-Exclusive	Exclusive	Non-Exclusive

MARINE

The tide is turning.

MARINE

2007 saw unprecedented rate reductions in the marine cargo market and the trend continued in 2008. However, since late 2008 and into early 2009 there has been a significant shift in this position with the market hardening and a corresponding increase in rating occurring in many areas.

Nevertheless, despite the current trend of a hardening market, cargo owners, particularly those with good loss experience, can still obtain broad coverage, competitive deductibles and high limits – at, in certain sectors of business, the same or even lower premiums than they would have seen in 2007.

MARKET OVERVIEW AND TRENDS

Despite the falling premiums seen up to the end of 2008, Cargo insurance is still showing profitable results for insurers. We detail below the 10 largest Cargo losses advised to Lloyd's of London for the period 1st, April 2007 to 31st, March 2008. Whilst this only includes claims where Lloyd's of London markets participate on the account, it highlights the fact that there have been no losses which would impact the market as a whole although, recently, Hurricane Ike did have some impact on the marine market.

The most notable development that these losses reflect is the effect that increasing commodity prices during 2007/2008 had are having on underwriters' exposures. The largest loss was a General Average Claim for USD30 million – with negligible damage to the actual cargo. (As throughout this Market Review, such comments have to be put in the context of the current financial circumstances and our current experience is showing a significant reduction in commodity prices from the high levels seen throughout most of 2008.)

Type of Loss	Location	Amount (USD)
GA & Salvage for copper: vessel grounded	Chile - India	30.0 million
Vessel sank carrying steel products	Xingang – Iran	30.0 million
Jack-up rig grounded whilst towed	USA – Angola	10.0 million
Steel bars missing from warehouse	Russia	9.0 million +
Hurricane damage to wind turbines	Texas	9.0 million
Shortage of oil from railcars	Kazakhstan	9.5 million
Riser pipes lost overboard in heavy weather	USA – Korea	7.0 million
Constructive total loss of cargo	Taiwan – Russia	6.0 million
Theft of copper between mine & port	Tanzania	6.0 million
Total Loss of gasoline after lightning strike	South Africa	5.5 million

Figures provided by the Joint Cargo Committee on the 25th July 2008 – V Risk Code: figures rounded.

The effect of the current global economic environment will probably be felt on shipping activity. As economies go into a downward cycle it is anticipated that demands for raw materials and the output of finished products will reduce. Combined with a lowering of commodity pricing it is anticipated that this will result in a general reduction of cargo values being shipped.

Package arrangements are becoming more popular - see below - with cover for Business Interruption; Working Equipment; Trade Disruption; Hull; Confiscation, Expropriation, Nationalisation and Deprivation (CEND), and Marine Liability risks being added to a basic Cargo policy.

The move to globalise the Cargo market is accelerating, with underwriters transferring capacity away from London in an effort to maximize their involvement with vibrant domestic markets. This has resulted in the formation of regional underwriting hubs in Asia, Europe, Latin America (Miami) and the Middle East.

In light of the above and the perceived profitability of Cargo business, it is no wonder that we see Cargo underwriting capacity growing worldwide, creating a market which is still fiercely competitive.

INNOVATION FOR MINERS

The Marine Cargo market is currently in a position where underwriters are looking for income and in doing so they are showing a real willingness to demonstrate the type of innovation and flexibility that has been a particular strength of that market for many years.

One of the areas that is beginning to be seriously considered again is the possibility of combining various lines of generally linked business into a single 'Package' contract. This is an area where many mining companies can obtain a potential benefit as they tend to have various inter-related risks which can be combined together in this way.

As an example, a mining company may, in addition to its actual mine site, operate a processing plant, a port/terminal handling its incoming and outgoing transits, small vessels/craft associated with the operation of the mine/port and possibly owned/ chartered vessels for the transportation of its raw materials/ products. A typical package for a mining company could therefore include the following risks;

- Incoming transits (local/domestic and import) of raw materials, supplies, consumables, etc.
- Stock and inventory of supplies, materials and products at mine sites and other storage locations.
- 'Internal' transits between different locations/operations of the client (eg mine to processing/refining location) including movement by pipeline and/or conveyor systems.
- Outgoing transits of finished products (local/domestic and export).
- Hull and machinery risks for owned/operated vessels (eg survey/support vessels, tugs, lighters, etc).
- Port & Terminal Operators Liability risks associated with the operation of port/ terminal/jetty facilities.
- Charterers Liability risks for vessels chartered by the Assured for the transportation of their cargoes.

The combination of these types of coverage is becoming an increasingly attractive option for mining companies to consider. It offers a Risk Manager a 'streamlining' of the number of policies they have to purchase through the combination into a single contract. That creates a 'seamless' insurance product operating throughout the whole supply and distribution chain. The packaging of the risks also offers the benefits of considerable economies of scale both on the supply (insurers' work) and demand sides of the contract. In real terms this means the reduction of workloads and costs associated with the administration of the insurances and provides potential 'bulk purchase' savings in premiums. The packaging can also assist in centralisation of risk control and risk management initiatives.

Of course, the concept is one which doesn't necessarily work for all types of mining operations and is very much dependent upon the individual nature of the risk as each 'package' is specifically tailored to meet the requirements of a particular client. However, it certainly is an area that is well worth considering and Willis is proud to be at the forefront of this concept.

BULLION AND SPECIE

The Insurance Market (comprising Fine Art, Jewellery, Cash in Transit & Specie) for Bullion and Specie has seen a number of substantial losses in the past two years. However, over-capacity in the direct insurance market has meant competition for market share has resulted in these losses not translating into a hardening of the market during 2008.

However, from 1 January 2009, the reinsurance market has imposed rate increases to Bullion and Specie reinsurance treaties which normally translates into rate increases for the direct insurance market in due course.

We believe rates will rise in the region of 5% to 10% in the next twelve months, but this will mainly be applied on the largest and most complex risks. On smaller accounts we expect there to be enough markets prepared to compete on price for this type of business. Consequently, in the small and medium size risk sector it will probably take a little longer to see rates firming.

We have recently placed several gold and platinum mining companies' programmes without premium increases, but had to replace some of the market due to declinatures from existing markets. These insureds had good loss records and consequently it appears that the perceived better quality risks will see rate firming but at a later date than those risks with claims.

The market for Bullion and Specie also includes Cash in Transit business. This segment has seen some significant losses in recent years with the current premium/loss ratio at 125%. This factor will have an added influence on underwriters' views of rating on the sector as a whole.

PUBLIC AND PRODUCTS LIABILITY

Macro-economics applies brakes to market softening.

PUBLIC AND PRODUCTS LIABILITY

The story of the Public and Products Liability mining sector has been generally aligned with that of the insurance industry as a whole. Benign Public and Property Liability market conditions have persisted over the past four years leading to abundant capacity and year-on-year rate reductions. As we move into 2009 there is growing evidence that the situation is changing.

How that story will develop is difficult to see clearly in the midst of the developments in the financial markets which affect insurers and insurance buyers. We can, however, identify the factors that will influence the course of events.

Currently capacity remains in good supply for most industry sectors. However, rating reductions have slowed and in some cases disappeared for renewals in the last quarter of 2008. Flat renewal terms are becoming the norm with rate increases of 5% being seen in some areas.

The initial driver for this move in market sentiment is a squeeze on insurers' margins produced by the compound effect of falling rates and a rise in attritional losses. The financial crisis has tightened the screw with a significant fall in the value of insurers' reserves, although from a historically high level. Interest rates have fallen sharply and investment returns are diminishing. Underwriters are being forced to focus on making a technical underwriting profit as investment income and reserve releases become a less certain path to profitability.

There are still considerable geographical variations in the market. Aggressive competition for liability business remains a feature of many local markets. To some extent it remains possible to mitigate market hardening by carefully planned approaches to the global market. However, such regional variations may reduce if underwriting control is pulled back to the centre of the global players in the insurance market.

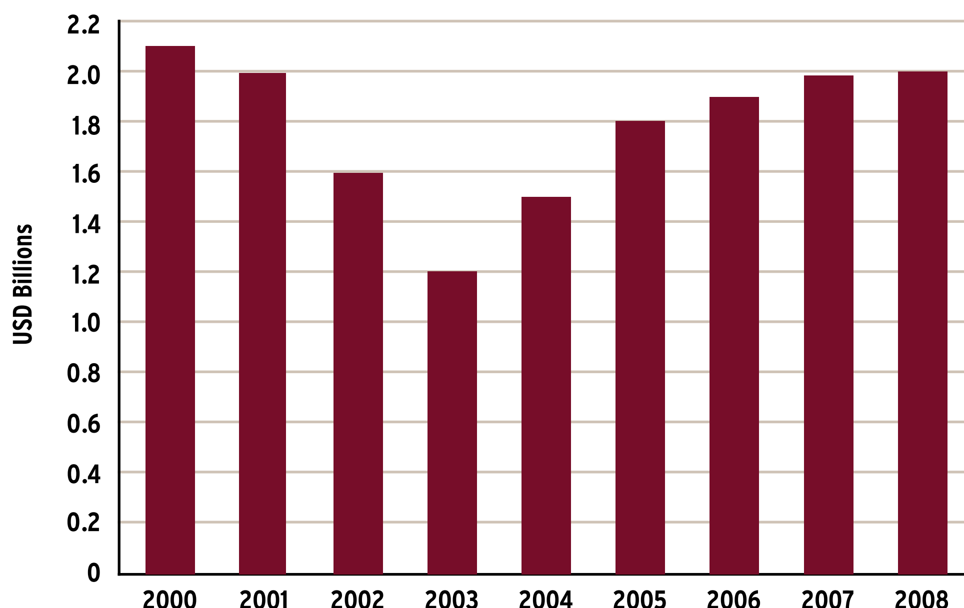
As this is being written the AIG position remains fluid. It may be that the resolution of their current issues will impact their positioning in the market and their appetite for risk. This may have an impact on liability pricing, particularly in local markets where AIG have been an aggressive presence although we have seen little evidence of this.

A key current issue is the outcome of the current reinsurance treaty renewals. Reinsurers are pushing for at least flat renewal pricing. In addition there is evidence that some insurers are seeking to reduce retentions. The additional cost will probably feed through to direct rating.

Not all factors present in the market point to a significant market hardening. The economic situation may well reduce demand for insurance in some sectors leaving insurers struggling to maintain revenue. A number of London market insurers have announced that they will increase the capital available to take advantage of the perceived hardening conditions. This in itself could slow any change.

CAPACITY

Overall market capacity remains relatively buoyant. Our chart shows a levelling-off of growth in 2008. However, for most exposures there is no difficulty achieving the policy limits required.



Source: Willis

Practical capacity available for heavier mining risks is lower but still sufficient for most needs. Where capacity for such risks above USD500 million is required it will usually be on a Bermudan occurrence reported form. Generally, in this sector, limits are lower, reflecting the limited third-party exposure presented by most mining and processing operations in often remote locations.

For those insureds who have particular concerns about the long-term stability of certain insurers the level of effective capacity will be lower which will have some effect on competitive leverage and therefore pricing.

In the downstream metals sector, competition for good risks is still strong with a number of the major insurers targeting the sector. Attritional losses can be a feature, particularly the supply of out of specification product to end-user manufacturers. A focus on quality control process is important in demonstrating risk quality. Careful negotiation of policy wordings is also essential as many losses fall on the borderline between third party damage and pure financial loss. Willis has recently launched a specialist Liability Policy Wordings service – to help clients in this respect.

ENVIRONMENTAL INSURANCE

There is an increasing focus on environmental exposure. General liability policies usually only provide cover for liability arising from sudden pollution events. In some cases insurers seek to limit the cover to specified perils or indeed impose an absolute exclusion. There is an active specialist market for pollution liability and it has a growing role to play in the sector. We explore this in more depth later in this section: the particular conditions relating to North American environmental insurance are treated in a separate section of the Market Review.

THE EUROPEAN ENVIRONMENTAL DIRECTIVE AND THE GROWTH OF DEMAND FOR ENVIRONMENTAL INSURANCE

Environmental insurance is emerging from the wings as a mainstream product - at least for European industrial and mining exposures.

From the point of view of the insurers who specialise in this area there have been many false dawns with limited interest from risk managers. Environmental risk exposure and the related risk transfer strategies are now moving much further up the agenda of the risk management community. As noted above it is also moving up the agenda of the general liability market.

The catalyst for the change in priorities is the EU Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage (the "EU Environmental Liability Directive"). This came into force in April 2004 with a deadline for implementation by Member States of 30 April 2007. Despite EU deadlines most States missed that date. However, despite uneven progress, the liability regime has now been enacted in most European States.

OBLIGATIONS UNDER THE DIRECTIVE

Brian Hendry, head of Environmental Liability in Willis Global Specialities comments that the Directive establishes a liability framework for the following categories of "environmental damage":

- Harm/damage to species and natural habitats protected under the 1992 Habitats Directive and the 1979 Wild Birds Directive, for example Sites of Special Scientific Interest, Special Areas of Conservation and Special Protection Areas.
- Pollution of waters covered by the 2000 Water Framework Directive.
- Land contamination that creates a significant risk to human health

The Directive is based on the "polluter pays" principle. Operators of certain listed activities which include many energy and chemical processes will be strictly liable for environmental damage caused by their activities. All other operators will be liable where they have been negligent.

The Directive does not apply retrospectively and will therefore apply only to environmental damage caused by incidents occurring after 30 April 2007. The scope of remedial measures required following environmental damage to water or protected species is broader than is currently required under EU and most local environmental legislation, and includes the following:

- Primary Remediation – returning the damaged natural resources to (or towards) their original "baseline" condition.
- Complementary Remediation – measures to be carried out if baseline conditions cannot be achieved through Primary Remediation, potentially including the creation of an alternative habitat elsewhere.
- Compensatory Remediation – compensation for an interim loss until Primary or Complementary Remediation is completed. This does not include financial compensation to members of the public.

Whilst much debated when the Directive was being developed there is no requirement for compulsory insurance. This aspect will be reviewed again in 2010.

THE IMPACT OF THE DIRECTIVE ON DEMAND FOR INSURANCE

We are seeing increased interest in environmental insurance from a number of industry sectors in Europe.

This has been happening over a period of time as the mismatch between exposures faced and the limited cover in liability programmes is increasingly scrutinised. National legislation has been tightening significantly over the last 10 to 15 years in most countries. The Directive in Europe is therefore a catalyst for change in perception of the importance of the issue rather than a fundamental change in the legal environment.

It is apparent that companies based outside the EU, in particular the USA, also want to understand the impact of the Directive on their operations in Europe (this aspect is treated in depth later in the review under 'North America: Mine Reclamation Risk Issues'). They have a greater awareness of the issues, in particular the parallels between the Directive and Natural Resource Damages (NRD) legislation in the USA.

THE DIRECTIVE AND LIABILITY INSURANCE

Revisiting one of the issues identified in the 'Recent Market Background' section - clarity and certainty, a vital question is the extent to which existing liability policies will cover Directive liabilities. The most fundamental issue is that most policies only cover sudden events resulting in pollution damage. This represents a significant shortfall of cover even before the Directive is considered. It is in addition doubtful that many policies will cover the new heads of claim. It is certainly clear that liability insurers are generally reluctant to extend existing cover.

The specialist Environmental Insurers see the Directive as an opportunity and are prepared to offer explicit cover for the Directive as part of their environmental liability forms. Some insurers have expanded their standard policy wording, whilst others have developed new products or coverage sections which are offered on relevant enquiries.

The changing exposures and focus on environmental risk means that it is critical to understand the cover available both within general liability programmes and from the specialist insurers.

NORTH AMERICA: MINE RECLAMATION RISK ISSUES

Special Report.

NORTH AMERICA: MINE RECLAMATION RISK ISSUES

With prices having spiked and now, at best, in a downwards trend, companies are delaying or cancelling projects until the economic picture becomes clearer.

Several are obtaining bridge loans while they restructure their debt. The recession is causing the Financial Assurance issues to become less pressing as companies struggle to obtain funding for operations.

Those companies who are continuing with their projects now or in the near future in North America face unique challenges as insurance carriers are very cautious of mining risks. As a result, over the last several years, it has become very difficult to transfer long-term closure risks to carriers. Willis has been actively involved in working with select carriers to develop innovative programmes to address these challenges.

Among the most difficult issues facing hard rock mining companies in the U.S. are Financial Assurance issues for reclamation, closure and post closure. Mining companies must provide adequate Financial Assurance (FA) for mine reclamation and closure to obtain operating permits for mine development and expansion. Financial Assurance is required by government agencies to ensure that money is available to complete the reclamation, regardless of the long-term stability and financial viability of the owner or operator. Federal and State agencies responsible for approving the permits often have differing or vague regulations related to acceptable forms of FA. The regulations are difficult to change and can be onerous for many operators because of collateralization requirements of institutions guaranteeing the FA options. In some cases collateralization can be 100% of the estimated future reclamation costs, effectively eliminating the ability of many owner operators to secure permits.

Additionally, because of the constantly changing appetites of financial institutions, sureties and insurance underwriters to accept mining risks, regulators are often unaware of the types of FA options available in the marketplace, or how they have changed. As a result, regulatory agencies can inadvertently neglect or ignore other forms of FA which could offer viable alternatives for the owner operators and also provide the guarantees necessary to protect the public and prevent “unnecessary or undue degradation” of public lands and resources.

Final, post-production reclamation costs are typically funded from established provisions such as dedicated trust funds. The magnitude of these reserves is based on engineering estimates and value judgments. Consequently, final closure costs may substantially exceed expectations and allocated funds may prove inadequate.

Historically, there has been pressure on companies to underestimate the ‘true cost’ of full life cycle reclamation in an attempt to reduce Financial Assurance requirements and balance sheet provisions. In response to a number of high-profile mine company failures (leaving abandoned mines with inadequate reclamation funds), the government has introduced more prescriptive accounting rules and increased Financial Assurance requirements to more accurately reflect the total cost of restoration and third party liability exposures.

There are a variety of risk factors that can influence the final closure costs and potentially lead to unanticipated overrun. These risks include:

- Changes in governmental requirements regarding the nature and scope of reclamation
- Changes to the planned schedule of reclamation efforts (creating cash flow issues)
- Direct project cost overrun (such as unanticipated failure or underperformance of reclamation scheme, discovery of unexpected contamination, cost basis variations, etc)
- Changes to Financial Assurance requirements or associated costs.

In addition to the risks outlined above which directly relate to the scope of reclamation efforts, other environmental risks could also pose a significant cost impact such as:

- Third party bodily injury / property damage claims (including diminution in property value),
- Natural Resource Damage (NRD) claims
- Spreading of existing contamination by contractors during reclamation activities.

The uncertainty associated with all these risk factors creates a variety of financial and business ramifications for many mid-tier mining companies. These issues also pose a variety of complications to any transactions involving mining assets requiring reclamation including:

- Potential purchaser demands to offset uncertainties through price discounts, difficult-to-negotiate indemnifications, or the use of a variety of deferred consideration or hold-back provisions involving escrows or trust funds.
- Conservative overestimation of uncertainties by risk-averse purchasers or partners.
- The availability and cost of Financial Assurance. In recent years, mining companies have had difficulty obtaining Financial Assurance bonds due to increasing collateral requirements and the market withdrawal of most surety providers. This has also happened with mine related insurance products as well.
- Contingent liability to the mining company in the event of purchaser failure (for example where the government or other third party sought recovery for reclamation costs from a previous owner).

INSURANCE TOOLS

It is possible to adapt existing environmental insurance products to address long-term restoration liabilities and provide increased cost certainty. By their very nature, such programmes are highly specific and are tailored to each individual situation. Willis has pioneered the application of these techniques to the management of mine closure liabilities and the development of 'outsourcing' models.

To explore some of the potential applications of these programmes it is worth outlining the insurance tools that are typically used:

- Conventional environmental insurance products - used to transfer 'unknown' risks and/or transfer the uncertainty around 'known' or predicted costs.
- Structured or 'blended' insurance programmes – used to smooth the impact of planned expenditure over a series of fiscal periods. By blending conventional insurance with these programmes it is possible to create a single financial structure for funding anticipated closure costs and the associated financial uncertainty.

CONCLUSION

Because of the difficult economic conditions facing the mining industry, the frequency at which new mining projects or expansions are occurring has been drastically reduced. Obtaining financing has become much more difficult as venture capital is scarce for such activities. Despite the severity of the global economic downturn, mining exploration, development, operations and expansion programmes will progress, albeit in smaller numbers and at slower paces. This will of course, be based upon metals prices and overall demand.

Mining companies can take advantage of this industry slowdown by addressing their reclamation Financial Assurance challenges now so permits can be obtained much more readily later. For viable projects on temporary hold, we encourage our clients to work on critical tasks which can take months to complete - tasks such as quantifying and negotiating the FA amounts with the agencies, educating stakeholders and facilitating the underwriting process. Additionally, exploring and clarifying options for environmental risk transfer through insurance products should also be completely vetted now as underwriting can likewise take months to complete.

Finally, it is worth noting that environmental insurance can actually add to the attractiveness of a project to a potential investor by transferring the overall risk to an insurer.

TERRORISM

Special Report.

TERRORISM

MARKET OVERVIEW

2008 started to see the flattening out of Terrorism insurance rates. There have been no major new entrants into the market as opinion builds that the low return on capital is not sustainable going forward.

The recent devastating attacks in Mumbai will lead to losses to the international market.

These losses, along with other strikes and riots in the mining sector, mainly in Latin America (please see following comments from Exclusive Analysis) will also start putting pressure on markets to increase rates on renewals. Good and timely underwriting and security information for mining risks are key to securing support and competitive pricing from the market.

Notwithstanding the above, whilst the existing supply of capacity remains, competition for the business will remain.

With many mining companies operating globally or in politically complex countries, we have included a special report by Exclusive Analysis to provide a world-wide perspective on Terrorism risks for our clients.

COURTESY OF EXCLUSIVE ANALYSIS

LATIN AMERICA

Latin America will likely see a reversal of the trend observed over the last five years, in which strong global demand boosted mining output, presenting new opportunities for foreign investors. At the same time, the end of the boom and collapse of metal prices will likely dent the nationalist policies, with the only exception of Venezuela and perhaps Bolivia, which dissuaded foreign investors from undertaking new projects. Yet, although government will adopt more friendly policies towards foreign investment, the prevalent trend will be on of cancellation of projects because of the global credit crunch.

In Peru, President Alan Garcia's plans to hand out new mining licenses have met fierce resistance from grass-roots organisations and political groups, leading to frequent bouts of disruptive civil unrest. Local communities object to the environmental consequences of Peru's substantial mining industry (Peru is a top-five global producer of silver, gold, copper and zinc) while demanding a greater share of royalties. As the government has seen its popularity fall, it is likely that nationalists will press for a harder bargain with multinationals.

Colombia is a major coal exporter and emerald producer, though decades of violence have held back any major expansion and diversification of the country's mining sector (e.g. into gold, platinum, nickel, copper and molybdenum). However, the sharp reduction in Terrorist attacks by the FARC and negotiated release of hostages has encouraged investment in the sector (over USD 1 billion in 2007). The government views the sector as a driver of economic growth and a means of establishing development in former conflict zones. The effective tax burden on mining firms has been reduced from 51% to 38% by lowering the income tax rate and eliminating a 7% repatriation tax.

The limbo surrounding mining in Ecuador since April 2008, when the authorities put on hold all mining licences, is now over after President Correa got approved a new mining law on 21 January 2009. Despite their nationalist character, the Constitution and the new mining law are not as radically anti-business as many had feared, and President Rafael Correa has resisted strong calls from the highly influential CONAIE indigenous organisation to grant local communities veto rights over all mining projects. This will bring certainty to mining operations in Ecuador, one of the few countries in the world where mining is still untapped. Nonetheless, there is still substantial opposition to a greater presence of foreign multinationals in the mining sector in many areas, with Business Interruption and occasional incidents of Property Damage likely.

NORTH AMERICA

While legal and royalty costs are likely to rise in the US, both the Canadian federal government and individual provincial governments are unlikely to impose undue measures that would result in any significant downturn in production.

In Canada, provincial governments, due to their ownership of subsurface mineral rights, are unlikely to introduce dramatic regulatory changes. However, there is a risk of new incremental environmental regulations regarding water quality. As with all commodity production in Canada, there are significant legal risks associated with Aboriginal claims. Accordingly, companies with operations located near Aboriginal towns that have not gained approval from such groups should expect significant legal costs and civil unrest risks.

In the US, Congress is likely to update its 1872 mining law in 2009-10, which currently allows for minimal Congressional oversight and marginal royalties on federal land. A new law, with many of the provisions of the 2007 Hardrock Mining and Reclamation Act, will likely get approved. The new law will increase mining-related fees and initiate royalties on a number of minerals, while also updating the regulatory framework for mining permits. Though a new law will probably result in increased costs, associated expenditures are unlikely to be overbearing. Senate Majority Leader Harry Reid, a Democrat from Nevada, wants to ensure existing mining companies' contracts are upheld and will limit any tariff introduction. Accordingly, we believe it is highly unlikely that new tariffs would exceed the originally agreed 8% gross revenue for new mines and 4% for existing mines,

per the 2007 bill. Before his election to the Presidancy, Senator Obama opposed the 2007 bill as he believed it would impact on jobs. However, he will likely accede to pressure from states and environmental groups now he is in office. Senator McCain would likely support the law so long as it does not overly hurt the mining industry, though he is not likely to lift recent restrictions on uranium mining in Arizona. Due to various mine accidents over the past two years, new mine safety regulations are likely regardless of Barack Obama's election.

ASIA

Disputes over land acquisition and environmental concerns are common problems facing mining companies operating in Asia.

India has large reserves of bauxite and iron ore and is currently seeking to open the mining sector to foreign investment. A new mining policy, originally scheduled for 2008, has been delayed and is unlikely to be passed until after the May 2009 general elections as state governments have raised objections to it. More state involvement with the policy will most probably raise regulatory risks. In addition, mining firms in the eastern mineral-rich states of Andhra Pradesh, Chhattisgarh, Jharkhand, Madhya Pradesh and Orissa will face attacks from violent rebel groups operating there, as well as violent protests from local communities that may be forced to give up their land.

Rebel groups threaten mining operations in some parts of the Philippines. In addition, local governments and the Catholic Church often support communities opposing mining operations due to environmental and social concerns. Particularly at risk are mineral explorations in the provinces of Nueva Viscaya, Mindoro, South Cotabato, Marinduque, Palawan and Albay.

In Papua New Guinea, the government is assessing the feasibility of reopening the Panguna copper and gold mine that was closed in 1989 after violent attacks on the mine by local tribes over a revenue-sharing dispute. Bougainville now has an autonomous government and a referendum on full independence scheduled for 2013. If Bougainville Copper can arrange a satisfactory revenue-sharing agreement with local landowners in Bougainville, the risk of resumed violence will be reduced.

MENA

In the Middle East, metals production is one notable area of investment as governments strive to diversify their economies. Whilst some projects are likely to be delayed or even reconsidered due to spiralling costs, a lower oil price and the global financial crisis, this is most likely to impact on joint state-private ventures. However, state funded projects, projects for which financing has already been secured, and those that are deemed strategic, are unlikely to face cancellation.

Gulf countries are making substantial investments in aluminium, providing opportunities for bauxite mining, alumina refining and aluminium smelting. **Saudi Arabia** in particular has approved USD 17 billion worth of aluminium projects, with five smelters planned by the Saudi Arabian Mining Company (Maaden). As part of its diversification drive, it aims to produce over 3 billion tonnes of aluminium annually and become the region's primary exporter.

Shortages in cheap gas supply in the **Gulf** are, however, likely to cause some projects to be delayed or abandoned. Competition for energy with other industries such as petrochemicals, and strong global demand for LNG will erode the competitive advantage of cheap production costs. In May 2008, a Rio Tinto-Maaden venture was delayed until 2012 amid reports that the project cost would increase by USD 530 million because of higher prices. Given that the joint venture project between Maaden and Rio Tinto is part of a long term plan for diversification in which mining is a key component, the project is unlikely to be derailed.

The **Moroccan** state-run monopoly Office Chérifien des Phosphates (OCP), which produces around 27 million tonnes of raw phosphate annually, is likely to open up to foreign investors, leading to partial liberalisation of the sector in the coming five years. In September 2008, OCP announced plans to invest USD 12 billion in the sector,

including ventures with foreign partners from Brazil, the EU, Libya and Asia. Exporters will benefit from the opening to foreign investors of its Jorf Phosphate Hub, which has a port capacity able to accommodate vessels bearing up to 100,000 tonnes.

AFRICA

Heavy investment in Africa's natural resources has been underpinning economic growth rates. This is set to continue though at a slower pace in 2009, as slowing global growth weighs on metals' prices and reduces the profitability of new projects.

The conclusion of the review of the bulk of mining contracts in December 2008 will likely contribute to an improving regulatory framework for mining in the coming year. However, mining firms that compete directly against companies that have Chinese or local politicians' interests will likely face adverse bureaucratic action. Renewed fighting in the Kivus will hamper recovery of the mining industry in the east whilst calls for beneficiation in Katanga will become more common despite the collapse in prices.

Mining opportunities are increasing across Liberia, though the process of awarding licences still lacks clarity. For instance, the negotiating process for the 'Western Cluster iron ore project', which has an estimated 500 million tonnes of iron ore, demonstrates the opaque nature of the bidding process. In September 2008, the authorities rescinded the provisional award of a contract over the asset from Delta Mining Consolidated, and re-opened the contract bid. They also excluded Tata Steel from the bidding process due to yet undisclosed improprieties. In Sierra Leone, mining contracts will likely come under greater scrutiny following the president's call in July 2008 for urgent reform. It is likely that the government will raise corporate tax and impose more stringent reporting requirements on profits. It also likely that Sierra Leone will attempt to renegotiate existing mining contracts with the intention of increasing the government's stake in exploration and extraction.

In Guinea, the new military-led government is likely to aim to increase revenue from mining in view of falling commodities prices by completing the review of of bauxite mining contracts that began in April 2007. Outright cancellations are unlikely, particularly as the government will seek to encourage fresh investment into its economy and infrastructure, which is currently sustained by transfers from international donors. Most large mining companies, though, will have their contracts renegotiated in the government's favour. Larger companies such as Rusal-run bauxite miner, Compagnie de Bauxite de Kindia (CBK), are likely to see generous tax breaks and preferential access to state-owned port and rail facilities withdrawn. New public infrastructure and improved working conditions will also be negotiated into contracts.

EURASIA

Consolidation of the mining industry is underway throughout Eurasia, though opportunities will present themselves in joint ventures with state-controlled and big private players as well as in uranium and gold mining sectors in Kazakhstan.

In Kyrgyzstan, Centerra Gold's holdings at the biggest goldmine, Kumtor (that provides 10% of the country's GDP), have been threatened with higher taxes and even nationalisation, under pressure from a parliamentary committee. It seems likely that the authorities will seek a compromise with Centerra since Kyrgyzstan lacks the funds or expertise to operate the mine on its own, and badly needs the tax revenues. Yet the new deal is likely to result in a bigger government share in the Kumtor project. The situation highlights the significant risks to investors in Kyrgyzstan posed by arbitrary political power and an uncertain judicial system.

Kazakhstan is likely to attract further foreign investment into its uranium sector due to low extraction costs and a stable regulatory regime. Kazakhstan has the world's second largest proven uranium deposits, estimated at 17% of global reserves. Kazatomprom is the state-owned monopoly responsible for developing the country's uranium extraction and nuclear industry. It is setting up the manufacture of fuel cells at the Ulbinsk Metallurgical Plant in Ust-Kamenogorsk. Today almost all uranium extraction is done by joint ventures in which Kazatomprom normally holds at least 51%.

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