

CONSTRUCTION & INFRASTRUCTURE

2018 MARKET REVIEW &
MARKET OUTLOOK FOR 2019

EXECUTIVE SUMMARY

This report provides insights into the Global Construction & Infrastructure marketplace and an outlook for 2019. Market conditions vary across geographies and understanding these nuances is imperative for firms doing business across multiple geographies. This report provides global insights, alongside those from individual markets, with global and regional results dictating the landscape for each region.

Looking at the marketplace through a broad lens, the insurance market experienced unprecedented change in 2018. With a record USD \$147 billion of insured catastrophe losses in 2017, 2018 brought estimated catastrophe losses of USD \$90 billion - substantially higher than the USD \$56 billion annual average from 2000-2017 and the fourth costliest year on record. The combined total of USD \$237 billion for 2017 and 2018 now represents the most expensive two-year period in history. The construction market, experienced some of the largest single loss events on record.

Despite these record-breaking losses, the overall market remains resilient, with USD 595 billion in available global re/insurance capital. This is against a backdrop of an evolving insurance market, with

investments in insurtech, data and analytics, and increased levels of transparency. Changes suggest market conditions will continue to evolve, while significant levels of capital remain available to take on new and existing risks. 2019 will see carriers reassess market conditions, in terms of both rate adequacy and the need for additional insight around expanded coverage afforded in past renewal periods.

In the face of poor results driven both by loss activity as well as rising expense levels, Lloyd's announced a strategic review of its operations in 2018, addressing remediation of the 10% of worst performing portfolios. The outcome of this review was not a noticeable reduction in capacity being offered by London, but a number of syndicates did step away from construction property and professional liability business in 2019. Time will tell if syndicates maintain this strategy long-term.

Construction markets in Asia continue to be challenged, but remain competitive with significant capacity available. Risk profiles deemed complex and challenging, coupled with natural catastrophe exposures may encourage insurers to reassess their underwriting approach. Risk management and premium spend will continue to be high on the



agenda in 2019 as Asian clients look to achieve a balance between a cost-effective and fit-for-purpose insurance programmes.

Australia saw the initial stages of market transition for construction risks in 2018. Several insurers suffered poor results in 2018 due to increased claims activity and soft market conditions. For 2019, the expectations are that this trend will accelerate, and insurers will need to be disciplined in repairing portfolios and returning to profitability.

Capacity in the Canadian domestic market remains stable, but rates are hardening slightly. Capacity for property with natural catastrophe exposure is a focus of underwriters, especially in the London market, which was hard hit by 2017 catastrophe losses. Large contractors continued to see soft market conditions, buoyed by London market competition for Canadian mega-projects. Mid-sized contractors are seeing flat rates on renewal. In some situations, insurers are willing to trade retentions for rate.

The European market is hardening but not at the same pace as London. Losses are increasing in value and volume, but there has not been a massive premium increase for annual construction programmes. There are slight differences in the outlook for mega-projects when London's capacity is available.

"In 2018 the US saw further losses driven by catastrophic perils including named windstorms and California wildfire. 65% of 2018's USD 90 billion global insured catastrophe losses occurred in the US."

The rest of Europe and the Middle East saw a significant contraction in the construction market, led by a number of Lloyd's syndicates putting their construction portfolios into run-off in Q4 2018. The immediate fallout has not been significant, but there has been a modest increase in premium rates. 2019 is expected to bring further change, with speculation that there are more insurers putting accounts into run-off following several years of poor underwriting results.

In 2018 the US saw further losses driven by catastrophic perils including named windstorms and California wildfire. 65% of 2018's USD 90 billion global insured catastrophe losses occurred in the US. Despite losses, the market remains stable and resilient. Investment in infrastructure technology and calls for industry modernisation are predicted to make a meaningful impact on construction activity in the US.

A lack of infrastructure projects in Latin America was apparent in 2018, creating competition for projects requiring capacity, particularly in regions with limited catastrophe exposures. This led to consequent rate stabilisation or even small reductions. The loss of the Ituango hydropower in Colombia in 2018 during construction severely impacted the results of traditional construction market insurers, creating restrictions for hydropower plant risk and some infrastructure projects. More detailed technical information is expected to be required for large infrastructure risks, with insurers likely to favour projects with a robust risk management approach in place. Political risks have compounded issues, threatening project delays and cancellations, with contractors and owners facing issues obtaining policy extensions.



"Projects are becoming more complex in nature and we see increasing evidence of clients seeking to consult with brokers that can provide value-added risk-based advice."

The surety market remains competitive with strong capacity. Financial results for the industry remain profitable in 2018 due to low surety loss activity combined with a strong construction economy. However, there is some speculation about the future as some large global contractors have shown signs of fiscal stress that could result in project and/or enterprise default. Surety companies are expected to exercise caution when providing surety credit in the coming year.

Subcontractor default insurance (SDI) remains a multi-dimensional risk with the potential to impact various aspects of a contractor's risk management programme. There is increased interest among large project owners in securing SDI programs to protect against defaults of meaningful contracts as they seek to mitigate the overarching peril of delay.

Despite a volatile business environment and long-term challenges, the outlook for 2019 remains positive for insurance buyers across most classes. Projects are becoming more complex in nature and we see increasing evidence of clients seeking to consult with brokers that can provide value-added risk-based advice. Other positive developments include advancements in technology and digital innovation, which are helping to enhance construction risk management, safety, and processes. While the uptake of new technology options on construction sites has been slow, we could see acceleration if project stakeholders are involved in funding associated costs. If risk-reducing technologies are proven to improve project outcomes and loss ratios, the money saved could fund the cost of the technology. Capital partners participating in large projects could provide this funding or a premium discount to incentivise adoption.

Aon's Global Construction & Infrastructure Group takes pride in helping our clients make risk management a competitive advantage, no matter where they operate. Unwavering in our commitment to excellence, our regional and global industry leaders offer a combination of technical expertise and strategic risk advisory to clients operating in volatile times. We are pleased to share Aon's Global Construction and Infrastructure Market Review for 2018 and Market Outlook for 2019 as a high-level view of industry trends and insights into the global marketplace.

ASIA

The fourth quarter 2018 saw a reduction in overall market capacity following a review of several engineering portfolios - most notably at Lloyd's.

This, in combination with several high-profile losses, led to the overall profitability of the sector being questioned, and rates levelling off towards the end of 2018.

Q12019 in general has seen noticeable rate increases across most industry types. The most noticeable increases have been in two specific industries – Hydroelectric Power and Oil and Gas. These rate increases are a result of the larger losses that have impacted global profitability. Construction risks are now subject to more rigorous underwriting discipline as carriers seek better pricing adequacy.

Hydroelectric Power specifically is also facing lead carrier issues as many of the major carriers are not willing to provide lead quotations.

CSR continues to be a factor for many carriers who are withdrawing from supporting the development and operation of fossil fuel facilities in Asia. These carriers are refocusing their underwriting strategies and committing their supporting to clean energy projects.

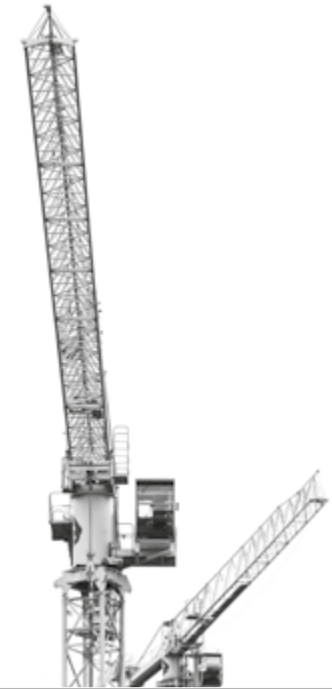
Property | Builders Risk

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing	↔ ↓	Rates were flat to 10% reduction.	↑	Pricing and rates continue to fluctuate in Q1'19. In general most carriers are seeking rating improvements/adequacy. Construction in particular is seeing a noticeable rate increase. Accounts that have sustained losses and/or are in high Nat Cat locations are likely to see stronger rate increases. LTAs and NBC becoming less available. Lloyds of London - Following a series of Nat Cat losses combined with the Lloyds review of underperforming business, underwriters are pushing back and seeking increases across their portfolios.
Limits	↔	No material change.	↔	We have not seen any significant requirements to amend limits in Q1 in order to facilitate placements. However NAT CAT aggregation limits have tightened leading to less capacity deployment.
Deductibles/ Retentions	↔	No material change.	↔	Deductibles are expected to remain stable. Increases deductibles to save premiums has been tested, however the risk transfer costs do not stack up. Deductibles on new technologies remain a challenge.
Coverage	↔	Coverage remains unchanged.	↔	Coverage is expected to remain stable. We continue to work on new initiatives to enhance our offering to clients.
Capacity/ Appetite	↔ ↓	Markets restricting their appetite. New markets have entered, while some markets have exited.	↓	Whilst re/insurance capacity remains at an all time high there are certain industries in which we are likely to see capacity starting to retract, namely Coal and Hydro risks. Coal - Corporate and Social Responsibility pressures have caused many European and some US markets to adjust their underwriting guidelines and withdraw from underwriting Coal related assets. However in most respects their stance is not a "hard and fast" rule on every coal asset account, in some instances there is a work around. Hydro – Significant global losses in construction and some operational risk has affected the appetite and capacity of the market which will show significant pricing amendments going forward.
Losses	↔	Loss experience continues to be relatively benign for most industry segments with some exceptions such as logistics and real estate. There has been a shift in the frequency and severity of losses within these segments.	↑	The Nat Cat events of 2017 continue to influence the underwriting climate. These have been further compounded by 2018, which was another expensive Nat Cat year. Power insurance continues to attract a regular frequency of machinery breakdown losses too.

Liability | Primary Casualty

Clients with a favourable loss history continued to secure premium reductions and we predict this will continue in 2019. Loss experience continues to be relatively benign for most industry segments, with some exceptions such as logistics and real estate, where there has been a shift in the frequency and severity of losses. Construction commercial general liability was a source of significant loss events in 2018, bringing claims management and advocacy into the spotlight.

The global casualty market is under the same pressure as other global product lines, as insurers strive for underwriting profitability. The London market remains important, but its long-held dominance is being challenged by increasing levels of Asian capacity and underwriting expertise.



Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing	↔	Rates were flat to 10% reduction.	↔	Similar to 2018, negligible rate reductions are expected for accounts that are already enjoying competitive pricing. Accounts with a challenging loss profile could see a bigger rate increase than 2018.
Limits	↑	No material change.	↑	No material change.
Deductibles/ Retentions	↔	No material change.	↔	No material change.
Coverage	↑	Coverage remains unchanged.	↑	Coverage remains unchanged.
Capacity/Appetite	↑	Markets restricting their appetite. New markets have entered, while some markets have exited.	↑	Flat in capacity for 2019.
Losses	↑	Loss experience continues to be relatively benign for most industry segments with some exceptions such as logistics and real estate. There has been a shift in the frequency and severity of losses within these segments.	↔	Industrial losses remain favorable.

Liability | Professional

The professional liability market saw a general slowdown in Asia's construction sector, with demand for project-specific policies declining and enquiries being put on hold. Purchases of project-specific policies are primarily motivated by contractual requirements and not by internal risk management requirements. Asia has seen an increase in claims, which has affected overall pricing, encouraging premium increases. For accounts with no claims or no change in their risk profile, insurers are looking to either maintain their pricing on annual programs or trying to get away with slight increases, resulting in more programmes being remarketed. Asia's insurance market is geared towards handling large-scale projects with joint capacity sufficient to cover projects over 10-15 years. Asian re/insurers that are supporting project risks are offering limits of up to USD 300 million for high-risk projects.

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Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Pricing is still competitive but insurers in Asia are trying to either maintain or push for slight increases. There is resistance on any premium reduction.	↔	This trend is expected to continue.
Limits	↑	Limits on average are modest but projects with contract values in excess of USD \$1 billion purchase higher limits.	↑	This trend is expected to continue.
Deductibles/ Retentions	↔	No material change.	↔	No material change is expected.
Coverage	↑	A number of enhancements are still available, including tailored related parties' coverage.	↑	This trend is expected to continue.
Capacity/Appetite	↑	Capacity for project specific policies has more than doubled over the past five years.	↑	This trend is expected to continue.
Losses	↑	There have been some large claim notifications.	↔	This trend is expected to continue.

Professional Services | Cyber and Errors & Omissions

The global cyber marketplace, which was historically focused on data aggregators (e.g. Retail and Healthcare entities) has seen significant uptick and genuine interest over the last 18-24 months with respect to Construction entities. The three main reasons why our prospective clients are exploring cyber insurance are: 1) Mandate from the BoD or Executive Leadership 2) Contractually

obligated to purchase coverage to conduct projects 3) The organization, or a peer, experienced a cyber incident

One common misconception with prospective clients is deeming that a cyber endorsement embedded in another policy (e.g. GL) affords true and all-encompassing cyber coverage. While the

small endorsement may help satisfy a contract, it likely won't help your organization respond to a cyber incident and expenses paid to third party vendors (e.g. Forensics and Legal). Furthermore cyber extortion is typically not captured within small cyber endorsements included in other lines of coverage.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing	↔	Relatively stable rates.	↔	Relatively stable rates.
Limits	↑	There are sufficient limits available with ample competition for non-high risks industries.	↑	Capacity is available domestically (primary and excess), in the U.K (primary and excess), in Bermuda (excess), with emerging capacity from the Asia marketplace
Deductibles/ Retentions	↔	Relatively stable retentions.	↔	Retentions of all levels are available in the market, but can vary greatly based on industry class, size and unique exposures. Adjusting retentions can lead to increased coverage and/or limit flexibility pricing flexibility
Coverage	↑	Coverage has been paramount. Sophisticated clients have taken advantage of the competition and development in this space as well as the moderate claims experience thus far.	↑	Coverage breadth and limit availability continues to expand, particularly with respect to business interruption and extra expense coverage insurers continue to differentiate their offerings with new or enhanced coverage components and language clarification.
Capacity/ Appetite	↔	The overall capacity/appetite varies from industry to industry. Insurers adopt a more stringent approach to the high-risk industries monitoring their participation according to their worldwide exposure.	↑	From a primary perspective, there continues to be an increasing number of insurers developing appetites for large, complex risks. There is over \$1bn in theoretical capacity available in the Cyber market place.
Losses	↑	Losses inevitably increased. There has been an increase in publicised cyber incidents across Asia in 2018, including high profile losses in health, aviation, shipping and high tech.	↑	Increased ransomware activity throughout 2017 drove large business interruption and extra expense losses paid in 2018. Complexity of breaches has driven an increase in incident response expenses incurred by insured.

Liability | Environmental

Environmental liability remains a developing market in Asia due to limited environmental regulations and the lack of enforcement. Penalties are low, and typically do not form part of a company's consideration for environmental liability insurance in the region.

There is, however, a clear upward trend in governments' efforts to strengthen the penalties in place and enforcement of compliance measures, which will help support the purchase of environmental liability insurance. There are two countries in Asia that have already taken steps to introduce mandatory environmental liability

insurance – South Korea and China.

Under the New Korean Environmental Pollution Damage Compensation and Recovery Act, which was effective in July 2016, it is mandated that businesses running high risks of environmental pollution must purchase mandatory environmental liability insurance and will be strictly liable for any damages stemming from environmental pollution.

In 2017, China released plans to make environmental pollution liability insurance compulsory for companies falling under high environmental hazard categories such as oil and gas exploration, processing of hazardous chemicals and

production of active pharmaceutical ingredients. While the date of implementation is unclear, China has been running trial voluntary environmental insurance programmes for ten years, raising the profile of environmental insurance in the country.

Outside of South Korea and China, there has also been an increase in environmental insurance enquiries over the past two years especially in Singapore, Hong Kong and the Philippines. Not surprisingly, the buyers of environmental impairment liability (EIL) insurance tend to come from large, multinational companies headquartered in Asia with highly sophisticated risk management teams.





Contractor's environmental liability

Appears to be the driver for environmental liability growth in Asia, apart from South Korea's mandatory environmental

insurance scheme. Insurers have broad appetites except for offshore oil and gas activities. Projects are typically civil construction works, land reclamation works and non-hazardous transportation such as electronic wastes. Demand is mostly found in Singapore, Hong Kong and Vietnam.



Premises environmental liability

South Korea firms continue to be the major buyer of premises environmental liability (PEL), with several insurers participating in the portfolio scheme either as a

primary insurer or reinsurer. Similar to contractor's environmental liability, there is an abundance of capacity in Asia as the typical limit of liability purchased by companies rarely exceeds USD 10 million per policy. Pricing is competitive with deductibles as low as USD 5,000 for manufacturing risks due to the perceived lower clean-up costs in Asia. Due to the low frequency of environmental claims in this region, companies are increasingly taking up two or three year policies to better utilise limits.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Pricing remains competitive as a young market with significant appetite and select purchasers.	↔	Major changes to pricing are not expected in 2019.
Limits	↔	Overall policy limits remained stable in 2018.	↔	Major changes to overall limits are not expected in 2019.
Deductible/Retentions	↔	Deductibles remain competitively low.	↔	This trend is expected to continue in 2019.
Coverage	↔	Broad coverage was provided in 2018.	↔	This trend is expected to continue in 2019.
Capacity/Appetite	↔	Adequate capacity from the insurers was accessible.	↔	Capacity and appetite from insurers are expected to remain similar in 2019.
Losses	↔	There were no major changes to losses in 2018.	↔	There are no major changes in the loss activity expected.

AUSTRALIA

Property | Builder's Risk, CAR, EAR

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	2018 saw the initial signs of a hardening market with insurers increasing average rates.	↑	This trend is expected to continue, and average rates are expected to increase from 10%-20%. Clients may be able to obtain reductions in these increases by reviewing lead insurer, deductible and cover information.
Limits	↔	Overall policy limits remained stable in 2018 as clients looked to capture larger projects under their annual programs.	↔ ↓	Overall policy limits are expected to decrease slightly as clients look to trade for price relief. One area of focus where insurers will tighten is the additional sub-limits which are expected to decrease during 2019.
Deductible/Retentions	↑	Insurers started to increase deductibles during 2018. Major areas of focus were: 1. LEG3 2. Water damage 3. Major perils north of the 26th Parallel*	↑	This trend is expected to continue.
Coverage	↓	Insurers started to impose coverage restrictions as a way of providing clients relief from price increases.	↓	Insurers have already flagged that they will be looking to impose tighter coverage restrictions in 2019. In particular: - Defect coverages on pipeline projects - Water damage coverage on building projects
Capacity/Appetite	↓	Whilst capacity remained at an all-time high in 2018, insurer appetite in certain disciplines started to reduce in 2018.	↓	This trend is expected to continue. Insurers have already raised concerns regarding their available capacity on several large civil projects that are set to commence within the first half of 2019.
Losses	↑	2018 was an unprofitable period for insurers as they faced a number of major loss concerns. The key areas of continued losses were: - Pipeline projects - LNG projects - Sprinkler failure in building projects	↔	Insurers are hoping that 2019 will see a return to profitability due to remediation actions undertaken with coverage, deductibles and pricing on particular problem disciplines.

*Above the 26th Parallel is considered far North Queensland and is more prone to severe weather events.

Liability | Primary Casualty

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	No material change in rating in 2018 with competitive pricing still readily available.	↔ ↑	Minor increases are expected in 2019 as insurers start to transition from the soft market conditions seen in previous years. Clients with well-performed accounts may still be able to achieve rollover pricing if they consider changing carriers.
Limits	↔	Specific clients with frequent claims issues saw some remediation. However in general, conditions remained competitive.	↔ ↓	Major changes to overall limits are not expected in 2019. Some clients may consider reducing limits that have grown over previous years as a trade-off to any pricing increase.
Deductible/ Retentions	↔ ↑	Overall policy limits remained stable in 2018.	↔ ↑	This trend is expected to continue.
Coverage	↔	For the most part, there were no major changes in 2018.	↔	Coverage restrictions are not expected for 2019. Instead, insurers will focus on increases in deductible or price.
Capacity/Appetite	↔	Worker-to-worker and water damage claims are two areas that experienced increased deductibles.	↔	Large capacity and appetite are expected to remain in 2019.
Losses	↔	There were no changes to coverage available to clients. Broad market-leading coverage was still available across the board.	↔ ↑	Major changes in loss activity are not expected, although authorities are predicting a severe bushfire season which may see an increase in claims if a result of construction activity.





Liability | Excess Casualty

As in previous years, the Australian excess casualty market remained soft in 2018. Capacity remained at an all-time high with pricing at very competitive levels. This is not expected to change in 2019 as the majority of casualty claims for construction risks remain within the primary layer.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	No material change in rating in 2018 with pricing remaining at minimum levels.	↔	This trend is expected to continue.
Limits	↔ ↑	A number of major projects bought policy limits in excess of AUD \$1 billion in 2018 (this is the first time that this has occurred).	↔ ↓	Major changes to overall limits are not expected in 2019. Some clients may consider reducing excess limits that have grown over previous years, as a trade-off to any pricing increase in the primary layer.
Deductible/Retentions	↔	Other clients continued to take advantage of the soft market conditions to procure higher limits.	↔ ↓	
Coverage	↔	No material change.	↔	Coverage restrictions are not expected for 2019.
Capacity/Appetite	↔	There have been no changes to coverage available to clients. Broad market-leading coverage was still available across the board.	↔	Large capacity and appetite are expected to remain in 2019.
Losses	↔	Capacity remained at an all-time high in 2018 with one major project able to procure a limit AUD \$1.5 billion.	↔ ↑	Major changes in loss activity are not expected, although as attachment points on primary layers are reduced, claims may start to flow into excess policies.

Liability | Professional

The professional indemnity (PI) market has deteriorated significantly over the last quarter with no signs of easing in the short-term. Lloyd's has commissioned a review of their worst performing classes as a result of underwriting losses in 2017, which includes PI. Insureds have been the beneficiaries of 10-15 years of rate reductions driven by a historic abundance of market capacity. For many professions, 2017 rates were half of that of 2004. Over this period, the average time to

settle a claim has stretched from five to nine years, prolonging insurers' ability to gain full visibility over the performance of their portfolio for any given year. Increased claims activity, along with margin erosion, has resulted in many insurers experiencing losses on their PI portfolio.

At a macro level, easing of the Australian property market, commencement of the royal commission into the aged care sector, and resultant reforms

from the banking, finance and insurance review are all concerns for insurers. Over-laid with contagion issues such as cladding and plastic piping in the construction sector, advice on self-managed super funds by accountants, emerging cryptocurrency risks, and consequential cyber security claims hitting the IT industry, insurers are placing far greater scrutiny on their underwriting assessment, rates, terms and conditions.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	2018 saw an increase in pricing for all policies. Clients with clean accounts saw increases in the 5%-10% region whilst increases of 20%-40% were common for poor performing accounts.	↑	This trend is expected to continue, although clients that have already received increases in 2018 will not be subject to additional increases if they are well performed. Repatriation of accounts from London to Australia is expected as rates increase disproportionately in London due to a lack of appetite for Australian PI business.
Limits	↔ ↑	Even though the market conditions hardened in 2018, contractual conditions (particularly on major projects) tightened, requiring clients to carry higher limits of PI insurance. As such, limits increased across the board.	↔ ↑	This trend is expected to continue for major projects, however some clients may look to lower their annual policy limits as insurers impose higher premiums.
Deductible/Retentions	↑	Insurers imposed higher deductibles on clients in 2018 and a number of clients elected to increase these further to save on an additional premium increase.	↑	This trend is expected to continue.
Coverage	↓	2016 and 2017 saw coverages expand in areas like fitness for purpose, contractual liability and related parties' extensions. 2018 saw insurers tighten up and return to more traditional levels of cover.	↓	Insurers have already flagged that they will be looking to impose tighter coverage restrictions in 2019.
Capacity/Appetite	↓	Individual insurer capacity and appetite decreased in 2018 due to tighter restrictions imposed by reinsurers and profitability in the sector. Unfortunately, major projects required higher limits which led to more insurers being required and capacity coming at a higher price.	↓	This trend is expected to continue in 2019. Insurers have already raised concerns with their available capacity on a number of large civil projects that are set to commence within the first half of 2019.
Losses	↑	2018 was not a profitable period for insurers. There were several large losses for insurers in this sector. The infrastructure boom in Australia required long policy periods. As these projects are finalising, claims are starting to manifest.	↑	This trend is expected to continue in 2019 as more major projects become operational.

Surety

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↓	Rates continued to decrease in 2018 (albeit at a slower rate). Competition between insurers for good counter-parties continued as insurers increasingly competed with banks to provide capacity to investment-grade clients in the commercial surety space.	↔	Rates are expected to stabilise in 2019 following an extended period of falling rates and a significant market loss in 2018.
Limits	↔	No material change.	↔	No material change is expected.
Deductible/Retentions		N/A		N/A
Coverage	↑	Much of the market growth over the past 12 months has been in the development of commercial surety as an alternative to BG's for workers compensation, rehab, AEMO, supply etc.	↑	More insurers are expected to diversify their product offering away from contract surety. Overseas players are expected to continue offering an alternative solution when the local market can't assist.
Capacity/Appetite	↑	Capacity in the local Australian market is at an all-time high. There has also been increased participation from overseas insurers in large transactions.	↓	Capacity and appetite will remain for strong counterparties. However, the impact of RCR will be felt on contractors operating in the renewables sector, likely resulting in a more cautious approach from providers to the construction industry in general.
Losses	↑	The collapse of RCR Tomlinson Limited in November resulted in an estimated AUD \$100 million of bond calls for that contractor alone.	↓	Losses of the RCR size are rare, so the aggregate value of losses will likely decrease in 2019. However, a falling property market in NSW is likely to put pressure on developers, contractors and subcontractors, so it is possible that the frequency of losses may increase.

Liability | Environmental

Soft market conditions for construction risks continued in 2018. No significant change to premium rates, limits or deductibles are anticipated, however insurers are starting to see more loss activity in this space which may affect 2020.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	There was no material change in rating in 2018, with competitive pricing still readily available. Pricing remained consistent for annual renewable programs. It is noted that for large infrastructure projects, pricing was very competitive.	↔	Major changes to pricing are not expected.
Limits	↔	Overall policy limits remained stable in 2018.	↔	Major changes to overall limits are not expected.
Deductible/Retentions	↔	For the most part, there were no major changes in 2018. Injury to worker retentions remained around AUD \$100,000.	↔	This trend is expected to continue.
Coverage	↔	Broad coverage was provided in 2018.	↔	This trend is expected to continue.
Capacity/Appetite	↔	Adequate capacity from insurers was accessible although there was some difference in appetite between them. Some insurers had less appetite on dredging or underground tunneling projects.	↔	Capacity and appetite from insurers are expected to remain similar in 2019.
Losses	↔	There were no major changes to losses in 2018; some weighting towards losses related to disturbance of unexpected or unknown asbestos on projects.	↔	Major changes in loss activity is not expected, although there may be slightly more activity due to increasing uptake of this product line by clients.



Surety | Subcontractor Default Insurance

The surety market for subcontractor default insurance (SDI) is limited (outside of North America). This is primarily due to different performance security coverage and cost structures, which are generally not favourable to the introduction of SDI. The limited amount of SDI underwriting and risk engineering expertise, as well as its concentration in North America, make marketplace expansion difficult.

Efforts are currently underway to reintroduce SDI product in Australia. Existing users have previously utilised policies in Australia, however the SDI product is not currently in use. It is expected that terms and underwriting appetite will follow the North American experience.

"The limited amount of SDI underwriting and risk engineering expertise, as well as its concentration in North America, make marketplace expansion difficult."

CANADA

Property| Builders Risk, CAR, EAR

The local Canadian market was stable and competitive until the end of 2018. Underwriters began talking about upcoming changes in 2019 due to underperforming books of business, restrictive treaty renewals, and representations to reinsurers to maintain treaty agreements. In the last quarter of 2018, several Lloyd's syndicates ceased writing property business due to underperforming and unsustainable books of business. 2019 will bring distinct rate and deductible increases, as well as a conservative approach with respect to certain coverage lines.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	No material change.	↔	Based on underwriter's approach in Q4 2018, performance of the book, coupled with harsher treaty renewals will result in rate increases.
Limits	↔	No material change.	↔	In natural catastrophe zones, capacity has been governed and could reduce. In general, capacity will be provided where term adequacy is deemed appropriate, where not, offered capacity will reduce or in certain cases will not be provided. However, it will still be necessary to obtain the needed capacity, therefore more underwriters will be required to complete the slip.
Deductible/Retentions	↔	For water damage other than flood, underwriters required increased deductibles in the range of CAD \$100,000.	↔	For certain perils/coverage, it is expected that deductibles will increase.
Coverage	↔	No material change; underwriters focused on specific coverages and insisted on certain wording amendments.	↔	Forms are almost exclusively manuscript. Underwriters are focusing on coverages/wording amendments requiring more referral. Coverage will be obtained but will cost more and deductibles will be higher.
Capacity/Appetite	↔	No material change. Mega-projects are attracting capacity with careful consideration for natural catastrophe exposures.	↔ ↓	Certain markets have exited large construction however there is still appetite dependent on adequacy of terms. One underwriter has reduced capacity by approximately 50%. However, their capacity is still of a magnitude that this has not impacted their ability to be a lead market.
Losses	↑	Based on underwriter's reactions and treaty renewal, loss frequency and severity have increased.	↔ ↑	This trend is unlikely to change unless companies institute risk mitigation/control measures. Thus, they will have to demonstrate and prove they are able to manage rate and deductible increases and obtain the cover required.

Liability | Primary Casualty

The local Canadian market remains stable, with underwriters competitive and no evidence of coverage withdrawals. However, there has been a shift in underwriter behavior as demand for underwriting information has increased and changes to wordings have become more rigid.

A distinct hardening has also been identified from the London market. Similar to the Canadian market, increased underwriter information is more frequently being requested while guidelines to change wordings have become more restrictive. A number of syndicates have reduced the capacity they will offer or withdrawn entirely from risks

whose rates they deem technically insufficient. This approach has been driven by underperforming books of business.

2019 will see more of the same, with rates and deductibles steadily increasing.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	London flux resulted in some book increases. Domestic markets generally held firm to their ratings, thus more of a 'correction' than increase when repatriated domestically.	↑	London flux has not worked its way through a full cycle yet. Also, some program corrections (MCAC/ACL Contractors) are being sought after a few years of deteriorating losses. The transitional market is expected to continue as domestic markets look for minimum inflationary increases.
Limits	↔ ↓	Balance is generally flat. Hot roofing and related risks are the only portions to see notable retraction of limits.	↔ ↓	Hot roofing is likely to continue. Snow removal became a London issue in the last quarter of 2018.
Deductible/Retentions	↔	Not a significant focus except for a few classes (roofers/snow removal contractors).	↔	Deductibles/retentions will not be a focus but will be a variable to work with.
Coverage	↔	No material change.	↔	No material change is expected.
Capacity/Appetite	↔ ↓	London flux resulted in the domestication of business. However, roofing appetite was not restrictive domestically but did result in some increased costs.	↔ ↓	General book is likely to remain unchanged from 2018. Specialty classes are likely to find further challenges as markets will be more reluctant to offer additional support or broaden their offering than what they do currently, which in some cases is already limited (i.e. roofing).
Losses	↔	General outcome for 2018 was respectful. On roofing however, some significant losses transpired keeping the focus on the class of business.	↔	No material change is expected.



Liability | Excess Casualty

2019 will see an increase in cost-per-million, driven by increasing underlying terms and underwriters requiring more technical pricing for the capital that they are putting up.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Less specialty classes - (roofers in particular) minimal to no changes transpired.	↔ ↑	Similar expectation to 2018, however, London capacity has started to increase from the past few years, which would have been historical lows.
Limits	↔	No material change	↔ ↓	Cost of London capacity (which was at a historical low) will likely be hard to replicate domestically. Clients may opt to reduce the higher end of limits to save on cost
Deductible/Retentions	↔	No material change. Excess layers normally static with standard SIR	↔	Same as 2018. No deviation in common SIR expected.
Coverage	↔	No material change.	↔	No material change is expected.
Capacity/Appetite	↔	No material change except for roofers.	↔	Capacity will be present, but London 'correction' may result in additional cost for the capacity domestically.
Losses	↔	No notable claims from our standpoint/understanding.	↔	No material change is expected.

Liability | Professional

Competitive pricing and broad coverage continues to be available for annual practice programmes due to positive loss experience and a competitive domestic market. However, poorly performing accounts and those focused on underperforming sectors have started to see less favourable renewable terms, facing both rate and retention increases. Most markets that have a developing claims tail or poor international performance have continued to see blanket rate increases, in addition to specific terms on poorly performing risks. The general slow shift in the construction space (which began earlier in the year) continues as domestic markets seek to expand their value proposition by embracing a multi-line approach to clients, resulting in fewer placements in the London market. This shift is more apparent in the project-specific space as opposed to the annual space.

Given challenging conditions in London during Q4 2018, this shift has insulated accounts from the more impactful underwriting changes in the London professional indemnity (PI) market. Domestic insurers continue to tighten up their approach to project-specific professional placements, seeking more underwriting information and more restrictive terms for projects, specifically increased retentions. Markets who would have traditionally taken advantage of this opportunity to gain market share are now more

hesitant. Lloyd's syndicates have indicated that they are looking for rate and retention increases and that they will be more selective in how they deploy their capital. This increases the need to work with domestic markets. The withdrawal of London syndicates providing design-build coverage to Canadian firms has created uncertainty, but most of the withdrawing syndicates are not key to the Canadian design-build business. Cladding is an issue for Canadian design professionals if their insurance provider is a London-based syndicate, but it isn't an issue for domestic carriers. Risks based in Quebec face reduced capacity due to their civil code.

"Lloyd's syndicates have indicated that they are looking for rate and retention increases and that they will be more selective in how they deploy their capital".



Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔ ↑	In relation to annual placements, rate increases were felt by risks with negative claims experience or those that operated in a negative claims environment. In relation to project-specific placements, rates increased.	↔ ↑	While competition may manage rate increases for clean risks in low-risk fields, pressure on rates is expected where the client has an active claims experience or is engaged in complex work. Increasing design/build work also is expected to draw rate. The market is expected to seek rates for large project-specific placements or projects in more challenging jurisdictions. Pressure is expected on annual placements where the markets have had a poor experience on project-specific risk.
Limits	↔	Clients are generally not seeking less or more limit unless driven by contract. However, less capacity is available in the market for complex risks, with broader than market standard coverage.	↔	Capacity is expected to be deployed more judiciously by London insurers in order to comply with the restrictions imposed by Lloyds and their treaty requirements. This is anticipated to result in less capacity available in London. Domestic capacity development will be key in 2019.
Deductible/Retentions	↑	More carriers pushed for higher retentions on annual programs, and minimum retentions on project-specific placements doubled. Increased retentions are not yielding significant savings, but rather facilitate the insurer's participation.	↑	Pressure on retentions is expected to continue increasing.
Coverage	↔ ↑	Coverage broadened as a result of expanding client contractual requirements, pressure from brokers, and increased insurer competition. Thus far, carriers are seeking to roll back coverage directly related to specific claims on a case by case basis. Further, some coverage enhancements, more routinely obtained for project-specific placements in Q1 of 2018, are now either not available at all or require additional underwriting information and scrutiny.	↔ ↑	No material change is expected for clean annual placements renewing with their incumbents. However, it is more difficult to get broader terms with those incumbents. Furthermore, tightening of terms offered for project-specific placements based on type of project, jurisdiction, and make-up of the design team, is expected.
Capacity/Appetite	↔ ↑	The US-led insurer entrants into the Canadian space, like Berkshire Hathaway, are more likely to quote and win business on complex risks as premiums fall more in line with their US-based pricing models and restrictive coverage. London insurers continue to provide solutions and innovations for clean, proven and preferred clients on annual placements, however they are more selective in how they deploy their capital and their enhanced cover. However, for routine risks, some markets have limited their capacity (ex QBE) or are derisking. There continues to be enough market appetite to meet overall requests through ACT, excess layers or a quota share approach.	↔	Capacity is expected to shrink and appetite to narrow over the course of 2019. With continued scrutiny by Lloyd's of the syndicates trading on that platform.
Losses	↔	Given the maturity of the projects, professional liability claims are more prevalent, regardless of delivery model.	↔	This trend is expected to continue.

Liability | Environmental

The environmental liability market in Canada continues to experience a soft market for straight-forward risks, yet specific market segments are experiencing a market hardening. This market hardening is driven by loss experience as well as first time underwrites of complex accounts that historically only purchased pollution exclusion exceptions under commercial general liability, such as complex transportation, oil and gas.

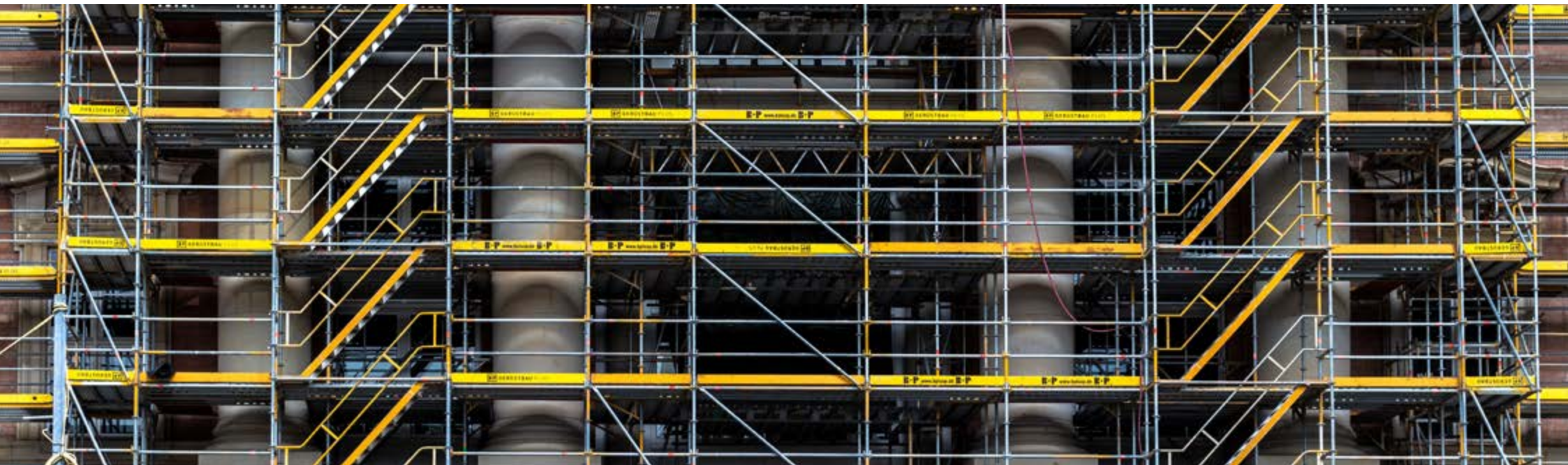
Real estate portfolios continue to experience market corrections due to historical losses with an increased awareness of redevelopment exposures or widespread mould exposures. Scrutiny is given to the scope and depth of environmental engineering due diligence performed in relation to the site use and redevelopment potential. 2018 also saw a reduction in term and capacity for complex brownfield transactions, reducing the overall number of markets interested in complex underwriting with a ten-year term.

Contractors' environmental liability continues to be a competitive marketplace with ample capacity and strong coverage available. Although there has been an increase in loss frequency with several large losses, the industry continues to be profitable with few shortcomings. Policies continue to evolve to provide more comprehensive risk transfer and the Canadian marketplace continues to mature.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Insurers are offering renewals flat. Any rate increase becomes an opportunity for market competition.	↔	The market is expected to attempt to get rate but will remain unsuccessful due to the abundance of supply with limited demand.
Limits	↔	Overall policy limits remained stable in 2018.	↔	Specific loss riddled segments will be subject to steep market corrections and minimum premiums.
Deductible/Retentions	↔	For the most part, deductibles remain low. Specific segments have seen a minimum deductible shift or creative deductibles to address specific issues.	↔	The majority of the market will remain unchanged in terms of limits offering.
Coverage	↔	Broad coverage was provided in 2018.	↔	Specific loss riddled segments will be subject to maximum limits of CAD \$10 million.
Capacity/Appetite	↔	Insurers remain aggressive in most segments of environmental risks.	↔	This trend is expected to continue.
Losses	↔	Losses have remained consistent with prior years in terms of severity. There has been a slight increase in frequency.	↔	Continued development of policy forms addressing emerging regulatory liability is expected.

Surety

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Soft pricing market reflecting many years of profitable underwriting in surety.	↔	Some firming up of prices is expected as surety reinsurers try to recover losses paid in 2018, but overall flat pricing for better credits.
Limits	↔	Surety capacity has grown over previous decades and remains strong.	↔	Capacity for good risks will remain strong, but for marginal risks expect some tightening.
Deductible/Retentions		N/A		N/A
Coverage	↑	Surety product continues to expand, replacing bank letter of credits and responding to contractor needs.	↑	This trend is expected to continue.
Capacity/Appetite	↔	See comments on limits.	↔	See comments on limits.
Losses	↑	Significant surety losses in 2018 as a result of major contractor insolvencies in Canada and internationally.	↑	Potential for additional material losses in Canada and globally in 2019 as some major contractors are currently in distress or poor financial condition.



Surety | Subcontractor Default Insurance

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	Upward pressure on rates due to claims activity, especially in Canada. Additional capacity coming to the marketplace is not increasing rate competitiveness as new entrants are using higher rates compared to market incumbents.	↑	Further capacity in the marketplace is not expected to offset the upward rate trajectory. Project and subcontractor size inflation is also a contributor, along with claims activity.
Limits	↔	Some realignment of limits seen in 2018, however overall, clients are maintaining limits. Large programs with dedicated / contingent limit requirements are seeing capacity shortfalls.	↔	Additional carriers have entered the marketplace, however limits offered are not expected to increase in 2019.
Deductible/Retentions	↑	Clients have elected to increase retentions to ease the pressure of the rate increase. Those with poor loss experience or low deductibles are seeing increases in aggregate retention.	↑	Continued upward pressure in retentions in response to loss history, as well as project and subcontract size inflation is expected. More variability in co-pay options is helping to mitigate dollar-one retention increases.
Coverage	↓	Coverage variability becoming increasingly relevant with new carriers differing in policy language. Challenges in covering long duration, large subcontracts, for-sale residential, and specific subtrade scopes are common across all carriers.	↓	Continued challenges and coverage reductions expected to materialise through 2019 including remote work and institutional P3 contracts.
Capacity/Appetite	↔	New capacity continues to enter the marketplace, as existing capacity is seen to be limited in its scope. However, risk appetite continues to be a challenge.	↔	While the overall SDI marketplace is seeing an increase in capacity, this is not expected to translate to Canada until at least 2020. Due to the loss history and reinsurer exposure, risk appetite will be the most significant challenge in the Canadian SDI marketplace going forward. Capacity for project-specific limits will also continue to be limited.
Losses	↑	Claim frequency has not reduced from previous cycles and has also been met with severity.	↔	Overheating in the Toronto and Vancouver marketplace combined with an economic contraction in Alberta leave contractors vulnerable to subcontractor defaults. Continued emphasis on strong prequalification and operational controls will assist with managing claims activity downward.

Reinsurance



Property catastrophe

While few catastrophe losses affected reinsurance programmes in 2018, incurred losses on 2016's Fort McMurray loss event continue to influence outcomes as many layers and some programmes

still remain in a loss position. In addition, Canada experienced an unusually high frequency of smaller catastrophic losses in eastern Canada with cedents retaining the bulk of these losses, leading to upward pressure on bottom layers of programmes and an increased interest in aggregate covers.

The renewal season was late this year, with reinsurers' workload condensed. The consensus pricing target appeared to be risk-adjusted flat pricing, with any reductions facing significant scrutiny. While excess capacity remains, some reinsurers reduced capacity, driven mainly by pricing but also due to the inclusion of legalised cannabis business, and in some cases, other more esoteric exposures. Portfolios containing US or Caribbean exposure, however small, continued to garner special attention.

The balance of licensed and international (non-licensed) capacity largely remained unchanged. Generally, programmes were renewed at risk-adjusted flat with some programs justifying slight reductions, and outcomes varied depending on capacity needs, loss history and expiring authorisations.



Property per risk

The trend of increased frequency in large losses over the past few years continued in 2018, with the bottom layers of many per risk programmes impacted by loss activity. Canadian per risk

programmes have been viewed by the market as unprofitable for several years and therefore were under the most scrutiny for the January 1, 2019 reinsurance renewals. Reinsurance layers with ceded losses saw increases in rate driven largely by experience, rather than due to a fundamental change in reinsurance pricing. Even layers without loss experience were reviewed closely, particularly by London markets, who were expecting a renewal at no worse than expiring margins. While generally limits and retentions remained stable for January 1, 2019, there were a small number of cedents that traded increased net risk retention for a reduced reinsurance spend.



Motor and casualty

Two main drivers of Canadian casualty exposures remain Ontario and Alberta auto, which continue to experience poor primary results. However, as most Canadian casualty programmes

are excess of loss, there have been few claims that affected reinsurers. Layers that have experienced losses (beyond the reinsurers' expectations) saw increases based on that experience. However, with limited loss activity, small decreases in rate were the norm. Limits and retentions were largely stable, and capacity remained abundant.

EMEA

Outside London, the European CAR / EAR market trend has reached the bottom of the cycle, however capacity shrinkage from London has not yet impacted mainland Europe. Markets have a more conservative approach to complex risk (natural catastrophe-exposed, major tunnelling /wet works, major DSU exposure) and require better quality underwriting information to justify competitive terms. As a result, response times are increasing. Loss ratios are also worsening, both in frequency - with attritional losses due to low retentions - as well as in size, as they are becoming larger and more frequent (most of them related to natural catastrophe or design-related issues).

Analysis by country

Benelux (Belgium, Netherlands, and Luxembourg)

Since 2016 Benelux construction carriers (Zurich, XL, Delta Lloyd, Amlin and Sompo) have stopped underwriting CAR/EAR due to poor results. Since then, new carriers have taken the lead, however capacity available remains limited with retentions and rates still increasing. Participation of carriers on any given risk is also decreasing.

France

There is strong market appetite in France. CAR/EAR capacity remains high and competitive for both domestic and international projects. Although concerns exist regarding catastrophe exposures, coverage and levels of deductibles remain unchanged with no restrictions seen. There are less combined CAR and dommages ouvrage (latent defects) policies, particularly for major projects, where it is more cost effective to market these products separately. AGCS, AXA XL and Zurich remain the most significant markets, writing both CAR/EAR and D&O. HDI and Generali also rank as top CAR/EAR markets, while SMABTP is another main market for DO (Dommages Ouvrage).

Germany

The German market and premium levels are stable, with carriers offering high levels of capacity with wide coverage. There have been several new carriers entering the German market recently, including Liberty Mutual, Berkshire Hathaway and StarrCompanies. Meanwhile, others, such as AIG, Mapfre and Amlin, have pulled out. The impact of the merge between AXA Corporate Solutions and XL Catlin, two important players in the German construction, has not yet been felt.

Ireland

Ireland is heavily reliant on London for medium to large projects, while a number of local markets (Aviva, Berkshire Hathaway and RSA) are offering competitive deals on smaller, more specific development projects, including real estate and renewables. Otherwise, the UK market outlook applies to Ireland when referring to standalone builder's risk policies. Due to the litigious nature of the legal system in Ireland, many carriers are reluctant to automatically add primary third-party risks to a single project placement.



Italy

2018 was a difficult year for the construction sector in Italy. Several contractors suffered financial troubles, which impacted market premium volume. The first half of the year is expected to experience soft market conditions; however, some markets are anticipated to pull out of certain construction lines in the second half of the year. Currently, Generali, HDI Global, Unipol, Swiss Re, Zurich, AGCS, Reale Mutua and Helvetia are Italy's main CAR/EAR markets.

Norway

Norway is predominantly relying on regional Nordic markets for construction risks, which tend to be more competitive than international markets for Norwegian risks. Top markets include If, Gjensidige, Tryg and Zurich. Several of the market leaders have significant treaty capacity and a preference for large lines of cover – often 100% (particularly for contractor programs). Other signifiers include low retention levels and insurer wordings, although principals take a more international approach.

Portugal

Portugal's construction capacity remains very limited. Local and international markets based in Portugal have traditionally had limited underwriting capacity, available really only for residential and tourism risks. Fidelidade is the most supportive market to local contractors both through direct and reinsurance capacity. For large and/or international projects, Spanish, French, and other European markets provide capacity to Portuguese contractors.

Poland

The Polish market is relatively stable and competitive. There are no new incomers and the market is still dominated by less than ten insurers. The capacity available is large, however there are some limitations in coverage and rates have reached the bottom of the cycle. If there is no Polish interest in an investment, then it is not possible to bind coverage with Polish insurers outside the country. Foreign markets can be used to provide the coverage whenever more complex risks are involved – such as for hydroengineering projects.

Spain

In Spain, some key markets have reduced their appetite. This has not impacted overall capacity and pricing which remains high and competitive. Furthermore, Berkshire Hathaway entered the market in 2019, which may offset reduced capacity from other carriers. Given the large construction output of Spanish contractors and their long-standing international footprint, carriers have gained substantial experience with heavy civil works and worldwide international placements. This has helped Spanish carriers increase their local underwriting capacity and become the benchmark for Europe outside London.

Turkey

The Turkish insurance market remains competitive on CAR/EAR business if the project size and complexity fall into the local carriers' scope and capabilities. The downsizing of global construction reinsurance capacity, which includes London-based capacity shrinkage and the financial crisis on certain regional carriers (such as Trust Re), negatively affected Turkish construction business. Moreover, some local mega-projects are facing suspensions and project management is focused on dealing with issues arising from this situation. Not all local mega-projects are facing suspensions however, as there are some critical projects that are commencing where the reinsurance need remains.

Property | Builder's Risk, CAR, EAR

Q4 2018 saw a significant contraction in the London construction market precipitated by a number of Lloyd's syndicates putting their construction portfolios into run-off. Additionally, there have been several company markets that have followed suit, with prominent markets such as Zurich, declaring that they will be operating with a reduced appetite going forward. The immediate fallout has not been significant, but there has been a modest increase in premium rates. 2019 is expected to bring further change, with speculation

that there are more insurers putting their respective accounts into run-off following several years of poor underwriting results. This will undoubtedly lead to a more profound change in market conditions.

Outside London, the European CAR/EAR market has reached the bottom of the cycle, but capacity shrinkage from London has not yet fully impacted mainland Europe. In general, markets have a more conservative approach to complex risk (natural catastrophe-exposed, major tunnelling/wet works,

major DSU exposure) and require more quality underwriting information to justify competitive terms. As a result, response times are increasing. Generally, loss ratios are worsening both in frequency - due to attritional losses (due to low retentions), but also the size of losses is becoming larger and more frequent (most of them related to natural catastrophe or design-related issues).

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔ ↑	Flat to 10% increase.	↔ ↑	Further increases anticipated as the contracting market begins to make an impact.
Limits	↔	Full value limits still generally available.	↔	Full value limits are expected to continue to be available.
Deductible/Retentions	↔	Steady position.	↔	No material change expected – there may be a push for these to increase in some areas (particularly DSU waiting periods).
Coverage	↔	No major developments, although hydropower projects are coming under close scrutiny and are likely to be subject to coverage restrictions.	↔	No material change expected.
Capacity/Appetite	↔	Recent market withdrawals are estimated to have resulted in a loss of approximately USD \$400 million of market capacity (EML basis).	↔	Further market withdrawals are estimated to have resulted in a loss of approximately USD \$100 million of market capacity (EML basis).
Losses	↑	The market has suffered heavy losses recently from hydropower projects and this has been a major factor in driving market change.	↑	The market has suffered further heavy losses from hydropower projects and UK construction losses. Attritional losses continue to have an impact.

Liability | Primary and Excess Casualty

A sizeable proportion of the Aon portfolio in London is placed within the Lloyd's market. Through the engagement of 24 syndicates, a strong competitive offering to international (non-US) construction liability risks has been built. During Q2 of 2018, Lloyd's analyzed all syndicate results and plans, and has encouraged certain changes within the portfolios of the syndicates where results are poor. This, in turn, has led to a contraction of premium income limits on the syndicate. This contraction of income has led underwriters to have less interest in growth and place greater emphasis

on the continuation of a profitable portfolio, particularly in long tail liability areas.

Underwriting management is seeking to eliminate any technical rate reductions in the process – any increase in exposure must have a reflective increase in pricing, not necessarily an increase in the equivalent rate. Because single projects do not carry the same loss experience, underwriters have been reflecting on their portfolio to derive a view of benchmarking, rate and adequacy.

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Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔ ↑	Flat to 5% increase. Increase in exposure reflected in increased premium. Equivalent rates (flat to a 5%) increase on like for like basis.	↔ ↑	No material change expected with possibly a wider drive to achieve this and the market achieving momentum on the issue.
Limits	↔	Capacity unchanged albeit market combinations such as Liberty and Ironshore, AXA and XL Catlin may have a longer effect.	↔	Same position with sufficient capacity for limits. Perhaps some pressure on excess layer pricing to increase if the rate per million and project length are felt out of balance.
Deductible/Retentions	↔	Steady position with no drive for wholesale change. Focus on key issues such as torch-on roofing, water damage, worker-to-worker injury/subrogation.	↔	No material change expected.
Coverage	↔ ↓	Focus on completed operations periods and ratio to original contract length. Some moves to restrict comp ops periods. Market very focussed to avoid PI/financial loss being packaged into GL. Torch-on roofing is continuing to be a focal point and redraft of hot work conditions and warranties. Rip and tear extensions under scrutiny.	↔ ↓	No material change expected.
Capacity/Appetite	↔	Steady as per the above comments.	↔	Steady as per the above comments.
Losses		Continuing concern over escalation of claims costs in general and the key areas mentioned above.		

Liability | Environmental

The environmental liability marketplace in Europe remains a buyer's market with ample capacity and appetite. The range of businesses that require and purchase environmental liability remains a wide spectrum, whereas few contractors purchase contractor's environmental liability (CEL) unless required for a specific project.

Generally, premiums for renewals can be discounted where the incumbent market wants to renew. At best, these discounts are around 5-10% and can still be under pressure for annual straight-forward risks. Complex, multinational and/or longer-term risks with historical cover is less competitive and is proving more about the individual market's appetite and underwriting

model as applied to the insured entities – note the way that models work means that some insurers will rate the same industry potentially quite differently.

The transaction market is more limited, based around longer-term historical pollution policies, especially outside the London market, and is also a potentially significant opportunity.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Insurers are offering renewals at a slight reduction. Any rate increase becomes an opportunity for market competition. Pricing is still dependent on the nature of the risk and the market appetite.	↔	The market is expected to attempt to get rate but will remain unsuccessful due to the abundance of supply with limited demand. No new markets are expected. Specific loss riddled segments will be subject to steep market corrections and minimum premiums.
Limits	↔	Overall policy limits remained stable in 2018.	↔	The majority of the markets will remain unchanged in terms of limits offering. Specific loss riddled segments will be subject to maximum limits of USD \$10 million.
Deductible/Retentions	↔	For the most part, deductibles remain low. Specific segments have seen a minimum deductible shift or creative deductibles to address specific issues.	↔	This trend is expected to continue in 2019.
Coverage	↔	Broad coverage was provided in 2018 and it continued to be negotiated on a risk-by-risk basis depending on what was being written.	↔	Development of policy forms addressing emerging regulatory liability is expected to continue.
Capacity/Appetite	↔ ↑	Insurers remain aggressive in most segments of environmental risks. Overall capacity increased around 70% in 3 years due to new entrants for policy periods of 3 years or less.	↔	Capacity and appetite from insurers are expected to remain similar. Specific loss riddled segments will continue to experience appetite change.
Losses	↔	Losses remain representative of prior experience. They are not widely reported by the markets however the number of losses has increased in line with a greater number of live policies with most losses being in the range \$250,000-\$1 million as a result of operational failures.	↔ ↑	Environmental losses are expected to remain consistent with prior experience. Loss direction likely to continue – with more mid-range losses interspersed with higher loss incidents and more discussion over which policy/policies should or could pay.

Liability | Professional

Europe and Africa

Lloyd's has underperformed financially in recent years and is focused on unprofitable underwriting. The market has sent a clear message that poorly performing areas must demonstrate a route back to profitability, or close. Non-US professional indemnity (PI) is the second worst performing class of business at Lloyd's and is facing commercial and regulatory scrutiny. This situation has been exacerbated by increased claims activity both in terms of the number and quantum of claims.

The European market is hardening, but not at the same pace as London. Incumbent carriers are more conservative, while challengers are more aggressive. While each country is different, the retail outlook is generally stronger, than the strict underwriting technical outlook applied to the lens of the wholesale market. Also, international carriers tend to be more or less aggressive depending on the region they are considering for a project. Premium/rates for corporate programs are generally remaining flat. The outlook is different for single project policies versus large projects, where there are increases in premium and retention. This is in part due to support from London being required on large projects. Project specific complexity is a factor, and demanding requirements (such as cross liability endorsement) or a very extended reporting period (such as 12 years) are difficult to obtain.



"Non-US professional indemnity (PI) is the second worst performing class of business at Lloyd's and is facing commercial and regulatory scrutiny."

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	There is no unified stance however, on average insurers are pushing for around a 10% rate on primary layers and 10-20% on lean excess layers.	↑	Insurers are more regularly reviewing their portfolio and looking to optimise where they use their capacity. Individual risks will be judged on their own merits, which may lead to specific layers of a program being remarketed, resulting in substantial amounts of capacity needing to be replaced potentially at higher increases.
Limits	↔	Insureds are maintaining their limits at this point. Insurers are not offering reinstatements unless higher limits are purchased. A fallback position is to restrict reinstatement to where it is contractually required.	↔ ↓	The ability to purchase large limits is still possible, but new excess layers could be relatively expensive to the underlying given the current market conditions.
Deductible/Retentions	↑	Insurers are looking to increase deductible levels, especially where these have not kept pace with turnover/ fee growth of firms at previous renewals.	↑	This trend is expected to continue.
Coverage	↓	Limitations regarding the following have been tabled: <ul style="list-style-type: none"> • Fire safety/cladding claims being limited • Unlimited reinstatements being removed 	↓	Potential tightening mitigation cover, deletion of Fitness for Purpose cover. Some insurers wish to define cyber/tech risks within PI policies rather than just rely on professional negligence. There have even been limited occasions where a cyber exclusion has been imposed.
Capacity/Appetite	↓	In addition to insurers closing their doors in 2017 and 2018, Chaucer Syndicate also ceased writing international PI. Long-standing insurers for international PI are limiting their max line to GBP £2 million-GBP £2.5 million which will have a general reduction in available capacity.	↓	Insurers are expected to continue being selective. There is still circa 7-8 months to go before insurers have gone through a full annual renewal cycle since the fallout from Lloyd's scrutiny of international PI in summer 2018 was widely known/ acted upon.
Losses	↑	The market is still experiencing deterioration from insurers' back years.	↔	This trend is expected to continue.

Liability | Professional

Middle East

There are differences between local insurers and international reinsurers. The local offering will continue to be competitive, with Dubai reinsurers stabilising, whereas the London market - where the majority of international reinsurers are based - is firming.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↓	Rate change between -20% to -50%. Increased appetite of local and regional re/insurers has further pushed the continued downward pressure on rates. International reinsurers are failing to win large projects but happy to 'wait it out'.	↓	Rate change expected to be between -5% to -10%.
Limits	↔	Generally, there is a lack of understanding on sensible limits to purchase. Limits purchased are typically driven by contractual conditions.	↔	Continued competitive appetite of local insurers, with regional re/insurers stabilising rates. International reinsurers continue to 'wait it out'.
Deductible/Retentions	↔ ↑	Re/insurers are continually pressurised to offer lower retentions whilst reducing premiums at the same time.	↔ ↑	Large projects are few and far between, but still a lack of understanding on sensible limits to purchase. Limits purchased are typically driven by contractual conditions.
Coverage	↔	Whilst some owners are becoming more educated, the general understanding still allows for 'basic' cover to be the norm. Local re/insurers are starting to offer London based annual wordings for SPPI placements.	↔	This trend is expected to continue.
Capacity/Appetite	↔ ↑	No new re/insurers are expected with plenty of capacity available due to many projects big and small on hold or even cancelled.	↔ ↓	The trend is expected to continue.
Losses	↔	No material change.	↔	The loss of Trust Re due to downgrading could see an effect as they were one of the more competitive markets. Lesser competition may see rates stabilise a little. With the hardening of the international reinsurers, capacity is diminishing overall.

Surety

It is expected that Brexit will have some impact on the state of the market in EMEA. Markets have looked to protect their respective positions by setting up registered addresses in Europe to enable them to continue to trade, but it remains to be seen whether this will contribute to any change in pricing or capacity. There have been numerous discussions with clients expressing their concerns over potential capacity in the event that their guarantee requirements increase, but as things stand, it appears that the surety market will continue to accommodate.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔ ↓	Depending upon the company and sector we've seen some of our markets look to lower their pricing for strong credit risks and increase ratings for those companies that have perhaps suffered a financial downturn in order to protect their position.	↔ ↓	The market is expected to remain soft for investment-grade businesses and continue to take a view on others.
Limits	↔	Sureties have been willing to offer considerable capacity.	↔	More of the same is expected with perhaps wider risk sharing between the sureties to protect their positions from competitors/ banks.
Deductible/Retentions		N/A		N/A
Coverage	↔	Coverage remained constant i.e. on-demand wordings are generally only issued for those clients that meet a certain financial standing	↔	This trend is expected to continue.
Capacity/Appetite	↔ ↑	The UK has remained fairly static (one new small addition) but a number of moves in Europe could see several sureties becoming more competitive with one another. Sureties are continuing to diversify their portfolios and are growing increasingly interested in commercial surety.	↔ ↑	With another new entrant into the UK surety market, the capacity available is anticipated to continue increasing.
Losses		The effects of Carillion are believed to be fully established by those most heavily impacted – both sureties and subcontractors. However, there were a number of other smaller insolvencies at the back end of the year.		Whilst several companies have already been hit (on the back of Carillion), there's speculation around a number of the other major construction companies which could have a further significant impact.

Surety | Subcontractor Default Insurance

The surety market for SDI is limited (outside of North America) primarily due to different performance security coverage and cost structures, which are generally unfavorable to the introduction of SDI. The limited amount of SDI underwriting and risk engineering expertise and its concentration in North America also makes market expansion difficult.

Aon is currently handling the sole SDI program in the UK for a large commercial buildings contractor, after the incumbent carrier exited the market three years ago. Coverage and rate remain competitive compared to North American programmes, with the programme subject to similar market pressures.


Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	Upward pressure on rates due to legacy and new claims activity. The subcontractor environment is threatened with Brexit related labor disruptions.	↑	Continued upward pressure is expected as credit in the construction space specifically continues to deteriorate.
Limits	↓	While demand for limits is stable, carriers have sought to insulate themselves from certain losses by imposing lower sublimits.	↔	No further changes anticipated.
Deductible/Retentions	↑	Losses and perceptions of a higher risk environment have driven carriers to impose higher retentions. Insureds have seen this trade-off into easing pressure of rate increase.	↔	While subcontractor size may drive retention inflation higher, primary layer retentions are not expected to increase. Insured may see options for higher and taller co-pay towers.
Coverage	↓	Coverage continues to narrow as carrier loss experience increases, and policy forms and endorsements evolve.	↓	Unless the marketplace in the UK and Europe widens, coverage will continue to contract.
Capacity/Appetite	↔	Limited demand for the product has throttled appetite to enter the marketplace.	↑	Options exist, and carriers are willing to deploy capacity for the right opportunities.
Losses	↔	Claim frequency and severity has tapered off but continues to crop up – especially within soft/indirect costs.	↔	No change is expected. Prime contracts with liquidated damage exposure and aggressive schedules will continue to drive soft cost losses stemming from subcontractor default.

UNITED STATES

Property | Builder's Risk

Although 2018 was a relatively mild year in terms of aggregate catastrophe losses, the global market for builder's risk and related first party placements has reached the bottom. While California wildfires and Hurricane Michael made national news, builder's risk losses incurred were not material, and carriers are holding the line on rates for new projects. Despite this market flattening, six carriers in the London market have ceased underwriting construction property risks. While adequate global capacity remains, some trends are clearly emerging: (1) a requirement for detailed advanced underwriting/exposure information, (2) greater scrutiny and analysis for projects exposed to flood, named windstorm and earthquake, (3) challenges for projects with enhanced terms and conditions, (4) frame projects are difficult with respect to fire losses.





Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	Insurance capacity is at an all-time high. Healthy competition has resulted in favorable rates and coverage enhancements for many insureds in order to differentiate their offerings.	↑	Pricing has leveled off and market segments and classes of business have experienced increases. Cat exposed risks, especially <i>named windstorm</i> are seeing increases in rate and deductibles.
Limits	↔	Capacity continues to increase in select areas of the market.	↔	Adequate capacity remains in the market and is not expected to experience any material reduction.
Deductible/Retentions	↑	Generally, deductibles are remaining stable. The exceptions are high areas of concentration of values for named windstorm and earthquake.	↑	There is pressure on increasing deductibles due to catastrophe losses. Maximums or aggregates are not generally available in the current market.
Coverage	↔	Scope, quality of coverage terms, and conditions remain stable.	↔	Scope, quality of coverage terms, and conditions remain stable.
Capacity/Appetite	↑	National contractors with non-“catastrophe” exposures will continue to see competitive options. The severe losses experienced in frame construction however, continues to impose higher than previously seen rates and deductibles.	↓	In the past several months, several markets in the London market have ceased underwriting construction risks. While not material in the overall market, there has been a trend of carriers managing their capacity and limiting their exposures especially with respect to catastrophe perils.
Losses	↑	Frame construction continues to be the loss leader for the market. This includes fire and water damage claims. 2018 had few (in number and severity) natural catastrophe losses however, markets are more closely underwriting exposed risks.	↔	Apart from the two named storms in 2019, the market has not sustained material losses. The storms and California wildfires primarily impacted the personal lines sector of the market.



Liability | Casualty

The domestic market for primary construction risks remained stable and competitive through 2018. However, several unfavorable trends first spotted in 2017, continued to develop through 2018, and have now resulted in market hardening in certain segments in the early part of 2019. Construction segments that are experiencing the hardening include, but are not limited to, residential, accounts with wildfire exposure, and heavy fleet exposure.

Conversely, underwriters have demonstrated their continued willingness to compete aggressively for risks with exemplary loss history and strong safety culture. This is particularly true of larger risks that recognise the long-term value of retaining expected losses.

In early 2019, underwriters have been taking a firm stance on risks with adverse loss history by insisting on higher deductibles/retentions to manage frequency of severity.

Rate increases, which had been relatively modest in 2018, even on adverse risks, have become larger in early 2019 renewals. These rate increases have been unexpectedly high on risks with severe exposure (noted above) such as New York Labor, large auto fleets with deteriorating frequency of severity and wildfire.

Excess Casualty

Broadly, the competitive market for both lead and high excess layers continued in 2018. Now, in early 2019 we are in a unique hardening market

impacting primarily the lead excess position. Lead layer underwriters that currently have \$25m positions are making it clear that they prefer to reduce the lead exposure to \$15m or \$10m at renewal. Further, they have been successful in retaining most of the expiring premium at a reduced limit. Lead underwriters are also insisting on higher attachment points to avoid increasing frequency of severity. The reinsurance market, which our lead excess partners are utilizing more frequently, is contributing to the market change even higher rate increases and tighter capacity. This reaction by reinsurers suggests that the hard market trend will continue through 2019. High excess underwriters are also getting rate increases, but those increases are much more modest than what is seen in the lead space. Another market concern is capacity for some of the high hazard exposure such as wildfire, that is resulting of consideration into alternative program structures for this exposure

This hardening of the market is not as prevalent in new commercial project specific placements that are in a favorable jurisdiction. Certain markets are increasingly interested in creating integrated programmes characterised by multiple first and third-party coverage programmes and significant fronting of primary and excess layers.

Additionally, construction defect, wildfire and auto losses in the excess layers are resulting in more impactful rate increases along with restricted appetite.



Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔ ↓	Data indicates a continued return to favorable market conditions with rate compression. The residential excess and surplus lines marketplace is softening, but admitted insurers continue to avoid this segment.	↓	Market competition and capacity remain abundant, however, the deterioration of the auto market and New York's vertical construction environment will continue to challenge underwriting results.
Limits	↔	Clients are maintaining limits purchased.	↔	Clients are evaluating the purchase of higher primary limits and evaluating industry loss trends to determine appropriateness of limits. Costs are often limiting those looking to purchase higher limits.
Deductible/Retentions	↔	Most clients have maintained their deductible/retention levels as insurers have remained firm on retention levels.	↔	Deductibles remain stable with the exception of accounts with poor auto loss history or with New York Labor Law exposure.
Coverage	↔ ↑	Reasonable coverage and program design enhancements are expected to be available as insurers put a greater emphasis on managing their risk aggregation on a potential single loss scenario.	↔	Coverage remains to be the centre of negotiations for contractors and the constantly changing laws. No significant changes in coverage offerings by the carriers, however, noticeable focus on the underlying general liability terms by the excess markets.
Capacity/Appetite	↔	Excess casualty capacity remains at a record high. This trend is expected to continue.	↓	Market competition and capacity remain abundant, however, the deterioration of the auto market and New York's vertical construction environment will continue to challenge underwriting results.
Losses	↑	Due to a frequency of high severity in the automobile line insurers are focusing on carefully underwriting large fleets and may put pressure on insureds to raise attachment points.	↓	Due to a frequency of high severity in the automobile line, insurers are focusing on carefully underwriting large fleets and may put pressure on insureds to raise attachment points.

Liability | Environmental

Aon clients continue to benefit from favourable conditions in the environmental market, with broad forms of coverage and competitive pricing available. Total US market capacity has increased to over USD 500 million. With the entry of more London markets for certain environmental product lines, global capacity now exceeds USD 600 million.

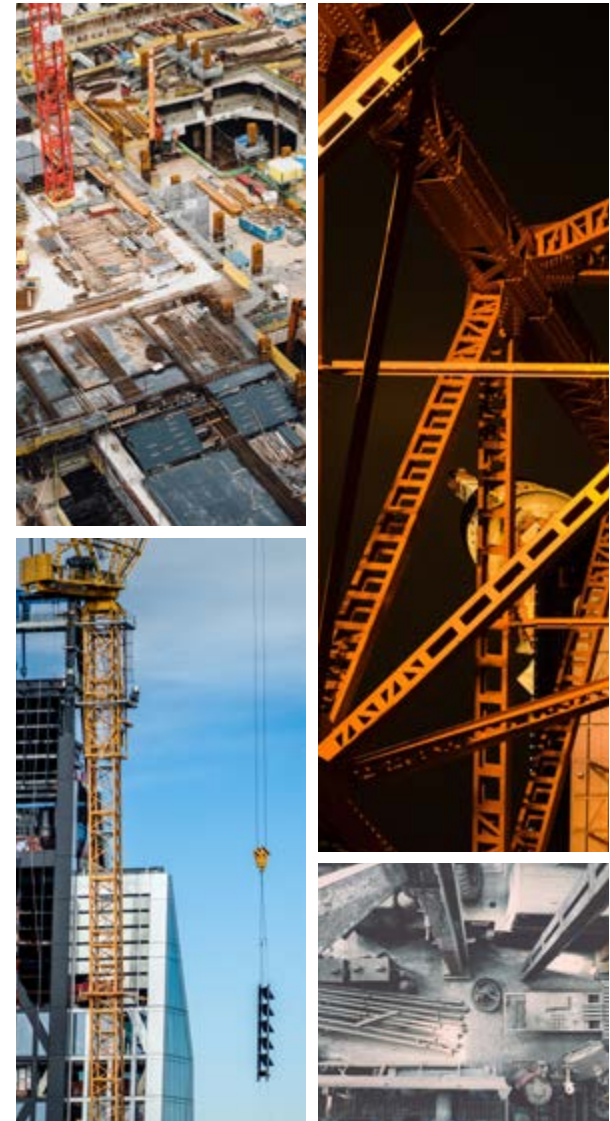
Rates and policy term lengths are tightening somewhat for site-specific environmental coverages, particularly for programmes offered on development properties impacted by historic industrial operations. There continue to be increases in pricing and underwriter scrutiny among insurers underwriting both development sites and large portfolio programmes that include properties and projects slated for development. Such scrutiny is resulting in coverage restrictions like voluntary site investigation and capital improvement exclusions, with some carriers declining to quote development projects altogether.

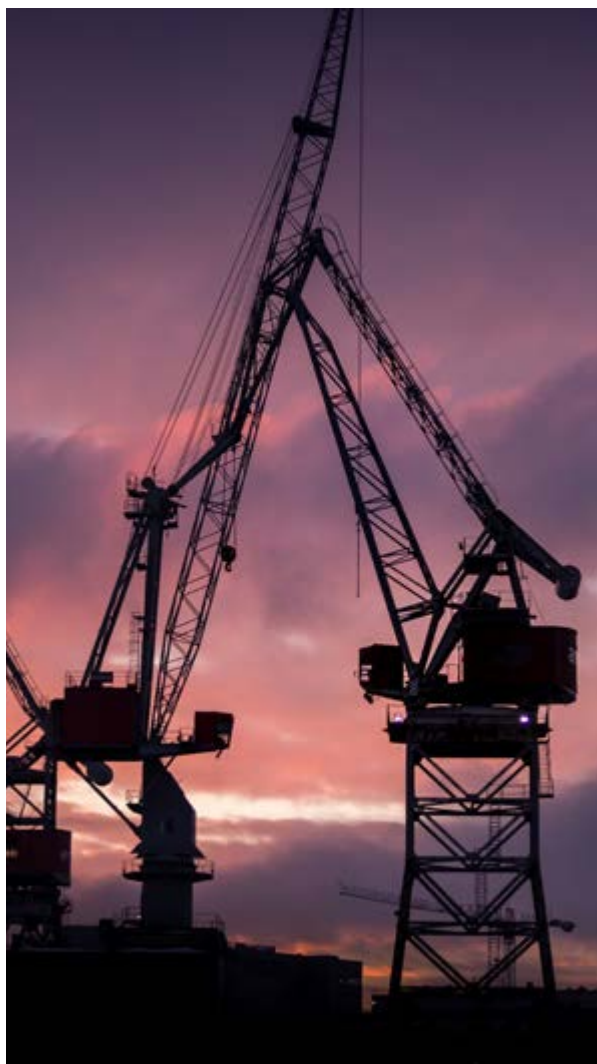
PFAS and PFOS (per- and polyfluoroalkyl substances) continue to be an emerging contamination issue, especially at military base closures. No formal federal or state maximum

contaminant levels have been established, however substantial research efforts are underway for their development. PFAS/PFOS are a widely used class of chemical compounds which have been linked to adverse health effects for humans and the environment.

Carriers have begun to implement PFAS/PFOS exclusions for sites with high historic use – particularly at airports and military bases who used PFAS-containing firefighting foam. Further tightening of the markets on this topic is expected, especially as PFAS/PFOS is anticipated to continue to capture the attention of mainstream media. Efforts with both clients and carriers have been made to navigate this rapidly developing issue.

Rates for contractor's pollution liability coverage remain competitive for activities ranging from general and trade contracting to participation on large infrastructure projects being delivered through public-private partnership and integrated delivery programmes.





Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Insurers are offering renewals flat. Any rate increase becomes an opportunity for market competition.	↔	TPricing trends have been stable for the past few years.
Limits	↔	Overall policy limits remained stable in 2018.	↑	Limits are responsive to insured's needs.
Deductible/Retentions	↔	For the most part, deductibles remain low. Specific segments have seen a minimum deductible shift or creative deductibles to address specific issues.	↑	Retentions are responsive to insured's needs.
Coverage	↔	Broad coverage was provided in 2018.	↔ ↑	Insureds continue to benefit from favorable conditions in the environmental marketplace, with broad coverage and competitive pricing available.
Capacity/Appetite	↔	Insurers remain aggressive in most segments of environmental risks.	↔	Total US market capacity has increased to over USD \$500 million. With the entry of more London markets to environmental risk, global capacity from certain environmental product lines reaches higher than USD \$600 million.
Losses	↔	Losses have remained consistent with prior years in terms of severity. There has been a slight increase in frequency.	↔	Claims on contractor's pollution liability policies have not been as frequent or severe as the site-specific environmental lines but do continue. Mould remains a particular concern on certain residential risks for third party bodily injury claims and for commercial risks. Especially within the hospitality industry, cleanup and business interruption losses have been <u>more frequent and costly</u> .

Liability | Professional

2018 has seen no new entrants into the construction professional liability market, as well as consolidation following insurer mergers. Poor underwriting results are driving insurers' decisions, with five insurers withdrawing from underwriting architects and engineers in the US. The firming occurring in the Lloyd's market, where certain insurers have pulled out of construction professional liability altogether or reduced their appetite for certain risks, may have an indirect effect on certain risks with global exposures or insurers

that are reliant upon reinsurance from certain carriers. Mergers and acquisitions (M&A) activity in the architects and engineers (A&E) industry continue unabated. This reduction of premium places pressure on insurer loss ratios and adds further impetus for price increases in the US A&E space, particularly on primary policies, although excess layer capacity remains plentiful.

The professional liability market for contractors remains generally stable for both annual practice and project-specific policies. However, there

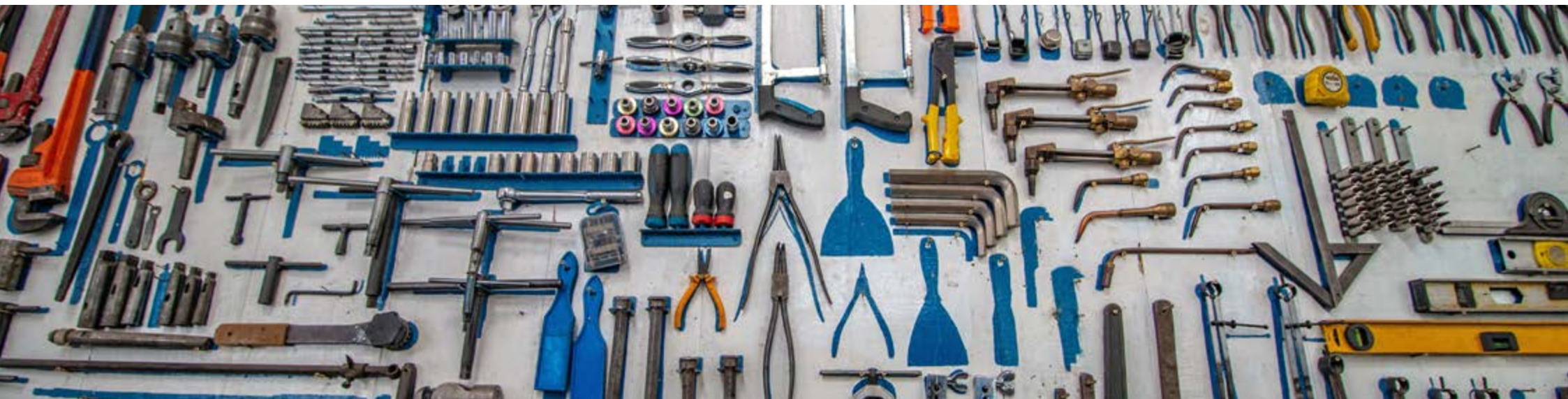
are early signs that the struggling A&E market is now bleeding over to the contractor's space. Construction professional liability losses are significant in terms of both number and quantum, which has made some insurers' portfolios unsustainable. Professional liability claims have been in the form of both damages as well as considerable legal costs in defending claims. In the US, there is a macro view wherein it is believed that for every USD 1 paid by insurers, some USD 0.60 relates to plaintiffs' and defendants' legal costs.

Architects and Engineers

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔ ↑	Rate increases of 10% are not infrequent and higher for risks with claims	↔ ↑	Pricing is expected to increase for A&E.
Limits	↓ ↔ ↑	Quite haphazard. Where there have been premium increases on primary policies some clients are reducing their overall indemnity limit, for cost reasons. Others have increased limits due to the availability of cheaper excess layer capacity, and the fact that contractual requirements have increased.	↑	Many clients are considering increasing their limits due to capacity available at attractive terms and growth in the size of claims
Deductible/Retentions	↔ ↑	With the advent of larger claims Insurers are looking for increased retentions.	↔ ↑	With the advent of larger claims Insurers are continuing to seek increased retentions.
Coverage	↔	Coverage is stable as previous enhancements are seen to take effect.	↔	No material change is expected.
Capacity/Appetite	↔	Overall market capacity has stabilized, a couple of insurers are expected to enter the construction PL space	↓ ↔	Overall capacity remains stable but reduced appetite for primary business.
Losses	↑	Losses are increasing in severity and frequency.	↑	Losses are increasing with more claims coming from Design-Build contractors where there has been under-design at bid stage and insufficient contingencies built in by contractors.

Contractors

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↓ ↔ ↑	To a large extent rating is highly dependent upon client-specific factors, most notably, claims history. On 'clean' risks, expected rate change: 0% to -5%	↓ ↔ ↑	This trend is expected to continue into 2019, with some carriers coming off underperforming risks.
Limits	↔	Clients are maintaining limits purchased.	↑	Many clients are considering increasing their limits due to the perceived severity of professional liability losses. In addition, owner requirements are more restrictive and the demand for higher PL limits is becoming more common.
Deductible/Retentions	↔	Most clients have maintained their deductible/retention levels.	↔ ↑	No material change is expected, though there are indicators that carriers are pushing (forcing) higher retentions on larger clients in an effort to offset the risk of claims deterioration.
Coverage	↔	No material changes in the annual programs.	↔	No material changes on annual programs. On projects, we are seeing a 'chasing of rates' which often yields 'off the shelf' policy form with little to no manuscripting.
Capacity/Appetite	↑	Excess professional liability insurers offered an abundance of capacity, often in excess of USD \$200 million.	↔	Capacity is expected to level off as market re-evaluate portfolio (decreasing appetite out of Lloyd's of London).
Losses	↔ ↑	Claims activity in the construction sector was fairly constant, but claims severity increased.	↑	This trend is expected to continue with year over year escalation in claim values and defense costs.



Professional Services | Cyber and Errors & Omissions

The cyber market in the construction industry is competitive and remains a buyers' market, despite the specter of risk that has dominated recent headlines. Many construction-related entities are purchasing an initial cyber policy because: (1) they are implementing technology to stay competitive and drive revenue, (2) they are contractually obligated to have coverage in place, (3) the board of directors mandates the purchase of cyber insurance. 2018 saw 15 new entrants into global cyber underwriting community, building the population of cyber carriers to more than 75. Capacity continues to grow across geographies, with a growing number of insurers developing an appetite for large, complex risks.

The construction industry has seen a continuous increase in ransomware activity, which has been leading to network business interruption concerns.

While the complexity of breaches has driven an increase in incident response expenses incurred by clients, claims and loss data has expanded coverage offerings and improved actuarial data for loss modelling purposes. As with many lines of coverage, the stratification of risk enabled by improved data & analytics leads to better outcomes for the best specific risks.



Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Some insureds have secured significant coverage improvements as a result of paying higher premiums.	↔	Pricing for initial placements is competitive and average premium rates reflect a year-over-year decline as well. A number of clients are leveraging the competitive market by purchasing an initial policy as well as increasing overall capacity at renewal.
Limits	↑	Over 60 unique insurers provided E&O / Cyber Liability capacity. Capacity is available in the United States, London and Bermuda. There is over USD \$600 million in theoretical capacity available in the cyber marketplace.	↑	There are over 75 unique insurers providing Cyber Liability capacity. Capacity is available in the United States, London, Bermuda, and Asia. There is over USD\$1 billion in theoretical capacity available in the cyber marketplace.
Deductible/Retentions	↔	Retentions of all levels are available in the market, but can vary greatly based on industry class, size and unique exposures. Adjusting retentions can lead to increased coverage and/or pricing flexibility.	↔	Retentions of all levels are available in the market but can vary greatly based on size and unique exposures of the insured. Adjusting retentions can lead to increased coverage and/or pricing flexibility.
Coverage	↑	Coverage breadth continues to expand. Insurers continue to differentiate their offerings with new or enhanced coverage components. There was an emphasis on pre-arranged vendors. Broadening systems failure and contingent business interruption coverage solutions.	↑	The cyber marketplace for the construction industry is healthy, with carriers eager to grow by underwriting risks in infrastructure and development. We believe the competitive nature makes this a good time for clients who have not yet purchased cyber coverage to enter the market and lock in baseline competitive pricing before any hardening of pricing occurs.
Capacity/Appetite	↑	Capacity is continuing to grow across geographies, with a growing number of insurers developing appetites for large, complex risks.	↑	Carriers continue to offer favorable pricing at common attachment points for contractors, as average premium rates decline on a year-over-year basis. Contractors purchasing cyber coverage can access significant capacity from established players and new entrants looking to grow their cyber books of business in construction and across all industries.
Losses	↑	Increased ransomware activity and business interruption concerns.	↑	While the market is healthy, and pricing continues to decrease for most clients, we are seeing increased losses in this line of business, particularly due to employee/human error. More complex incidents have also driven an increase in breach response costs, which can be mitigated by locking in pricing on a retainer basis; a strategy we see more contractors adopting heading into 2019.



Surety

Financial results for the contract surety industry remained profitable in 2018, continuing a multi-year trend of solid performance. Premiums continue to increase with low loss activity. Notably, 2018 experienced an emerging trend of contract surety losses in the international sector related to high-end capacity users. Specifically, several high-profile European losses spilled over into several North American companies with foreign parent ownership. These surety losses were driven by an abundance of debt, as well as poor operational performance masked by financial reporting rules. The new accounting rules (IFRS and GAAP), along with stricter underwriting standards within the surety and credit industries, will likely set a more conservative tone for 2019.

Underwriters are increasingly pushing for more transparency from global companies on their non-bonded, non-US projects and requiring granular reporting of project revenue, cost and profit. Historically, US surety underwriters have tended to focus on bonded US work and its performance. However, as poor operational performance in other areas of the world has a material impact on global firms and leads to financial challenges that impact US bonded work, underwriting standards will tighten. A stronger push for more disclosure from global firms is anticipated on major projects outside of the US bonded backlog. Overall, global firms continue to have a higher risk appetite than their

American competitors, particularly in project size and complexity, and discernment of political risk. The surety market will closely watch global firms' enterprise risk management, as this sector uses a high capacity of surety credit. Surety companies are expected to take a more conservative approach as they select those firms they are comfortable with providing surety credit.

The contract surety market is competitive, healthy and with good levels of capacity. Carriers are continuing to look for ways to show value and differentiate themselves, including with innovative performance security products. There has been further evolution in the development of the performance security array of products for privately financed, and public private partnership (PPP) procurements. These include traditional performance bonds consisting of pay-on-demand liquidity features. Other creative performance security solutions involve expedited dispute resolution features, which force parties to quickly arbitrate any disputed default termination and bind the surety to the decision of the arbiter. In these instances, owners are protected from a surety failing to act as a result of a bona fide dispute.

While the size, complexity and duration of mega-projects continue to increase, the profit margin on a majority of these projects continues to deteriorate. The competitive landscape is littered with firms

that have taken on mega-projects and experienced significant loss. Many firms underestimate the transfer of risk, while others did not adequately consider the impact of late and protracted ROW and permitting work. Capturing risk and its associated cost during the estimating process has been a significant challenge for some firms given projects size and complexity. Overall, hard lessons have been learned around the transfer of risks associated with these projects. In order to avoid catastrophic loss, contractors are going to need to carefully select joint venture partners, have better alignment when it comes to estimating costs, add sufficient contingency, and establish a margin strategy consistent with their long-term profit objectives, rather than simply driving revenue.

Despite this loss landscape, mega-projects continue to progress. The larger surety companies, which write about 60% of all surety business, are regularly seeing projects in excess of USD 500 million. Even single projects in excess of USD 2 billion are growing more frequent. These projects tie up billions of dollars of surety capacity for years. As such, profit margins are critical given the ferocious use of capital.

Prudent contractors must assess what risk mitigation tools they are pulling out of their toolbox. Successful contractors have been observed to use:

- **Successful joint ventures (JV) partnerships:** Contractors are wise to consider the synergy that a JV partner brings to the table in addition to simple balance sheet protection. Partners should be carefully looking at what skill-set a project requires and whether the partnership complements respective skills and matches them to the needs of the project. Corporate cultures are critical and often overlooked in the formation of a partnership. In addition, partners should be conducting full financial due diligence of any prospective partner.
- **Robust risk committee process:** Best practices drive the use of multidisciplinary risk committees which bring various disciplines together to look at legal/contractual risk, financial risk, estimating risk, engineering risk, political risk, the risk of labor availability and sufficient subcontract availability.
- **Robust subcontractor qualification and risk mitigation strategy:** Firms with the strongest qualification process produce the strongest financial results. Further risk protection can also be found with the use of subcontractor default insurance and the bonding of key subcontractors.

- **Solid project scheduling techniques and protocols:** Completing a project on time and on budget is the number one goal. Time delay is often avoidable with the use of project scheduling technology that is widely available.

- **Use of growing technology:** The technological innovation available in the construction industry is revolutionary. Those firms that avail themselves of the growing technology in the construction industry will reap tremendous rewards in efficiency, safety and long-term operation and maintenance.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	Surety industry remains profitable in 2018.	↔	Premiums continue to increase.
Limits	N/A	N/A	N/A	N/A
Deductible/Retentions	N/A	N/A	N/A	N/A
Coverage	N/A	N/A	N/A	N/A
Capacity/Appetite	↔	The surety market is competitive and healthy with sufficient capacity.	↔	Global firms have a higher risk appetite than US firms.
Losses	↔	Surety losses in the US remain relatively benign while globally surety losses are growing in Canada and Europe.	↔ ↑	Lower loss activity remains the overall norm in the US with growing loss activity on a global basis.

Surety | Subcontractor Default Insurance

Although an unprecedented number of carriers now offer subcontractor default insurance (SDI) in the US marketplace, carrier appetite reflected in the nuances of policy coverages and conditions can be limiting. Understanding these market distinctions is essential to longer-term contractor strategy, reflecting both overall SDI utilization as well as ensuring a cohesive plan is in place to mitigate the many integrated risks resulting from a subcontractor's non-performance under the terms of the subcontract.

While subcontractor pre-qualification remains a central and shared topic of importance, including the engagement of third party pre-qualification firms, there is a growing divergence among the carriers in where they place emphasis during the SDI underwriting process. Obtaining the broadest available SDI terms in support of longer-term contractor strategy requires allocating additional time for more thoughtful carrier alignment, based on existing and expected future carrier appetite, contractor culture, controls, and project geographic and market segment pursuit.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↑	Continued upward pressure on rates with contractors navigating a menu of coverage options with a rate impact of +/-20%, most notably coverage duration. Additional marketplace capacity is not increasing rate competitiveness as premiums charged by new entrants are generally higher than market incumbents.	↑	Further capacity in the marketplace is not expected to offset upward rate trajectory as increased project and subcontractor size, as well as a growing aversion to longer periods of post project completion coverage duration continues to drive rate.
Limits	↔	Some realignment of limits to reflect increased construction volumes at the middle market, however contractors are maintaining limits overall. Large programs with dedicated/contingent limit requirements and project-specific policies continue to be a challenge.	↔	Adequate limit diversity for the middle market, however, the marketplace continues to be limited for larger market contractors.
Deductible/ Retentions	↑	Contractors have elected to increase retentions to ease the pressure of the rate increase. Those with poor loss experience or lower retentions are seeing carrier driven increases in aggregate retention.	↑	Continued upward pressure in retentions.
Coverage	↓	Carrier variability in both coverage and policy conditions is highly relevant. Challenges in covering long project and subcontractor duration, large subcontracts, for-sale residential, and specific subtrade scopes are common across all carriers.	↓	Expect continued variability in coverage and conditions depending on the market as well as the contractor.
Capacity/ Appetite	↔	New capacity continues to enter the marketplace, as existing capacity is seen to be limiting its scope. However, risk appetite continues to be a challenge.	↔	The US SDI marketplace continues to see an increase in overall SDI capacity, however, more limited in risk appetite. Capacity for project-specific limits will continue to be a challenge with contractors increasingly considering using an alternative SDI market and incurring retentions at a multiple of 2 to 3 times their rolling program. Marketplace diversity outside the US continues to be a challenge.
Losses	↑	Claim notifications remain at elevated levels, driven in part by carrier incentives for early reporting and a tight labor market. Claim severity continues to be a market-specific trend with some markets continuing to incur noteworthy claims.	↔	No material change is expected.

LATIN AMERICA

Despite perceived growth in construction activity in Latin America during 2018, it is still considered slow as it followed a year of contracted projects and investments in 2017. Investor confidence still needs to recover, mainly due to corruption (although effective and punitive actions are being taken in several countries of the region) and regulation. Deterioration in the global economy is on the horizon, nevertheless, there are signs

of hope for the region with the elections of new governments in Brazil, Colombia and Mexico. Privatization of infrastructure companies like the package of airports in Brazil, the important Bogota Metro project in Colombia and the investment in oil and gas projects in Mexico are some the new investment opportunities expected for 2019.

Projects for transportation (roadways, railways, subways and airports), electric power (generation

and transmission) with focus on renewables and oil & gas, are considered the biggest opportunities for investment in Latin America.

Regarding the insurance market for construction and infrastructure, no remarkable changes were perceived but a considerable loss at the Ituango hydropower plant in Colombia may have an impact on construction insurance.

Property | Builders Risk, CAR, EAR

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔ ↓	Rate change between -5% to -10%. Lack of infrastructure and big projects due to the political and economic situation of key countries in the region. This has resulted in rate reduction of projects, however large infrastructure risks remained stable.	↔ ↑	Expected economic recovery due to new governments in some countries. Impact of Ituango hydroelectric (Colombia) loss in the regional market may influence rates for infrastructure projects.
Limits	↔	No material <u>change</u> .	↔	No material change is expected.
Deductible/Retentions	↔	Market competition has maintained a stable deductible level despite perceived losses.	↔ ↑	More projects and insurers are expected to try and protect results. Typically, low deductibles are offered compared to the international market.
Coverage	↔ ↑	Market competition led to less coverage restrictions.	↓	Some insurers willing to include the first operational year included in the policy.
Capacity/Appetite	↔	There was enough capacity for the <u>region</u> but insurers were inclined to limit participation.	↔ ↓	No material change is expected but some restrictions in infrastructure projects may be perceived due to loss impact in 2018.
Losses	↑	Ituango hydroelectric loss severely impacted regional insurers.	↔	No material change is expected.



Liability I Primary Casualty

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↓	Rate change between -5% to -10%. Lack of infrastructure and big projects in the region and good loss history.	↓	The local market can supply capacity for projects. Limits are usually not high.
Limits	↔	No material <u>change</u> .	↔	No material change is expected.
Deductible/Retentions	↔	No material <u>change</u> .	↔	No material change is expected.
Coverage	↔	No material <u>change</u> .	↔	No material change is expected.
Capacity/Appetite	↔	No material change.	↔	Current local capacity has been sufficient for the limits required. Limit increases are not expected.
Losses	↔	No material <u>change</u> .	↔	No material change is expected.

Liability | Professional

Significant failures of Colombian engineering projects have impacted market perceptions of professional indemnity (PI) risk. The collapse of Chirajara bridge and the Hidroituango hydro project during 2018, negatively impacted confidence in local engineering firms. Uncertainty, the political environment, and corruption led to a decrease in investment for infrastructure projects across the region. Brazil's corruption scandals continue, affecting several other countries at the regional level. Major construction investments are expected, focused on power systems located in Argentina, Central America, Mexico, Peru, Colombia and Chile. However, the level of uncertainty remains high for the main economies of the region. Currently, the Latin American market is very concentrated on reinsurance, which used to be focused in London. Now, Miami and Madrid are taking more opportunities from this market.

Category	2018 Direction	2018 Commentary	2019 Outlook	2019 Commentary
Pricing/Rates	↔	Rates are stable.	↑	Expected rate change between +/- 5%, especially for large projects. Stable for standard projects not considered of high exposure. New insurer or reinsurer entrants should result in stability or even reduction for standard projects.
Limits	↑	Owners, employers, and lenders are all seeking higher indemnity limits on large projects.	↑	This trend is expected to continue.
Deductible/Retentions	↔	No material changes.	↔	No material change is expected.
Coverage	↔	Coverage is already very broad.	↔	No material change is expected.
Capacity/Appetite	↑	Capacity was abundant as new insurer and reinsurer entry continued to add capacity to the market.	↑	This trend is expected to continue.
Losses	↑	Claims have increased along with the growing size and complexity of projects.	↑	Losses are expected to increase.

GLOBAL REINSURANCE MARKET REVIEW

After a challenging 2017 with a record USD 147 billion of insured catastrophe losses, 2018 brought estimated catastrophe losses of USD 90 billion, including Typhoon Jebi (August), Hurricane Florence (September), Hurricane Michael (October), and the wildfires in California (November). While much lower than the previous year, 2018's USD 90 billion figure is 47% higher than the USD 56 billion annual average from 2000-2017 and the fourth costliest year on record. It should also be noted that reinsurers experienced significant loss-creep on 2017 losses, driven by rising claims adjusting costs and prolonged business interruption claims. The combined total of USD 232 billion for 2017 and 2018 now represents the most expensive two-year period in history. However, given high primary retentions, most of these losses are expected to be borne by primary insurers with reinsurers' overall share expected to be no more than 25%.

Global capacity remained plentiful for January 2019 and slight increases in demand were easily accommodated. Reinsurer capital levels for Q3 2018 were showing a slight (2%) overall decrease with a 4% drop in traditional capital slightly offset by an 11% jump in alternative capital (from USD 89 billion to USD 99 billion).

Although new sources of alternative capital have continued to enter the market, larger amounts being trapped due to 2018 loss activity and the creep on 2017's events, combined with ongoing disappointment with pricing levels, has moderated investor appetite. While not an issue for traditional reinsurance, this did have an impact on the retrocession market (which more heavily relies on this capital), leading to some pricing pressure at January 1.

The peril of wildfire was again under scrutiny after another difficult year in California with three major conflagrations – Carr (July and August), Camp (November) and Woolsey (November). Estimated insured losses arising from the Camp Fire alone are expected to be at least USD 11 billion. Looking at the ten most destructive wildfires on record in California, six of these occurred during the 16-month period ranging from July 2017 to November 2018 and resulted in insured losses totaling USD 32 billion.





"Treaty renewals were finished late, but despite concerns about pricing levels and another year of high catastrophic losses, plentiful capacity ensured that reinsurance buyers could generally continue to purchase desired limits".

This is after the record-breaking Fort McMurray wildfire loss in Alberta in 2016, the largest insured loss resulting from a wildfire at the time. Reinsurers did attempt to tighten reinsurance language around this peril and had some success with cedents looking to manage overall reinsurance costs. Unsurprisingly, concerns about wildfire risk are expected to continue in 2019.

In the face of poor results driven both by loss activity as well as rising expense levels, Lloyd's announced a strategic review of its operations in 2018. Review of syndicates' 2019 business plans included an expectation that each would address remediation of the worst 10% of performing portfolios, including exiting classes altogether where necessary. Ultimately, most of the impacted business related to insurance (rather than reinsurance) and although some business plans were approved later than usual, there was not a noticeable reduction in capacity being offered out of London.

While stability was seen in the property market, specific segments of the US casualty market (commercial automobile, professional liability, umbrella/excess and medical malpractice) were under pricing pressure at January 1. As a combination of increased loss severity and adverse development on previous years has led to poor experience, certain markets were unwilling to support programmes at terms below technical requirements. The result was a much firmer market than has been seen in recent years.

In the end, January 2019 treaty renewals were finished late, but despite concerns about pricing levels and another year of high catastrophic losses, plentiful capacity ensured that reinsurance buyers could generally continue to purchase desired limits of protection at accretive terms.

Looking ahead, with pricing levels anticipated to remain flat, mergers and acquisitions activity in 2019 is likely to continue in the reinsurer space, driven primarily by a need for scale and to reduce expenses.

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