

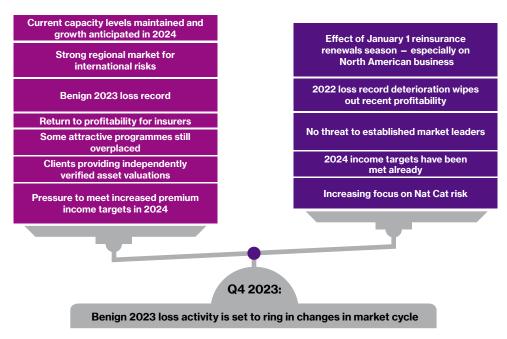
Global Downstream

Significant deterioration of 2022 loss figures but there is light on the horizon

As reported in our April Energy Market Review, in 2021 and 2022, we saw major losses in the market, mainly in oil and gas but also in the chemical and midstream space. This ultimately affected both the downstream market and those upstream insurers who write midstream risks. Over the course of this year, 2022 loss reserves have deteriorated significantly and our database now records in excess of US\$8 billion in losses for 2022. This deterioration is primarily due to the reduced or delayed access to sites for loss adjustors, either due to a knock-on effect of COVID-19 or because local authorities shut down sites immediately following a loss. As a result, loss adjustors cannot access sites to fully quantify losses until after the location is released by local authorities, which is causing meaningful delays in loss quantification and consequently less accuracy in insurer's initial reserves. This has been a key factor in the increase in reserves, particularly for the North American losses shown overleaf.

Figure 1:

The Downstream underwriting environment, Q4 2023



Meaningful underwriting profits in 2023 will soften the market going forward.

Source: WTW

Figure 2:

2022 loss record shows significant deterioration

Downstream losses excess of US\$75 million, 2022

Category	Cause	Country	PD US\$	BI US\$	Total US\$
Gas plant	Fire + explosion/VCE	North America	225,000,000	1,231,200,000	1,456,200,000
Gas plant	Fire + explosion/VCE	North America	456,750,000	890,250,000	1,347,000,000
Refinery	Mechanical failure	Europe	40,000,000	639,800,000	679,800,000
Refinery	Fire + explosion/VCE	North America	75,000,000	495,500,000	570,500,000
Refinery	Fire + explosion/VCE	Europe	55,000,000	440,000,000	495,000,000
Gas plant	Fire no explosion	Middle East	13,600,000	228,440,000	242,040,000
Gas plant	Fire + explosion/VCE	North America	160,000,000	45,000,000	205,000,000
Tank farm/terminal	Unknown	Latin America	119,000,000	72,000,000	191,000,000
Petrochemical	Mechanical failure	Middle East	34,200,000	150,000,000	184,200,000
Refinery	Fire + explosion/VCE	Asia Pacific	28,000,000	122,500,000	150,500,000
Tank farm/terminal	Lightning + fire	Latin America	138,000,000	0	138,000,000
Chemical	Mechanical failure	North America	50,000,000	78,558,800	128,558,800
Gas plant	Heavy weather	North America	8,438,835	118,000,000	126,438,835
Pipeline	Impact	Asia Pacific	2,000,000	109,000,000	111,000,000
Petrochemical	Mechanical failure	Asia Pacific	59,500,000	43,800,000	103,300,000
Refinery	Fire no explosion	Europe	4,238,000	90,000,000	94,238,000
Pipeline	Ruptured pipeline	North America	11,000,000	80,000,000	91,000,000
Refinery	Fire no explosion	Europe	18,700,000	69,800,000	88,500,000
Chemical	Contamination	North America	8,300,000	80,000,000	88,300,000
Chemical	Mechanical failure	North America	13,000,000	65,000,000	78,000,000
Refinery	Mechanical failure	Europe	1,500,000	76,400,000	77,900,000
Petrochemical	Supply interruption	Middle East	8,000,000	69,000,000	77,000,000

Some very extensive catastrophe losses in 2022 with BI in insurers' focus

Source: WTW Energy Loss Database as of October 3rd, 2023 (figures include both insured and uninsured losses)

But why were losses so much more prevalent in 2021 and 2022? COVID-19 and the resulting low oil price environment have certainly led to fewer fully trained and experienced personnel on site. When this is combined with the excellent refining margins in 2021 and 2022, which have led clients to push out turnarounds and run assets at full capacity, it is clear why a greater incidence of loss events has emerged in these years.

Over the course of this year, 2022 loss reserves have deteriorated significantly and our database now records in excess of US\$8 billion in losses for 2022.

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In 2023 some green shoots are appearing. So far there have only been two major losses in the downstream market as well as some smaller attritional losses. The total loss record for 2023 stands at just over US\$1.8 billion so far and we expect reserves for the largest of these losses to reduce, further improving insurers' position. If loss trends continue to be this benign for the remainder of 2023, we expect a very profitable year for downstream underwriters, which we believe will create a softer pricing environment going forward.

2023 loss record is already showing two major losses

Downstream losses excess of US\$20 million, 2023 (to date)

Category	Cause	Country	PD US\$	BI US\$	Total US\$
Refinery	Fire + explosion/VCE	North America	35,000,000	862,296,000	897,296,000
Petrochemical	Fire + explosion/VCE	North America	275,000,000	275,000,000	550,000,000
Refinery	Fire no explosion	Europe	25,000,000	66,000,000	91,000,000
Refinery	Impact	Asia Pacific	4,550,000	68,640,000	73,190,000
Chemical	Fire + explosion/VCE	North America	11,500,000	26,000,000	37,500,000
Chemical	Collapse	Asia Pacific	10,000,000	24,600,000	34,600,000
Refinery	Impact	North America	14,765,000	12,000,000	26,765,000
Chemical	Mechanical failure	North America	10,000,000	16,500,000	26,500,000
Gas plant	Mechanical failure	Middle East	20,000,000	3,000,000	23,000,000

Two major losses over US\$500 million so far but fewer small losses

Source: WTW Energy Loss Database as of October 3rd, 2023 (figures include both insured and uninsured losses)

Increased capacity expected for 2024

Capacity levels have been generally stable throughout 2023, with some slight increases from less mature insurers who are now more comfortable to deploy slightly larger line sizes. Looking forward to 2024, we already know of some new entrants coming into the market and we expect a number of existing insurers to push for incremental capacity increases during their reinsurance treaty renewals, on the back of strong and profitable underwriting results for 2023. MGAs are also becoming more popular, further helping to increase capacity, and that should create more competition going forward, which is of course good news for buyers.

Regional capacity still plays a key role and in the Middle East in particular, there continues to be plentiful capacity and strong appetite for local business. This local market is buoyant, fuelled by significant levels of construction in both the downstream and upstream sectors.

Elsewhere in the world, we are seeing some local capacity being brought back into London in a move to "deregionalise" and we will continue to monitor whether this recentralising of underwriting authority is a trend that will gather momentum with other (re)insurers across the Downstream Energy market.

The market is still fragmented in their ESG positions, with some of the European insurers taking the strongest stances and we will continue to monitor how insurers' evolving ESG positions could affect future underwriting capacity.

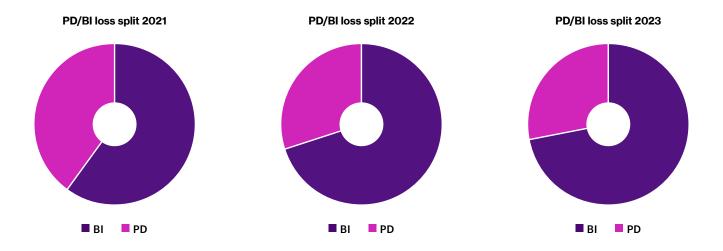
Business Interruption coverage remains a key focus

Business Interruption coverage remains an ongoing focus for markets, especially in view of the significant BI element to losses in 2022 and 2023, particularly in the US.



Figure 4:

PD / BI loss split, 2021-23



Source: WTW/WTW Energy Loss Database as at October 3rd, 2023

Insurers are continuing to normalise and scale down volatility factors within Business Interruption volatility clauses to reduce the uncertainty in potential claims amounts. One way for clients to combat this direction is to provide full, up-to-date business interruption worksheets, however we do find many clients continue to be reluctant to do this due to their boardroom directives to risk managers.

Another key area of focus in the 1st January 2024 reinsurance treaty renewals, which we will be keeping a close eye on, will be coverage for Strikes, Riots and Civil Commotion (SRCC) will be impacted. Reinsurers have been impacted by SRCC losses unrelated to natural resources clients. Whilst some treaties already exclude SRCC, we expect reinsurers to further tighten existing SRCC exclusions at 1st January 2024 for insurers who have not yet been impacted on their all risk policies to date. Over the course of 2023, we have increasingly seen direct insurers become more selective on the areas of the world where they are willing to offer SRCC coverage as well as imposing reduced sub-limits where they do offer the cover. If this trend continues, we could envisage SRCC cover following on the path of Political Violence and Terrorism to become a standalone placement in a specialist market.

Insurers are watching closely for how the impact of the current regional instability in the Middle East will affect the market. With large concentrations of downstream assets in the area, any escalation outside of the immediate conflict region, could potentially be very unsettling for the market and affect future market dynamics.

Asset Values now independently verified

Many clients are now using the major valuation companies to independently verify their asset schedules and this has been well received by the market. However, the valuation reports can take a long time to produce and in some cases the results have shocked clients with the sizes of suggested increases. This does of course have a knock-on effect on premium and brokers need to be diligent to ensure that any rating loads applied by insurers for perceived underinsurance over the last few years are now stripped back out of the rating, so clients are not penalised by being double charged for value inflation.

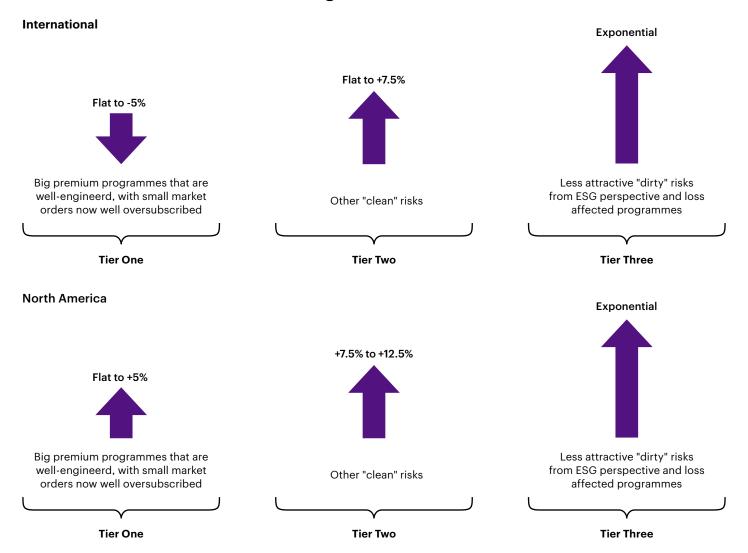
Pricing: The market is ready to turn

In the past, insurers were often entering the fourth quarter significantly under budget and were chasing business to reach their full year targets. As a result, December was historically one of the best parts of the year to renew, however recently this has become the worst renewal date as many insurers have already reached their year-end budget targets. Whilst we are hearing from some insurers that they do not need to write any new business this year that could affect their current profitable portfolios, there will be some markets that will try to overwrite budget to make up for the claims in 2021 and 2022, which could neutralise the yearend dampening in competitiveness.

Whilst the brakes have certainly been applied to the hardening market, we are seeing clear differentiation between clients with each risk assessed separately on a case-by-case basis and rate movement varying by region and by exposure.

Figure 5:

Current Downstream market rating movements, November 2023



The international market is starting to bottom out, but North America still sees increases

Source: WTW

The trifurcation of the market persists. Tier one clients with well-engineered risks, small open market orders, a clean loss record and regular physical damage and business interruption valuations are seeing renewals of between flat and -5%. For Tier two clients, we anticipate flat rating to increases of +7.5%. However, we have noted that the differences between Tier one and Tier two clients are reducing and we have seen exemplary clients being classed as Tier two simply because they present a large commercial market order to be placed. For Tier three clients, who have had claims and have

less exemplary engineering, rates continue to rise exponentially and we see an increasing trend of these placements not being fully completed due to lack of insurer appetite.

The market for North American risk is still showing fewer signs of softening, likely due to the significant proportion of loss activity in this part of the world, however insurers are now moving to flat rating to small increases of up to 5% for the most favoured business.

Figure 6:

Regional loss split, 2022-23



Source: WTW/WTW Energy Loss Database as at October 3rd, 2023

Regional risk differentiation

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It is evident from the chart above, that the majority of the loss activity attributes to the North American market segment. And as a result of this and the less litigious nature of some other areas of the world, we have seen clear rating differentiation between the International and North American market segments. This is further exacerbated by the presence of a strong regional market in both Asia and the Middle East with insurers keen to support local risks. This additional local capacity drives competitive pricing for regional placements, but these markets are not willing or able (due to treaty restrictions) to write risks in Western Europe or North America.

Looking forward to 2024, we believe there will be more management pressure on underwriters to show growth in their portfolios, especially if markets close out 2023 as profitably as it appears so far.

Natural catastrophe continues to be a focus

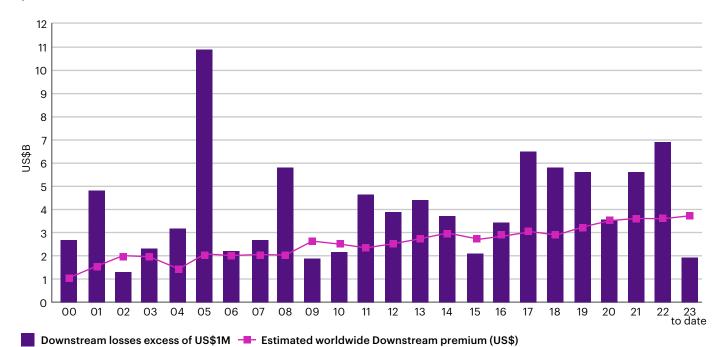
Compared to the past 18 months, natural catastrophe (Nat Cat) rates have increased three to four-fold in certain areas, driven by regional risk accumulation for example in the US state of Texas. This accumulation is resulting in many insurers having fully deployed their available aggregate and as a result rating levels are higher for the remainder of this finite capacity.

We are increasingly seeing natural catastrophe related losses in unexpected areas of the world as previously benign areas are showing signs of being affected by climate change. We have seen floods in Thailand, cyclones and flooding in Oman and even a windstorm loss in Malta. Markets are concerned by how these increasing incidences of unexpected, and more importantly unpriced, natural catastrophe exposure may impact their portfolios going forward.

It is important for clients to remain on the front foot, and they can help markets accurately assess their risk and offer suitable products through the use of analytics and risk modelling to support their underwriting submissions.

Losses and premium income

WELD Downstream losses 2000 — 2023 (excess of US\$1M) versus estimated global Downstream premium income



Recent loss record destroying portfolio profitability as premium income levels flatten

Source: Willis Towers Watson/WTW Energy Loss Database as of October 16th, 2023 (figures include both insured and uninsured losses)

Green shoots for 2024

Looking at the chart above, despite poor portfolio performance over the last couple of years, all signs are positive for 2023 and downstream insurers will likely close the year out with low combined ratios and excellent profit margins. Looking forward to 2024, we believe there will be more management pressure on underwriters to show growth in their portfolios, especially if markets close out 2023 as profitably as it appears so far.

Over the last few months, we have increasingly seen an appetite from insurers to offer long term agreements to their most favoured clients, a sure sign that insurers believe we are at the top of the market and are looking to lock in current pricing levels.

In a new development for the downstream market, we have even seen some non-cancellable long-term agreements offered to well-engineered blue-chip clients including with rate reductions in subsequent years in recognition of the likely change in the market cycle. Insurers are seeking to secure their position on preferred business over a longer time horizon and this development could in fact serve to soften the market even further.

Overall, all signs are positive for a shift in the market cycle in buyers' favour as we look forward to 2024.



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