BRIT

writing the future

finger on the pulse

Emerging claim trends in US Hospital Professional Liability

introduction

Hospitals and health systems are attempting to deliver increasingly sophisticated and high-quality care under an unparalleled burden of regulatory and cost constraints. With a patient population more discerning and expectant than ever before, the need for a genuine insured-insurer partnership has been never greater.

At Brit, we aim to provide a service that extends beyond simply offering mechanisms of risk transfer. In long-tail classes such as Healthcare Liability, it is essential that we engage with our clients to create meaningful long-term partnerships. This requires us not just to innovate, but to provide genuine insight and leadership that help clients navigate this complex and evolving environment.

We have combined the considerable skills, experience and expertise of our underwriting, actuarial and claims experts in the healthcare arena to produce this study. We hope it will assist our partners as they continue to address the challenges that the US litigation environment presents.

Executive summary

Our key findings include:

- Claims severity inflation continues to rise at a faster rate than all key traditional indices.
- The frequency of very large claims is increasing at an ever-greater rate, rendering the largely static levels of self-insured retentions prevalent over the past decade in increasing need of redress if the ultimate aim is sustainable affordability of (re)insurance.
- State-level tort reform efforts have largely been ineffective at curbing severe claims inflation. There is a distinct lack of correlation between non-economic damage caps and severity inflation.

Not all the key trends and findings we identified were expected – but we have tried to explain them in a way that we hope you will find useful. Thank you for taking the time to read this report, and for your partnership with Brit.

Tom Kennedy lass Underwriter, Healthcare Liability Brit Global Specialty October 2019



our data set

- 231,000 claims
- 109,000 non-nil claims
- 4,000 claims greater than \$1m
- \$18bn of total incurred
- 14m OBEs (Acute Care Occupied Bed Equivalents)

All data is presented and analysed on an Underwriting Year of Account basis. In certain exhibits, we have presented mature Underwriting Years (2005 to 2012) to avoid any distortion from development assumptions. The 2012 year and prior average 97% of claims closed, hence the selection. Where 2013-2015 have been included, there is inherent uncertainty within the ultimate selections, due to the assumptions underlying the development factors. Our findings are only representative of the \$18bn sample of claims data and may not accurately reflect trends observed across the whole market. All amounts are shown in USD unless otherwise stated.

1 average claims severity over time

Claims severity

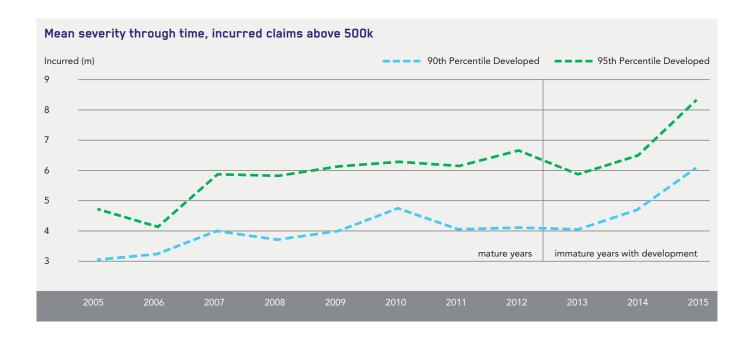
This chart shows claims severity trends (looking at ultimate claims greater than \$500k total incurred) on a nationwide basis between 2005-2015, broken down by percentile.

The data shows an overwhelming upward trend over time, with the 90th and 95th percentiles (our main focus given the excess of loss nature of most major HPL placements in the market) showing the starkest compounded annual trend rates. Generally speaking, the trend rate correlates directly to severity percentile – ie, the larger the claim, the higher the rate of claims inflation.

Some basic causes are well known:

- i improving standards of care and levels of available medical technology lead to better survivability, higher benchmarks and greater patient expectations.
- ii Higher costs of medical care due to (i) above, and other factors including litigation-driven defensive medicine practices drive pure medical inflation up: a key component of economic damages.

Interestingly, the historic perception of consumer inflation to medical claims inflation falls short here, in that the latter has tracked at roughly double the former over the past c10 years.

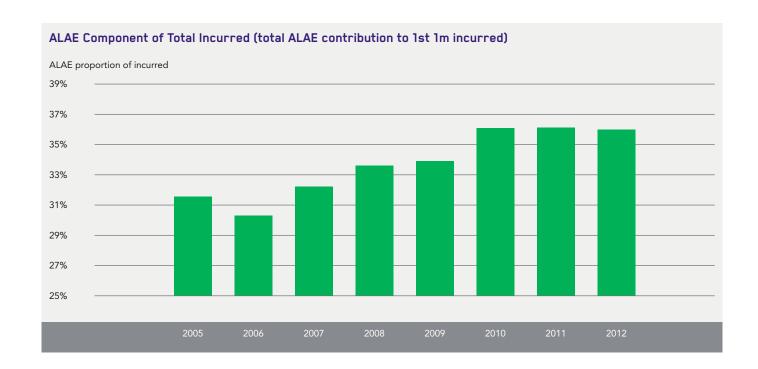


ALAE trends

Looking at the components of severity, it is striking that the proportion of ALAE sitting within the first \$1m of incurred loss has increased by around 20% from a low of c30% to c36% over an eight-year period. Note that we have used developed years in this analysis. A possible explanation is that as potential severity has increased, hospitals and health systems have been forced to deploy a wider array of expert witnesses and trial preparation measures (including focus groups, mock trials, plaintiff surveillance etc). Also, as plaintiff attorneys have targeted more defendants per case to secure an award, costs of discovery have risen accordingly.

"better standards of care and new medical technologies lead to improved survivability, higher benchmarks and greater patient expectations."

Marc Tyler Underwriter, Healthcare Liability



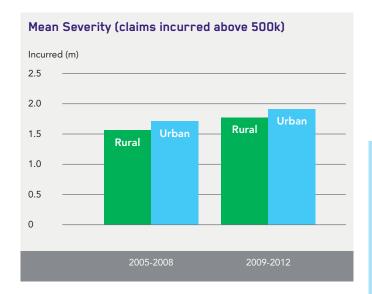
"Hospitals and health systems have been forced to deploy a wider array of expert witnesses and trial preparation measures."



Adam Jones Senior Claims Adjuster, Healthcare Liability

An analysis of rural vs urban venues

When starting this analysis, our expectation was that severity (and severity inflation) attributable to urban hospitals and health systems would far outstrip that of those in rural locations. This is not the case; mean severity is broadly similar in both environments, and inflation across the two chosen time periods is shown tracking at almost exactly the same rate*.



"Our expectation was that severity (and severity inflation) attributable to urban hospitals and health systems would far outstrip that of those in rural locations. This is not the case."

Ben Langridge

Actuary, Healthcare Liability

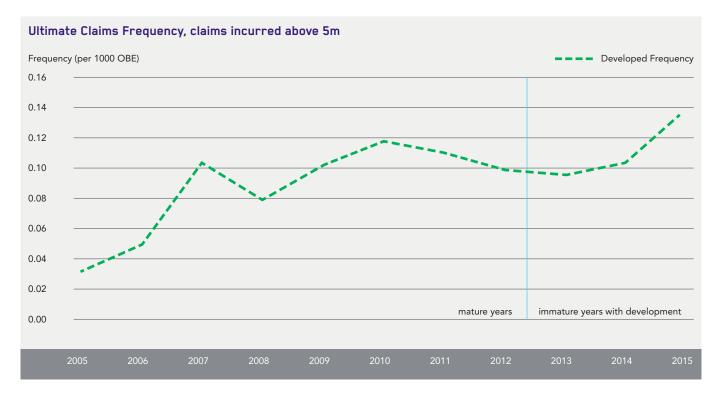
Claims Perspective -Plaintiff Counsel

Natural competition between counsel is on the rise. Plaintiff attorneys are seeking ever-larger settlement/judgement awards to the mutual benefit of themselves and their clients. The plaintiff's bar are increasingly sophisticated, organized and are able to more easily benchmark litigation awards and trends across the US.

A recent trend is the prevalence of specialist high-profile plaintiff counsel being 'parachuted' into the most serious obstetric claims in states where they wouldn't normally practise – accompanied by a better network of expert witnesses facilitated by local partner counsel. This trend has led – and will likely continue to lead – to higher awards in catastrophic injury claims across the US. Additionally, such counsel are moving into more benign areas within states to test litigation boundaries, whilst at the same time growing their personal profiles and client bases.

^{* &#}x27;Urban' encompasses all hospitals in major urban centers. 'Rural' encompasses all hospitals situated in a rural or suburban area. We have removed the data attributable to large multi-state systems from this analysis. We have used mean average severity in order to reduce reliance on anomalous data given the potential for volatility to skew the results.

2 average frequency of severity over time



The data shows the trend over time in ultimate frequency of large claims (greater than \$5m).

The data shows a clear increase in frequency of larger claims over time. We have added development assumptions from 2013 year onwards to present the data on an 'ultimate' basis.

When we looked at the data on a 'banded' basis, all severity levels are seeing an increase in frequency. However, the most acute upward trend is in the \$5m-\$10m banding, highlighting the need for higher self-insured retentions.

The justification for a \$5m threshold here is also driven by the relevance of where excess of loss HPL carriers tend to 'attach' (on a first loss basis). The rationale behind setting attachment points on HPL programmes has traditionally been to transfer true *catastrophic* risk at an appropriate level. If this level is increasing over time, attachment points should increase accordingly to continue this risk transfer mechanism on a sustainable basis.

"all severity levels are seeing an increase in frequency... attachment points on HPL programs need to be increased accordingly to continue this risk transfer mechanism sustainably."

Tom Kennedy

Class Underwriter, Healthcare Liability

Severe claims study

An important consideration when looking at frequency of severity is specifically where large claims originate within the hospital setting and which types of error are driving them. The data set behind this study comprises a subset of 293 severe claims (\$2.6bn of total incurred) that each have incurred values greater than \$5m and for which we have detailed 'cause code' data. Whilst there are limitations to the scope of this analysis, most notably that we have not looked at changes through time, some interesting themes emerge.

Claims Incurred Above \$5m by Hospital Department by mean severity Incurred (m) 20 15 10 Pediatric Other General Surgical Perinatal by % of total incurred 5% 6% 37% 16% 32%

Key findings - Hospital Departments

Claims originating in Emergency and Pediatric Departments* have a higher average severity (over \$5m) than claims arising from labor and delivery – commonly assumed to be the highest severity claims setting. However, looking at the percentage of total incurred, perinatal claims still dominate in terms of frequency (>\$5m) and therefore overall cost.

"Claims originating in Emergency and Pediatric Departments have a higher average severity (over \$5m) than claims arising from labor and delivery."

Andrew Wills Senior Actuarial Analyst

^{* &#}x27;Pediatric' includes Pediatric ED claims

Key findings - Type of Error

When reviewing the type of error, birth injury claims have by far the highest frequency over \$5m. However, when looking at average severity, there is a cluster of error categories with minimal variance (and four categories with higher average severity than birth injury), which are driving severity above \$5m. It is worth noting that the 'Other 'category may include certain types of 'Batch' or 'related medical incident' claims, depending on coding.

It is surprising that the average severity of birth injury claims resulting in neurologically impaired infants (NII) does not exhibit more variance from that of all other birth injury claims. More predictably, the proportion of total incurred attributable to NII claims is almost triple that of all 'Other'.

Claims Incurred Above 5m by Type of Error by mean severity Incurred (m) 12 Other Type of Error ntubation Error Misdiagnosis / Failure to Diagnose -ailure to Supervise Medication Error Surgical Error Birth Injury { All Other by % of total incurred 5% 4% 10% 26% 13% 36% 10% 26%

The high proportion and high severity of misdiagnosis claims above \$5m could potentially be due to:

- a an increase in health systems delivering more primary care services traditionally served by independent physician groups.
- **b** an increase in health systems delivering a greater proportion of healthcare services via electronic platforms, reducing face-to-face patient interaction.
- c a general shift to the 'employed physician' model shifting apportionment of liability onto the employing hospitals and health systems.

"The high proportion and high severity of misdiagnosis claims above \$5m could potentially be due to an increase in health systems delivering more primary care services traditionally served by independent physician groups."

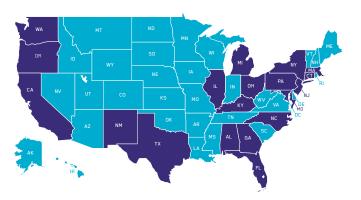
Marc Tyler

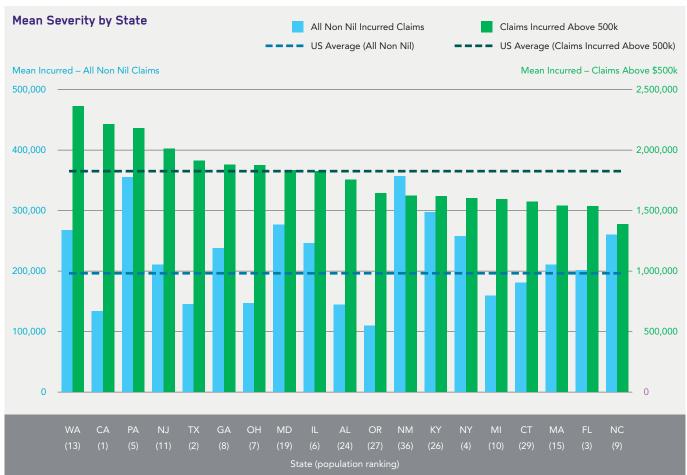
Underwriter, Healthcare Liability

3 state-by-state severity comparisons and the impact of tort reform

State-by-state comparisons

This exhibit includes a selection of the 19 states where we have the most credible data sets (a significant and credible volume of OBEs and claims in each underwriting year). The selection includes the ten most populous states and 13 of the most populous 15 states. The exhibit includes mean severity by state between 2005 and 2015.





We have represented the data using two thresholds: all non-zero claims and all claims above \$500k incurred. This is to illustrate those states where severity is more acute.

PA, WA, NJ and GA all sit above the national average on both thresholds. Perhaps more surprisingly (due to conventional perceptions of these jurisdictions as traditionally more challenging for HPL carriers), CT, MI, AL and OR are all below average on both thresholds. Also of note is that OH, TX and CA – all states with stable non-economic damage caps – sit below the national average on an all-claims basis, but above on a >\$500k basis. This implies the cap is more effective at controlling smaller claims – potentially due to the distorting impact of the economic damages component of larger losses on overall severity.

The impact of tort reform

We reviewed mean severity over time of claims above \$500k incurred in a sample of seven states, each of which has one of the four following attributes:

- No material tort reform in place over the past 15 years (PA)
- ii Tort reform overturned within the past 15 years (FL)
- iii Material and stable tort reform over the past 15 years that caps all damages (MA, NJ – owing to their charitable immunity statutes)
- iv Material and stable tort reform over the past 15 years that caps only non-economic damages (CA, MD, NC)

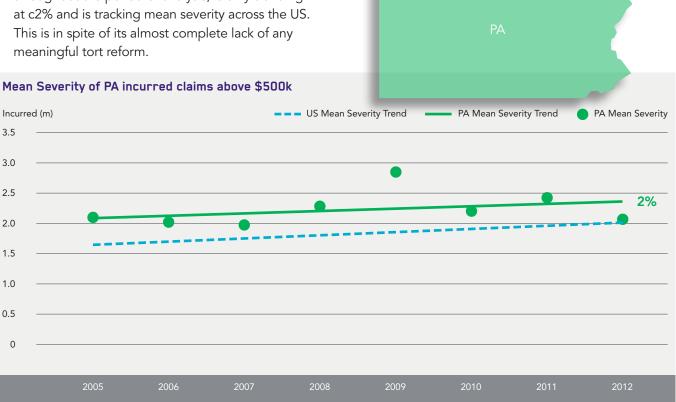
For states with tort reform remaining in place at the point of publication, we have shown the position of this cap on the respective charts against the most recent (2012) underwriting year for illustrative purposes.

The conclusions have been varied and somewhat surprising. They often show that tort reform, if taken in isolation, has been ineffective at curbing severity inflation over time.

PA, whilst exhibiting an above-average mean severity throughout the period of analysis, is only trending at c2% and is tracking mean severity across the US. This is in spite of its almost complete lack of any

"Above-average severity trends are shown by states with long-standing noneconomic damage caps these were originally implemented to prevent such trends."

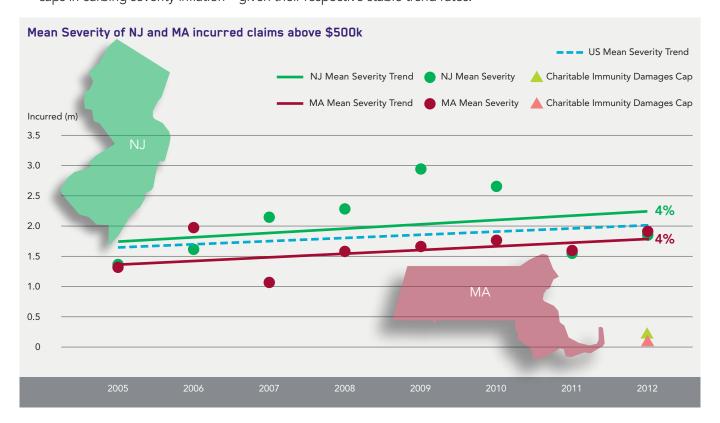
Marc Tyler Underwriter, Healthcare Liability



ii FL, whilst experiencing a series of challenges to its various tort caps over recent years* has not exhibited a dramatic upward trend in severity, nor has it tracked above the national average. Notably the trend rate in FL is one of the lowest analyzed here – and is markedly lower than all states in categories (iii and iv).

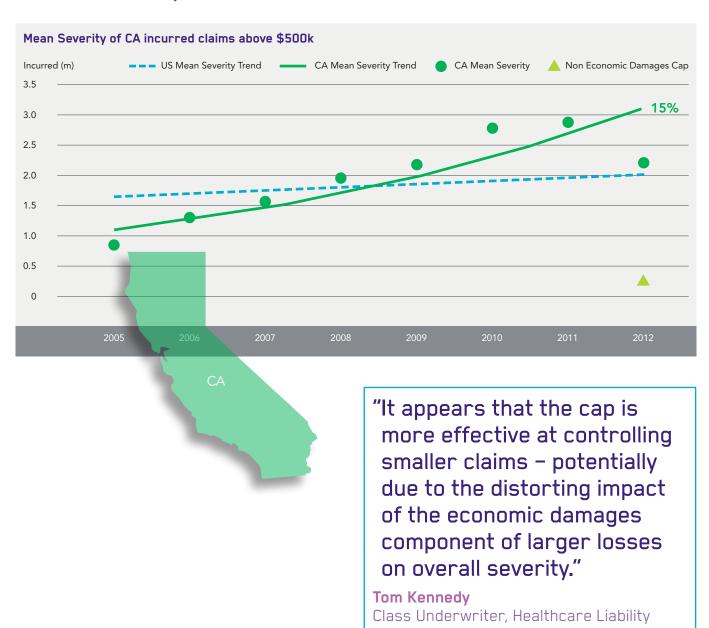


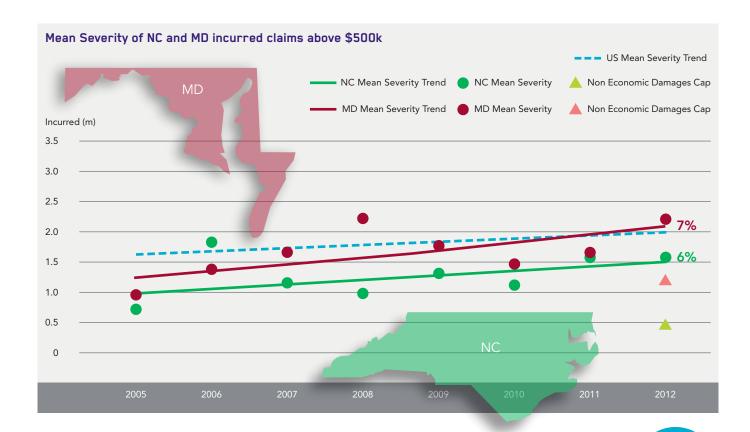
iii NJ and MA, whilst sitting slightly above and below the national average respectively, both arguably demonstrate the benefit of charitable immunity caps in curbing severity inflation – given their respective stable trend rates.



^{*} McCall 2014, Kalitan 2017 – note that the data is on an underwriting year basis, so these court decisions (affecting from verdict/settlement year onwards) are theoretically relevant to the underwriting years presented here

iv Of particular interest are the above-average severity trends being exhibited by states with long-standing non-economic damage caps (CA, NC, and MD), which were originally implemented to prevent such trends. CA is the most extreme example, showing a very high (15%) trend which has taken its average severity well in excess of the national average. NC and MD are telling a similar (if slightly tempered) version of the same story.





"The indications are that tort reform has been relatively ineffective at curbing severity inflation."

Tom Kennedy

Class Underwriter, Healthcare Liability

Claims Perspective life care plans and tort reform

Many states have adopted (or have had in place) tortious non-economic or charitable immunity caps to control claim severity. However, it is apparent that plaintiff counsel have adopted more elaborate presentations of heads of loss to circumvent any likely non-economic damage restrictions to increase overall quantum.

A key trend is the use of very high-value life care plans. This is a crucial element of any catastrophic claim and is often used to great effect by plaintiff counsel to maximize awards for their clients. The cumulative impact of this is moving the median on settlement negotiations to a point that would have previously been considered closer to a maximum demand. Combating these non-credible life care plans with equally extensive (and regrettably, costly) alternatives based on hard fact is an essential strategy, which we encourage our (re)insureds to deploy. It is also essential that defense counsel are fully versed in the potential damage mitigation benefits provided by the Affordable Care Act.

Brit's healthcare team

Brit has over 25 years' heritage in writing professional liability risks; our comprehensive healthcare liability offering is a core part of that heritage. The global healthcare industry is a rapidly growing and evolving sector, the complex risk attributes of which require industry expertise across the underwriting, claims and actuarial functions.

Brit's experienced healthcare team is committed to providing tailored insurance solutions, innovative products and related healthcare risk services to our clients and brokers. We pride ourselves on delivering disciplined, consistent underwriting and exceptional service. Please get in touch if you would like to find out more.

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Tom joined Brit in 2015 and has led
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After a one-year foray into InsurTech,
Ben started his Actuarial Career

Ben started his Actuarial Career at Brit Global Specialty in 2012. Having initially worked on Pricing, Reserving and Insurance Risk across a diverse range of classes, he is now

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Andrew started his actuarial career
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at EY in 2015, where he analyzed a wide variety of product lines written both by Lloyd's Syndicates and other London Market insurers.

At the start of 2019 he joined Brit to specialize in Pricing and Reserving for the Financial and Professional classes of business. Andrew holds a BA in Maths from the University of Oxford.



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Adam joined Brit in 2015. He was

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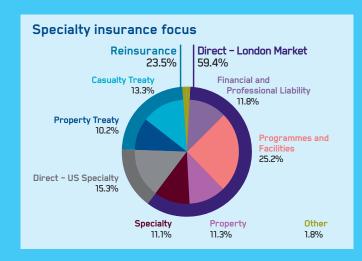
a solicitor at Plexus Law between 2007 and 2014, dealing with a variety of Healthcare matters. He holds a LLB (Hons) in Law from Kingston University and a LLM (Law and Economics) from the Universities of Hamburg and Madrid respectively.

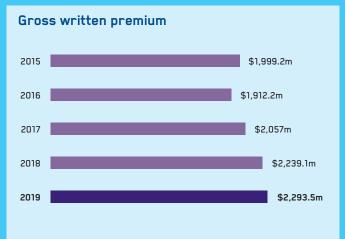
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Brit is a market-leading global specialty insurer and reinsurer, focused on underwriting complex risks.

With a major presence in Lloyd's of London, the world's specialist insurance market the business we write.

and a technology-led service - all of which Financial Holdings provides us with a strong





2019 full year results

A return to profit driven by a strong underwriting performance

Gross written premium Result after tax US\$2,293.5m US\$179.9m (2018: loss of US\$166.5m) (2018: US\$2,239.1m) an increase at constant exchange rates of 3.4% Risk adjusted rate change on renewal business Return on net tangible assets³ Before FX: +18.1% Increase of 5.9% (2018: -14.4%); after FX: +18.4% (2018: -15.4%) (2018: 3.7%)Combined ratio1 Closing adjusted net tangible assets4 95.8% US\$1,150.4m (2018: 103.3%) including 3.6 percentage points (2018: US\$992.9m) of major losses (2018: 12.0pps) Return on invested assets², net of fees Capital ratio⁵ Return of US\$148.1m/+3.6% 128.4% (2018: 130.4%)

- 1 Excluding the effect of foreign exchange on non-monetary items.
- 2 Return on invested assets includes return on investments, cash, investment related derivatives and share of net profit of associates and is after deducting investment management fees.
- 3 The return on net tangible assets NTA is based on adjusted net tangible assets.
- 4 Adjusted net tangible assets are defined as total equity, less intangible assets net of the deferred tax liability on those intangible assets
- 5 The capital ratio is calculated as available resources as a percentage of management entity capital requirements.



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Brit Syndicates Limited 2987 and 2988 benefit from Lloyd's ratings of A (Excellent) from A.M. Best, AA- (Very Strong) from Fitch and A+ (Strong) from Standard & Poor's. A.M. Best has assigned a Financial Strength Rating of A (Excellent), with a 'stable' outlook, to Brit Reinsurance (Bermuda) Limited ("Brit Re").

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