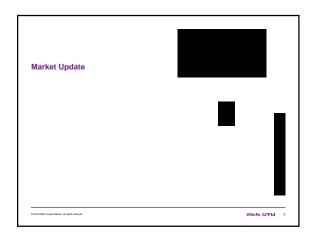
In 2017 it was HIM. What will it be in 2018? HER? State of the Reinsurance Market May 14, 2018  Willis Re In Plai	
2017 Loss in Review	
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Insured loss estimates from 2017 Cat activity	
There was significant uncertainty around the quantum of insured loss with a broad range of estimates from modeling firms	
Initial Estimates	
Harvey Irma Maria Mexican EQ Cal. Wildfire Total Insured Loss	
December   Columbia   Columbia	
Revised Estimates  Harvey Irma Maria MexicanEQ Cat. Wildlire Total Insured Loss  Modeling Company Low High	
AR Worldwide 10.08 10.08+ 32.08 50.08 24.08 46.08 675M 1.98 8.08 10.58 74.08 118.58 Risk Management Solutions 2.508 35.08 35.08 55.08 15.08 30.00 1.28 1.28 6.08 8.08 82.28 129.28 Correctoric 7.58 115.8 22.58 35.08 NA NA NA NA NA 7.08 10.09 37.08 56.58	
Kerer Clark and Campany 15.48 15.48 25.08 25.08 29.89 29.88 NA	
weaton are destinates for Puebla event only. Air also estinates losses for the Chapas Eq Detween \$730M - \$1.0B   PCS does not estimate a range; PCS reviews their estimates every 60 days until they deem their	
estimates as final. None of the estimated shown here are yet considered final by PCS.	

ajor Insu	red Loss Events in 2017	
-	peen five major insurance loss event	
	Loss Event Details  § August 25 (landfall in Texas)	Key Insurance / Perils  § Significant flooding (residential & auto)
Hurricane Harvey	§ Texas and Louisiana	§ Financial blow to under/non-insured § Additional \$7-11bn of losses to NFIP
(8/25/17)	§ Category 4: 130 mph § Loss estimates range: \$20bn - \$40bn	§ Potential litigation – Wind vs. Flood damage
Hurricane	September 10 (landfall Florida)     Florida and the Caribbean	§ Significant wind and storm surge § A near miss for Miami (a "wake up call")
Irma (9/10/17)	§ Category 4: 130 mph	§ Post-event demand surge to increase costs
	September 20 (landfall in Puerto Rico)  September 20 (landfall in Puerto Rico)	§ Resources deployed to TX for Harvey  § 2nd major hurricane to hit Puerto Rico in Q3
Hurricane Maria	§ Category 4/5: 150 mph § Caribbean (major impact to Puerto Rico)	<ul> <li>Stronger storm than Hugo ('89) / Georges ('98)</li> <li>Significant impact to Puerto Rico economy</li> </ul>
(9/20/17)	§ Loss estimates range: \$10bn - \$85bn	§ Travel/Leisure and Pharma
Mexico EQ	§ #1 - epicenter Chiapas, 8.1M (highest in Mexico in over 100 years)	§ Low earthquake insurance penetration § Private Dwellings: 0.25% - 0.35%
(9/8/17 & 9/19/17)	§ #2 - epicenter 75 miles from Mexico City, 7.1M § Loss estimates from \$1.2 billion to \$4.8 billion	§ Comm1 / Industrial: up to 20% § FONDEN EQ bond fully exhausted (\$150mm)
		Very high penetration of coverage (fire peril)
CA Wildfire (8/8/17 –	§ Wine County wildfires began October 8th § 245k acres and 8900 structures burned (CalFire)	High home values in area and number of larger commercial risks impacted
8/31/17)	§ Largest firestorm in California history	Substantial expected demand surge and EE
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Commenta	ry on Catastrophe events	
		<b>****</b>
	dynamics of a flood-heavy event	sian and Danson lines (Indian (NICID)
§ Substantial a	nect between economic and insured loss (large protect auto loss, and loss adjustment expense contribution als	tion gap). Personal lines flooding (NFIP) to will be significant
§ Commercial § Loss develop	flood; BI & CBI will be significant factors oment taking on a potential trend more akin to earthqua	ake loss i.e. 2-3 year tail
Irma: The Cat		
§ Predominant	but not apocalyptic tly a Florida and Caribbean event	
§ Issues of As	signment of Benefit (AOB), fraud, demand surge which rs bought back up covers from an active, functioning in	will add complexity and cost narket
Maria: Pain in		
§ Substantial of	damage (estimates as extreme as 30% of \$250B TIV) tration with a few insurers, could be largest % reinsure	d of the three
§ Pharma, Tec	th and Hotels expected to experience BI losses owing ge issues further compounded post Harvey and Irma	d of the three
California Wild		
	tes from RMS and Moody's did NOT include auto or cro	DP W/ from smoke damage
§ Insurance pe	Idfire events to have ~80% of loss from "totals" while 20 enetration is high (all perils policies), majority of loss will	I be insured
§ Additional liv	ring expense -30% of Cov A, damaged homes or mand	latory evacuation, frequently Replacement Cost
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	B. W. G. at 114	
Interactive	Polling Question #1	
8 Did your s	company have a reincured loss in 20	17 from one of the meetioned
	company have a reinsured loss in 20 nic events?	ir irom one of the mentioned
oa.aou opi		
A) Yes		
B) No		
C) I don't	know	
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January 2018 Renewal Review

1st View Highlights - Extreme Weather - Calm Market

Earnings erased, capital eroded, capacity remains

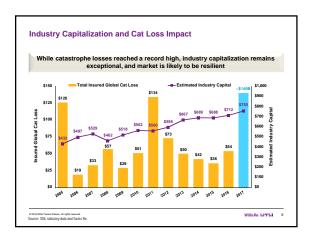
Reducing annual RoE's and 03 events have wiped out reinsurer earnings for 2017
Capital has been impacted to a modest extent on average in the range of 5% to 7.5%
Capacity oversupply remains, with insurance Linked Securities remaining robust

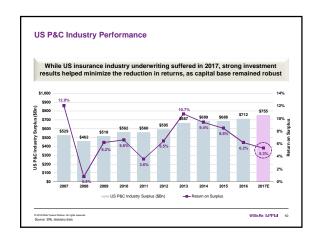
Organic growth and increased demand

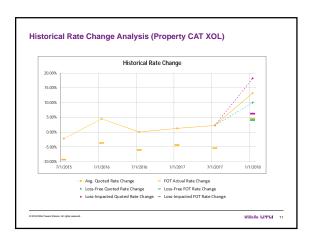
Underlying portfolio growth is driving increased cessions, with a reappraisal of peak PMLs
Greater demand for lower attachment, second loss, frequency and earnings protection
A move towards more aggregate, clash and multi year covers
Emerging risks being brought to market - pole, terrorism

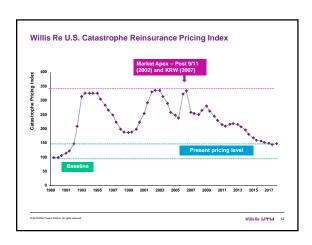
Modest price increases across all classes

Underlying Rif results and 2017 losses have brought an end to rate reductions in renewal pricing
Abundance of capital and appetite for risk has imposed a measured response from reinsurers
Loss free accounts across all classes saw risk adjusted flat to modest increases of 0% to 5%
Minor changes in reinsurer parsets









Interactive Polling Question #2	
§ Did your company's 2018 reinsurance pricing increase at renewal?	
A) Yes	
B) No	
C) I don't know	
D) Too early to tell	
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ILS Spotlight	
§ ILS assets under management both inside and outside the larger ILS funds continue to grow	
Rapid reload of ILS funds following initially overstated Hurricane Harvey, Irma and Maria (HIM) losses	
S Loss development and claims collection from 2017 catastrophe events continues to proceed in an orderly fashion with few surprises	
§ Issues over non-modeled Alternative Capital as % of Global Catastrophe Re Limit losses (CA Wildfires) have	
been limited to a small section of the ILS market writing	
- No impact on appetite	
S Larger ILS funds are building 15% 15% 15% 15% 15% 15% 15% 15% 15% 15%	
expectations with regard to less obvious exposures 0% 2009 2010 2011 2012 2013 2014 2015 2016 2020E	
0.010 Mills Town Wasses, 40 Option sectored WilliaRe In PVI-M 14	
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April Renewals Highlights	
§ Elevated 2017 global natural catastrophe losses not seen as a major catalyst for	
rate hardening, soft market conditions remain  § April renewals saw the continuation of a broadly flat pricing environment	
<ul> <li>Reinsurers sought to push double digit price increases at January 1 but were largely frustrated with the market settling on mid-single digit increases</li> <li>Tempered the April 1 renewal price expectations from market</li> </ul>	
Loss-free cedants continue to push back with lower firm order increases or slight decreases	
§ Latest vendor model changes further frustrated Reinsurers' desire to increase prices	
Capacity remains plentiful with non-traditional and collateralized markets increasing available capital and competing for participations	
Away from the headline property catastrophe renewals, many other classes managed uncontentious renewals     Despite limited movement in original rating levels, underlying exposure growth	
S Despite limited movement in original rating levels, underlying exposure growth has fed through into modest increased reinsurance premium volumes for reinsurers	

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Florida June 1, 2018 Renewal Outlook	
§ Flight to quality continues to differentiate price and capacity § Top performers are seeing -7.5% to flat risk adjusted pricing § Others are seeing flat to 45% risk adjusted pricing § Slight increase in demand for capacity from buyers is largely muted by the oversupply of capacity from reinsurers	
§ Irma update § Assignment of Benefits will continue to be an issue, especially for companies with sub-par claims operations § Loss creep has been noticed lately; Plenty of reinsurance limit remains within	
6/1/2017 programs, but creep is eroding reinsurer positions  § Citizens remains strong  § Well capitalized  § Exposure base is contracting  § Reinsurers remain supportive	
Renewal market is orderly, quoting freely and with transparency	
C200 Williams France At Opin messark Williams Research 16	
M&A Activity Chaucer A Cha	
§ Return to the "Big Balance Sheet" reinsurer model	
\$\[ \] Large primary carriers have re-entered the reinsurance market \$\[ \] Major non-life primary companies with large personal line / small medium enterprises portfolios facing the greatest disruption from new distribution models \$\[ \] Large primary companies with life portfolios facing profitability challenges & inability to differentiate their results from \$\[ \] Launched formal sale process \$\[ \] Eany indications suggest price of the process in the primary companies with life portfolios facing profitability challenges & inability to differentiate their results from the process in the process	
§ Specialty carrier valuations and M&A activity remain robust in part due to increased scarcity value § -2.2x tangible book value for Lloyd's Published target price between	
\$ ~1.7x tangible book value for US Specialty \$850M - \$1B (1.3x-1.5x book value)  William Mark Angle MPM 17	
Interactive Polling Question #3	
includity i dining question no	
§ You are at the CAS Spring event in Boston, MA. After this session, will you:	
A) Drink a Sam Adams Boston Lager?      B) Eat Clam Chowda and a Lobsta Roll?	
B) Eat Clam Chowda and a Loosta Roll?  C) Search the city for Brady and Gronk?	
D) All of the Above?	
C2019/file Taxon Flores All syn nerved. Willis Towers Watson In 1991 18	

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Conclusion	
§ 2017 was a year of extreme weather events with record insured losses	
	-
§ Despite 2017 weather and losses, the reinsurance market remains strongly	
capitalized	
§ Pre-renewal messaging of price increases as been largely muted by the over	
supply of capacity	
S. We are still lessely in a hundry modulet and reincurary are william to get	-
§ We are still largely in a buyers market, and reinsurers are willing to get creative in developing solutions which meet the buyer's revised view of risk	
management	
§ Questions?	
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