Ready for the next Catastrophic Event?

Presentation at the International Insurance Conference on
“Climate Change & Emerging Risks”, Karachi April 2017
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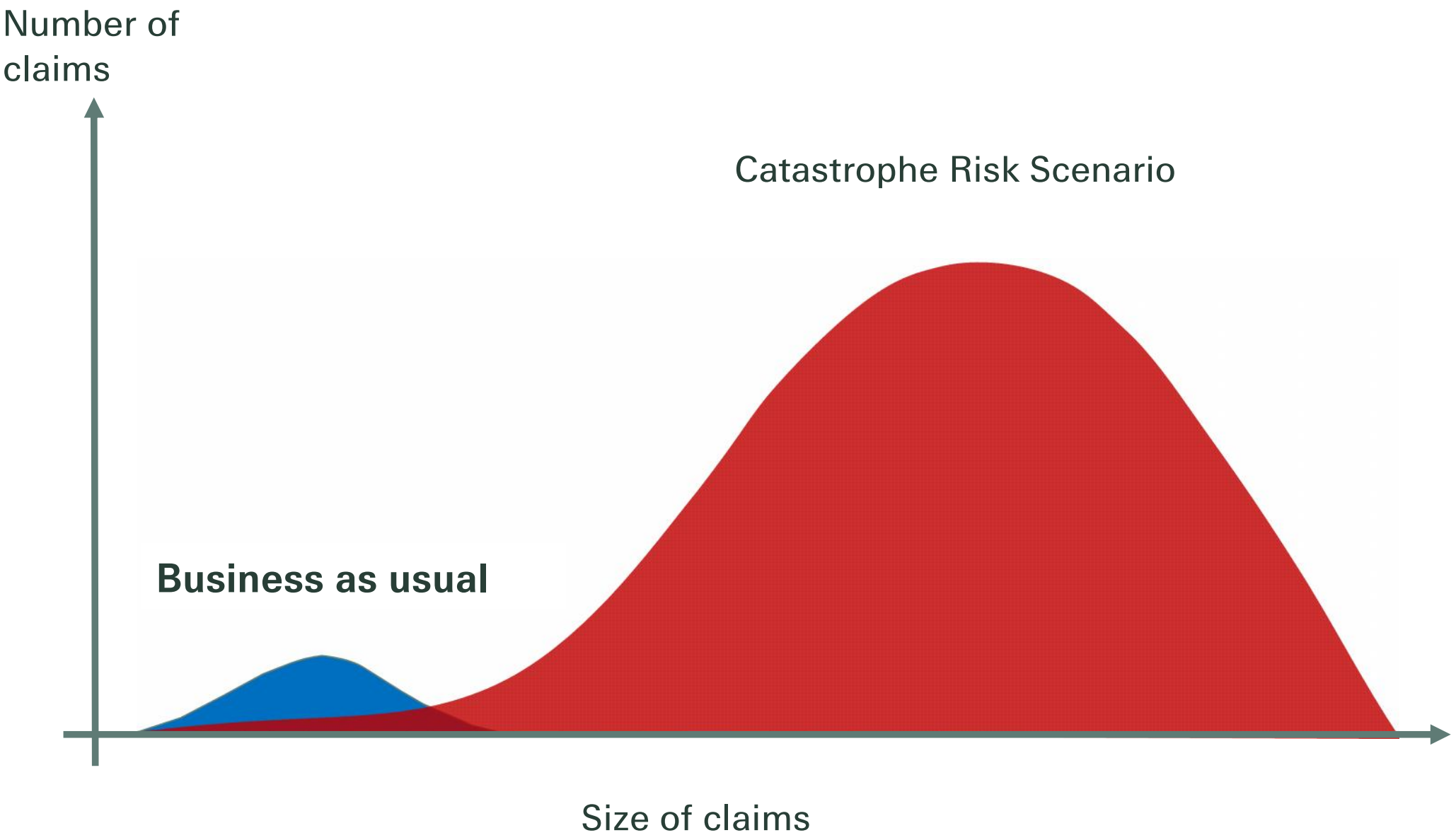
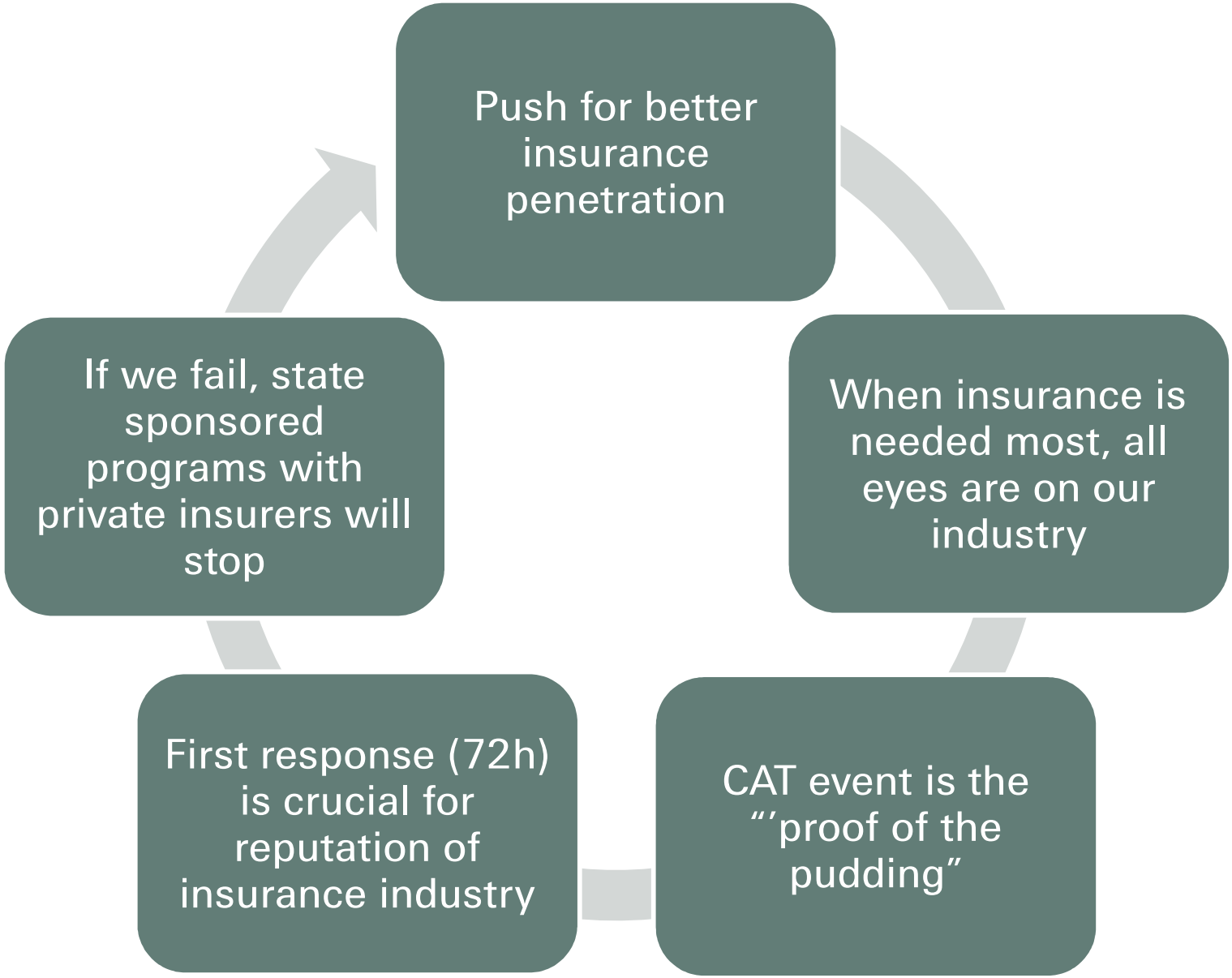
Operational Naivety : A Real Example of Operational Non-Preparedness



Why Do We Talk About the Issue?



What Needs to be Done?

Team-wide (Claims)	Company-wide	Industry-wide
process/protocol	integrated processes	priorities
documentation	workflows	consistent assessment
deputies	clear roles	co-operation/"one touch"
regular training	global stress tests	Government plan
experience	resource plans	joint plans (Associations)
approval levels	external dependencies	global resources

The Example of Christchurch, New Zealand (2011/12)

Some Key Facts:

- **167'000** residential properties damaged
- Total economic loss: **~USD 32bn**
- Total insured loss: **~USD 25bn**
- Average of 7 site visits per property

Potential Savings in New Zealand - One Possible Scenario*:

20% increase in costs for all 40 insurers	USD 5'000m
- 10% due to external factors	USD 2'500m
- 10% due to internal factors	**USD 2'500m**

Cost of Nat Cat Readiness Program:	
2 FTEs for 5 years	USD 1.3m
Training 100 employees one week/year for 5y.	USD 1.5m
Costs per insurer for full 5y:	USD 2.8m
Costs for all 40 insurers for full 5y:	USD 112m
Net savings for all 40 insurers	**USD 2'388m**

Net savings per insurer: USD 60m

If program runs for 100 years: USD 19m

* simplified example, based on multiple assumptions; time value of money is neglected.

2016 Fort McMurray Wildfire

Fort McMurray Wildfire Key Facts/Figures

88,000
People Evacuated

Total Loss Estimate
CA$3.8 Billion

Residential Property
27,000 Claims
CA$82,000 Value

Commercial Property
5,000 Claims
CA$268,000 Value

Motor
12,000 Claims
CA$12,000 Value

Fort McMurray Firebreak

Who pays for buildings intentionally destroyed by fire fighters to create a firebreak?

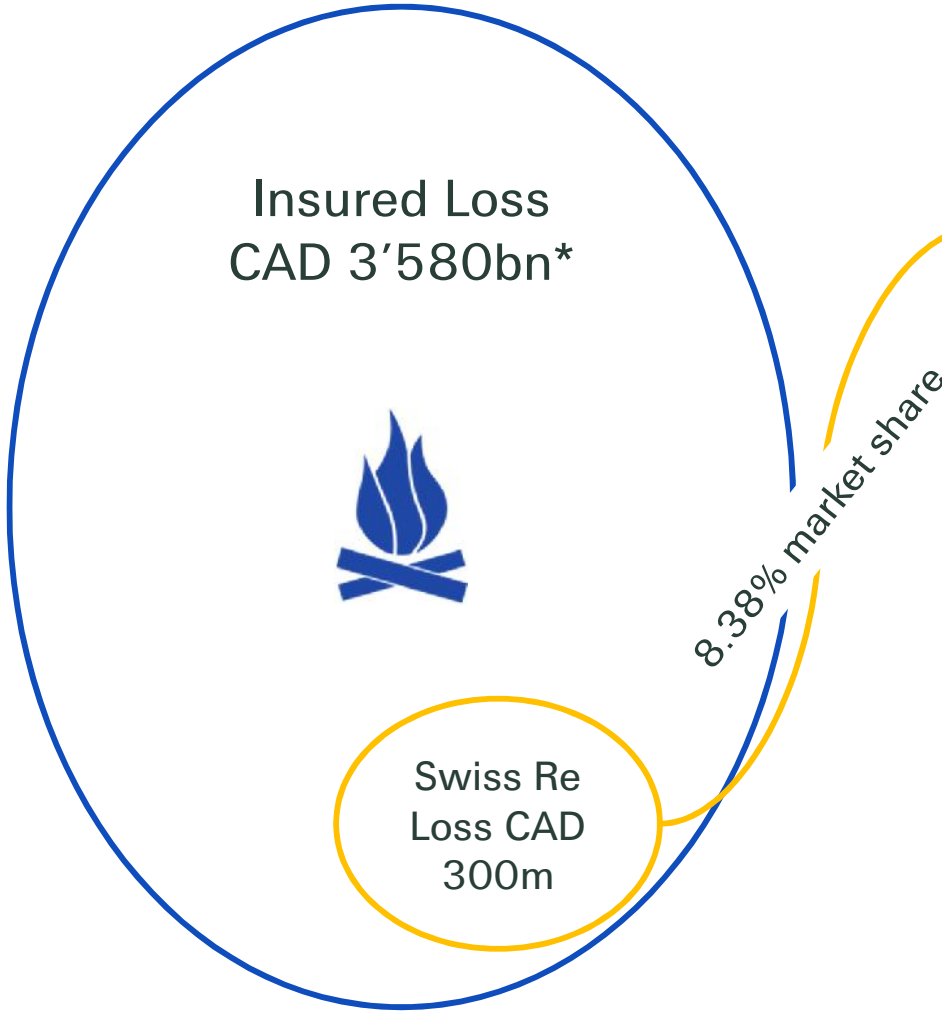
Fort McMurray Waterways

Citizens decided to rebuild in a high risk flood zone – refused offer from the town to relocate to safer place

Increade prices to dump the waste

Out-of-town companies were charged higher rates to dump waste, while local service providers could only offer limited capacity

Fort McMurray Wildfire SR Impact



Average Losses**	
Personal Property (62%)	CAD 81.3k
Commercial Property (33%)	CAD 227.8k
Motor (5%)	CAD 15.8k

** CatIQ market figures

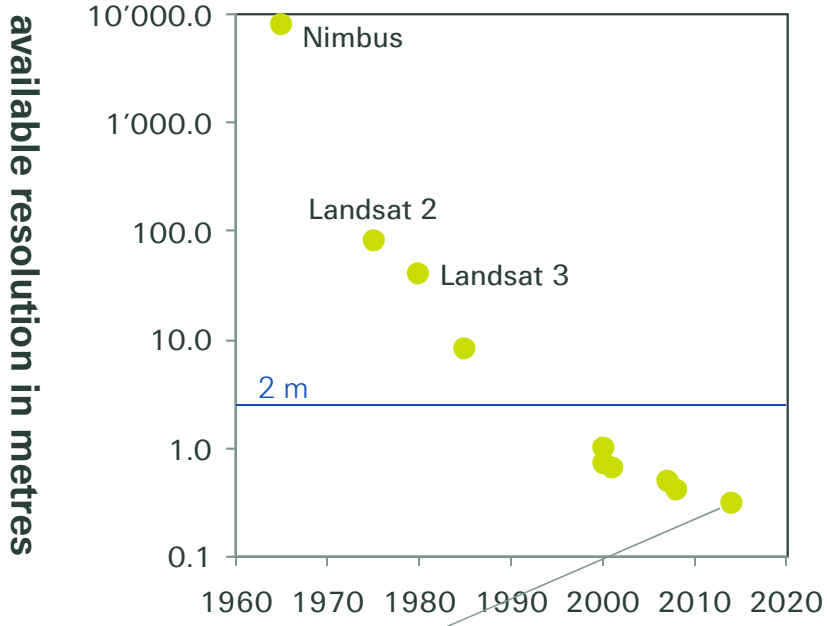
Swiss Re Impact

- 2'286 homes can be repaired / replaced thanks to Swiss Re.
- Our support reaches more than 9'000 family members (assuming 4 per household).
- 429 businesses protected thanks to Swiss Re.
- To date CAD 110m already paid out.

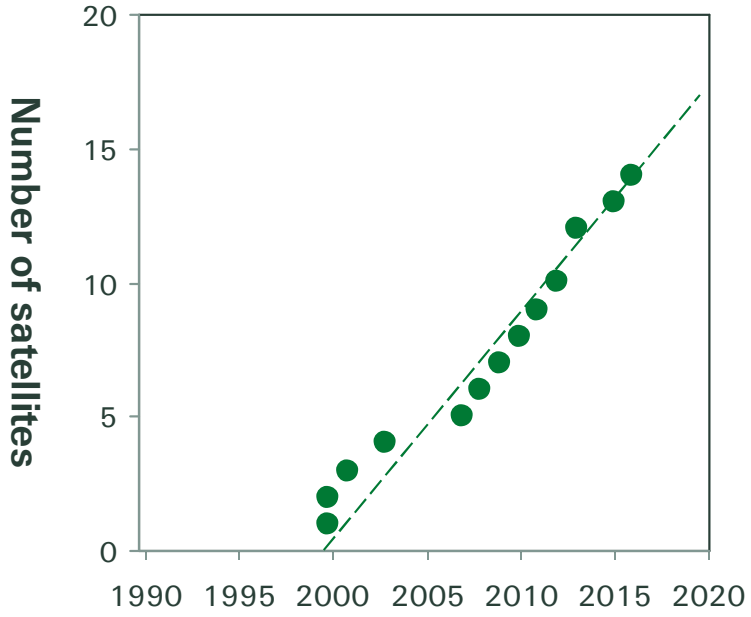
* Latest estimate from Insurance Bureau of Canada

High-resolution satellite images are becoming a commodity – they were very helpful in Fort McMurray

Best-available resolution of optical satellite images



Number of available satellites with resolution below 2 meters



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Data transfer
Several High-bandwidth downlinks and fast internet connections → less than 2 hours until the customer has the picture at hand

Miniaturisation
Smaller devices on the satellites allow for lower costs due to reduced cost in terms of the rocket launch

Satellite for the Big Picture, drones for the details

Satellites

+ non-invasive technique
+ large area coverable
+ independent on access granted by authorities
+ faster reaction time

Drones

+ less dependent on the transparency of the atmosphere
+ Higher resolution
+ Different viewing angle

Claims assessment for NatCat and man-made disasters

Immediate overview of the situation → Immediate overview of the situation

Damage is often very easy to spot and quantify from satellite images

Fort McMurray

False-color image

Active vegetation

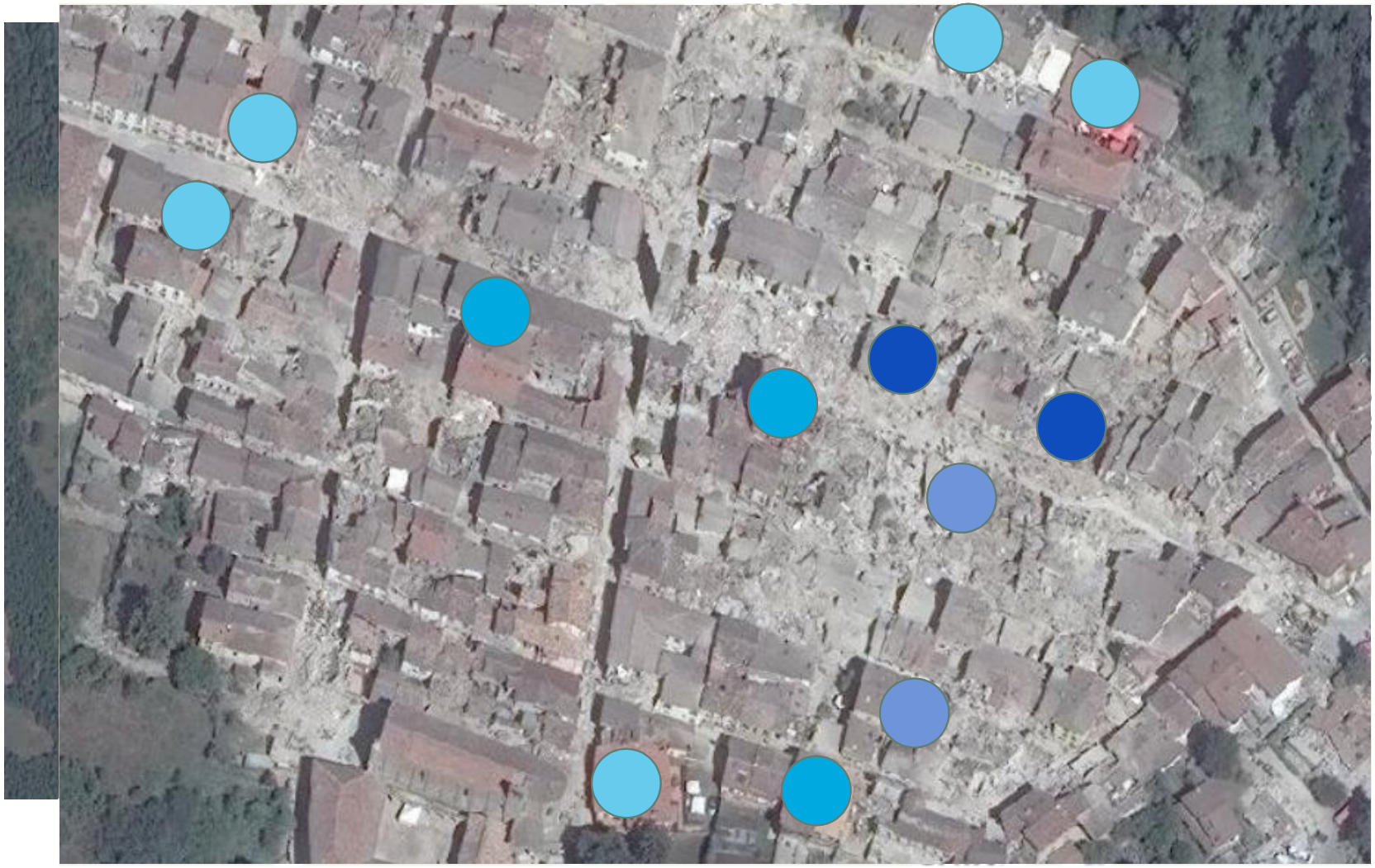
Burnt down area

OK, but potential smoke and water damage

Burnt down

Combining satellite images with additional information can generate fast loss estimations – another example

Amatrice (Italy Earthquake 2016)



Capacity Utilization/Vendor Management

Lessons learned from Fort McMurray

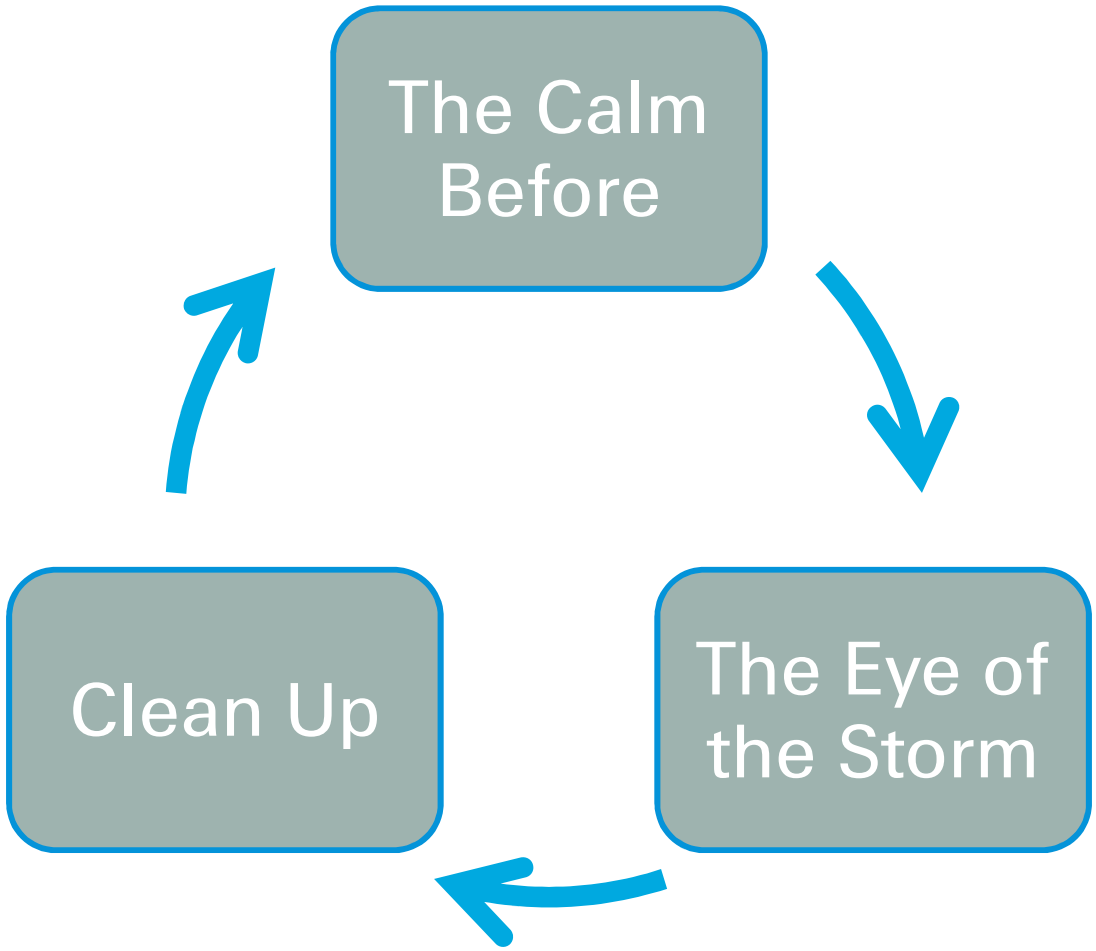
- Appoint a Cat Coordinator – daily/weekly debriefs critical
- Training of staff – in and outside of Claims Dept. incl. temp staff – cat specific guidelines and scripts
- Non-Claims Staff for Emergency Claims Duty - Underwriters, marketing people, and others.
- Cat specific file handlers (inside and field staff)
- Consider use of agents/brokers for certain tasks
- Vendor selection and management – in and outside of area where event takes place – ensure acute understanding of handling capacity

Swiss Re

Nat Cat Readiness –

Examples and Key Topics to be Addressed

Natural Catastrophes:
Is your company ready for the next big event?



The Calm Before the Storm: Resources/Vendors Network

Identify and establish relationships with experts/companies you will require:

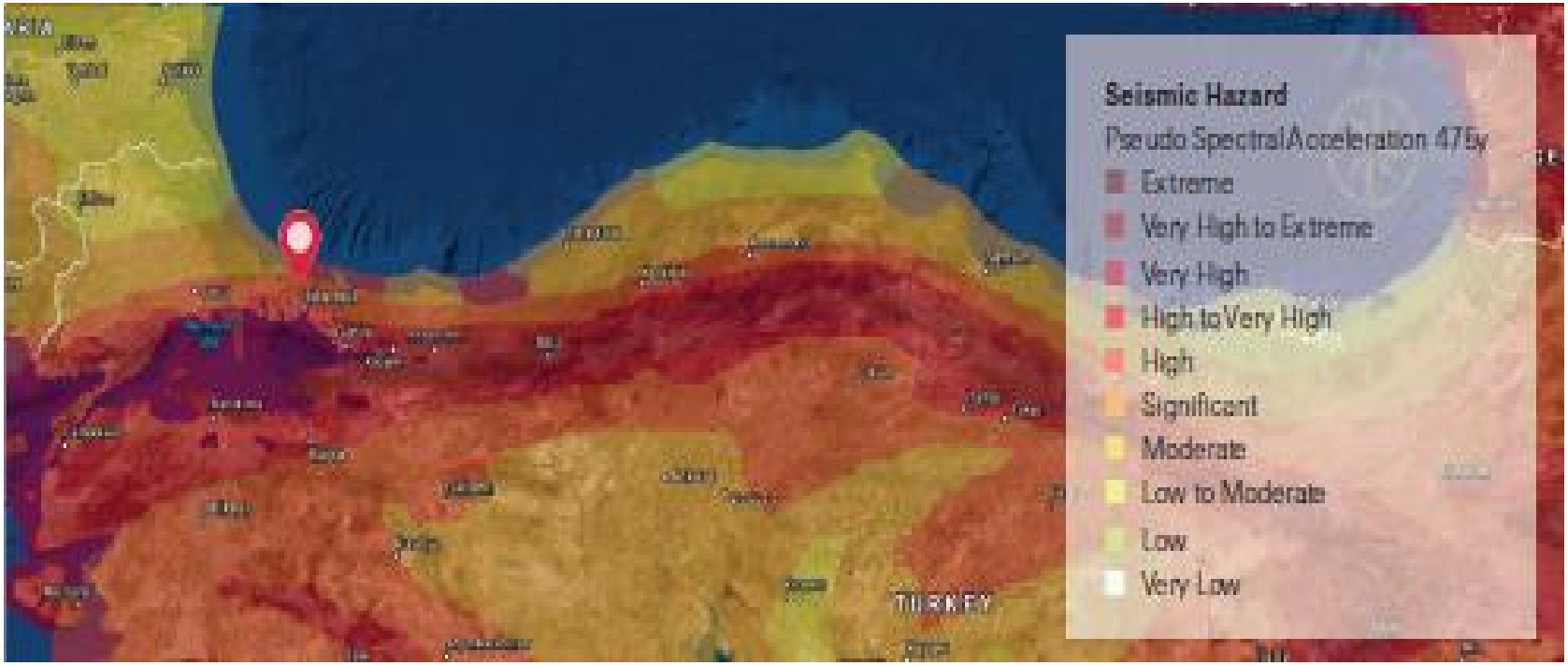
- Engineers, craftsmen, electricians
- Adjusters, Forensic Accountants
- Material supply (e.g. dehumidifiers)

What to do in case of lack of resources ?

- If possible bring people from abroad (need to know local codes and language), issues with visas?
- Coordinate adjusters between companies (pooling of claims resources)
- Provide adjusters new technology to enable fast adjustments and payments (ipads, drones)

Let's have a look at Istanbul

- Seismic hazard map as displayed in Swiss Re's Cat Net



- A 7.5 M scenario in the city's most urban areas would cause a violent shaking of up to intensity IX on the MMI scale
  - 300'000 buildings would be structurally damaged
  - 270'000 Buildings would show light, non structural damages
  - 6.4 m people would potentially be affected (1.5 times New Zealand's total population)

Eye of the Storm:
Leverage the technology you have . . .plan for the technology you need.

- To share information quickly
- To more efficiently process claims
- To get better data
- To more accurately assess a loss
- To more accurately assess the event as a whole

The Eye of the Storm: Use Data Effectively

Do you have the data you need to effectively manage claim resources?
Design regular reports/train someone to run

- Development of the event – reported losses, reserving, payments
- Number of claims
  - Assignments to Adjusting Firms
- Severity Distribution
- Geographic distribution

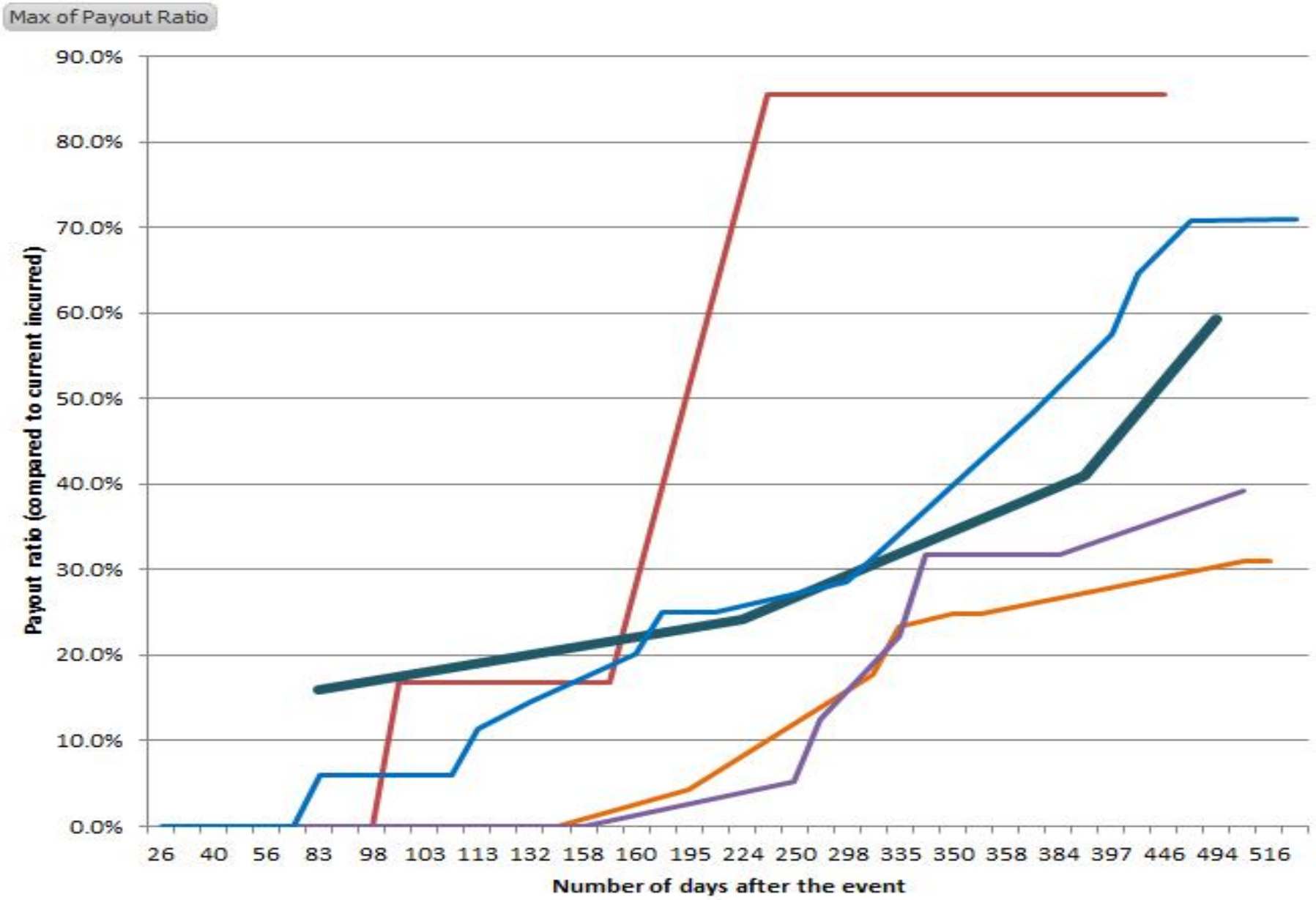
Are Adjusters complying with Service Level Agreements?

- Contact with insureds
- Initial inspections
- Adjuster reports
- Estimates
- Reserves

The Clean Up – Review what worked and what needs improvement.

- Know the Perils and the Risks
- Policy Language
- Plan/Guidelines
- Resources: Internal and External
- Customer Communication/Preparedness

After the event – An example from Philippines
Insurance Payout Ratio for Typhoon Yolanda (Nov 2013)



Best Practices

- Adjuster licensing – liaise with regulatory authorities
- Drones – USAA, State Farm - GPS/GIO Mapping of losses/risks
- Use of satellite imagery to assist with loss estimating and claims cat response
- Procedure for confirming denials on claims
- Ensure 'business as usual' non-cat claims are handled as normal
- Develop a strong social media presence to dispel myths
- Media enquiries – significant reputational risk if not handled well
- Establish reserving guidelines that are event specific

Best Practices

- Clarity around Claim Guidelines – how will they be altered to fit event?
  - Cash settlements (i.e. $ threshold defined) to reduce cycle times
  - Common loss scenarios and coverage assessments
- Consider building loss scope/estimating training for key field staff
- Allocated Loss Adjustment Expenses – flat fees, short form reporting
- File reviews and re-inspections during and after event
- Post event customer surveys
- Post event lessons learned recap
- Update Catastrophe Plan - it should be "living" plan

Conclusion

- A Nat Cat post analysis is critical after each event
- Reputational risk can be mitigated with best practices and training
- A gap analysis of existing catastrophe response plans make a difference

Latest Swiss Re publication

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NATURAL CATASTROPHES AND MAN-MADE DISASTERS IN 2016: A YEAR OF WIDESPREAD DAMAGES

28 Mar 2017

Total economic losses and global insured losses from natural catastrophes and man-made disasters in 2016 were the highest since 2012, reversing the downtrend of the previous four years.

Globally there were 327 disaster events in 2016, of which 191 were natural catastrophes and 136 were man-made. In total, the disasters resulted in economic losses of USD 175 billion, almost double the level in 2015. In terms of devastation wreaked, there were large-scale disaster events across all regions, including earthquakes in Japan, Ecuador, Tanzania, Italy and New Zealand. In Canada, a wildfire across the wide expanses of Alberta and Saskatchewan turned out to be the country's biggest insurance loss event ever, and the second costliest wildfire on *sigma* records globally.

Worldwide, around 11 000 people lost their lives or went missing in disasters in 2016. There were a number of severe flood events in 2016, in the US, Europe and Asia. Hurricane Matthew, the first Category 5 storm to form over the North Atlantic since 2007, was also a major humanitarian disaster. Matthew caused the largest loss of life – more than 700 deaths, mostly in Haiti – compared to all single events this year.

Notable increase in insurance payouts in 2016

Global insured losses last year were USD 54 billion, significantly higher than in 2015 and in line with the inflation-adjusted annual average of the previous 10-years (USD 53 billion). Natural catastrophes resulted in claims of USD 46 billion, the same as the 10-year annual average. Insured losses from man-made disasters were USD 8 billion, down from USD 10 billion in 2015.

THANK YOU FOR YOUR ATTENTION

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