



NAT CATS 2014: What's going on with the weather?

January 7, 2015

Introduction

Sharon Cooper

Press Spokesperson, Munich Re America

US/Global Natural Catastrophe Update

Carl Hedde

Head of Risk Accumulation, Munich Re America

Special Topic: Heavy downpours. Severe droughts. What's going on with the weather?

Ernst Rauch

Head of Corporate Climate Centre, Munich Re

Economic Implications of Natural Catastrophe Losses

Dr. Robert Hartwig

President & Economist, Insurance Information Institute

Questions and Answers

You will have an opportunity to ask questions at the conclusion of the presentation.

An operator will facilitate your participation.

Live Tweeting

@Munichre_US @lworters @iii

#NATCAT2014

Global & US Natural Catastrophes in 2014

Carl Hedde, Head of Risk Accumulation
Munich Reinsurance America, Inc.



The Loss Database Today

- From 1980 until today all loss events; for USA and selected countries in Europe all loss events since 1970.
- Retrospectively, all great disasters since 1950.
- In addition, all major historical events starting from 79 AD – eruption of Mt. Vesuvio (3,000 historical data sets).
- **Currently more than 35,000 events**



- Annual statistics
- Long-term statistics
- Information on significant natural disasters
- Focus analyses
- NatCatSERVICE methodology, info brochure
- Publication Topics Geo

www.munichre.com/natcatservice/downloadcenter/en

Natural disaster losses in 2014

US Headlines

- Insured losses in the United States in 2014 totaled \$15.3 billion – far below the 2000 to 2013 average loss of \$29 billion.
- Despite late onset of tornado season, insured thunderstorm losses exceeded \$12.3 billion, the fourth highest annual total on record.
- The eastern United States experienced its coldest winter in over a decade; resulting 2014 insured damages are estimated to exceed \$2.3 billion.
- Napa, California, earthquake caused economic losses of \$700 million and insured losses of \$150 million, becoming the largest earthquake loss in the United States since 2001.
- Several instances of damaging extreme precipitation events in heavily populated regions in 2014; Severe drought conditions persist in California despite recent heavy rainfalls.

Natural disaster losses in the US 2014

Based on perils

As of January, 2015	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)
Severe Thunderstorm	62	98	17,000	12,300
Winter Storm, winter damage, cold wave, snow storm	13	115	3,700	2,300
Flood, flash flood, storm surge	20	5	1,800	500
Earthquake & Geophysical, landslides	11	45	750	150
Tropical Cyclone	2	1	95	Minor market losses
Wildfire, Heat, & Drought	11	2	1,700	Minor market losses
Totals	119	266	25,000	15,300

American Canyon (Napa) Earthquake

August 24: Despite being only a moderate earthquake, its shallow depth allowed for strong ground shaking in the immediate region, particularly on soft soils. Although structural damage was primarily limited to older masonry buildings and chimneys, contents damage, including to some wineries, was extensive. Insured losses are estimated at about \$150 million.



Source: Munich Re America

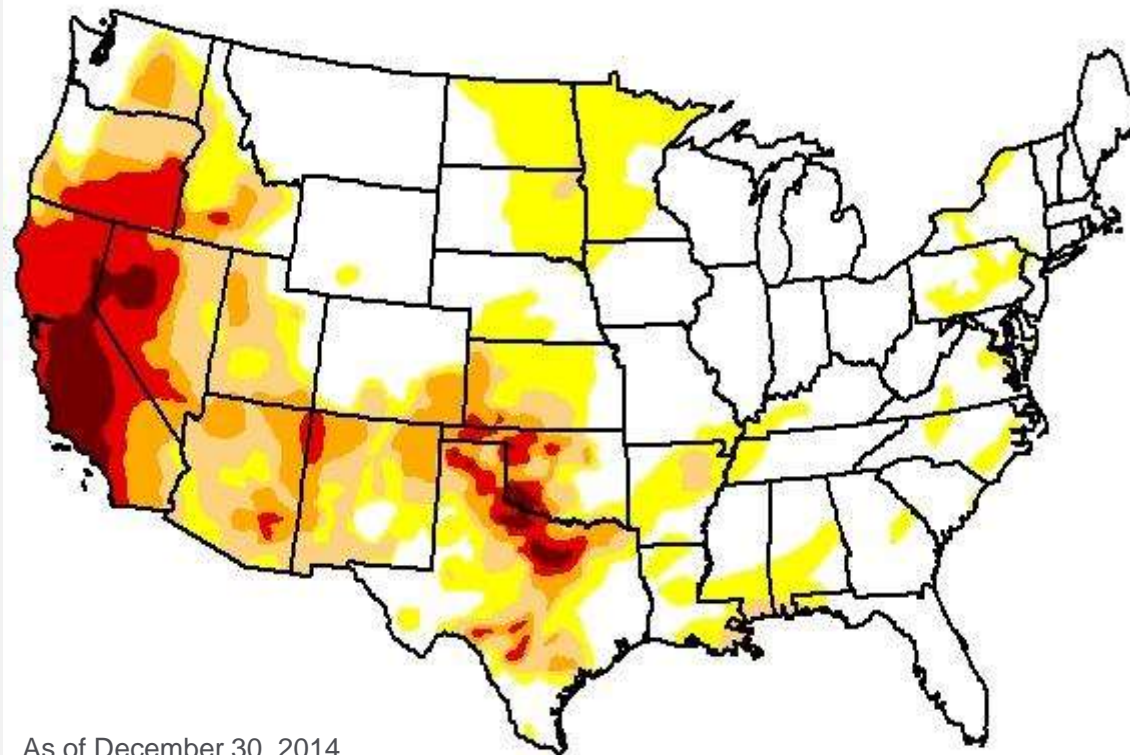
Extreme precipitation events in the US, 2014

- Pensacola, Florida: 20" of rain over April 29 & 30
- Detroit, Michigan: 4-6" of rain in in a 4-hour period on August 11.
- Islip, New York: 13" of rain in a single day on August 13.
- Phoenix, Arizona: 4-5" of rain on September 7.
- Buffalo, New York: Over 6 feet of snow over the course of 4 days.
- Northern California: averaged of 2-4" of rain over region during first week of December.



Source: FEMA

Current US drought conditions








As of December 30, 2014

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	53.20	46.80	28.68	16.93	8.96	2.54
Last Week 12/23/2014	49.79	50.21	29.96	17.18	8.84	2.53
3 Months Ago 9/30/2014	52.22	47.78	30.57	18.66	9.41	3.85
Start of Calendar Year 12/31/2013	48.24	51.76	30.95	16.67	3.96	0.37
Start of Water Year 9/30/2014	52.22	47.78	30.57	18.66	9.41	3.85
One Year Ago 12/31/2013	48.24	51.76	30.95	16.67	3.96	0.37

Intensity:

 D0 Abnormally Dry
 D1 Moderate Drought
 D2 Severe Drought

 D3 Extreme Drought
 D4 Exceptional Drought

Natural disaster losses in 2014

Global Headlines

- In 2014, losses from natural catastrophes summed up to US\$ 110bn for direct economic losses and US\$ 31bn for insured losses, both well below the average of the last 10 years (US\$ 190 bn/US\$ 58 bn).
- No single natural catastrophe event stands out as the worst event of the year, and no natural disasters in 2014 had economic losses that exceeded \$10 billion dollars.
- At 7,700, the number of fatalities was much lower than in 2013 (21,000) and also well below the average figures of the past ten and 30 years (97,000 and 56,000 respectively).
- 58% of all insured losses occurred in North America. This is in the range of the long-term average from 1980 – 2013 (63%).

Loss events worldwide 2014

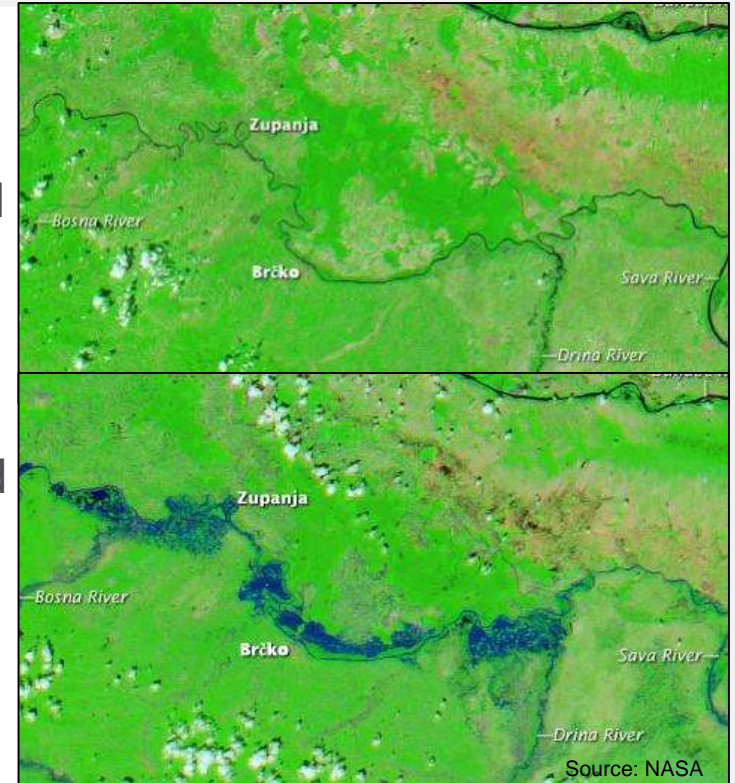
Overview and comparison with previous years

	2014	2013	Average of the last 10 years 2004-2013 (Losses adjusted to inflation based on country CPI)	Average of the last 30 years 1984-2013 (Losses adjusted to inflation based on country CPI)	Top Year 1984 -2013
Number of events	980	920	830	640	980 (2014)
Overall losses in US\$ m (original values)	110,000	140,000	190,000	130,000	424,000 (2011, e.g. EQ Japan)
Insured losses in US\$ m (original values)	31,000	39,000	58,000	33,000	132,000 (2011, e.g. EQ Japan)
Fatalities	7,700	21,000	97,000	56,000	296,000 (2010, e.g. EQ Haiti)

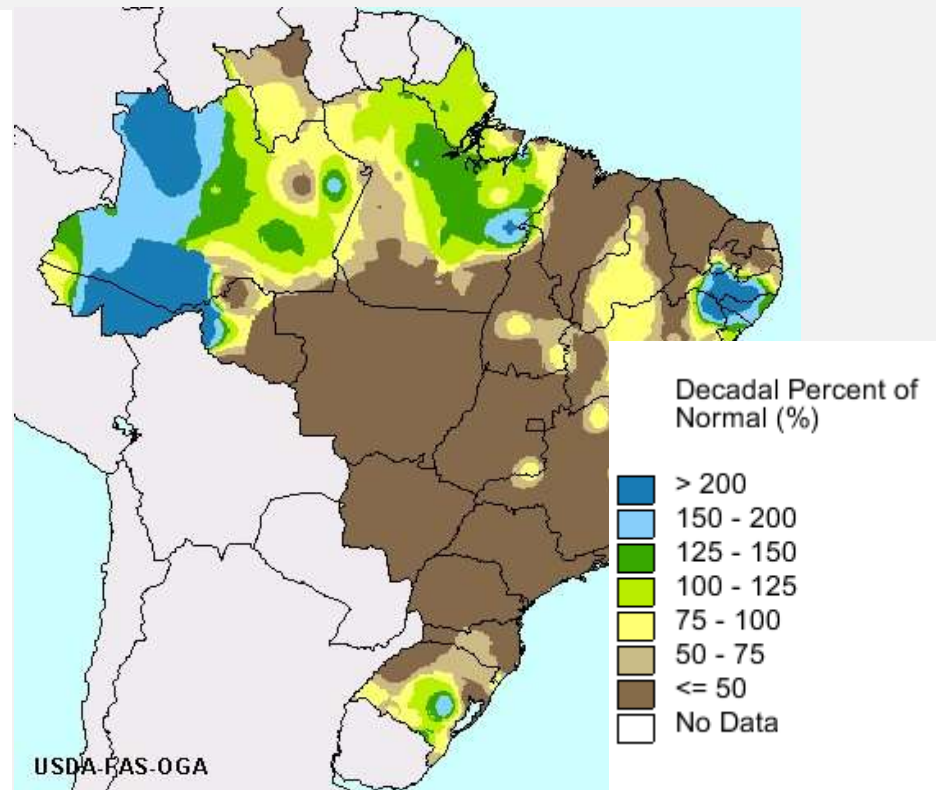
India: Cyclone Huhhud made landfall as a powerful Saffir-Simpson category 4 hurricane on October 12. Over 80,000 buildings were damaged during the storm, along with severe agricultural and infrastructure damage. Economic losses from the cyclone are estimated at \$7 billion.



Eastern Europe: Torrential rains over two weeks in May produced some of the worst flooding on record in the Serbia, Bosnia and Herzegovina, and Croatia. Over 100,000 buildings were damaged or destroyed by the flooding, and several villages were destroyed from landslides. Economic losses from the low pressure system Yvette are estimated at \$3.6 billion.



Brazil: Over the course of 2014, southeastern Brazil entered one of its worst droughts in history. Over 27 million people were affected by the drought, which brought heat waves and severe losses to water-intensive crops, like sugar cane. Economic losses from the drought are estimated at \$5 billion.



Special topic: Heavy downpours. Severe droughts. What's going on with the weather?

Ernst Rauch

Head of Corporate Climate Centre, Munich Re

Events in 2014 with “too much rain” or “too little rain”

Examples: Global and US

Heavy precipitation and inundation in Europe/Balkan region in April-May
(EU- flooding events already in 2002, 2013)

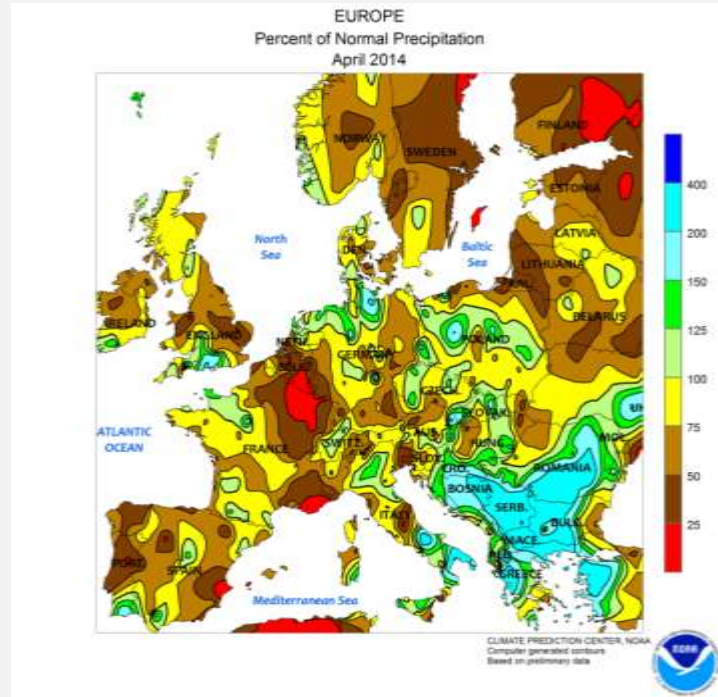
Drought in South America/Brazil

Several heavy precipitation events in large US population centers, including
Phoenix and Detroit.

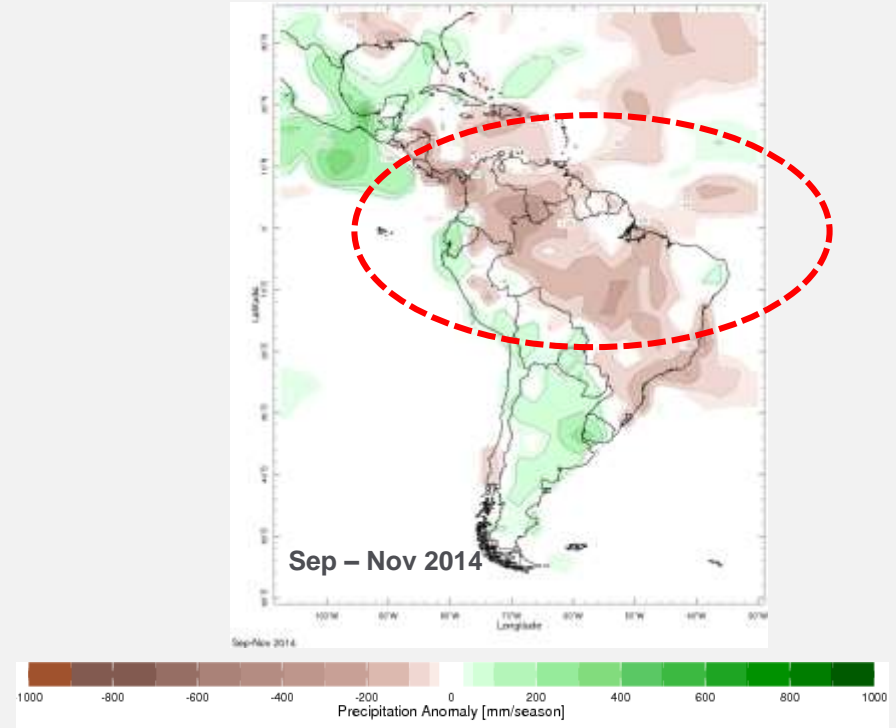
Drought in the Western US

2014 Precipitation anomalies in Europe and South America

Flooding in the Balkan region; Drought in Brazil



Source: CPC/NOAA, 2014
Percent of normal precipitation
April 2014



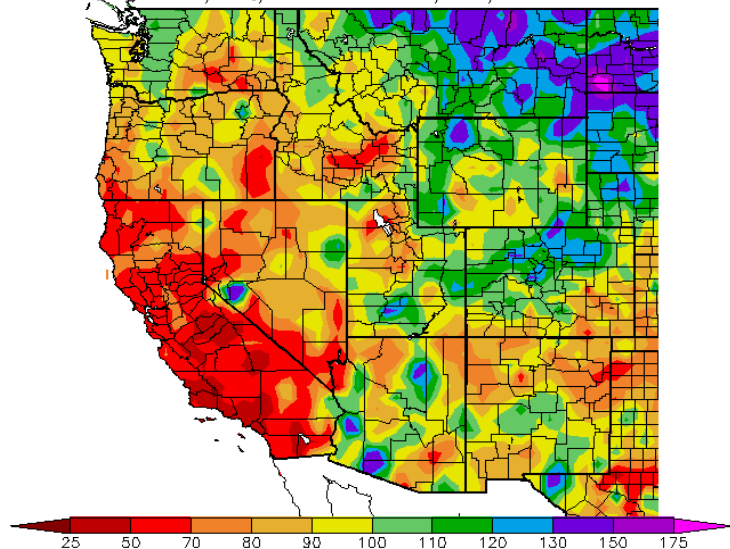
Source: IRI/Columbia University, 2014

2012 – 2014 precipitation anomalies in the Western US

Current severe precipitation deficit in California: no long-term trend observed

Last 2 years: 21 Dec 2012 – 20 Dec 2014

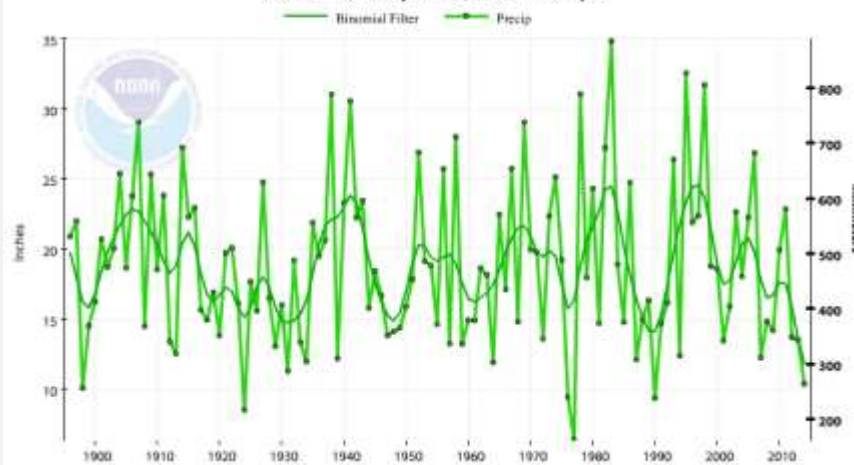
Percent of Average Precipitation (%)
12/21/2012 – 12/20/2014



Generated 12/21/2014 at WRCC using provisional data.
NOAA Regional Climate Centers

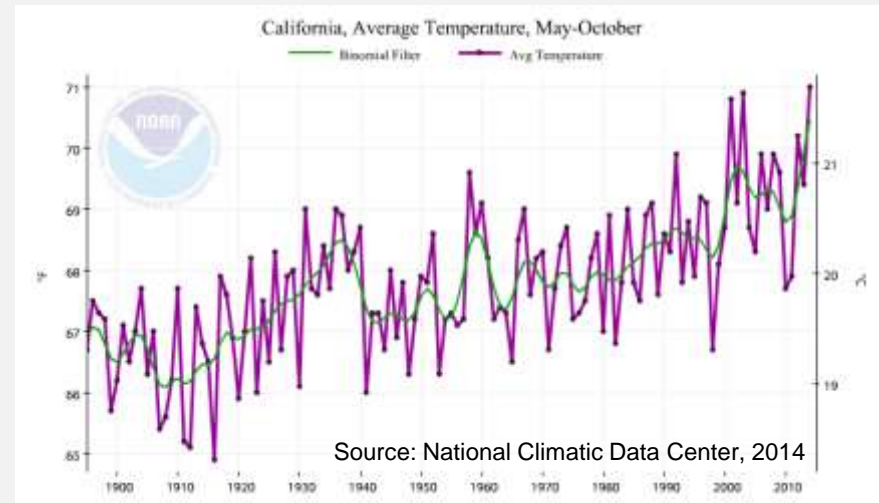
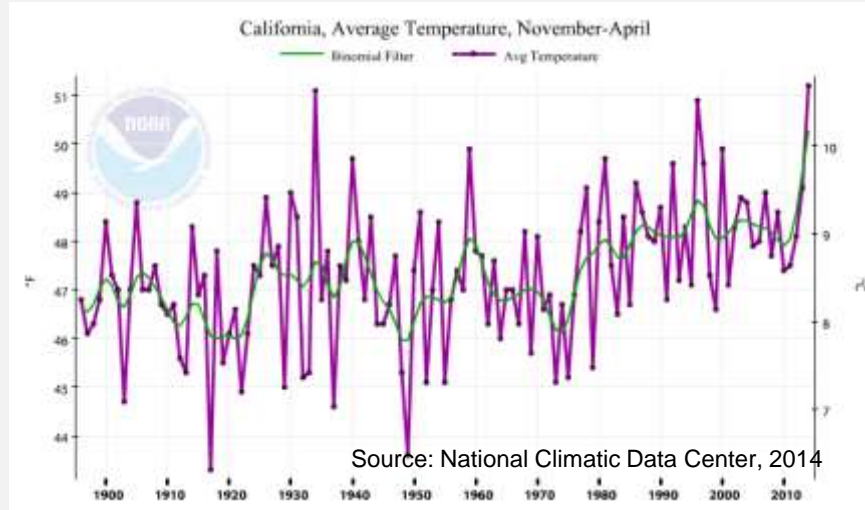
Significant annual variability in California winter precipitation (November – April) since 1895.

California, Precipitation, November-April



Summer and winter temperatures in California since 1895

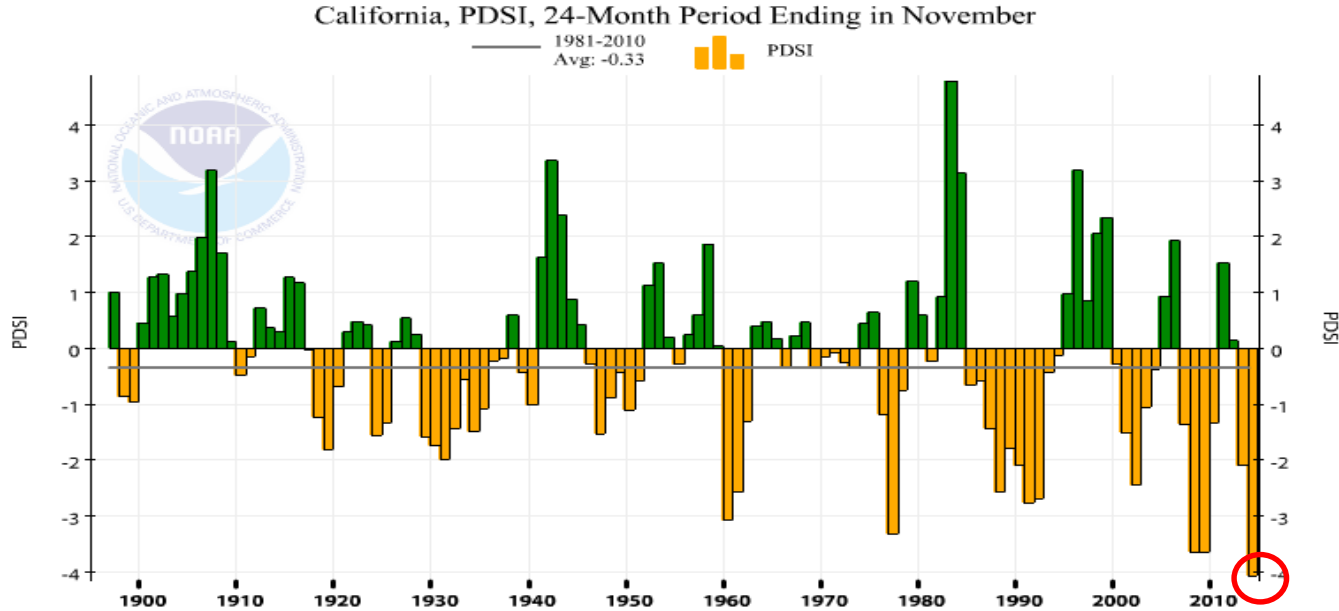
Substantial increase contributed to the drought through elevated evapotranspiration



Although the lack of precipitation in California over recent years has to be explained by natural climate variability (NOAA assessment report, 2014), the substantial increase in temperature contributed to the drought through increasing evapotranspiration. In that sense, anthropogenic climate change has also contributed to drought severity.

California Palmer Drought Severity Index (PDSI)

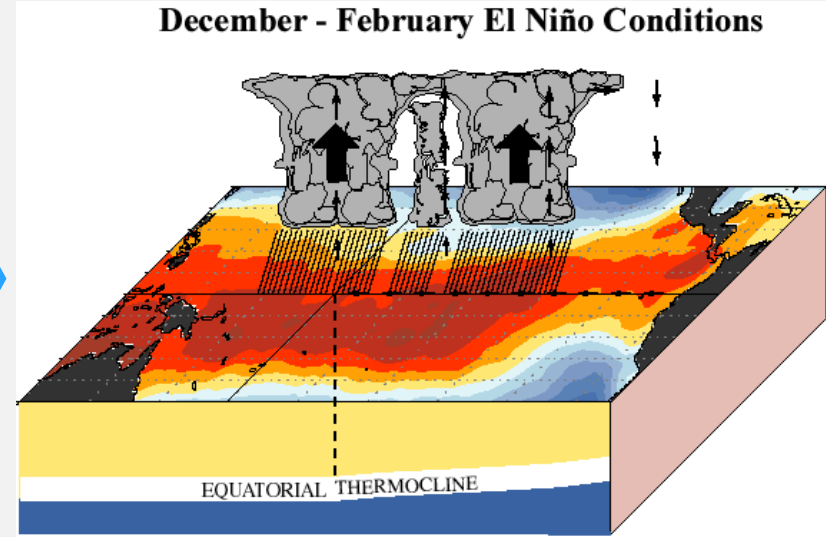
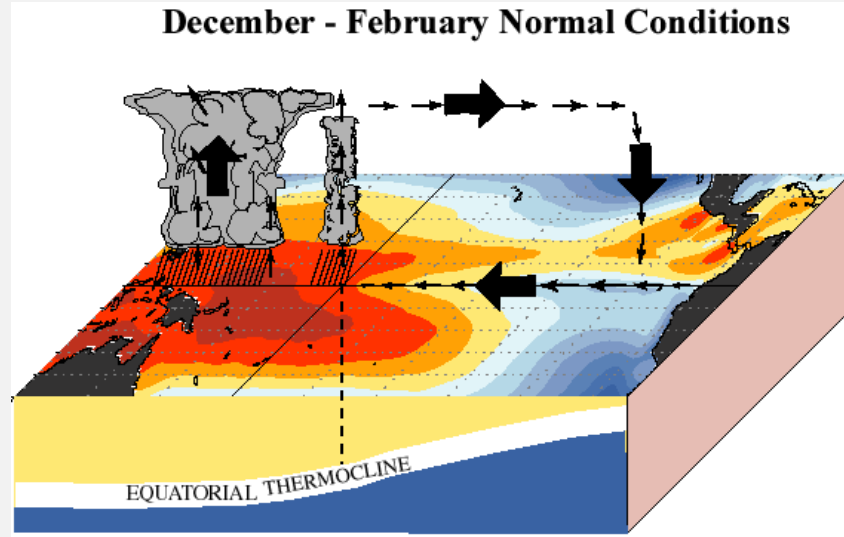
Record low index value for 24 month period since 1895



PDSI: parameter measuring dryness based on precipitation and temperature, developed by US meteorologist Wayne Palmer in 1965.

Global Natural Climate Variability in December 2014

Transition from neutral ENSO to El Niño conditions expected to continue

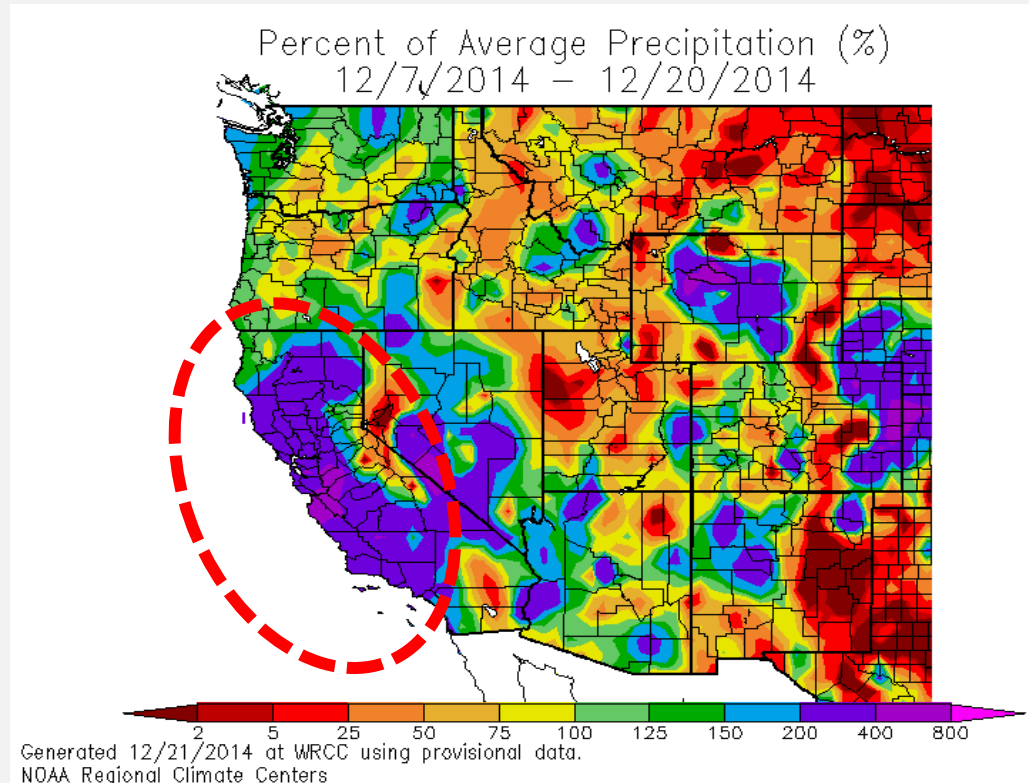


Along the equator Central and East Pacific waters get warmer, convective clouds and rainfall follow change in warm pool. Trade winds from easterly directions vanish or even reverse direction.

December 2014 precipitation anomalies in the Western US

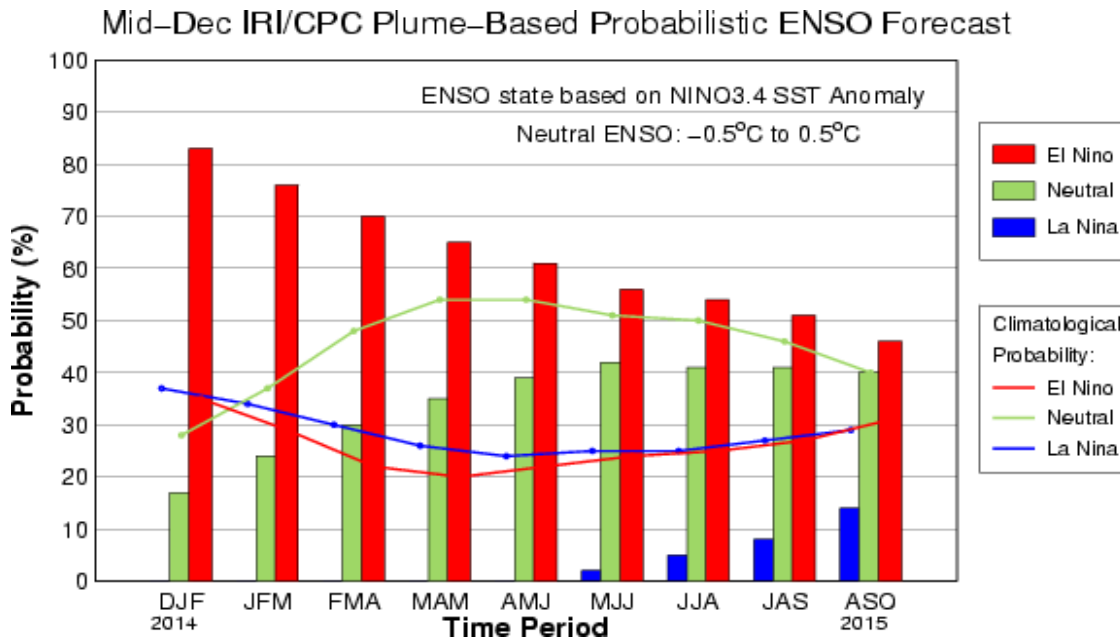
Matches typical El Niño patterns

7 Dec – 20 Dec 2014



2015 ENSO forecast by climate model simulations

Weak El Niño conditions likely to continue



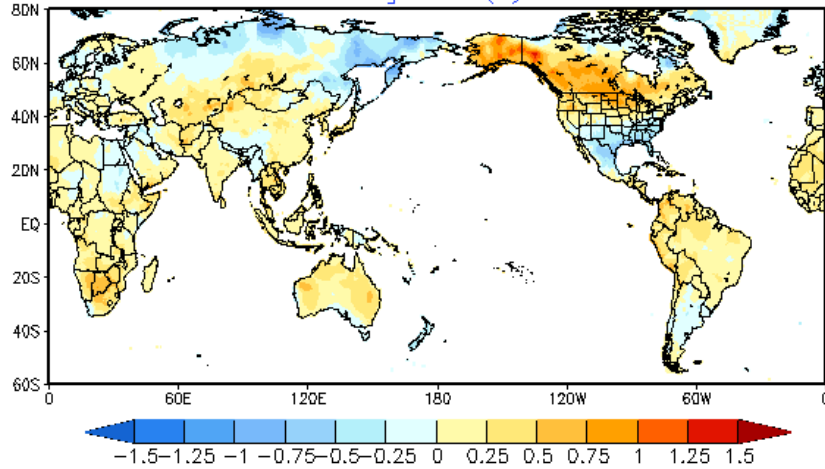
The synopsis of available international forecast runs supports the expectation of a weak El Niño event to prevail over the first months of 2015 (status: December 2014)

El Niño temperature/precipitation anomalies (Dec-Feb)

US: Cool and wet in the South and Southeast

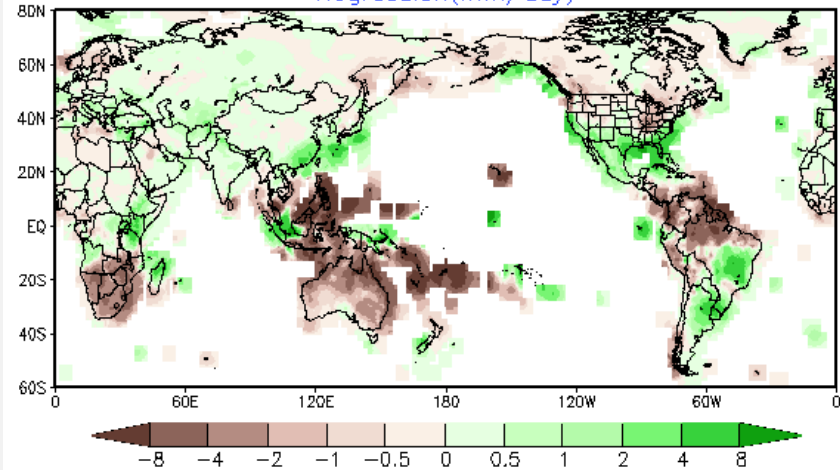
ENSO Teleconnection: DJF Temp

Regression(K)



ENSO Teleconnection: DJF Precip

Regression(mm/day)



Typical El Niño consequences, globally (among others):

- Dry in Indonesia, northeast Australia, northern South America, southern Africa.
- Wet in southern North America (including California), northeastern Argentina and southern Brazil, parts of China.



Market & Financial Impact of Catastrophe Losses: *2014 Summary*

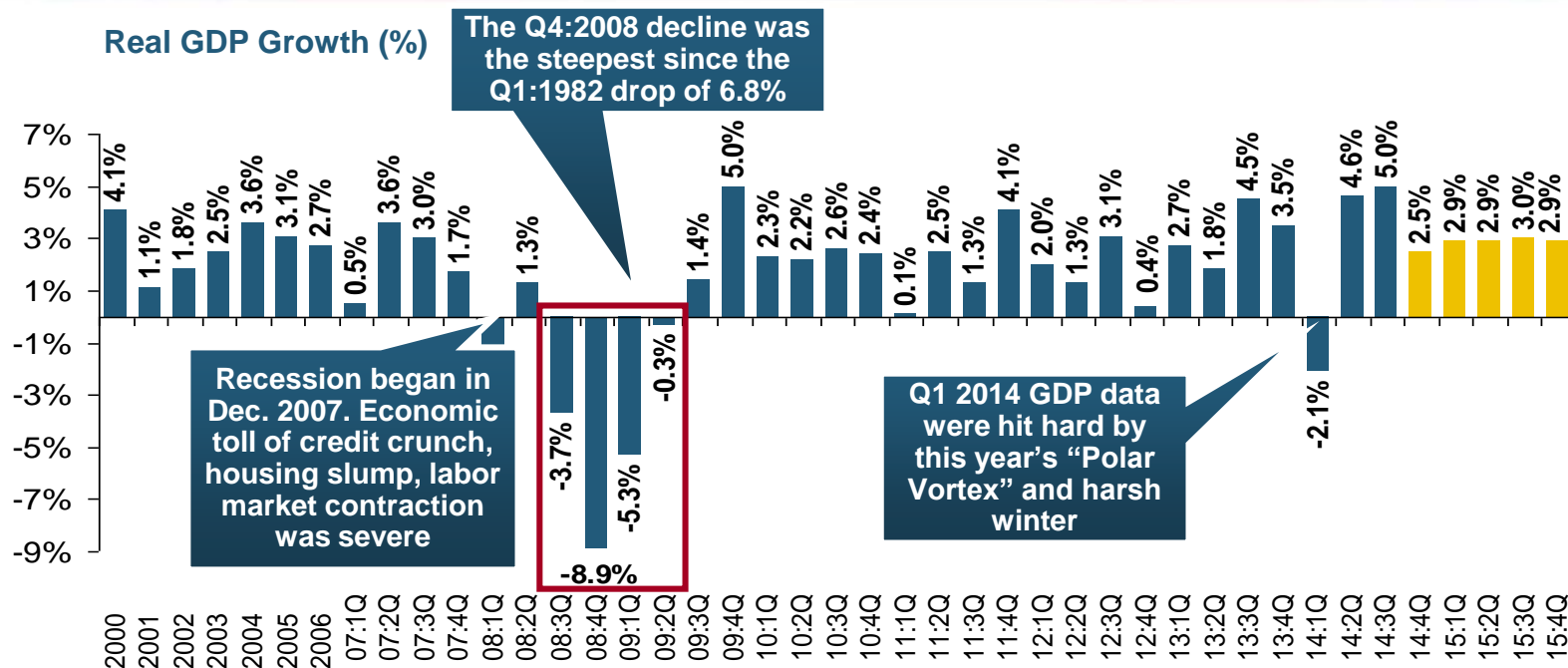
**Insurance Information Institute
January 7, 2015**

Robert P. Hartwig, Ph.D., CPCU, President & Economist
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Tel: 212.346.5520 ♦ Cell: 917.453.1885 ♦ bobh@iii.org ♦ www.iii.org

WINTER STORM LOSSES:
Significant Economic Impact

**Losses from Snow, Ice, Freezing
and Related Causes Typical Cost
Insurers Between \$1 Billion and \$2
Billion Annually (\$2.3B+ *in 2014*)**

US Real GDP Growth*

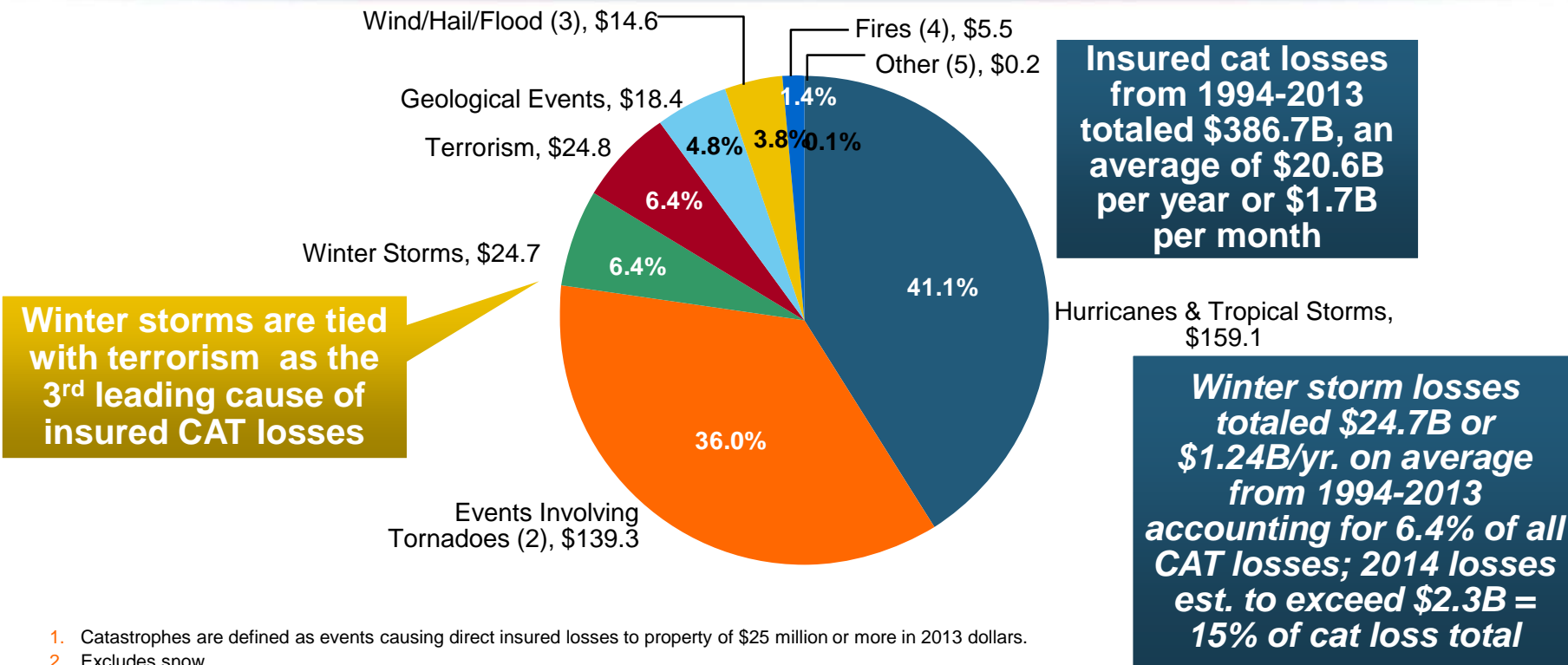


Some of the Losses from Harsh Winter Weather Are Insured, Offsetting Adverse Economic Impacts; Other Losses Were Uninsured and Some Losses Were Transient (Economic Activity Pushed to Later in 2014)

* ■ Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 12/14; Insurance Information Institute.

Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1994–2013¹



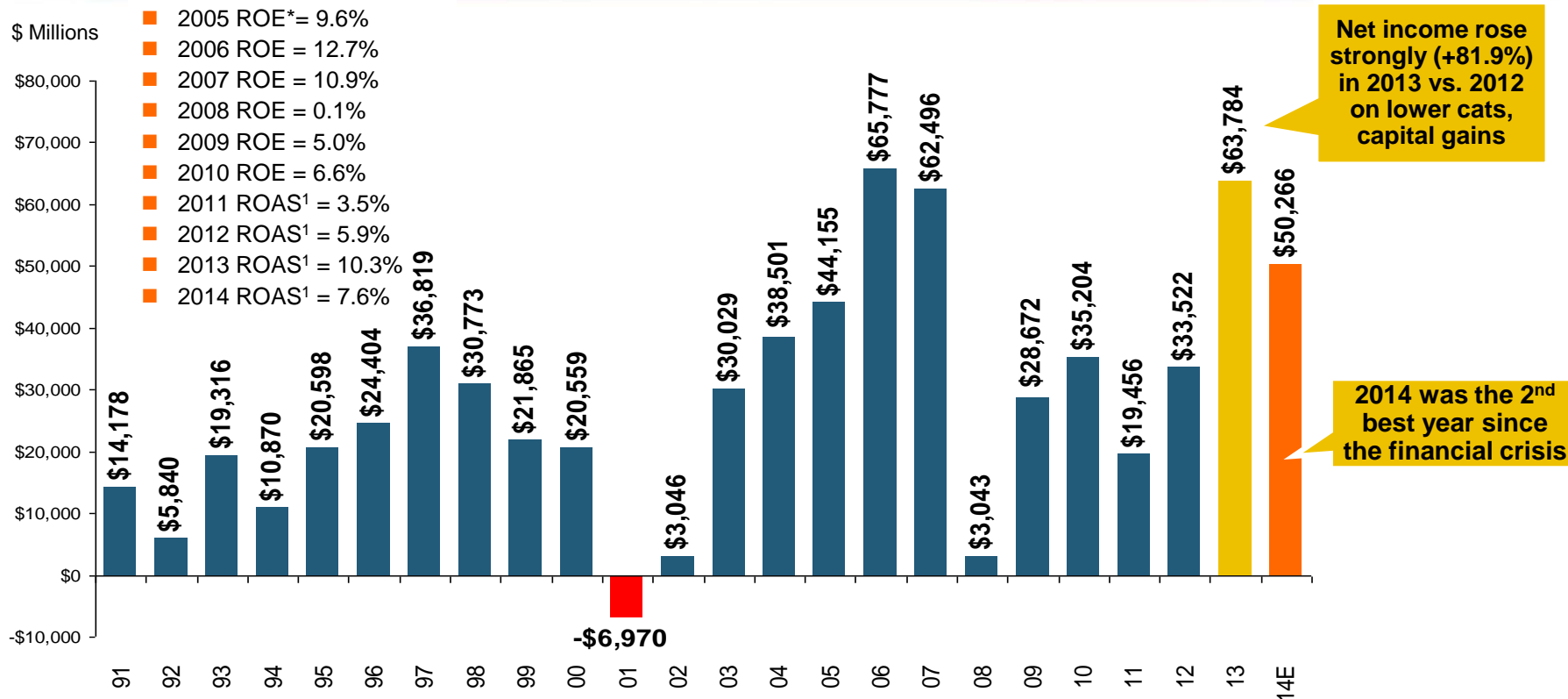
1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2013 dollars.
 2. Excludes snow.
 3. Does not include NFIP flood losses
 4. Includes wildland fires
 5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.
- Source: ISO's Property Claim Services Unit.



P/C Insurance Industry: *Financial Update*

**2014 Was the 2nd Best Year
in the Post-Recession Era
(2013 Was First)**

P/C Industry Net Income After Taxes 1991–2014E

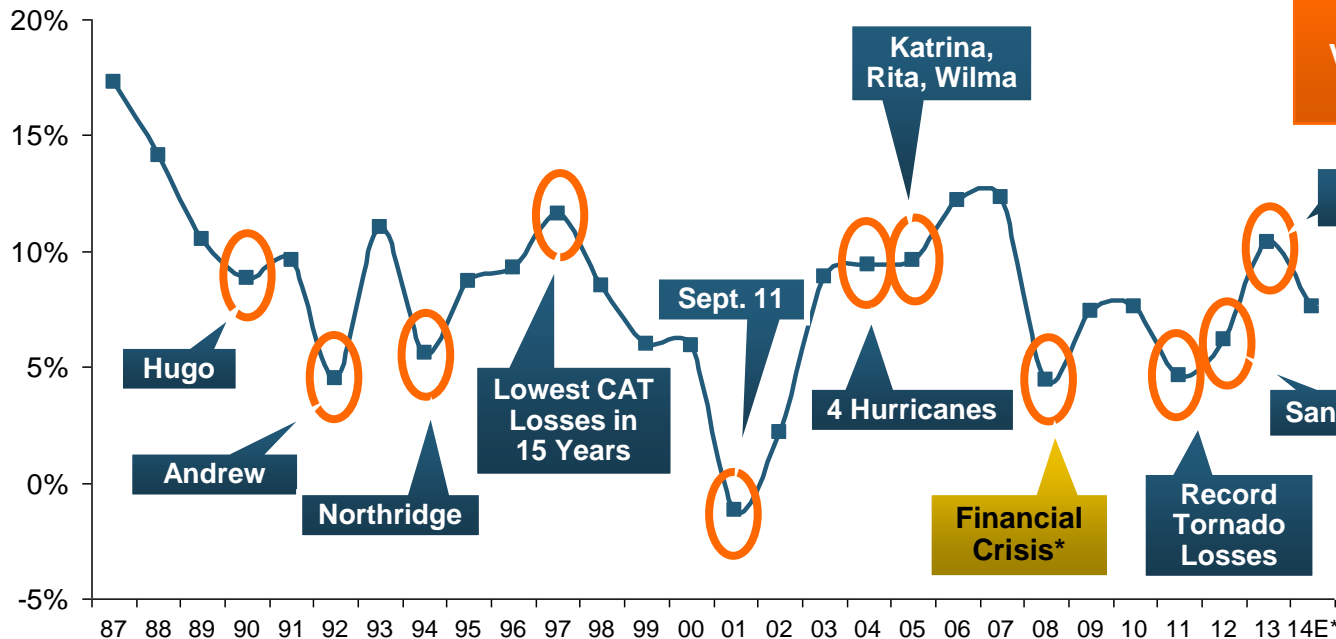


*ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 7.7% ROAS through 2014:Q2, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

Sources: A.M. Best, ISO; Insurance Information Institute

ROE: Property/Casualty Insurance by Major Event, 1987–2014E

(Percent)



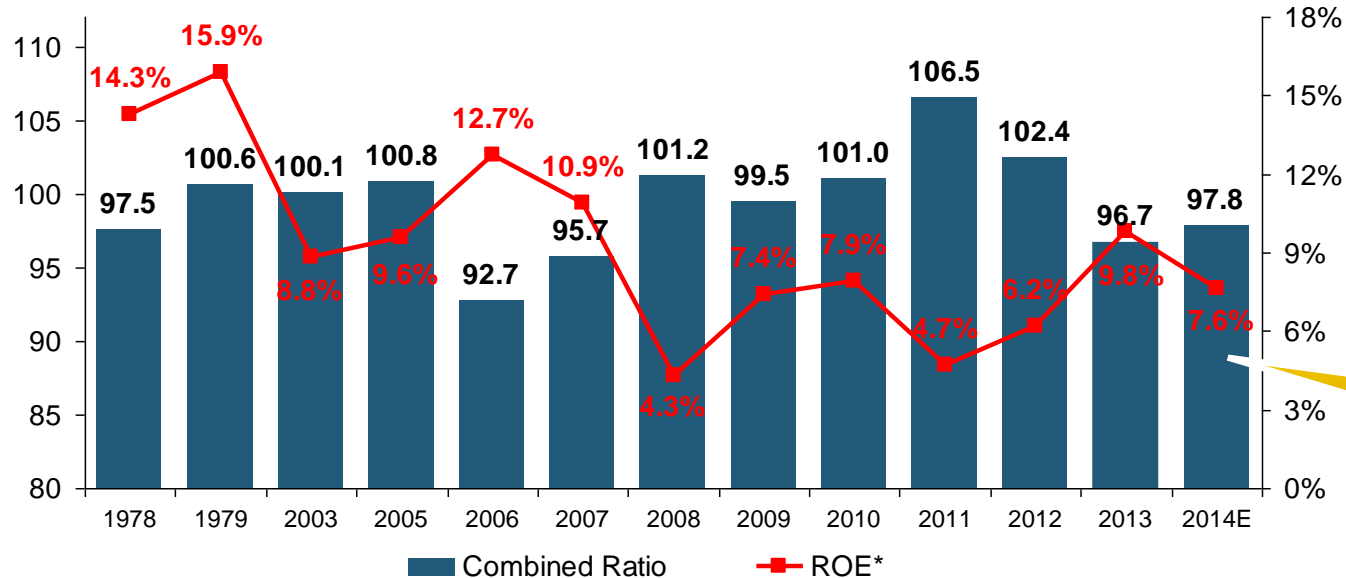
P/C Profitability Is Subject to Cyclical and Ordinary Volatility, Typically Due to CAT Activity

Somewhat higher CAT activity in 2014 had a modest negative impact on ROE

* Excludes Mortgage & Financial Guarantee in 2008 – 2014. 2014 is estimated based on data through Q3.
Sources: ISO; Insurance Information Institute.

A 100 Combined Ratio Isn't What It Once Was: Investment Impact on ROEs

Combined Ratio / ROE



A combined ratio of about 100 generates an ROE of ~7.0% in 2012/13, ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979

Lower CATs (relative to 2011/12) helped ROEs in 2013/14

Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2008 -2014 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2014:Q1 combined ratio including M&FG insurers is 97.3; 2013 = 96.1; 2012 =103.2, 2011 = 108.1, ROAS = 3.5%.
Source: Insurance Information Institute from A.M. Best and ISO Verisk Analytics data.

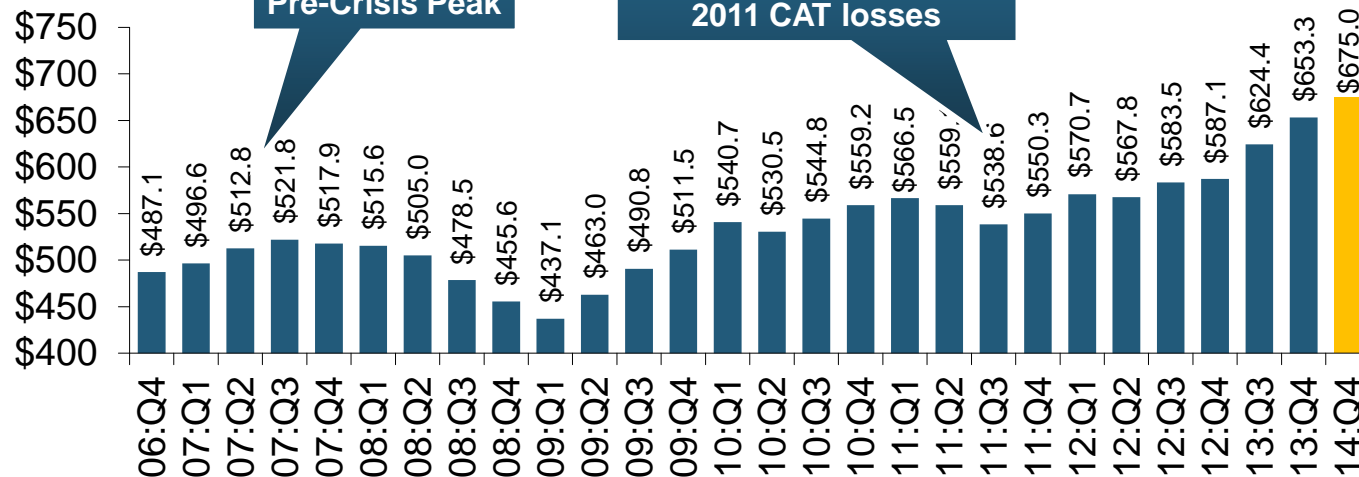
SURPLUS/CAPITAL/CAPACITY

**Industry Claims Paying Capital Stands
at Record High in 2014**

***(Re)Insurance Industry is Well
Positioned to Manage Large Scale
Catastrophe Losses***

Policyholder Surplus, 2006:Q4–2014:Q4E

(\$ Billions)



Low CAT losses are a driver of increased capital

The industry now has \$1 of surplus for every \$0.73 of NPW, the strongest claims-paying status in its history.

The P/C insurance industry finished 2014 in very strong financial shape.

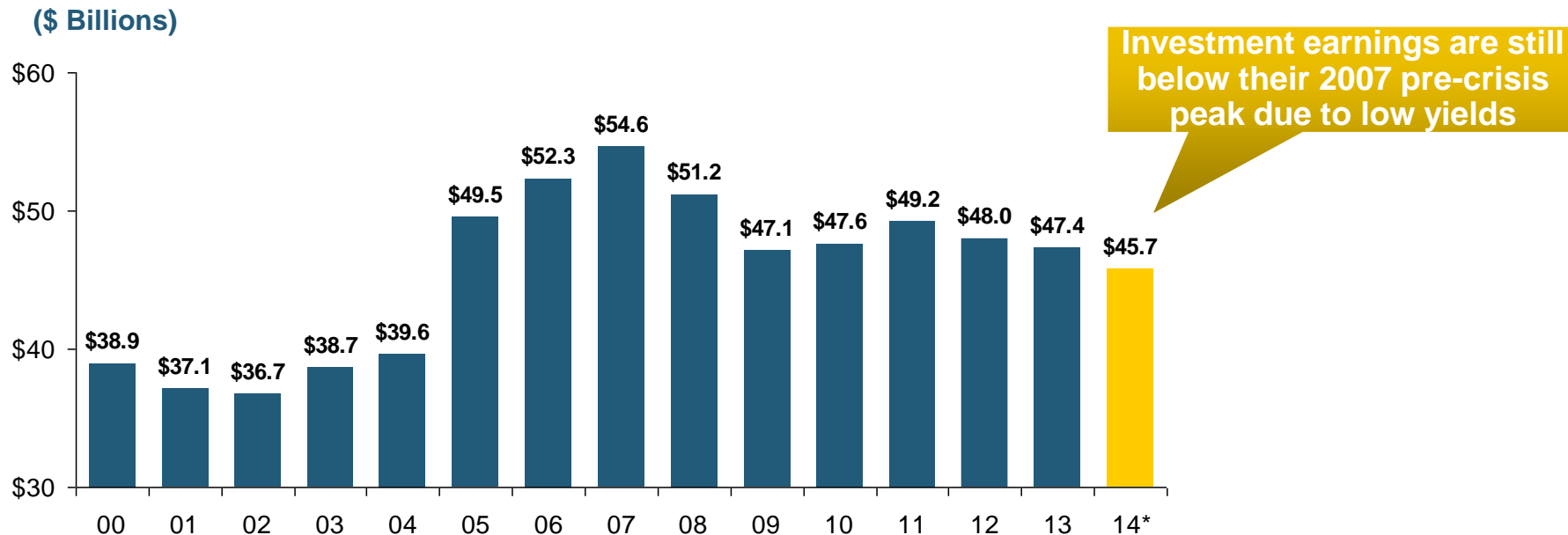
Note: 2010:Q1 data includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business .

Sources: ISO, A.M. Best.

Investments: The New Reality

**Investment Income Offsets Less
Loss than in the Past, Including
Losses from Catastrophes**

Property/Casualty Insurance Industry Investment Income: 2000–2014E¹



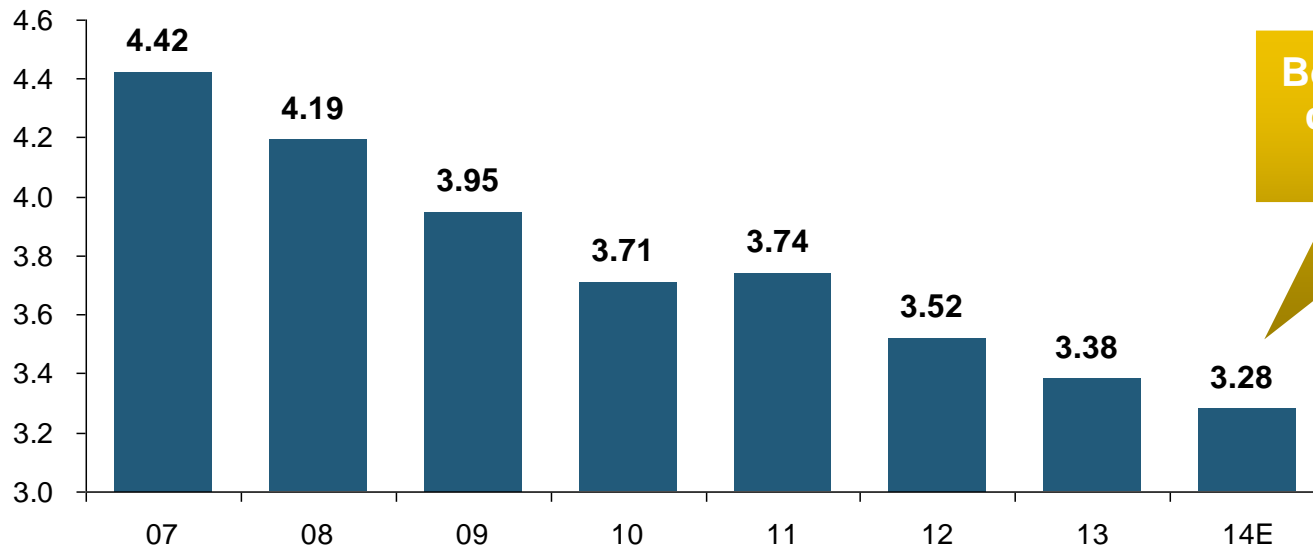
**Due to persistently low interest rates,
investment income fell in 2012 and in 2013
and is projected to register another small decline in 2014.**

¹ Investment gains consist primarily of interest and stock dividends.
Sources: ISO; Insurance Information Institute.

*2014 figure is estimated based on annualized data through Q3.

Book Yield on Property/Casualty Insurance Invested Assets, 2007–2014E

(Percent)



Book yield in 2014 is down 114 BP from pre-crisis levels

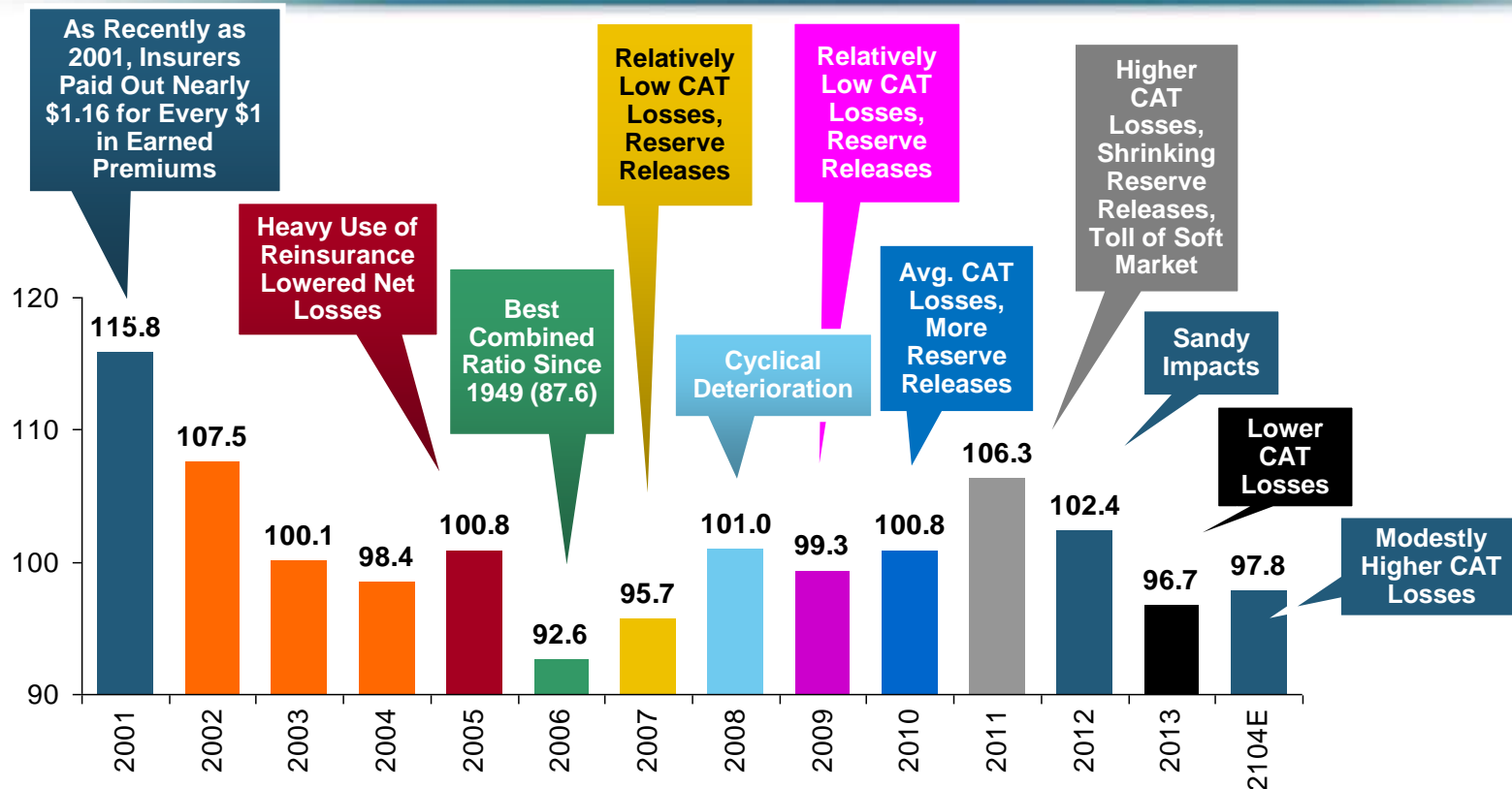
The yield on invested assets continues to decline as returns on maturing bonds generally still exceed new money yields. The end of the Fed's QE program in Oct. 2014 should allow some increase in longer maturities while short term interest rate increases are unlikely until mid-to-late 2015

UNDERWRITING

**Underwriting Results in 2014
(and 2013) Were Helped by
Generally Modest
Catastrophe Losses**

Welcome Respite from 2011/2012

P/C Insurance Industry Combined Ratio, 2001–2014E

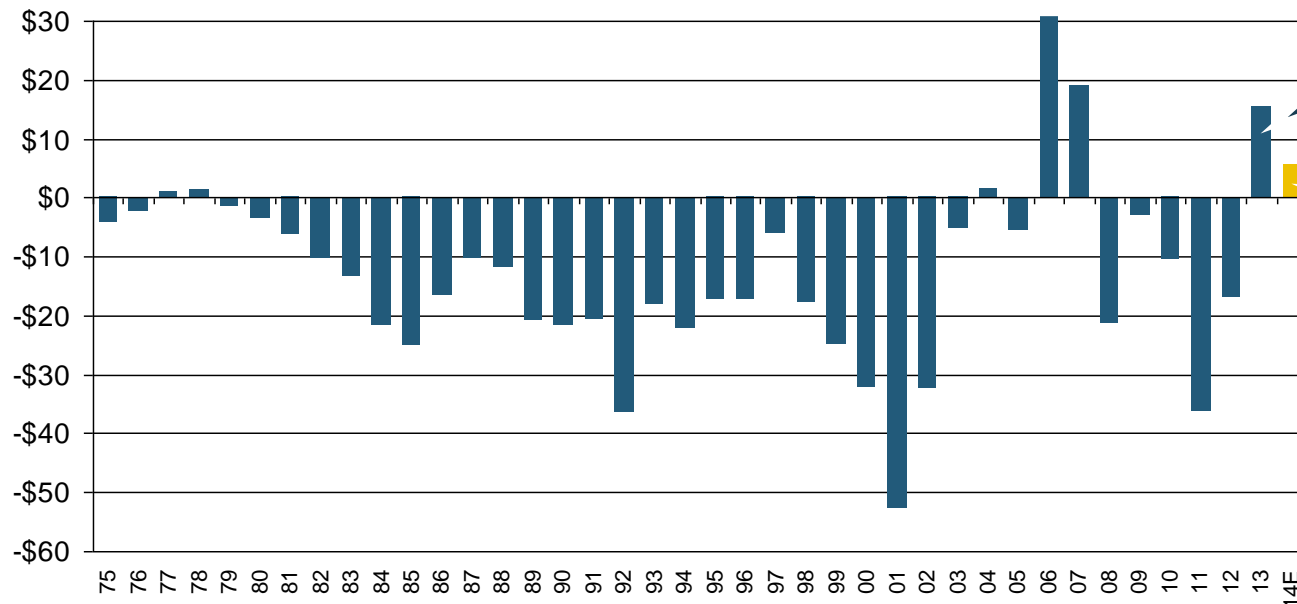


* Excludes Mortgage & Financial Guaranty insurers 2008--2014. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012=103.2; 2013= 96.1; 2014E = 97.6.

Sources: A.M. Best, ISO.

Underwriting Gain (Loss) All Lines Combined, 1975–2014*

(\$ Billions)



2013
underwriting
profit totaled
\$15.5B

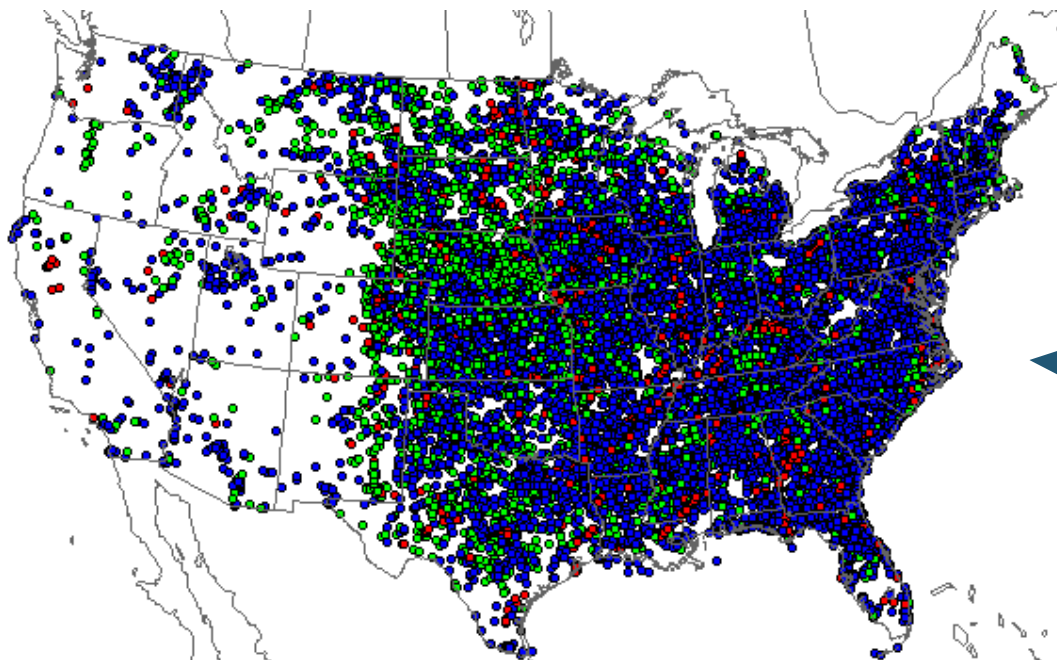
Underwriting
profit in 2014
estimated at
\$5.7B

High CAT losses in 2011 led to the highest underwriting loss since 2001. Lower CAT losses in 2013 and so far in 2014. First underwriting profits since 2007.

Note: Includes mortgage and financial guaranty insurers in all years.

Sources: A.M. Best, ISO, Insurance Information Institute.

Severe Weather Reports: Jan. 1 – Dec. 31, 2014



Severe weather reports
are concentrated east of
the Rockies

There were
18,581 severe
weather reports
in 2014;
including 1,057
tornadoes;
5,536 “Large
Hail” reports
and 11,985 high
wind events



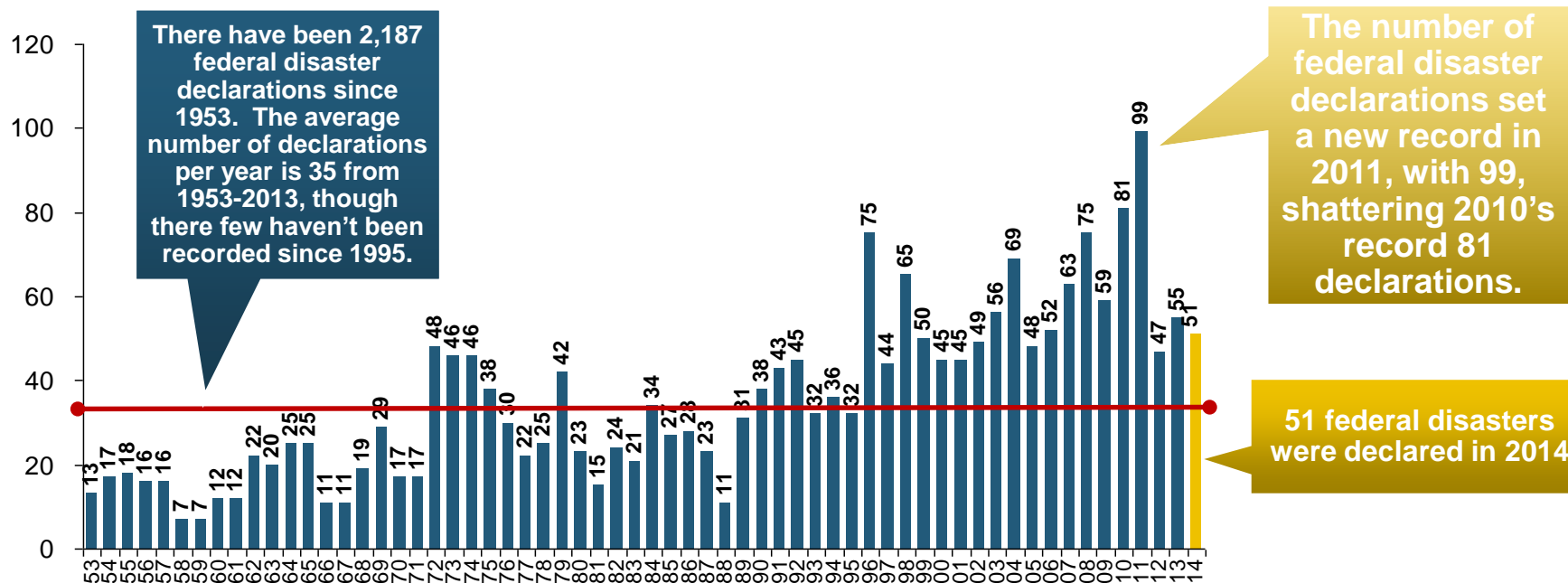
PRELIMINARY SEVERE WEATHER
REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma

Severe Weather Reports
January 01, 2014 - December 31, 2014

Updated: Friday January 02, 2015 12:38 CT

Number of Federal Major Disaster Declarations, 1953 - December 31, 2014*



The Number of Federal Disaster Declarations Is Rising and Set New Records in 2010 and 2011 Before Dropping in 2012 - 2014

*Through December 31, 2014.

Source: Federal Emergency Management Administration; <http://www.fema.gov/disasters>; Insurance Information Institute.

Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2014E*

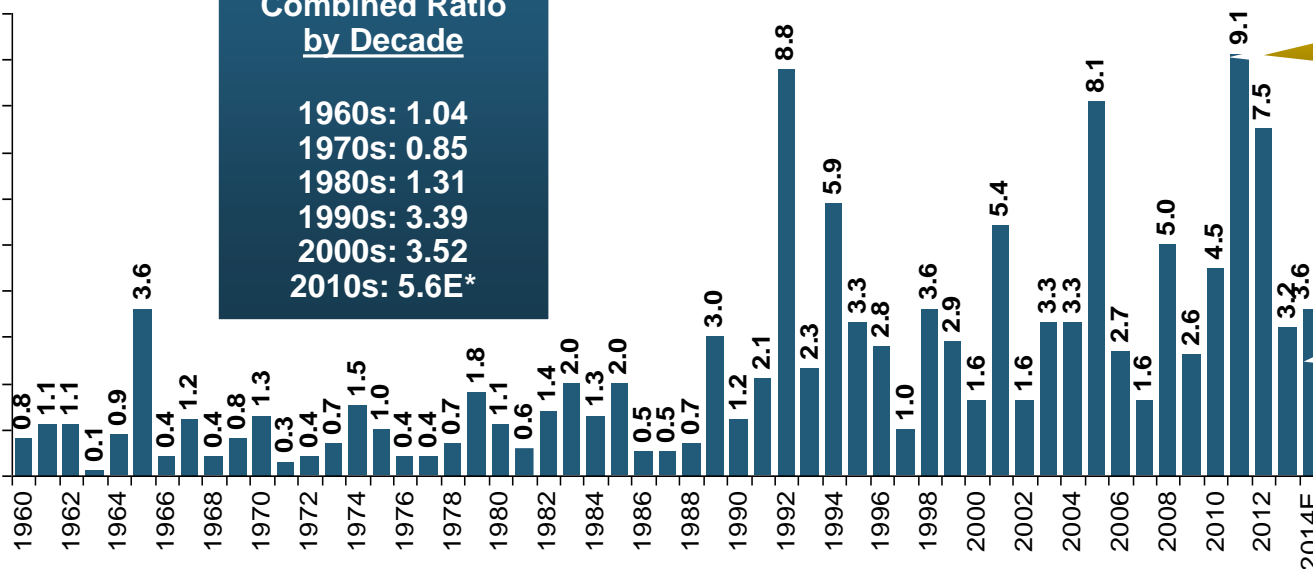
Combined Ratio
Points

Avg. CAT Loss
Component of the
Combined Ratio
by Decade

1960s: 1.04
1970s: 0.85
1980s: 1.31
1990s: 3.39
2000s: 3.52
2010s: 5.6E*

Catastrophe losses as a share of all losses reached a record high in 2011

Catastrophe losses as a share of all losses were down substantially in 2013 and so far in 2014



The Catastrophe Loss Component of Private Insurer Losses Has Increased Sharply in Recent Decades

*2010s represent 2010-2014E.

Notes: Private carrier losses only. Excludes loss adjustment expenses and reinsurance reinstatement premiums. Figures are adjusted for losses ultimately paid by foreign insurers and reinsurers.

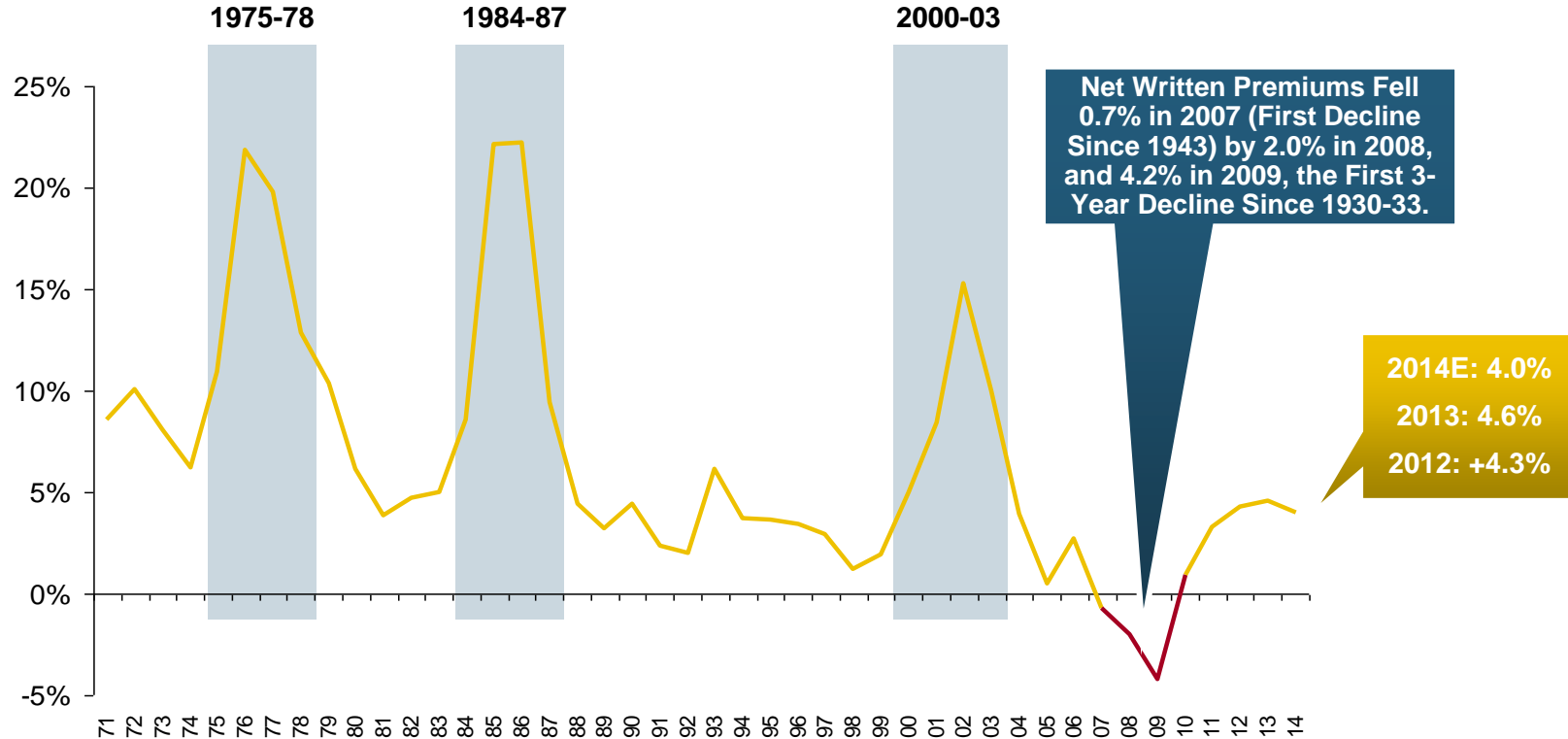
Source: ISO (1960-2011); A.M. Best (2012-2013); Insurance Information Institute.

Premium Growth

**Catastrophe Losses Impact
Trajectory of Premium Growth**

Net Premium Growth: Annual Change, 1971—2014E

(Percent)



Shaded areas denote "hard market" periods
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.

Insurance Information Institute Online:

www.iii.org

*Thank you for your time
and your attention!*

Twitter: twitter.com/bob_hartwig

Question and Answer



Press Question and Answer Process

To ask a question, please
dial 1 4 on your phone.

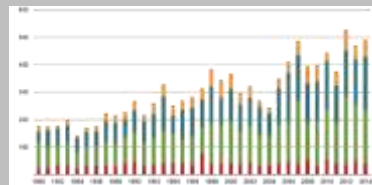
An operator will facilitate
your participation.



NatCatSERVICE Downloadcenter for statistics and analyses on natural disasters

The downloadcenter provides **free** access:

- Annual statistics
- Long-term statistics
- Information on significant natural disasters
- Focus analyses
- NatCatSERVICE methodology, info brochure
- Publication Topics Geo



Date	Event	Affected area	Estimated deaths	Estimated injuries	Population
11.3.2011	Earthquake	Japan, Taiwan, China, Philippines, South Korea, Hong Kong, China, Singapore	2,500	10,000	12,000
20.08.2010	Earthquake	USA, LA, WA, AZ, CA, NV	120,000	40,000	1,000
12.1.2009	Earthquake	Japan, Korea, China, Taiwan, Korea	100,000	3,000	8,000
10.5.2008	Earthquake	China (Tibet), Bangladesh, Nepal, India	80,000	200	80,000
20.05.2010	Earthquake	Chad, Nigeria, Cameroon, Gabon, Congo	40,000	20,000	200
10.1.2009	Earthquake	USA, CA, Washington, Oregon, San Francisco Bay Area	40,000	10,000	80
10.05.2010	Earthquake	Philippines, Mexico, Spain, Philippines, Indonesia, Malaysia	40,000	10,000	80
9.10.2009	Earthquake	USA, CA, WA, Washington, Oregon, Idaho, and British Columbia, Canada	30,000	10,000	100
27.2.2010	Earthquake	Chad, Nigeria, Cameroon, Gabon, Congo, Equatorial Guinea	30,000	8,000	100
20.05.2010	Earthquake	Philippines, Mexico, Spain, Philippines, Indonesia, Malaysia	20,000	100	100

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Weather Resilience and Protection (WRAP)

Website

Describe the impact of severe weather and how individuals, businesses, government, and insurers can work together to prepare for and mitigate weather risks.

Includes data, publications, preparation tips and other useful information for the press.



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Facebook	Munichreus1 Munichre	InsuranceInformationInstitute
Flickr		iiiorg

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Thank you

January 7, 2015

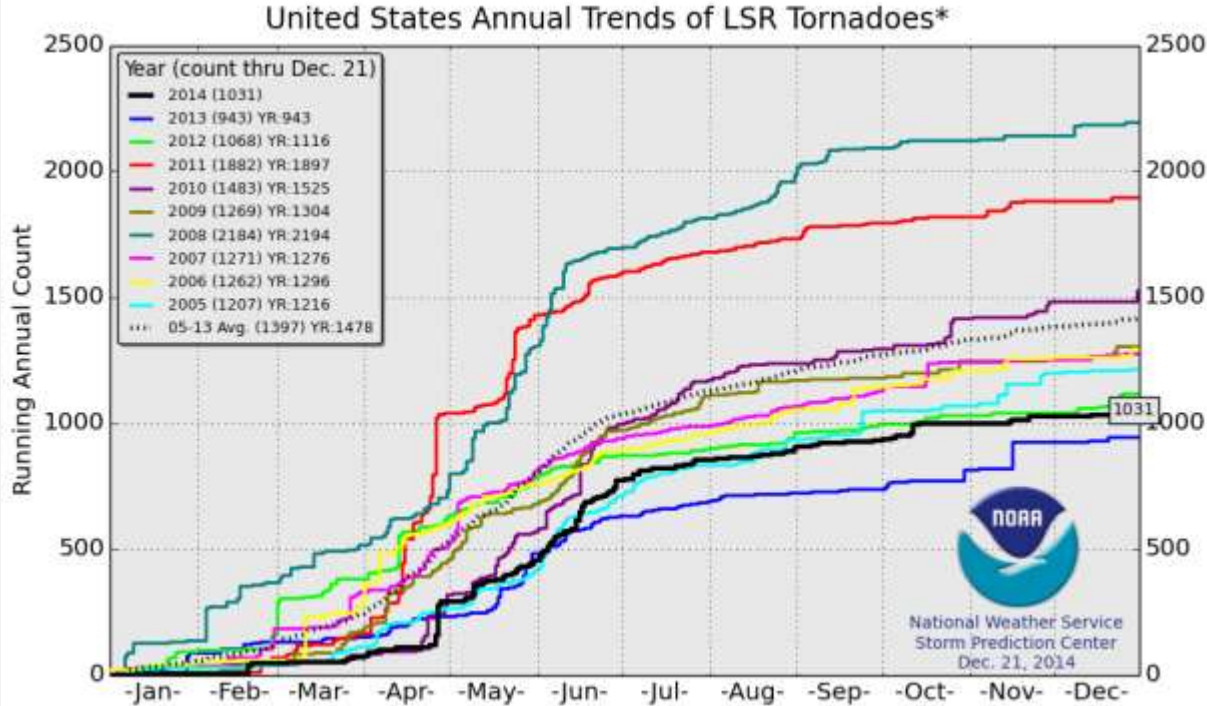


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Appendix - 2014 Year End Natural Catastrophe Review

Thunderstorms

Tornado Count for 2014



*Preliminary sightings/events from NWS Local Storm Reports (LSRs)
Annual average is based on preliminary LSRs 2005-2013

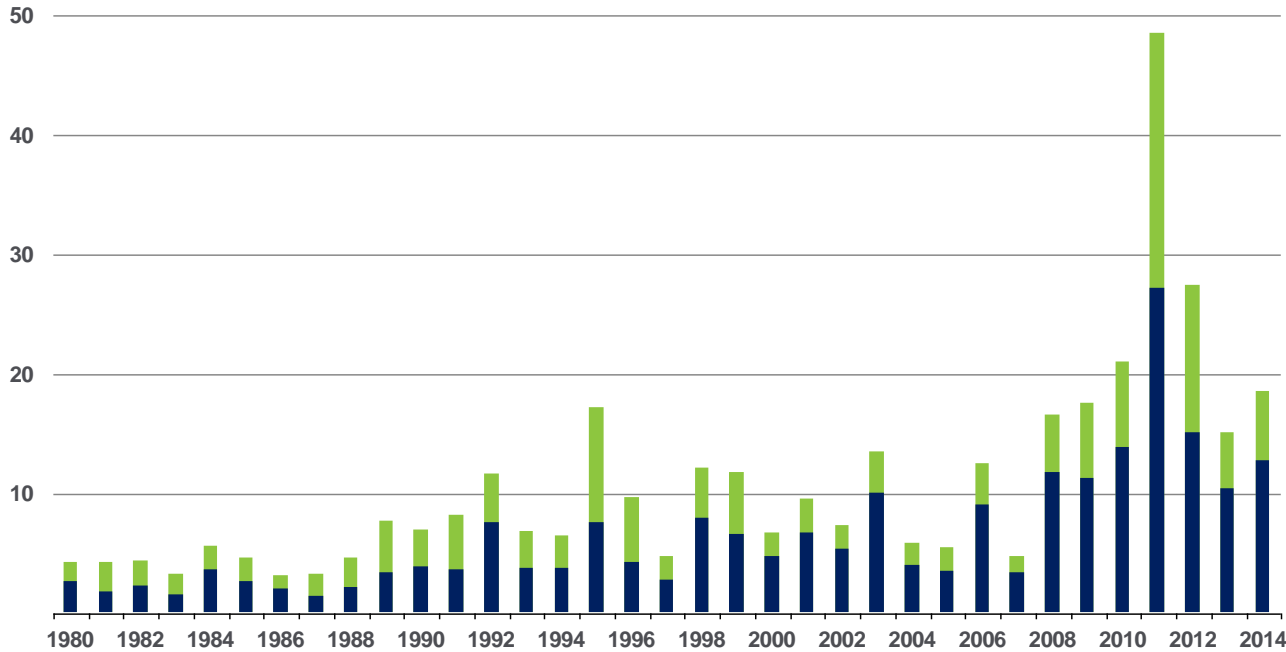
The preliminary tornado counts for 2014 are about 400 below the 2005-2013 average.

Despite fewer tornadoes, insured convective storm losses were still the second highest on record, including 4 outbreaks that incurred at least \$1 billion in insured loss.

Convective loss events in the US

Overall and insured losses 1980 – 2014

bn US\$

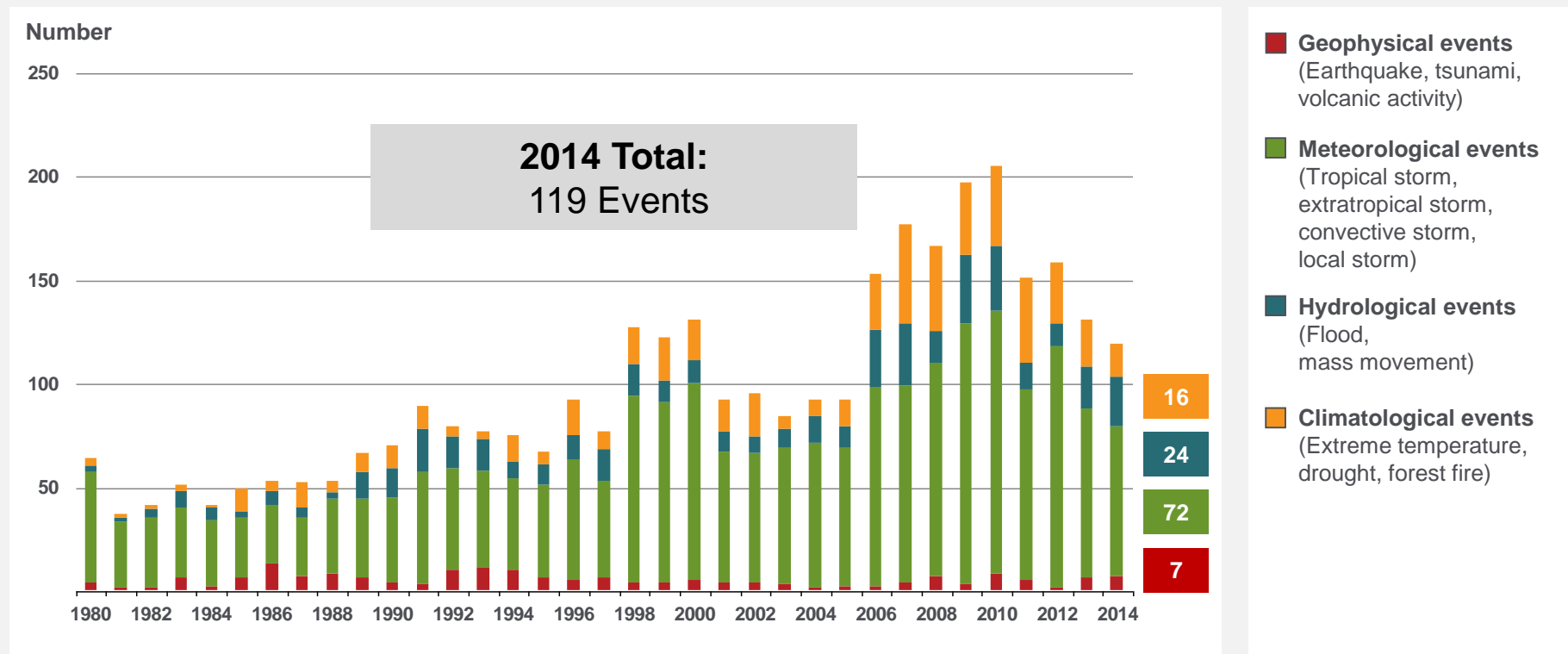


Analysis contains:
severe storm, tornado,
hail, flash flood and
lightning

*Losses adjusted
to inflation based
on country CPI

Loss events in the US 1980 – 2014

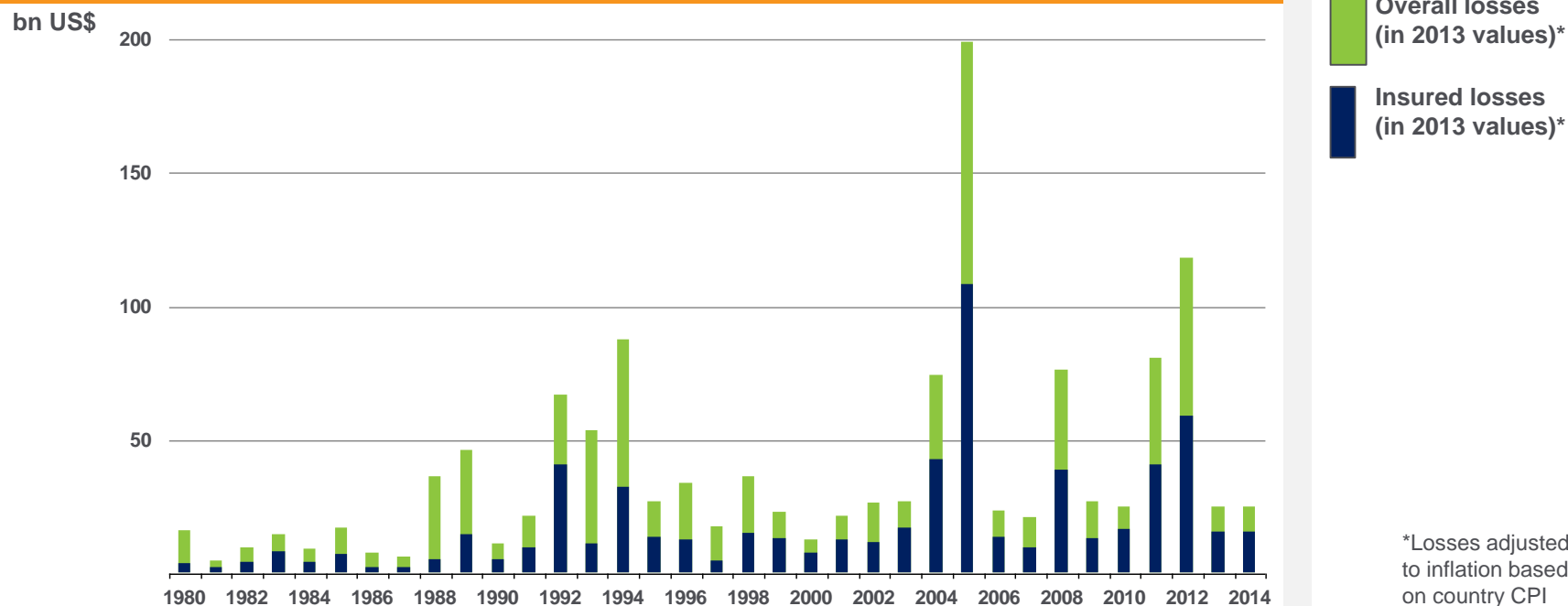
Number of events



Loss events in the US 1980 – 2014

Overall and insured losses

Overall losses totaled US\$ 25bn; Insured losses totaled US\$ 15.3bn



Notable thunderstorm events

April 27 – May 1: Large severe cyclonic storm (SCS) outbreak over the Central Plains and Deep South. A total of 80 tornadoes have been confirmed, causing 35 fatalities. Worst hit were Mayflower, Arkansas, and Louisville, Mississippi, both hit by EF4 tornadoes. Insured losses from the outbreak are estimated at \$1.2 billion.



Source: NOAA

Notable thunderstorm events

May 18 – May 23: Large hail and non-tornadic wind event stretching from Montana to New York. Hail the size of golf balls impacted sections of Chicago and Denver, and baseball-sized hail impacted parts of Indiana and Ohio. Further east, wind gusts in excess of hurricane force felled trees and power lines across the Mid-Atlantic. Insured losses are estimated at \$2.9 billion.

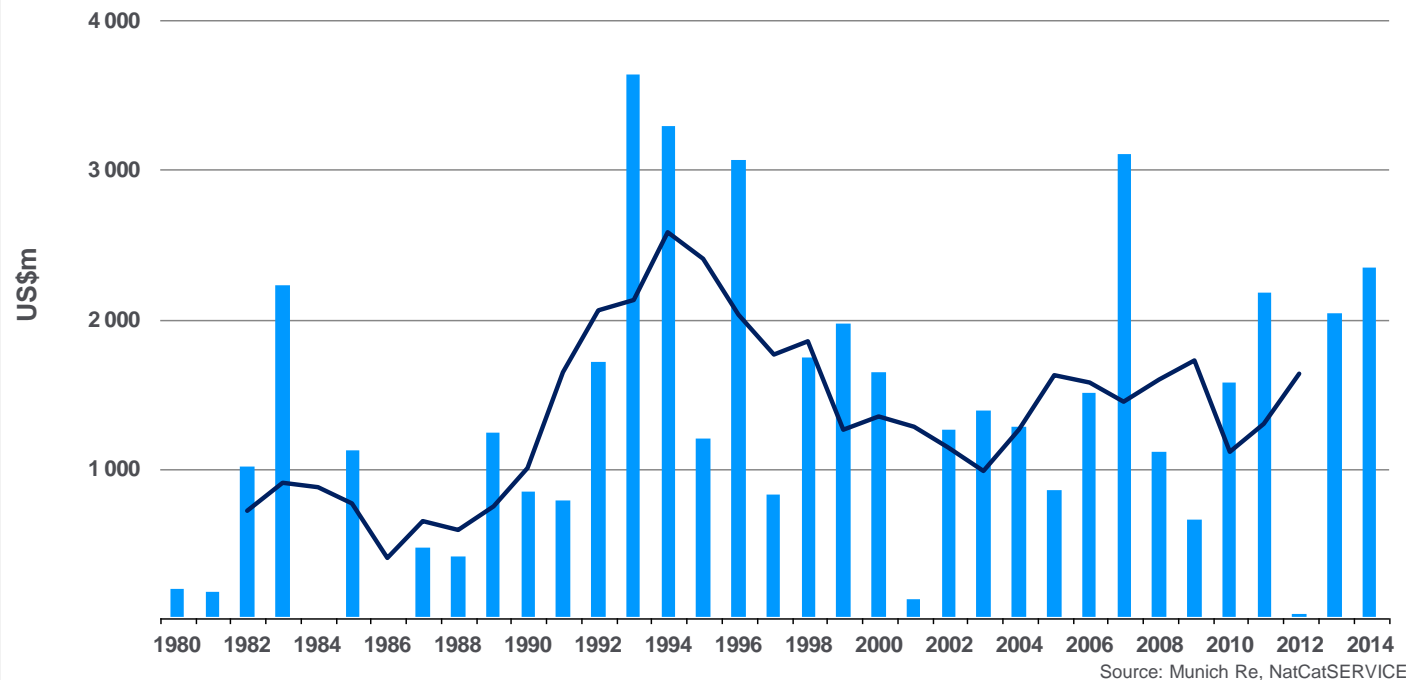


Source: NOAA

Loss events in the US 1980 – 2014

Insured losses due to winter storms*

Overall losses totaled US\$ 3.7bn; Insured losses totaled US\$ 2.4bn

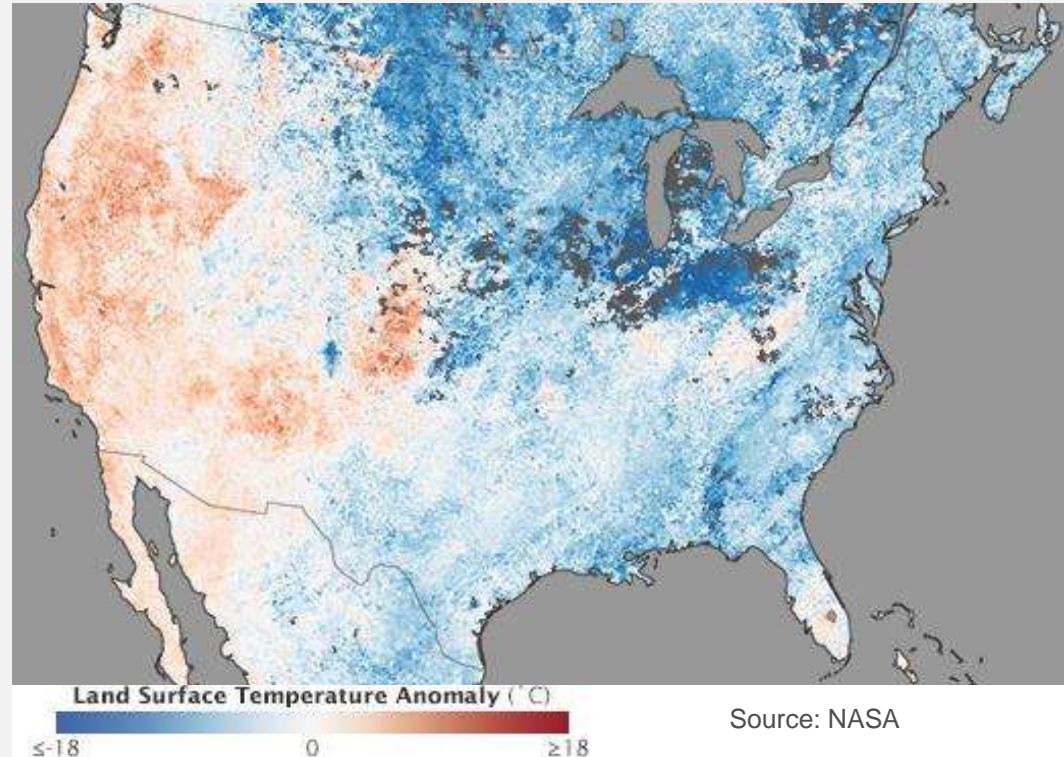


*Winter storms include winter damage, blizzard, snow storm and cold wave

**Losses adjusted to inflation based on country CPI

Winter storms

Throughout the winter months, a persistent “Omega Block” pattern, combined with a weakened Polar Vortex, allowed frigid air to stream southward into eastern United States & Canada. Minimum temperatures in some locations were the lowest in 20 years. Due to the cold conditions, several significant frozen precipitation events occurred across the eastern U.S., reaching as far south as the Florida panhandle.



Source: NASA

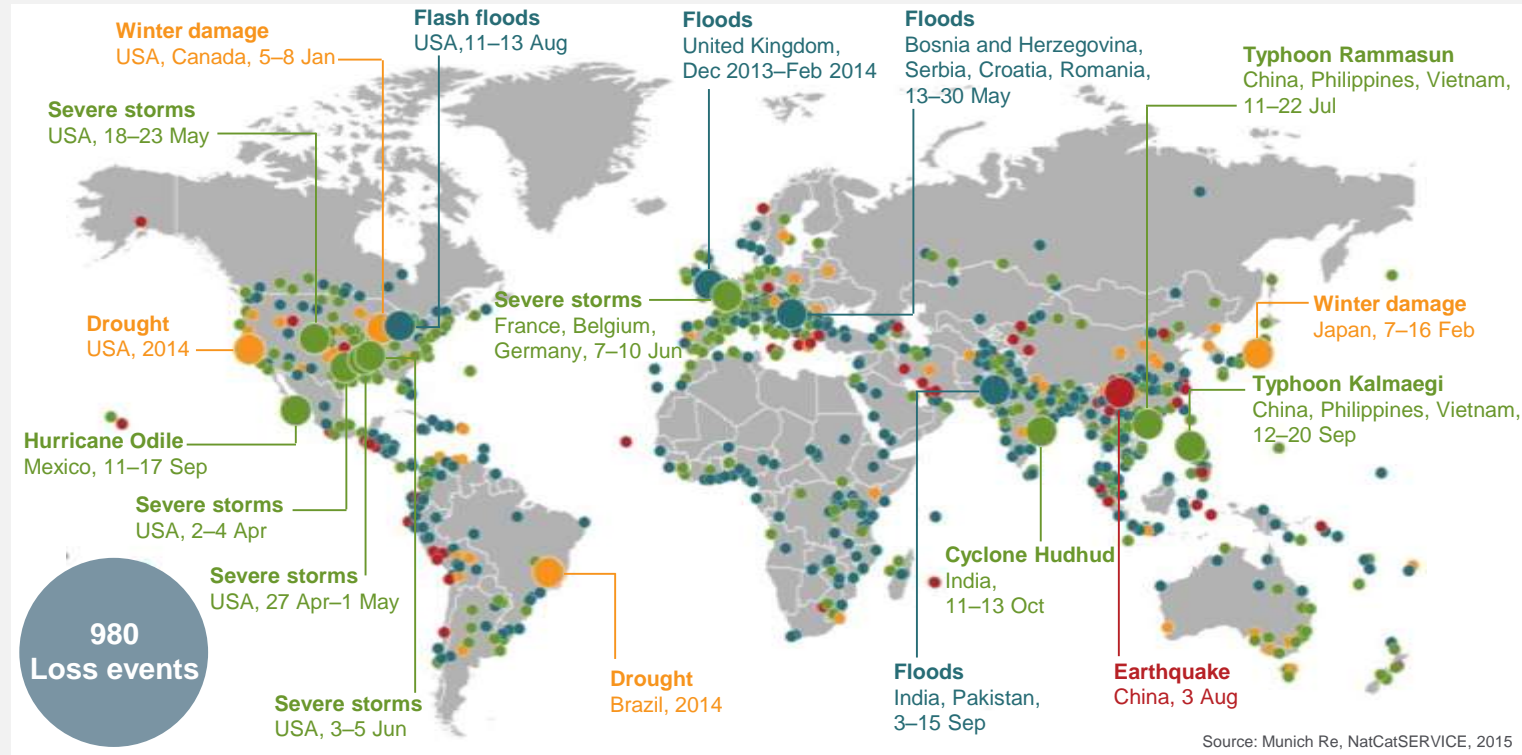
Notable wildfires

A heat wave and strong Santa Ana winds triggered eight wildfires in San Diego County in May. Over 29,000 acres were burned, with about 60 properties destroyed. Luckily, the continued dry conditions did not lead to a severe autumn fire season as some expected, resulting in a light wildfire year in the U.S.



Loss events worldwide 2014

Geographical overview



● **Geophysical events**
(Earthquake, tsunami, volcanic eruption)

● **Meteorological events**
(Tropical storm, extratropical storm, convective storm, local storm)

● **Hydrological events**
(Flood, mass movement)

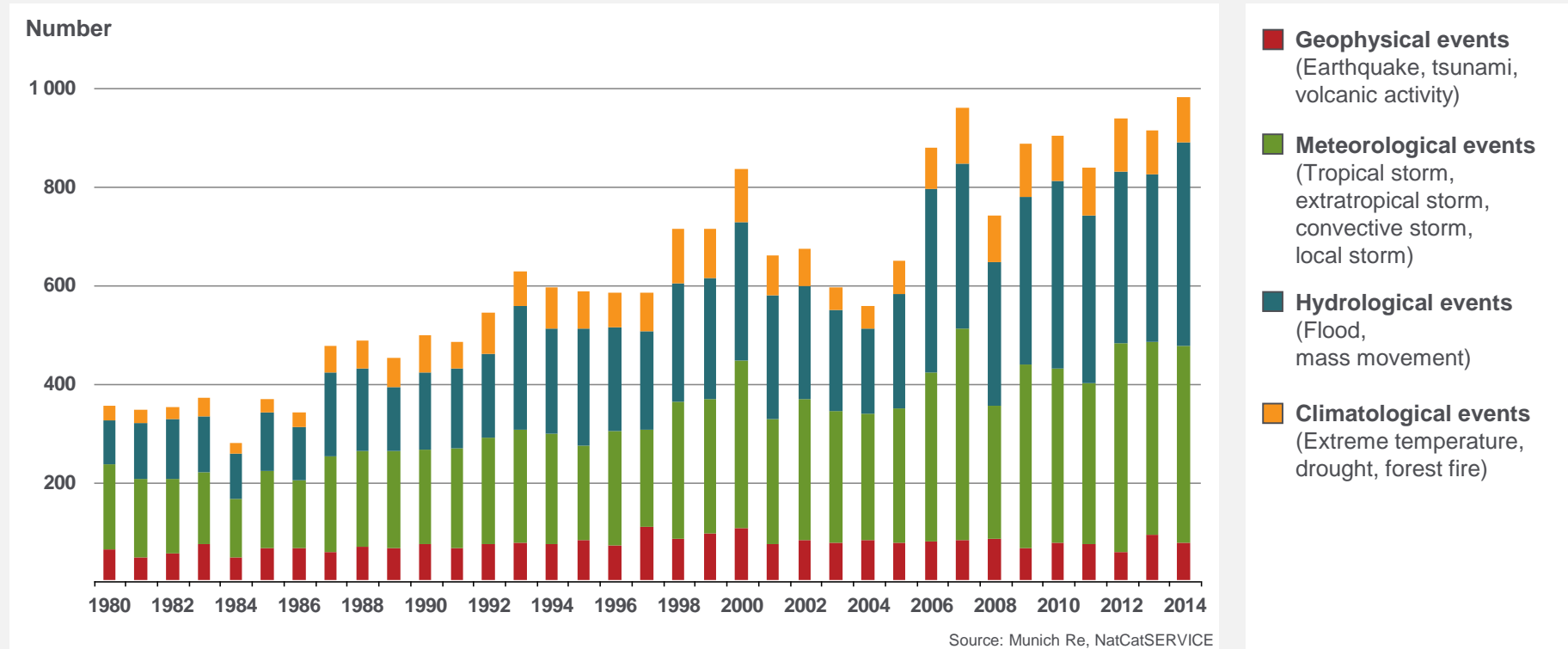
● **Climatological events**
(Extreme temperature, drought, wildfire)

○ **Loss events**

○ **Selection of Catastrophes**
Overall losses
≥ US\$ 1,500m

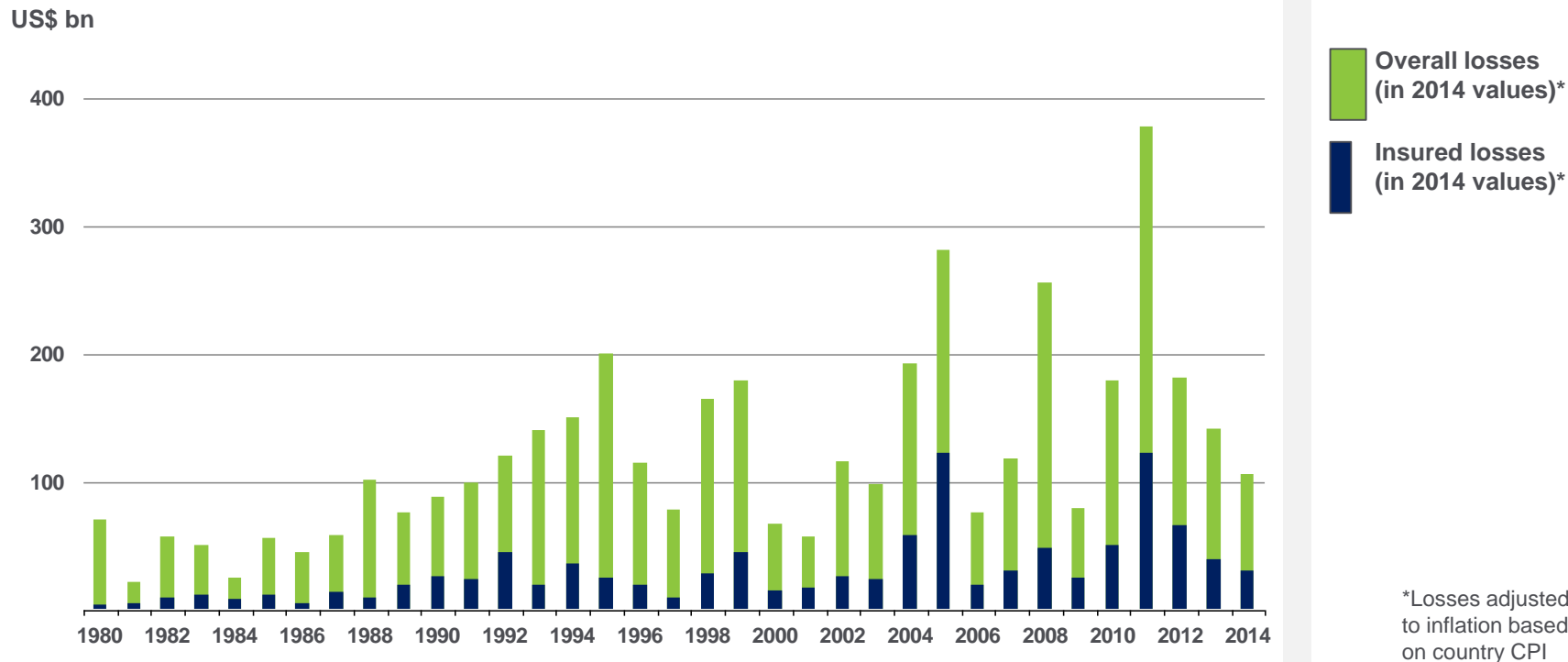
Loss events worldwide 1980 – 2014

Number of events



Loss events worldwide 1980 – 2014

Overall and insured losses



Loss events worldwide 2014

The five costliest natural catastrophes for the insurance industry

Date	Region	Event	Fatalities	Overall losses US\$ m	Insured losses US\$ m
7-16.2.2014	Japan	Winter damage	37	5,900	3,100
18-23.5.2014	United States	Severe storms	-	3,900	2,900*
7-10.6.2014**	France, Belgium, Germany	Severe storms	6	3,500	2,800
5-8.1.2014	United States, Canada	Winter damage	-	2,500	1,700*
3-5.6.2014	United States	Severe storms	-	1,600	1,300*

*Source: Munich Re NatCatSERVICE, Property Claim Services.

**Time period for several severe storm events.

Notable global events

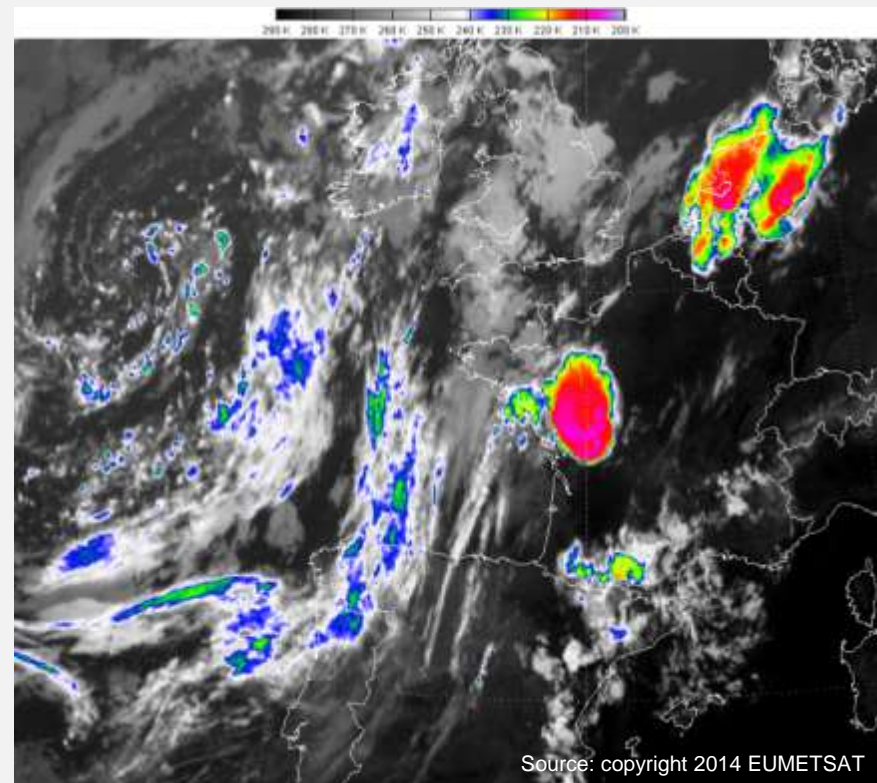
Japan: A pair of heavy snowfall events caused significant infrastructure disruptions and damage across the country in mid-February. Four auto manufacturing plants had to suspend operations due to the conditions. Hundreds of residential and commercial buildings collapsed due to snow loads, and over 270,000 lost power due to snow and wind gusts to hurricane force. In large part due to business interruption losses, insured losses from this winter storm outbreak are estimated at \$3.1bn.



Source: Reuters

Notable global events

France, Germany, Netherlands: Several severe thunderstorms developed between June 7-10 that produced several swaths of large hail. Tile roofs, windows, and skylights were shattered by the tennis-ball sized hail, and heavy rains flooding thousands of. Agricultural activities were also severely impacted. Although not as damaging as the \$3.7 billion loss from the last year's hail events in Germany, this event still caused estimated insured losses of \$2.8 billion across four countries.



Notable global events

United Kingdom: A series of intense extratropical storms brought several bouts of heavy rains during the winter of 2014, causing widespread flooding around the country. Access to some villages was cut off for a month, and over 6,500 properties were flooded. Coastal flooding and erosion was also caused by the persistent storms. Insured losses from the flooding are estimated at about \$1.1 billion.



Source: NASA

Costliest natural catastrophes since 1950

Ranked by insured losses

Year	Event	Region	Insured losses US\$ m (in original values)
2005	Hurricane Katrina	USA	62,200
2011	EQ, tsunami	Japan	40,000
2012	Hurricane Sandy	USA, Caribbean	29,500
2008	Hurricane Ike	USA, Caribbean	18,500
1992	Hurricane Andrew	USA	17,000
2011	Floods	Thailand	16,000
1994	EQ Northridge	USA	15,300
2011	EQ Christchurch	New Zealand	14,600
2004	Hurricane Ivan	USA, Caribbean	13,800
2005	Hurricane Wilma	USA, Caribbean	12,500