

# ○ Big data: the big insurance questions

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DemystData

# BIG DATA: THE BIG INSURANCE QUESTIONS



Forbes

THE HUFFINGTON POST

**TC** TechCrunch

# 2017: An Expensive Year

**Hurricanes in the US & Caribbean, Earthquakes in Mexico and the winter storms in Europe still to come – 2017 will develop into one of the worst profitable years in a decade**

*“**Swiss Re** estimates its claims burden from hurricanes Harvey, Irma and Maria and the Mexico earthquakes at USD 3.6 billion”*

*“...**Munich Re** reported that the severe losses to be expected from Hurricanes Harvey and Irma were likely to result in a loss for the third quarter, and might jeopardise its profit target for 2017. Since then, Hurricane Maria has also caused significant damage in the Caribbean”*

*“**AIG** American International Group Inc. said it expected to book pre-tax catastrophe losses of about \$3 billion in the third quarter mainly related to hurricanes Harvey, Irma and Maria. The company estimated pre-tax losses of about \$1 billion each from Harvey and Irma, up to \$700 million from Maria and additional catastrophe losses, including earthquakes in Mexico, of about \$150 million”*

*“**ALLSTATE** Allstate Corp., the second-largest U.S. homeowners’ insurer based on premiums collected, estimated pre-tax catastrophe losses of \$593 million, net of reinsurance recoveries, for August”*

***CHUBB** U.S. property and casualty insurer Chubb Ltd. estimated after-tax losses of up to \$1.28 billion from hurricanes Harvey and Irma”*

# Continued C/R deterioration

## Exhibit 10

### U.S. Property/Casualty – Segment Indicators (2015-2017P)<sup>1</sup>

Excludes mortgage and financial guaranty segments.

	Personal Lines Segment			Commercial Lines Segment			U.S. Reinsurance Segment		
	2015	2016E	2017P	2015	2016E	2017P	2015	2016E	2017P
Change in Net Premiums Written (%)	7.3	4.9	3.4	0.9	1.0	0.0	-10.3	-5.1	7.7
Change in Policyholders' Surplus (%)	2.5	4.2	2.5	-0.4	2.1	-2.4	-6.4	9.2	2.4
Combined Ratio (Reported)	99.6	102.6	100.2	97.5	98.2	100.6	92.6	97.6	98.8
Less: Catastrophe Losses	4.8	6.0	5.5	2.1	3.2	4.5	1.8	5.0	5.0
Less: A&E Losses	0.1	0.1	0.1	1.0	0.8	0.8	1.4	2.4	1.9
Combined Ratio (Normalized)	94.8	96.6	94.7	94.5	94.1	95.3	89.5	90.2	91.8
Accident Year Combined Ratio (Normalized) <sup>2</sup>	95.4	97.3	95.6	97.6	96.6	97.5	92.0	93.6	94.6
Change in Net Investment Income (%)	0.0	-5.8	2.7	0.9	-3.9	-0.3	-40.9	25.7	9.3
Investment Yield (%)	2.6	2.4	2.4	3.3	3.0	3.0	3.8	4.7	4.7
After-Tax Return on Surplus (ROE) (%)	6.3	2.5	3.8	8.9	8.2	5.5	10.4	9.7	8.0
NPW/PHS (Reported)	1.0	1.0	1.0	0.7	0.7	0.7	0.4	0.3	0.3

E=Estimated, P=Projected

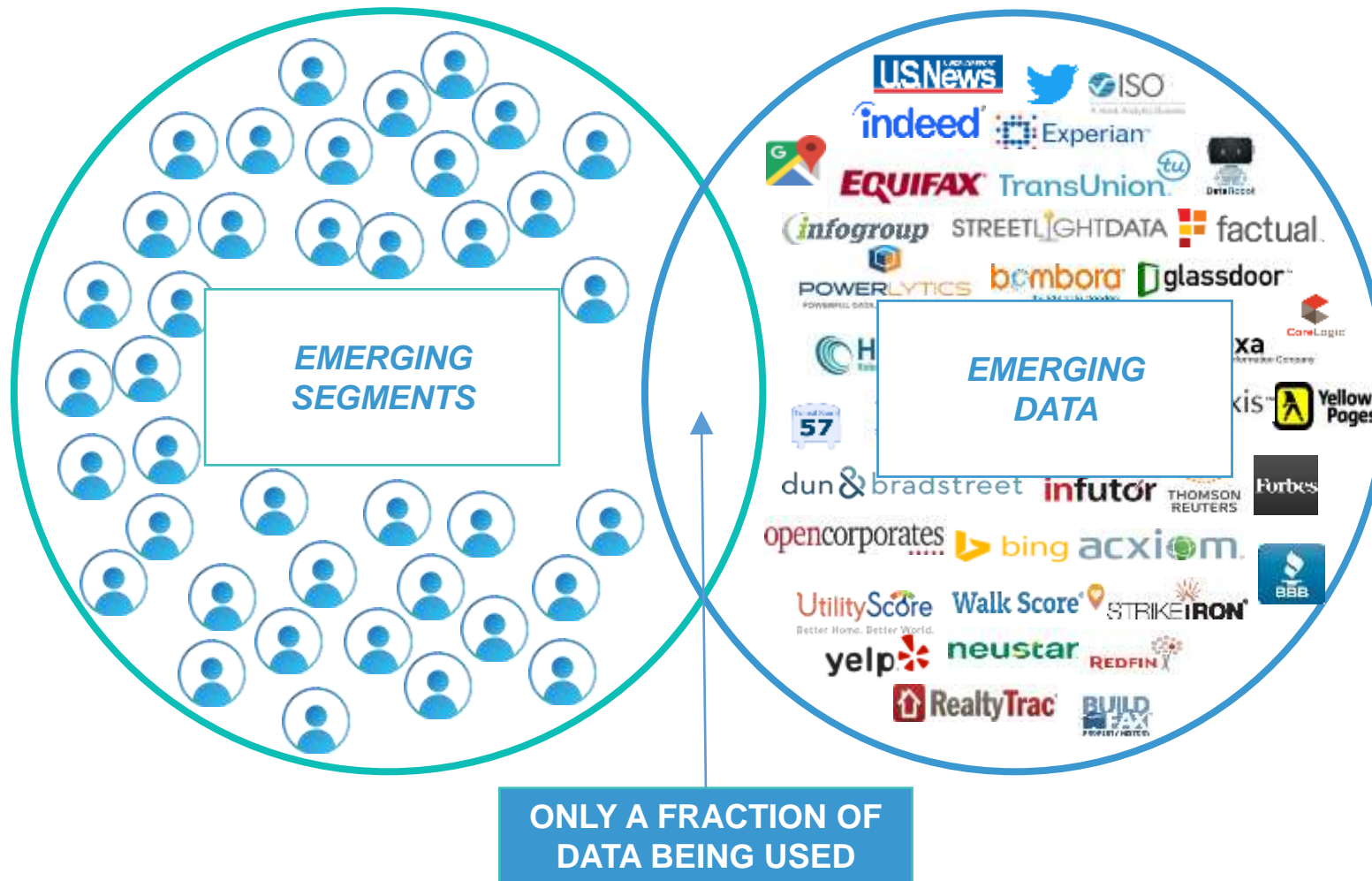
<sup>1</sup> This forecast was prepared prior to the announcement of the adverse development reinsurance agreement, effective January 1, 2016, between American International Group, Inc. (AIG) and National Indemnity Company (NICO), a subsidiary of Berkshire Hathaway, Inc. While this agreement will not impact the industry's overall results, it will impact the segment performance of the commercial and reinsurance segments for 2016 and 2017.

<sup>2</sup> Normalized accident-year combined ratio adjusted to exclude prior-year core reserve development, which excludes A&E losses.

Source: A.M. Best data and research

# Financial Institutions in the Age of Data

Financial institutions are looking for better ways to leverage data to serve new and existing customer segments



# How can Big Data help the Re-/ Insurance Industry

## Better Underwriting

- Risk Selection
- Portfolio Management
- Pricing accuracy

## More focused marketing

- Reduced attrition
- Increased retention

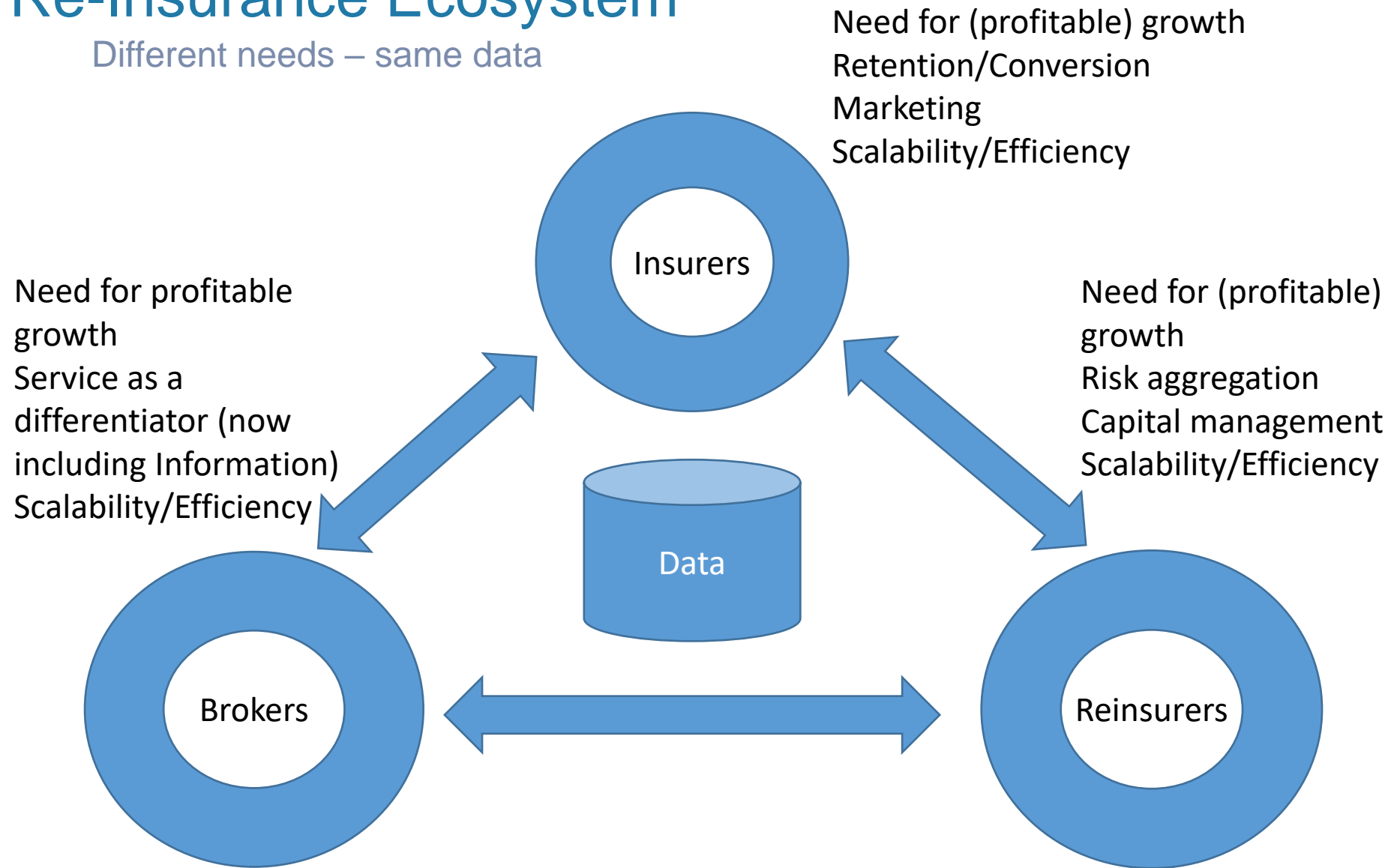
## More efficient operations

- Reducing overhead
- Automation
- Improved customer experience



# The Re-Insurance Ecosystem

Different needs – same data



# Better Underwriting

## **Risk Selection**

- Enriched underwriting information through unstructured data
  - Social media, Aerial surveillance etc.
- Reducing “gut-feel”

## **Portfolio Management**

- Non-cat risk aggregation
- Targeting specific customer segments

## **Pricing accuracy**

- The good, the bad and the ugly
- Deeper, more accurate segmentation



# More efficient Operations

## **Reducing overhead**

- Underwriting
- Claims
- Compliance

## **Automation**

- KYC
- Fraud
- Structured underwriting information
- Decision algorithms

## **Improved customer experience**

- Real-time cover confirmation
- Customer on-boarding

# Challenges

## **Data access**

- Internal/external
- Structured/unstructured

## **Data science**

## **Compliance**

- Data privacy / consent
- Cross border

## **Technology**

- Real-time
- Cloud based

## **Third party vendors**

# Challenges

## **Culture**

- Board room through to underwriting floor
- Adapt before you disrupt

## **Quick fixes**

- Maybe but not really
- Transition of an entire industry

## **Millennial vs. Old School**

- Both
- Enriching experience with innovation

## **Technology**

- Don't attempt to do it yourself
- Complementary outsourcing

# DemystData

*Mobilizing the world's data to unlock financial services*

## About us

- Software company that financial institutions harness the explosive growth of data to serve more customers
- Clients include global banks, insurers, payment and lending platforms, and card issuers



New York

Singapore

Hong Kong

Melbourne

**600+ million**  
Transactions processed

**40+**  
Use Cases

**15**  
Client countries

**10K+**  
Configured connectors