InsurTech:
The Financing of Innovation, Transformation and Disruption

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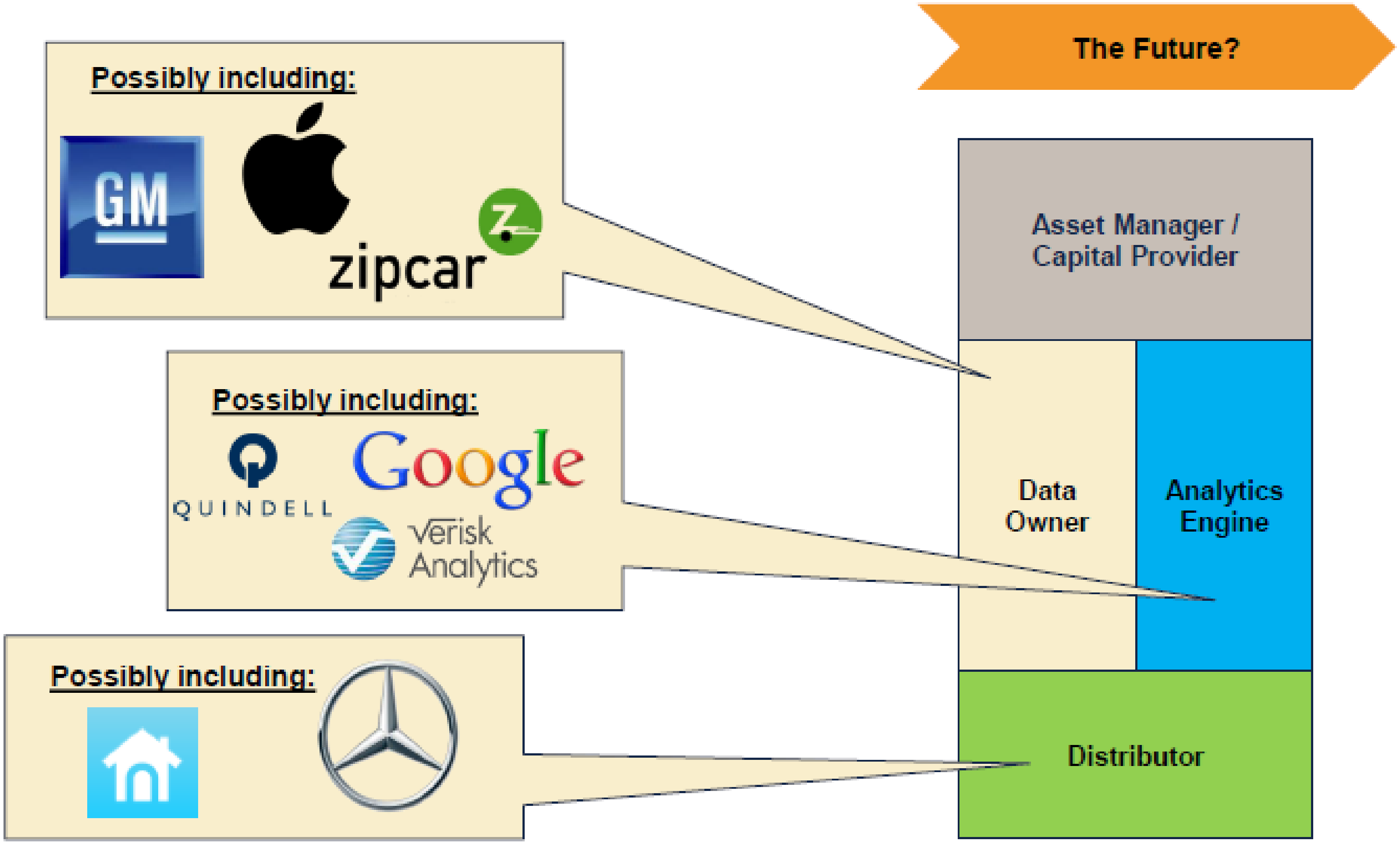
INSURANCE INDUSTRY DISRUPTORS

Technology, Society and the Economy Are All Changing at a Rapid Pace

Insurance Too: But Need to Look at Reality

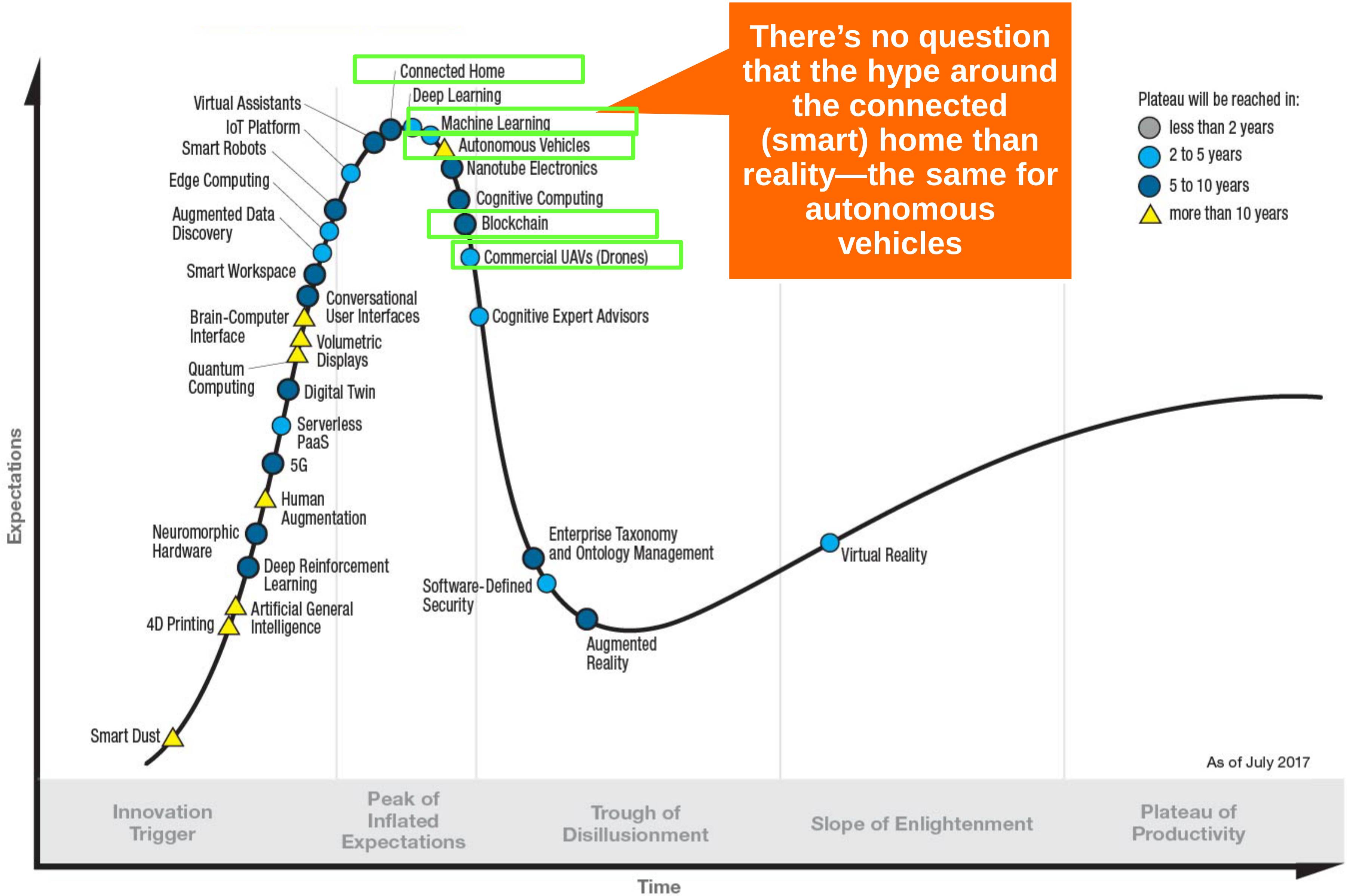
The Insurance Industry Value Chain: Under Seige, Ripe for Disruption?



Who owns the data? Where does It flow? Who does the analytics? Who is the capital provider?

Source: Willis Capital Markets & Advisory; Univ. of South Carolina, RUM Center.

Hype Cycle for Emerging Technologies, 2017

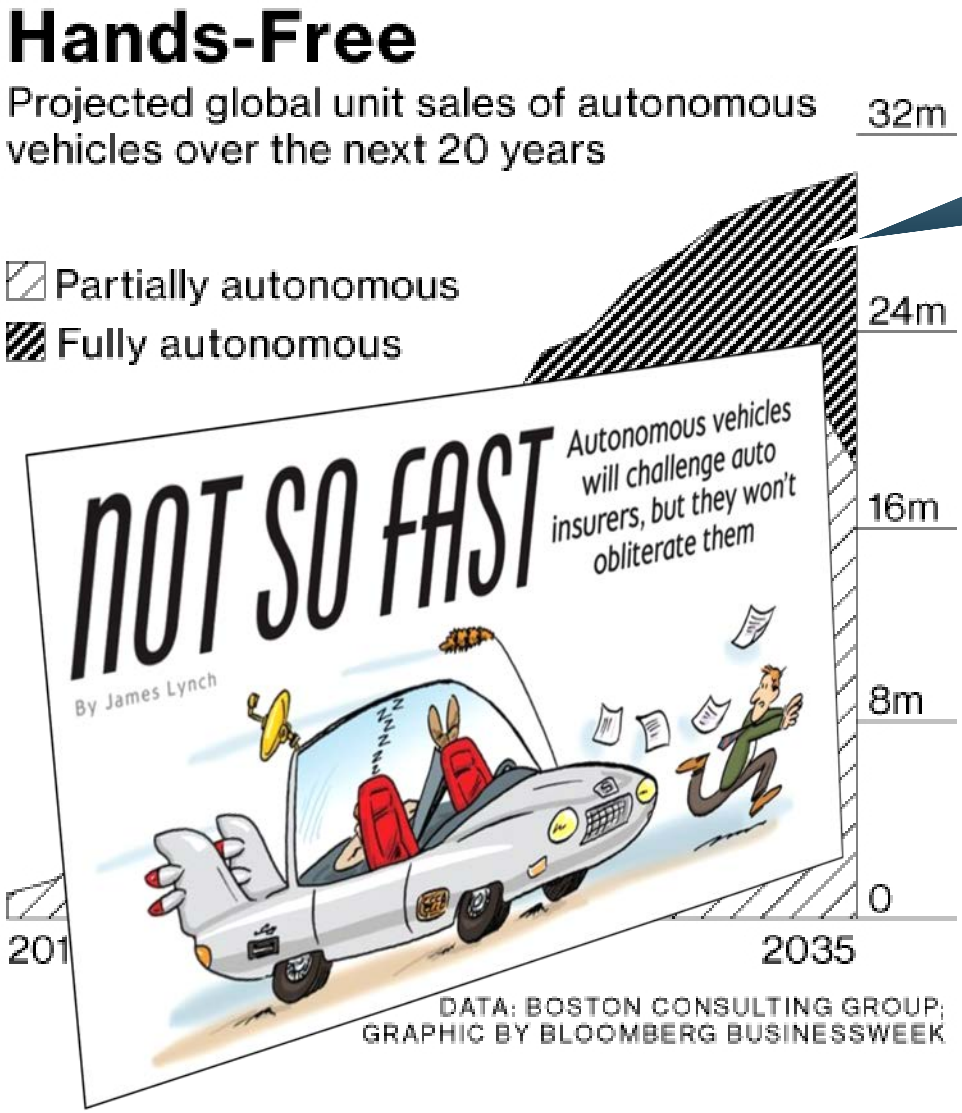


Source: Gartner.

Most-Hyped Technologies Impacting Insurers Today, Based on Gartner's Hype Curve

- Autonomous Vehicles
- Connected (Smart) Homes
- UAVs (Drones)
- Blockchain
- Machine Learning

Media is Obsessed with Driverless Vehicles: Often Predicting the Demise of Auto Insurance



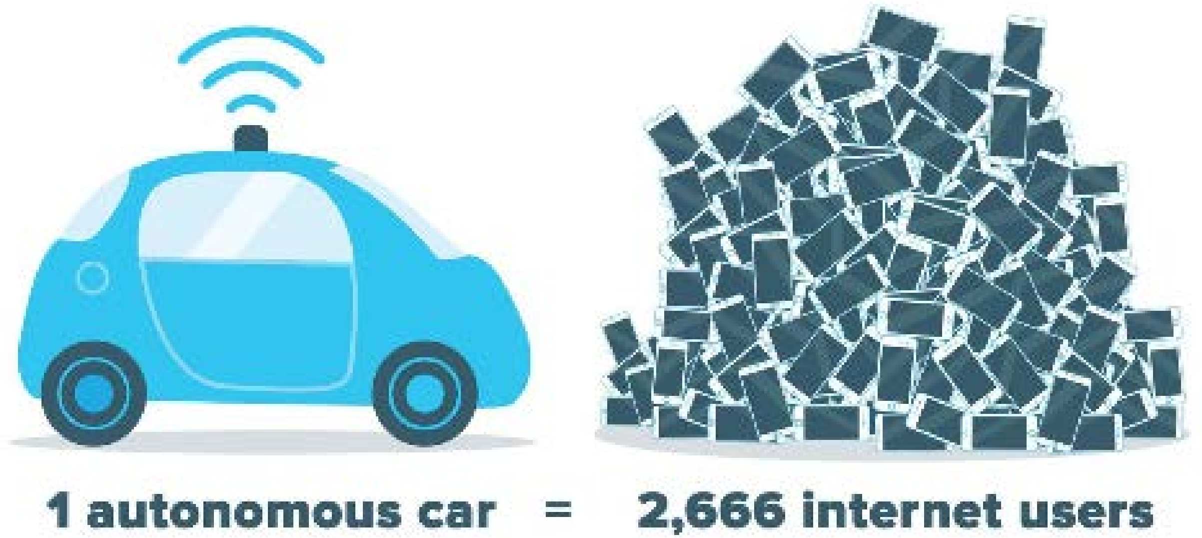
By 2035, it is estimated that 25% of new vehicle sales could be fully autonomous models

Questions

- **Are auto insurers monitoring these trends?**
- **How are they reacting?**
- **Will Google or (Amazon) take over the industry?**
- **Will the number of auto insurers shrink?**
- **How will liability shift?**

Source: Boston Consulting Group.

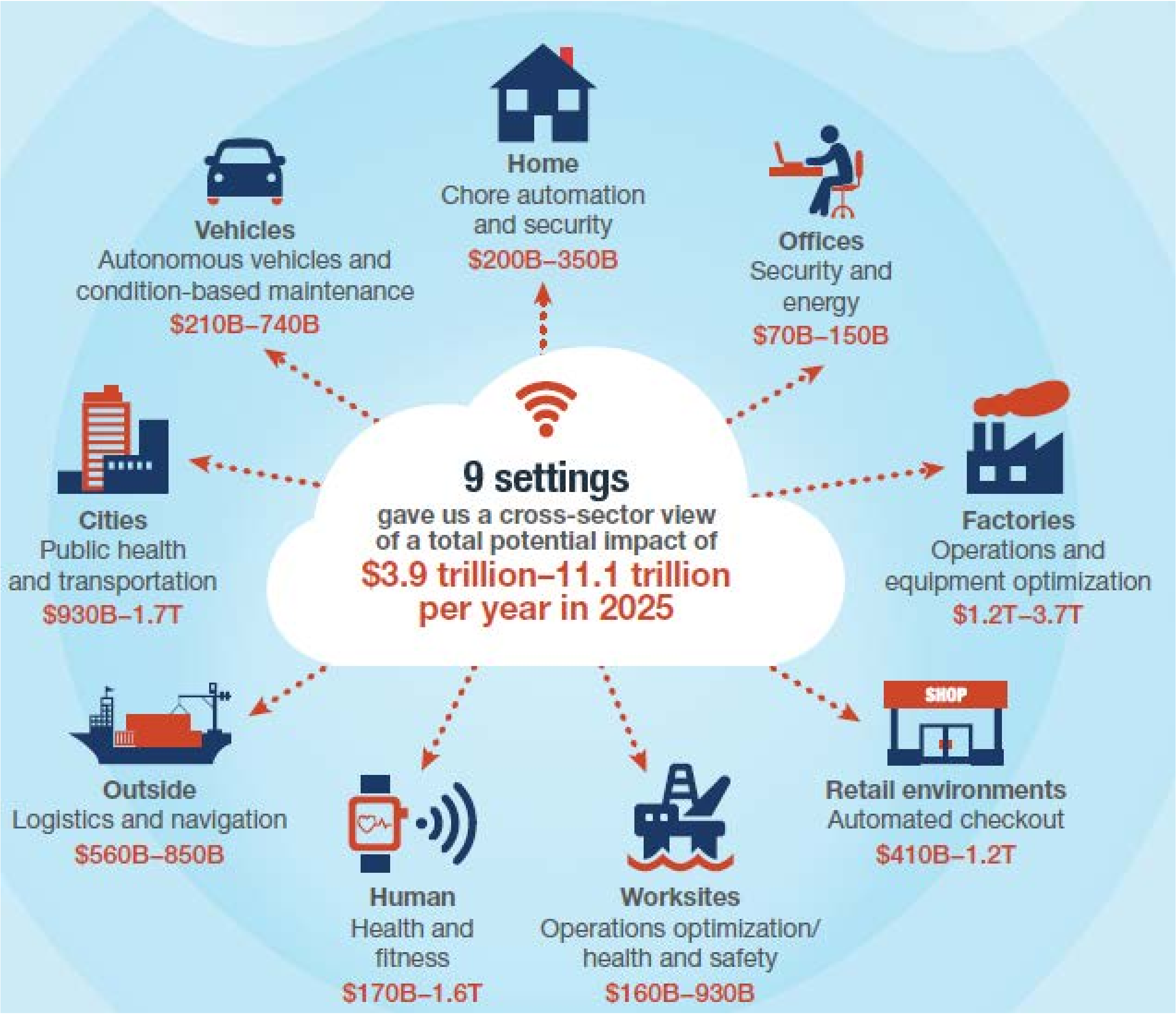
Autonomous Vehicles: Will Insurers Drown in the Data?



- The average human by 2020 will generate about 1.6GB in data every day
- The average autonomous vehicle will process about 4,000GB per day—as much as nearly 2,700 humans
- Are insurers ready for this?

Source: Intel

The Internet of Things and the Insurance Industry



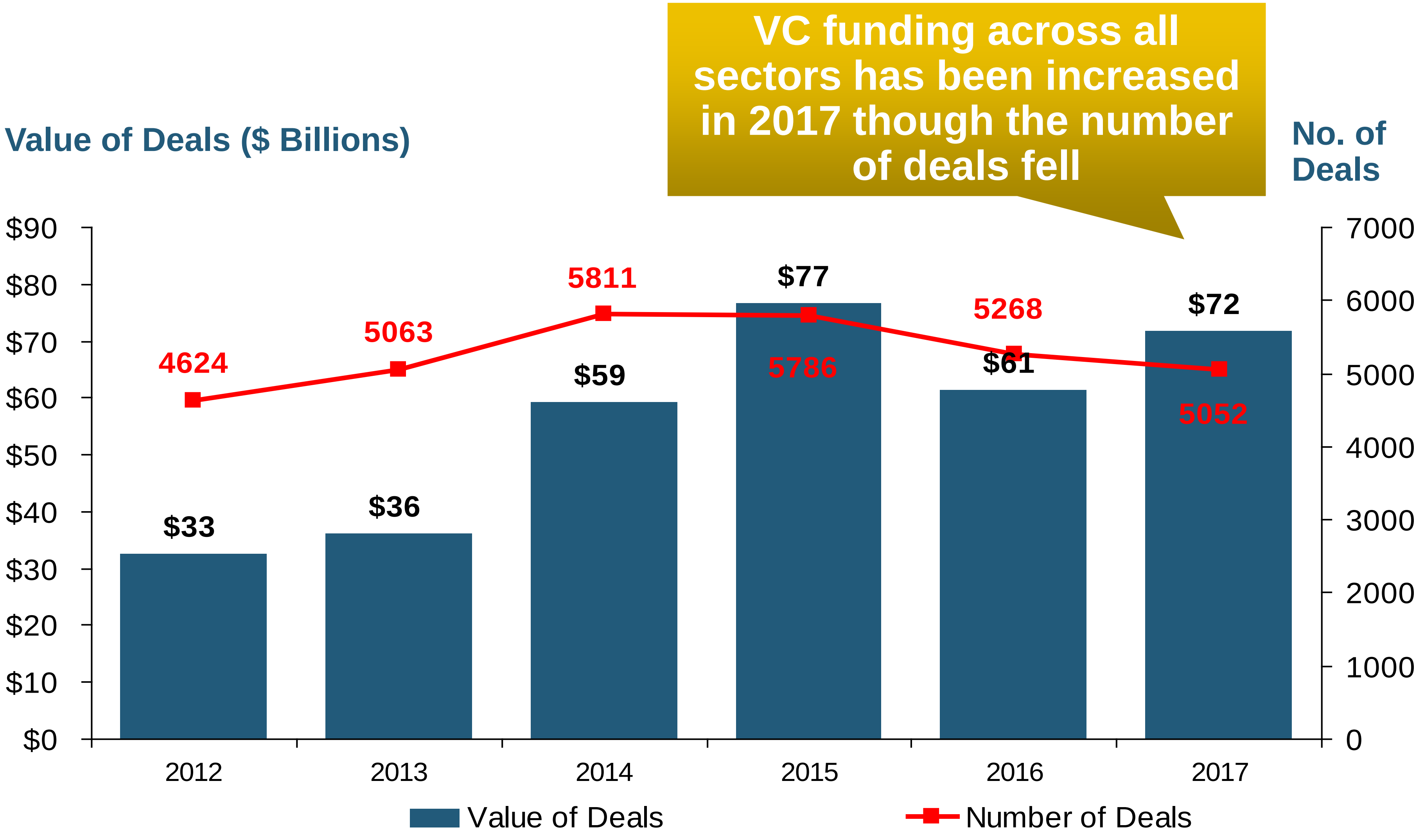
Sources: McKinsey Global Institute, *The Internet of Things: Mapping the Value Beyond the Hype*, June 2015; Insurance Information Institute.

- **The "Internet of Things" will create trillions in economic value throughout the global economy by 2025**
- **What opportunities, challenges will this create for insurers?**
- **What are the impact on the insurance industry "value chain"?**
- **What is InsurTech's Role?**

Trends in US Venture Capital Funding

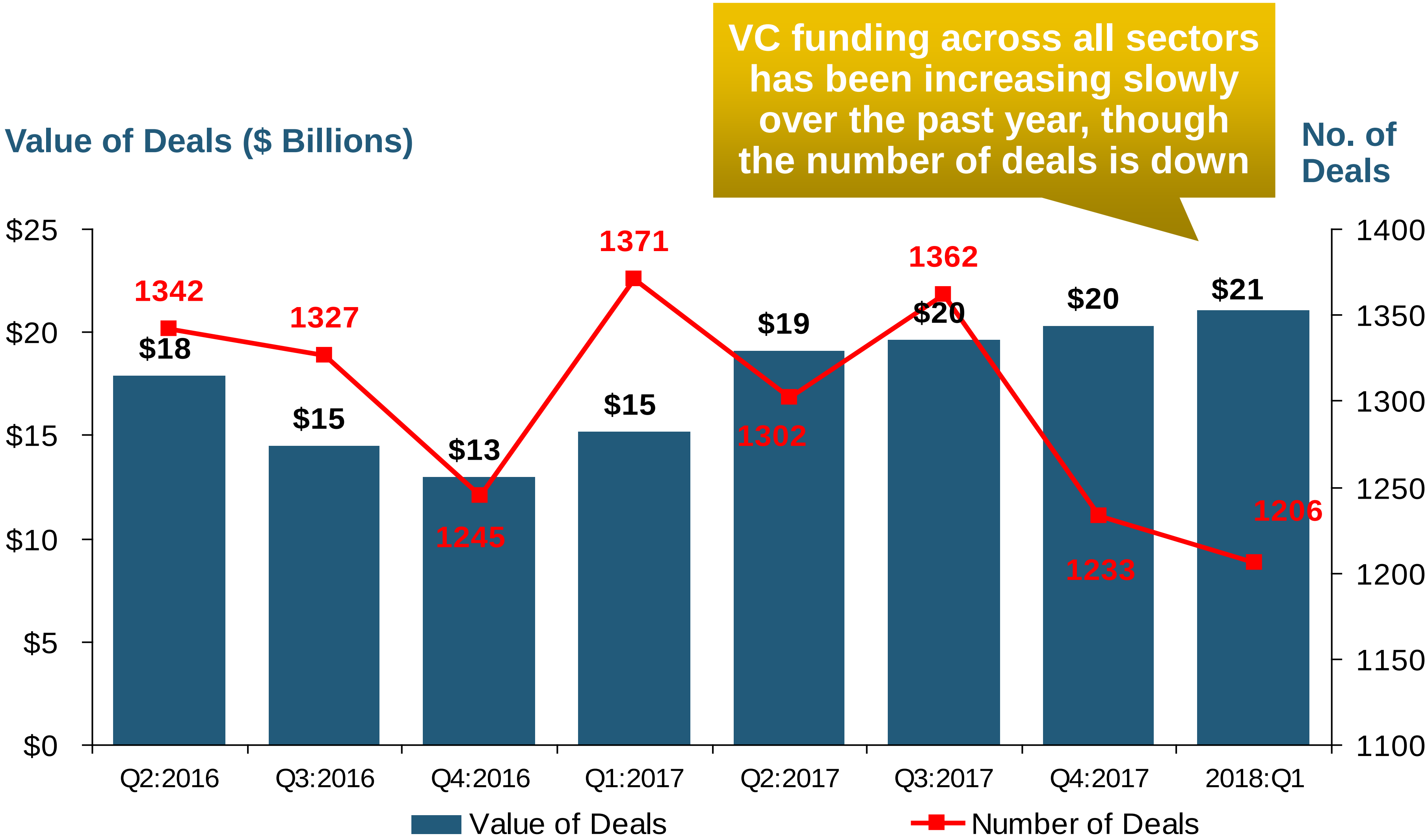
Venture Capital Funding Is Large, Growing and Risky

US Venture Capital Funding (All Sectors), 2012 – 2017



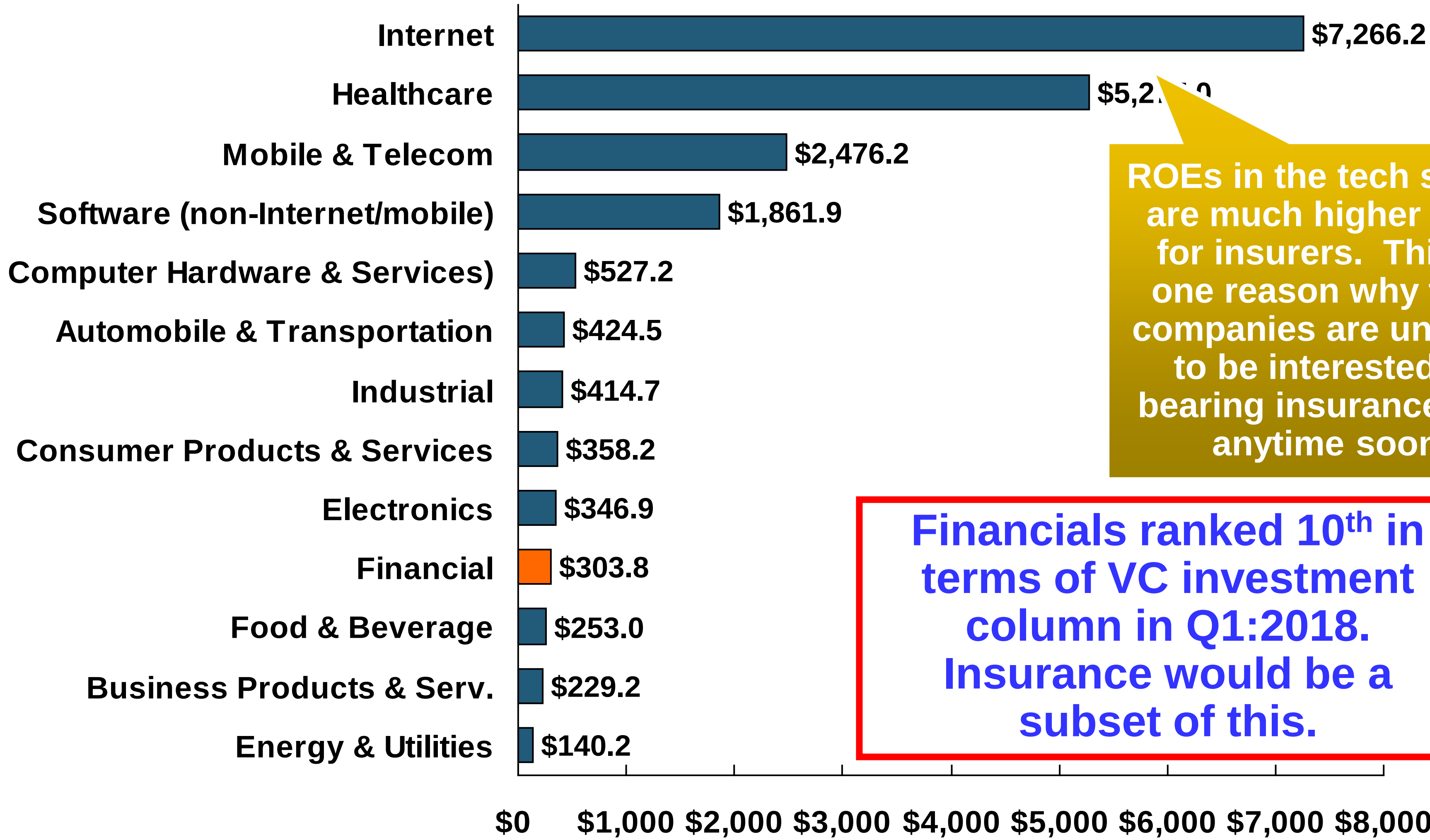
Source: CB Insights, *Venture Capital Funding Report, 20*17 accessed 6/15/18 at: https://www.cbinsights.com/research/report/venture-capital-q4-2017/

US Venture Capital Funding (All Sectors), 2016:Q2 – 2018:Q1



Source: CB Insights, *Venture Capital Report*, Q1 2018 accessed 6/15/18 at: https://www.cbinsights.com/research/report/venture-capital-q1-2018/

VC Investment by Industry, 2018:Q1 ($ Mill)
Technology Leads the Way—Finance Lags

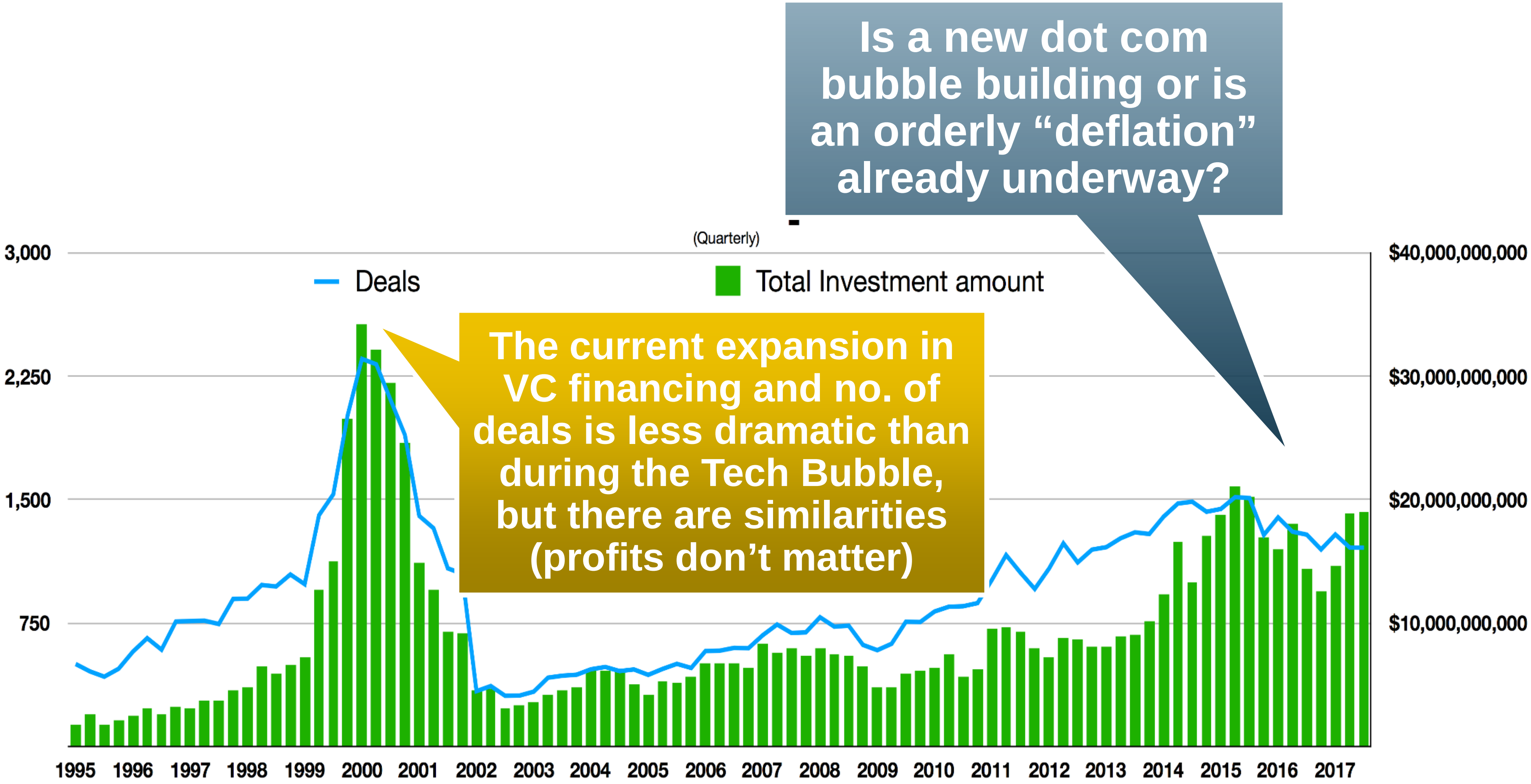


ROEs in the tech sector are much higher than for insurers. This is one reason why tech companies are unlikely to be interested in bearing insurance risk anytime soon

Financials ranked 10th in terms of VC investment column in Q1:2018. Insurance would be a subset of this.

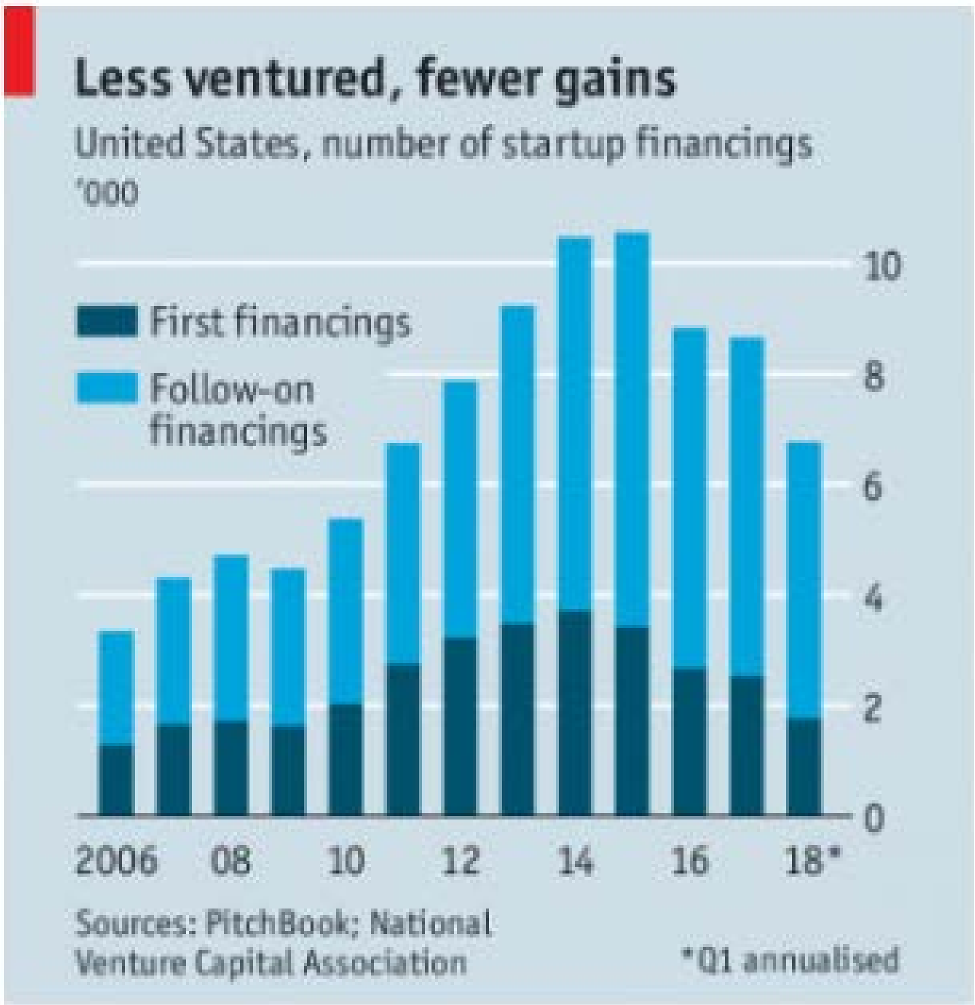
Source: Statista.com; Univ. of South Carolina Center for Risk and Uncertainty Management.

Total US Venture Capital Investments and Number of Deals, 1995:Q1 – 2017:Q4



Source: PwC MoneyTree Report at: https://www.pwc.com/us/en/technology/moneytree.html

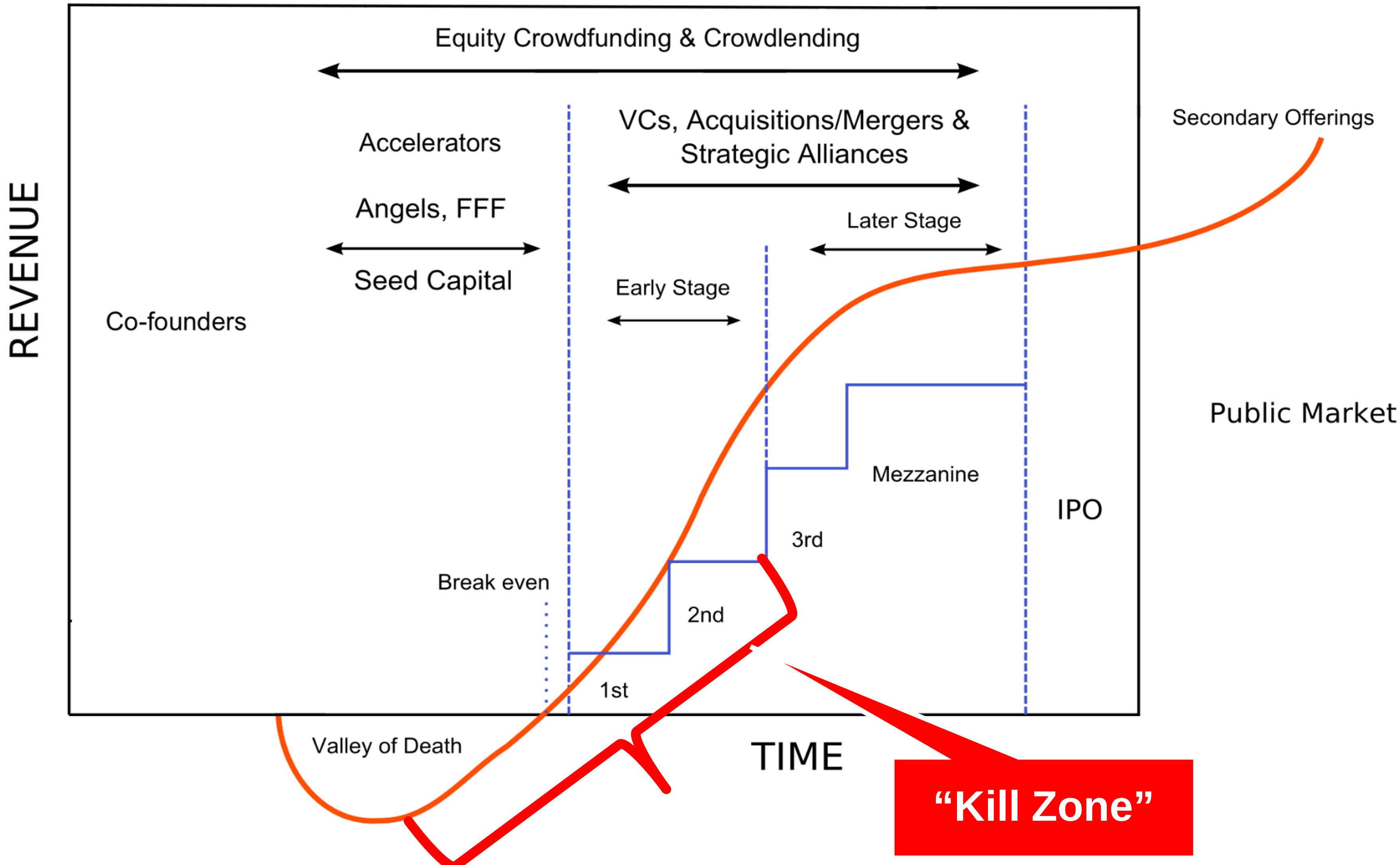
Start-Up Financings in the US, 2006 – 2018*



- **First-round financings are down sharply across the board, including InsurTech**
- **One reason: "The Kill Zone"**
- **Tech giants (e.g., Google, Amazon, Microsoft, Facebook) are quick to eliminate competitive threats by copying them or buying them early**
- **VCs are wary of investing if one of the "Giants" is likely to move into same space**
- **Does InsurTech have a "Kill Zone"?**

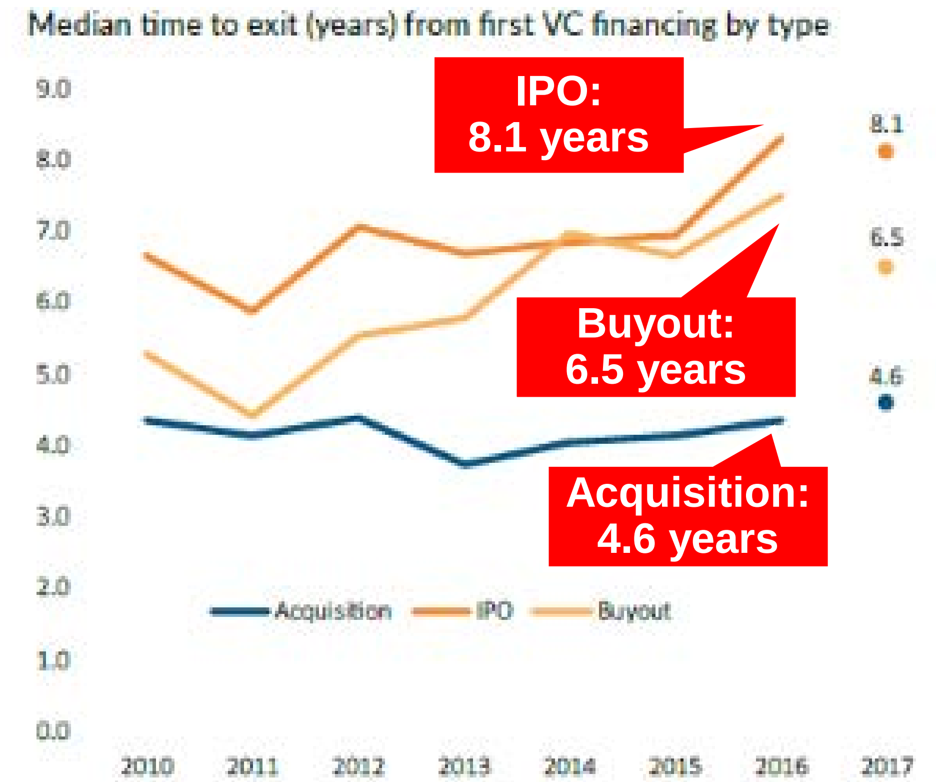
Sources: The Economist, *The Future of Tech Startups: Into the Danger Zone*, June 2, 2018: https://www.economist.com/business/2018/06/02/american-tech-giants-are-making-life-tough-for-startups

The Startup Financing Cycle: Long, Uncertain and Sometimes Desperate Process



Source: PwC MoneyTree Report at: https://www.pwc.com/us/en/technology/moneytree.html
University of South Carolina, Center for Risk and Uncertainty Management.

Median Time to Exit from VC Financing Reached All Time Record in 2017



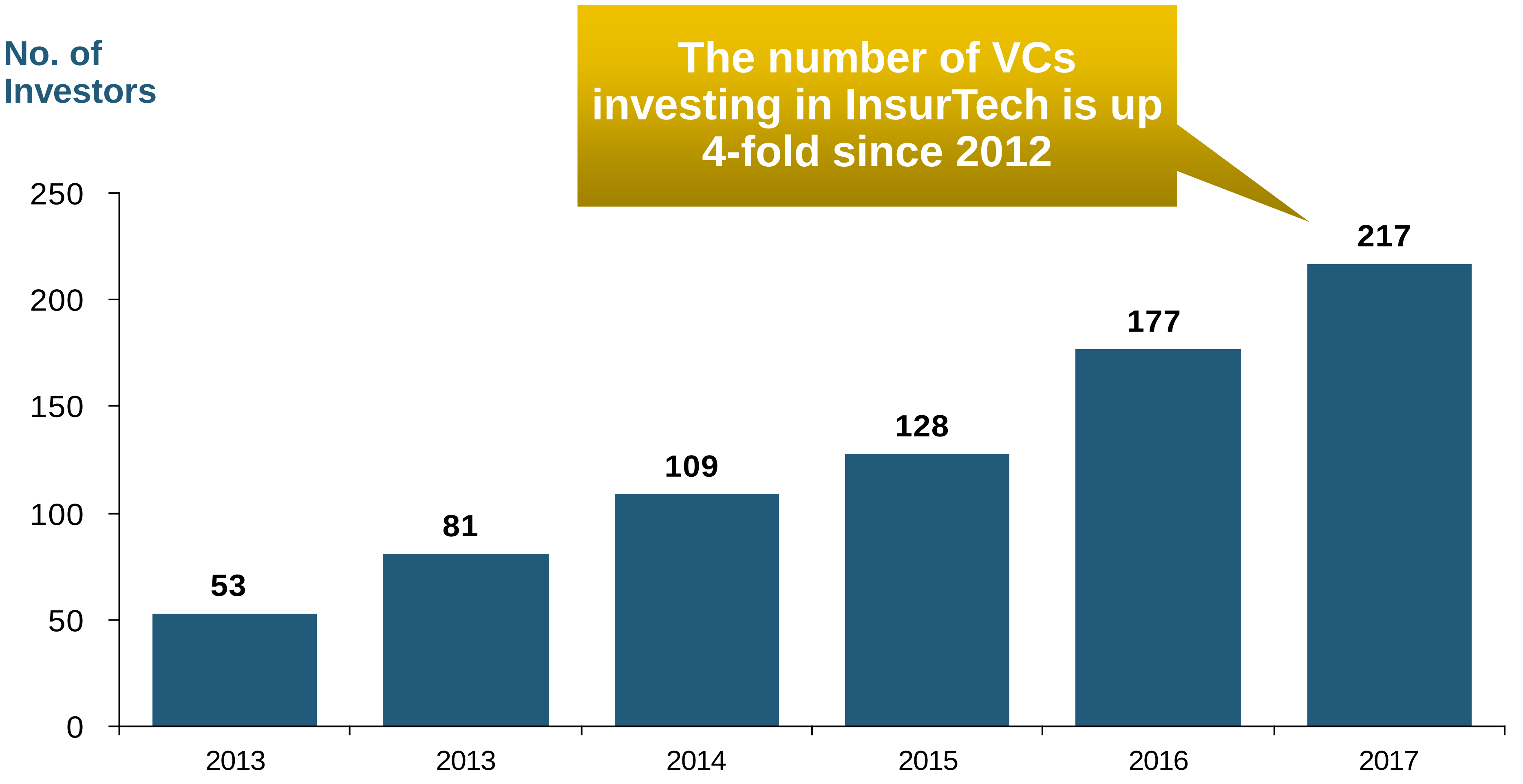
Source: Pitchbook.com at: https://pitchbook.com/news/articles/vc-investment-to-exit-ratio-in-the-us-at-record-high

THE STATE OF INSURTECH FUNDING TODAY

Number and Value of Deals Is Increasing in Recent Years, but Has a Plateau Been Reached?

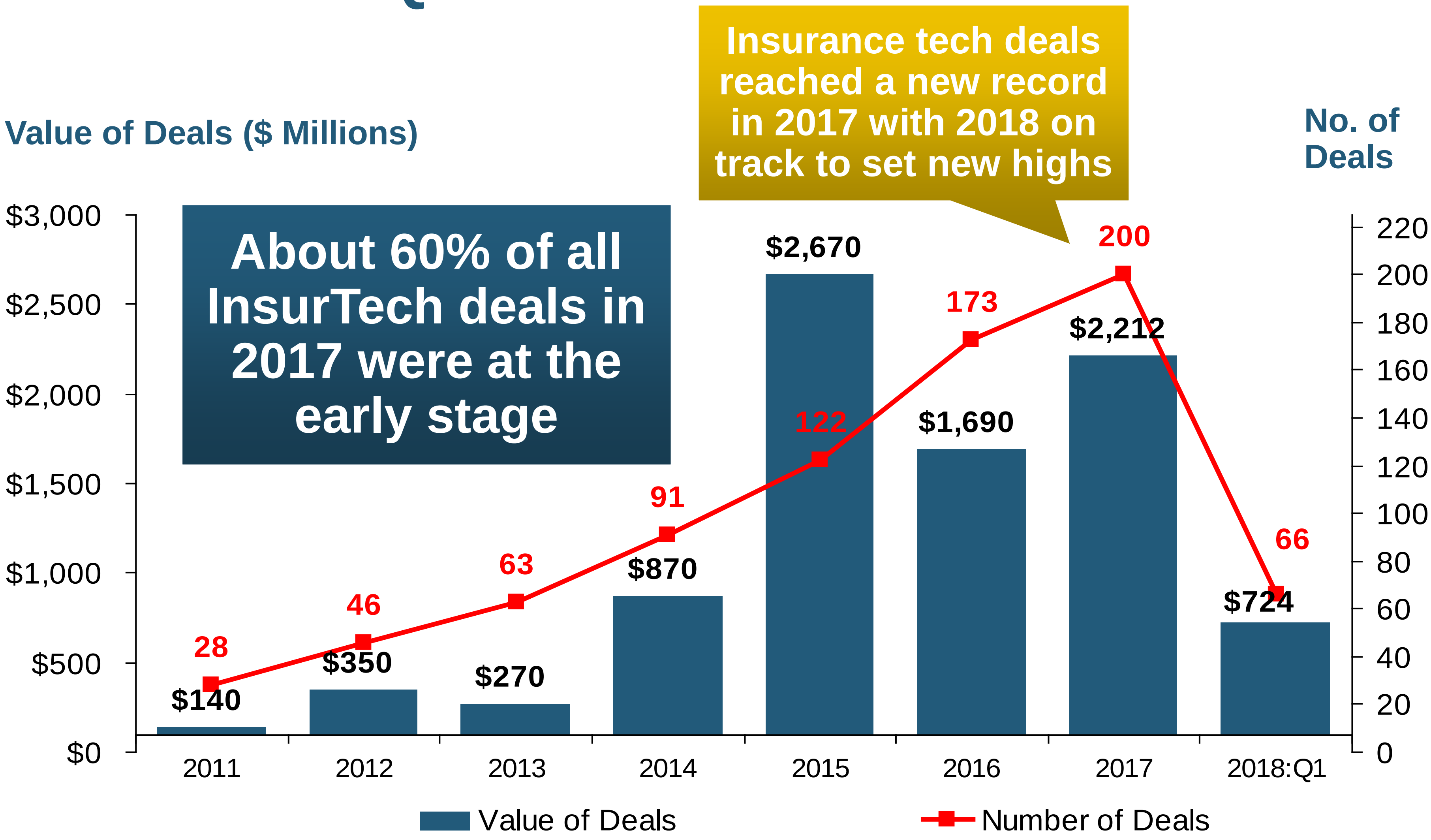
Insurance Is an Industry that Has Always Been Accepting of Change and Innovation

Number of VC Investors in InsurTech, 2012 – 2017



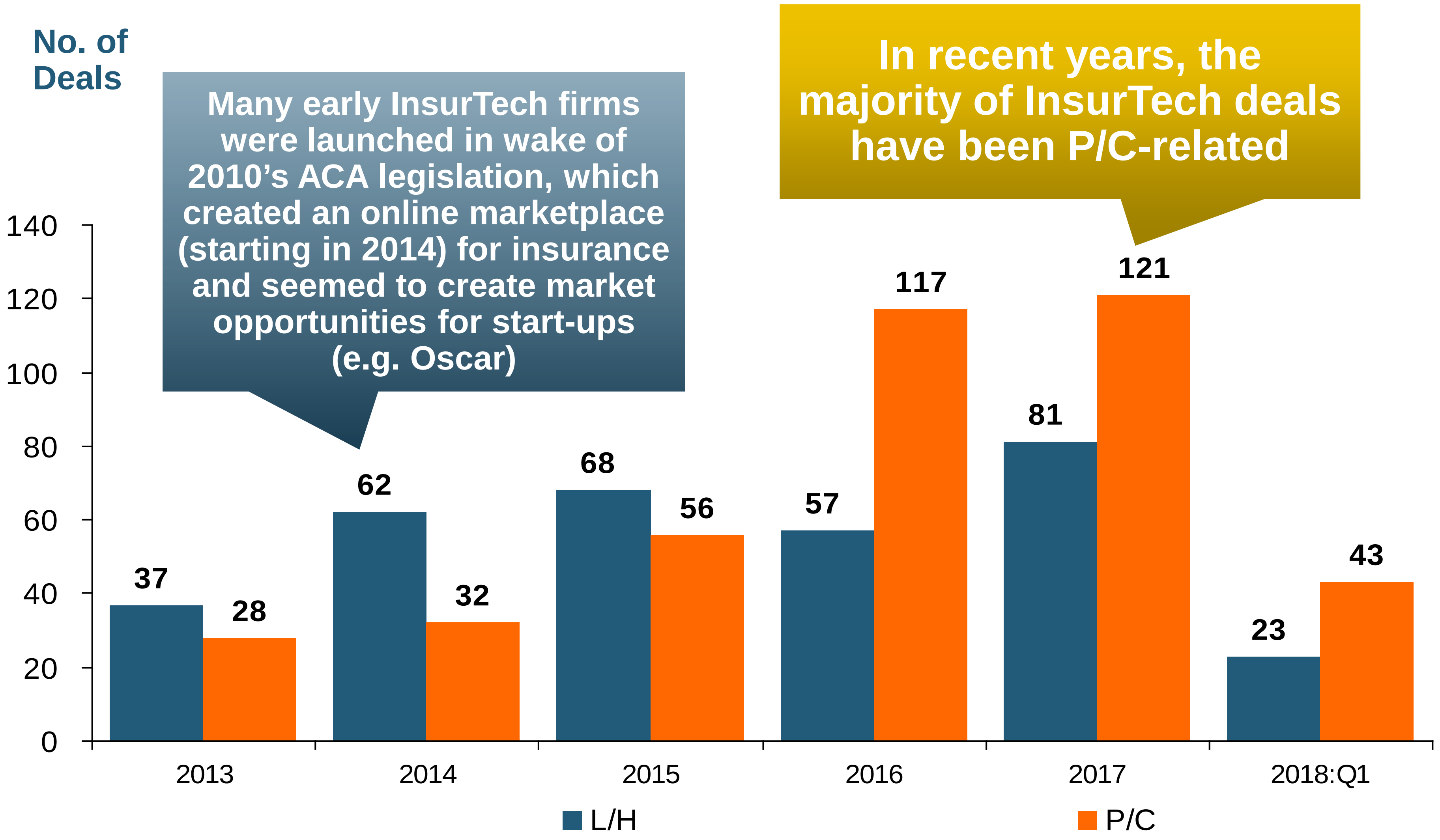
Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018; USC RUM Center.

InsurTech Annual Financing, 2011 – 2018:Q1



Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018.

Number of InsurTech Deals: P/C vs L/H 2013 – 2018:Q1



Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018; USC RUM Center.

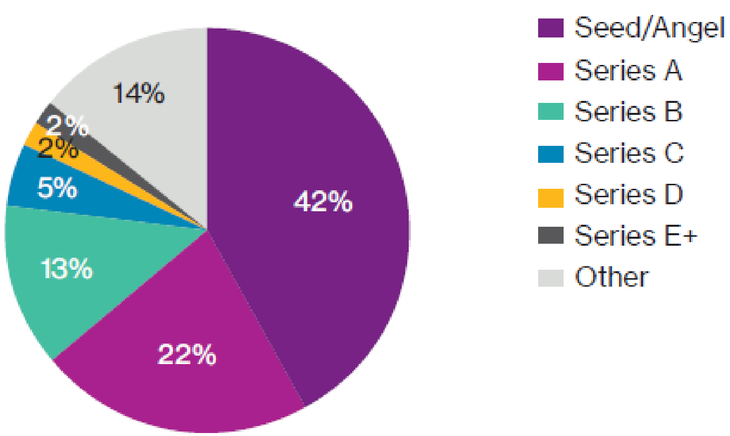
INSURTECH INVESTMENTS BY STAGE

Is the InsurTech Phenomenon Maturing?

Is the Recent Decline in Early Stage Financing the Signaling the End to Easy Money?

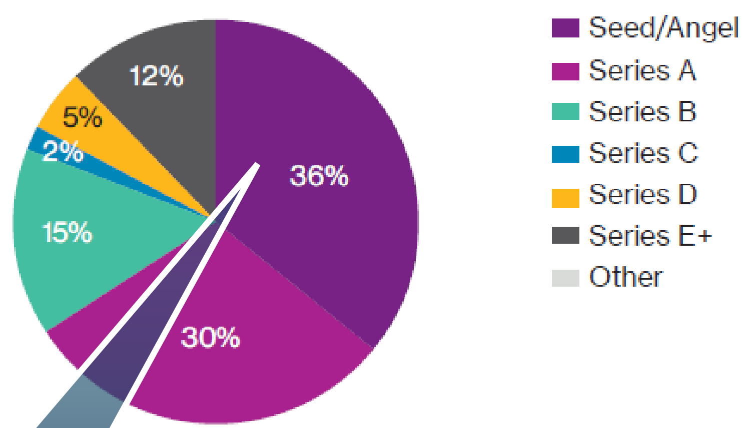
InsurTech Investments by Investment Stage

2013 – Q1 2018



2013 – Q1 2018 Transactions: 727

Q1 2018



Q1 2018 Transactions: 66

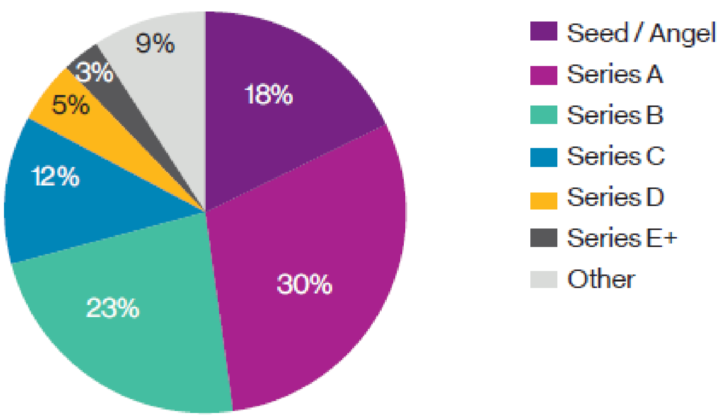
Proportionately less investment at the earliest stage in recent quarters

Is the shrinkage evidence of InsurTech's *Kill Zone*?

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018.

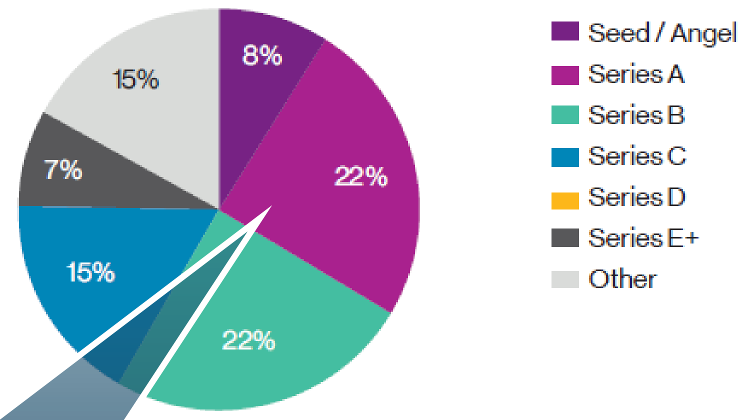
Private Technology Investments by (Re)Insurers, 2013 – 2018:Q1

2013 – Q1 2018



2013 – Q1 2018 Transactions: 350

Q1 2018



Q1 2018 Transactions: 27

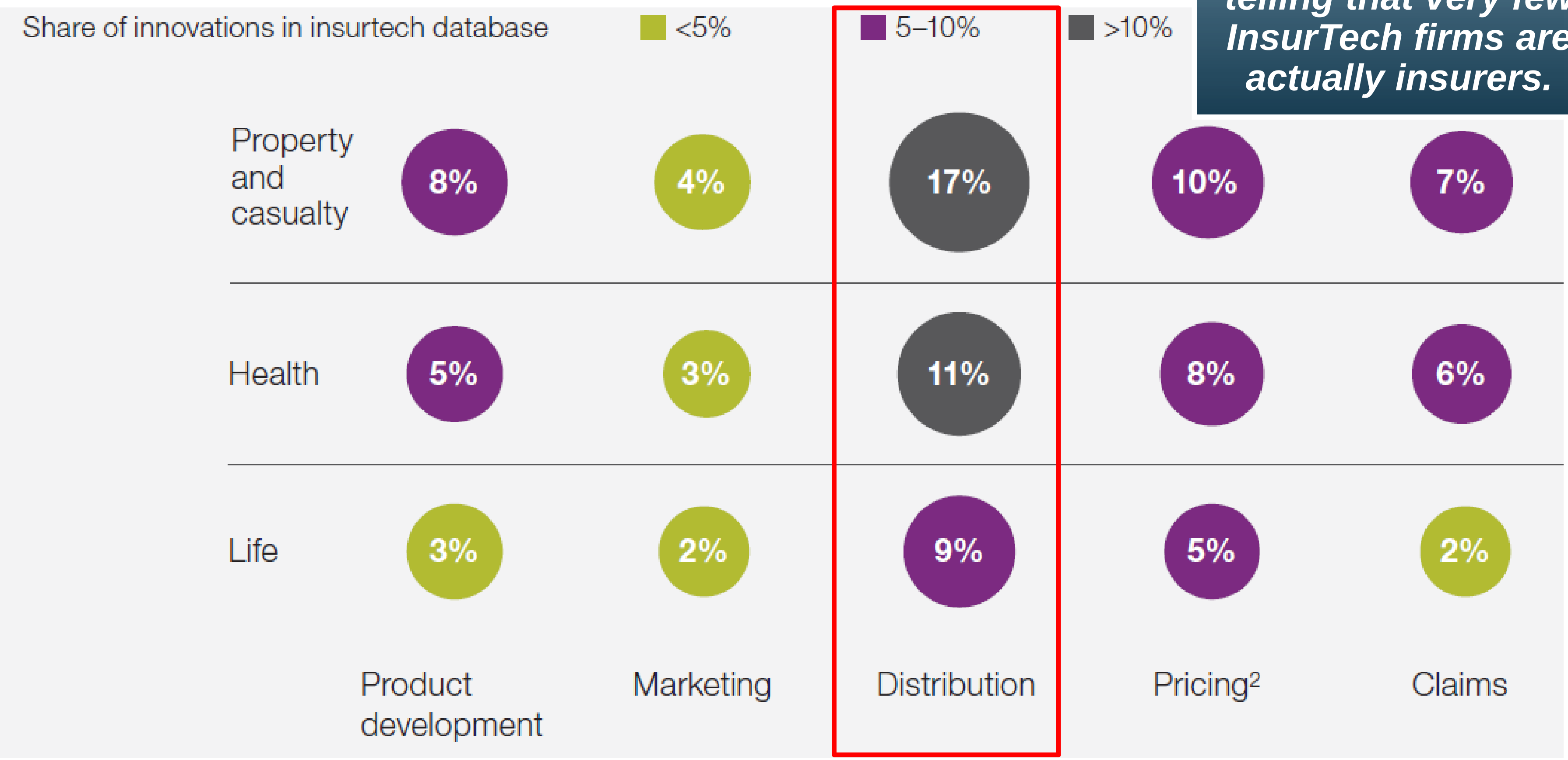
There are proportionately fewer early-stage tech investments by (re)insurers in Q1:2018

Is the decline evidence of InsurTech's *Kill Zone*?

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018.

InsurTechs Are Focusing on Distribution and Pricing

InsurTech firms across all insurance segments tend to focus on Distribution. *It is telling that very few InsurTech firms are actually insurers.*



Source: Panorama by McKinsey, "*Insurance Beyond Digital: The Rise of Ecosystems and Platforms,"* Jan. 2018.

5 Reasons Why So Few InsurTech Start-Ups Actual Insurers (Risk Bearers)

1. **Barriers to Entry:** Starting an actual insurance company requires significant resources in terms of:
   - Capital
   - Technology
   - Regulatory compliance capabilities
   - High customer acquisition costs
   - Human capital (i.e., experienced insurance industry execs)

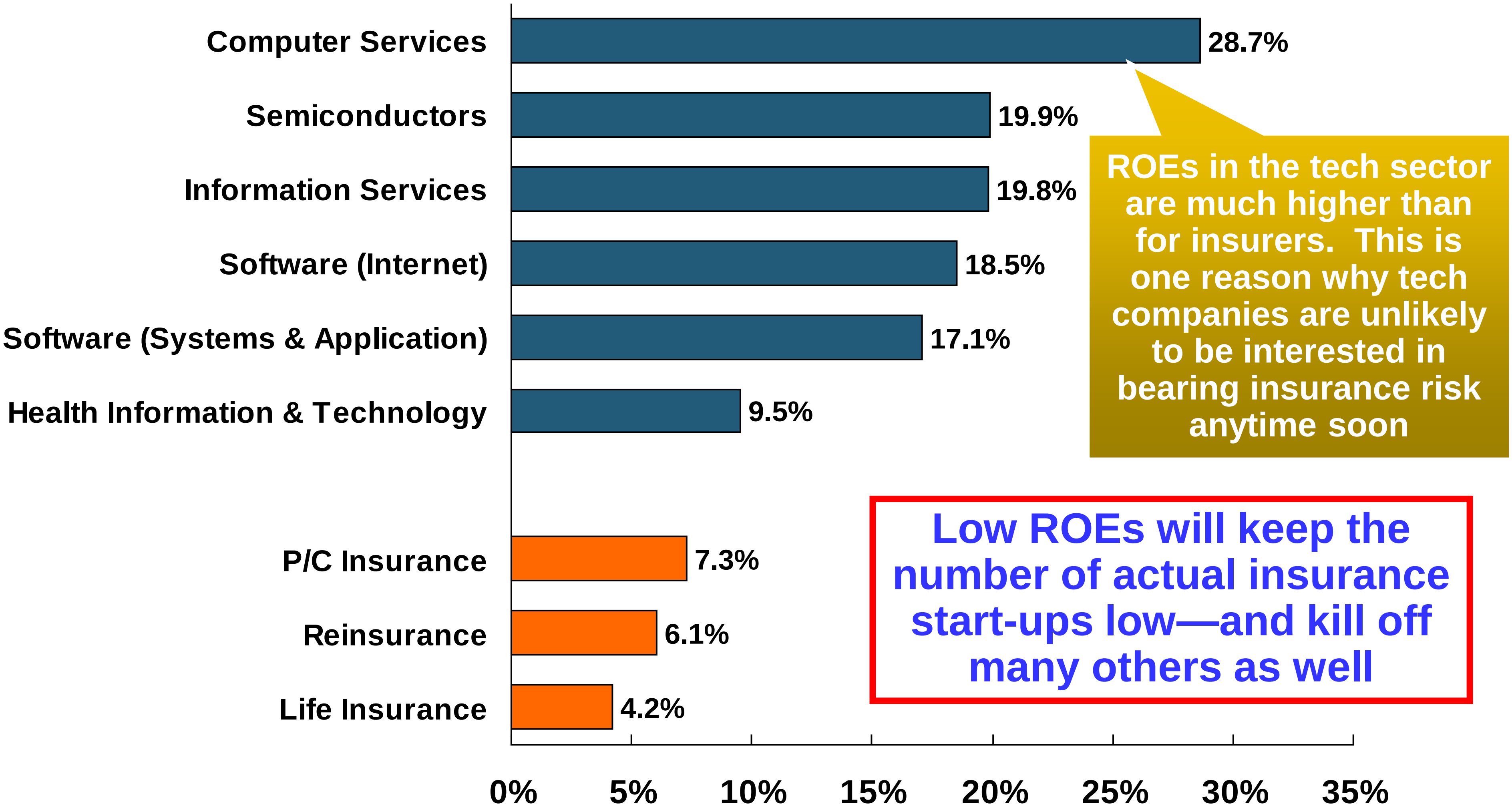
2. **Competition:** Both personal and commercial lines of insurance are intensely competitive
   - HHI Values for auto insurance ~900 - 1000 in most states
   - HHI Values for home insurance ~700 in most states
   - DoJ: HHI Values < 1500 not concentrated

Why Are So Few InsurTech Start-Ups Actual Insurers (Risk Bearers)?

3. **Margins Are Thin:** Profitability in the insurance industry is falling
   - P/C insurance industry ROEs fell for the 4^{th} consecutive year in 2017 (to 5.0%) and could fall again in 2018 (2.4% in Q1)

4. **Overcapitalization:** The P/C and Life insurance industries are both over capitalized
   - The p/c insurance industry finished 2017 with a record $753 billion in policyholder surplus (a proxy for capacity)—which is at implies that the industry is overcapitalized by about 1/3

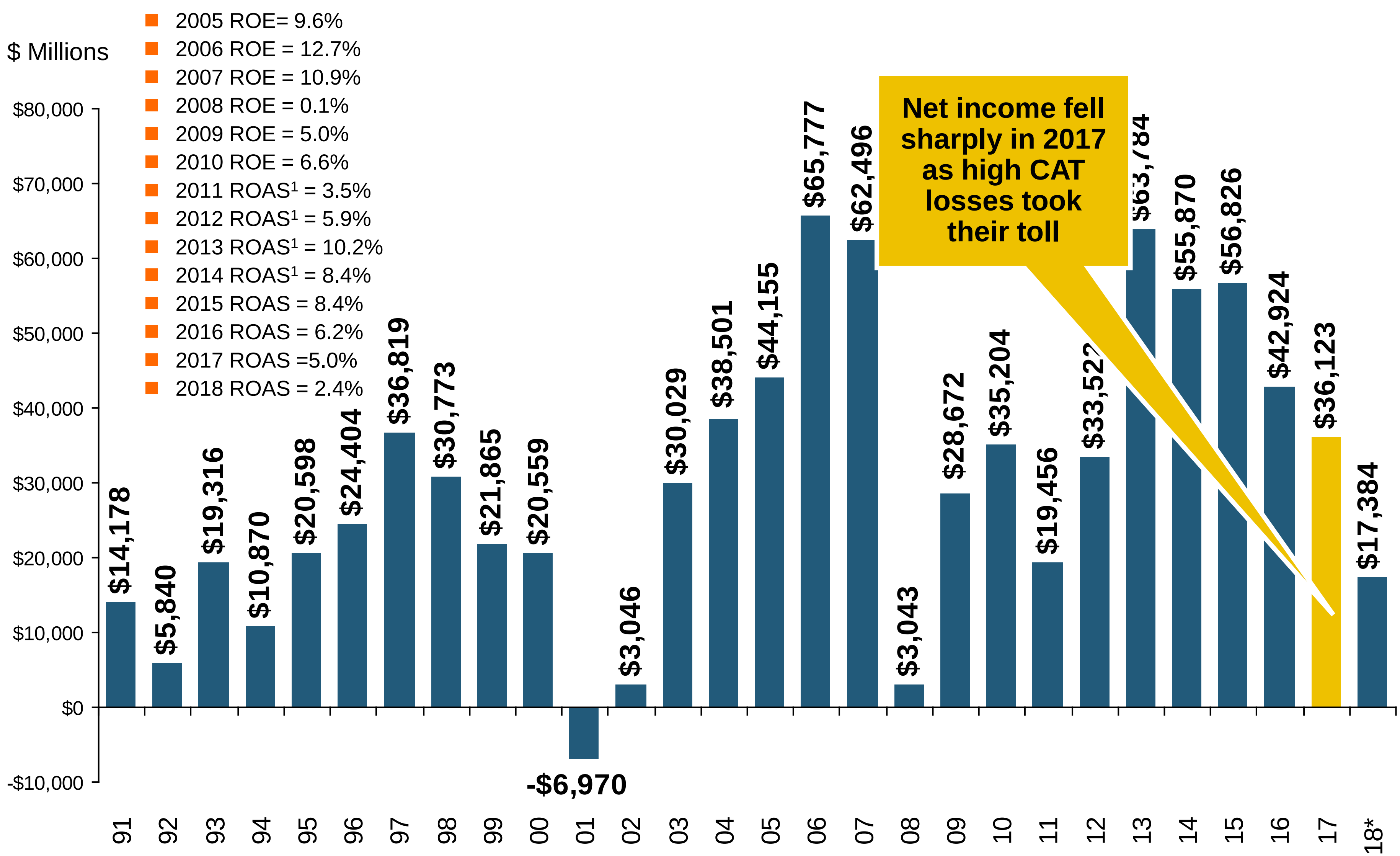
ROEs: Insurance vs. Technology Sectors—A “Poison Pill”?



*As of January 2018

Source: Stern School, NYU accessed 6/18/18 at : http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/roe.html; Univ. of South Carolina Center for Risk and Uncertainty Management.

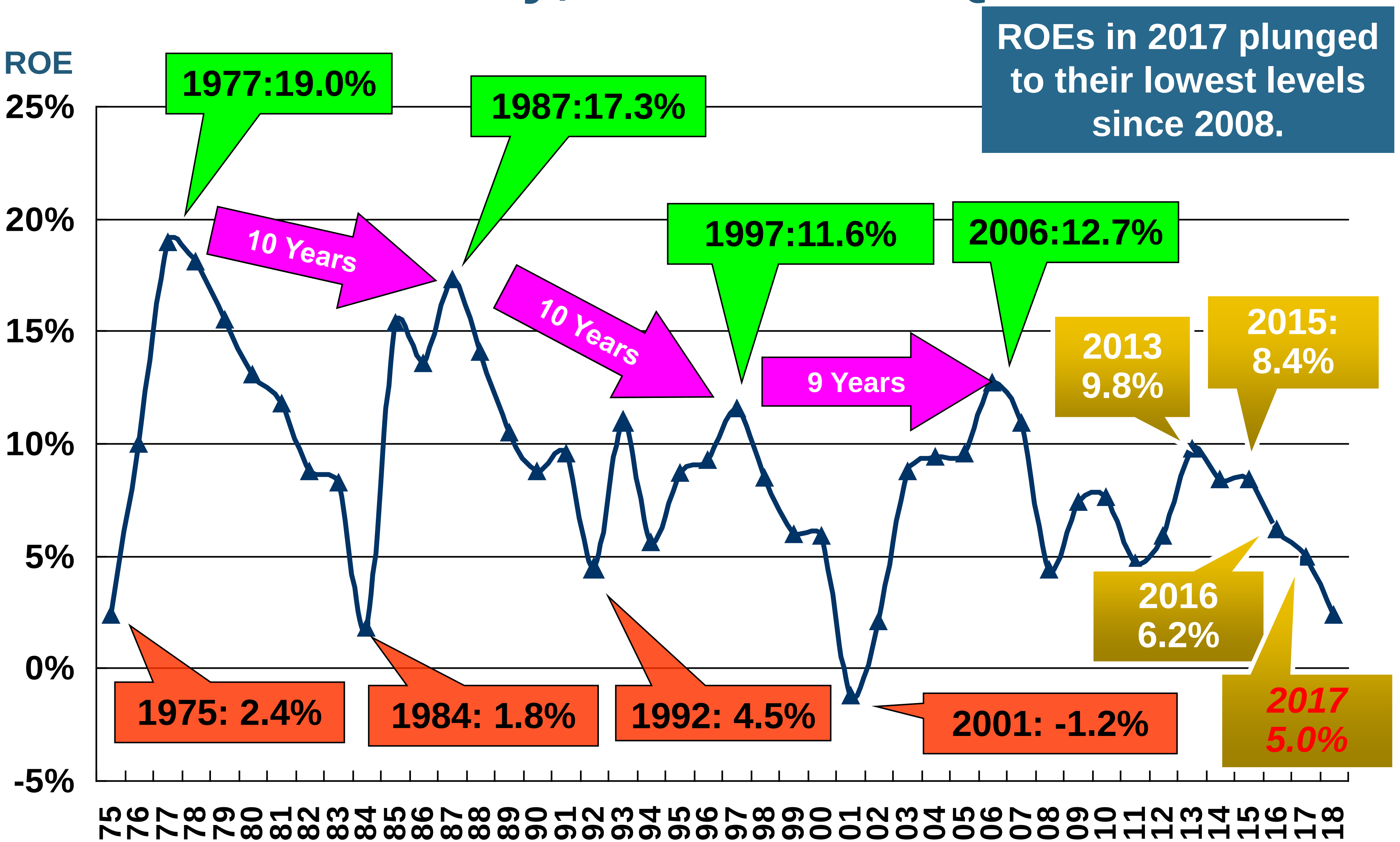
P/C Industry Net Income After Taxes 1991–2018:Q1



•ROE figures are GAAP; [1]Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.2% ROAS in 2014, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009;

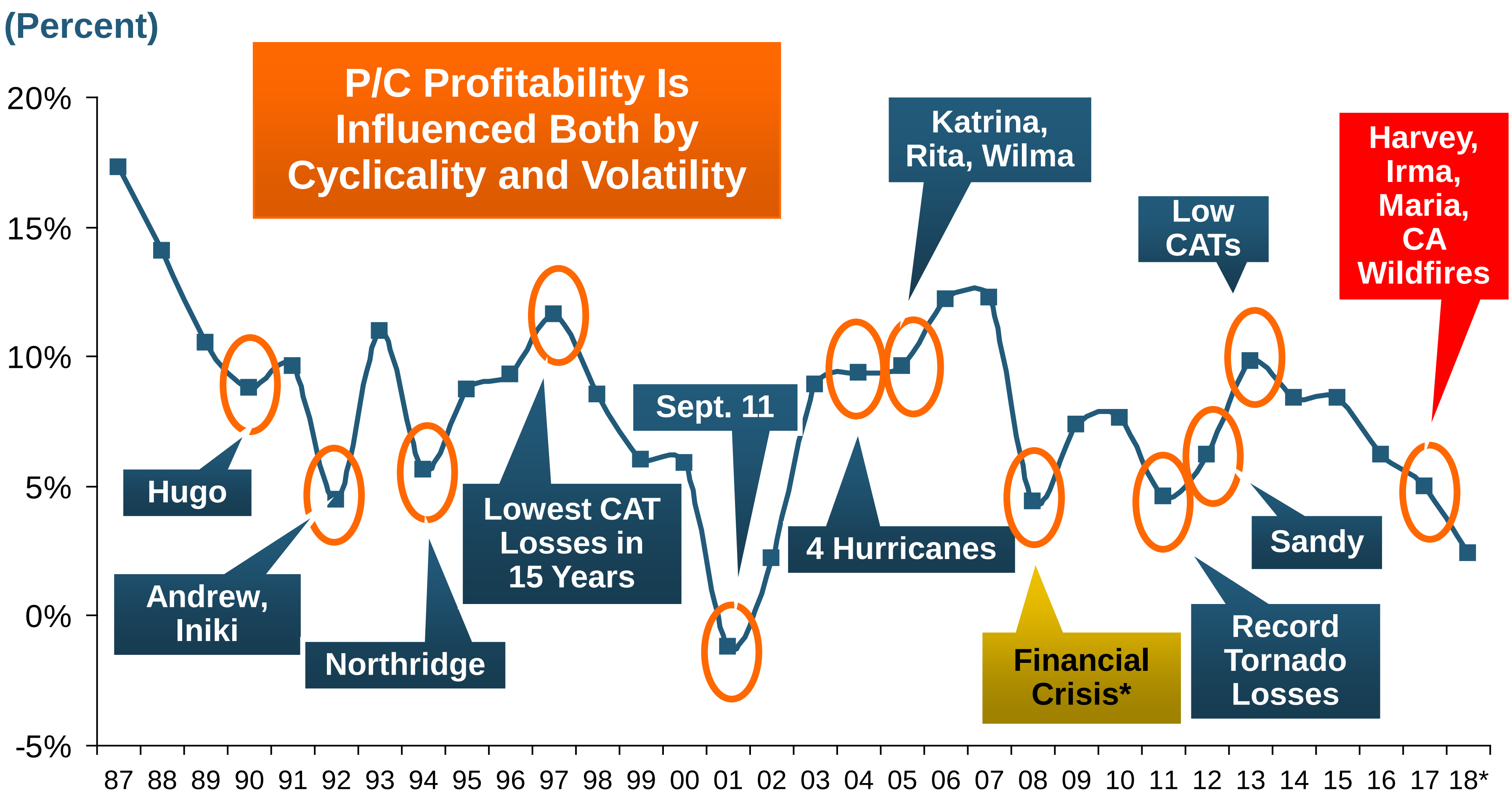
Sources: A.M. Best, ISO.

Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2018:Q1



Profitability = P/C insurer ROEs. 2011-16 figures are estimates based on ROAS data. Note: Data for 2008-2014 exclude mortgage and financial guaranty insurers.
Source: NAIC, ISO, A.M. Best, USC RUM Center.

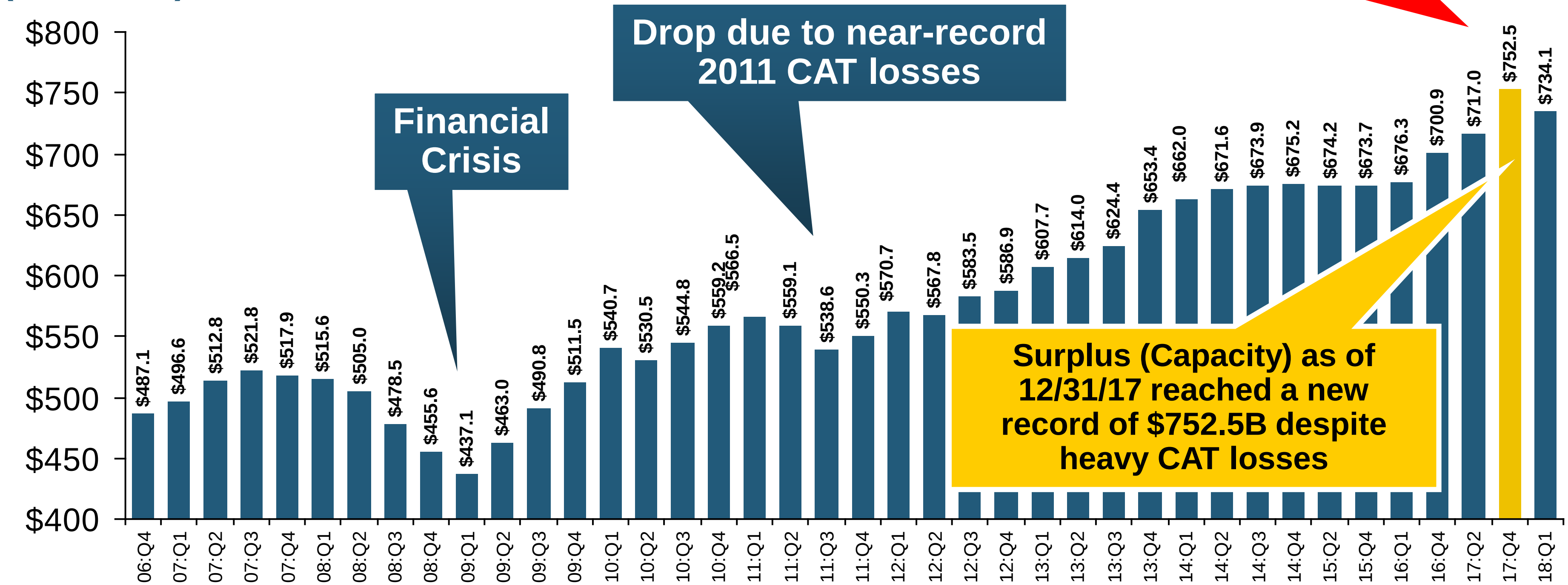
ROE: Property/Casualty Insurance by Major Event, 1987–2018:Q1



Excludes Mortgage & Financial Guarantee in 2008 – 2014.
Sources: ISO, *Fortune*; USC RUM Center.

Policyholder Surplus, 2006:Q4–2018:Q1

The industry is overcapitalized by as much as 1/3, a fact that InsurTechs and VC need to consider



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 .

Capacity/Capital "shocks" typically do not on their own drive a sustained firming of the pricing environment

Sources: ISO, A.M .Best; Center for Risk and Uncertainty Management, University of South Carolina.

Why Are So Few InsurTech Start-Ups Actual Insurers (Risk Bearers)?

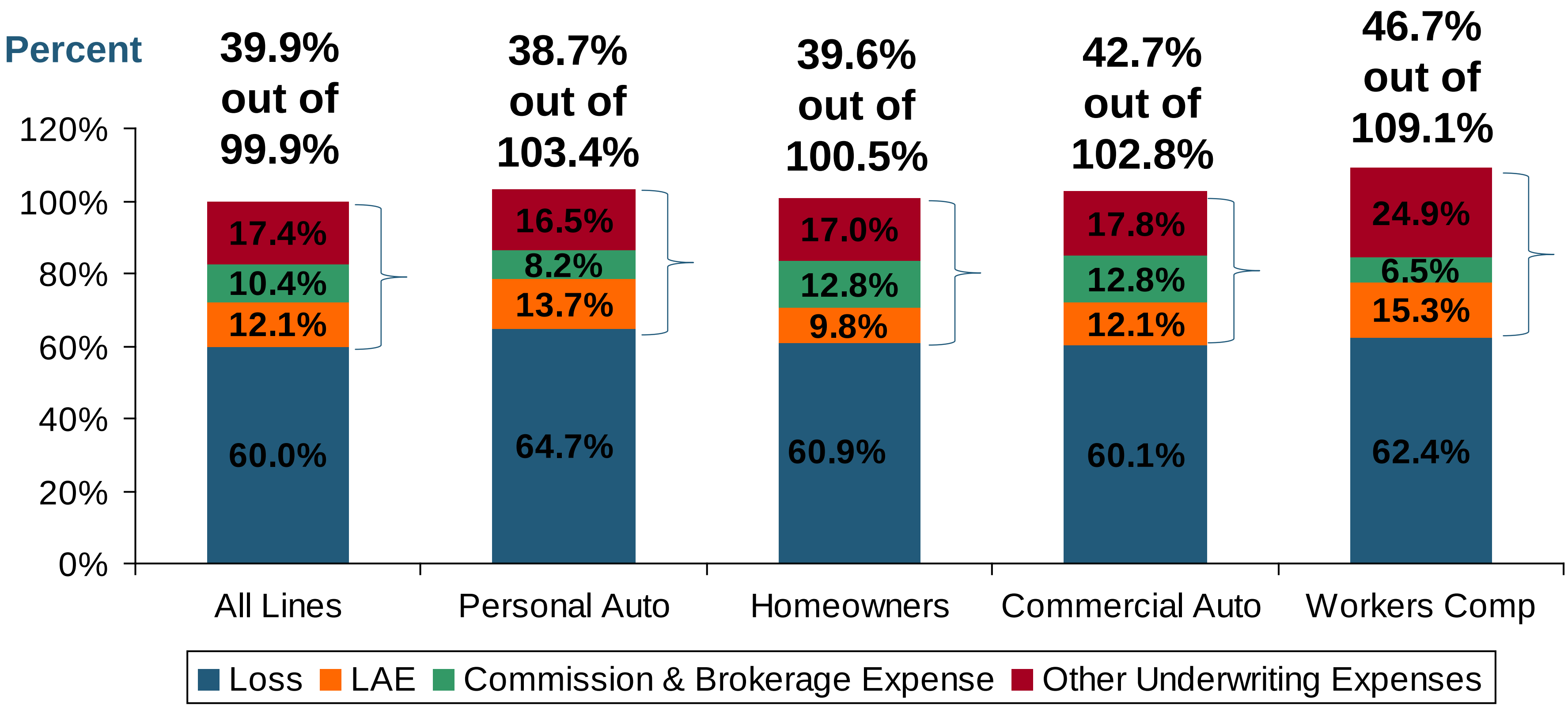
5. **Law of Large Numbers:** The larger the number of policyholders (exposure units), the more likely it is that the actual loss equals the expected loss and thus the standard deviation of the mean falls.
   - In economic terms, this means there are economies of scale in insurance that derive from the pooling of risk
   - Start-ups are not immune to the LLN. All else equal, incumbents and large insurers will have an advantage over small start-ups
   - For a small start-up insurer to "disrupt" the industry, their advantages in product design, efficiency, risk assessment, marketing, etc., need to be large enough to overcome the disadvantages of being on the losing end of the LLN

If Actually Bearing Insurance Risks Is So Difficult, What Do InsurTechs Actually DO?

- **Insurance Carriers**
  - **Since 2013, only 4% of P/C start-ups and 8% of L/H start-ups were formed as insurance carriers (i.e., risk-bearers)**
- **Distribution**
  - **Since 2013, 62% of P/C start-ups and 46% of L/H start-ups have focused on *Distribution* (i.e., sale of insurance)**
- **Business-to-Business (B2B)**
  - **Since 2013, 34% of P/C start-ups and 46% of L/H start-ups have focused on B2B solutions**
  - **B2B start-ups focus on a wide range of insurer activities and functions such as analytics, claims, underwriting, IoT and more**

Composition of Loss and Expense Components for Key P/C Lines*

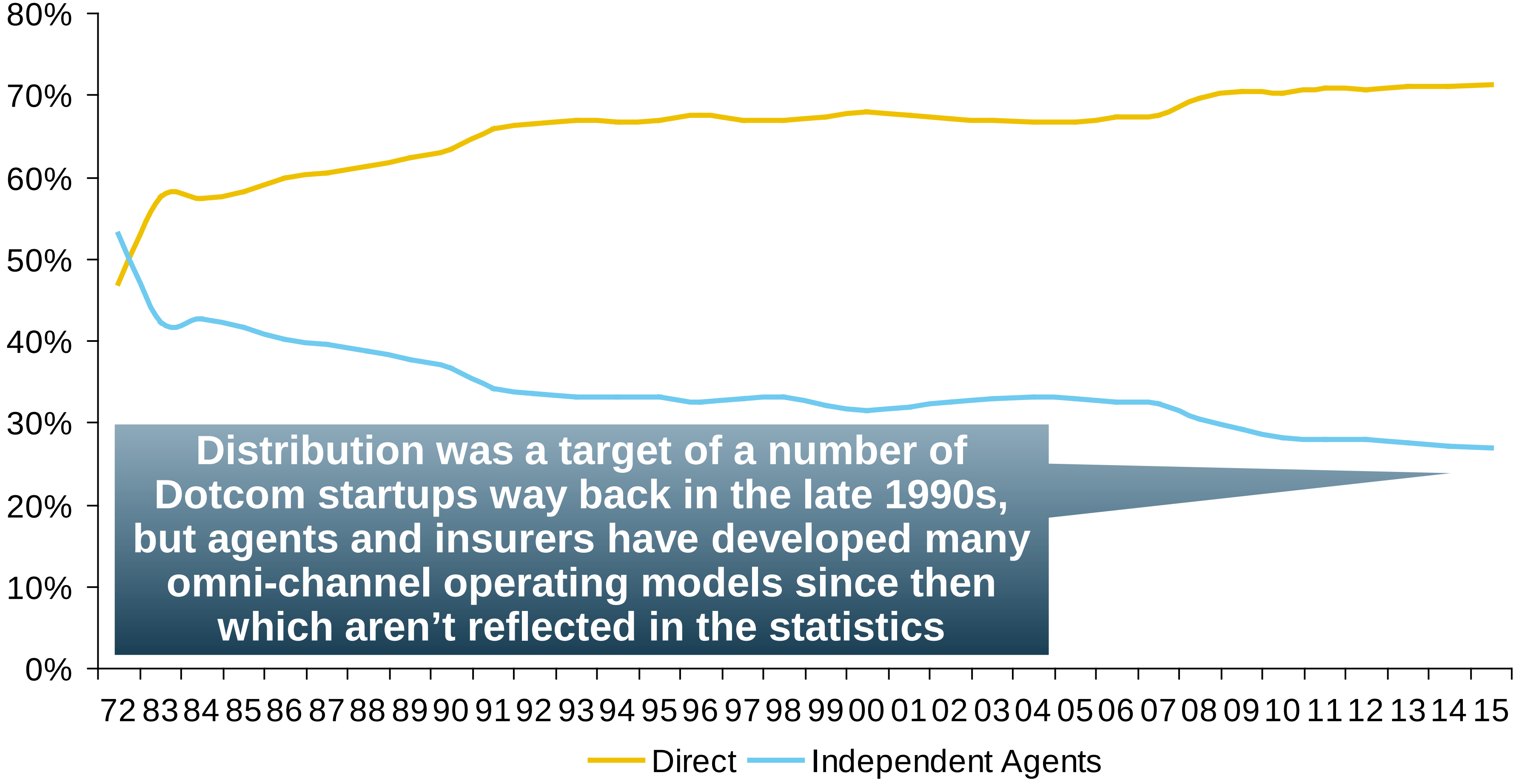
Bearing risk is challenging, so few InsurTech start-ups are actual insurers. Instead many focus on the ~40% of premiums associated with the sale/distribution, claims or underwriting expenses



*Figures are averages for the 10-year period from 2007-2016.

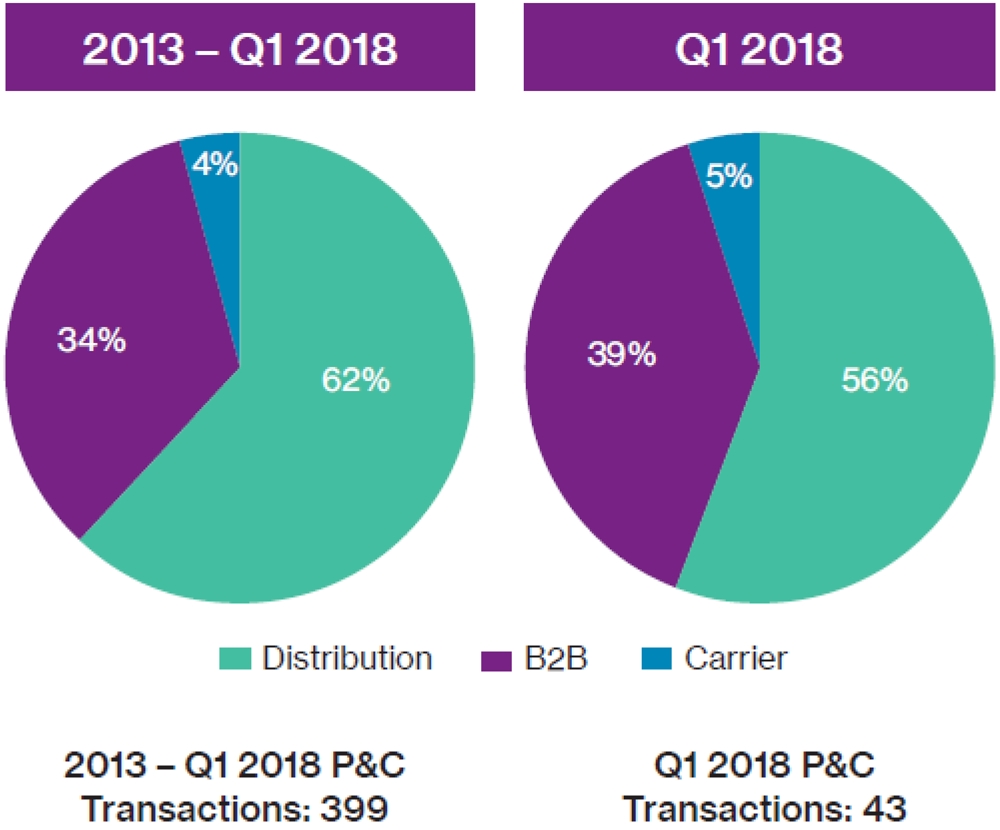
Source: A.M. Best Aggregates and Averages, 2017 Edition; Univ. of South Carolina RUM Center.

Personal Lines Distribution Channels, Direct vs. Independent Agents, 1972-2015



Source: Insurance Information Institute; based on data from Conning and A.M. Best.

P/C InsurTech Transactions by Subsector



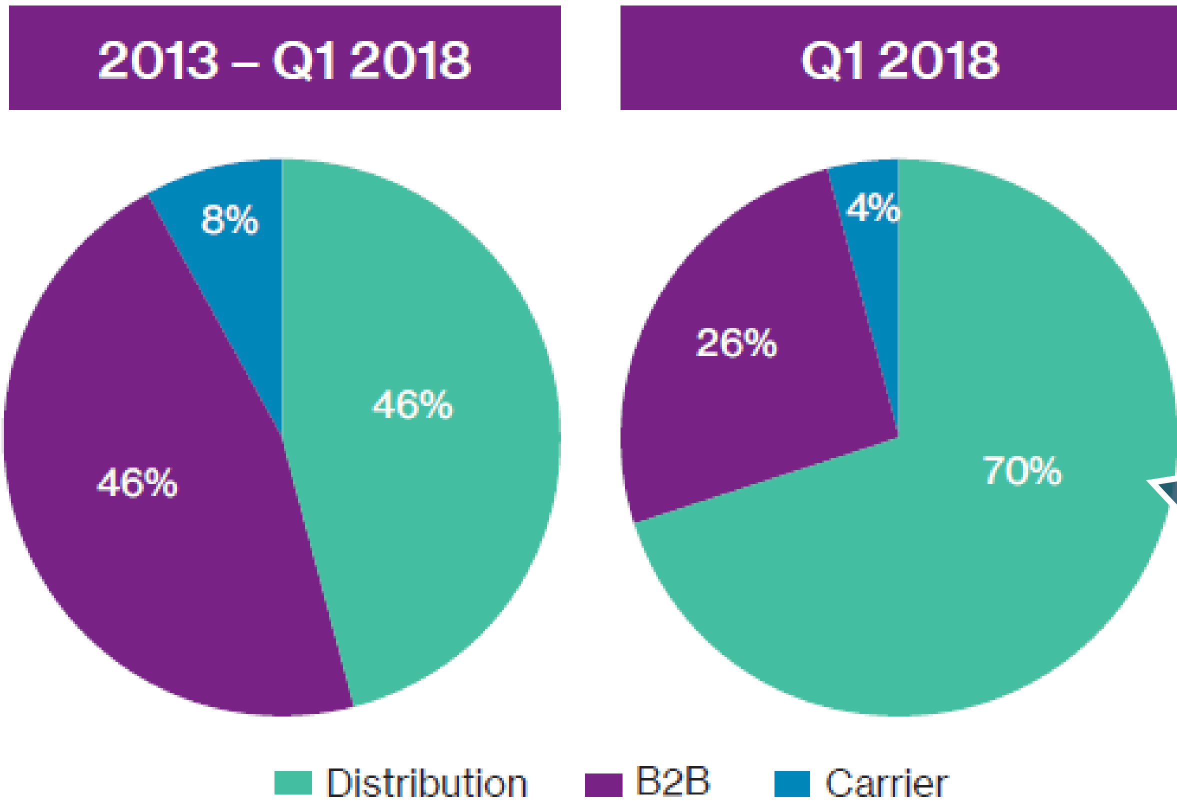
Distribution consistently accounts for the majority of P/C transactions

B2B share is growing

Actual carrier start-ups are quite rare

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018.

L/H InsurTech Transactions by Subsector



2013 – Q1 2018 L&H Transactions: 328

Q1 2018 L&H Transactions: 23

Distribution and B2B account for roughly equal shares of L/H transactions since 2013, though that may be changing

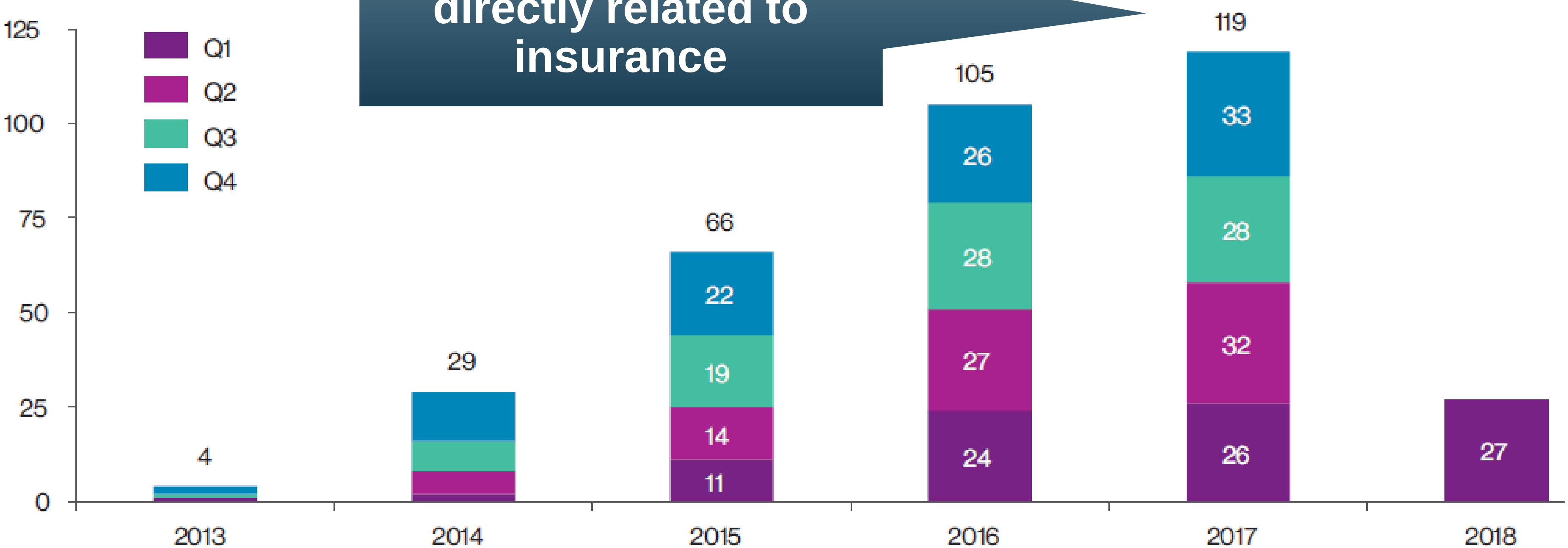
B2B share is shrinking

Actual carrier start-ups are quite rare

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018.

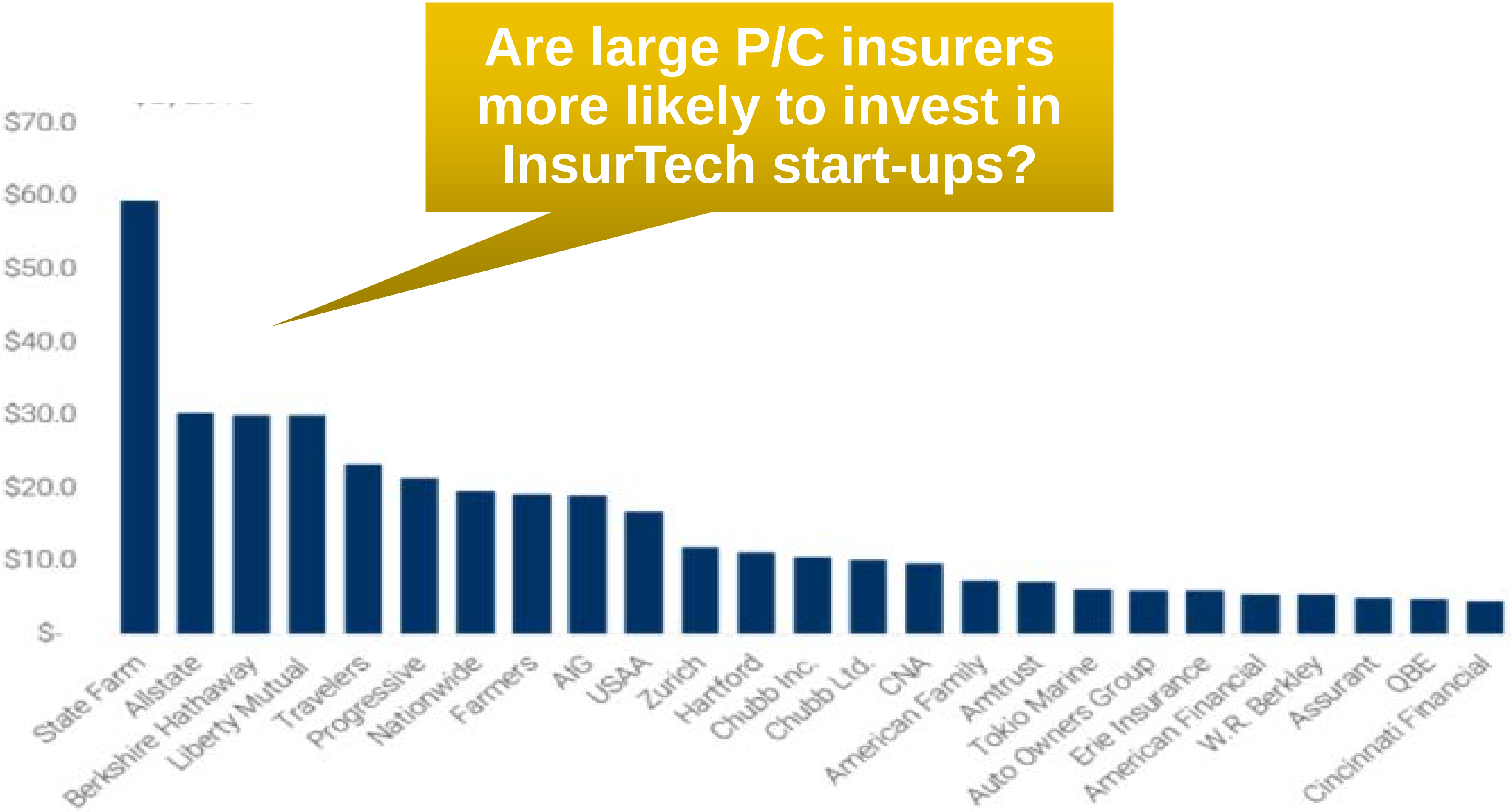
Private Technology Investments by (Re)Insurers, 2013 – 2018:Q1

Tech investments by (re)insurers have been increasing steadily. Not all investments are directly related to insurance



Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018.

Top 25 P/C Insurers by Direct Written Premium, 2015

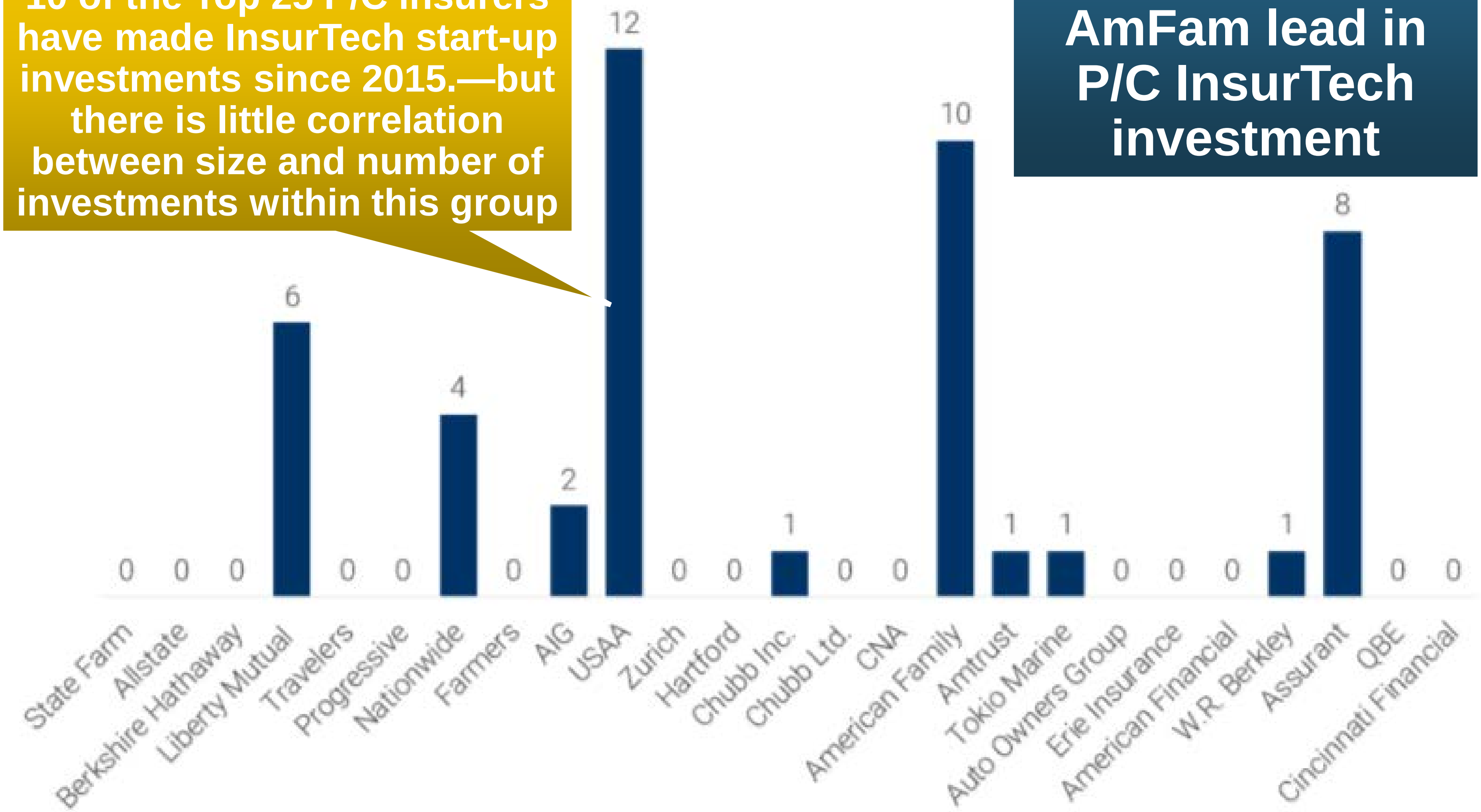


Sources: NAIC from CB Insights at https://www.cbinsights.com/blog/largest-pc-insurers-rank-startup-investments/

Start-Up InsurTech Investments by Top 25 P/C Insurers, 2015 - 2017*

10 of the Top 25 P/C insurers have made InsurTech start-up investments since 2015.—but there is little correlation between size and number of investments within this group

USAA and AmFam lead in P/C InsurTech investment



*As of June 23, 2017.

Sources: NAIC from CB Insights at https://www.cbinsights.com/blog/largest-pc-insurers-rank-startup-investments/

Sample InsurTech Deals: 2018:Q1

Company	Insurer	Description
American Well	Allianz	Telemedicine, wearable sensors
Betterview	Munich Re	Drone imagery, data and analysis for MR's clients
Roost	Erie	Smart water/freeze detection products to HO customers
Jauntin	AIG	Pay-as-you-go travel insurance
Bunker	Chubb	Develop new products for small commercial market
Tencent WeSure	MetLife	Online travel insurance
Lyric	Axa	Airbnb-like service (stays in iconic apts.)
Socotra	USAA	Policy admin service to automate underwriting, quoting binding
Gabi	Northwest Mutual	HO and auto price comparison platform
Red Balloon Security	American Family	Cyber security for embedded and smart devices, including cars, office equip.

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018.

Wide Variety of Investors in InsurTech

Sampling of Traditional VC Investors

PLUG AND PLAY · startupbootcamp InsurTech · 500 startups · BESSEMER VENTURE PARTNERS · Y Combinator · SOCIAL CAPITAL · FOUNDERS FUND

THRIVE CAPITAL · SEQUOIA · techstars · Index Ventures · ROUTE SIXTY-SIX VENTURES · Foundation CAPITAL · 8VC · KPCB · BainCapital VENTURES

OAK HC/FT · SVAngel · NEA · ANDREESSEN HOROWITZ · anthemis group · First Round · Menlo · USV Union Square Ventures

Redpoint · Ribbit Capital · Eos Venture Partners · lightbank · Accel · GENERAL CATALYST

AQUILINE TECHNOLOGY GROWTH · TWO SIGMA VENTURES · maveron · SANDBOX INDUSTRIES · Social Intelligence · IDG Capital · propel VENTURE PARTNERS · nyca

HUDSON STRUCTURED CAPITAL MANAGEMENT · Maverick · PARTECH VENTURES · brainchild · FLYING FISH · Red Swan Ventures

THAYER STREET PARTNERS · PORTAGE · LOCALGLOBE · ROCK HEALTH · Lightspeed · InsurTech.vc

CV COMMERCE VENTURES · B BOXGROUP · khosla ventures · SAIF Partners · GREAT OAKS VENTURE CAPITAL · Horizons Ventures

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018; Univ. of South Carolina, Center for Risk and Uncertainty Management.

Wide Variety of Investors in InsurTech

Sampling of (Re)Insurer Investors

XL Innovate
QBE Ventures
AXA Venture Partners
Allianz X
Samsung NEXT
Sompo Holdings
Aviva Ventures
Hiscox
Cigna
Nationwide
Munich RE
American Family Ventures
Allstate You're in good hands
hannover re
The Hartford Hartford ventures
MassMutual Ventures
Liberty Mutual
Fairfax
Chubb
Transamerica Ventures
Assurant
Suncorp
USAA
Guardian
Tokio Marine HCC
Berkley
RGAx
Markel
Starr Companies
Mitsui Ventures
direct line
CNP
New York Life Ventures
Manulife
Humana Ventures
Sun Life Financial
Crawford
AmTrust
Intact Ventures
aetna
Aflac
helvetia Venture Fund
PICC
中国平安 | 创新 Ping An Ventures
Fosun RZ Capital

Sampling of Other Corporate VC Investors

Alibaba.com
Tencent
G/
Comcast Ventures
salesforce ventures
Goldman Sachs
MGV
SoftBank Investment Advisers
CICC 中金公司
蚂蚁金服 Ant Financial
American Express Ventures
F-Prime
GE Ventures
Barclays Accelerator
Yamaha
BMW i.

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018; Univ. of South Carolina, Center for Risk and Uncertainty Management.

CASE STUDY 1

The Curious Case of Insurance, IoT and the Smart Home

What Went Wrong?

IoT, Smart Home & Insurance

- In 2014-2015, the integration of IoT technologies, smart homes and insurance seemed like a sure thing
- A number of insurers rushed in to offer discounts to homeowners adopting these technologies on a trial basis
- Since then, initiatives have stalled. Why?
  - Consumers unlikely to buy hundreds of dollars of smart sensors (smoke, water, etc.)
  - Confusing standards for gear are intimidating for average consumer
  - Cost/benefit not obvious

Source: StaceyOnIot.com, *Why insurance firms are stalling on IoT*, June 11, 2018.

CASE STUDY 2

The Curious Case of Softbank, Masayoshi Son, Silicon Valley—and Swiss Re

Softbank and Swiss Re: A 3-Month Romance
What Happened?

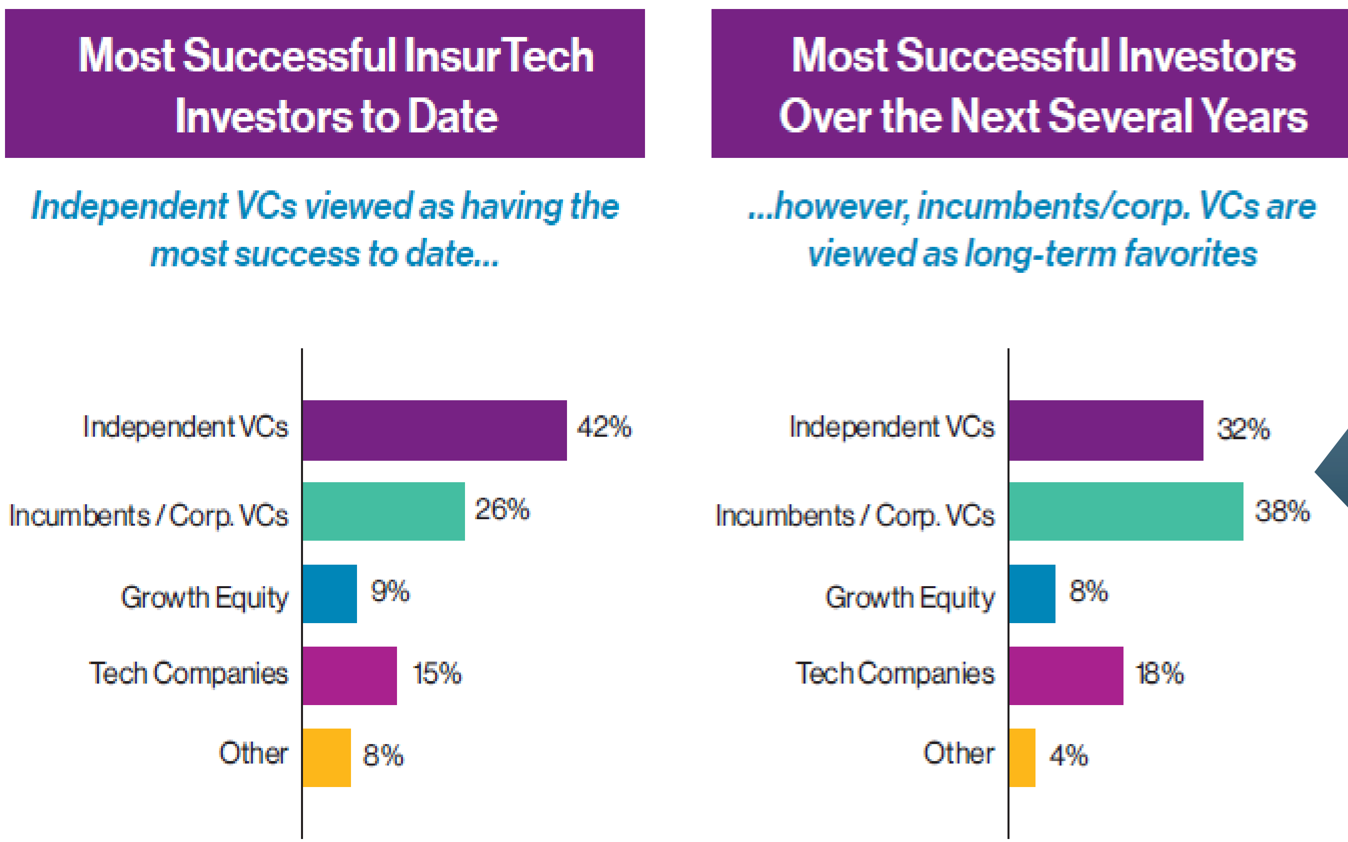
- **Mid-Feb 2018: Financial press reports that Softbank could take a $10B stake in Swiss Re (~25%), world's 2nd largest reinsurer**
  - *"We want to extend our access to risk pools, we want to stay on the forefront of technology and we want to make sure that we're helping the world address this protection gap," David Cole, CFO at Swiss RE*
  - Speculation that Swiss Re could help provide insurance for some of Softbank's other businesses
  - Or would Swiss Re generate float for future Softbank deals?
- **Early May: Talks stall, may collapse**
- **May 28: Confirmation that talks collapsed**
  - *"Swiss Re will continue to implement its technology strategy with a combination of in-house developments and third-party collaborations. In this context, the company will also further explore business ideas between Swiss Re's operative entities and the portfolio companies of SoftBank." Swiss Re, 5/28/18*

Source: USC RUM Center research.

InsurTech Investors

Who Invests in What—and Why

Who Are the Most Successful InsurTech Investors To Date—and for the Future?



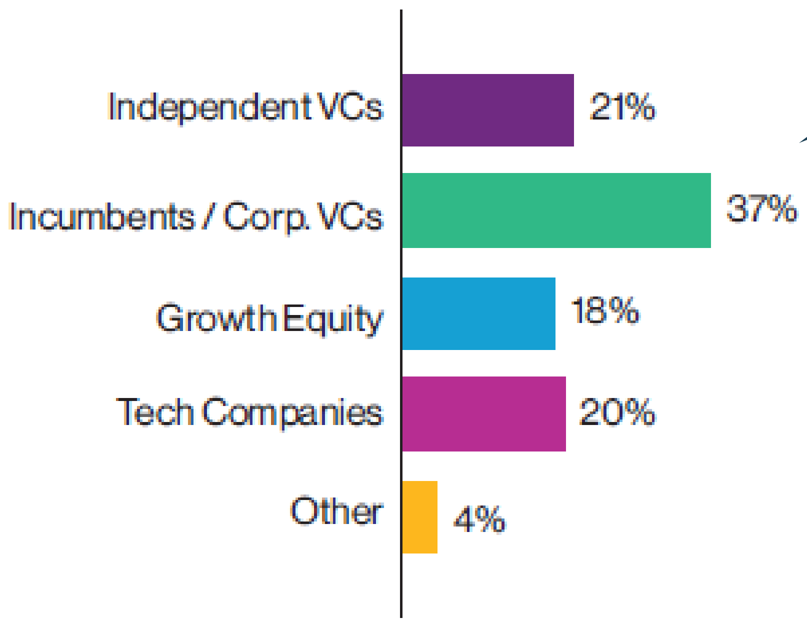
Traditional (Independent) VCs are viewed as the most successful to date, but Corporate/ Incumbents are viewed as the favorites over the long run

Source: CB Insights,*Quarterly InsurTech Briefing,*, Q1 2018. Drawn from InsurTech Investor Survey.

Who Will Provide the Most Funding to InsurTechs in the Years Ahead?

Most Funding Over the Next Several Years

Incumbents/corp. VCs are expected to be main capital providers



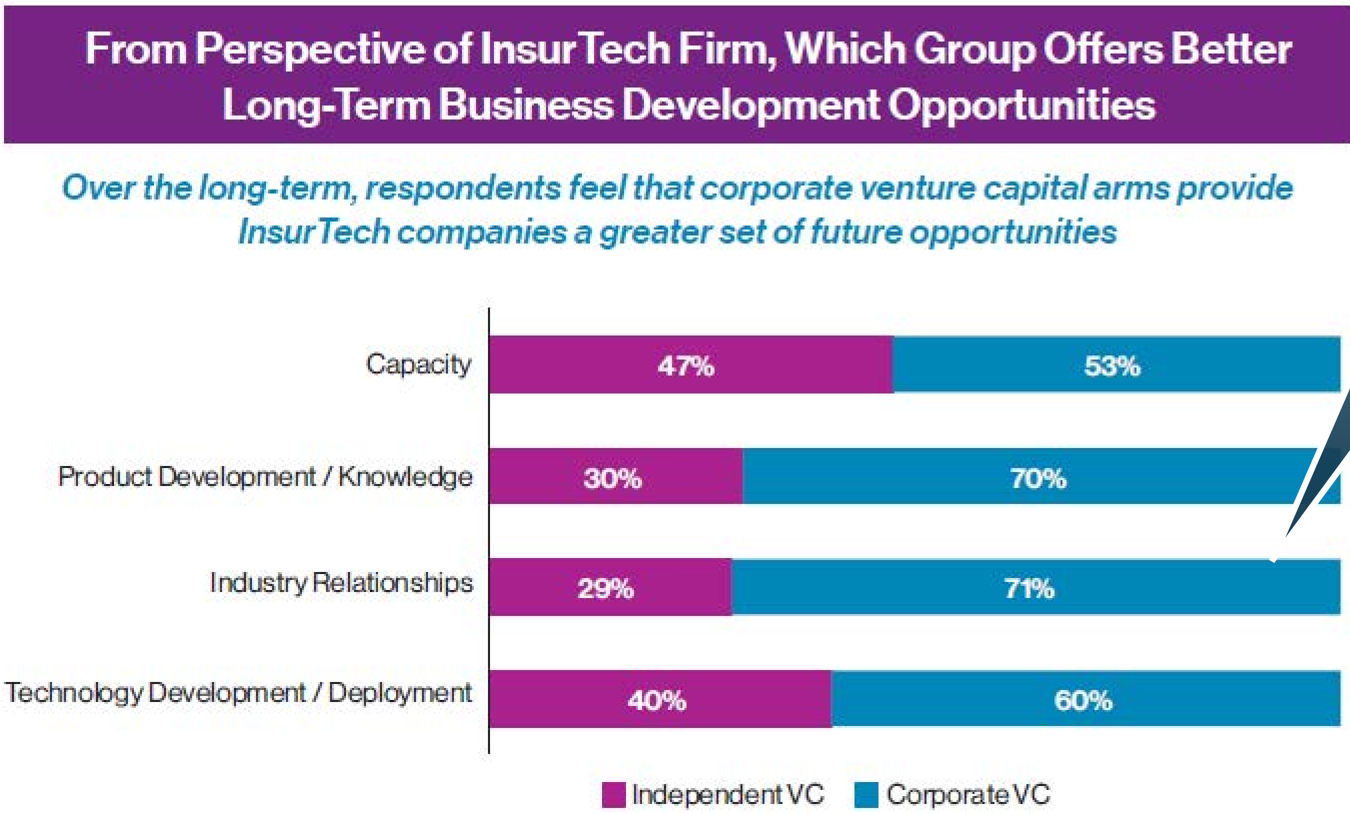
With success comes funding. Corporate/ Incumbent VCs are expected to be the main provider of capital to InsurTech firms in the years ahead

A shift to Corporate/Incumbent VCs funding suggests that "smart money" will play a larger role and that (re)insurers in particular are making focused investments to suit their own needs

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018. Drawn from InsurTech Investor Survey.

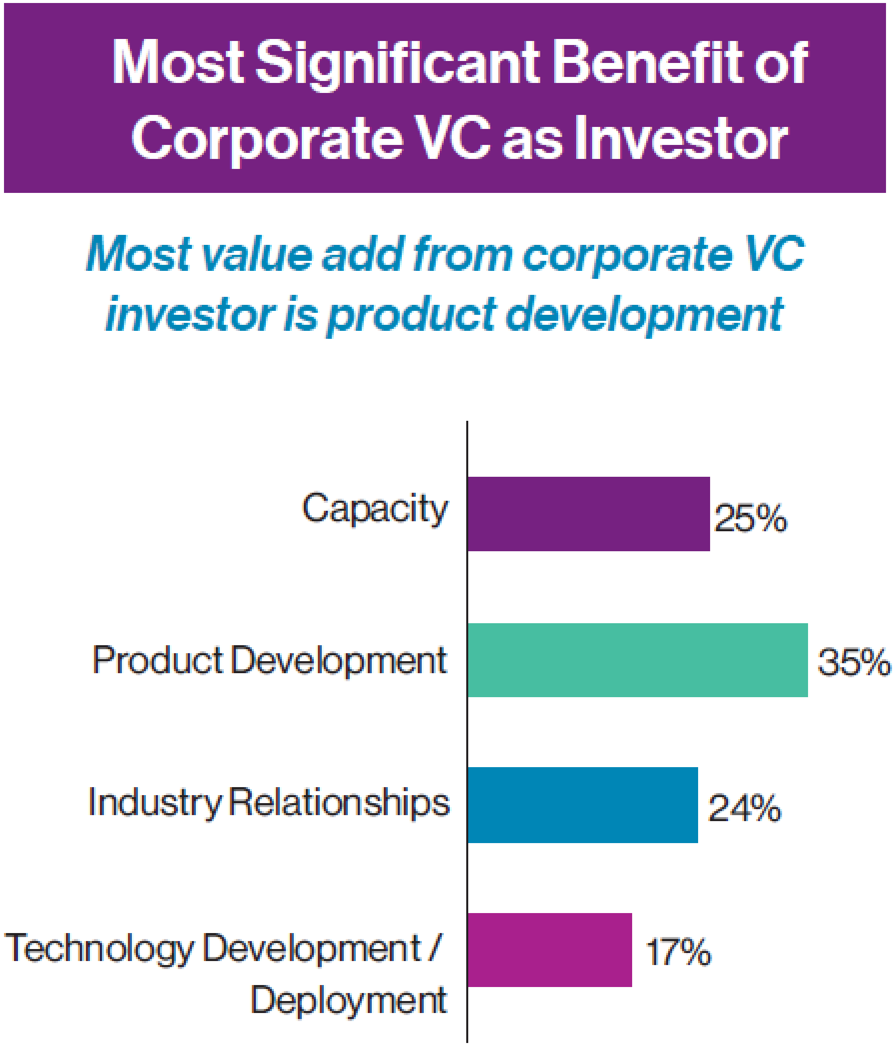
InsurTechs Want to Partner with What They Perceive to Be "Smart Money"

InsurTechs believe Corporate VCs offer them the best chances for success, though traditional VCs will still be necessary to meet full capital needs



Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018. Drawn from InsurTech Investor Survey.

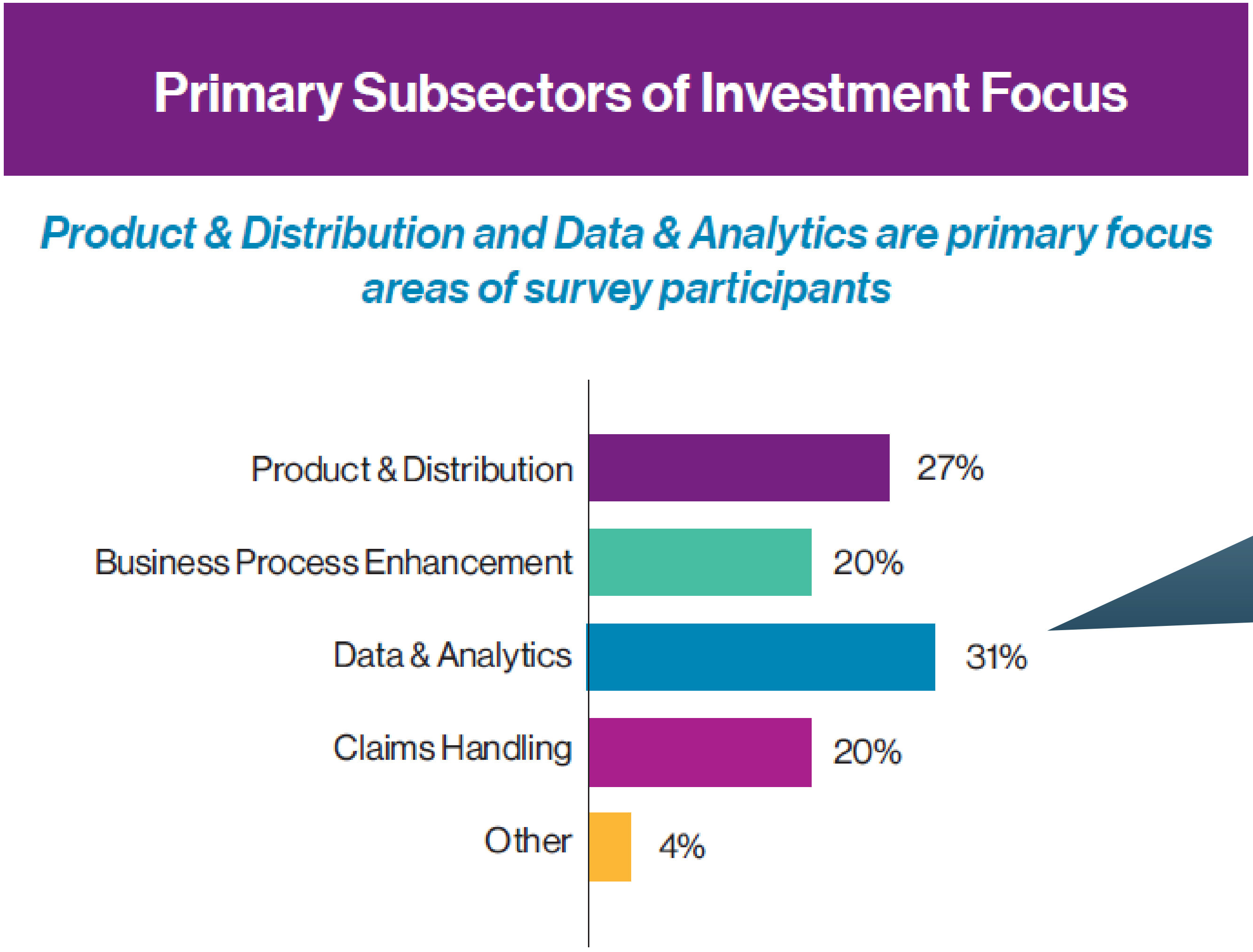
How Do Corporate VCs Benefit InsurTechs?



InsurTechs believe Corporate VCs add the greatest value in the area of Product Development

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018. Drawn from InsurTech Investor Survey.

Which InsurTech Segments Are the Primary Focus for VCs?



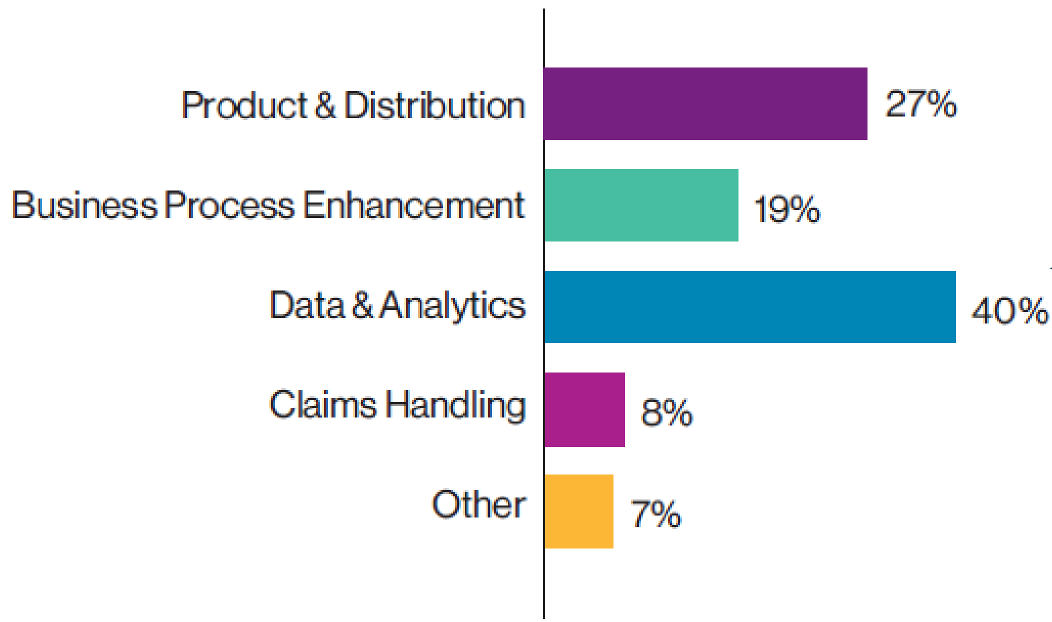
Data & Analytics followed by Distribution and Claims are the primary investment focus of VCs

Source: CB Insights, *Quarterly InsurTech Briefing,*, Q1 2018. Drawn from InsurTech Investor Survey.

Which InsurTech Segments Are the Most Attractive to VCs?

Most Attractive Subsector for Investment

Participants view data & analytics as the most attractive subsector for InsurTech investing



VCs believe that Data & Analytics followed by Product & Distribution and Business Process Enhancement are the most attractive subsectors for investment

Source: CB Insights,*Quarterly InsurTech Briefing*,, Q1 2018. Drawn from InsurTech Investor Survey.

6 Observations on Venture Capital Investment Patterns, Practices and Preferences

1. **Actual Risk-Bearing Insurer Start-Ups Are Rare and Nobody Including VCs Is Clamoring for this to Change**

   - **Implication:** The near-term likelihood of a major tech usurper invading the traditional P/C or Life insurance industry and bearing actual insurance risk is remote
     - The economics of such a transaction would likely destroy shareholder value in the tech firm
     - Such a transaction would likely be rejected using traditional NPV or IRR methods

2. **Nature of InsurTech Investment Is Far More *Complimentary* to Insurer Operations than it Is *Disruptive***

   - **Implication:** Much of what InsurTechs are doing can viewed as an outsourcing of tech R&D. Insurers will adopt (acquire) or copy these technology if NPV is positive.
     - This is a very efficient way to manage tech investments
     - Options increase, less likely to be stuck with in a tech dead-end

Observation on Venture Capital Investment Patterns, Practices and Preferences

3. **InsurTechs Prefer to Partner with "Smart Money" Investors**

   - **Implication:** Over the longer run, (re)insurers/large brokers could account for the majority of InsurTech deals, along with some of the largest VCs with in-house insurance industry expertise
     - Increased presence of incumbents suggests a widening "Kill Zone" for insurance startups

4. **InsurTech Start-Ups Go Where (They Think) the Money Is**

   - **Implication:** With ~40% of premium dollar going to something other than pure losses, it's easy to see how InsurTechs would be drawn to areas such as Distribution
     - But these solutions are easily replicated or acquired
     - Data Analytics, Business Process Enhancement offer ongoing opportunities to gain competitive and efficiency enhancements

Source: University of South Carolina, Center for Risk and Uncertain Management.

Observation on Venture Capital Investment Patterns, Practices and Preferences

5. Valuations Are Likely Inflated: Pain to Come

- **Implication:** Over the longer run, (re)insurers/large brokers could account for the majority of InsurTech deals, along with some of the largest VCs with in-house insurance industry expertise
  - Increased presence of incumbents suggests a widening “Kill Zone” for insurance startups

6. “Cool” Ideas Aren’t Enough*

- **Implication:** Shift toward practical applications with an emphasis on measurable results (ROI)
  - Neither InsurTech firms nor investors have endless time or money for experimentation

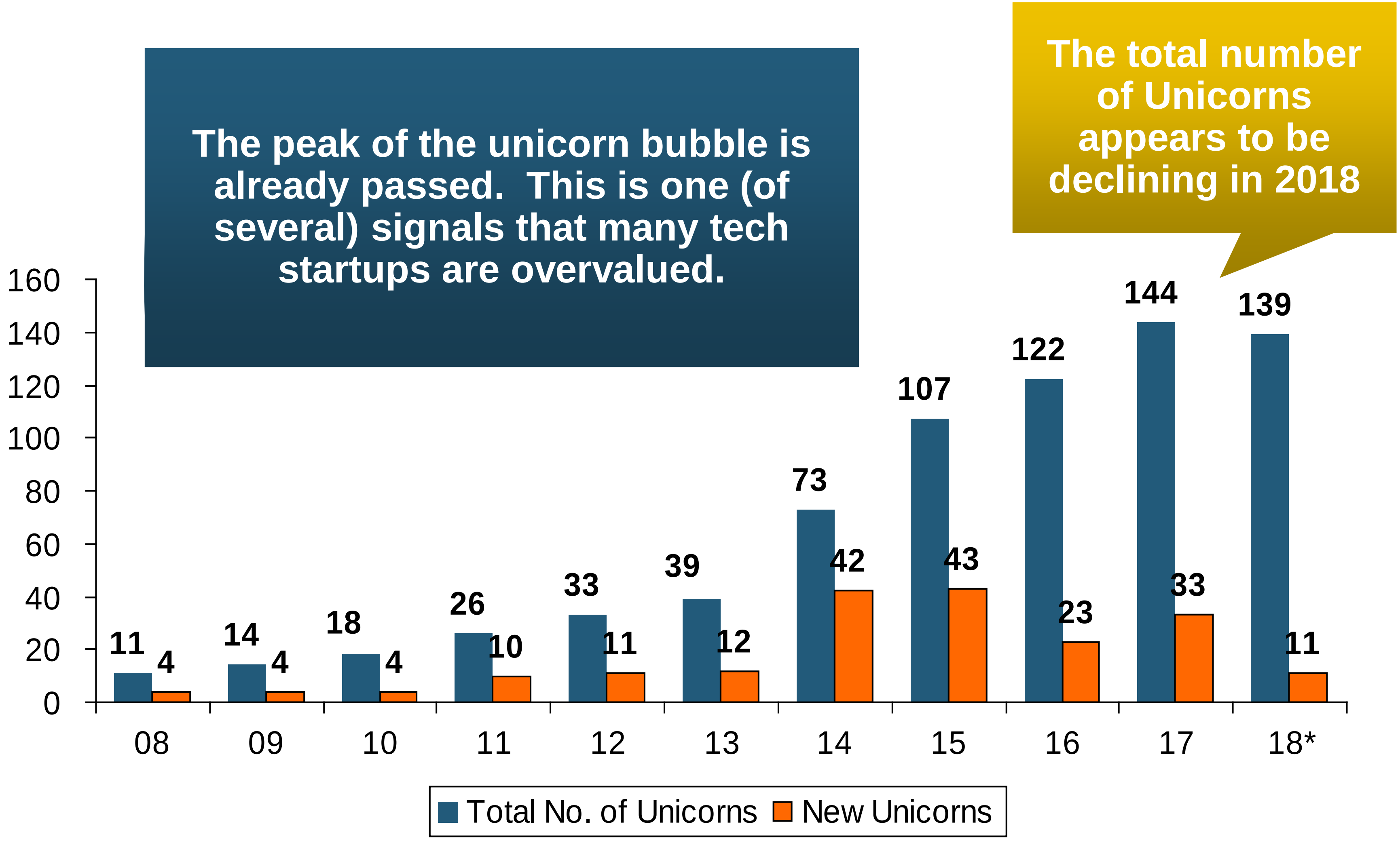
*This point adapted from: PropertyCasualty360.com, *InsurTech starups wane, but funds still pour into maturing market*, Sam Friedman, April 10, 2018.

Source: University of South Carolina, Center for Risk and Uncertain Management.

Are Valuations for InsurTech Firms

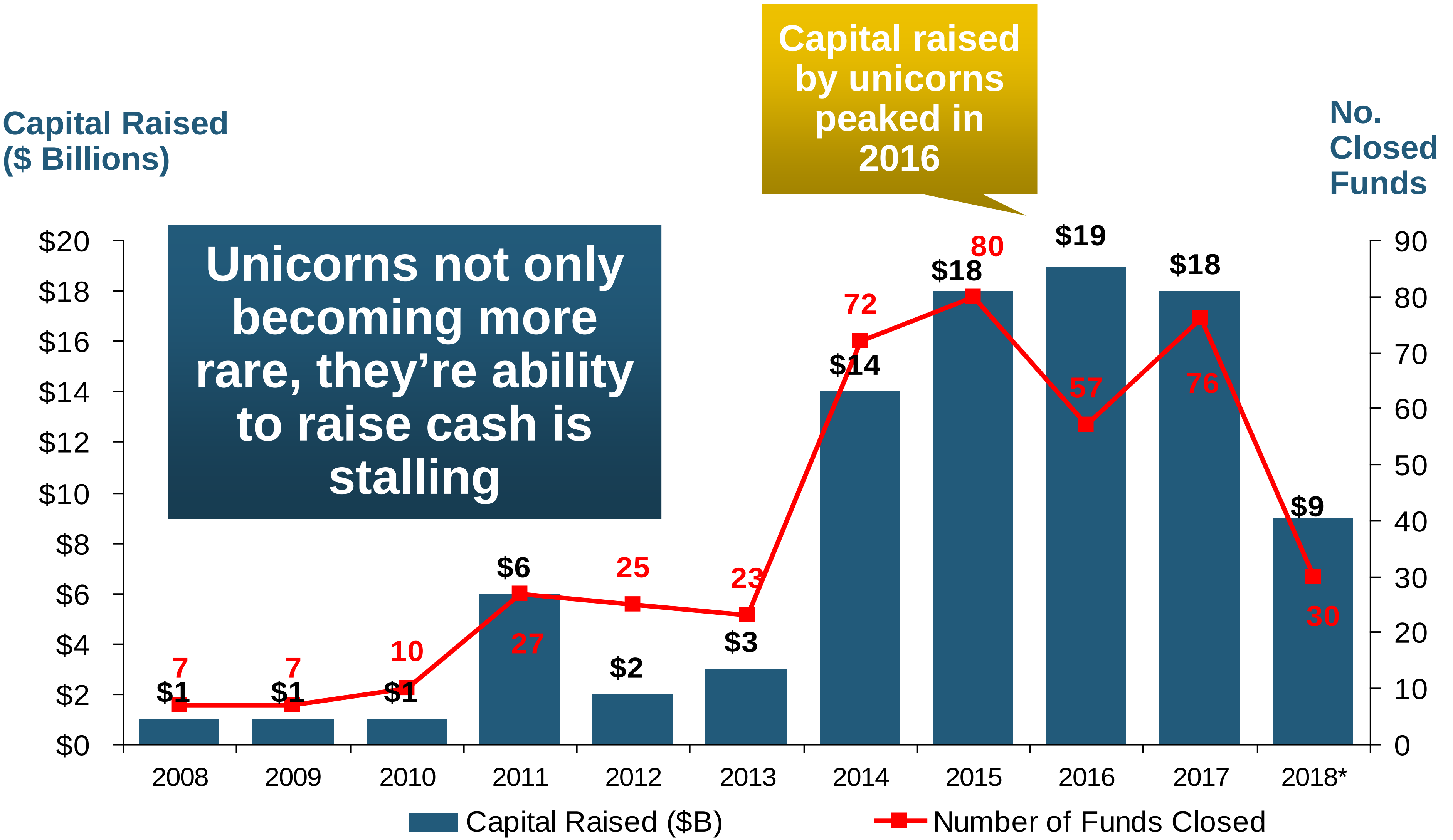
The Curious Case of Softbank, Masayoshi Son, Silicon Valley—and Swiss Re

Unicorn Sightings: New and Total Number of US-Based Unicorns (all sectors), 2008 – 2018*



*Through May 15, 2018.
Source: CBS Marketwatch, May 23, 2018: https://www.marketwatch.com/story/why-the-end-is-coming-soon-for-the-biggest-tech-bubble-weve-ever-seen-2018-05-22

Unicorn Cash: Cash Raised by Unicorns and Number of VC Funds Closing, 2008 – 2018*



*Through May 15, 2018.
Source: CNBC.com, May 22, 2018 at https://www.cnbc.com/2018/05/22/tech-bubble-is-larger-than-in-2000-and-the-end-is-coming.html

Reasons Why Start-Up Valuations Are Falling and Will Continue to Fall

- **Rising Interest Rates:** Low interest rates made risky investments of every variety more attractive—including tech start-ups. With yields of risk-free and corporate debt rising, VC investments are less attractive

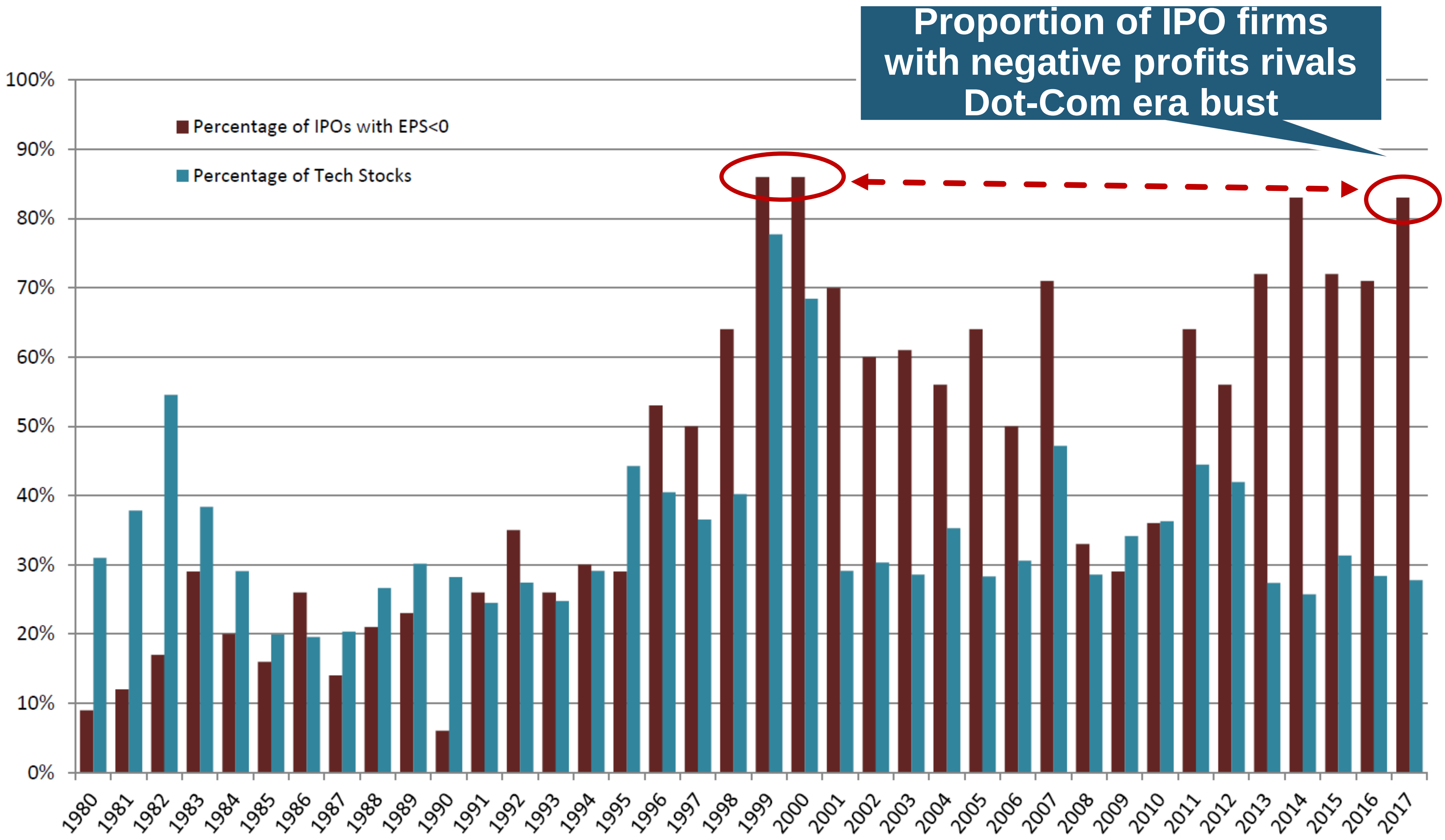
- **IPO Busts:** A number of companies that have gone public (or plan to) have seen their valuations plummet (pre- and post-IPO; e.g., SNAP: $17→$14; Blue Apron: $10→$3, FitBit: $45→$7)

- **Profits Matter:** 76% of companies that went public in 2017 were unprofitable, the highest since 81% at the peak of the dot-com boom in 2000 (Ritter, 2017)

- **Entrenched Incumbents Are Learning:** Sector leaders are learning to quickly copy or adopt new technologies, allowing them to sustain their competitive advantage through disruption

*Through May 15, 2018.
Source: CNBC.com, May 22, 2018 at https://www.cnbc.com/2018/05/22/tech-bubble-is-larger-than-in-2000-and-the-end-is-coming.html

IPOs with EPS<0 Is at Post Dot-Com Bust High



Source: *Initial Public Offerings: Updated Statistics*, Jay Ritter, University of Florida, Warrington School of Business. Data as of 1/17/2018 accessed at: https://site.warrington.ufl.edu/ritter/files/2018/01/IPOs2017Statistics_January17_2018.pdf

INSURTECHS
MOST ARE DOOMED TO EXTINCTION

Six Reasons Why Most InsurTech Firms Will Fail

Note: Parts of this section are adapted from: PropertyCasualty360.com, "*Hey InsurTechs: Here's Why You Will Likely Fail,*" Karlyn Carnahan,June 8, 2018, accessed at: *https://www.propertycasualty360.com/2018/06/08/hey-insurtechs-heres-why-you-will-likely-fail/*

Why Most InsurTech Firms Will Fail

1. **Lack of Actual Knowledge of the Insurance Business:**

- There is tremendous advantage to coming in with a fresh eye and seeing the gaps that insiders have become blind to, but…
- Structural nuances and idiosyncrasies of the business are many and are material
- Regulatory requirements constitute and an enormous barrier to entry and a found throughout the industry value chain
  - Sales (licensing requirements, fiduciary/suitability requirements)
  - Claims (e.g., Fair Claims Handling Acts)
  - Underwriting (permissible underwriting criteria, rates must not be “unfairly discriminatory”)
  - Pricing ultimately needs to reflect underlying risk, cover all expenses and provide a risk appropriate return on capital) (rates must not be “inadequate or excessive)
- **Bottom Line:** Actual insurance expertise is essential

Why Most InsurTech Firms Will Fail

2. Lack of Understanding of the Economics of Insurance

- Insurance is oftentimes a low-margin business
- You just can't charge as much for your product as you might think.
- Example: The average combined ratio in both the homeowners' and personal auto market over the past decade was about 103.
- This means that whatever thin profit was earned by the insurer was derived from investment earnings, of which the start-up has little-to-none
- Also, if an InsurTech firm has an idea that claims will reduce claim costs but costs $20 per policy to introduce, the financials don't work unless the cost reductions apply across the entire book of business, not just accounts with claims
- Other: Pricing is often cyclical—meaning timing is everything when it comes to a product launch or investment in an InsurTech venture

Why Most InsurTech Firms Will Fail

3. Investors Don't Understand the Insurance Industry

- **Smart Money vs. Dumb Money**
- Smart money comes with investors who understand the business and can help you with connections, advice, and insights to help you cross the hurdles
- Dumb money is just money — and often is worse than dumb if the investors don't understand the sales/pricing cycle and regulatory environment in the insurance industry
- Dumb money may push you down a path that isn't the best for your business because they're looking for the short term returns and don't understand that insurance is a longer term game than straight consumer plays
- ***Axiom:*** *If you're running out of cash, all money looks smart*

Why Most InsurTech Firms Will Fail

4. Failure to Recognize that the Cost-Benefit Analysis Is a Long-Term Return for an Insurer

- Many InsurTech firms claim they have an amazing product that will reduce losses
- The carrier has large upfront costs to acquire, implement and rollout the product and then must wait to see how (or if) losses or expenses are actually reduced, probably using a staged rollout.
- Bottom Line: It clearly takes time (and money)for there to be a critical mass of benefit to overcome the day one costs. Not every carrier has an appetite for long term CBAs on unproven solutions

Why Most InsurTech Firms Will Fail

5. Running Out of Cash

- All startups face the worry of running out of money and the hunt for VC cash is relentless
- The insurance industry doesn’t buy quickly. Sales cycles even on established products can run 18 months or longer.

6. The Product Isn’t All that Novel, Unique or Better

- All InsurTech start-ups claim to be disruptors
- Reality Check: Many aren’t (e.g., another online portal for selling insurance—but with a cool user interface)
- If you’re placing your bets on buying traffic or Search Engine Optimization, that bet will soon run out
- Many apps or ideas are ***easily*** and ***quickly*** replicated by incumbents
  - Remember the *“Kill Zone”*

Summary

InsurTech:
The Financing of Innovation, Transformation and Disruption

Summary

- Increased interest in InsurTech in recent years has sparked a great deal of interest and innovation in an industry that many feel is chronically behind the time
- Successful InsurTech investments are elusive for many reasons—some inherent to VC investing but many inherent to the idiosyncrasies of investing in the insurance industry
- Most InsurTech investments are complementary, not "disruptive" in the sense of a threat
- InsurTech investment may be at or close to a peak
- Startup valuations (in general) are likely stretched
- Entrenched incumbants are learning to manage through disruption
- *Profits Matter!*

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Thank you for your time and your attention!

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