FinTech:

Shaping the Financial World

May 4, 2020

Class 10: Overview

- Insurance Value Chain
- Insurance Sector Landscape
- Insurance Sector Challenges
- InsurTech Opportunities & Challenges
- InsurTech Business Models & Startups

Class 10: Readings

- '*Quarterly InsurTech Briefing Q4 2019*', CB Insights (Intro & Charts)
- '*Three insurtech trends to watch in 2020*', Harry Menear, FinTech
- '*Fintech developments in the insurance industry – Executive Summary*' Bank of International Settlement
- '*Why Asia is fertile new ground for the insurtech startup movement*', Tech Wire Asia

Class 10: Study Questions

- What opportunities does the current insurance sector landscape and possible ‘pain points’ present for ongoing technological disruption?

- How have machine learning, alternative data, and so-called ‘Internet of Things’ devises begun to transform the underwriting, selling, administration & claims processing of insurance?

- What are InsurTech trends and applications affecting each part of the insurance sector’s value chain? What are the capital, regulatory, and data challenges confronting startups in this space? To date, why have Big Tech firms been less engaged in insurance than other finance sectors?

Insurance Value Chain

Image by the Federal Insurance Office and is in the public domain.

Source: 'Annual Report on the Insurance Industry', Federal Insurance Office, U.S. Department of Treasury (September 2019)

Insurance Sector Landscape

- **Life Insurance**: Aegon (1968), AFLAC (1955), China Life (1949), Great West (1891), Legal & General (1836), Manulife (1887), MetLife (1868), New China Life (1996), New York Life (1845), Nippon Life (1889), Prudential (1875), Swiss Life (1857), Taikang Life (1996)
- **Property & Casualty**: Allstate (1931), Chubb (1882), Cincinnati Financial (1950), CNA (1897), Intact Financial (1807), Hartford (1810), Liberty Mutual (1912), Markel (1980), Progressive (1937), State Farm (1922), Travelers (1853)

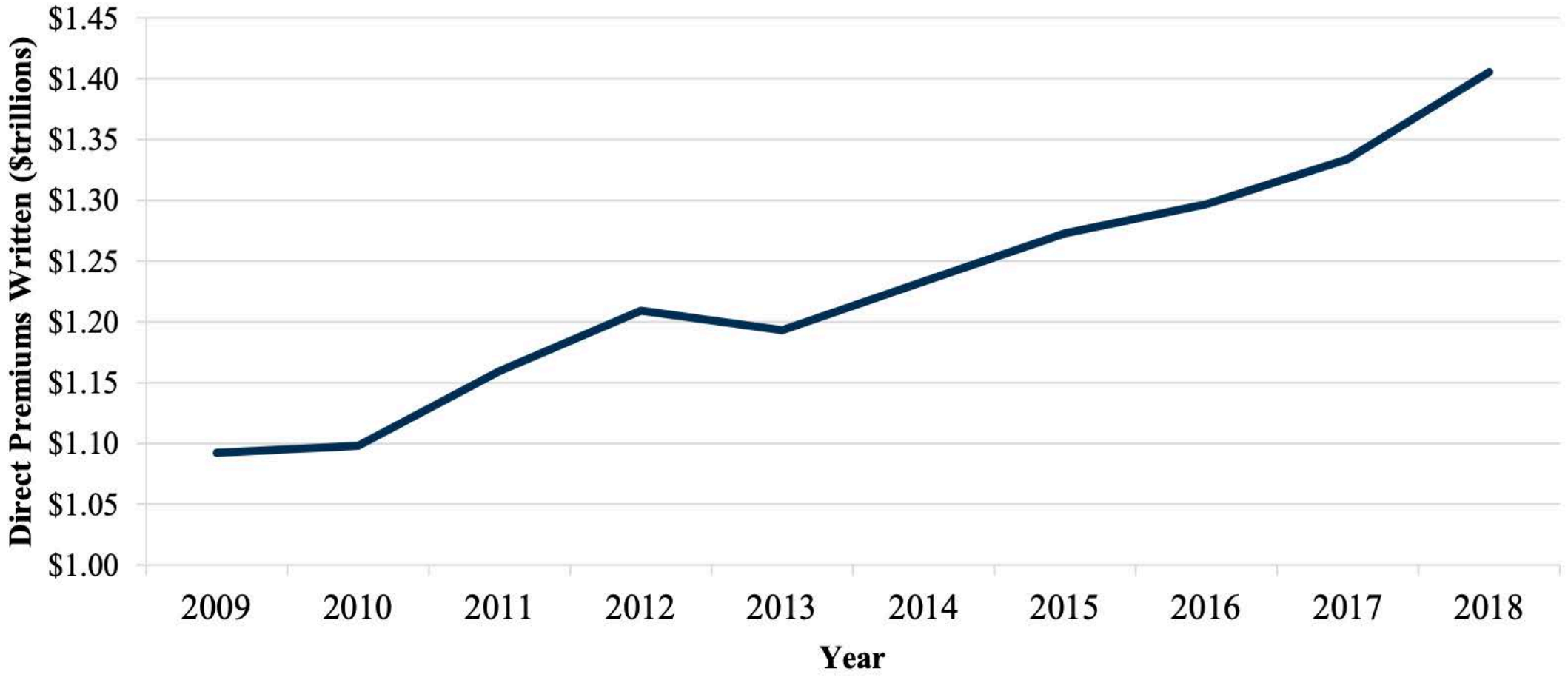
Insurance Sector Landscape

- **Health & Managed Care**: Anthem (1946), Centene (1984), Cigna (1792), CVS Health / Aetna (1853), Healthcare Services (1936), Humana (1961), UnitedHealth (1977)
- **Diversified**: AIG (1919), Allianz (1890), Axa (1816), Aviva (1696), China Pacific (1991), Generali (1839), Ping An (1988), People's Insurance Company of China (1949), Zurich (1872)

Insurance Sector Landscape

- **Reinsurance Companies:** Arch Capital (1995), Berkshire Hathaway (1839 / 1967), Munich Re (1880), Swiss Re (1863)
- **Brokers:** Aon (1918), Brown & Brown (1939), Arthur Gallagher (1927), Marsh & McLennan (1905), Willis Towers Watson (1828)
- **Benefits Administration:** ADP (1949), Paychex (1971)
- **Claims Administration:** Sedgwick (1969)
- **Software or Services:** Duck Creek (2000), Goldwire (2001)

U.S. Insurance Sector Premiums

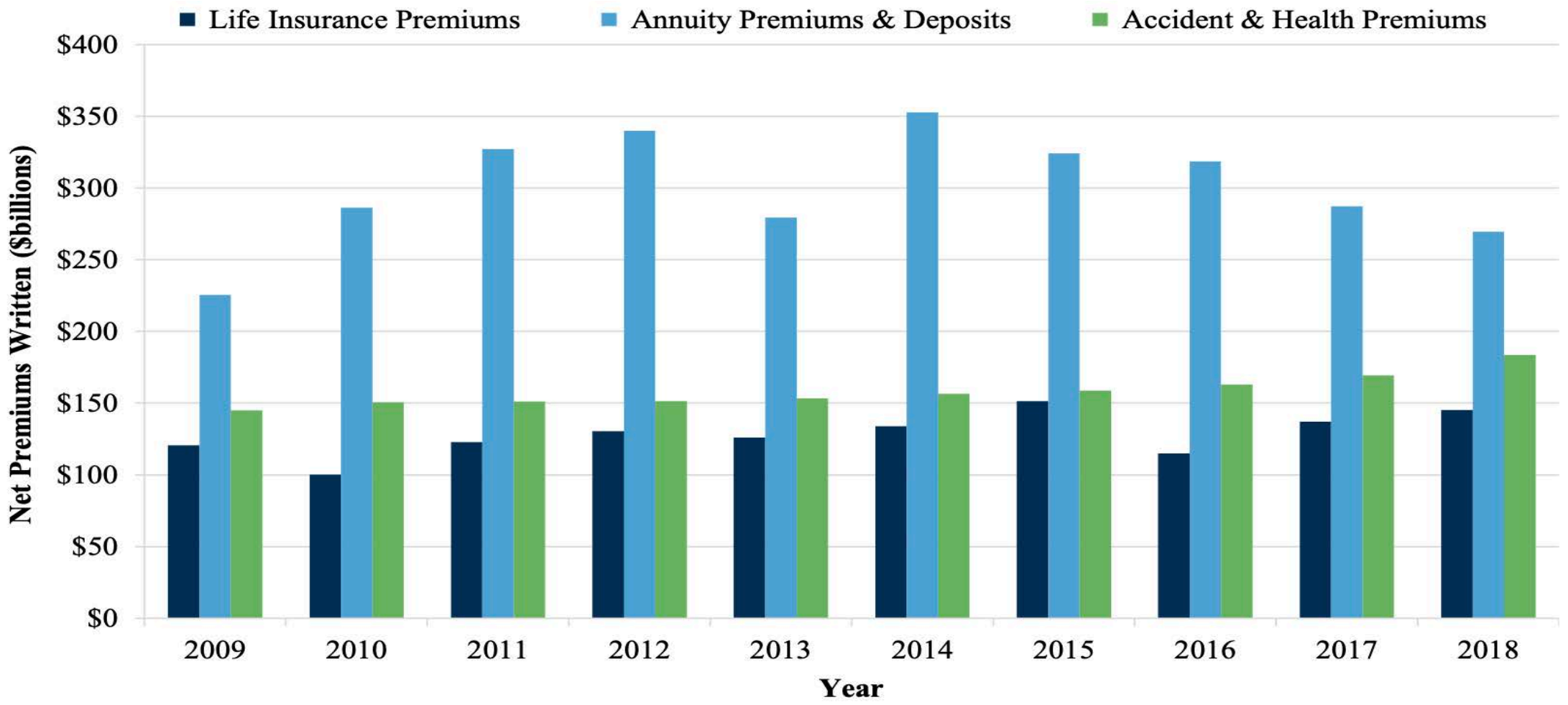


Source: S&P Global

Image by the Federal Insurance Office and is in the public domain.

Source: 'Annual Report on the Insurance Industry', Federal Insurance Office, U.S. Department of Treasury (September 2019)

U.S. Life & Health Insurance Premiums



Source: S&P Global

Image by the Federal Insurance Office and is in the public domain.

Source: 'Annual Report on the Insurance Industry', Federal Insurance Office, U.S. Department of Treasury (September 2019)

U.S. P & C Insurance Premiums

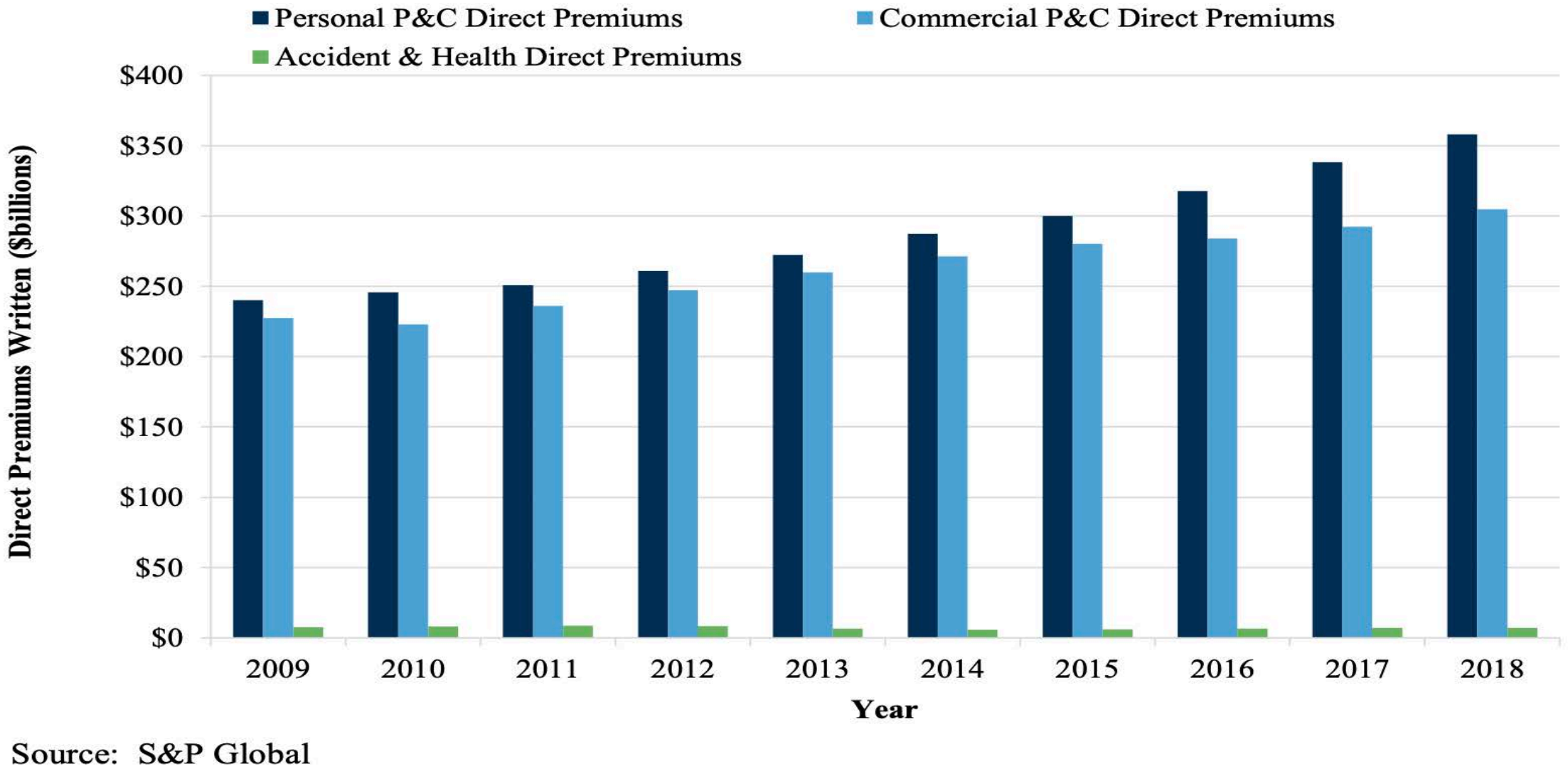


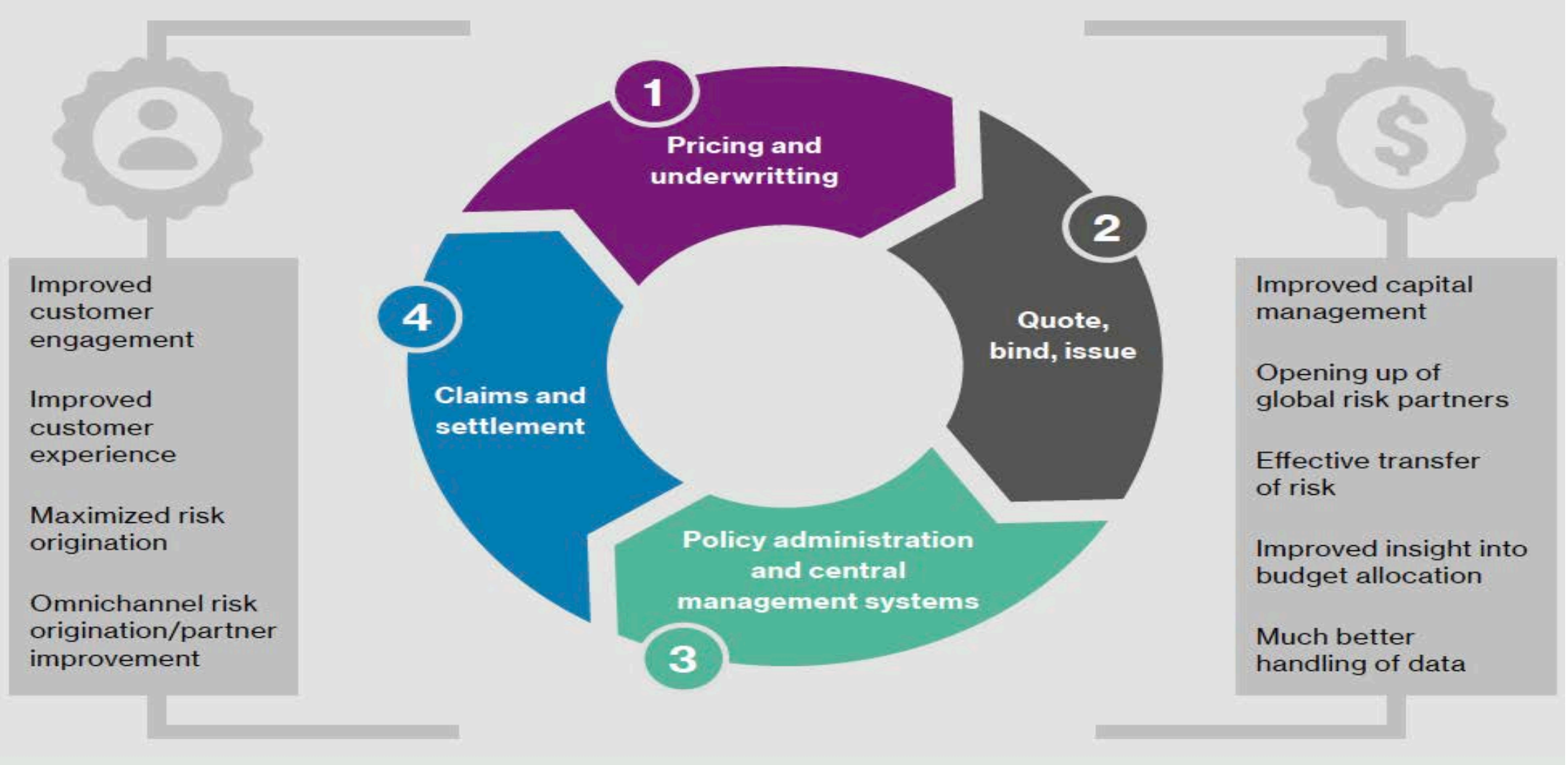
Image by the Federal Insurance Office and is in the public domain.

Source: 'Annual Report on the Insurance Industry', Federal Insurance Office, U.S. Department of Treasury (September 2019)

Insurance Sector Challenges

- Agent & Broker Fees
- Claims Administration
- Distribution Channels
- Legacy Tech
- Operating Costs & Expense Ratios
- Product Development & Speed to Market
- Regulatory Landscape
- Trust
- User Interface and User Experience

InsurTech Opportunities



Source: 'Quarterly InsurTech Briefing Q4 2019', CB Insights ' (January 2020)

© Willis Towers Watson and CB Insights. All rights reserved. This content is excluded from our Creative Commons license. For more information, see https://ocw.mit.edu/help/faq-fair-use/

InsurTech Opportunities

- Sales, Account Management & Claims UI & UX:
  - Digital, Mobile & Conversational Interface
- Underwriting Availability, Pricing & Targeted Products:
  - Machine Learning & Alternative Data
- Claims Processing & Underwriting Data Capture:
  - Drones, Internet of Thing Sensors, Smartphones Telematics, & Wearables
  - Genetic Testing – Life, Disability & Long-term Care

InsurTech Emerging Technologies

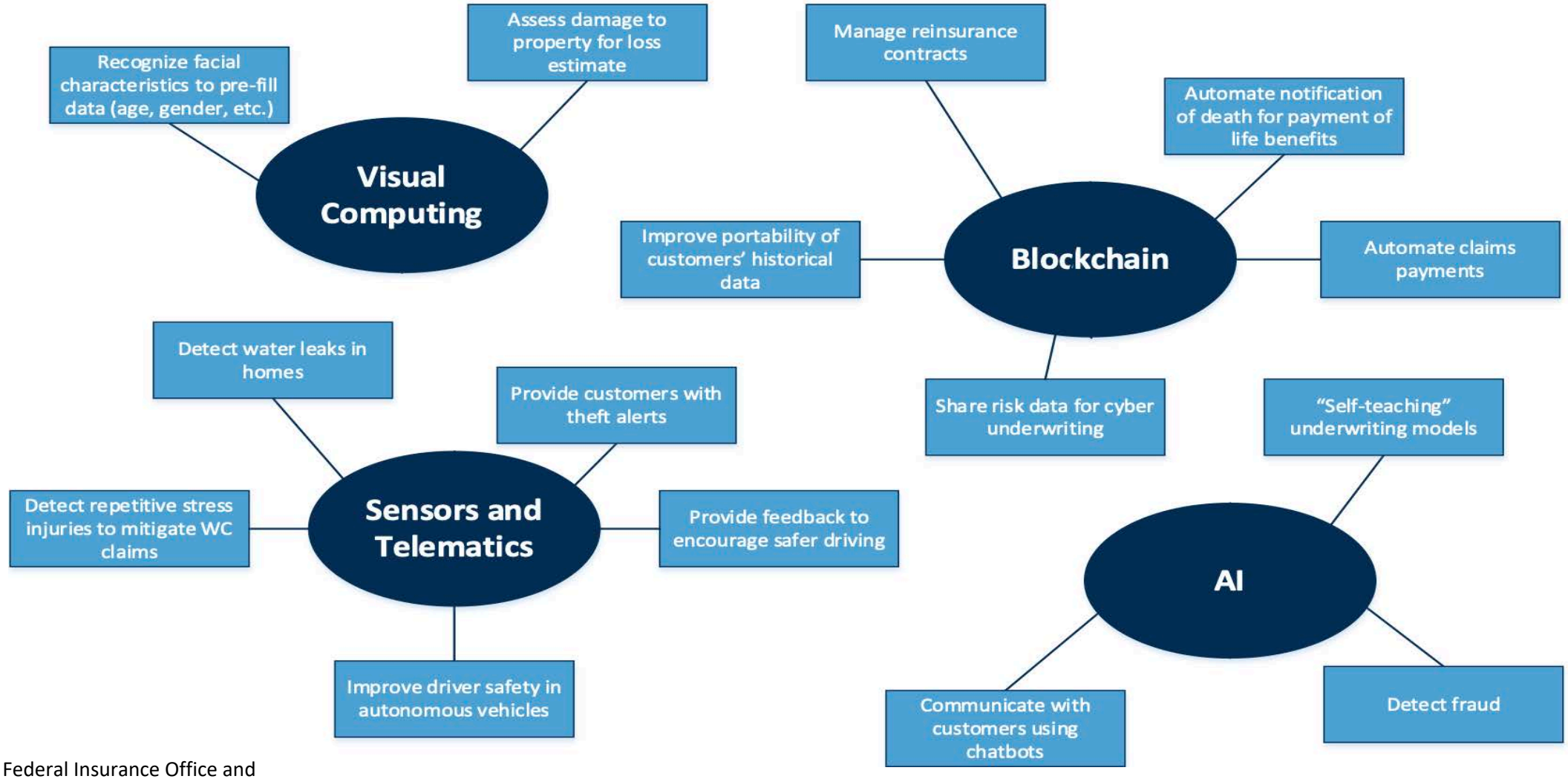


Image by the Federal Insurance Office and is in the public domain.

Source: 'Annual Report on the Insurance Industry', Federal Insurance Office, U.S. Department of Treasury (September 2019)

InsurTech Challenges

- Funding
  - Capital Requirements if a Carrier
  - Startup Run Rate Losses
- Competitive Landscape
  - Incumbents
  - InsurTech Startups
- Regulatory Frameworks
  - Licensing & Compliance
  - Appropriate use of Data
- User Adoption

INSURTECH

	Core Software			Data & Analytics	Sales & Distribution
Target Users	Carriers	Carrier / Broker Connectivity	Brokers / Agents	Carriers / Brokers	Consumers & Businesses
FinTech Area of Focus	Billing & Payments Claims Management Loss Adjustment Policy Administration Subrogation Underwriting	Agent Portals Data Services E-Policy Quotes & Illustrations	Agency Management CRM / Sales Marketing & Administration Platforms	Claims & Losses Marketing Pricing / Rating Underwriting Telematics Wearables	Lead Gen / Price Comparison Websites Online Agencies / Brokerages / Carriers Direct-to-Consumer MGAs and Insurers On-Demand & Episodic Insurance

Courtesy of FT Partners. Used with permission.

Source: '2019 FinTech Almanac', FT Partners (February 2020)

InsurTech Business Models

- Licensed Insurer
- Managed General Agent
- Technology Service Provider
- Data Aggregator

InsurTech Startups

- Acko (2017) – Auto, Travel - India
- Assurance (2016) – Diversified ‘Financial Wellness’ Direct to Consumer
- Bold Penguin (2016) – Commercial Insurance Exchange
- CoverHound (2010) – Auto Marketplace Comparison
- CoverWallet (2015) – Small Business P & C
- Ethos (2016) - Life
- FINEOS (1993) – Software for Life, Accident & Health
- Fri:Day (2017) – Auto – Germany
- Goji (2007) – Auto Marketplace using Driving History Data

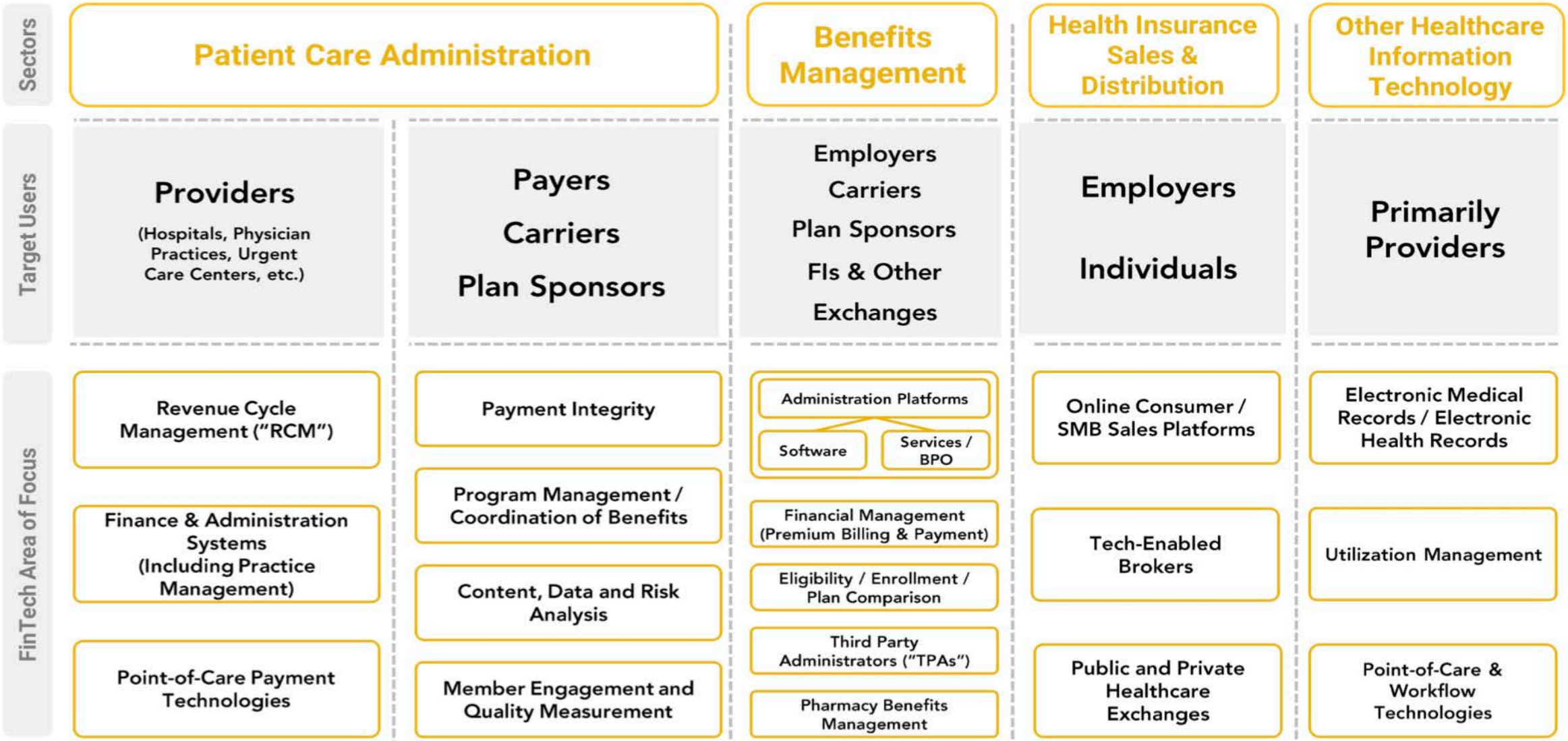
InsurTech Startups

- Hippo (2015) - Home
- Insureon (1997) Small Business P & C Marketplace
- Insurify (2013) – Auto Marketplace Comparison
- Ladder (2015) - Life
- Lemonade (2015) – Home, Renters
- Metromile (2011) - Auto
- Next (2016) – Small Business P & C
- Pie Insurance (2017) – Workers Comp

InsurTech Startups

- PolicyBazaar (2008) – Life & Health Marketplace Comparison - India
- PolicyGenius (2014) - Marketplace Comparison
- Prima Assicurazioni (2015) – Auto - Italy
- Root (2015) - Auto
- Singlife (2014) – Life - Singapore
- Snapsheet (2011) – Claims Management
- Tractable (2014) – Auto Claims Management
- WeFox / One (2015) – Marketplace / P & C Carrier - Germany
- ZhongAn (2013) – Online P & C - China

HEALTHCARE FINTECH



Courtesy of FT Partners. Used with permission.

Source: '2019 FinTech Almanac', FT Partners (February 2020)

Health InsurTech Startups

- American Well (2006) - Telehealth
- BIMA (2010) – Emerging Markets
- Bright Health (2015) – Medicare Advantage
- CareCloud (2009) – Patient Billing & Claims Management
- Clover (2014) – Patient Analytics & Preventive Care driven Insurance
- Collective Health (2013) – Self employed & Small Business Platform

Health InsurTech Startups

- GoHealth (2001) - Marketplace Comparison
- Gusto (2011) – Benefits & Payroll Administrations
- HealthEquity (2002) – Benefits & Health Savings Account Administrator
- Oscar Health (2012) – Individual & Small Business Coverage
- Shuidi (2016) – Crowdfunding of Medical Bills - China
- Zenefits (2013) - Benefits Administrations

Data Related InsurTech Startups

- Cambridge Mobile Telematics (2010) – Road & Driver Safety
- FitSense (2015) – Data Analytics for Health & Life
- Habit Analytics (2018) – Behavioral Patterns from Smartphone & IoT
- HyperScience (2014) – Automated Data Entry
- Open Data Nation (2015) – Public Records Data Aggregator
- RiskGenius (2015) – Policy Automation Platform
- Shift Technology (2013) – Fraud Detection
- StrongArm Tech (2011) – Sensor Data for Safety & Injury Protection
- The Floow (2012) – Auto Telematics
- TrueMotion (2012) – Smartphone Sensor Data to Score Drivers

MIT OpenCourseWare
https://ocw.mit.edu/

15.S08 FinTech: Shaping the Financial World
Spring 2020

For information about citing these materials or our Terms of Use, visit: https://ocw.mit.edu/terms.