Disruption and Insurance
Challenges and Opportunities
All Along the Value Chain
Greatest Threats, Opportunities

Whither Silicon Valley?

Greatest Opportunity

- Advanced Analytics: 32%
- Mobile Apps: 19%
- Big Data: 18%
- Tight Value Chain: 12%
- Gig Economy: 6%
- IoT: 6%
- ILS: 4%
- Insurer VC: 2%
- Insurtech: 1%

Greatest Threat

- Insurtech: 17%
- Mobile Apps: 16%
- Tight Value Chain: 14%
- ILS: 12%
- Big Data: 10%
- Advanced Analytics: 9%
- Insurer VC: 8%
- Gig Economy: 8%
- IoT: 6%
Insurance Technology Financing – Change Is Coming

Investment ($ Millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Investment ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>140</td>
</tr>
<tr>
<td>2012</td>
<td>350</td>
</tr>
<tr>
<td>2013</td>
<td>270</td>
</tr>
<tr>
<td>2014</td>
<td>870</td>
</tr>
<tr>
<td>2015</td>
<td>2,670</td>
</tr>
<tr>
<td>2016</td>
<td>1,690</td>
</tr>
</tbody>
</table>

More Than Half This Funding Was in Two Deals (Zenefits/Zhong An)

Investment In Insurance Tech Is Rising. Number of Deals Set A Record Last Year.

SOURCES: CB Insights, Insurance Information Institute.
What Is A Value Chain?

Example: Local Newspapers

Provide Information to Local Audience

Printing Press
Gather Information (News, Ads)
Create Product (Publish the Newspaper)
Distribute Product (Deliver the Newspaper)
Improve World

This Industry Was Radically Disrupted by the Internet. Its Barriers to Entry Were Destroyed. Is Insurance Next?
Most Links in the Value Chain Have the Potential to Be Disrupted in Next 10 Years.
Alternative Capital
Potentially Disrupting the Bank Account

(Billions of USD)

Alternative capacity has grown 350% since 2006. It has more than tripled in the past six years.

Source: Aon Benfield Analytics; Insurance Information Institute.
One-Day Auto Insurance

Pre-register

Read
QR Code
-agency code embedded-

Register
- Name
- Birthday
- Address
- e-mail address
- Driver’s License No.
- License expiry date

Buy

Input
- License plate No.
- Date of driving

Pay

Premium is added on the monthly mobile phone bill
Loss Control Disruptor

The Internet of Things

Telematics Today

Telematics Tomorrow
Peer-to-Peer (P2P) Insurance

Taking on the *Entire* Value Chain

**A Typical P2P Model**

- Resembles Mutuals/Reciprocals
- People Join Small Group of Friends to Prefund Deductible or Bear Other Small Risk.
- Leftover Deductible $$ Rolled Forward.
- May Deter Fraud – You Wouldn’t Cheat Your Friends!


**CEO Daniel Schreiber**

Our Chief Behavioral Officer, Professor Dan Ariely, says that “If you tried to create a system to bring out the worst in humans, it would look a lot like the insurance of today.”
Claims Disruptor

Artificial Intelligence + Behavioral Economics

Lemonade

CLAIM APPROVED
We reviewed your claim and found it valid. A payment will be sent to you right away.

$729
3 Seconds

Great! We're happy to hear that

BACK TO HOME

“IT’S NOT OUR MONEY!”

Expenses
20%

Reinsurance
20%

‘Rainy Day Fund’
20%

Subject to Giveback
40%
InsurTech Startups Have Broad Range…BUT…

<table>
<thead>
<tr>
<th>Risk</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insurance Marketplace</strong></td>
<td></td>
</tr>
<tr>
<td>CoverHound</td>
<td>GetInsured</td>
</tr>
<tr>
<td>policybazaar.com</td>
<td>policygenius</td>
</tr>
<tr>
<td>turtlemint</td>
<td></td>
</tr>
<tr>
<td>Coverfox</td>
<td></td>
</tr>
<tr>
<td><strong>Digital Brokers</strong></td>
<td></td>
</tr>
<tr>
<td>insureon</td>
<td>coverwallet</td>
</tr>
<tr>
<td>EMBROKER</td>
<td>FOUNDER SHIELD</td>
</tr>
<tr>
<td><strong>Peer to Peer</strong></td>
<td></td>
</tr>
<tr>
<td>friendsurance</td>
<td>Welltok</td>
</tr>
<tr>
<td>GUEVARA</td>
<td>TELADOC</td>
</tr>
<tr>
<td>YYY PEERCover</td>
<td>Accolade</td>
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<tr>
<td>Lemonade</td>
<td></td>
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<tr>
<td><strong>Micro-duration Coverage</strong></td>
<td></td>
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<tr>
<td>trōv</td>
<td>omada</td>
</tr>
<tr>
<td>Slice</td>
<td>TRUVEN Health Analytics</td>
</tr>
<tr>
<td><strong>Telematics</strong></td>
<td></td>
</tr>
<tr>
<td>TrueMotion</td>
<td>castlight</td>
</tr>
<tr>
<td>Metromile</td>
<td>GRAND ROUNDS®</td>
</tr>
<tr>
<td>Zendrive</td>
<td></td>
</tr>
</tbody>
</table>

Source: Aon.
...With Broad Incumbent Support

<table>
<thead>
<tr>
<th>Company</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metromile</td>
<td>$205M</td>
</tr>
<tr>
<td>intact</td>
<td></td>
</tr>
<tr>
<td>China Pacific Insurance</td>
<td></td>
</tr>
<tr>
<td>CoverHound</td>
<td>$57M</td>
</tr>
<tr>
<td>Chubb</td>
<td></td>
</tr>
<tr>
<td>American Family Ventures</td>
<td></td>
</tr>
<tr>
<td>One, Inc.</td>
<td>$37M</td>
</tr>
<tr>
<td>MassMutual Ventures</td>
<td></td>
</tr>
<tr>
<td>AXA Strategic Ventures</td>
<td></td>
</tr>
<tr>
<td>Policygenius</td>
<td>$21M</td>
</tr>
<tr>
<td>MassMutual Ventures</td>
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<tr>
<td>AXA Strategic Ventures</td>
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<tr>
<td>Slice</td>
<td>$4M</td>
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<tr>
<td>Munich RE</td>
<td></td>
</tr>
<tr>
<td>XL Catlin</td>
<td></td>
</tr>
</tbody>
</table>

Note: Total funding.
Source: Aon.
InsurTech Disruption: Threat or Opportunity?

Automation efficiencies can have powerful impact on industry

**Focus of InsurTech in the insurance value chain**, %

- **Disrupting the value chain**: 9%
- **Enabling the value chain**: 61%
- **Disintermediating incumbents from customers**: 30%

**Future profits as a % of today’s profits**

Digitizing the business, auto insurance example

<table>
<thead>
<tr>
<th>Future</th>
<th>Short-term gain</th>
<th>Long-term decline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>120-200</td>
<td>220-300</td>
</tr>
<tr>
<td>Today’s profits</td>
<td>100</td>
<td>2025 profits</td>
</tr>
<tr>
<td>2035 profits</td>
<td>15-55</td>
<td>Improved loss-and-expense ratio</td>
</tr>
<tr>
<td></td>
<td>155-195</td>
<td>Shift in liability to commercial product lines</td>
</tr>
</tbody>
</table>

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1 Insurtechs are insurance businesses, usually startups, that use technologically innovative apps, processes, or business models; 2016 data based on some 500 commercially well-known cases. 2 Assumes a 3 to 5 percentage point improvement in loss ratio, a 2 to 4 percentage point improvement in operating expenses, and a 6 to 8 percentage point improvement in direct sales conversions. 3 Includes growth in investment income as well premiums. Investment income modeled as a flat percentage of premium in each year. 4 Includes impact of semi- and fully autonomous vehicles. 5 Assumes a 25 percent reduction in premiums as a result of telematics and sensors and a 50 percent risk transfer to commercial product liability.

Thank you for your time and your attention!

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8/15 Created off presentation to FACI, 8/17, combined with previous Disruption slides

10/4 Reordered slides, reintroduced slide about loss control