OFFICE OF FINANCIAL RESEARCH

Risks in the U.S. Life Insurance Sector

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Views expressed in this presentation are those of the speaker(s) and not necessarily of the Office of Financial Research.

Agenda

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- Hypothesis: “Life insurance is not systemic”
- Why past may not be prologue
- Challenges in ex-ante (supervision) and ex-post (resolution) regulatory policy framework
- Concluding remarks and discussion

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“Life insurance isn’t systemic and not like banks”

Four key industry arguments:

1. Insurers don’t have crises
2. Insurance liabilities are long-term and retail
3. AIG’s problems were unique and in its non-insurance subs
4. Asset quality is higher than at banks

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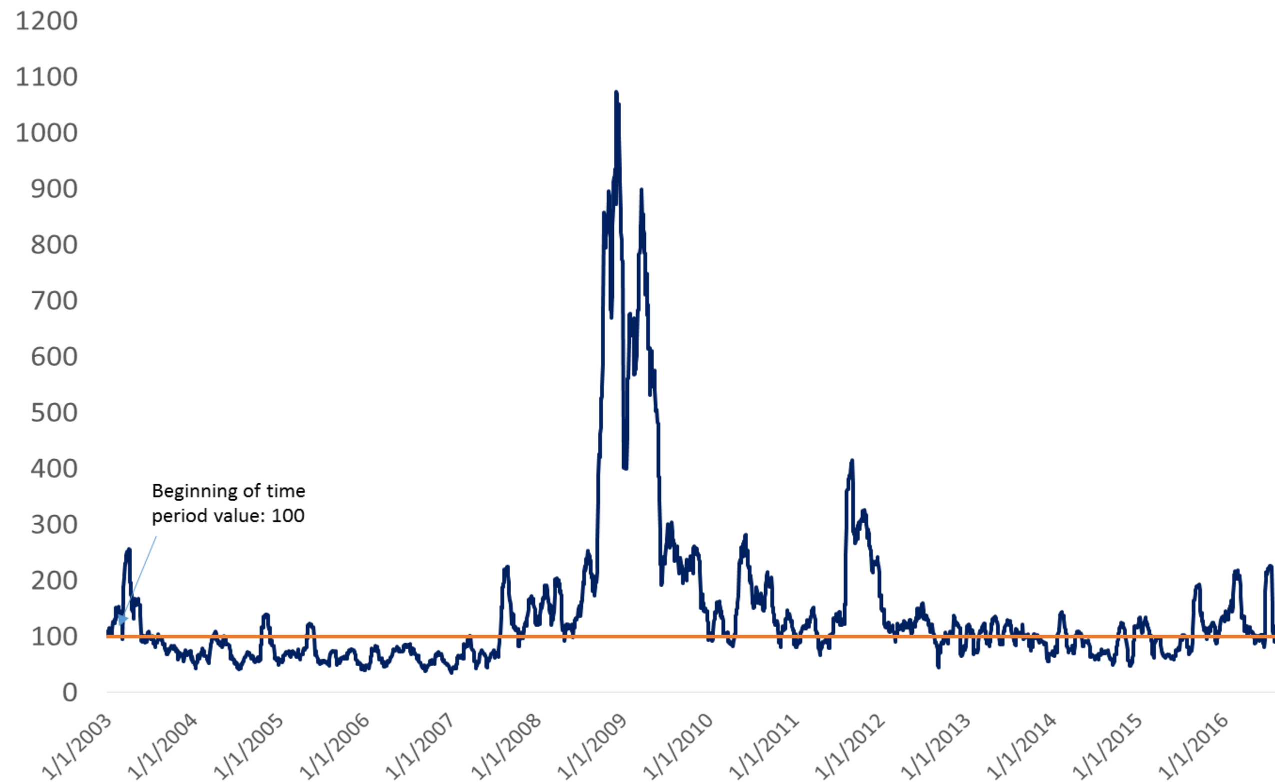
Why Past May Not be Prologue

Traditional market based measures



Source: Bloomberg L.P., OFR Analysis

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Why Past May Not be Prologue

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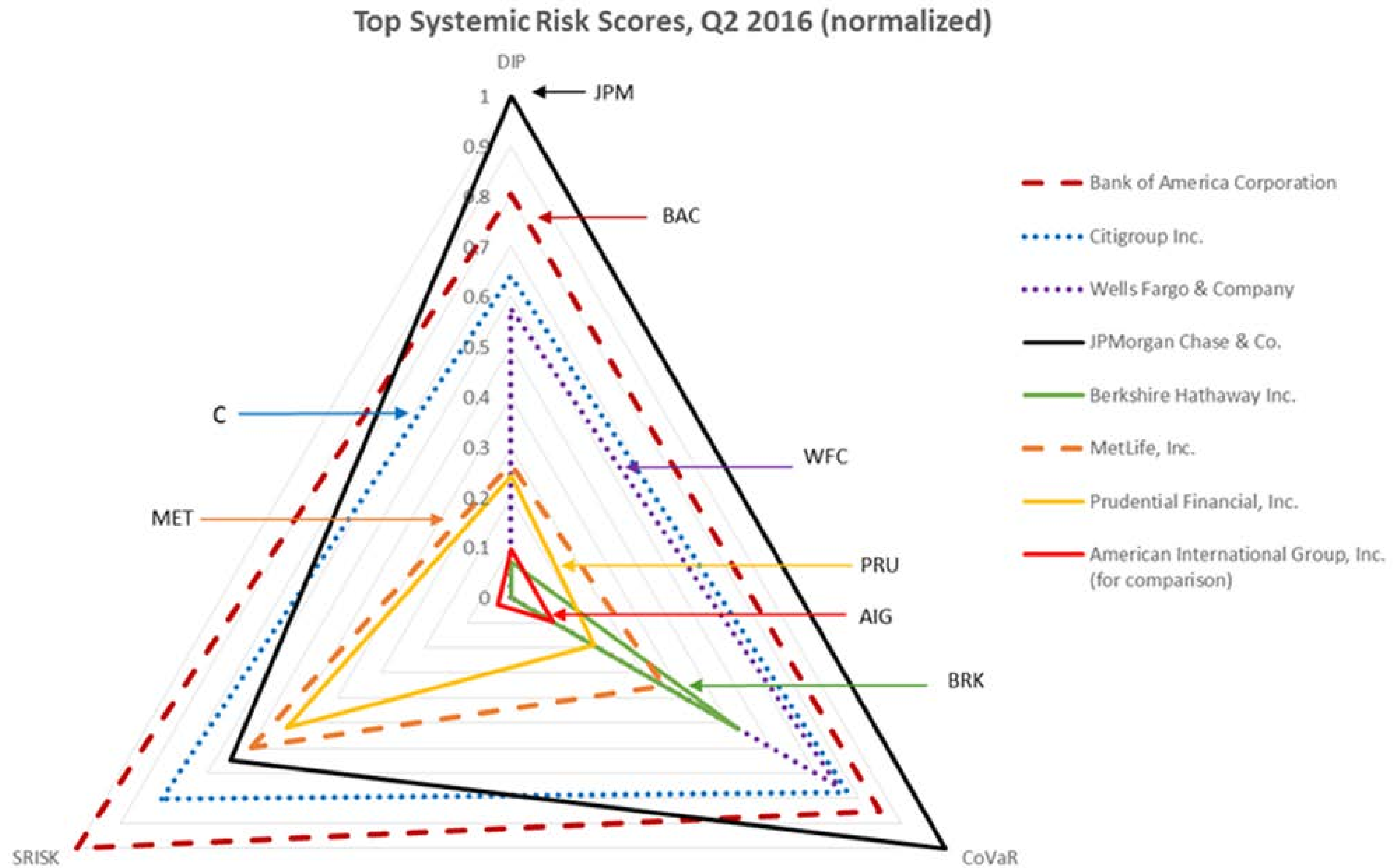
Systemic risk measures



Source: Bloomberg L.P., Markit Group Ltd., NYU Volatility Lab, OFR analysis

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Why Past May Not be Prologue

The U.S. life insurance industry has substantially changed its risk profile

- Three of the ten largest U.S. insurers have demutualized since 1999
  - Demutualization fundamentally changes a company
- Some insurers have become part of multinational or even global enterprises
- Many insurers have moved extensively into asset management, which also may alter risk profiles

Changing Structure and Activities of U.S.Life Insurance Industry

Ten Largest U.S. Life Insurance Groups Ranked by Assets

Group	Form	Year Demutualized	Large non-U.S. Operations	Large Asset Manager
MetLife	Stock	2000	Yes	Yes
Prudential Financial	Stock	2000	Yes	Yes
Manulife/John Hancock	Stock	1999	Yes	Yes
TIAA-CREF	Mutual		No	Yes
AIG	Stock		Yes	Yes
New York Life	Mutual		No	Yes
Northwestern Mutual	Mutual		No	No
Lincoln Financial	Stock		No	No
MassMutual	Mutual		No	Yes
Aegon USA	Stock		Yes	No

Color code: Demutualized, Still Mutual, Always Stock

Source: OFR analysis

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Why Past May Not Be Prologue

Low long-term interest rates could pose a challenge to the life sector.

Interest rates drive investment income, but life insurance products often guarantee minimum returns to customers. Insurers can be squeezed.

Interest Rate Spread for U.S. Insurer Portfolios (percent)

Interest rate spread decreased by more than a third from 2006 to 2015

Guaranteed rate (left axis)
Net portfolio yield (left axis)
Interest rate spread (right axis)
Interest rate spread trend (right axis)

Left axis: 7.0, 6.0, 5.0, 4.0, 3.0, 2.0, 1.0, 0.0
Right axis: 2.0, 1.8, 1.6, 1.4, 1.2, 1.0, 0.8, 0.6, 0.4, 0.2, 0.0
2006, 2009, 2012, 2015

Source: National Association of Insurance Commissioners

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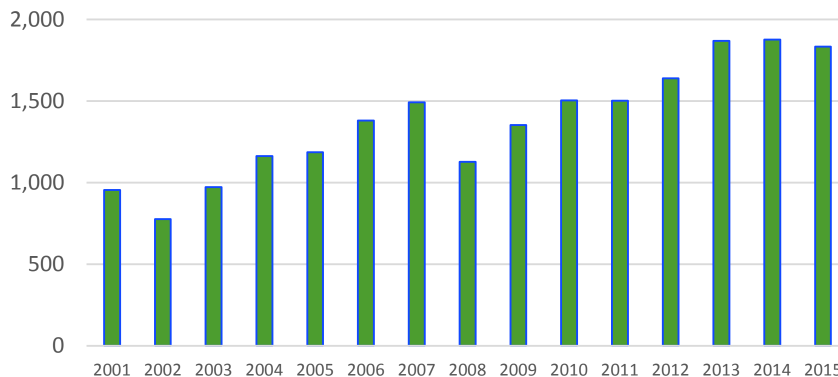
Why Past May Not Be Prologue

Liabilities Becoming More Complex and Opaque

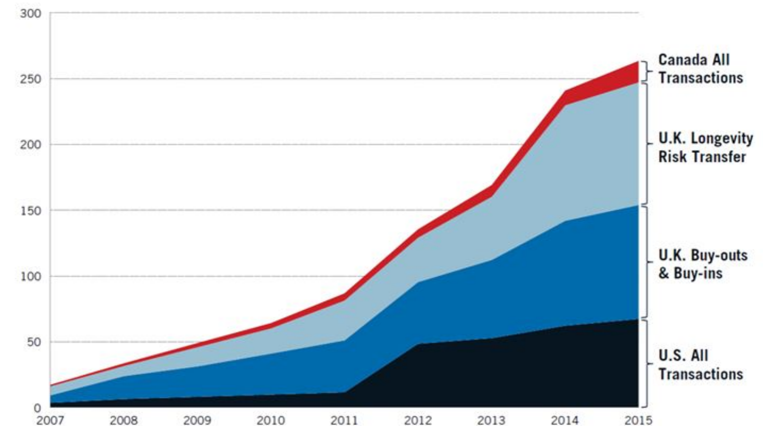
- Some newer insurance products have substantially more risk than traditional products
  - ❖ Variable annuities with aggressive return guarantees and substantial equity market risk, have grown to nearly $2 trillion. These products contain risks once assumed by DB pension plans.
  - ❖ Pension risk transfer transactions are growing, in large transactions concentrated in a few firms.
  - ❖ Insurers are allowed to make assumptions about policyholder behavior which can materially impact capital and reserves for some products. Past expectations of policyholder behavior have not borne out, i.e., long-term care and variable annuities.
  - ❖ Use of captives has made capital ratios more opaque.

U.S. Variable Annuity Assets ($ billions)



Source: Morningstar

Global Cumulative Pension Risk Transfers



Sources: LCP, LIMRA, Hymans Robertson and Prudential analysis, June 2015. Data in USD billions.

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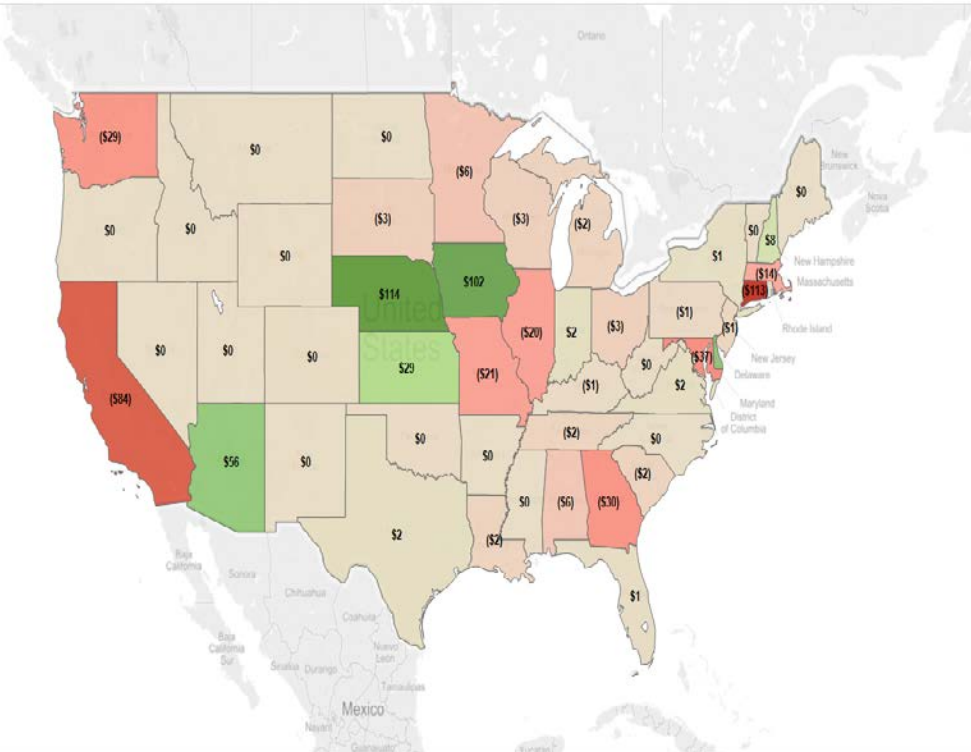
U.S. insurers can shift regulatory perimeter, re-domestication & captives are examples

Life Insurers' Redomestications are Primarily to a Few States with Small Domestic Insurance Markets
Net Relocation of U.S. Life Insurer's Assets by State via Redomestication
(in $ Billion)

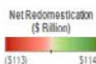


This map shows the net amount of life insurance company total assets redomesticated to a state from 1997 to 2014. The companies' total assets from the year prior to redomestication are used for summing up the total.

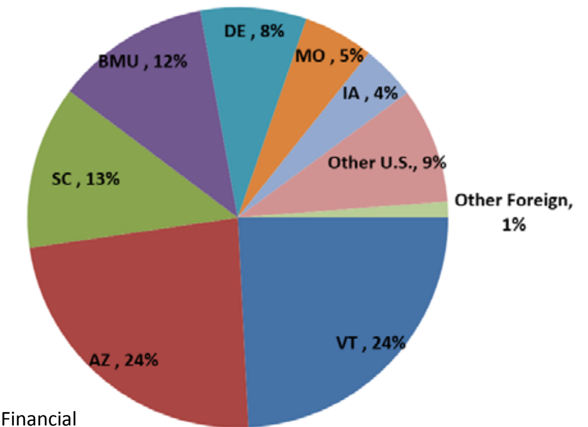
Source: SNL Financial

Red indicates net outflows from state, green indicates net inflows to state, and white indicates little or no change.

Net Redomestication ($ Billion)

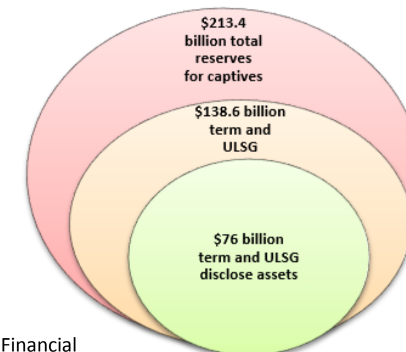


Captive Reserve Credit by Reinsurer Domiciliary State ($213.4 Billion)
A handful of states with limited regulatory resources and Bermuda dominate captive domiciles



Source: SNL Financial

Data Gap - Asset Disclosures
Only 35 percent of captives required to disclose assets



Source: SNL Financial

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Consolidated supervision

- Regulator of lead insurer deemed consolidated group supervisor under NAIC model law,
- But law passed in only 14 states,
- Powers of consolidated supervisor not well established,
- Limits to authority of state regulation,
- Supervision is mainly off-site with state regulators reviewing company reports and statutory and GAAP filings,
- Coordination of supervision with other states and international regulators is primarily through supervisory colleges that are convened annually for larger insurance groups
- Who has the consolidated view of risk?

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Challenges in the Regulatory Policy Framework

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Spin-offs and separations in the insurance sector

- Companies have become increasingly sophisticated in developing approaches to divest themselves of undesired risks through a variety of non insurance transactions

  - Conseco created Senior Health Insurance Company of Pennsylvania (SHIP) to assume its unwanted long-term care insurance policies.
  - General Electric disposed of most of its insurance operations through the creation of Genworth Financial.
  - Genworth is separating its insurance block from its more troubled long-term care insurance business.
  - MetLife is divesting businesses it deems less desirable in Brighthouse Financial.

- Risk could become concentrated through these activities thus careful regulatory consideration is needed.

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Challenges in the Regulatory Policy Framework

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Stress testing and short-term liquidity risk

- Own Risk and Solvency Assessment (ORSA)
  - Relatively new requirement by regulators globally
  - Insurers assess their own risks under normal and stressed conditions and their impact on solvency (at least annually in the U.S. for large and medium sized insurers)
  - Unlike bank stress testing, US regulators do not run stress scenarios but rely on companies to run stress scenarios and report results
  - In CCAR, banks apply both supervisory and own scenarios. ORSA does not establish any common stress scenarios. Companies determine the stresses.

- Short-term liquidity risk still not addressed
  - AIG the single largest recipient of government support during the crisis ($182 bn)
  - Eight years since the crisis - despite unprecedented government support for AIG, only have proposed rule-making for designated insurers' liquidity risks. No regulatory standards for short-term liquidity risks arising from derivatives, secured funding, termination events arising from ratings downgrades, etc.
  - No backstop exists for insurers that have short-term liquidity issues akin to Fed discount window for banks.

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Challenges in the Regulatory Policy Framework

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Resolution framework remains underdeveloped

- Resolution and Recovery Plans
  - AIG and Prudential filed initial resolution plans in July 2014
  - Joint feedback from FRB and FDIC in July 2015 identified common areas for improvement
    - More detail and analysis on obstacles to resolvability (global cooperation, interconnectedness, funding and liquidity)
    - Subsequent plans are required to describe progress and remaining steps toward becoming more resolvable
  - Second round of plans were submitted in December 2015
- Guarantee funds
  - The U.S. insurance guarantee fund system has not been tested by a major insurer failure. Its ability to handle multiple failures is also unclear. It is generally not prefunded.

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Conclusion and Discussion

Conclusion

- Crisis revealed risks in the life insurance sector (AIG, Lincoln, Hartford, Voya, Aegon).
- Persistent low long-term rates may be an emerging sectoral challenge.
- Life insurers are not banks but have some features – derivatives and secured funding use – that can raise financial stability concerns.
- Substantial work remains for policymakers in the U.S. life sector – supervising risk on an enterprise wide basis, addressing short-term liquidity risk, strengthening stress testing approaches, and improving the resolution framework.

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