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EUROPEAN INSURANCE  
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# Riding with Low Interest Environments

W. Jean Kwon, Ph.D., CPCU  
Edwin A.G. Manton Chair Professor in International Insurance and Risk Management  
Director, Center for the Study of Insurance Regulation  
The School of Risk Management, Insurance and Actuarial Science  
St. John's University, New York



**101 ASTOR PLACE**

**ST. JOHN'S  
UNIVERSITY**

## The Center for the Study of Insurance Regulation

School of Risk Management  
St. John's University, New York

## The Center for the Study of Insurance Regulation

The Center, established in 2013, creates a forum for candid discourse on the subject of insurance regulation among business leaders, lawmakers and other government officials, educators and others involved in developing and implementing public policy affecting the business of insurance in the U.S. and globally.

The Center provides a platform for members of these varied constituencies to discuss and learn about important and emerging issues and trends.

The Center is in partnership with renowned law firms specializing in insurance.

It organizes an annual insurance regulation conference in October and jointly organizes similar events with other centers.

**October 15 & 16, 2014**

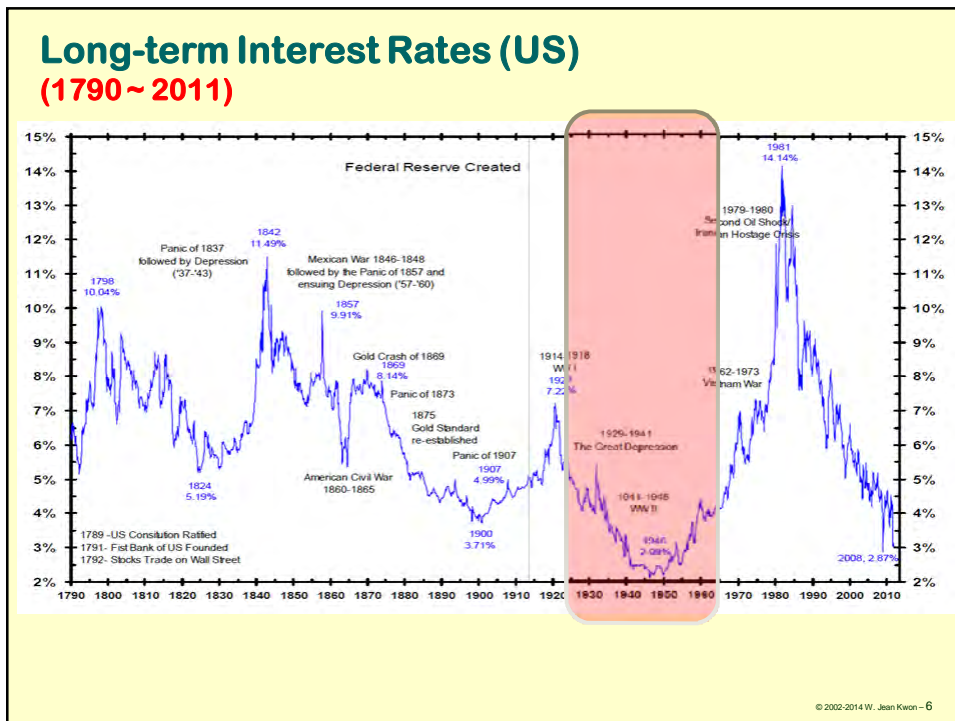
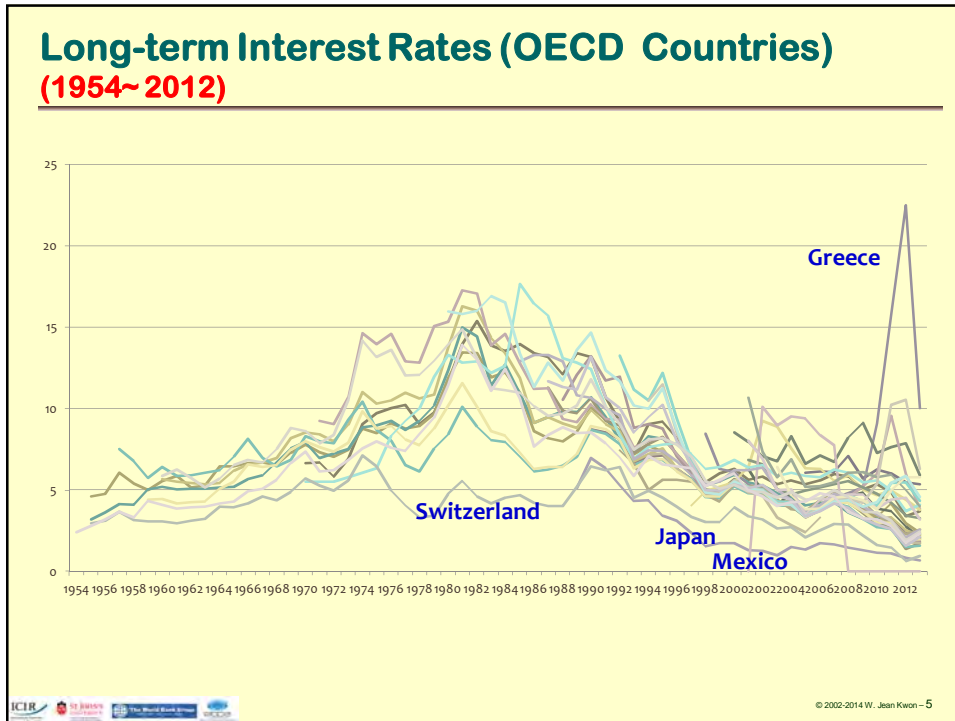



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**The low interest environment we are experiencing is not the first one.**

**Neither will it be the last!**





**Insurers adjust to the changes!**

### Asset Distribution (%) – Selected **US** Life Insurers 1930

Company	1930							
	Bonds	Stocks	Mortgage	Real Estate	Policy	Cash	TOTAL	
<a href="#">Aetna Life Insurance (Conn)</a>	41%	7%	19%	4%	12%	1%	<b>84%</b>	
<a href="#">Equitable Life Assurance Society (NY)</a>	32%	4%	40%	2%	17%	1%	<b>96%</b>	
<a href="#">John Hancock Mutual Life Insurance (MA)</a>	25%	4%	51%	4%	11%	1%	<b>96%</b>	
<a href="#">Massachusetts Mutual Life Insurance (MA)</a>	28%	-	47%	2%	17%	1%	<b>95%</b>	
<a href="#">Metropolitan Life Insurance (NY)</a>	39%	2%	44%	1%	10%	-	<b>96%</b>	
<a href="#">Mutual Benefit Life Insurance (NJ)</a>	30%	1%	41%	2%	22%	1%	<b>97%</b>	
<a href="#">Mutual Life Insurance of New York</a>	49%	2%	29%	1%	16%	-	<b>97%</b>	
<a href="#">New England Mutual Life Insurance (MA)</a>	46%	1%	27%	1%	20%	1%	<b>96%</b>	
<a href="#">New York Life Insurance</a>	40%	4%	32%	2%	18%	-	<b>96%</b>	
<a href="#">Northwestern Mutual Life Insurance (WI)</a>	32%	-	44%	1%	19%	-	<b>96%</b>	
<a href="#">Penn Mutual Life Insurance (PA)</a>	28%	2%	45%	1%	19%	1%	<b>96%</b>	
<a href="#">Prudential Life Insurance of America (NJ)</a>	40%	3%	45%	2%	7%	1%	<b>98%</b>	
<a href="#">Travelers Insurance (Conn)</a>	46%	4%	23%	3%	17%	1%	<b>94%</b>	
<b>AVERAGE</b>	<b>37%</b>	<b>3%</b>	<b>37%</b>	<b>2%</b>	<b>16%</b>	<b>1%</b>	<b>95%</b>	

## Asset Distribution (%) – Selected **US** Life Insurers 1940

Company	1940						TOTAL
	Bonds	Stocks	Mortgage	Real Estate	Policy	Cash	
<a href="#">Aetna Life Insurance (Conn)</a>	63%	5%	15%	5%	9%	3%	<b>100%</b>
<a href="#">Equitable Life Assurance Society (NY)</a>	63%	2%	14%	7%	8%	12%	<b>106%</b>
<a href="#">John Hancock Mutual Life Insurance (MA)</a>	66%	2%	17%	8%	8%	4%	<b>105%</b>
<a href="#">Massachusetts Mutual Life Insurance (MA)</a>	68%	1%	16%	9%	9%	3%	<b>106%</b>
<a href="#">Metropolitan Life Insurance (NY)</a>	64%	2%	19%	9%	9%	3%	<b>106%</b>
<a href="#">Mutual Benefit Life Insurance (NJ)</a>	68%	1%	17%	10%	11%	2%	<b>109%</b>
<a href="#">Mutual Life Insurance of New York</a>	74%	1%	17%	4%	9%	2%	<b>107%</b>
<a href="#">New England Mutual Life Insurance (MA)</a>	73%	3%	9%	8%	10%	4%	<b>107%</b>
<a href="#">New York Life Insurance</a>	71%	4%	17%	4%	11%	2%	<b>109%</b>
<a href="#">Northwestern Mutual Life Insurance (WI)</a>	66%	-	25%	4%	11%	1%	<b>107%</b>
<a href="#">Penn Mutual Life Insurance (PA)</a>	71%	1%	14%	8%	10%	3%	<b>107%</b>
<a href="#">Prudential Life Insurance of America (NJ)</a>	60%	2%	27%	5%	8%	2%	<b>104%</b>
<a href="#">Travelers Insurance (Conn)</a>	56%	2%	9%	5%	10%	3%	<b>85%</b>
<b>AVERAGE</b>	<b>66%</b>	<b>2%</b>	<b>17%</b>	<b>7%</b>	<b>9%</b>	<b>3%</b>	<b>104%</b>



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## Asset Distribution (%) – Selected **US** Life Insurers 1950

Company	1950						TOTAL
	Bonds	Stocks	Mortgage	Real Estate	Policy	Cash	
<a href="#">Aetna Life Insurance (Conn)</a>	65%	5%	19%	1%	3%	2%	<b>95%</b>
<a href="#">Equitable Life Assurance Society (NY)</a>	75%	2%	17%	3%	2%	1%	<b>100%</b>
<a href="#">John Hancock Mutual Life Insurance (MA)</a>	75%	5%	14%	2%	3%	1%	<b>100%</b>
<a href="#">Massachusetts Mutual Life Insurance (MA)</a>	69%	6%	19%	2%	3%	1%	<b>100%</b>
<a href="#">Metropolitan Life Insurance (NY)</a>	76%	2%	15%	3%	4%	2%	<b>102%</b>
<a href="#">Mutual Benefit Life Insurance (NJ)</a>	66%	2%	27%	2%	4%	2%	<b>103%</b>
<a href="#">Mutual Life Insurance of New York</a>	69%	3%	22%	3%	5%	-	<b>102%</b>
<a href="#">New England Mutual Life Insurance (MA)</a>	69%	6%	19%	3%	3%	1%	<b>101%</b>
<a href="#">New York Life Insurance</a>	70%	4%	20%	3%	4%	1%	<b>102%</b>
<a href="#">Northwestern Mutual Life Insurance (WI)</a>	75%	2%	18%	2%	4%	1%	<b>102%</b>
<a href="#">Penn Mutual Life Insurance (PA)</a>	77%	5%	14%	2%	4%	1%	<b>103%</b>
<a href="#">Prudential Life Insurance of America (NJ)</a>	<b>55%</b>	3%	<b>36%</b>	2%	4%	1%	<b>101%</b>
<a href="#">Travelers Insurance (Conn)</a>	68%	5%	19%	1%	4%	3%	<b>100%</b>
<b>AVERAGE</b>	<b>70%</b>	<b>4%</b>	<b>20%</b>	<b>2%</b>	<b>4%</b>	<b>1%</b>	<b>101%</b>

Interest rates were around 2%.



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## Asset Distribution (%) – Selected US Life Insurers 1960

Company	1960						TOTAL
	Bonds	Stocks	Mortgage	Real Estate	Policy	Cash	
<a href="#">Aetna Life Insurance (Conn)</a>	55%	7%	32%	1%	2%	1%	97%
<a href="#">Equitable Life Assurance Society (NY)</a>	53%	3%	36%	2%	3%	1%	97%
<a href="#">John Hancock Mutual Life Insurance (MA)</a>	60%	6%	26%	2%	3%	1%	97%
<a href="#">Massachusetts Mutual Life Insurance (MA)</a>	50%	8%	31%	3%	5%	1%	97%
<a href="#">Metropolitan Life Insurance (NY)</a>	60%	1%	28%	3%	4%	1%	97%
<a href="#">Mutual Benefit Life Insurance (NJ)</a>	42%	3%	41%	4%	7%	1%	98%
<a href="#">Mutual Life Insurance of New York</a>	49%	7%	31%	2%	6%	1%	96%
<a href="#">New England Mutual Life Insurance (MA)</a>	53%	10%	25%	4%	5%	1%	97%
<a href="#">New York Life Insurance</a>	51%	8%	28%	5%	6%	1%	97%
<a href="#">Northwestern Mutual Life Insurance (WI)</a>	52%	2%	35%	3%	5%	1%	98%
<a href="#">Penn Mutual Life Insurance (PA)</a>	55%	4%	26%	5%	6%	1%	97%
<a href="#">Prudential Life Insurance of America (NJ)</a>	43%	3%	43%	3%	3%	1%	96%
<a href="#">Travelers Insurance (Conn)</a>	54%	6%	30%	1%	3%	3%	96%
<b>AVERAGE</b>	<b>52%</b>	<b>5%</b>	<b>31%</b>	<b>3%</b>	<b>4%</b>	<b>1%</b>	<b>97%</b>



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## Asset Distribution (%) – All US Life Insurers 2005~2013

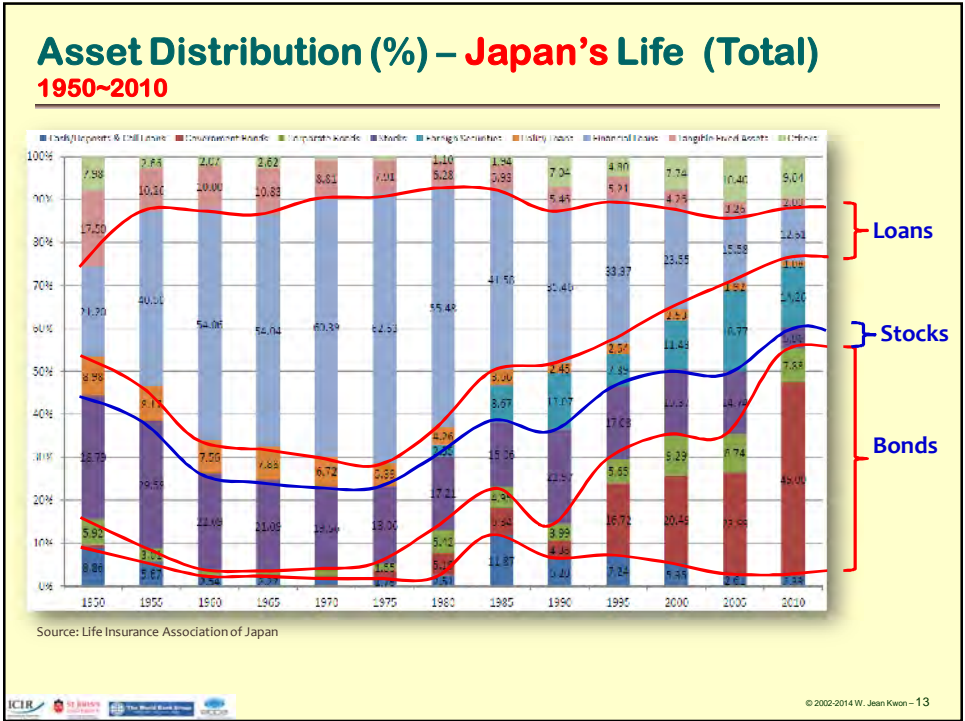
Close to the 1950s for bonds and stocks.

Type	2005	2008	2009	2010	2011	2012	2013
Bonds	76.61	71.25	74.62	75.93	75.35	74.64	74.70
Stocks	3.52	3.72	2.37	2.41	2.33	2.29	2.31
Mortgage Loans on Real Estate	9.87	10.86	10.28	9.61	9.61	9.85	10.14
Real Estate	0.63	0.66	0.63	0.62	0.61	0.63	0.64
Cash & Equivalent	2.21	4.86	4.00	2.98	2.87	3.13	2.72
<b>Total</b>	<b>92.84</b>	<b>91.35</b>	<b>91.90</b>	<b>91.55</b>	<b>90.77</b>	<b>90.54</b>	<b>90.51</b>

Source: Insurance Information Institute



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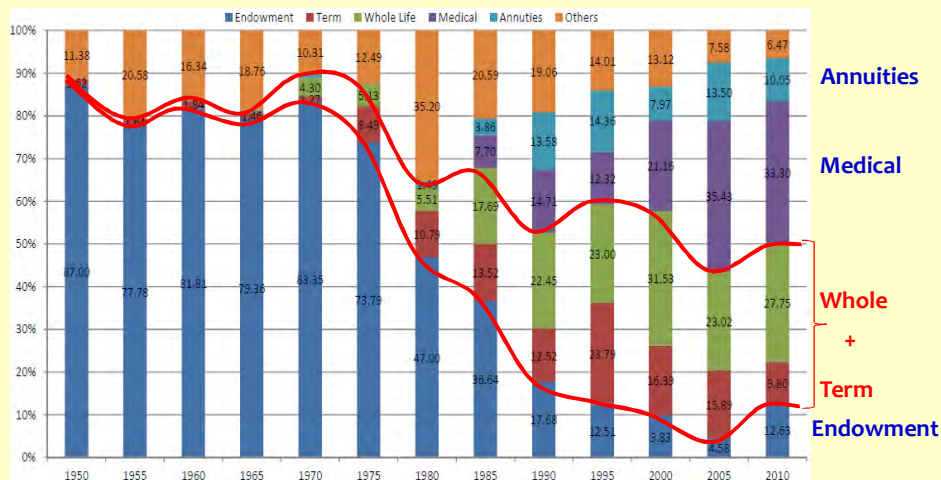


**Interest rates affect the markets**  
– insurers and insureds alike!

## Interest Rates Affect... Firm Value and Capital

- Premium rates
- Demand for insurance – consumer behaviors
- Insurer’s balance sheet, due in part to differences in valuation of assets and liabilities under GAAP vs. SAP
- Investment return
- **Impairment and insolvency** as well?

## Product Distribution (%) – Japan’s Life (Total) 1950~2010



Source: Life Insurance Association of Japan



## Interest Rates Affect... Firm Value and Capital

- Premium rates
- Demand for insurance – consumer behaviors
- Insurer's balance sheet, due in part to differences in valuation of assets and liabilities under GAAP vs. SAP
- Investment return
- **Impairment and insolvency** as well?

## One Observation

- Protracted low interest rates...have a significant adverse effect on life insurance companies and whole liabilities consisting of a fixed investment return or benefit promises.... [The] financial institutions affected [might] engage in “**gambling for redemption**”...to match the level of return promised to beneficiaries when financial markets were more elevated.

[Antolin et al., *OECD Journal* (2011)]

- Interest rate spread risk likely greater when the rates rise or fall rapidly, thus needing more attention from regulators.

## Insurer Impairments – US (Total)

1978~2012

Year	No. of Impairments*	% of Total Impairments	Year	No. of Impairments*	% of Total Impairments
1978	8	8/730*100 = 1.1%	2001	41	5.6
1979	6	0.8	2002	41	5.6
1980	5	0.7	2003	34	4.7
1981	10	1.4	2004	13	1.8
1982	7	1.0	2005	7	1.0
1983	16	2.2	2006	12	1.6
1984	22	3.0	2007	4	0.5
1985	32	4.4	2008	9	1.2
1986	25	3.4	2009	13	1.8
1987	25	3.4	2010	8	1.1
1988	24	3.3	2011	8	1.1
1989	40	5.5	2012	3	0.4
1990	37	5.1			
1991	55	7.5		<b>730</b>	<b>100.0%</b>
1992	33	4.5			
1993	29	4.0			
1994	24	3.3			
1995	10	1.4			
1996	19	2.6			
1997	31	4.2			
1998	17	2.3			
1999	27	3.7			
2000	35	4.8			

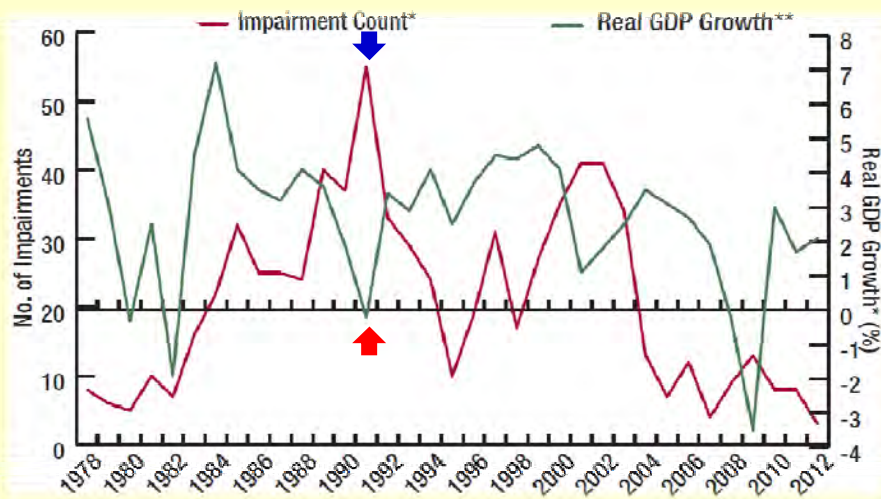
Source: A.M. Best (2013)



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## Impairments vs. Real GDP Growth – US (Total)

1978~2012



Source: A.M. Best (2013)

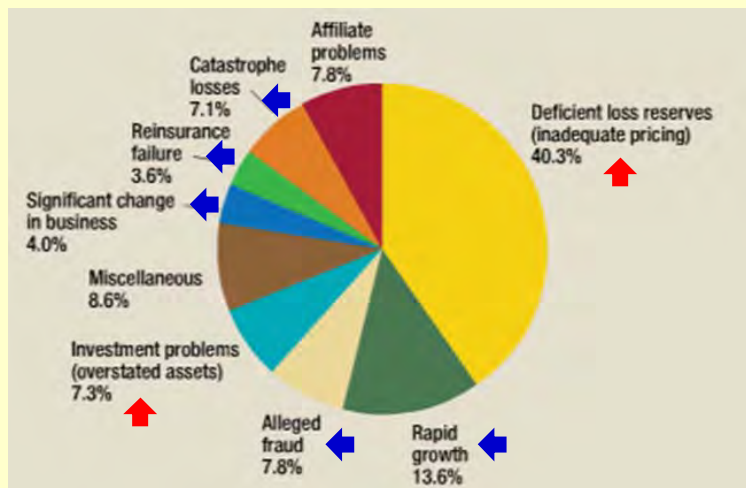


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## Insurer Impairments – Japan

- Prolonged low interest environment since the 1990s
  - Consumption of new business as well as business-in-force declined
  - Financial conditions deteriorated due to falling stock prices
  - Lower investment yields caused large negative spread
- Bankruptcy of 7 mid-sized life insurers (1997~2001)
  - Additionally, Yamato in 2008

## Causes of Insurer Impairments – US 1969~2010



Source: A.M. Best (2013)

## Causes of High-profile Insurer Failures

The Geneva Association (2012)

- Financial guarantees to speculative equity transactions
  - Quinn (Nonlife, 2010, Ireland)
- Investment guarantees on short-term products
  - Various Korean life insurers (1998~2001)
  - Various Japanese life insurers (1997~2001)
  - Various US life insurers (1991)
- Aggressive expansion
  - HIH (Nonlife, 2001, Australia)
- Non-insurance activities
  - AIG (Financial products, 2008, US)



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Strategic approaches?

## Strength in Key Functions

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- Product design & pricing
- Marketing and distribution
- Underwriting
- Claims management
- Human capital & information/data management

**Consumer Education  
&  
Enterprise Risk Management**



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**Area of Research**

## Insurance Database Globally

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- **OECD *Global Insurance Statistics* – Expansion**
  - Regional meetings in Asia and Central & Latin America (2010 ~ 2013), resulting in adding:
    - Hong Kong, Indonesia, Malaysia, Singapore
    - South Africa
    - Brazil, Columbia, Costa Rica, Cuba, El Salvador, Guatemala, Nicaragua, Panama, Peru, Uruguay
  
- **Analytical tools government and intergovernmental agencies use to measure performance of**
  - Insurance markets as compared to other financial services markets
  - Insurance companies as compared to other financial institutions

## Insurer Resolutions

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- **Comparative analysis of insurance acts and regulations governing market exits in**
  - Life insurance
  - Nonlife insurance
  
- **Examination of formal and informal resolution processes focusing on**
  - Insurance activities
  - Non-traditional, Non-insurance (NTNI) activities, especially involving (international) insurance groups

