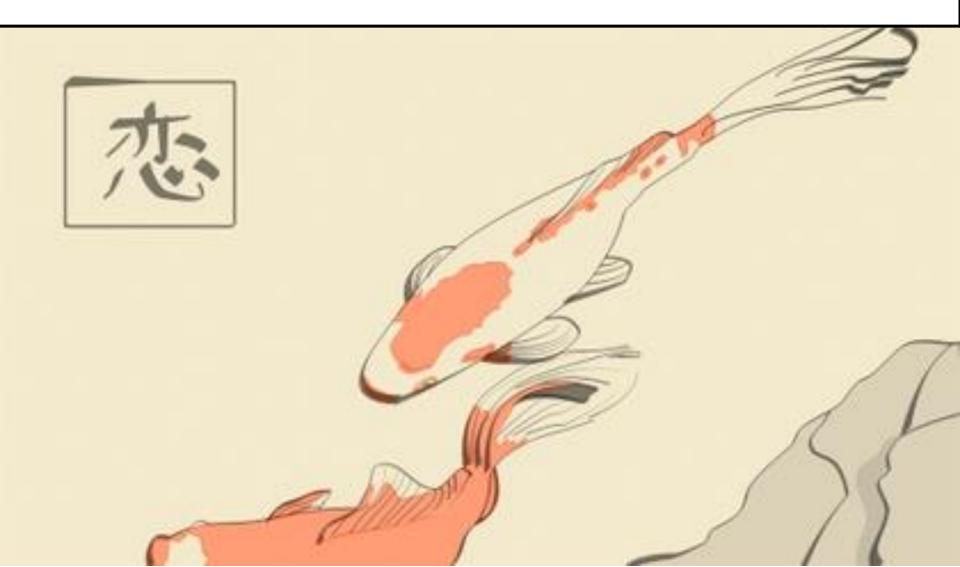
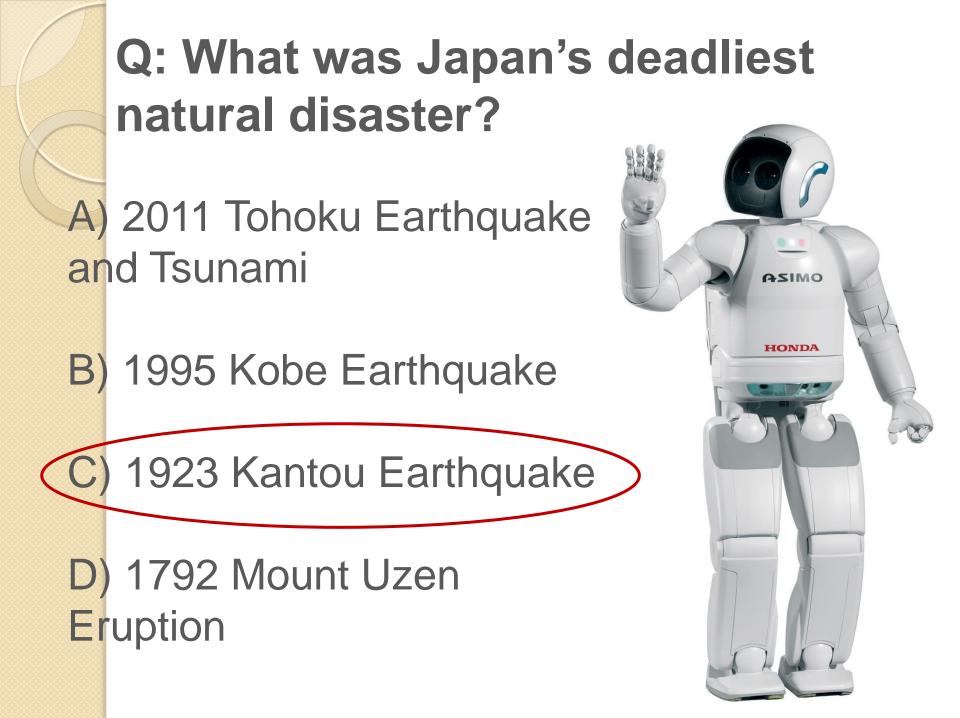
The Japanese Insurance Industry

(and other musings)

Warren Rodericks Pacific Rim Actuaries Club of Toronto February 27, 2014.

Natural Disasters







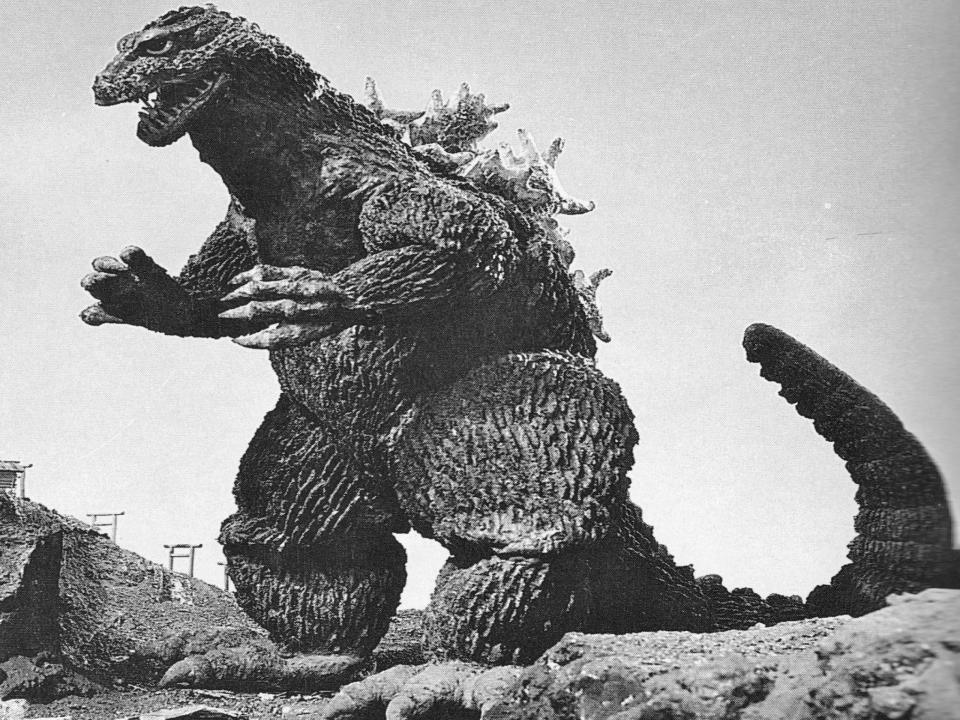






Many disasters to choose from!

- Volcanoes
- Typhoons
- Earthquakes
- Tsunamis
- Pandemic



Uncertainty Avoidance



Cultural Dimensions Theory

- Gerard Hendrik Hofstede's four cultural dimensions framework
- Formulated in 1980 while working for IBM
- Describes "Uncertainty Avoidance" as the extent to which members of a society attempt to cope with anxiety by minimizing uncertainty.

Q: Which country has the highest Uncertainty Avoidance score?

B) Japan

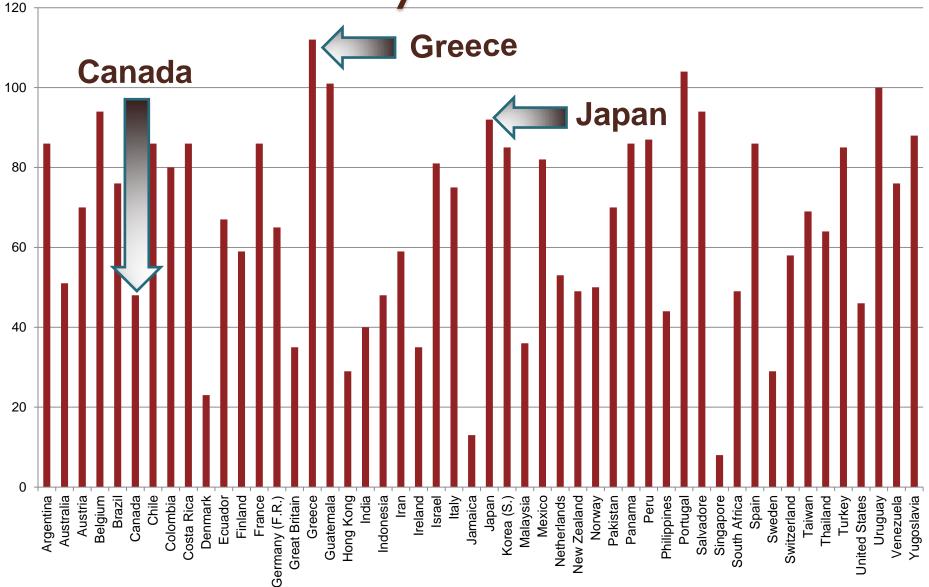
C) Argentina

Greece

D) Germany



Uncertainty Avoidance Rank

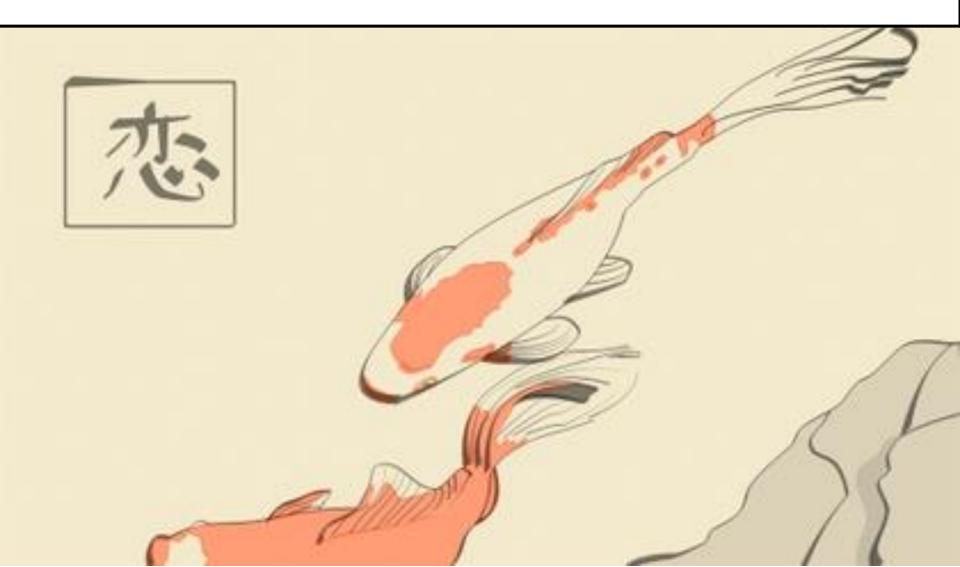




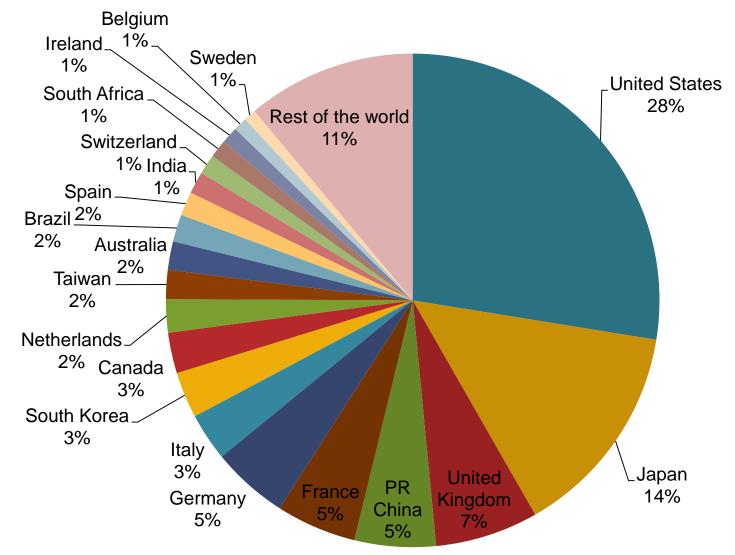
Uncertainty Avoidance

- Earthquake early warning system
- Highly efficient transit
- Household savings held in cash
- Bunting in baseball
- Well-developed insurance market

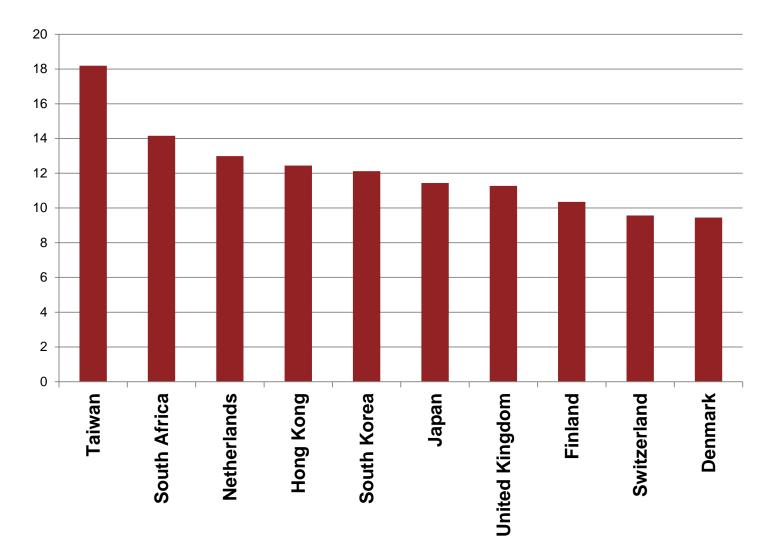
Japanese Insurance Market



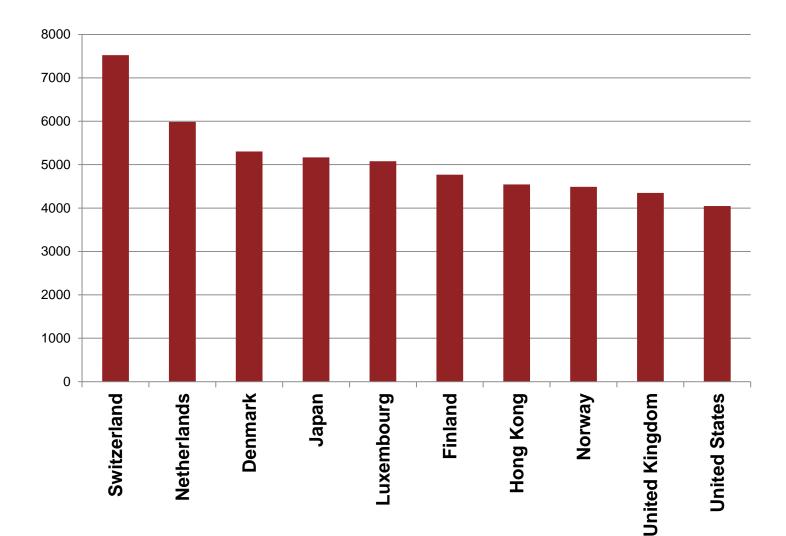
2012 Premium Volume

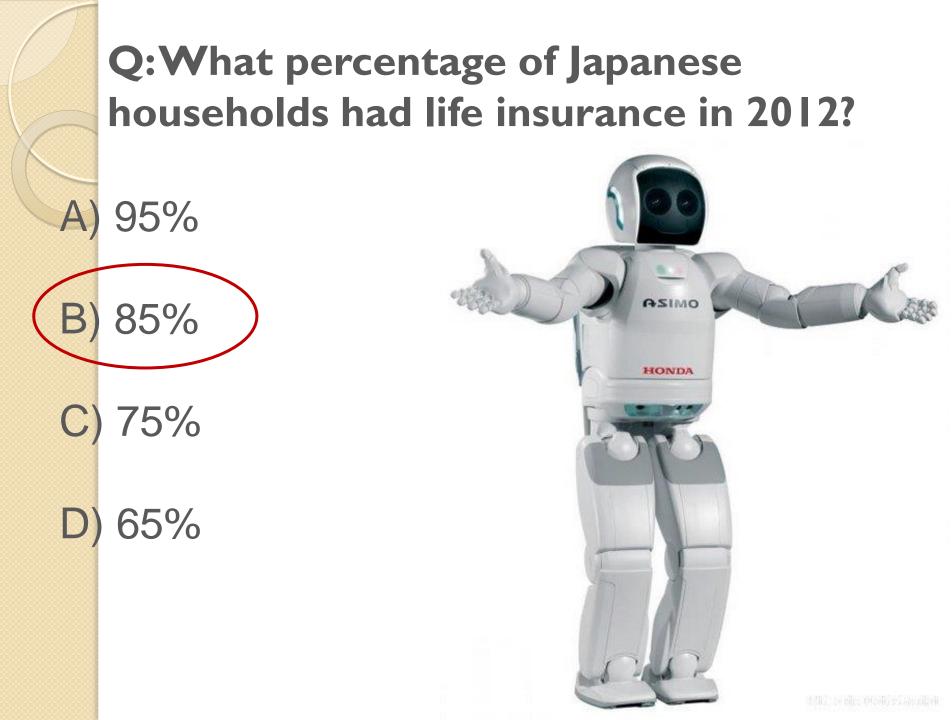


2012 Insurance Penetration (%)

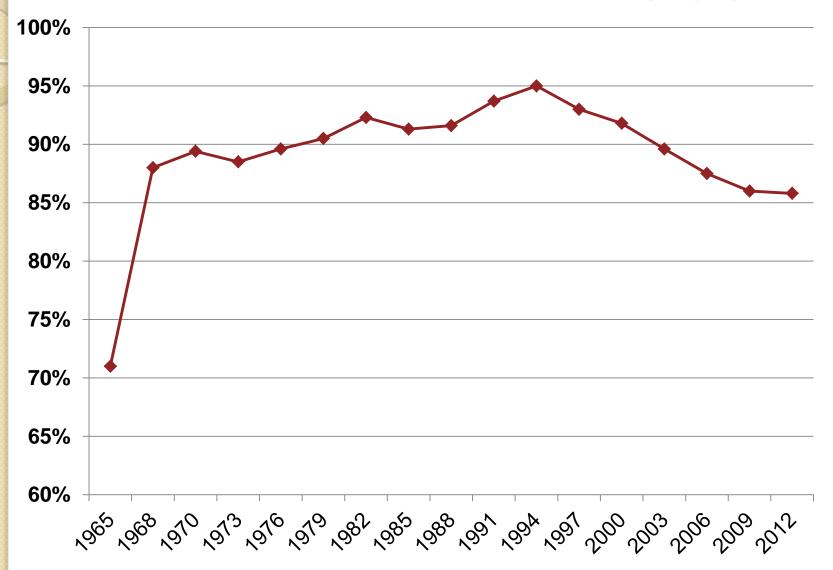


2012 Insurance Density (USD)



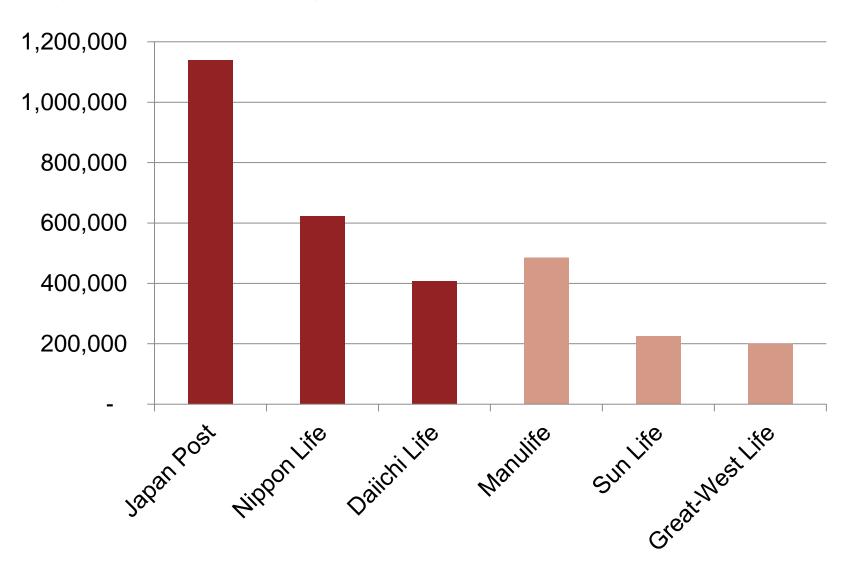


2012 Life Insurance Ownership (%)

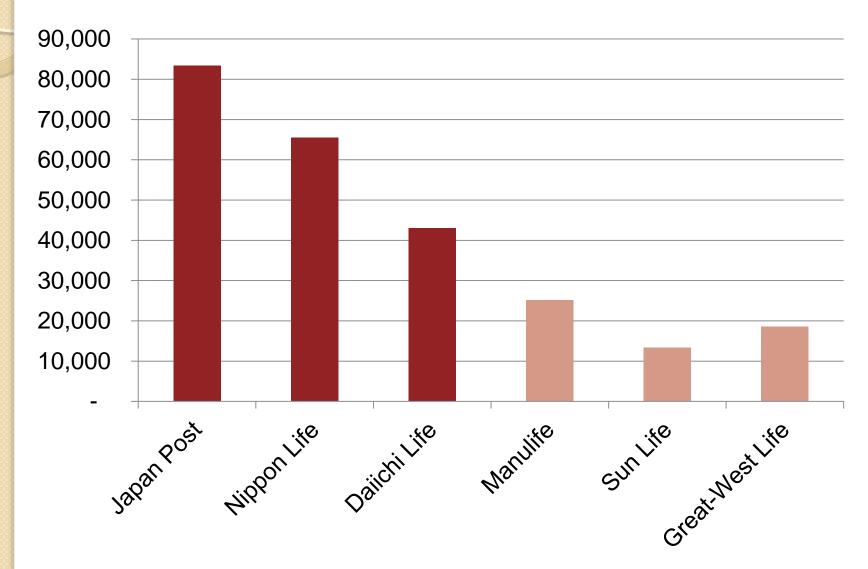


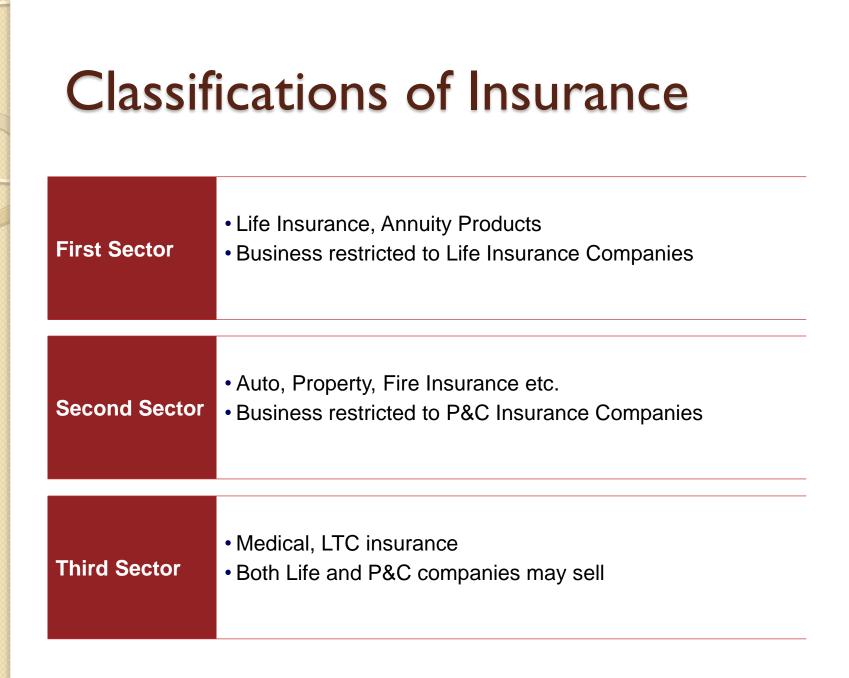
Source: 2013 LIAJ Report on Life Insurance Business in Japan

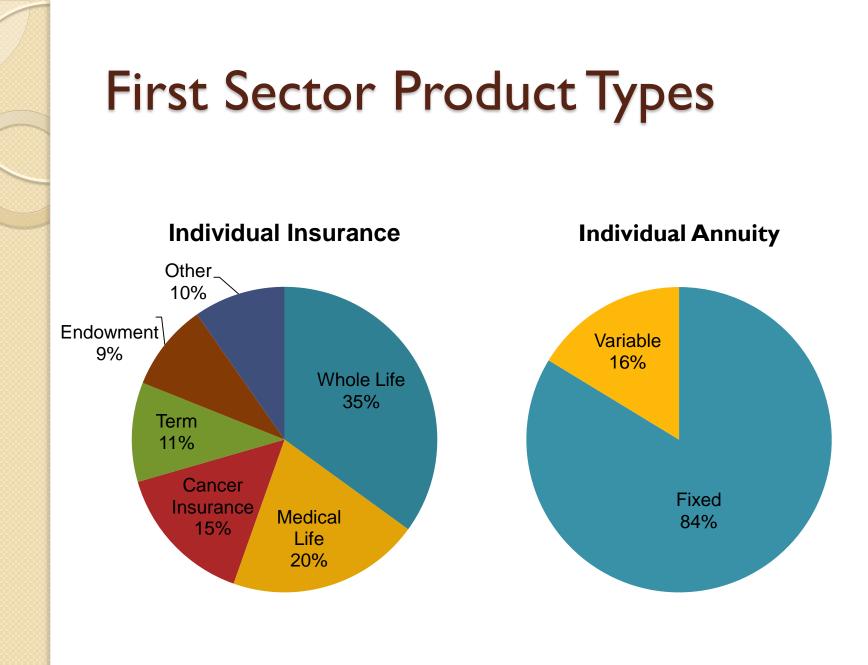
2012 Insurance Company Assets (Millions USD)



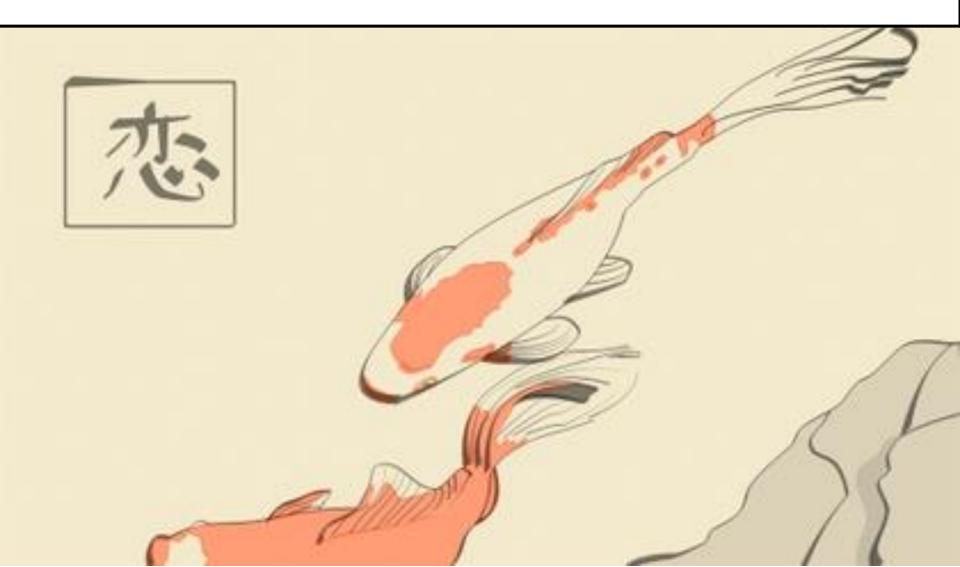
2012 Insurance Company Premiums (Millions USD)

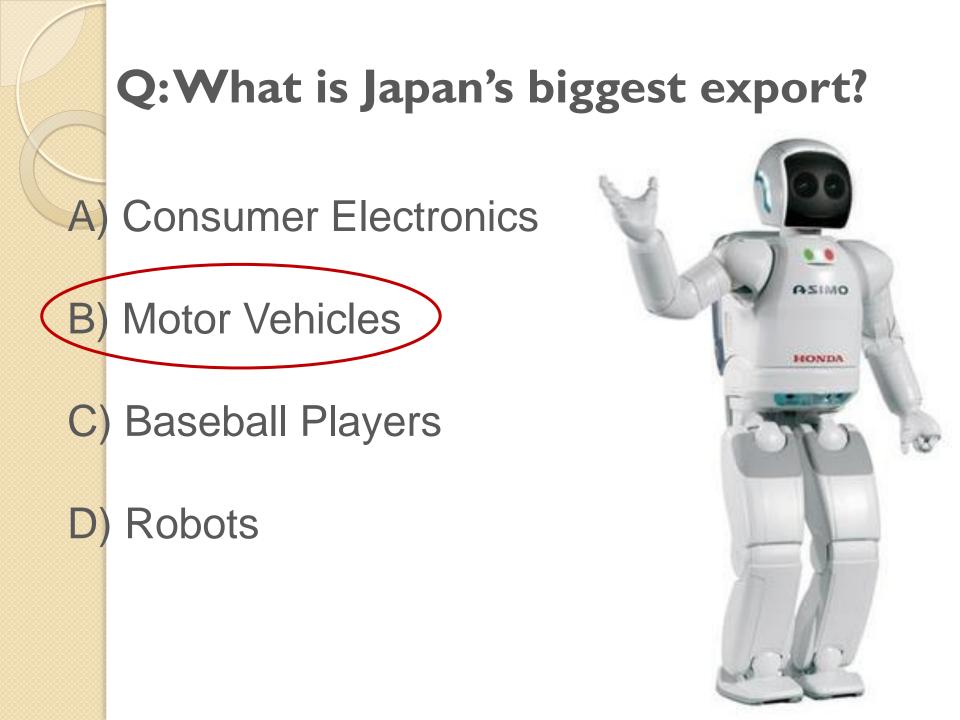






Japanese Economy





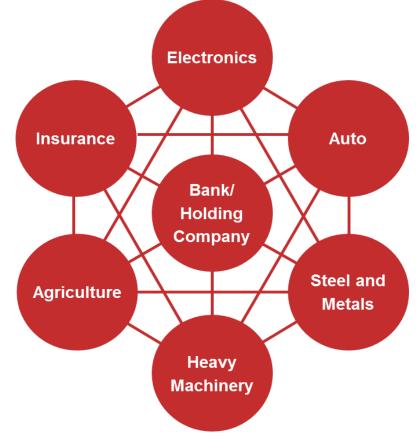
Postwar Period (1950's - 1970's)

- Heavy Industrialization
- Infrastructure Growth
- Liberalization of Trade
- Transition to Export Economy
- Democratization
- Emergence of the Keiretsu



Keiretsu

- Group of companies with interlocking dependent business relationships and ownership
- A bank is central to the structure



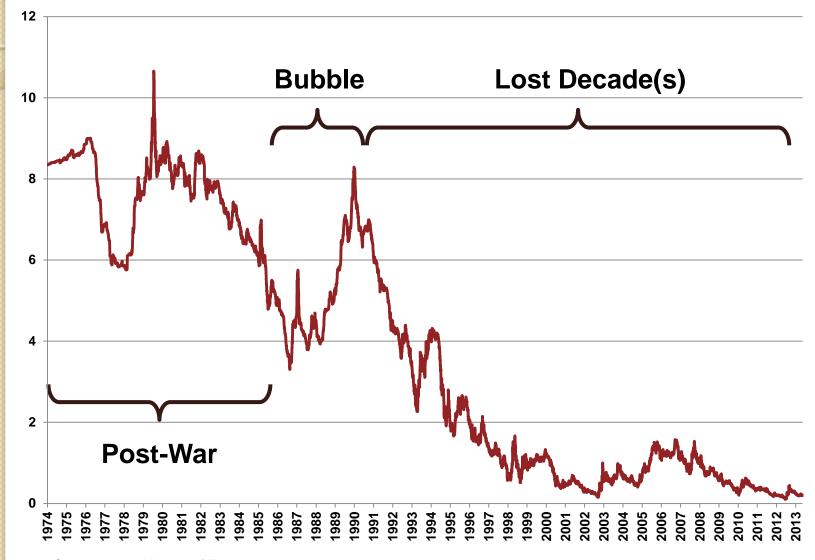
Bubble Economy (1980's)

- Asset prices skyrocketed
- Increased money supply
- Borrowing and speculation
- Delayed reaction by BOJ

Lost Decade(s) (1990's onwards)

- Gradual collapse of asset price bubbles and negative growth
- Bank and insurance failures
- Revision of finance law
- Growing Government debt
- Sustained decline in interest rates

JGB 5yr Historical Rates (%)



Source: Japan Ministry of Finance

Low Interest Rate Environment

- Two decades of declining interest rates
- Poor equity returns during the same period
- Life market dominated by long-term products with high guaranteed returns
- Under-developed ALM (asset duration too short)
- Led to the "negative spread" problem and structural changes in the industry

1996 Standard Valuation Law

- New reserve regime required NLP reserves
- Discount rates based on 10yr JGB rates
- Guaranteed rates peaked around 6% while discount rates now 2.75% caused increased reserves
- Resulted in guaranteed rates coming down to currently less than 2%
- Introduction of cash flow testing



Improved ALM

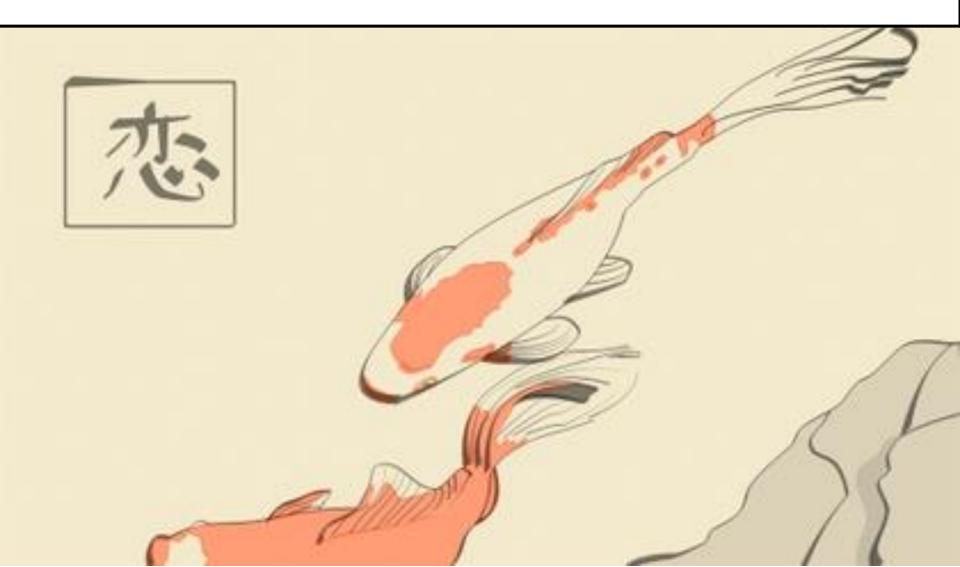
- Increase in asset duration
- Increase in domestic fixed income, especially JGBs
- Improved internal modeling/stress testing

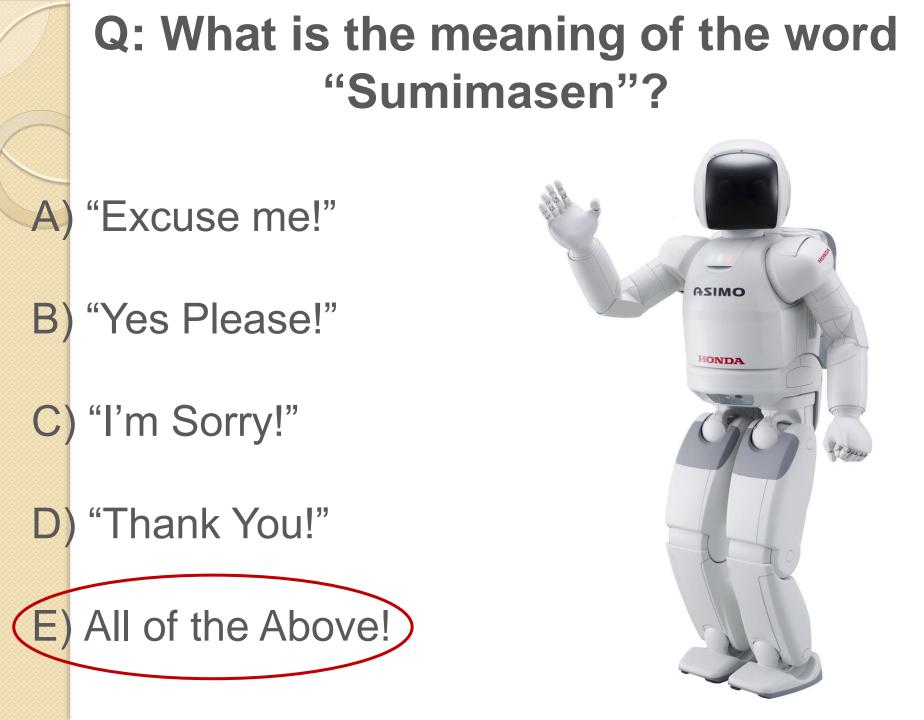


Market Trends

- Move to shorter term products
- Focus on mortality and morbidity margins, especially 3rd sector
- Growth in variable annuities
- Foreign return-linked products
- Expansion outside of Japan

Working in Japan





Unique Work Culture

- Communication barriers (High/Low context)
- Decision by Consensus
- Harmony (Never say "no")
- Relationship building
- Group dynamic

