Panel session 2

Low for Long: Living Longer – Societal Ramifications of Low Interest Rates

PANEL Session 2 – Low for Long: Living Longer- Societal Ramifications of Low Interest Rates

Panel Chair

John R. Strangfeld
Chairman and Chief Executive Officer
Prudential Financial

Richard Jackson
President
Global Aging Institute (GAI)

Yoshinobu Tsutsui
President
Nippon Life Insurance Company

Donald A. Guloien
Chief Executive Officer
Manulife Financial Corporation

Susan U S

35%

Jacques France

55%

Yuki Japan

45%

PANEL Session 2 – Low for Long: Living Longer- Societal Ramifications of Low Interest Rates

Panel Chair

John R. Strangfeld
Chairman and Chief Executive Officer
Prudential Financial

Richard Jackson
President
Global Aging Institute (GAI)

Yoshinobu Tsutsui
President
Nippon Life Insurance Company

Donald A. Guloien
Chief Executive Officer
Manulife Financial Corporation

Global Aging and Retirement Security in an Era of Low Interest Rates

Richard Jackson
President
Global Aging Institute

44th General Assembly of the Geneva Association

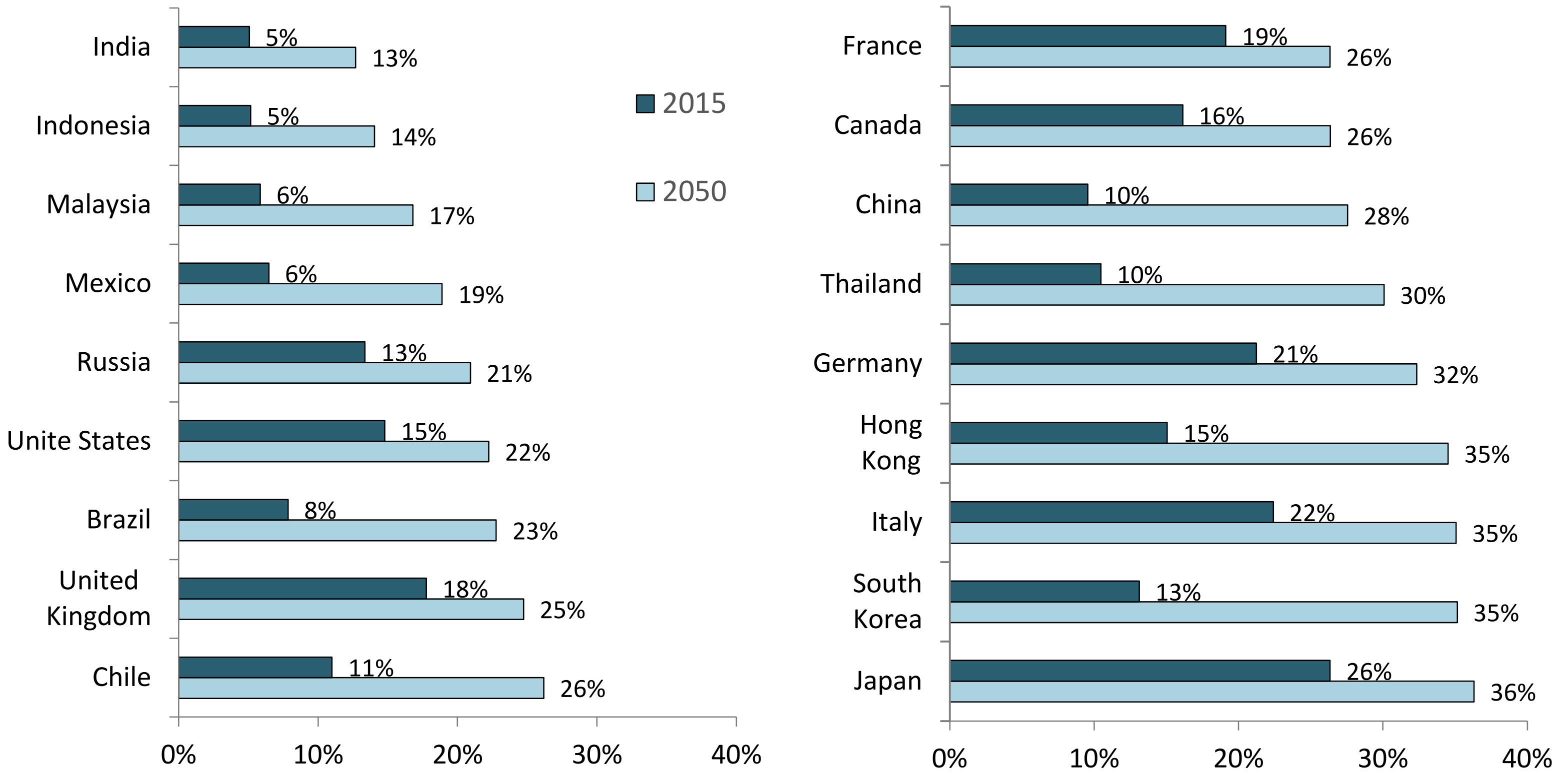
San Francisco

June 15, 2017

The Coming Crisis in Retirement Security

The world stands on the threshold of a stunning demographic transformation.

Elderly (Aged 65 & Over), as a Percent of the Population in 2015 and 2050



Source: *World Population Prospects: The 2015 Revision* (New York: UN Population Division, 2015)

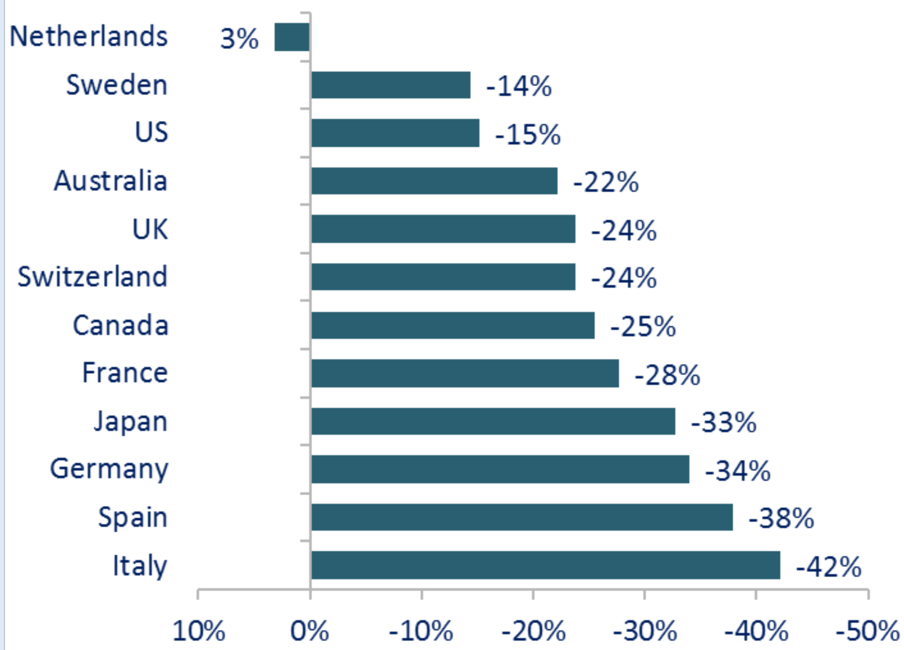
Global Aging Institute

Many developed countries have enacted deep cuts in the future generosity of state retirement provision.

- Several developed countries, including Germany, Italy, Japan, and Sweden, have indexed their state pension systems to offset the impact of population aging.

- Many other developed countries have raised retirement ages and trimmed benefit formulas.

Cumulative Percentage Decline in Current-Law Government Pension Benefits Relative to "Current-Deal" Benefits, from 2010 to 2040*



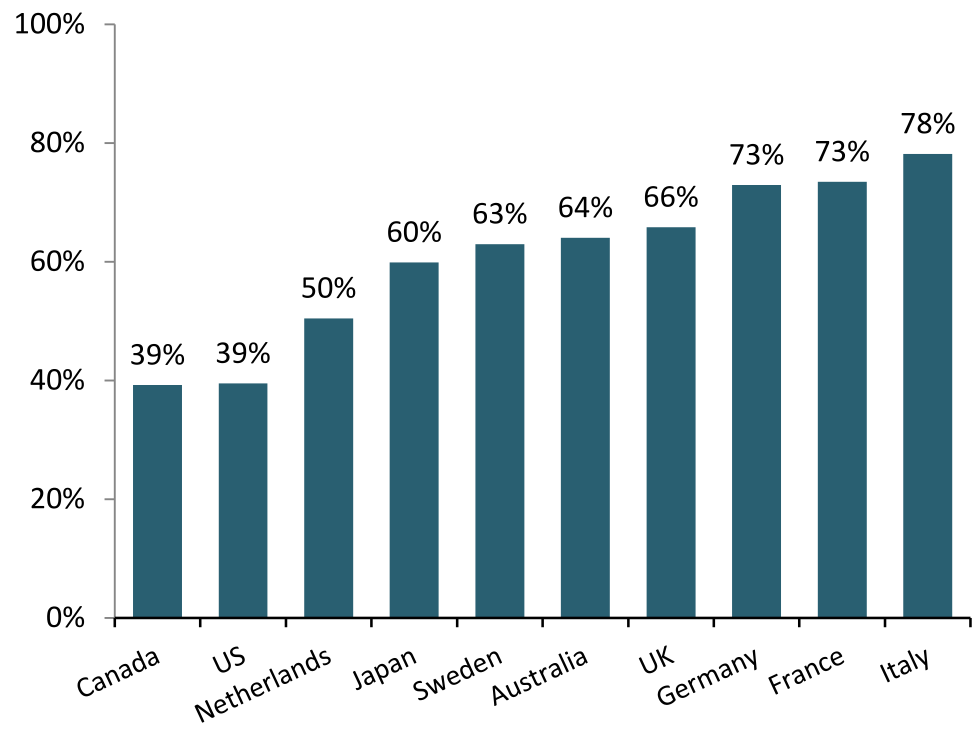
*The "current-deal" projection assumes that retirement ages and replacement rates remain unchanged in the future.

Source: GAP Index, 2nd Edition (CSIS, 2013)

GAI Global Aging Institute

The elderly in most developed countries are highly dependent on government benefits.

- The high level of dependence of the elderly on government benefits leaves them vulnerable to reductions in the generosity of state retirement provision.
- The relative living standard of the elderly is on track to suffer a sharp decline in many developed countries over the next few decades.
- Unless countries fill in the gap left by cuts in state retirement benefits with alternative sources of income support, there is likely to be push back from aging electorates.



*Income refers to the third quintile of the elderly income distribution.

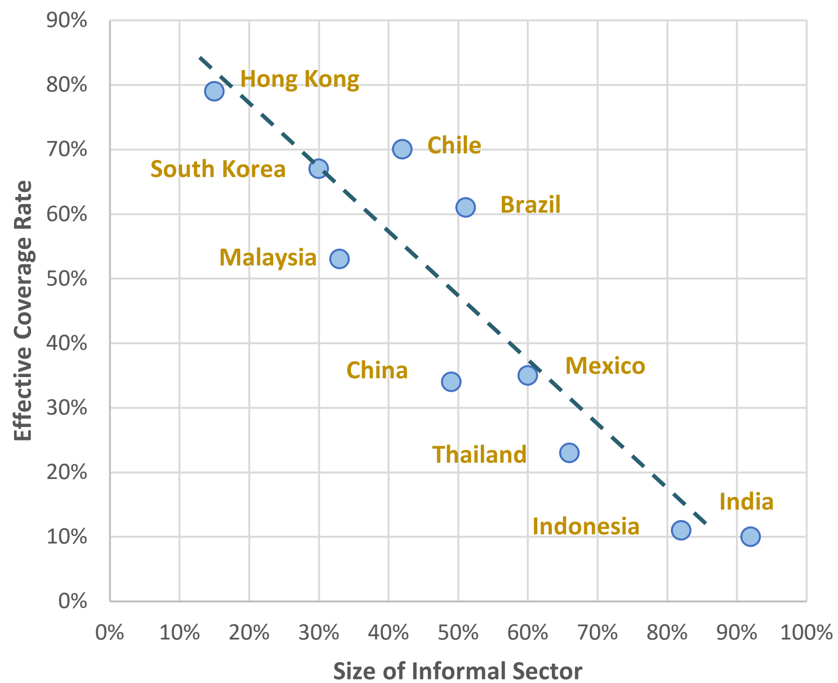
Source: GAP Index, 2nd Edition (CSIS, 2013)

GAI Global Aging Institute

Many emerging markets are aging before they have put in place the protections of a modern welfare state.

- In countries with large informal sectors, many workers fail to contribute to state pension systems, and even when they do contribute they do so irregularly, which means that the ultimate benefits they receive will still be inadequate.

Effective State Pension Coverage Rate and Size of the Informal Sector* in the Most Recent Available Year



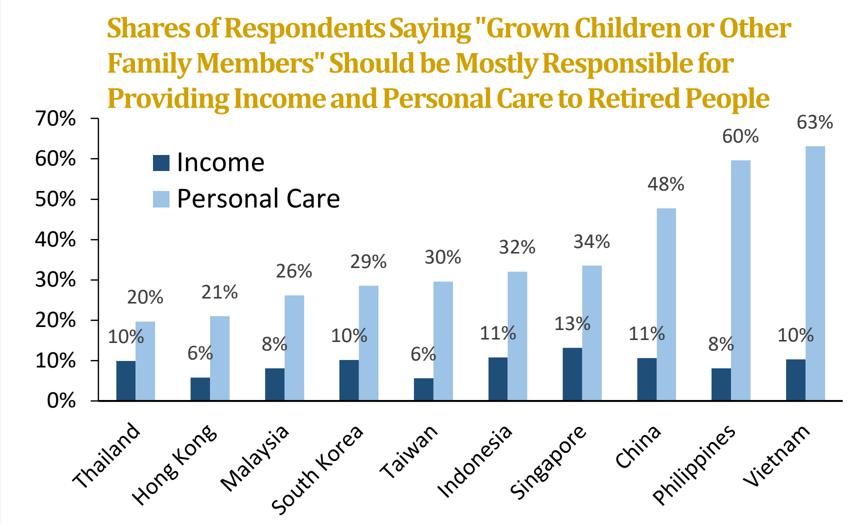
*The informal sector is defined as informal employment in the non-agricultural sector plus agricultural employment as a share of total employment.

Source: *Voluntary Pensions in Emerging Markets* (Alexandria, VA: GAI, forthcoming)

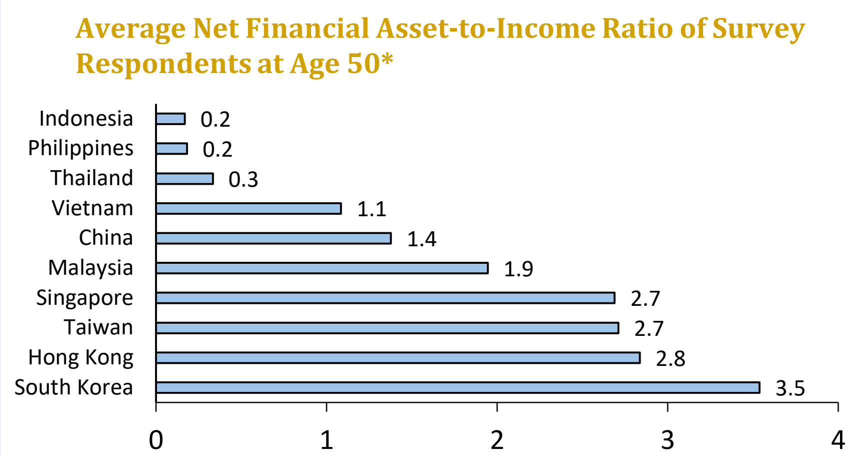
Global Aging Institute

Alternative income sources will not be sufficient to make up for inadequate state pension benefits.

- Traditional family support networks are already under stress from the forces of modernization and will soon come under intense new demographic pressure as societies age and family size declines.
- Voluntary pension systems in emerging markets cover only a tiny and privileged minority of the total workforce.
- Even in high-saving East Asia, very few workers are accumulating significant financial assets on their own.



Source: East Asia Retirement Survey: Wave 2 (Alexandria, VA: GAI, 2015)



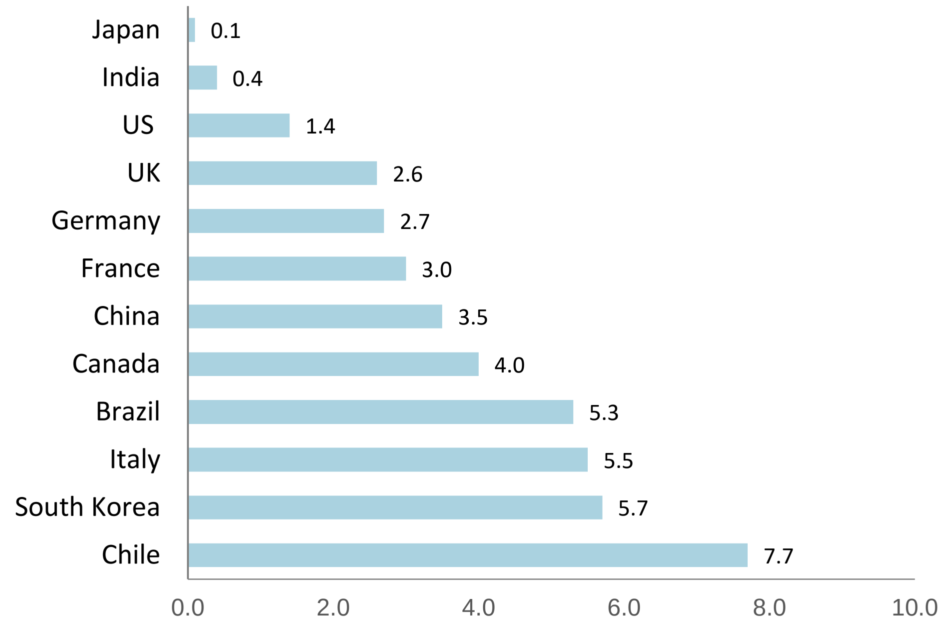
* Includes all classes of household financial assets; ratios are averages for respondents aged 45-54.
Source: East Asia Retirement Survey: Wave 2

GAI Global Aging Institute

Rising life expectancy puts retirees at a growing risk of outliving whatever personal savings they have.

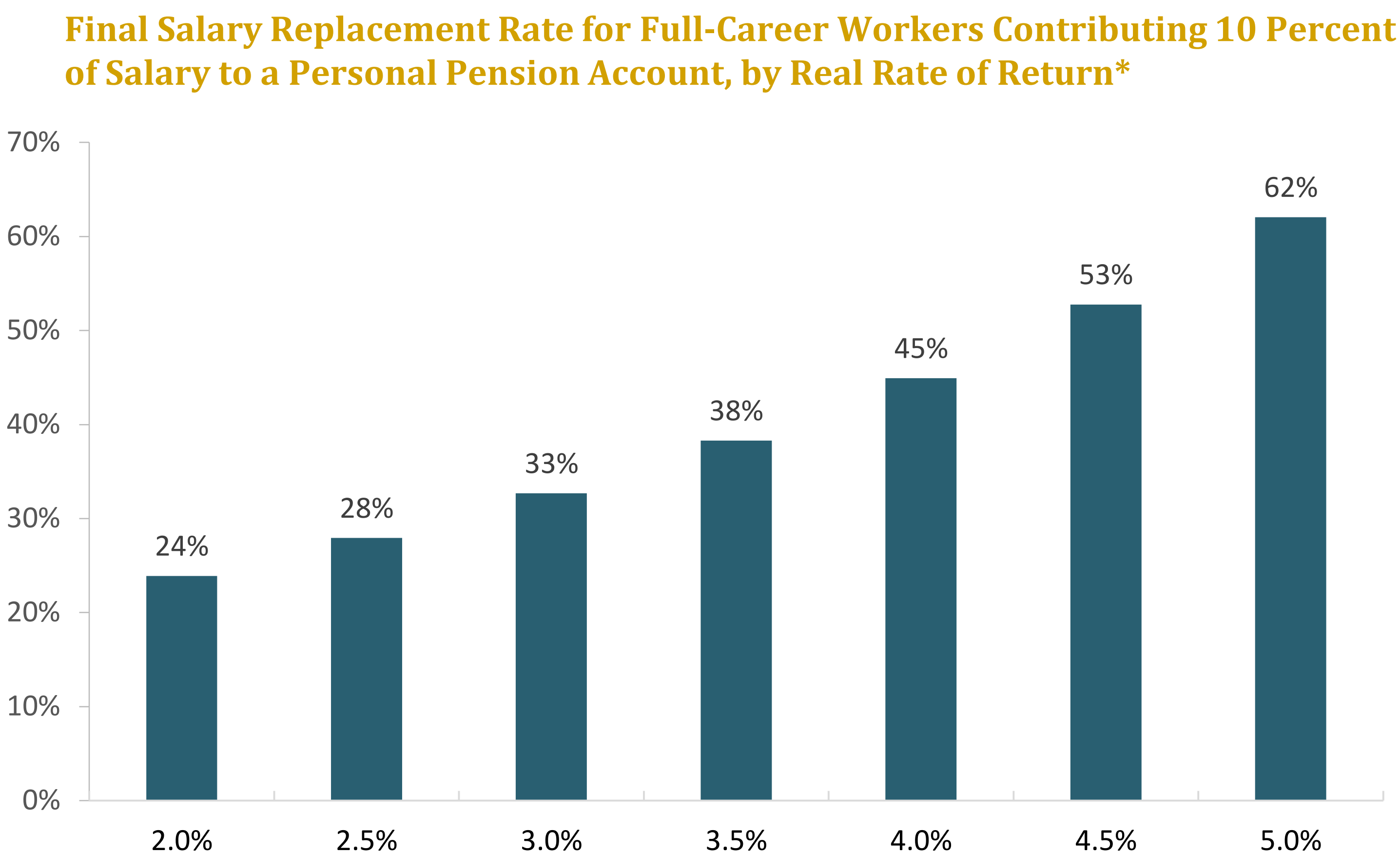
- The history of life expectancy projections is largely a history of embarrassing underestimates.
- While life insurance companies are expert at mitigating individual longevity risk, it is much more difficult to hedge against systemic longevity risk.

Change in Projected Life Expectancy at Birth for the Year 2050: UN 2015 Revision versus UN 2000 Revision



Source: *World Population Prospects: The 2015 Revision* and *World Population Prospects: The 2000 Revision* (New York: UN Population Division, 2000)

Low rates of return to capital further complicate the challenge of preparing for retirement.



*The projections assume real wage growth of 1.5 percent, a 40-year career, retirement at age 65, a ilfe expectancy of 22 years at age 65, and administrative fees equal to 0.5 percent of AUM.

Source: GAI calculations

GAI Global Aging Institute

Perspectives on Reform

- There are only two ways for aging societies to maintain (or improve) the living standard of the old without putting an unsustainable tax or family burden on the young.

- The first way is to work longer. Later retirement ages not only reduce the cost of retirement without undermining adequacy, they are also good for the economy and, according to most gerontologists, good for the elderly themselves.

- The second way is to save more for retirement during the working years.

- While the rate of return to funded retirement systems will fall as societies age and economic growth slows, the rate of return to PAYGO systems will fall even further. Despite the low interest rate environment, funded retirement systems will enjoy a widening cost advantage.

- Although low rates of return make it more difficult to achieve a targeted final salary replacement rate, low real wage growth pushes the other way and makes it easier.

- In addition to encouraging longer work lives and greater retirement savings, policymakers need to recognize that global aging is a global problem requiring global solutions.

- Open global labor markets can match savers in older and more slowly growing economies with investment opportunities in younger and faster-growing ones, while open global labor markets can match workers with job opportunities.

- The danger is that aging societies with slow-growth economies and stagnant domestic markets may be tempted to roll back globalization.

GLOBAL AGING INSTITUTE

www. GlobalAgingInstitute.org

GAI Global Aging Institute

PANEL Session 2 – Low for Long: Living Longer- Societal Ramifications of Low Interest Rates

Panel Chair

John R. Strangfeld
Chairman and Chief Executive Officer
Prudential Financial

Richard Jackson
President
Global Aging Institute (GAI)

Yoshinobu Tsutsui
President
Nippon Life Insurance Company

Donald A. Guloien
Chief Executive Officer
Manulife Financial Corporation

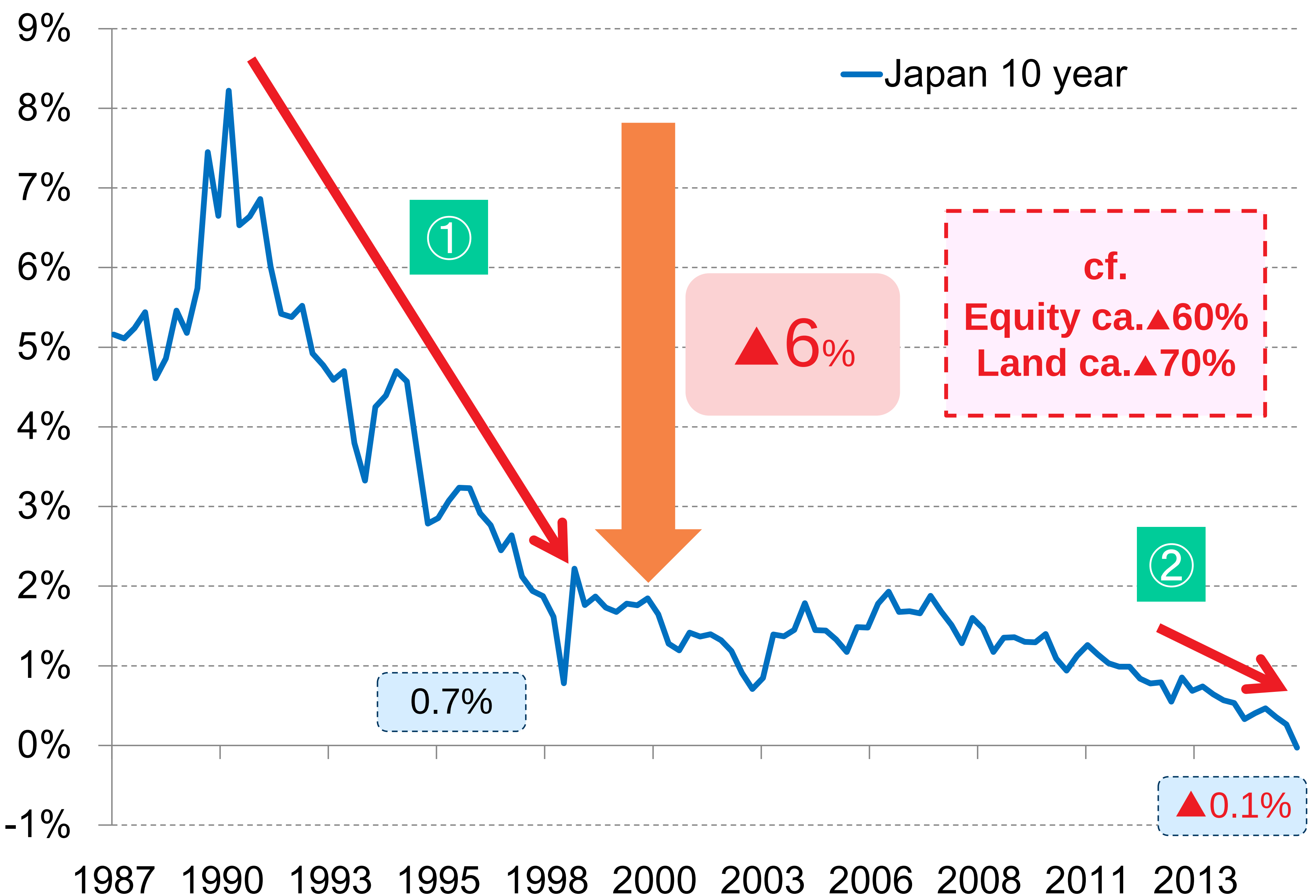
"Low For Long::Living Longer"

1. Historical Look at Ultra-low Rates in Japan
2. Future View of Potential Impact on Japanese Insurance Consumers of Negative/Low Rates and Demographic Challenges

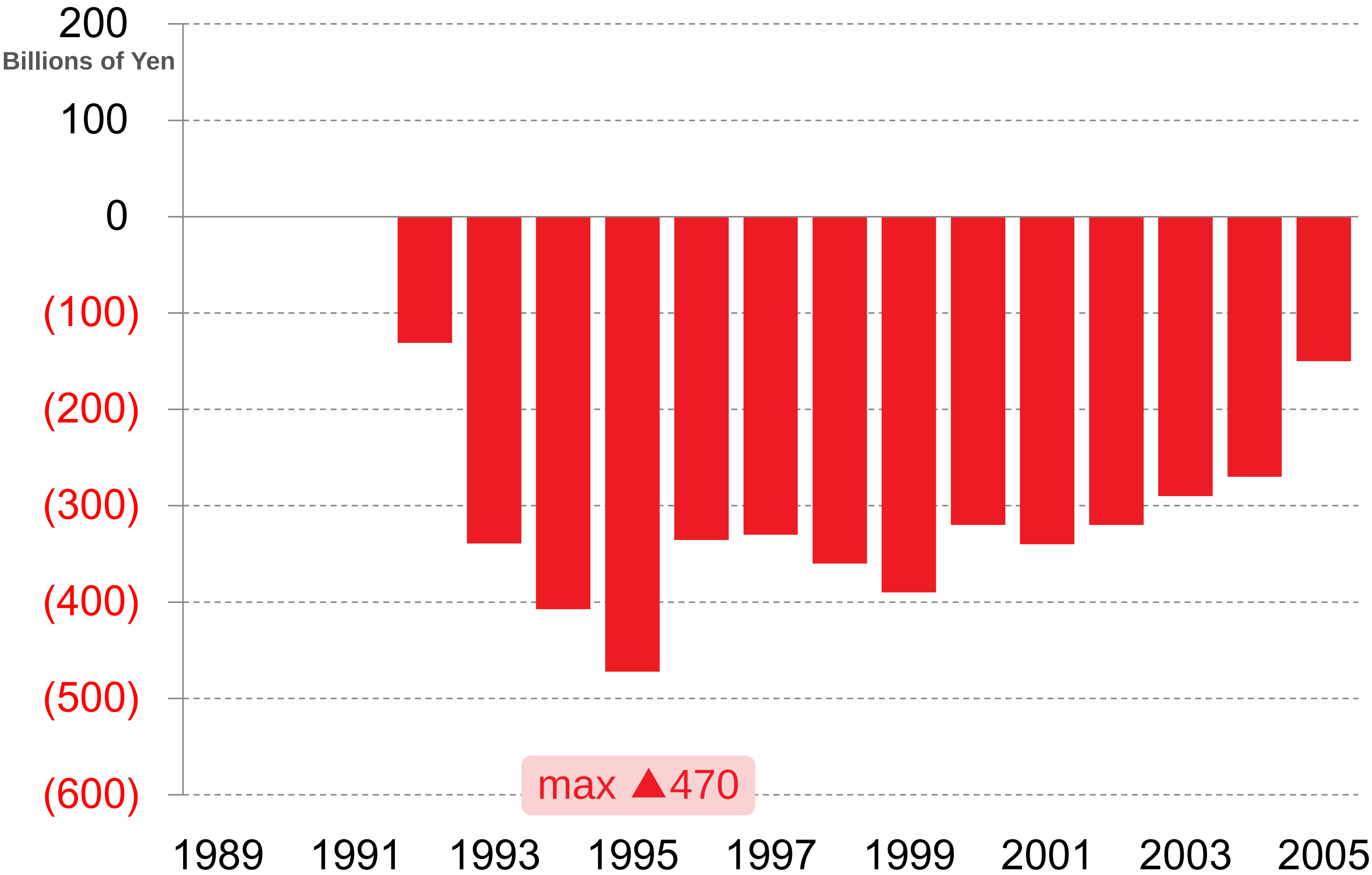
June 15, 2017

Nippon Life Insurance Company
Yoshinobu TSUTSUI

Long Term Interest Rate

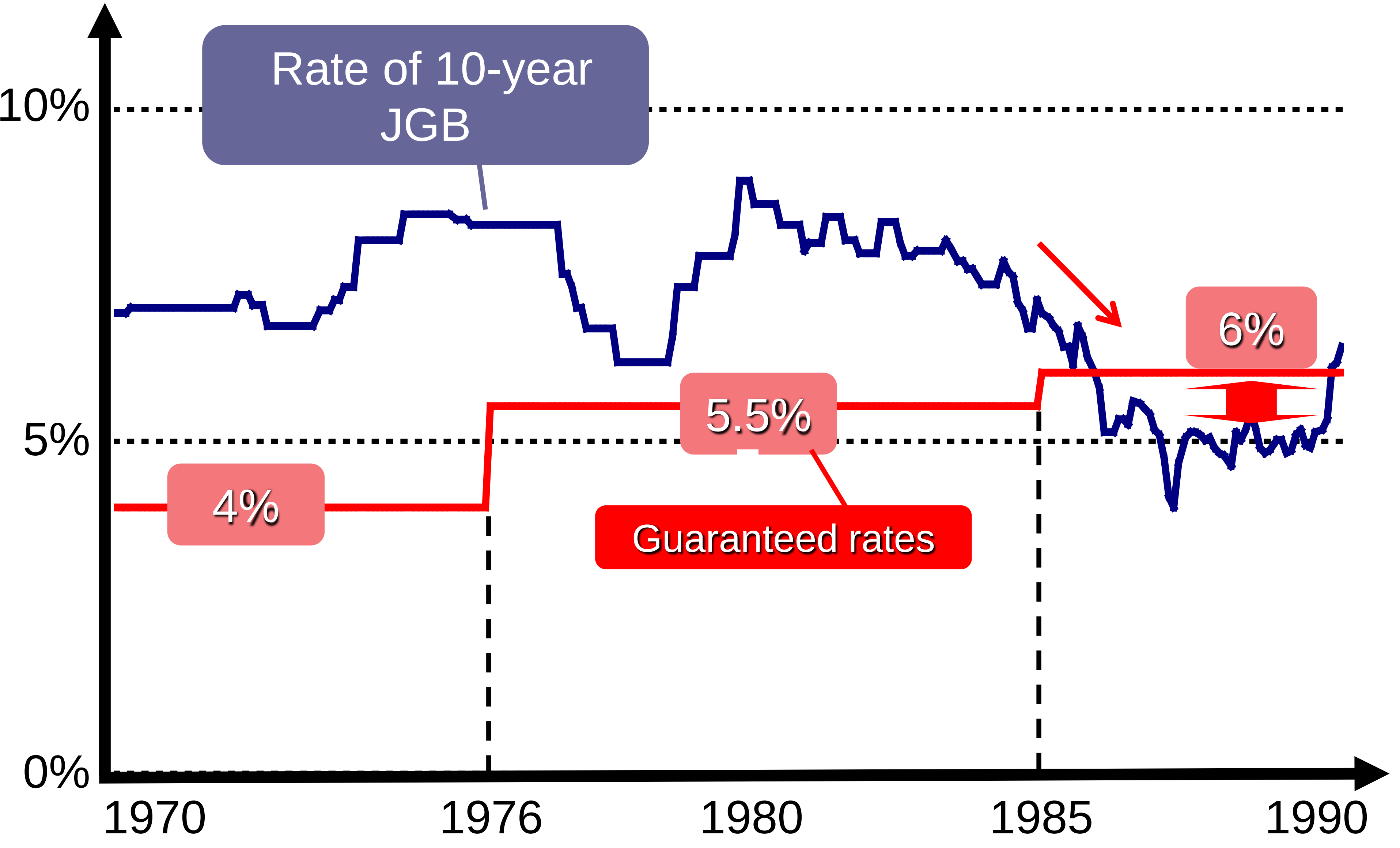


Nippon Life Insurance Company: Impact of Negative Spread



Negative spread:
“Investment return on core operating profit” - “Guaranteed rate” < 0

Guaranteed Rates



Bankruptcies of Life Insurance Companies

Burst of the bubble economy

Negative spread

+

Loss from risky investments

Bad loans

Increase of surrender rate

Between April 1997 and March 2001,

7/44

life insurance companies became insolvent

Amount of insolvency

Approx.

JPY 2.7 trillion

Measures to Reduce the Negative Spread

Needed every endeavor in various fields

① To enhance **investment returns**

② To lower **guaranteed interest rates** for new policies

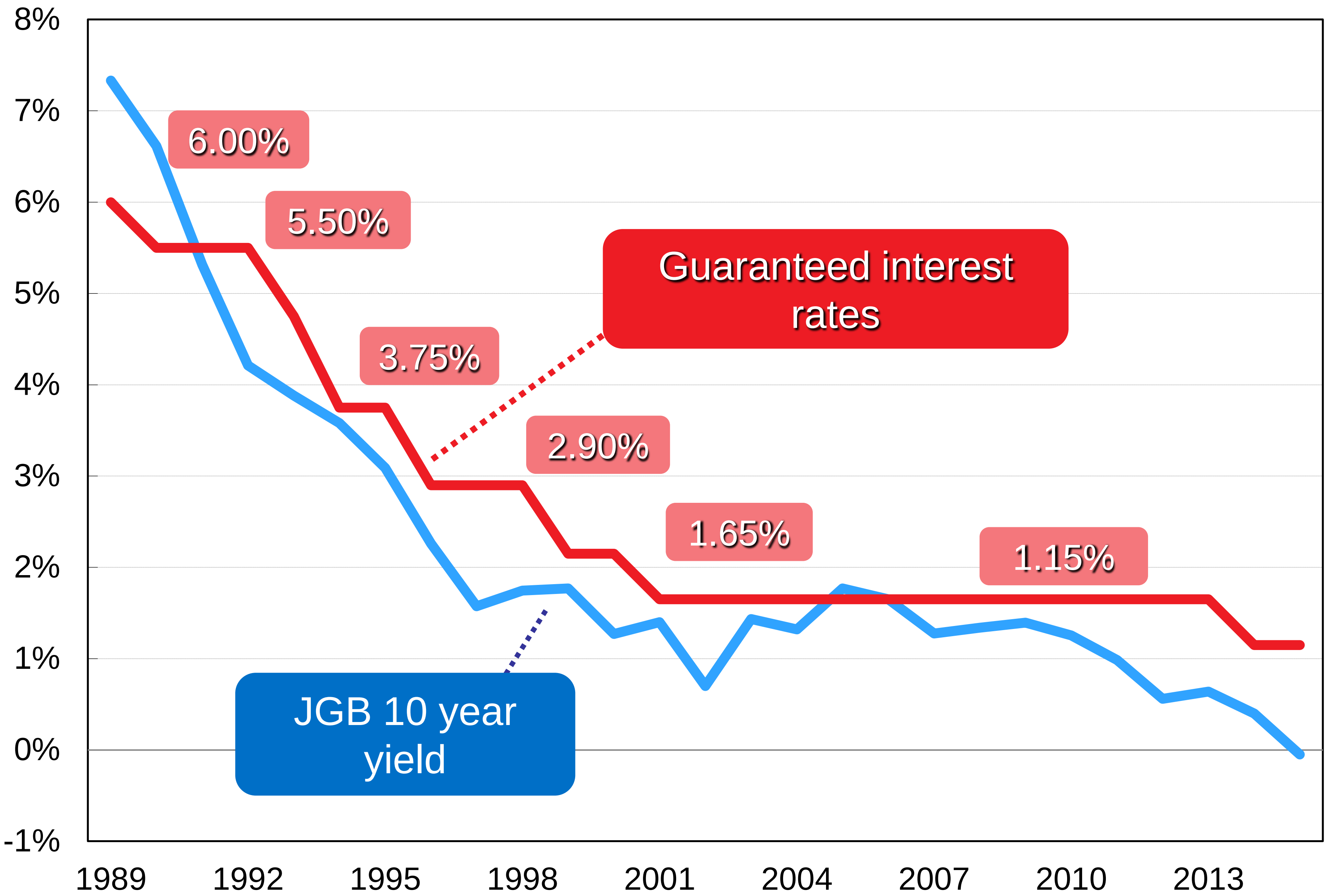
③ To enhance **protection-oriented products**

④ To reduce **expenses**

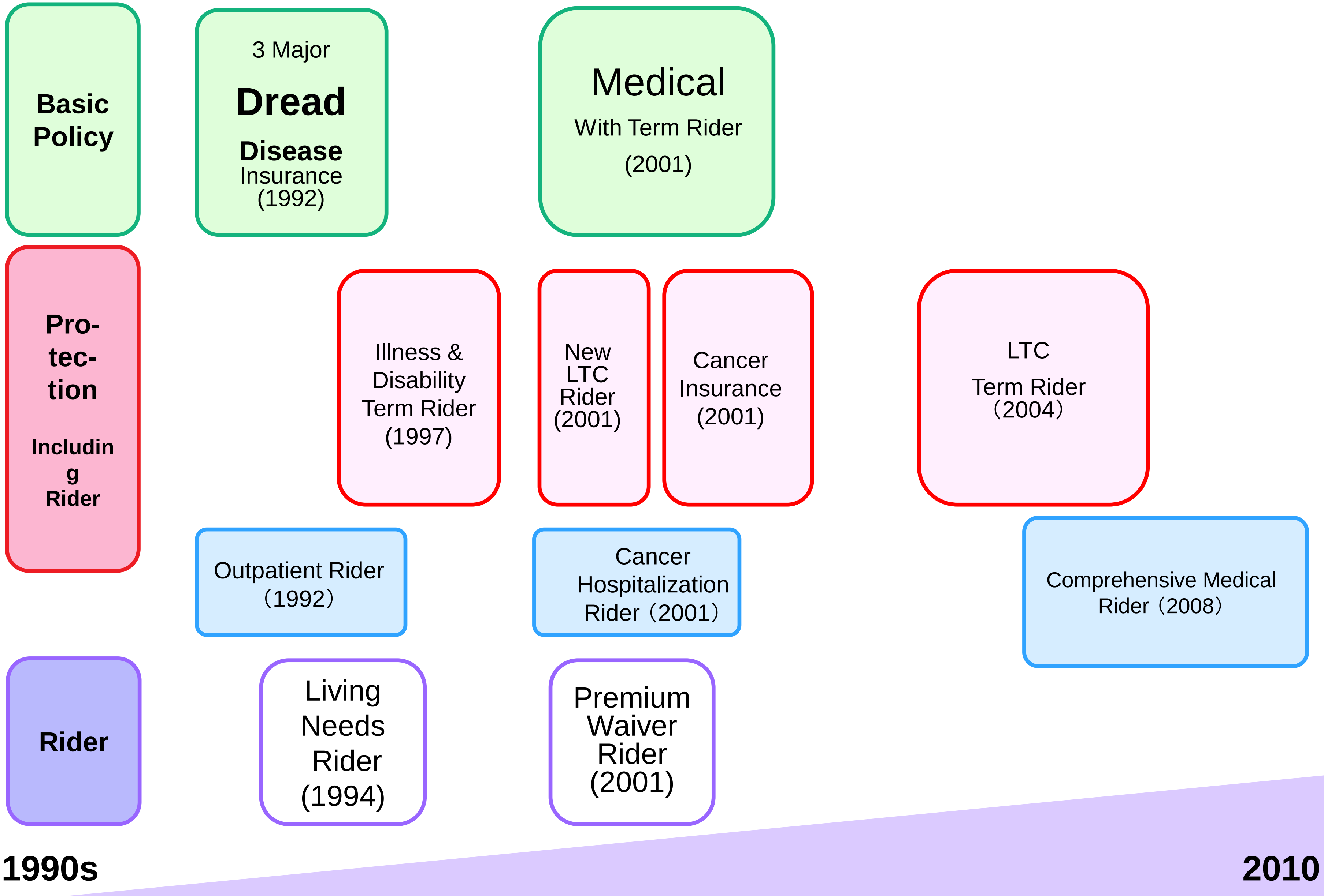
⑤ To enhance reserves and **capital**

⑥ To change **investment** strategies

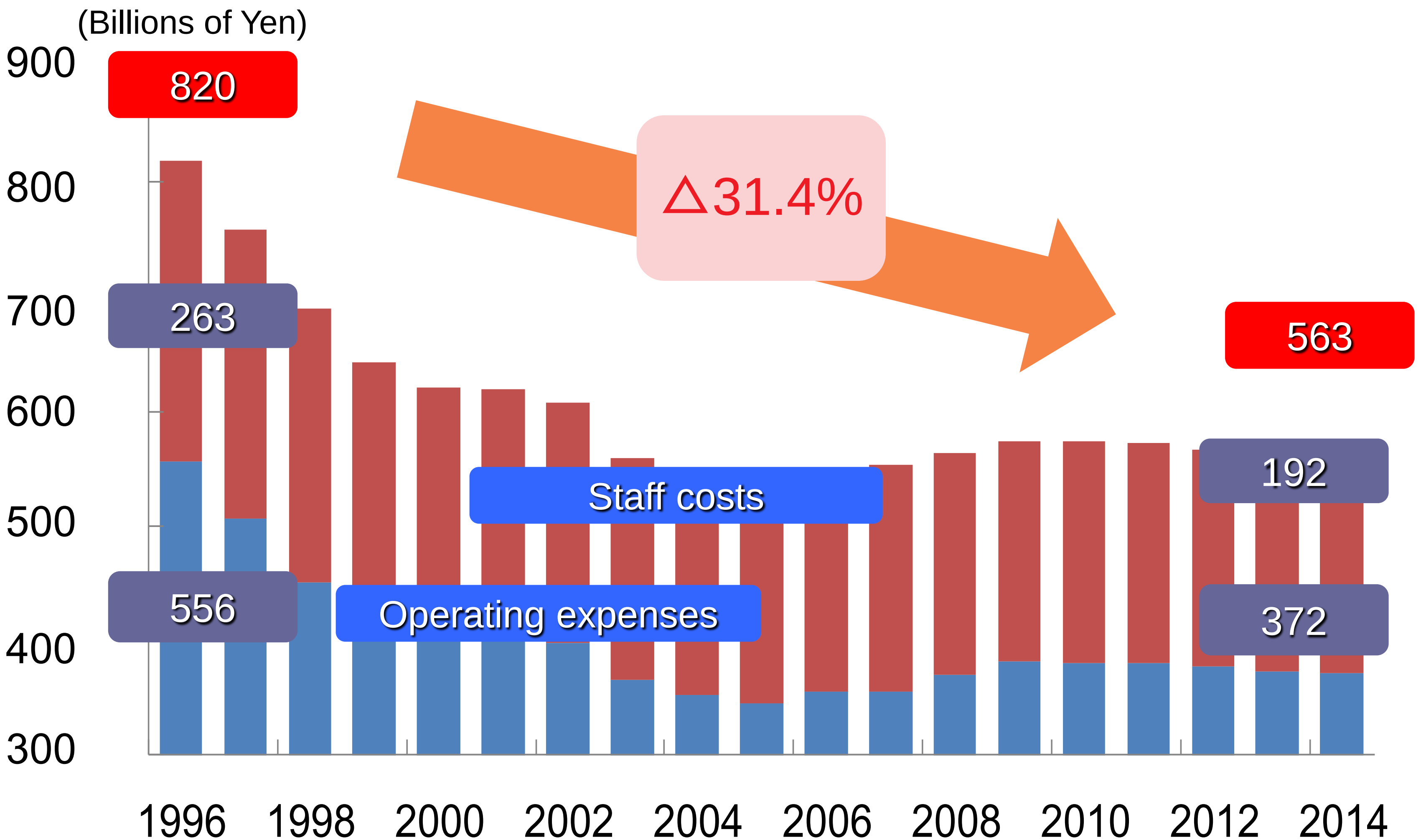
Guaranteed Interest Rates



Products

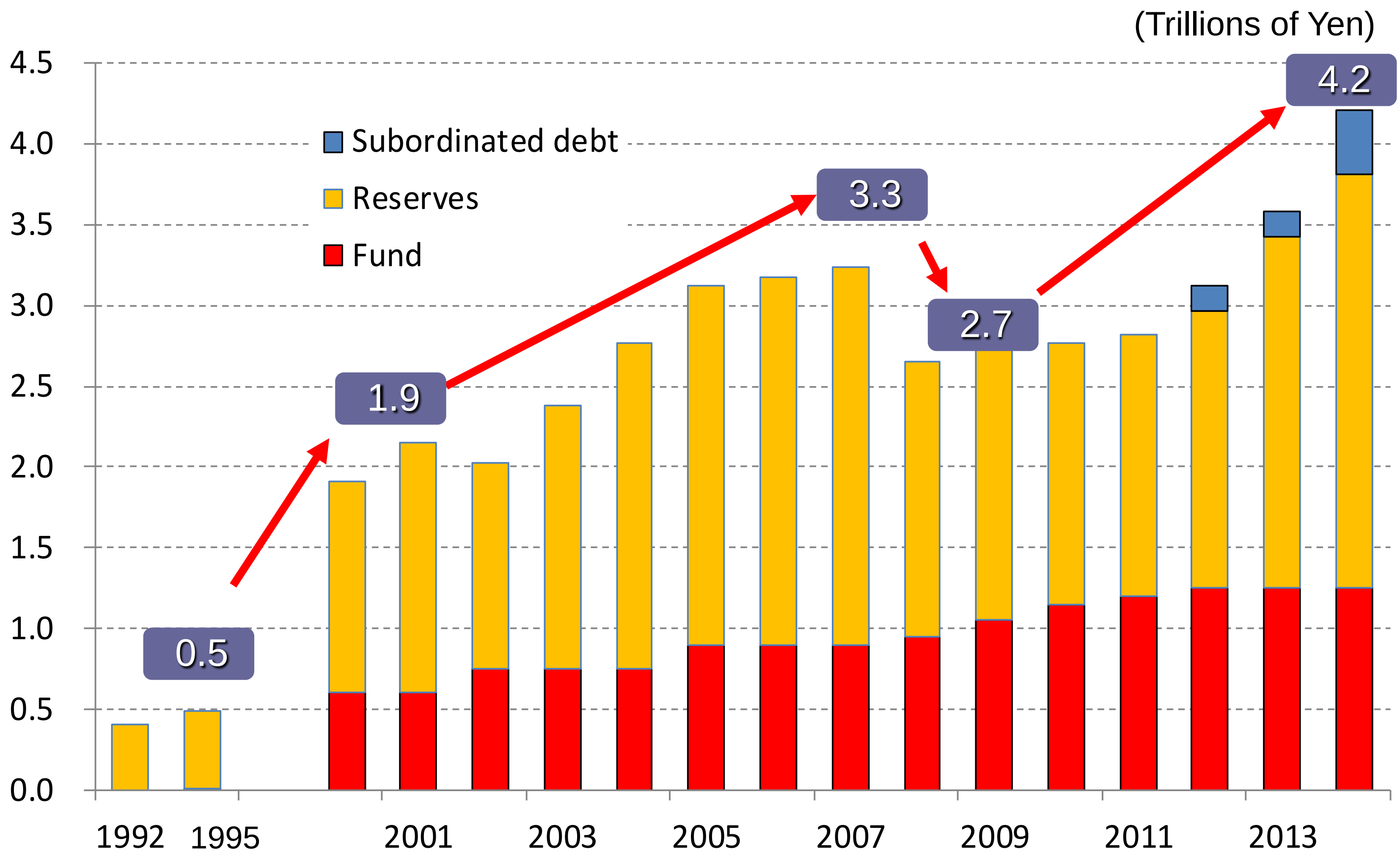

Basic Policy
3 Major Dread Disease Insurance (1992)
Medical With Term Rider (2001)
Pro-tec-tion Includin g Rider
Illness & Disability Term Rider (1997)
New LTC Rider (2001)
Cancer Insurance (2001)
LTC Term Rider（2004）
Outpatient Rider（1992）
Cancer Hospitalization Rider（2001）
Comprehensive Medical Rider（2008）
Rider
Living Needs Rider (1994)
Premium Waiver Rider (2001)
1990s
2010

Expenses



(Billions of Yen)
900
800
700
600
500
400
300
820
263
556
△31.4%
Staff costs
Operating expenses
563
192
372
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014

Capital



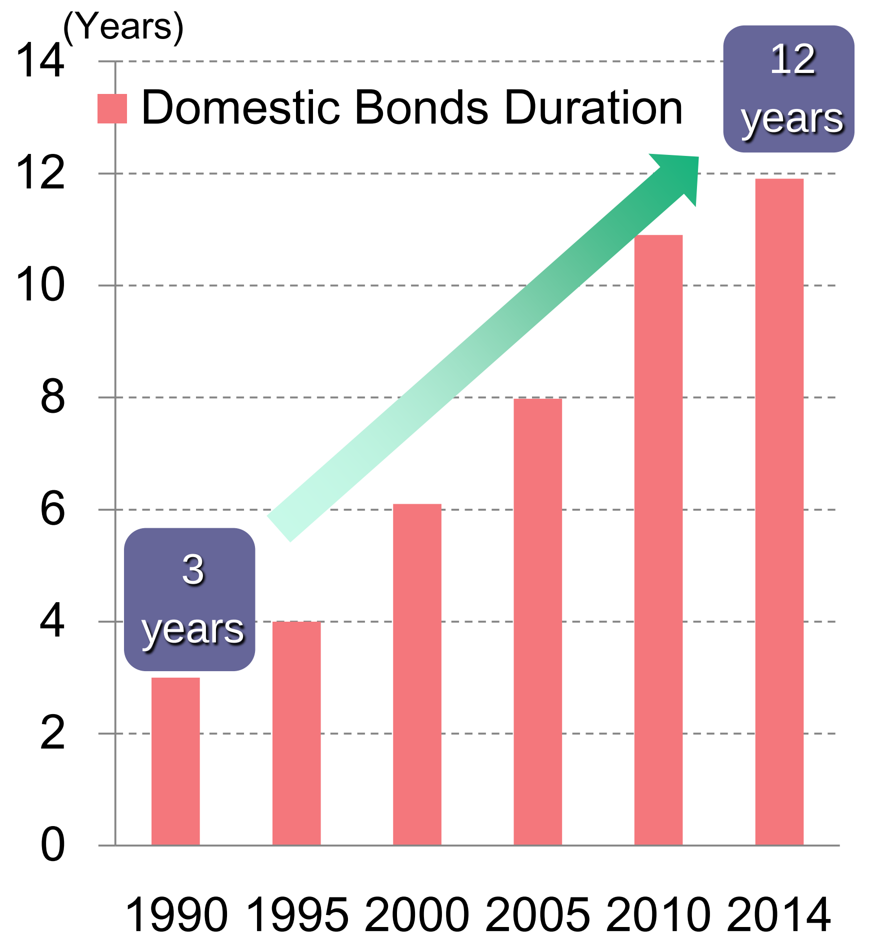
(Trillions of Yen)
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Subordinated debt
Reserves
Fund
0.5
1.9
3.3
2.7
4.2
1992
1995
2001
2003
2005
2007
2009
2011
2013

Diversifying Allocation and Extending Asset Duration

Asset Portfolio

	1990	2000	2014
Public and corporate domestic bonds	8%	27%	46%
Loans receivable	39%	29%	13%
Currency-hedged foreign bonds	0%	0%	12%
Domestic stocks	**23%**	**17%**	**14%**
Foreign securities (Non currency-hedged)	**13%**	**11%**	**10%**

Extending Asset Duration

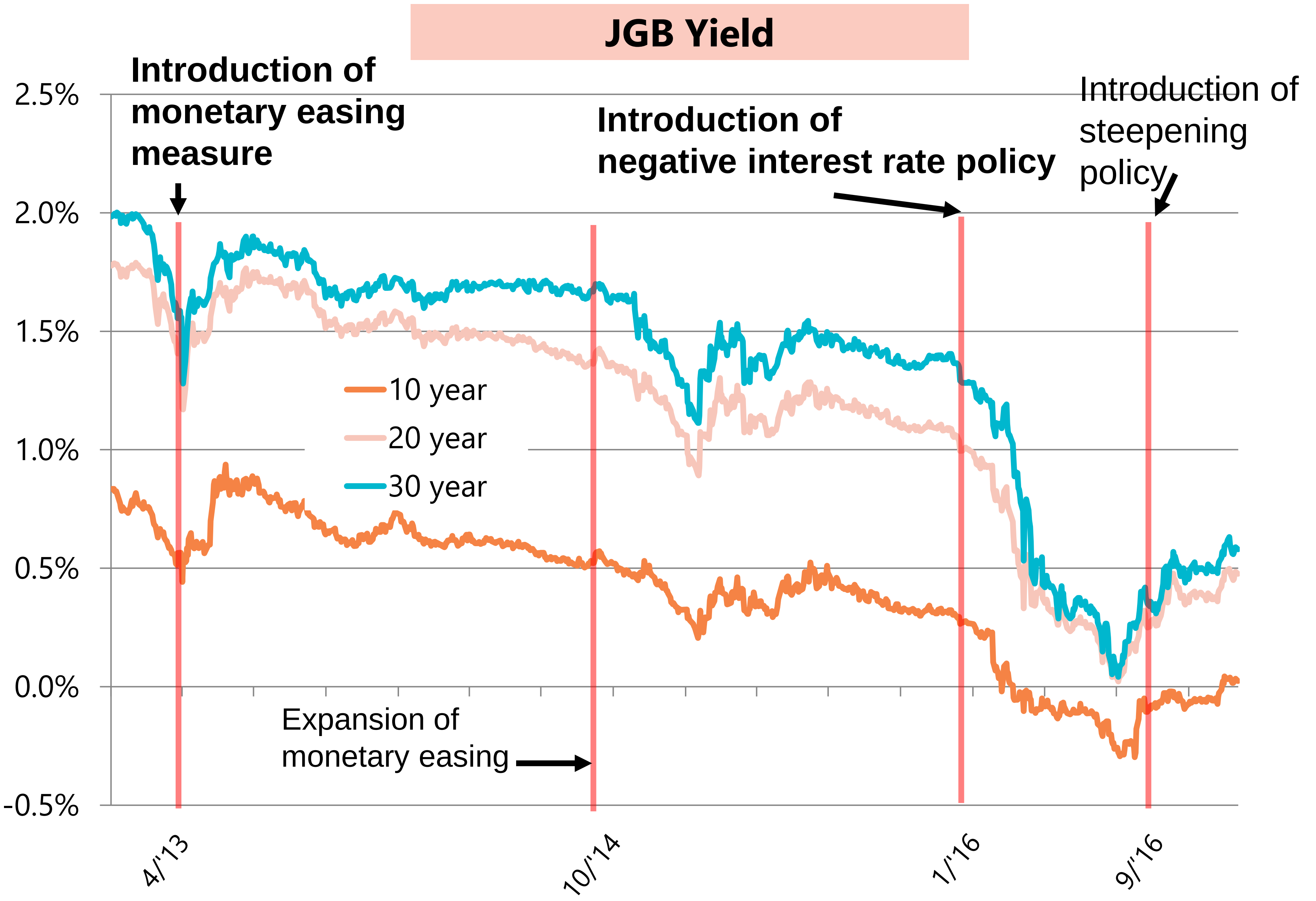


Overcoming the Negative Spread

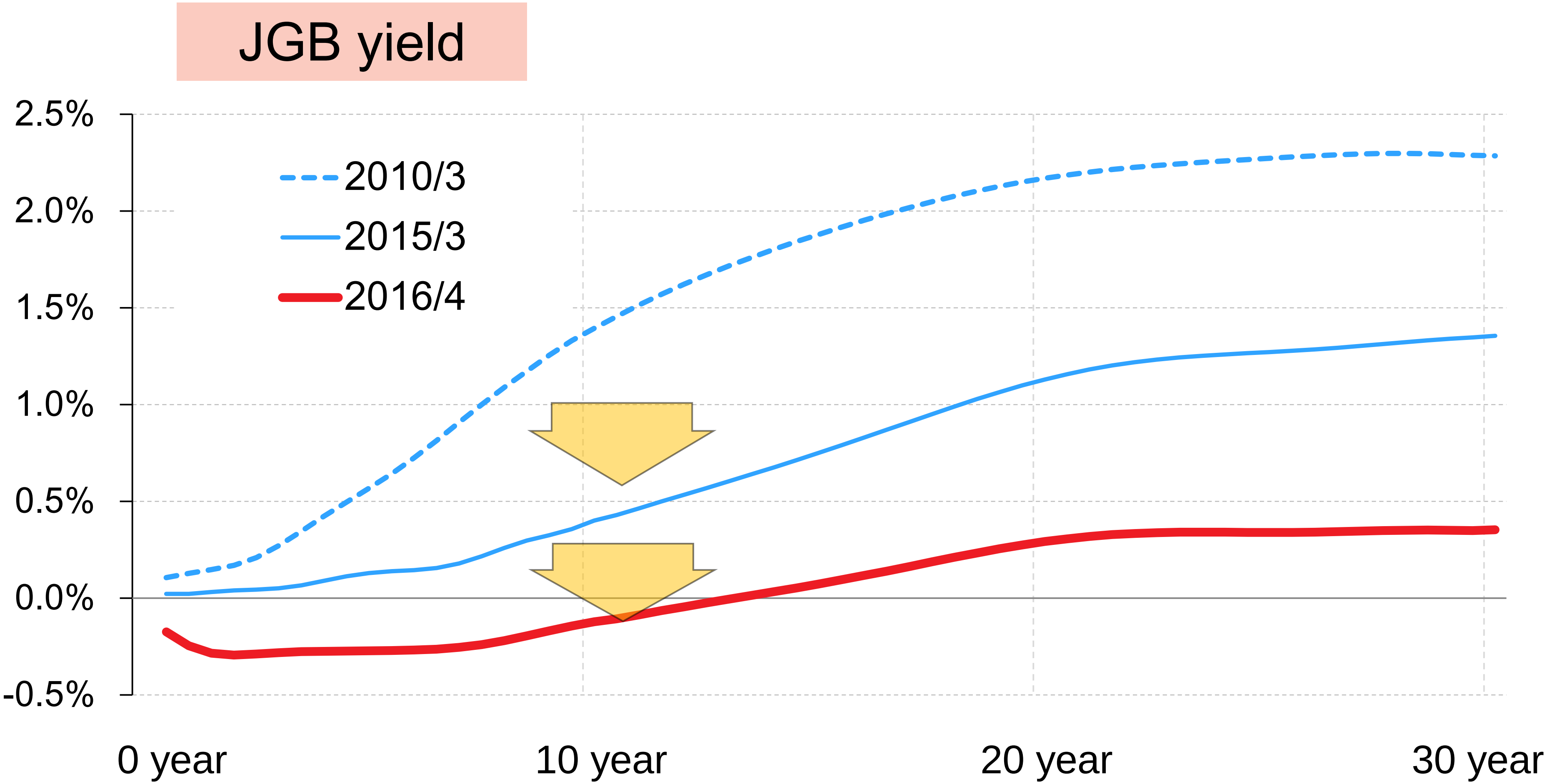
(Billions of Yen)

	1995	2008	2009	2010	2011	2012	2013
Difference between investment return (without capital gain) and average assumed interest rate	**-1.45%**	-0.10%	-0.14%	+0.07%	+0.08%	+0.07%	+0.26%
Impact of negative spread	**▲470**	▲40	▲60	+30	+32	+32	+115

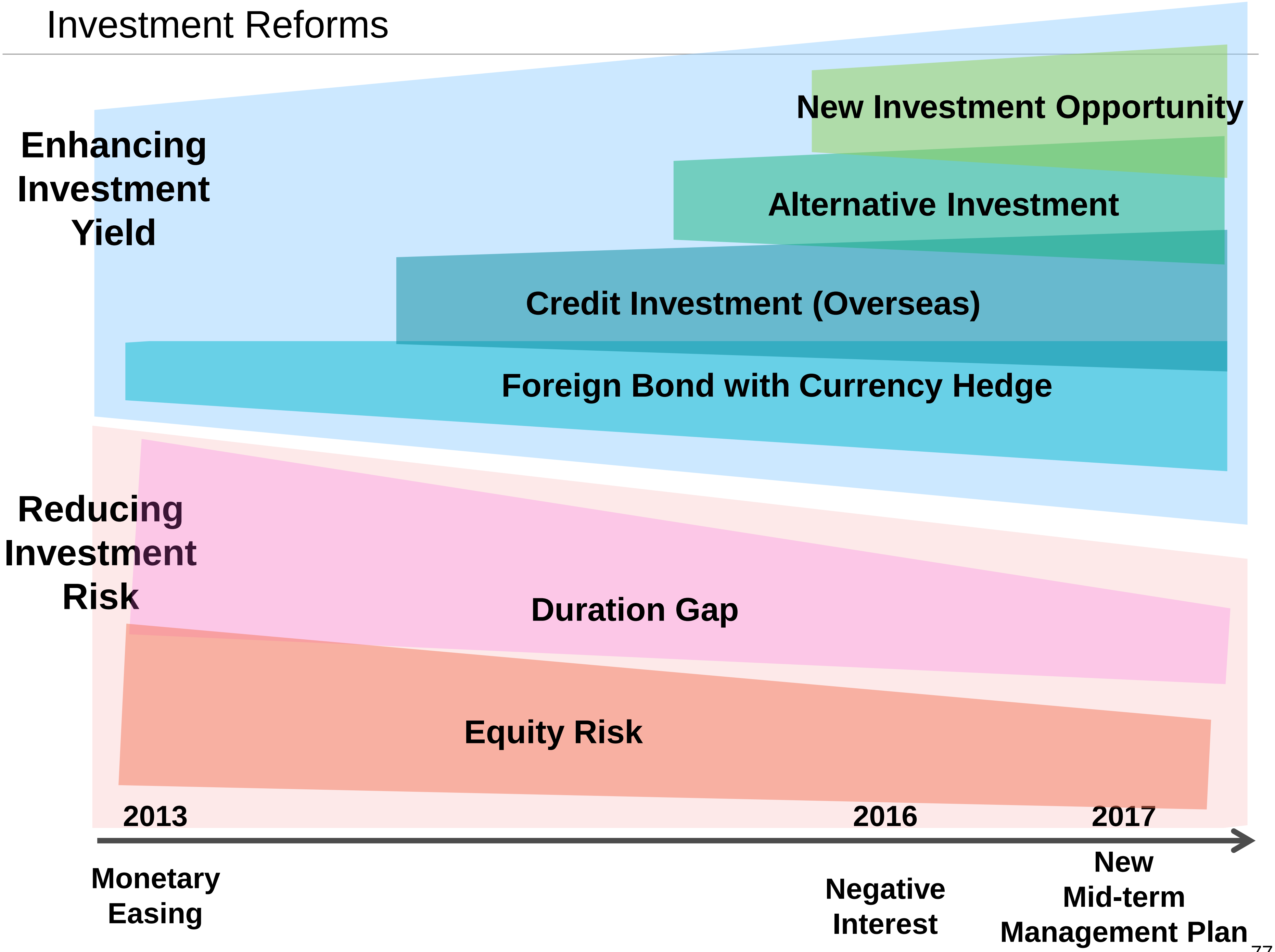
Monetary Easing Policy of the Japanese Central Bank Since 2013



Deepening Low-Yield Environment



Investment Reforms

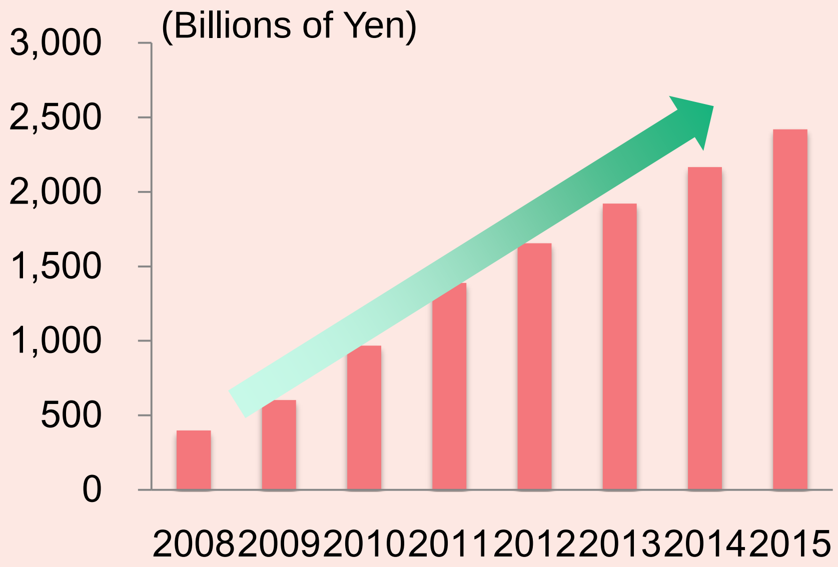


New Investment Plan in Growing Fields

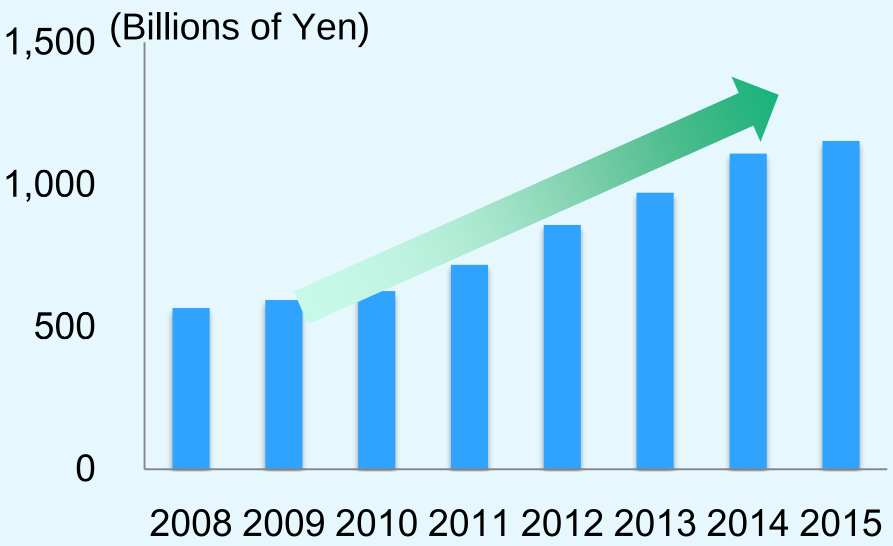
(2017-2020)

JPY 1.5 trillion in total

Global Credit Investment



Alternative Investment



Overseas Project Finance

ESG

Product & Human Resources Development

Product

- ✓ Accommodate diversified **asset management needs**
- ✓ Accommodate various **living needs**
- ✓ **Corporate support function**

Compre-hensive Measures

- ✓ **Cost reduction**
- ✓ **Capital enhancement**

+

Human Resources

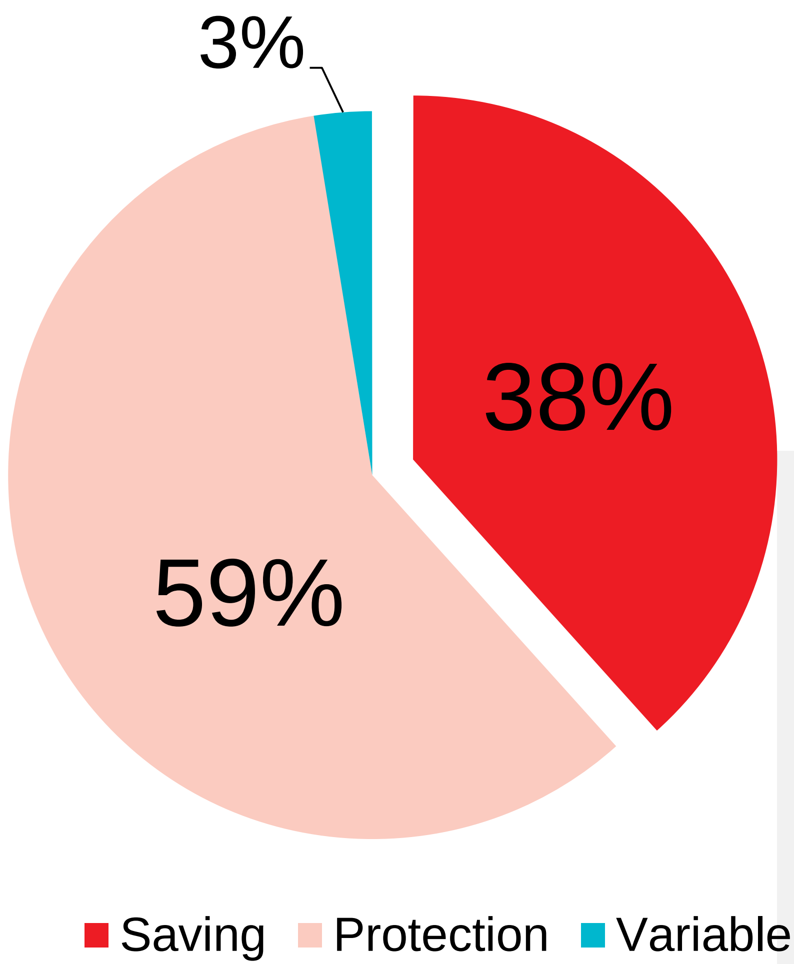
- ✓ Develop **professionals**

2. Future View of Potential Impact on Japanese Insurance Consumers of Negative/Low Rates and Demographic Challenges

1	**Product line-up will be limited for consumers**
2	**Necessity for further self-efforts to be made after retirement**

Savings-type Products

Breakdown of individual sal
(Number of contracts)



Source： Statistics of Life Insurance Business in Japan:
The grand total of all life insurers (2014)

Concern about persistent ultra-low interest-rate environment

- **unable to provide product with attractive pricing**
- **will incur negative spread in future**

pressure to

increase premiums

or

sales suspend

Influence on Consumers and Mission for Life insurance Company

Suspension of saving products causes "limited options" for customers

Perceived impact

Loss of "customer's interests in self-efforts for the future"

Potential Impact

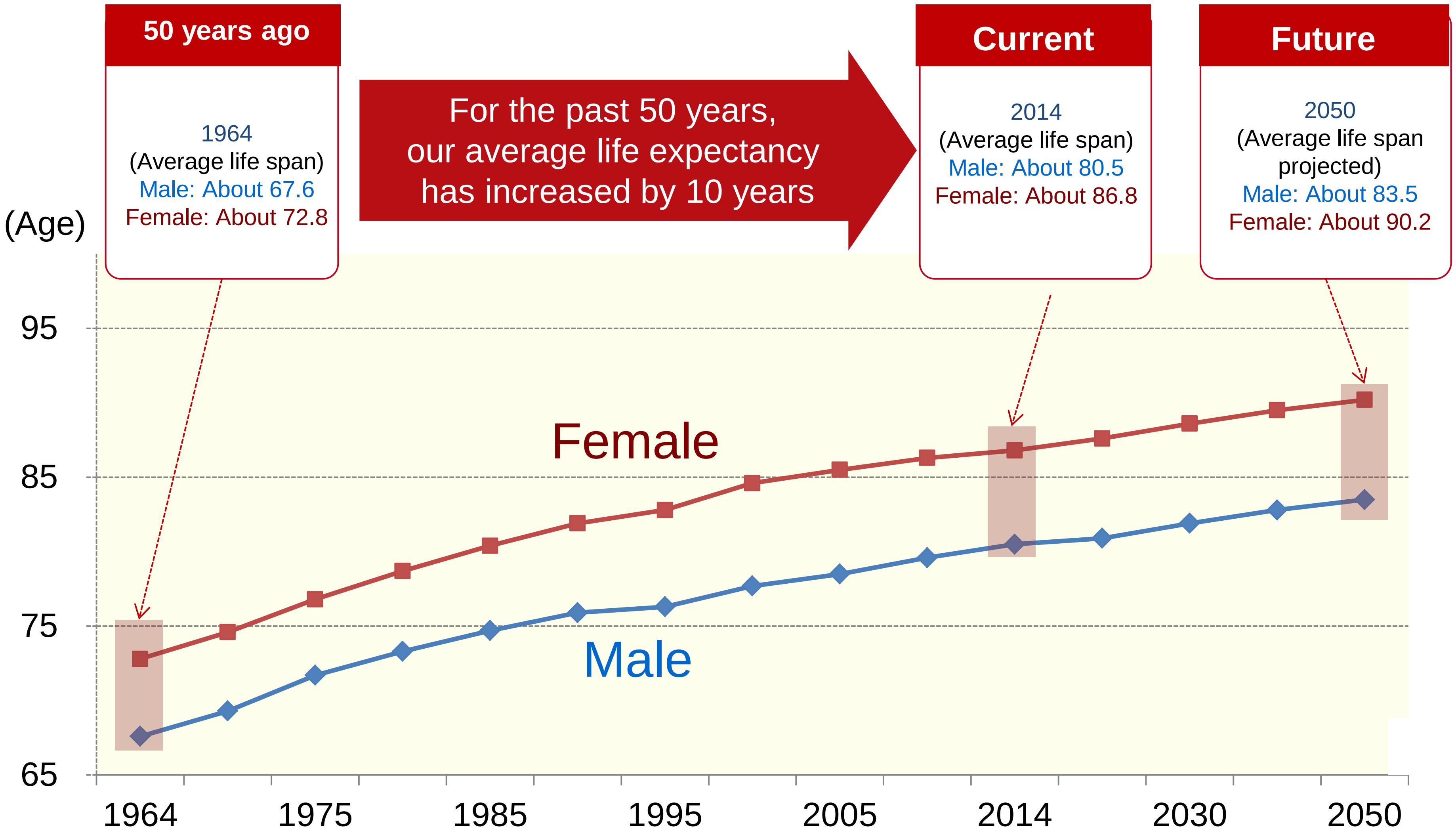
Hinder
"self-reliance life-style" and
"various life insurance products enabling self-efforts"

Mission of life insurance company:

Contribute to society through sustaining product diversity

1	**Product line-up will be limited for consumers**
2	**Necessity for further self-efforts to be made after retirement**

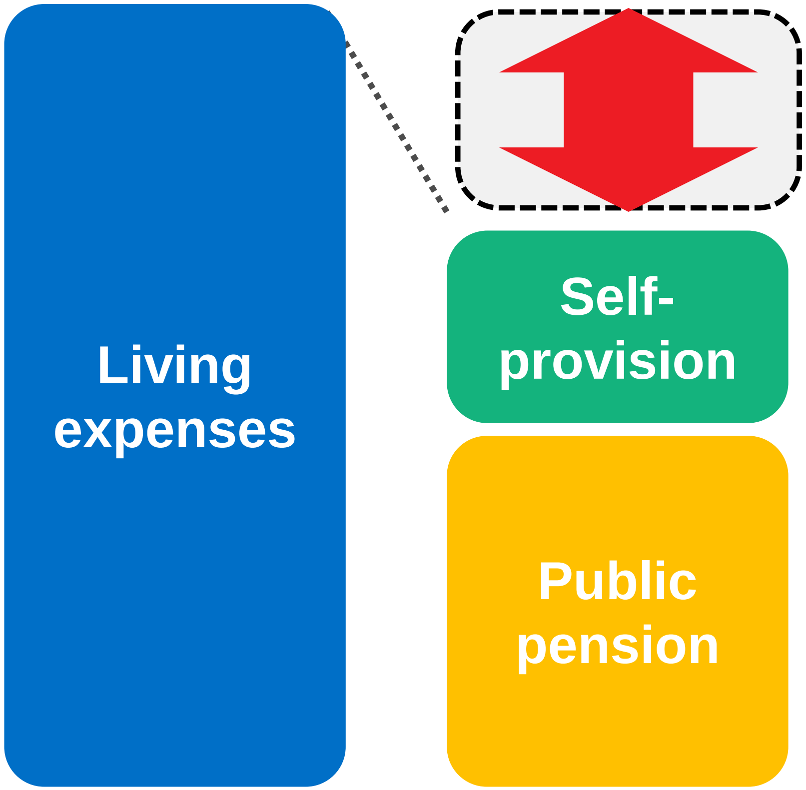
Average Life Expectancy Becoming Longer



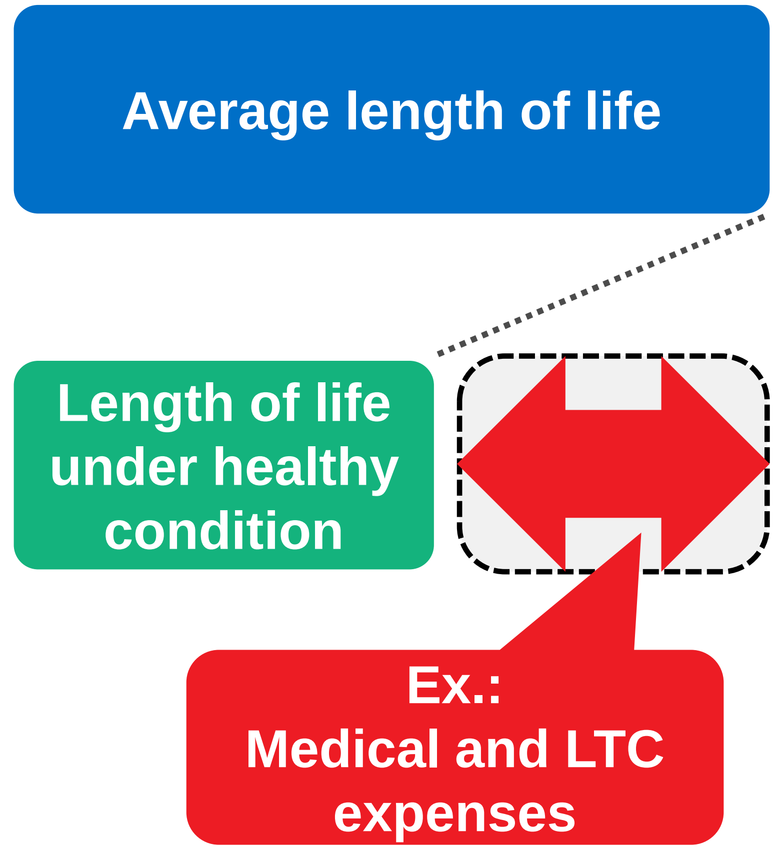
Source： The data is based on “Abridge life table” (from 1964-2014) and “Complete life table” (in 1980 and 2000) of the Health, Labor and Welfare Ministry. The data after 2016 is an estimate median age based on birth/death of “Population Projection for Japan (as of January 2012)” released by the National Institute of Population and Social Security Research.

Two Types of “Longevity Risk”

① Risk of Lifetime expenditures

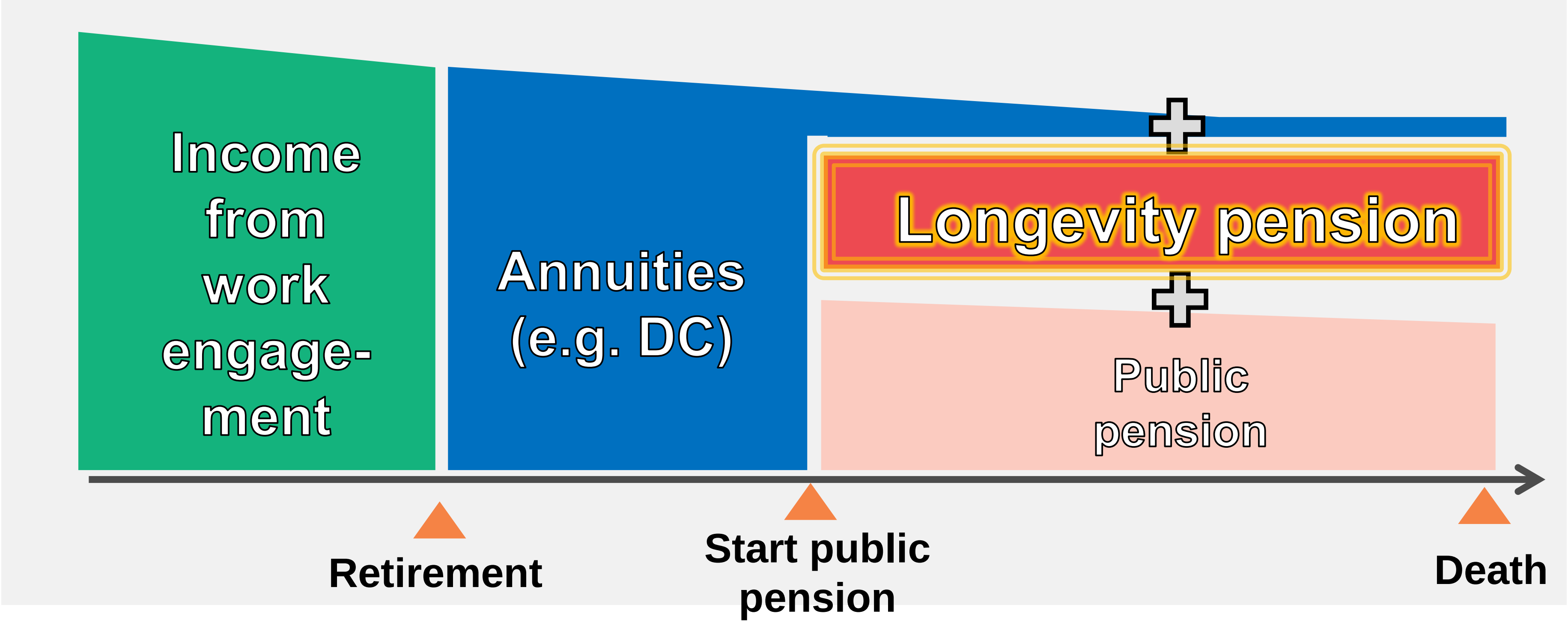


② Risk of disease and LTC



Longevity pension

Whole-life private pension with government subsidy



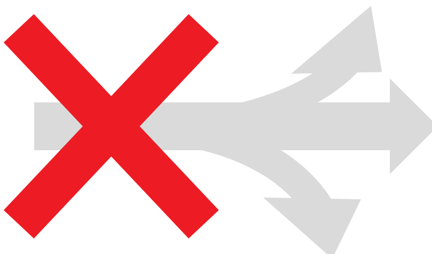
Nissay Longevity Annuity

（Low surrender benefits type）

グラン エイジ

GranAge

Negative interest rate policy
to overcome deflation



Limited options for self-efforts

Decline of saving income

Widening disparity

Government should support:

Policy to promote economic growth

Measures against declining birthrate

Reform of social security system

etc.

PANEL Session 2 – Low for Long: Living Longer- Societal Ramifications of Low Interest Rates

Panel Chair

John R. Strangfeld
Chairman and Chief Executive Officer
Prudential Financial

Richard Jackson
President
Global Aging Institute (GAI)

Yoshinobu Tsutsui
President
Nippon Life Insurance Company

Donald A. Guloien
Chief Executive Officer
Manulife Financial Corporation

Low for Long: Living Longer
Societal ramifications of low interest rates

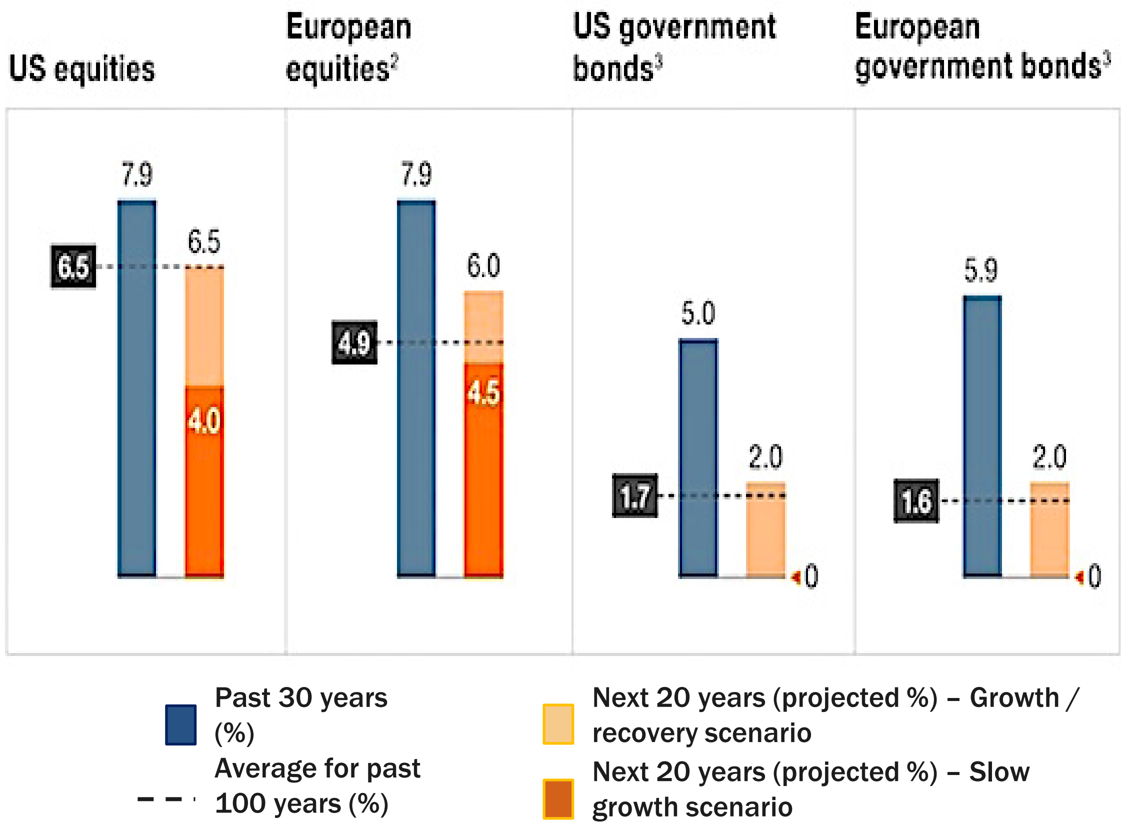
Donald Guloien
CEO

Manulife

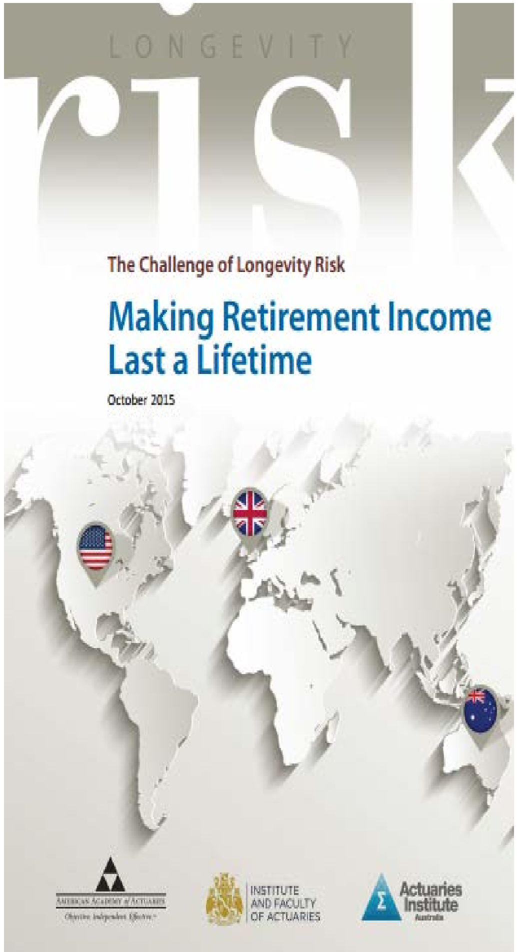
Manulife

John Hancock

One View of the Future from McKinsey – Investors should anticipate lower returns closer to the 100 year average



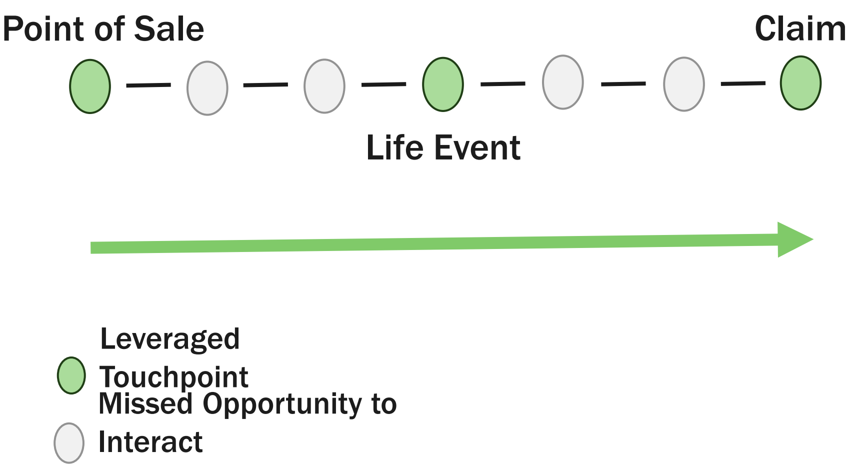
The new environment makes it more difficult for customers to predict their needs into their retirement



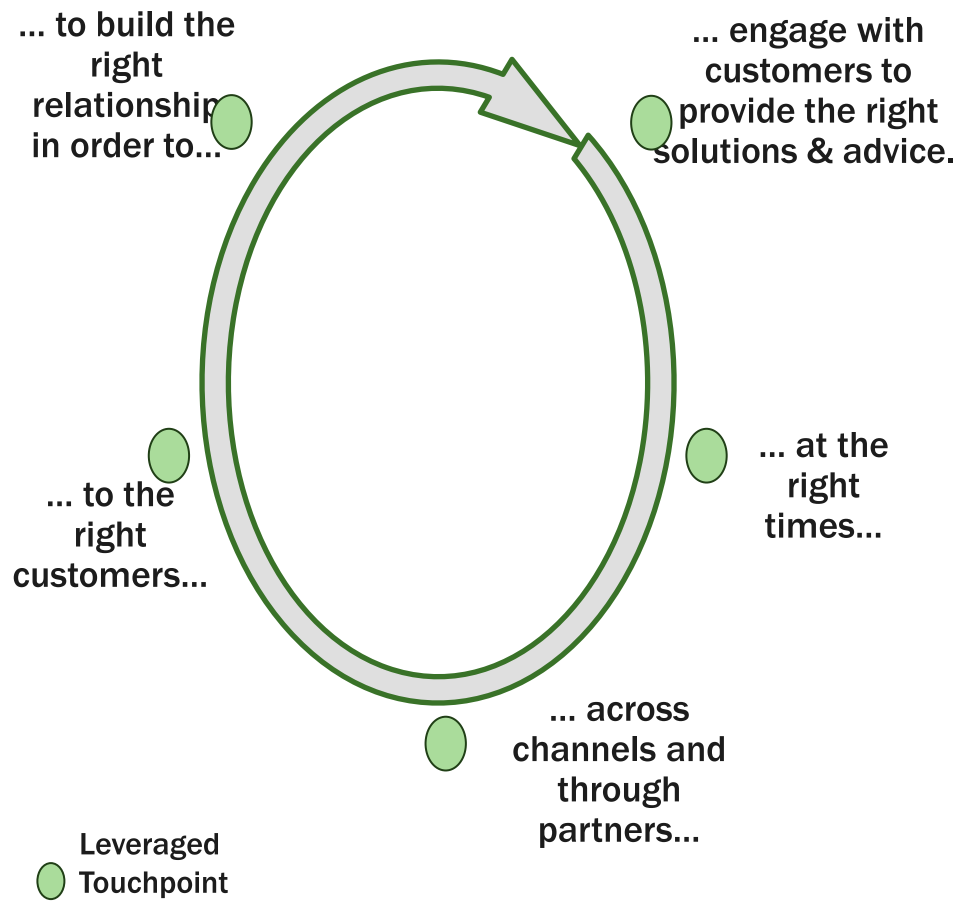
- **Underestimation:** People may underestimate the value of guarantees and longevity.
- **Uncertainty:** Looking at an average life expectancy of a large group can provide reasonably accurate and consistent results. However, longevity risk for an individual is much more uncertain.

Insurers need to rethink the relationship they have with their clients and proactively encourage positive outcomes

TRADITIONAL LINEAR ENGAGEMENT MODEL



NEW ENGAGEMENT MODEL



Rethinking decumulation strategies and solutions to help customers succeed in the new environment

THE TRADITIONAL RANGE OF AVAILABLE DECUMULATION OPTIONS[1]

Discretionary withdrawals from accumulated sum	**Restricted withdrawals from accumulated sum**	**Life annuity with term guarantee longer than life expectancy**	**Life annuity with term guarantee to life expectancy**	**Life annuity with term guarantee shorter than life expectancy**	**Straight life annuity**

Insurers need to embed goals-based solutions. Solutions need to be based on life goals, risk tolerance and accumulated wealth of clients

1. Annuities and your nest egg: reforms to promote optimal annuitization of retirement capital. Norma Nielson. CD Howe institute. August 2012.

THE GENEVA ASSOCIATION

PANEL Session 2 – Low for Long: Living Longer- Societal Ramifications of Low Interest Rates

Panel Chair

John R. Strangfeld
Chairman and Chief Executive Officer
Prudential Financial

Richard Jackson
President
Global Aging Institute (GAI)

Yoshinobu Tsutsui
President
Nippon Life Insurance Company

Donald A. Guloien
Chief Executive Officer
Manulife Financial Corporation

Final Thoughts

- Growing financial and retirement security challenges worldwide
- Implications of failure to take corrective action
- Significant role for our industry
- Call to action!