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The German Pension System

OECD/IOPS global forum on private pensions

MICHEL SUDBRACK, BEIJING, OCTOBER 2018

Management Summary

The German pension system is based on three pillars: Public, occupational and private pension

Pillar 1 contributions remain relatively constant during last decades, while replacement rates of statutory pensions continuously decline

Note to Pillar 1: German social security contributions from employers and employees are capped at ca. 140% of the average income ("Beitragsbesssungsgrenze"). As a consequence, any salary above that cap is free of social contributions. The state contributes an additional 1/3 of the overall state benefit payments.

Compared to other European countries Germany with high contributions but low pension levels

New legislation introduced a guarantee-free Defined Contribution Scheme ("DCS") to support 2nd pillar contributions in Germany

Riester policies sky-rocked in 2006-2010 third pillar—but recent numbers do not show any growth

Declining trust and security across all pillars of the pension system

Despite cost-intensive reforms, the new pension reform pact will increase state's social benefit payment obligations – potentially not financially sustainable

Recap: The German pension system is built on 3 pillars

Pension products mapping—majority of 3rd pillar pension products provided by life insurers

Pension system in Germany

1 Statutory pension

Compulsory insurance for employees - employer and employee share the payments

- Professional pensions
- Agricultural pensions
- For self-employed not obligatory

Financing: Pay-as-you-go

2 Occupational pension

Optional pension scheme - employer and employees can pay in

- Pension funds to manage company annuity
- New law since January 2018 effective with new, guarantee- free pension scheme

Financing: Capital-based

3 Private pension

Optional individual savings from net income
Products include broad variety of offers from insurers, banks and funds

- Annuity and pension products by insurers
- Unit-link endowment and annuity by insurers
- Savings plan by banks
- Riester
- Rürup

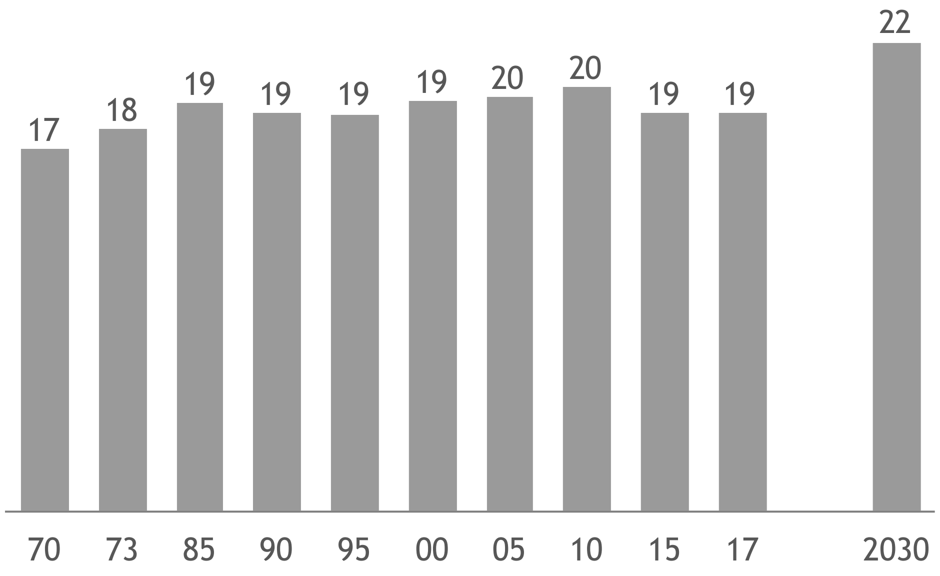
Financing: Capital-based

Source: BCG

Pillar 1 contributions remain relatively constant during last decades, while replacement rates of statutory pensions continuously decline

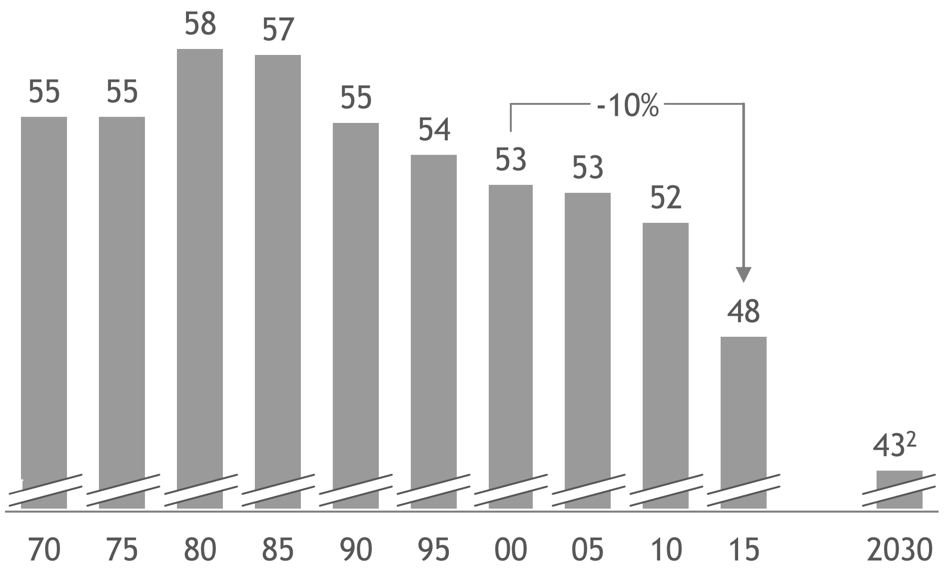
Contributions to pension system relatively constant

Contribution to pension system (%)



Pensions have sunk by 10% over the last 15 years

Nominal pension level[1] (%)

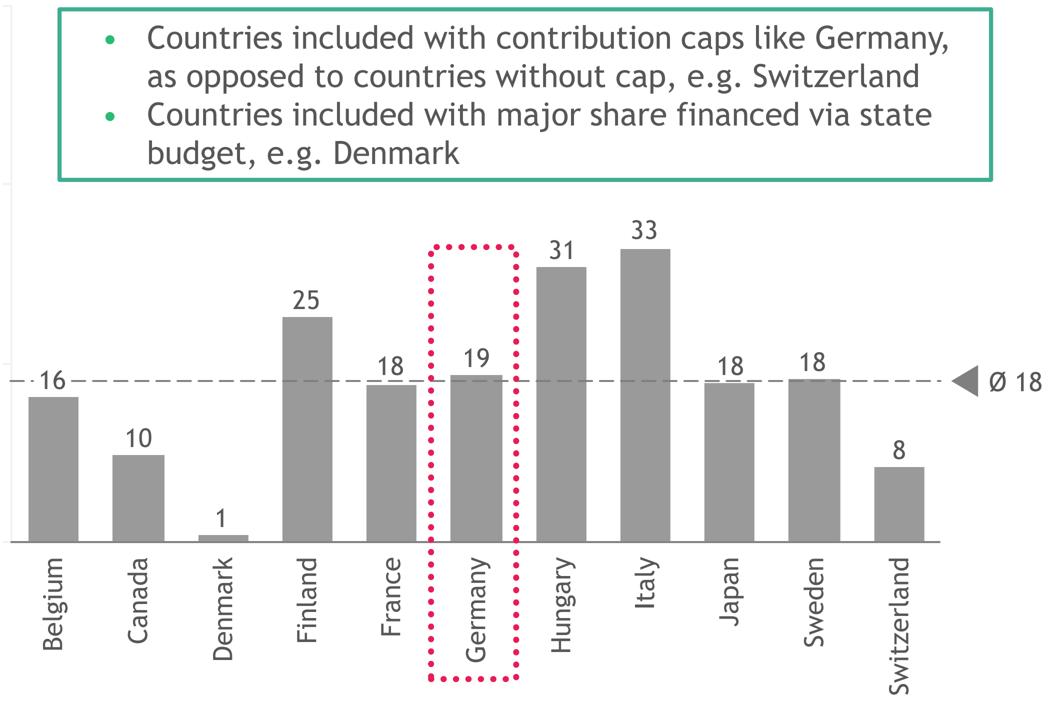


1. Nominal pension level = net standard pension after 45 insured years and based on average net annual wages 2. Per current law
Source: Deutsche Rentenversicherung; BCG analysis

Compared to other European countries Germany has high contributions but low pension levels

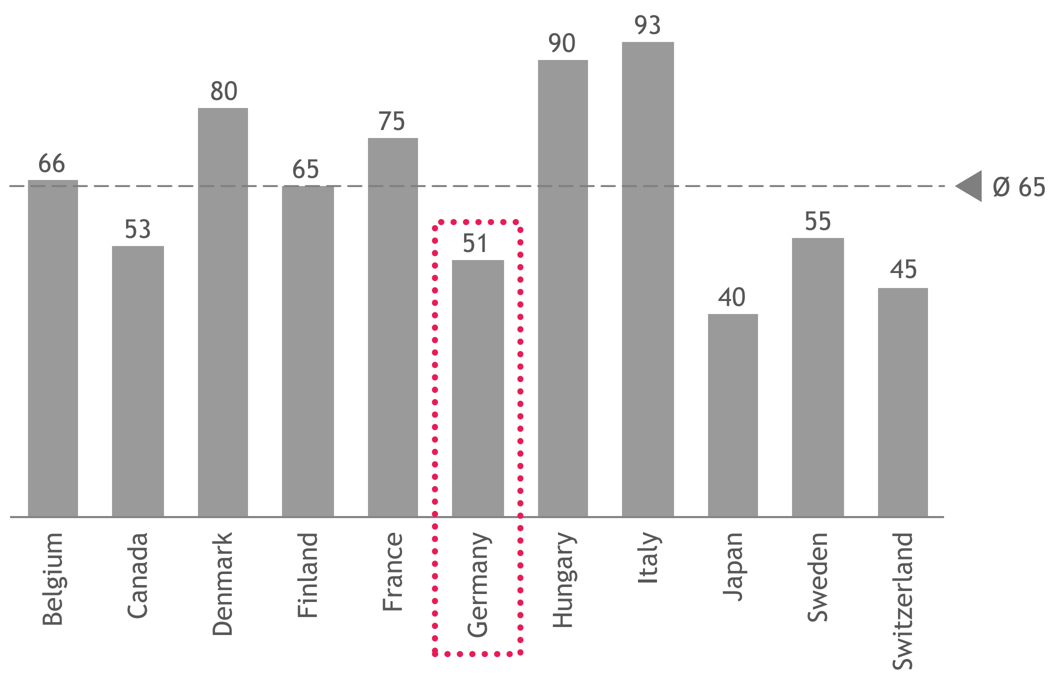
Cross-country comparison of contribution rates into public pension

Mandatory public pension contribution rates 2016 (in %)[1]



The effectiveness of a pension system is not entirely explained by its contribution rates

Net pension replacement rates for men in 2016 (in %)[2]



1. For an average worker 2. Men, pre-retirement earnings (%)
Source: OECD Pension statistics; BCG analysis

New legislation introduced a guarantee-free Defined Contribution Scheme to support 2nd pillar contributions in Germany

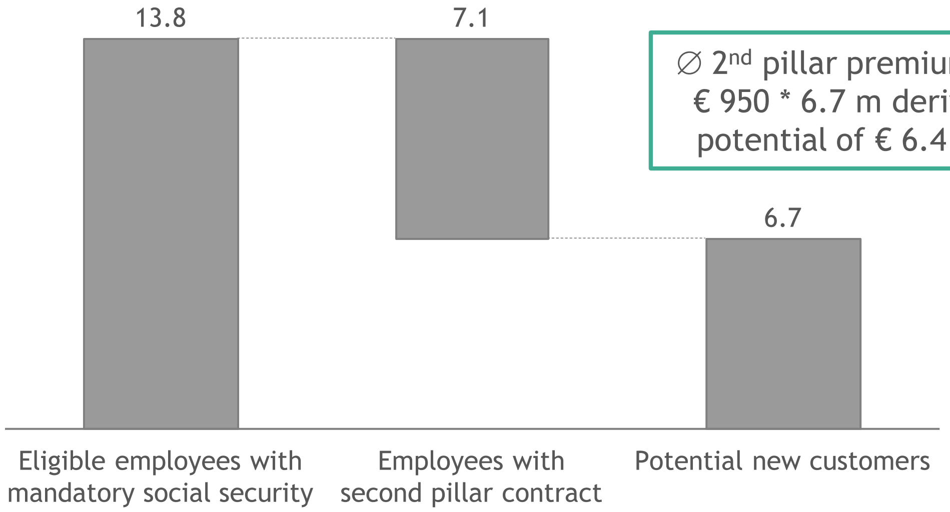
Key product features required under new legislation

- Defined Contribution Scheme (“DCS”) has no guaranteed benefits and low capital requirements (Solvency), which allows supplier to invest a high percentage in equity and alternatives;
- Introduction of DCS is optional and based on a collective agreement (Union and Employer representatives) – difficult to obtain
- Defined contributions are tax exempt for both, employees and employer
- Maximum employee contribution of 8% of salary with cap at 140% of average salary ("Beitragsbemessungsgrenze”)
- Obligation of employer to contribute 15% of employees’ payment
- Opt-out-Option can be included by unions to tariffs contracts
- DCS will be managed by funds or life insurance companies, which are required to reduce volatility of low investment performance years via special equalization mechanism
- High transparency of management fees

Currently several player develop products solutions, but no product successfully launched yet

Market potential of about € 6.4 bn estimated p.a.

Number of employees with mandatory social security 2016 (M)



∅ 2nd pillar premium of € 950 * 6.7 m derives potential of € 6.4 bn

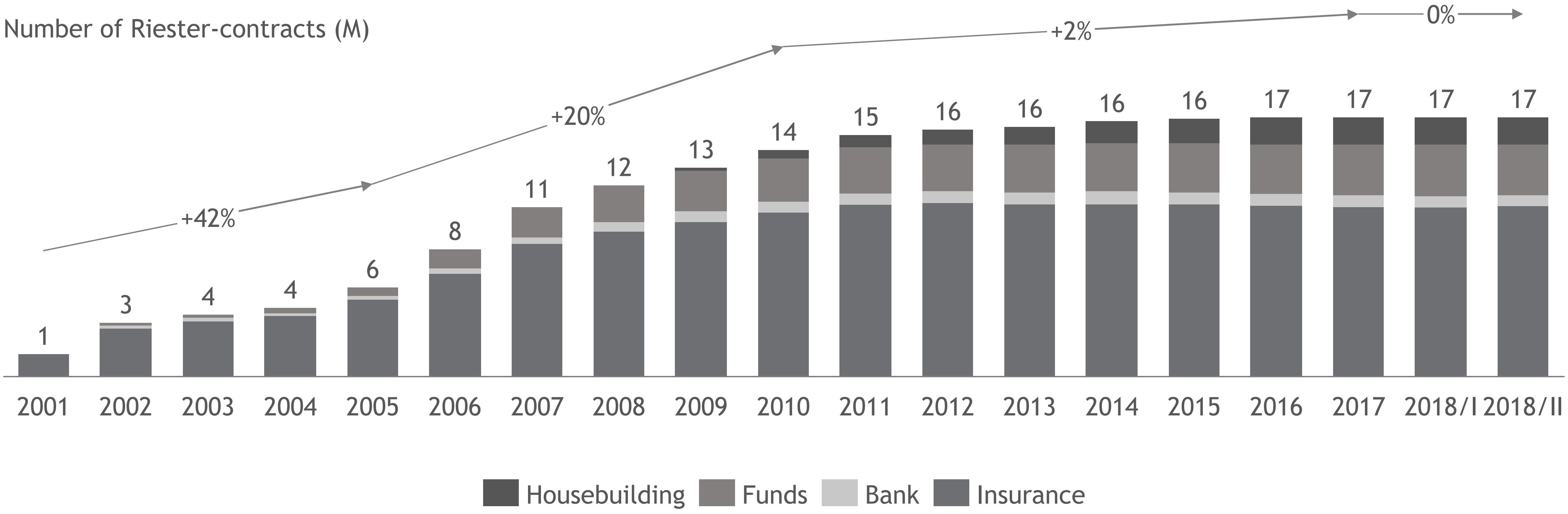
Pressure to implement new legislation for Unions is low, because many employees already have pillar-2-solutions

1. Yearly premium sum of new business
Source: Arbeitsagentur für Arbeit, Statista, BCG Analyse

Riester policies sky-rocked in 2006-2010 3rd pillar- but ultimately not successful

- Complex system
- Low average premium with relatively high AM fees
- High guarantees with high capital requirements
- Low interest rate environment leads to low performance

Number of Riester-contracts (M)



Source: Bundesministerium für Arbeit und Soziales (Federal ministry of work and social affairs)

Third pillar in Germany – state subsidized pension plans

	A Riester plan	B Rürup plan
Profile	• Introduced: 2001 • Purpose: incentive citizens via state subsidies to make provisions for retirement following reduction of the 1st pillar pension scheme	• Introduced: 2005 • Purpose: Further increase coverage of 3rd pillar using tax benefits as an incentive
Target groups	• Compulsory insured employees, agricultural workers and civil servants and their spouses	• Participation is open to all ciizens, but mainly target self-employed, freelancers and high-income earners with heavy tax burdens
Product and incentive design	• Contribution of 4% of pre-tax income to be entitled to receive subsidies from the state • Contribution is tax exempt • allowance of max 30% one-off payment upon retirement; monthly payout afterwards, both will be taxed • Insuredhas to reside within EU/EEA after retirement	• Contributions up to a maximum are tax-deductible; • Pay-out only possible in form of guaranteed lifelong pension • First payout after age 60; no inheritance; no reselling or advances allowed.
Market reaction	• Amount of signed policies far below expectations • Products are complicated, inflexible, and costly	• Relatively high amount of signed policies

Characteristics of German reform of the third pillar—incentives, strict regulation and steady transition

Characteristic no. 1: Purchase incentives

- Two basic incentives
  - **Direct subsidies:** State subsidies paid directly into pension scheme
  - **Tax benefits:** Deferred taxation
- Ultimately a complicated system

Drives growth

Gov. consideration:
Create demand to spur supply

Characteristic no. 2: Strict regulation

- Suppliers
  - Strict product criteria & certification
  - Strict restrictions and supervision of fund investments and operation
- Consumers
  - min. age requirement
  - Strict rules as to how to claim pension payments
  - Complicated tax refunding

Impedes growth

Gov. consideration:
Ensure security, stability, and effectiveness; prevent speculation and bubbles

Characteristic no. 3: Steady transition

- Long-stretched transition and implementation period to maintain trust in the pension system

Coordinate growth

Gov. consideration:
Minimize economic and fiscal impact and help people adapt and adopt

Source: BCG analysis, literature search

Declining trust of public in all pillars of German pension system

Regulation tightening
- EIOPA stress test
- Funding the balance sheet (ZZR[1])

Low interest rates
- Interest of government bonds at historical low, which allows to increase budget for social security
- If interest rates rise, social security payments may be unsustainable

Capital based Defined Benefit Schemes ("DBS")
- Low interest rate environment leads to underperformance
- "Holes" in the system hard to recover

Old-age retirement planning

Pillar 1 sustainability in question
- "Mütterrente"
- Frührente
- Increase of pension levels

Investment risk
- Ever greater risk for ever smaller returns

Lost trust
- Large traditional players in run-off
- Public anxiety about run-offs

1. The German insurance regulator has since 2010 forced the sector to hold supplementary reserves, known as Zinszusatzreserve (ZZR); Source: BCG

Despite cost-intensive reforms, new pension reform pact will increase state’s social benefit payment obligations—potentially not financially sustainable

Politicians increase benefits

“ *Shouldn’t the key promise of being protected in old age be worth something to our society for all generations?*
Hubertus Heil, Social Minister, Spiegel Online, July 2018

“ *This pension pact means security for all generations. For the elderly through the guaranteed pension level of at least 48 percent until 2025. […] the contributions will not rise above 20 percent by 2025, and that in an aging society.*
Hubertus Heil, Social Minister, Deutschlandfunk, October 2018

“ *Social Minister Hubertus Heil (SPD) estimated the additional expenditure for the mother's pension […] around € 3.8 bn annually. It is to be financed by the contribution fund, which created additional burden on companies and employees.*
FAZ, August 2018

“ *The introduction of the “Pension 63” now costs more than € 15 bn per year. From next year onwards, government wants to expand the maternity pension again. Costs: almost € 27 bn until end of 2025*
BZ Berlin, August 2018

Concerns about financial sustainability

“ *The currently stable economy is supposed to finance election gifts. Leading German economic institutes are now attacking the federal government's pension program. The desired expansion of social benefits lead to massive additional costs—without being clear, who pays the bill.*
Focus, April 2018

“ *It means billions of Euros of additional burden on the statutory pension insurance*
Steffen Kampeter, Union of employers, Zeit, July 2018

“ *Until 2025, this is, only for the next 7 years, the financing of the statutory pension is secured. Then the baby boomers retire. Government does not yet know how to finance all these new pensioners. Germany is looking into a huge pension hole.*
BZ Berlin, August 2018

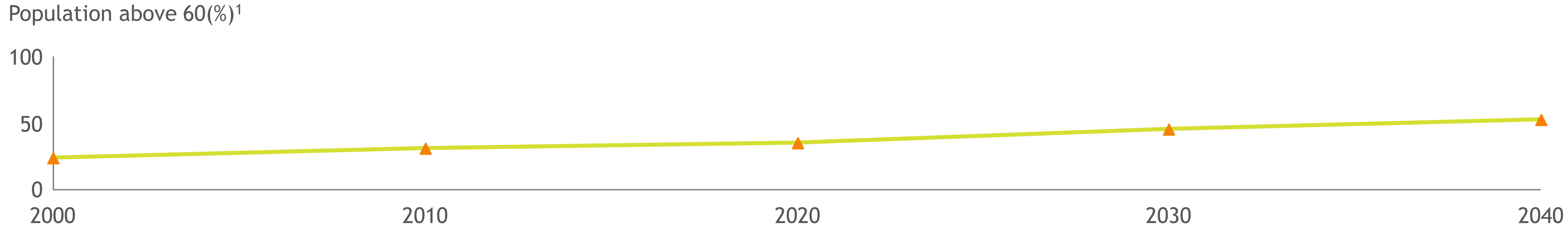
Major lessons learned from German pension system

1. Ensure that statutory pensions can be financed in the long term before promising increases – taking back promised benefits causes tensions in population
2. If subsidy is introduced in pillar 2 and 3 - keep it simple and easy to explain
3. Encourage long-term investments in productive capital like equities or real assets. Reduce volatility risk systematically via an equalization mechanism
4. Aim for real estate market not to overheat as property could be an important part of private savings
5. Set-up a failure fund which could step-in for insolvent players

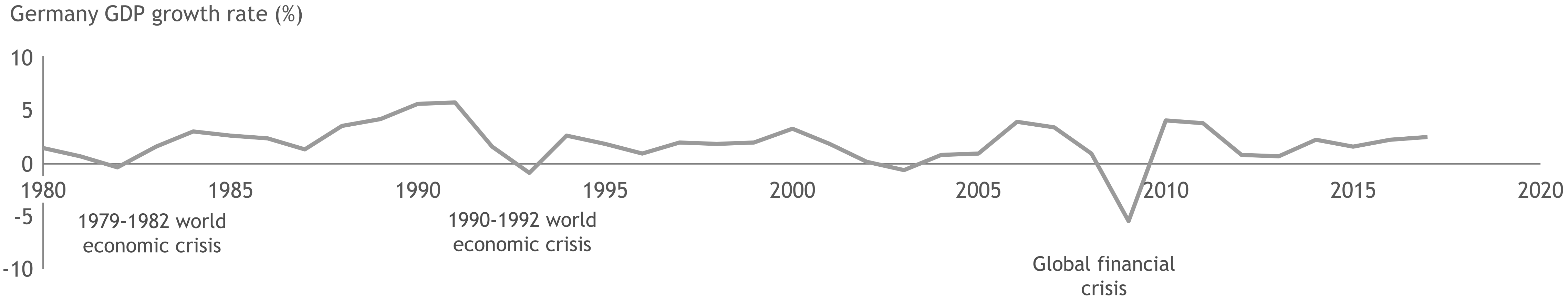
Back-up

Government-driven pension system is pressured by fast aging and challenging economy

Aging problem worsened and will become even more critical



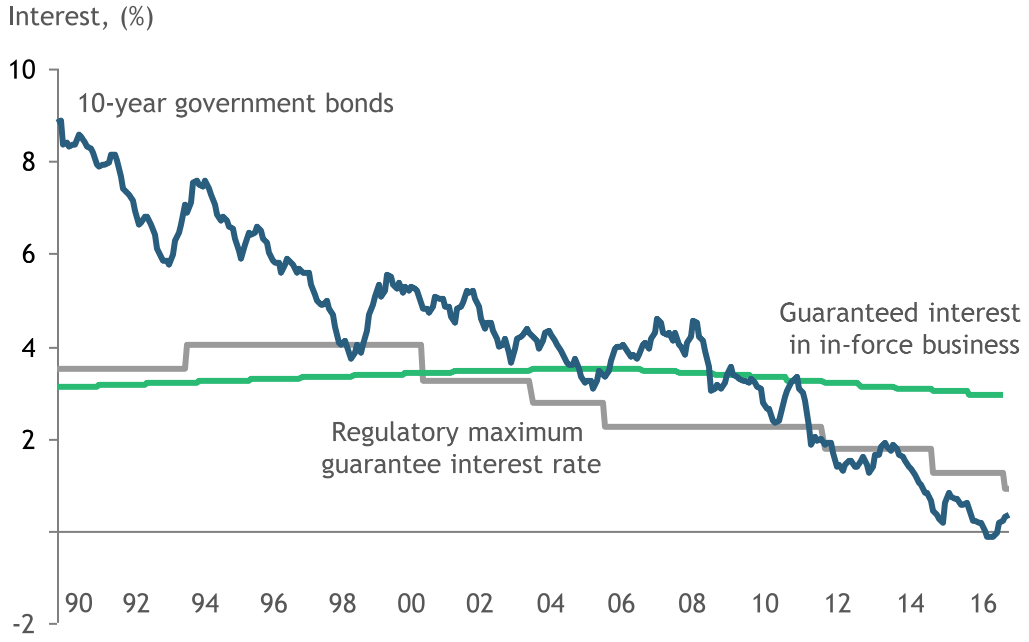
Economic growth stays slow after 1990 world economic crisis



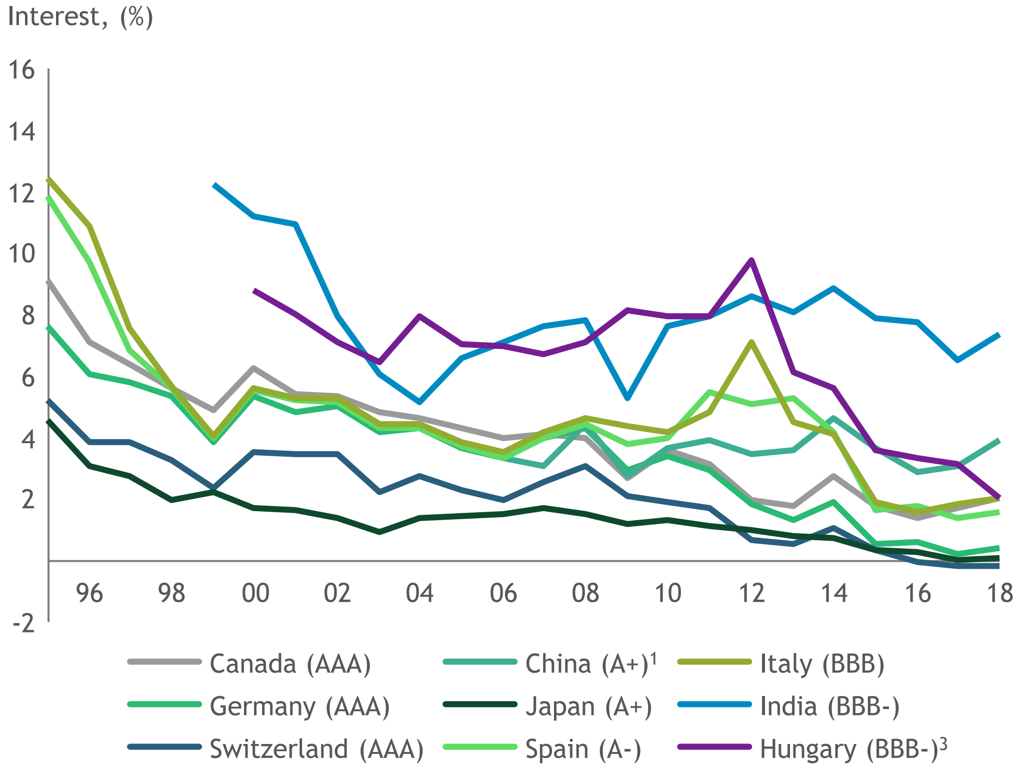
1. Share of people aged 60 and above
Source: EIU

Low interest environment pressure increased through spread compression

Germany is #1 example of life insurance industry under pressure due to high guarantee rates



Declining income of fixed asset classes makes it difficult to achieve high yields—regardless of rating level



1. 10 year bond rate for China was available since 2005 2. 10 year bond rate for India was available since 1998 3. 10 year bond rate for Hungary was available since 1999;
Note: Credit Ratings per S&P 2018; Source: GDV; Bundesbank; Assekurata; Hoppenstedt; Data Stream; BCG-Analysis, BaFin, Bloomberg

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