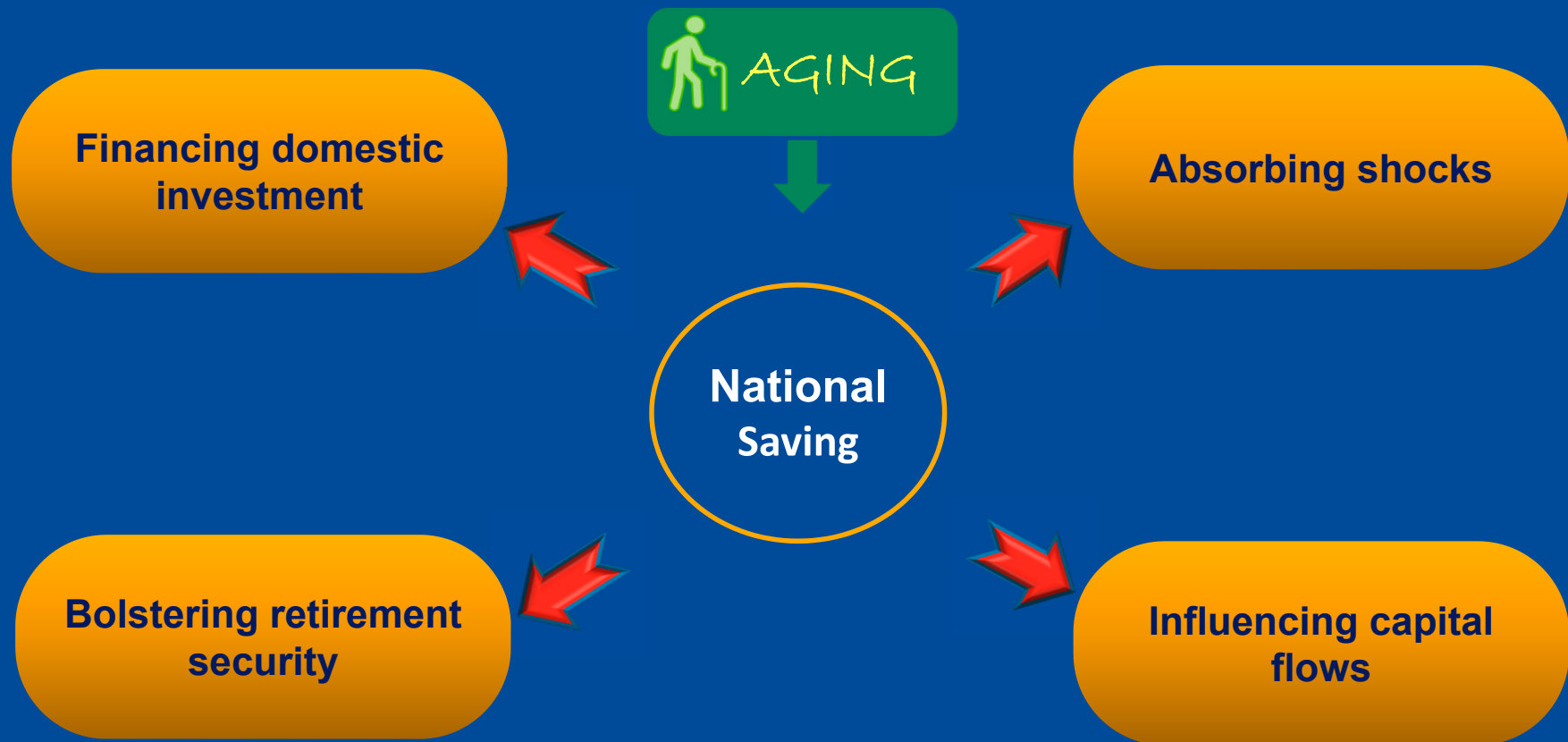# The Future of Saving: The Role of Pension System Design in an Aging World

TOKYO, JANUARY 16, 2019

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Why Do We Care About Saving?

Financing domestic investment

AGING

Absorbing shocks

National Saving

Bolstering retirement security

Influencing capital flows

Key Questions:

1. How will aging affect savings across countries?

2. How does pension system design affect saving?

3. What policies are needed to cope with the aging challenge?
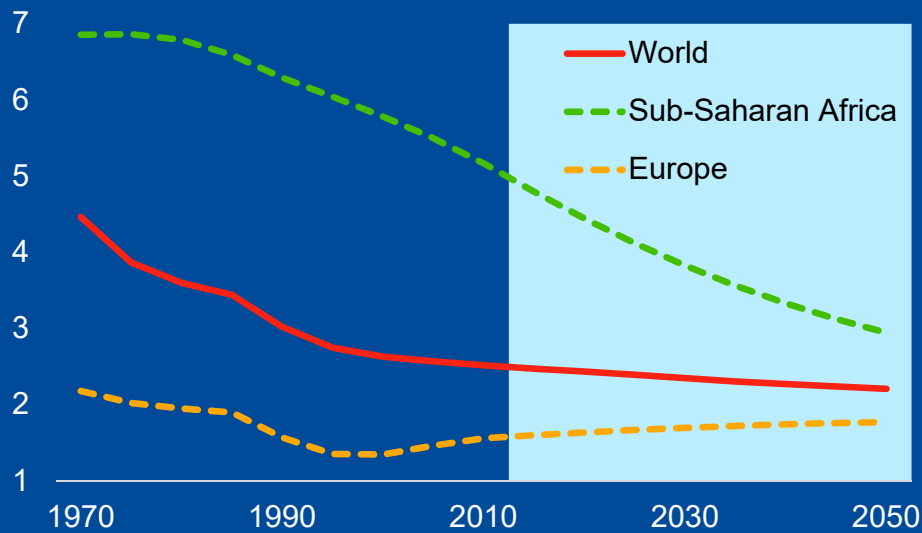
Key Findings

- The impact of aging on savings depends on interaction of asynchronous demographic transitions and the design of retirement systems.

- Private saving falls by over 3 percent of GDP in countries with generous public pension systems.

- Private saving is projected to increase by over 8 percent of GDP in 2050 in countries with a funded/defined-contribution scheme.
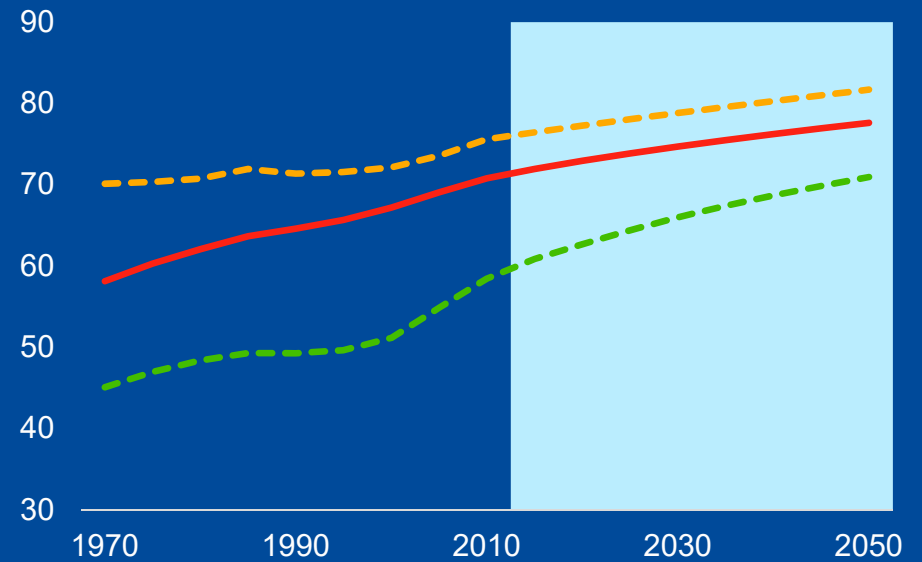
Demographics and Public Pension Systems – Stylized Facts and Analytical Framework

A Significant Demographic Transition Is Underway...
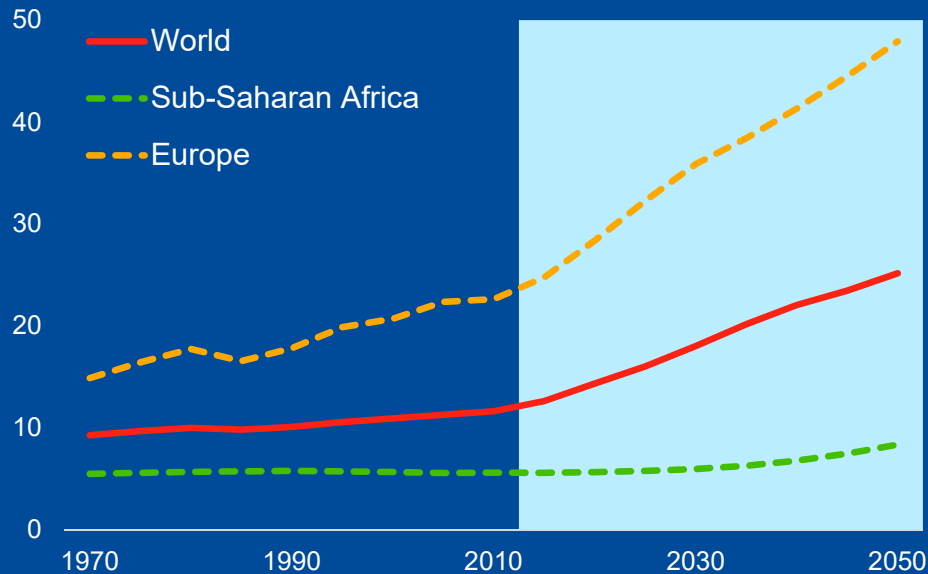
Fertility Rates
(live births per woman)

Legend:
— World
-- Sub-Saharan Africa
-- Europe

Y-axis: 1, 2, 3, 4, 5, 6, 7
X-axis: 1970, 1990, 2010, 2030, 2050

Life Expectancy at Birth
(years)

Y-axis: 30, 40, 50, 60, 70, 80, 90
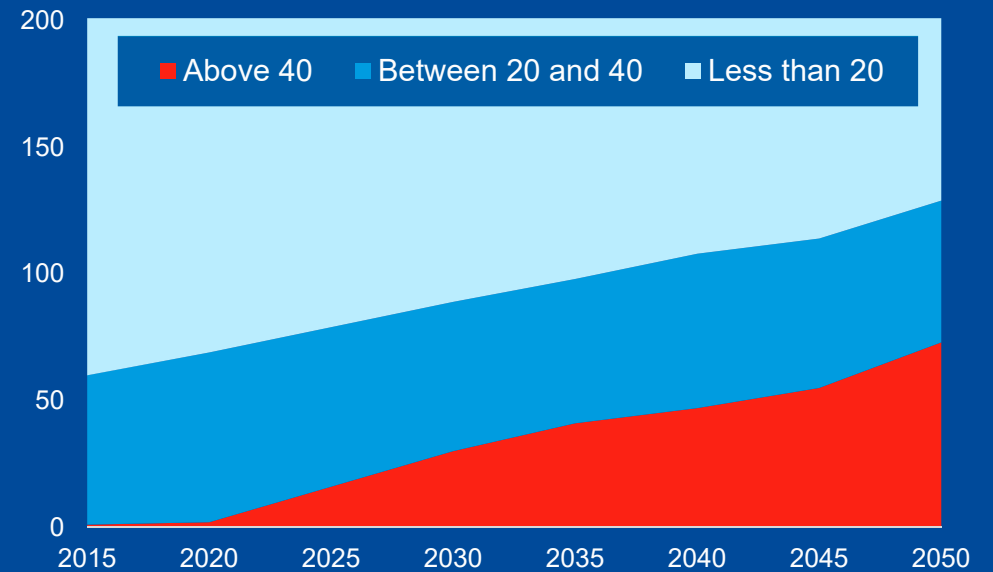X-axis: 1970, 1990, 2010, 2030, 2050

Sources: UN World Population Prospects 2017 and IMF staff calculations.

# ...with Asynchronous Effects across Countries

Old-age Dependency Ratio

Legend:
- World (red solid line)
- Sub-Saharan Africa (green dashed line)
- Europe (orange dashed line)

Number of Countries by Old-age Dependency Ratio

Legend:
- Above 40
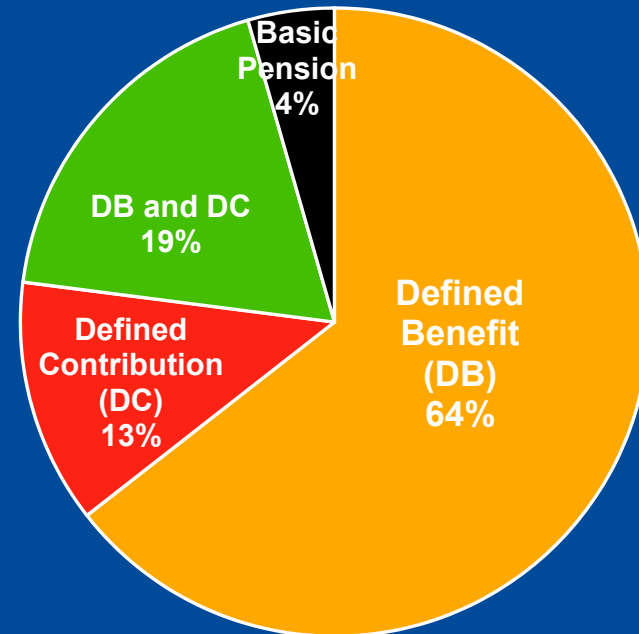- Between 20 and 40
- Less than 20

Sources: UN World Population Prospects 2017 and IMF staff calculations.

Pension System Arrangements Influence Public and Private Saving...
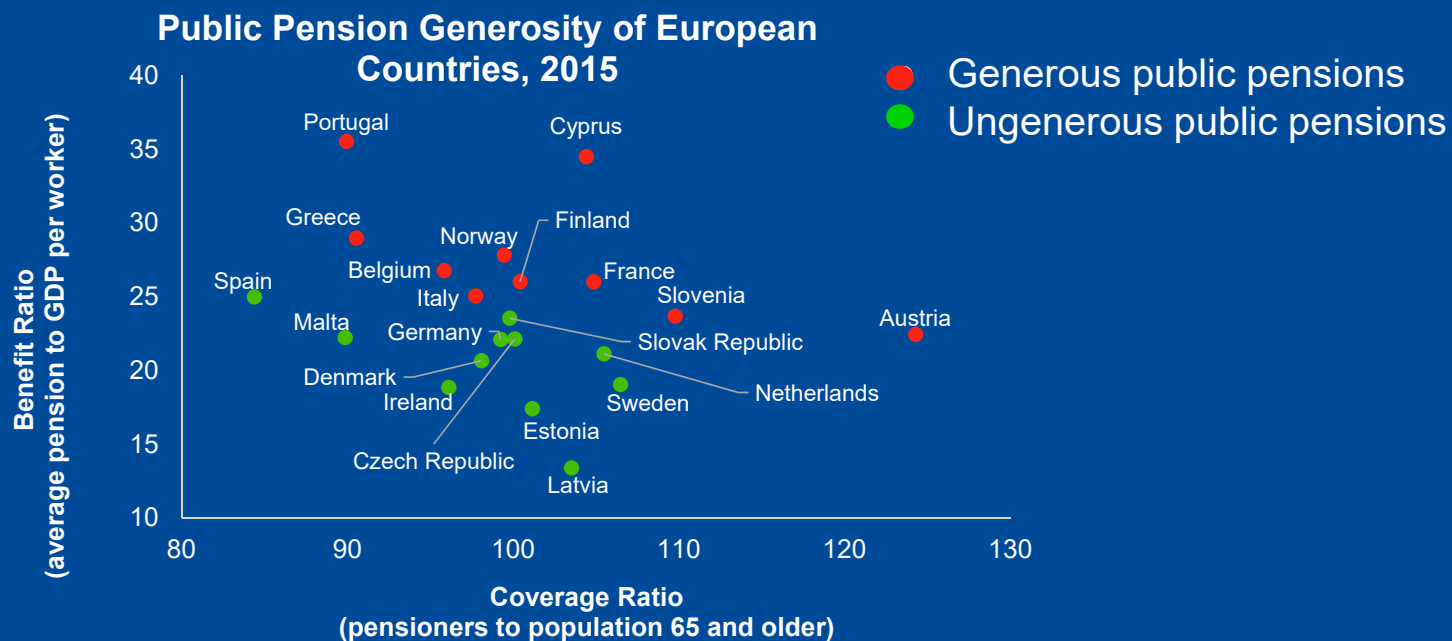
Advanced Economies

- Basic Pension 11%
- DB and DC 20%
- Defined Benefit (DB) 58%
- Defined Contribution (DC) 11%
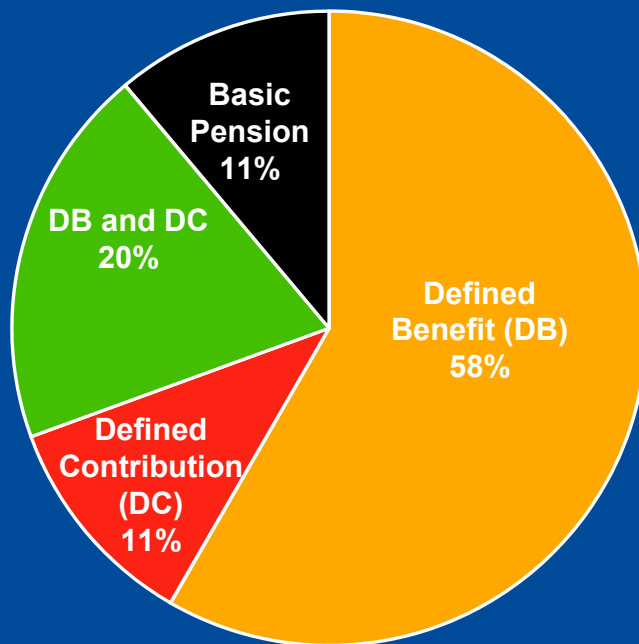
Emerging and Developing Economies

- Basic Pension 4%
- DB and DC 19%
- Defined Benefit (DB) 64%
- Defined Contribution (DC) 13%

Sources: U.S. Social Security Administration and IMF staff calculations.
Note: Charts are based on data for 36 advanced economies and 135 emerging market and developing economies. DB includes traditional defined benefit as well as basic pension schemes (flat rate or means-tested). DC includes mandatory individual account schemes and basic pension schemes. "Basic pension" includes basic pension schemes only, without an additional DB or DC feature.

… As Does Generosity of Pension Systems

Public Pension Generosity of European Countries, 2015

● Generous public pensions
● Ungenerous public pensions

Y-axis: **Benefit Ratio** (average pension to GDP per worker), scale 10 to 40

X-axis: **Coverage Ratio** (pensioners to population 65 and older), scale 80 to 130

Data points: Portugal, Cyprus, Greece, Finland, Norway, France, Belgium, Slovenia, Spain, Italy, Austria, Malta, Germany, Slovak Republic, Denmark, Ireland, Sweden, Netherlands, Czech Republic, Estonia, Latvia

Sources: European Commission and IMF staff calculations.
Note: Public pension generosity of a country is defined as the product of the benefit and coverage ratios. Countries in the top 25% of this measure are represented by red dots.
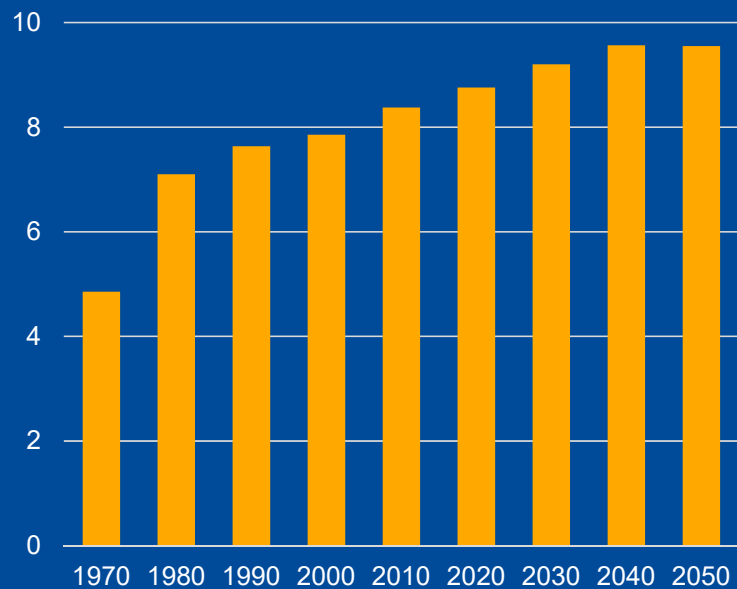
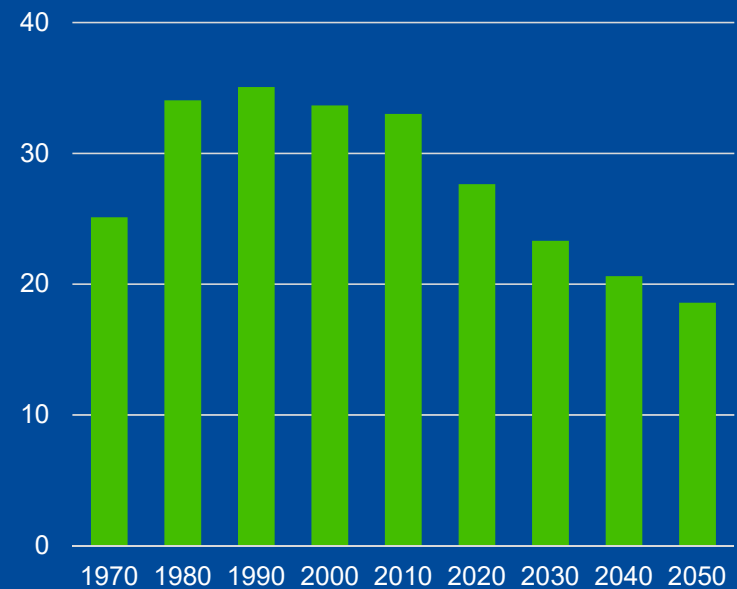# Demographics and Pension Design Jointly Determine Private and Public Saving
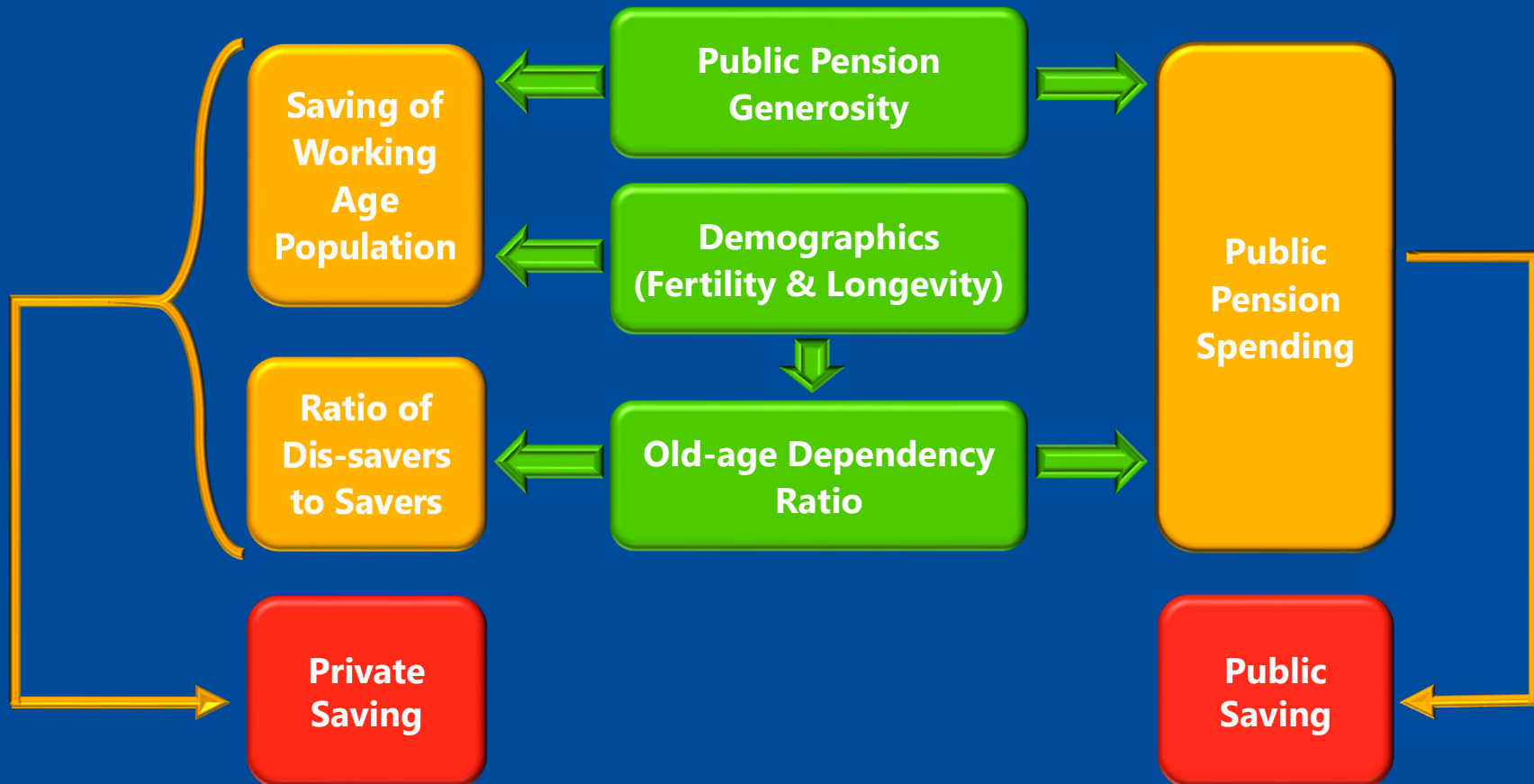
Saving Projections and Policy Considerations

Pension Spending Will Increase, but Welfare of Future Retirees Could Be at Risk

Pension Spending in Advanced Economies (percent of GDP)
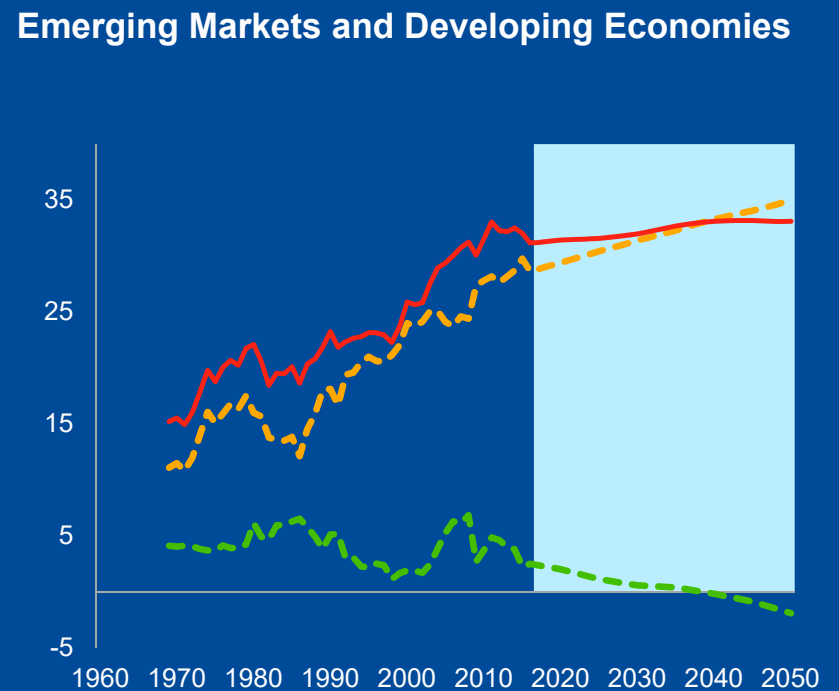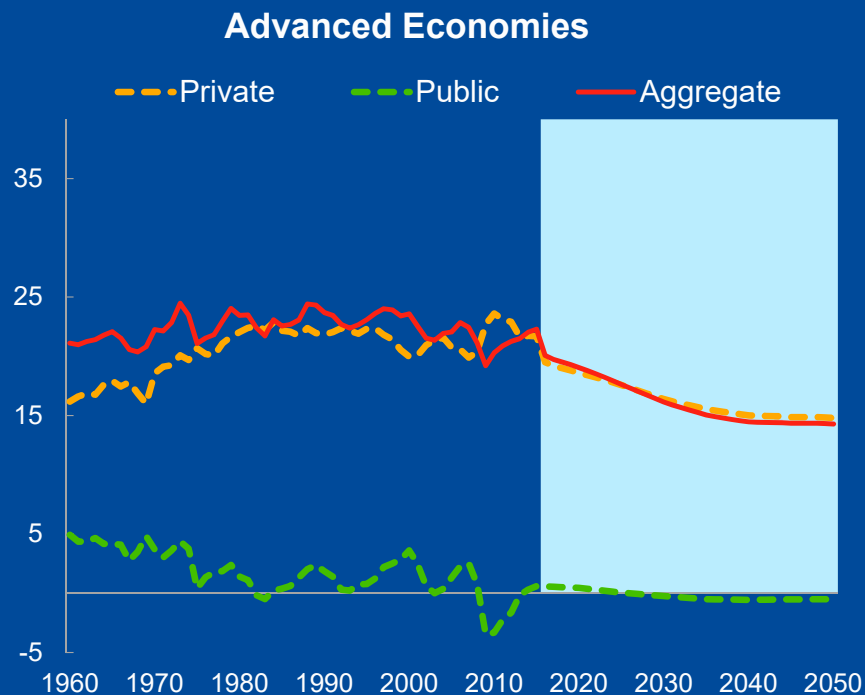

Ratio of Average Pension to GDP per Worker in Advanced Economies (percent)

Sources: Eurostat, OECD and IMF staff calculations.

Private Savings Determine Aggregate Savings

Advanced Economies

- - - Private   - - - Public   ——— Aggregate

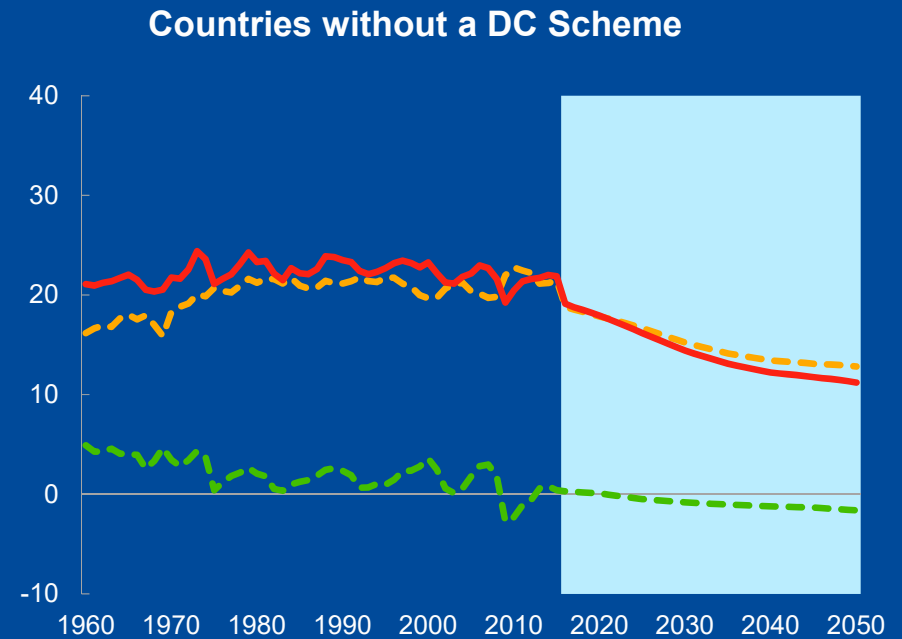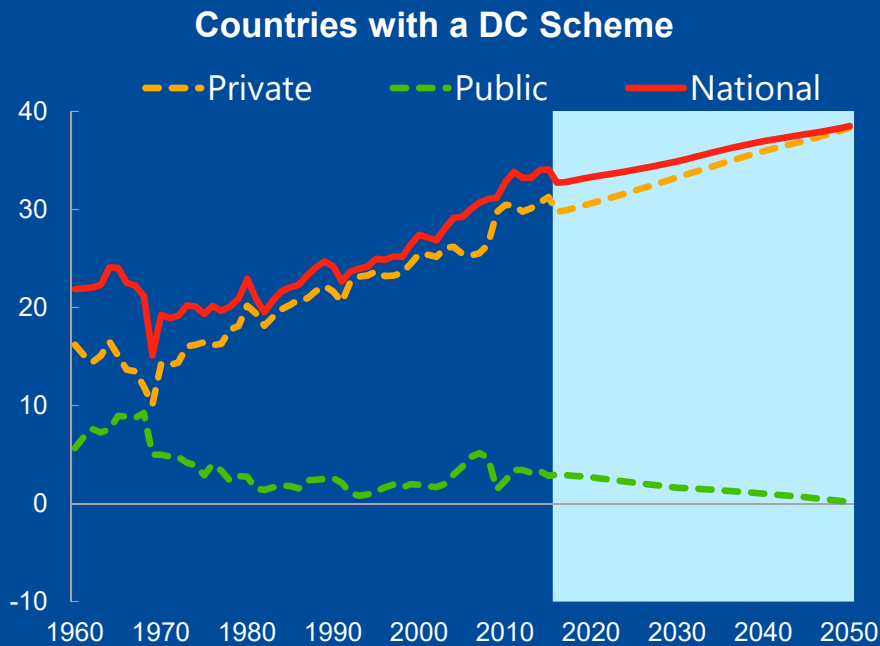### Emerging Markets and Developing Economies

Sources: IMF WEO and IMF staff calculations.
Note: Projections in 2016 and later years include data for 74 countries accounting for over 80 percent of world GDP in 2016.
Aggregate saving rates are weighted by GDP.

The Presence of a DC Scheme Increases Savings

Countries with a DC Scheme

Legend: - - - Private (orange) - - - Public (green) —— National (red)
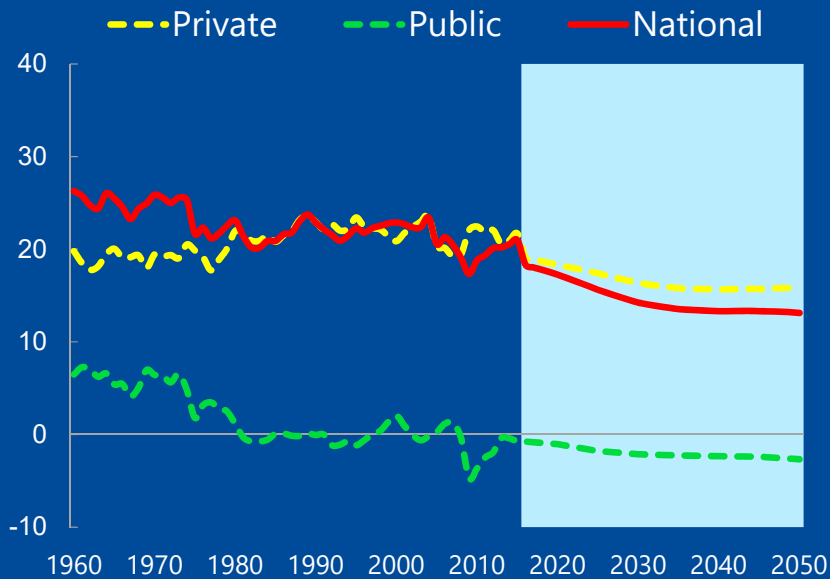
Countries without a DC Scheme

Sources: IMF WEO and IMF staff calculations.
Note: Projections in 2016 and later years include data for 74 countries accounting for over 80 percent of world GDP in 2016.
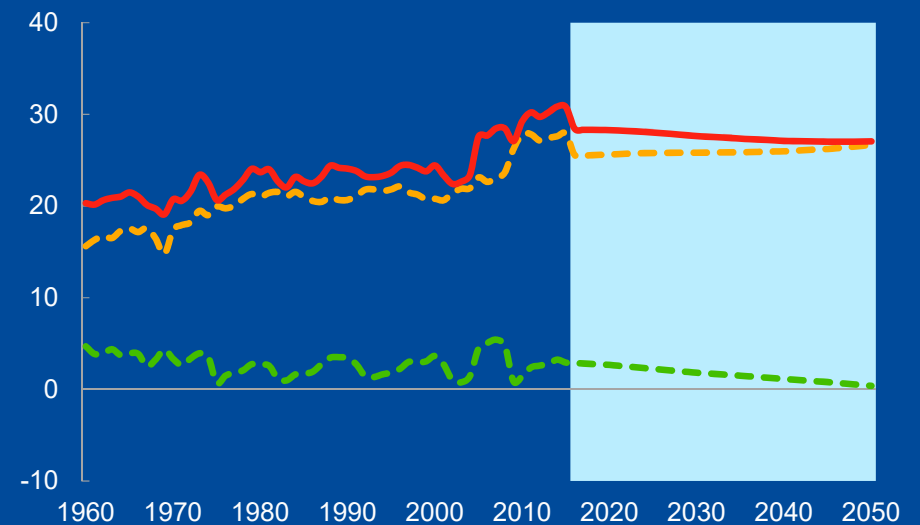Aggregate saving rates are weighted by GDP.

Generous Public Pensions Substitute for Savings

Countries with Generous Public Pensions

Countries with Ungenerous Public Pensions

Sources: IMF staff calculations.

Note: The generosity grouping is taken for the year 2015. Countries with generous public pensions are the top 40% of the generosity measure. Aggregate saving is weighted by GDP.

Policy Considerations 1

- Ensure equitable pensions and avoid fueling old-age poverty

  ▶ Enhance social transfers targeted to reduce households' need for precautionary savings

- Counteract the effects of aging on labor supply

  ▶ Encourage longer productive lives
  ▶ Attenuate gender gaps and tackle informality

Policy Considerations 2

- Where relevant, decrease overly generous public pension benefits to improve fiscal sustainability.

- Encourage household saving to bolster old-age retirement security.

  - ► Consider complementing public pension scheme with a funded DC scheme
  - ► Develop financial saving instruments

IMF STAFF DISCUSSION NOTE

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Thank You!

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