



# The Fiscal Consequences of Shrinking Populations

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# Outline

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- Motivation
- Long-term trends, demographic uncertainty and fiscal sustainability
  - Fertility
  - Longevity
- Policy options to address fiscal challenges of shrinking populations
  - Policies that affect demographics and labor markets
  - Reforms to age-related spending programs
- Conclusions

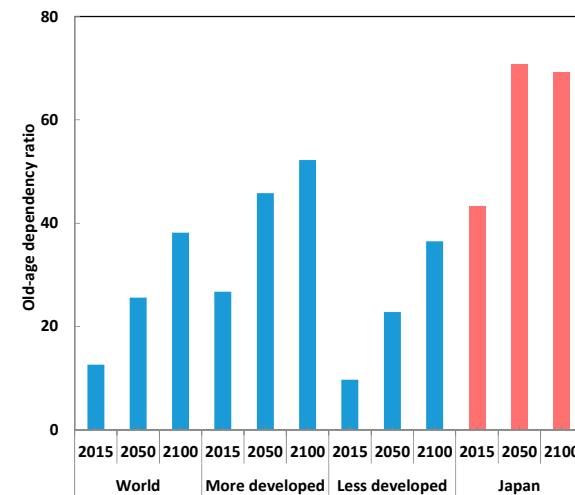
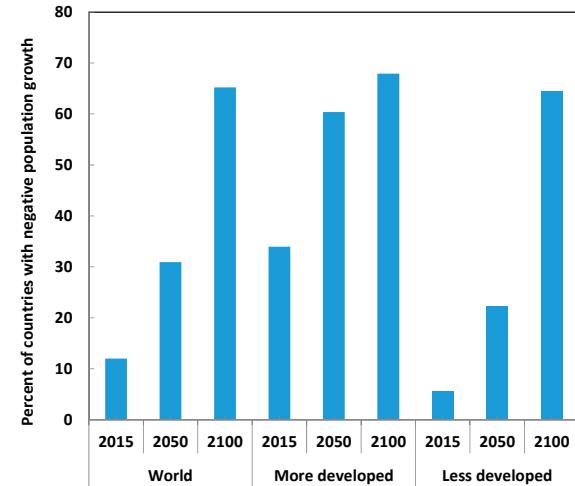


# Motivation

# Motivation I



- Population is already shrinking in many countries and populations are aging
- Shrinking populations pose a formidable fiscal challenge
  - Age-related spending projected to reach levels incompatible with fiscal sustainability
- Reforms should start now so that they will be gradual and lasting



# Motivation II

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Paper makes three major contributions to the debate:

1. Uses July 2015 UN population projections to help project health and pension spending for over 100 countries
2. It is one of first papers to project spending to 2100—many fiscal impacts will only be realized over longer run
3. Reviews potential options to address these fiscal pressures, including foreign workers



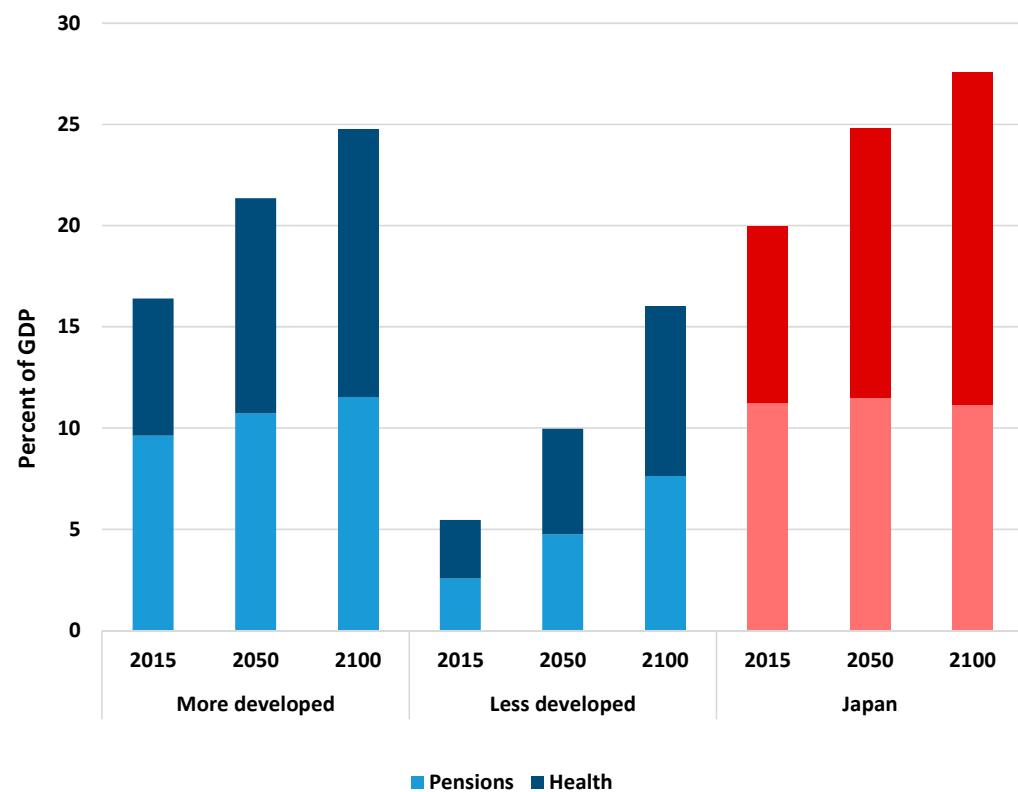
# Long-term Trends, Demographic Uncertainty, and Fiscal Sustainability

# Long-term trends

The prospect of aging, shrinking populations, and higher age-related expenditure



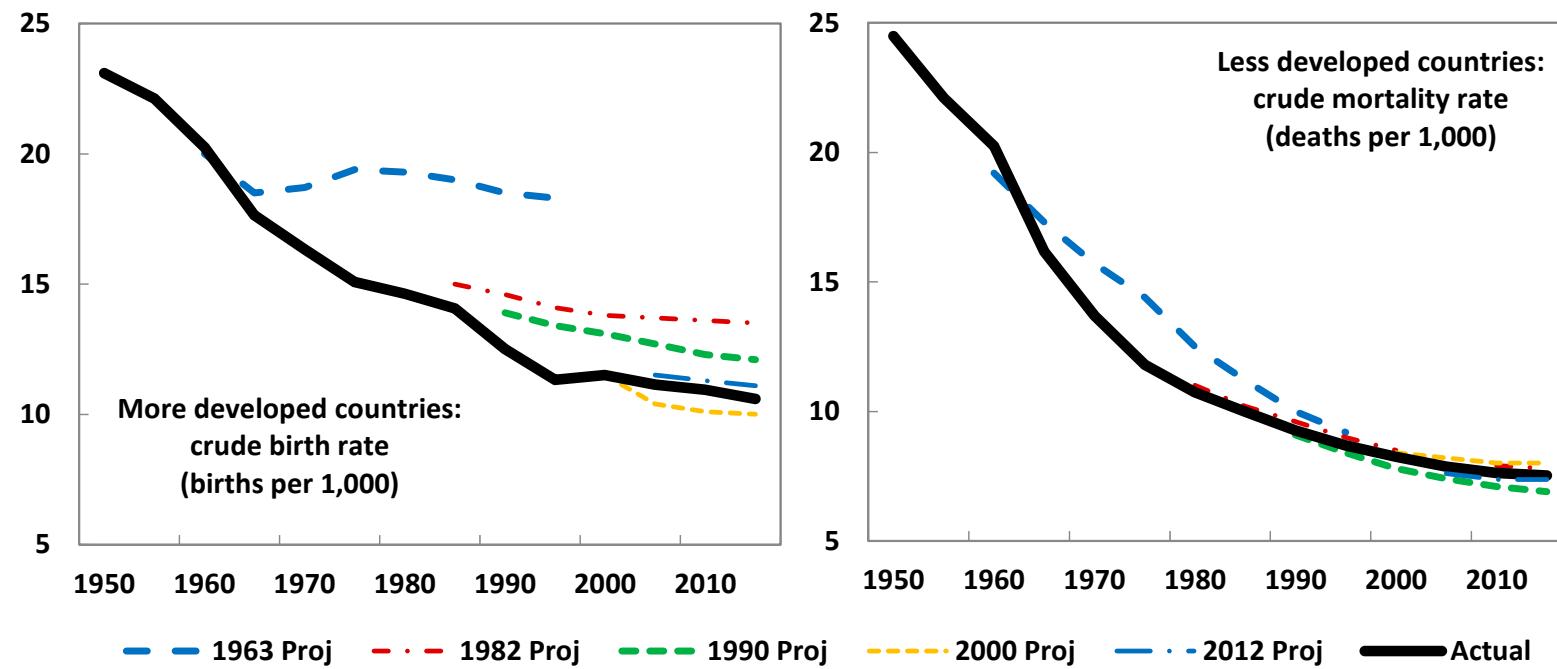
- Population aging will have a large direct impact on public spending
- Demographic changes will also affect fiscal sustainability through their impact on growth



# The impact of demographic uncertainty on fiscal sustainability



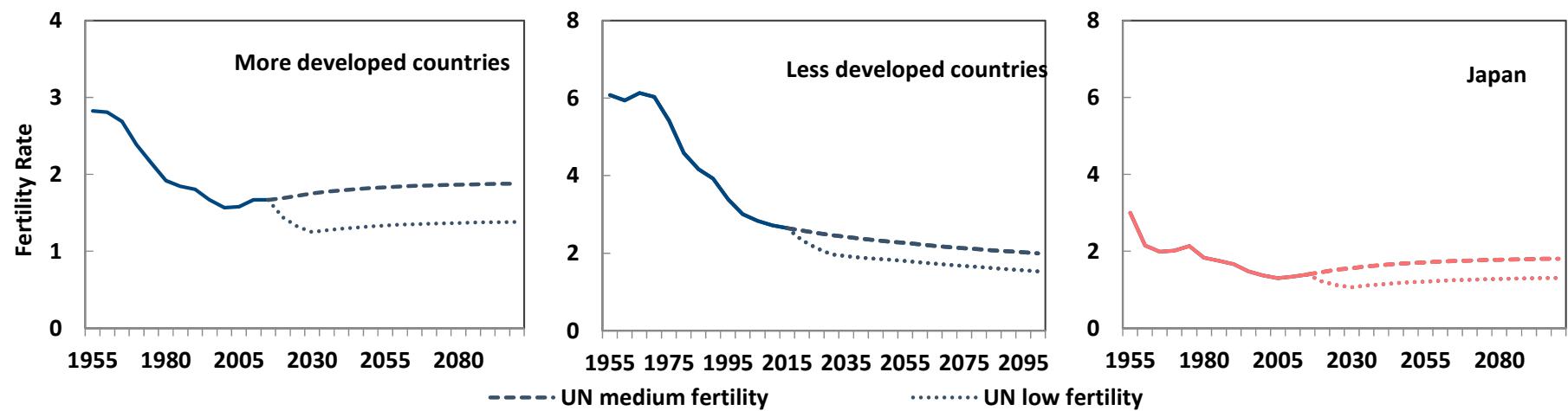
- Demographic projections are surrounded by substantial uncertainty
- Past projections have been subject to large errors



# Fertility



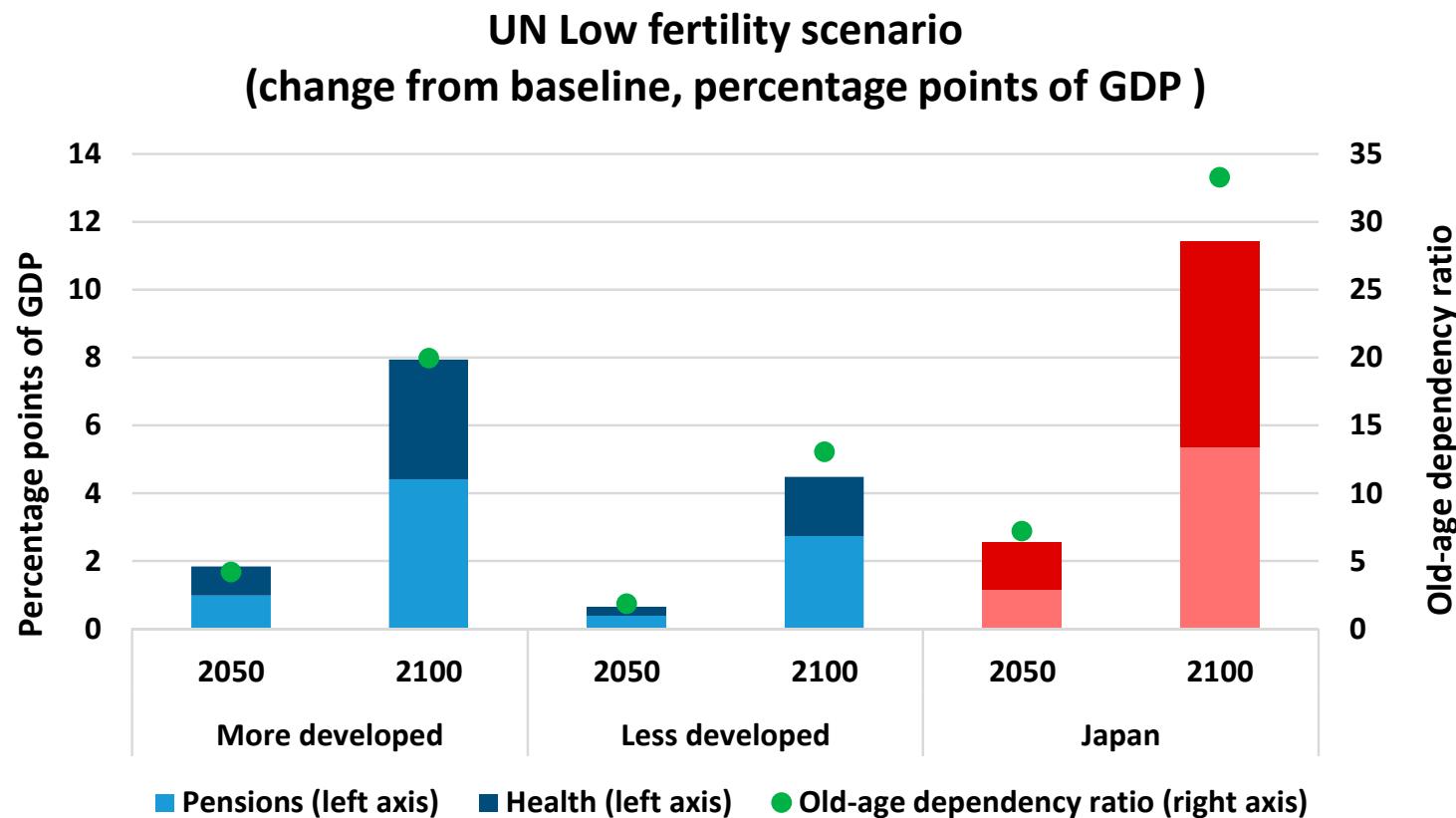
- After declining for over 100 years, fertility rates are projected to increase slightly in the more developed economies over 2015–2100
- For the less developed economies, the projections assume a continued but gradual decline in fertility rates



# Lower fertility scenario



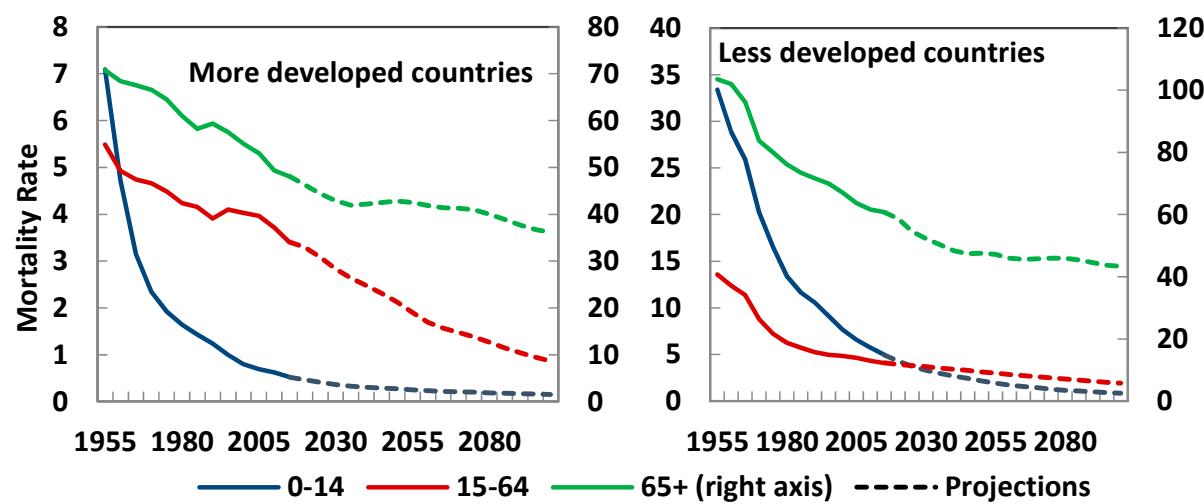
- The impact of lower fertility rates on fiscal variables is significant



# Longevity



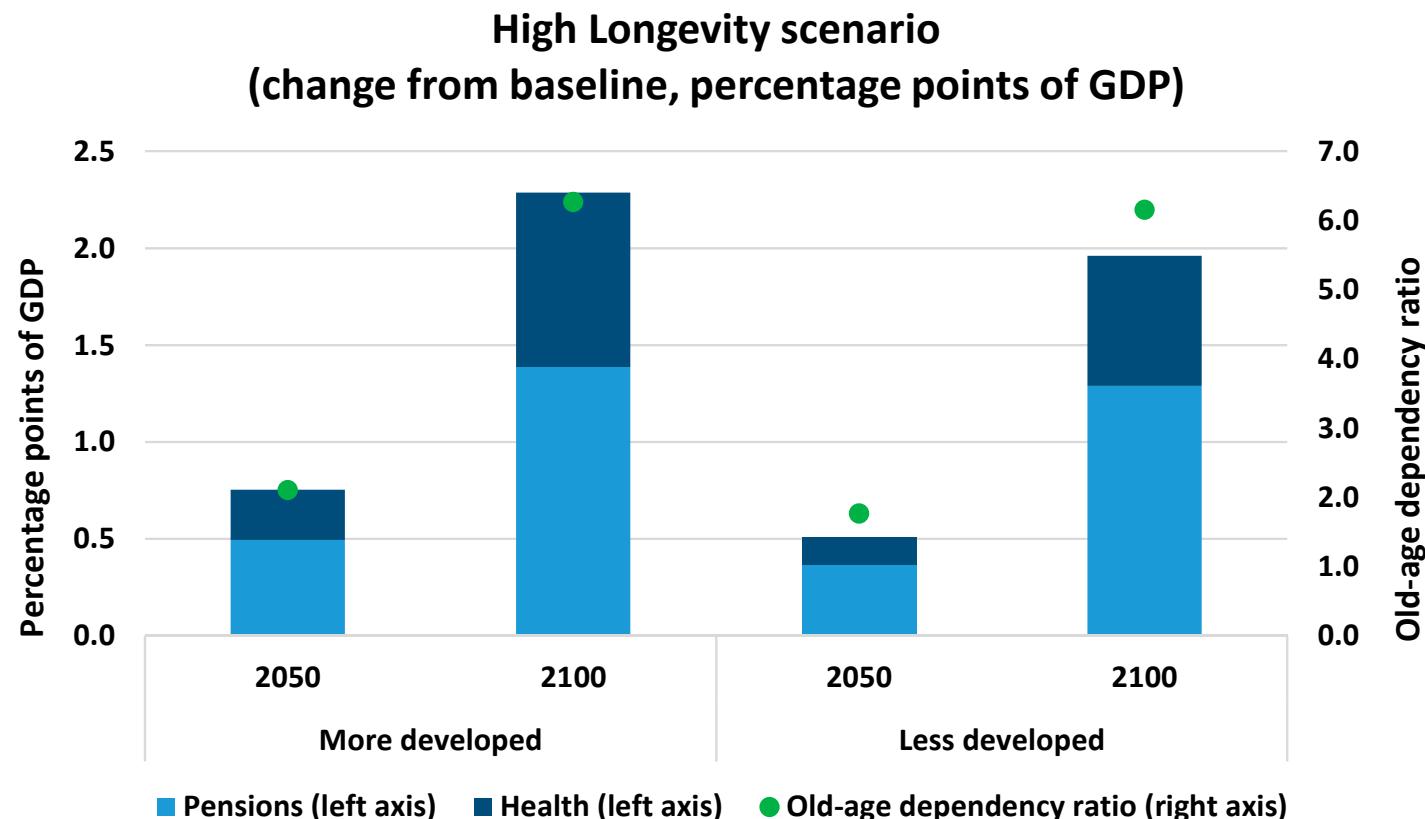
- Longevity improvement is expected to slow down in the more developed economies
- For the less developed economies, the projections suggest continued improvements in longevity



# Higher longevity scenario



- Improvements in longevity can also have an important fiscal impact





# Policy Options to Address Fiscal Challenges of Shrinking Populations

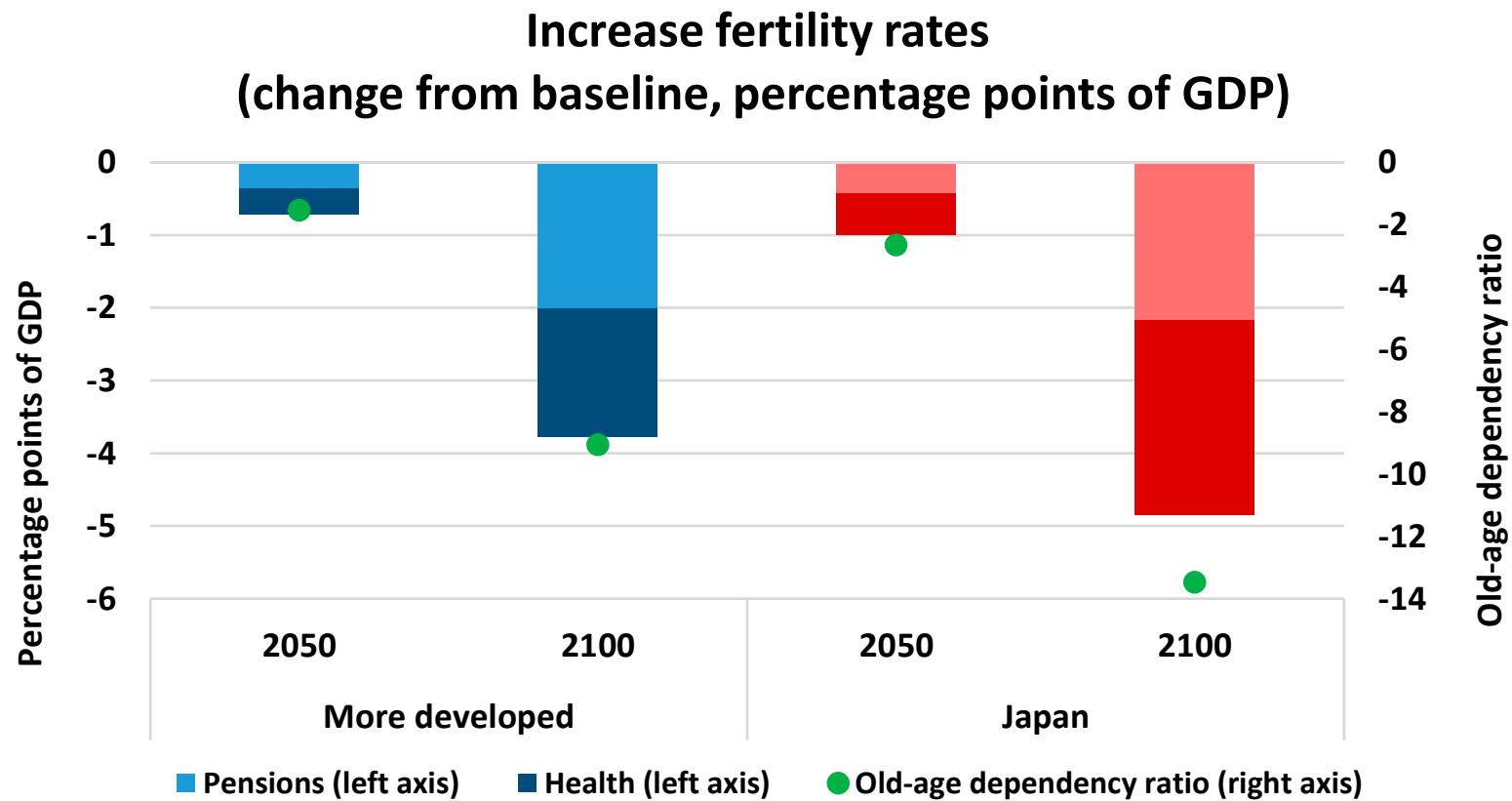
# Overview of policy options

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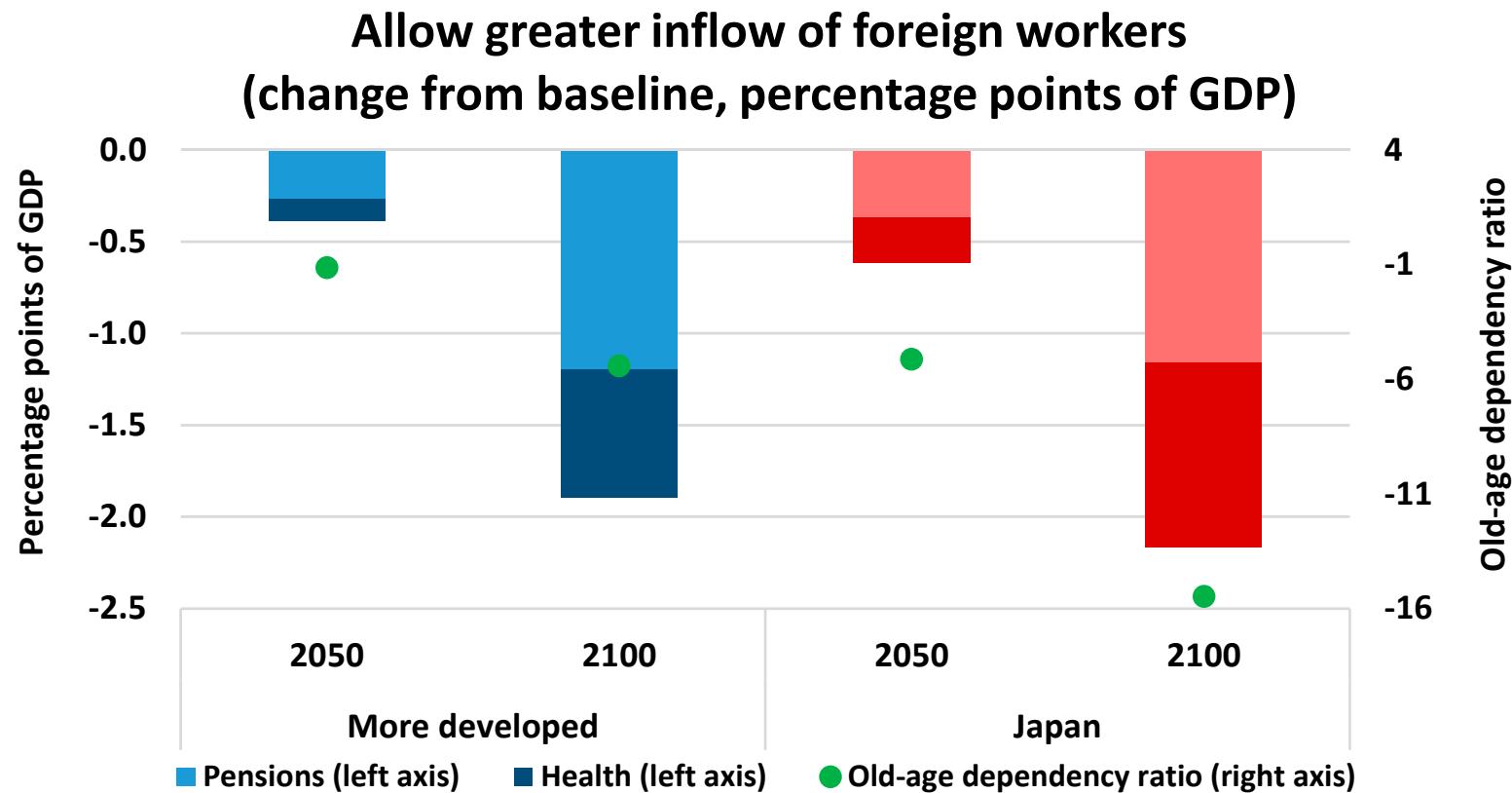


- Categories of potential policy responses to the fiscal challenges posed by population trends:
  1. Policies to raise fertility rates?
  2. Labor market policies
    - Allowing greater inflow of foreign workers
    - Raising labor force participation
  3. Reforms to age-related spending programs
    - Increasing retirement ages
    - Addressing the growth of age-related costs

# Fertility rates?

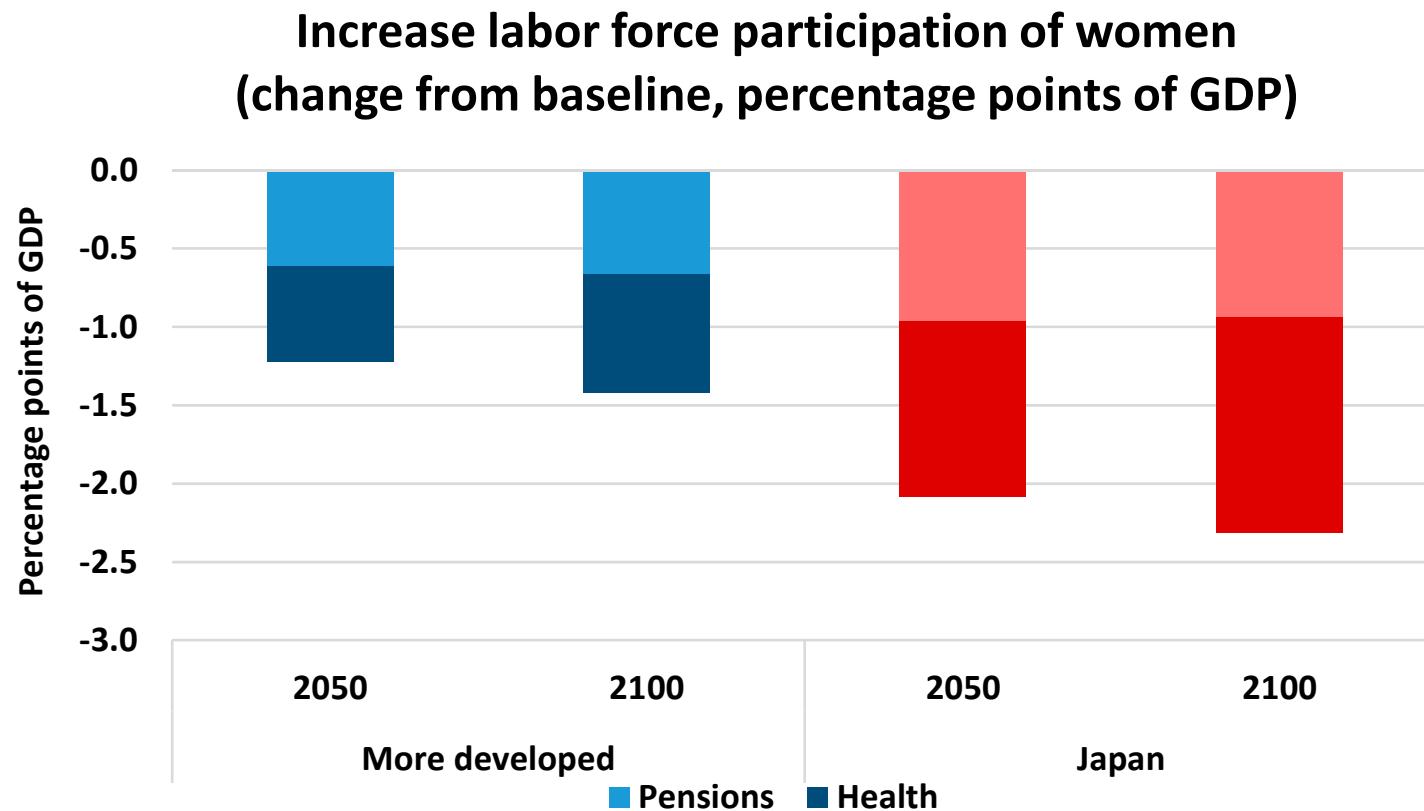


# Allowing greater inflow of foreign workers

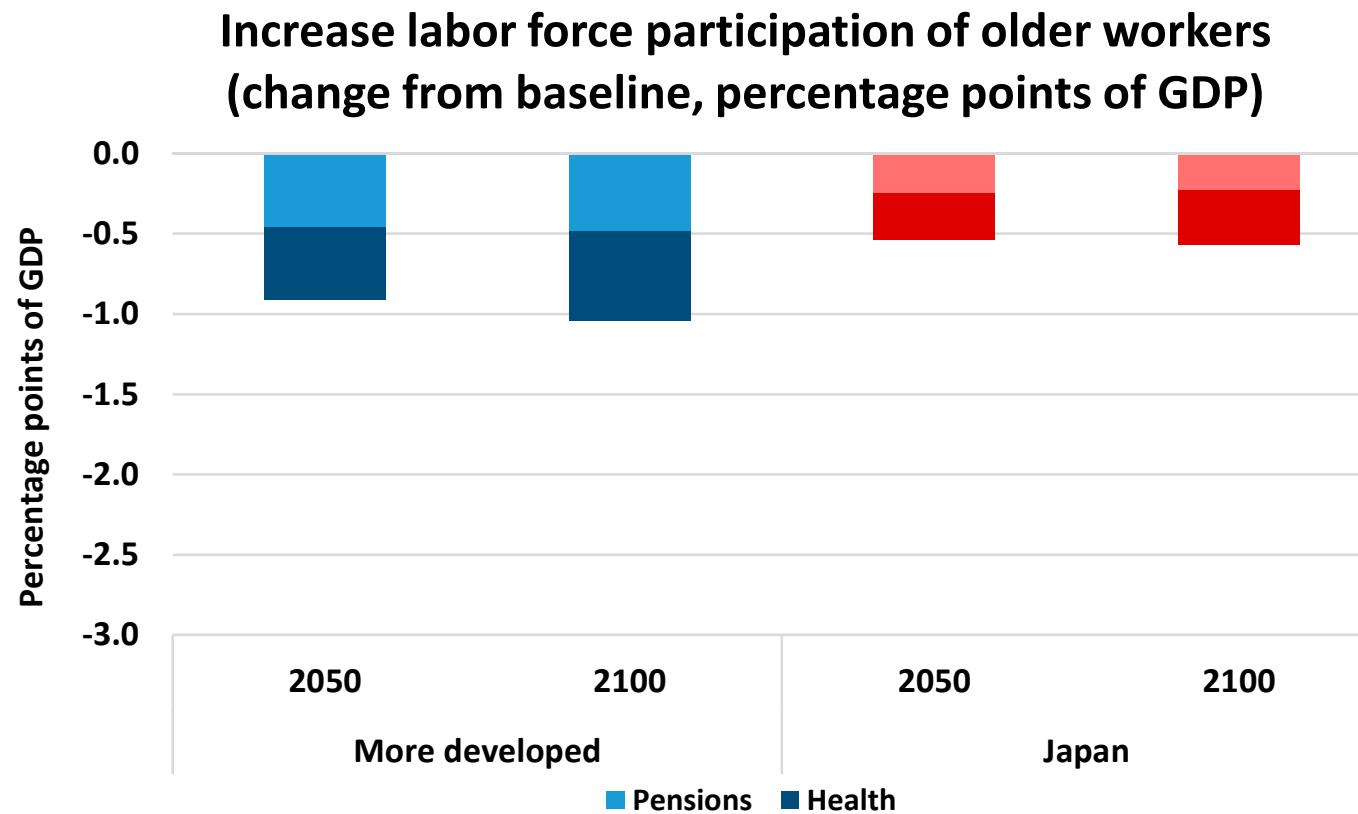




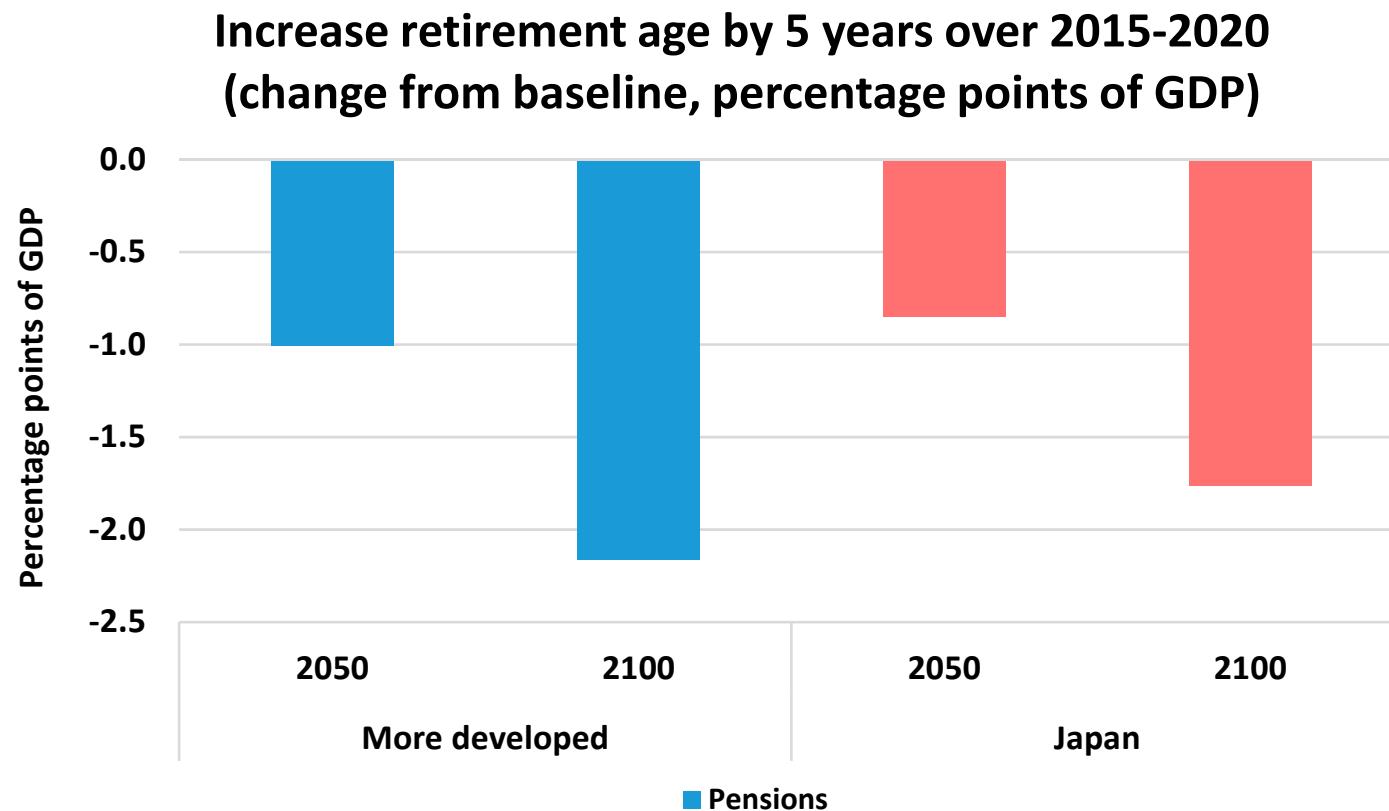
# Raising labor force participation I



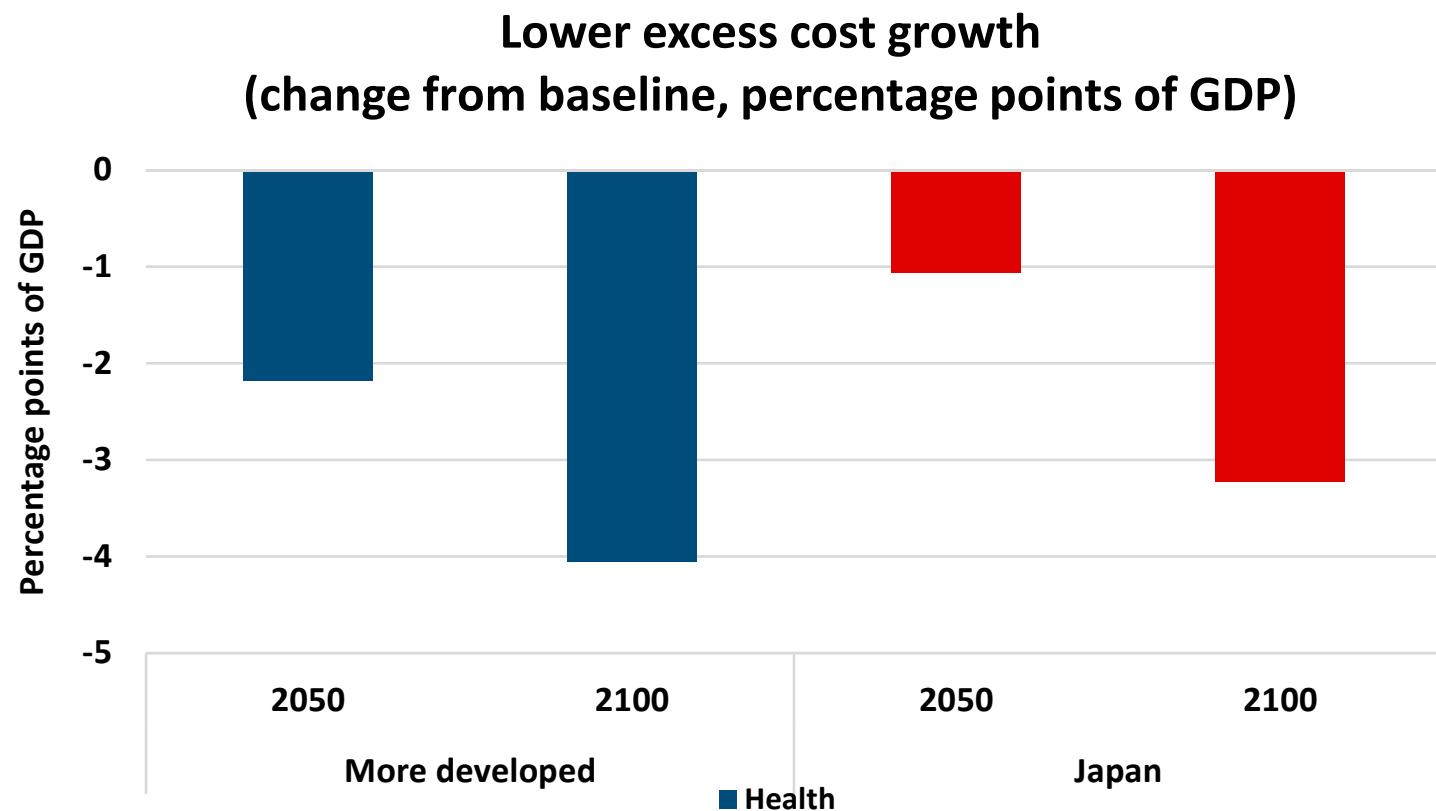
# Raising labor force participation II



# Addressing the growth of age-related costs I



# Addressing the growth of age-related costs II





# Conclusions

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- The fall in fertility and eventual decline in world population are part of the transition to a sustainable growth path
- Nevertheless, shrinking populations pose a grave fiscal threat
- Demographic and age-related spending projections are surrounded by substantial uncertainty
- There is no escape from reforming entitlements
- Labor market policies can ameliorate the impact of aging in the more developed economies
- Given the magnitude of the fiscal challenge, reforms should start now but be gradual