



# Demographic trends that matter for investors

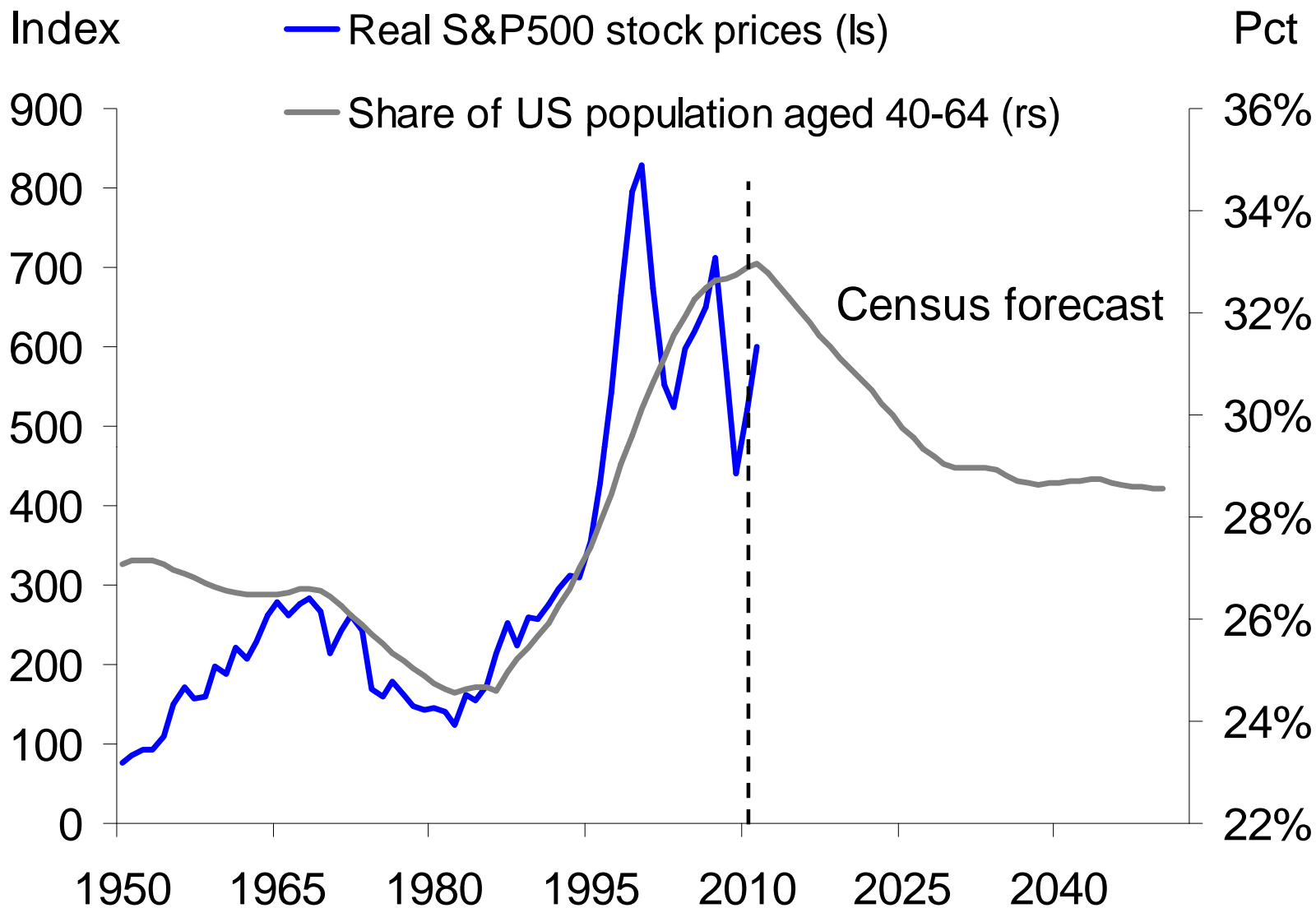
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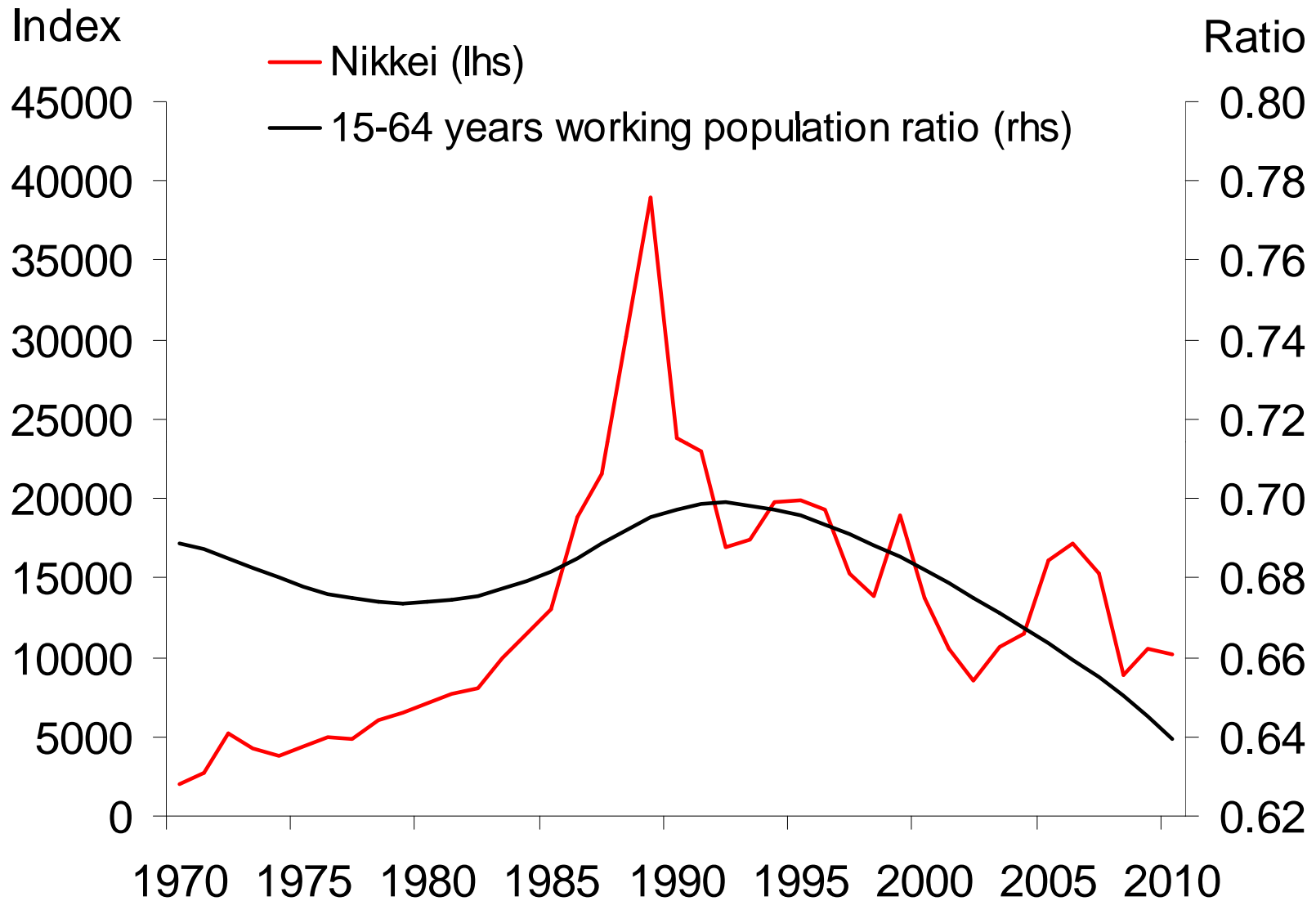
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# Are stock markets driven by baby-boomers first saving for retirement, and then retiring?



# Are Japanese equities driven by demographics?





# Why are demographic trends relevant for investors?

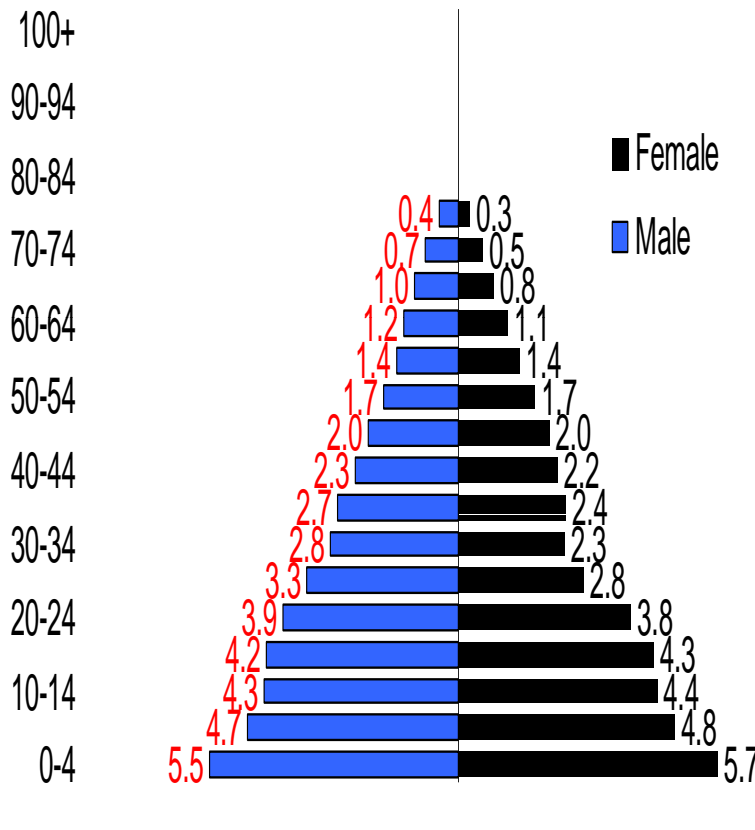
Demographic trends have implications for:

1. Productivity/Potential growth rates (how many in the “young” productive generation relative to the “old” generation)
2. Tax revenues and expenditures and hence budget balances (bigger government sector often needed for larger older generations)
3. Design of the government sector (more resources toward health care/medical spending etc).
4. Patterns of consumer spending (fewer “young” consumers)
5. Population age structure is important; demand for assets for retirement savings (“young” generations are savers)
6. Migration patterns can be important for wage determination (for example, migration from rural to urban areas tends to put downward pressure on wages)

# Japanese population age structure changing rapidly

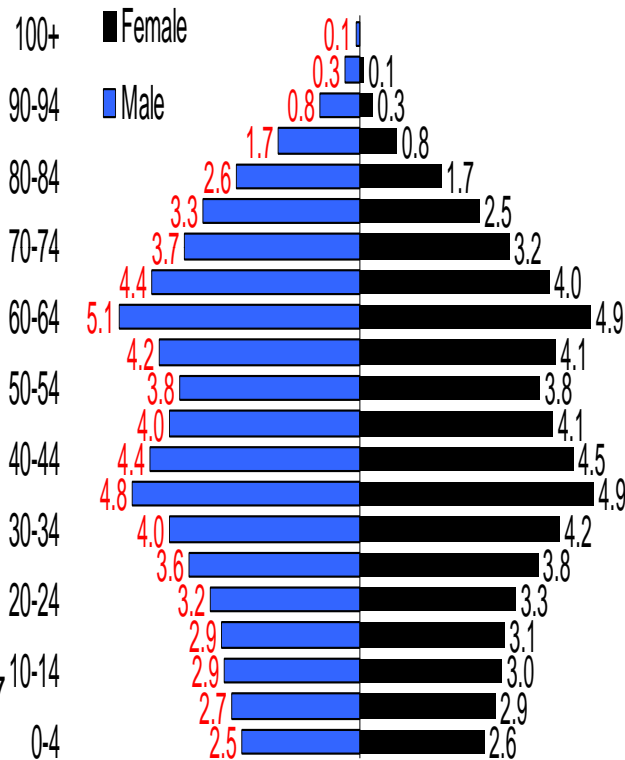


1950



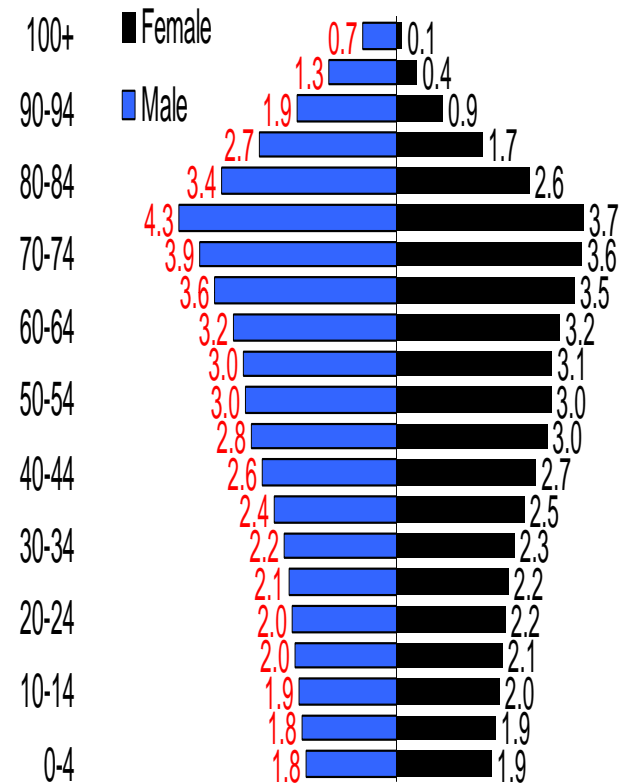
% of population within each age group

2011



% of population within each age group

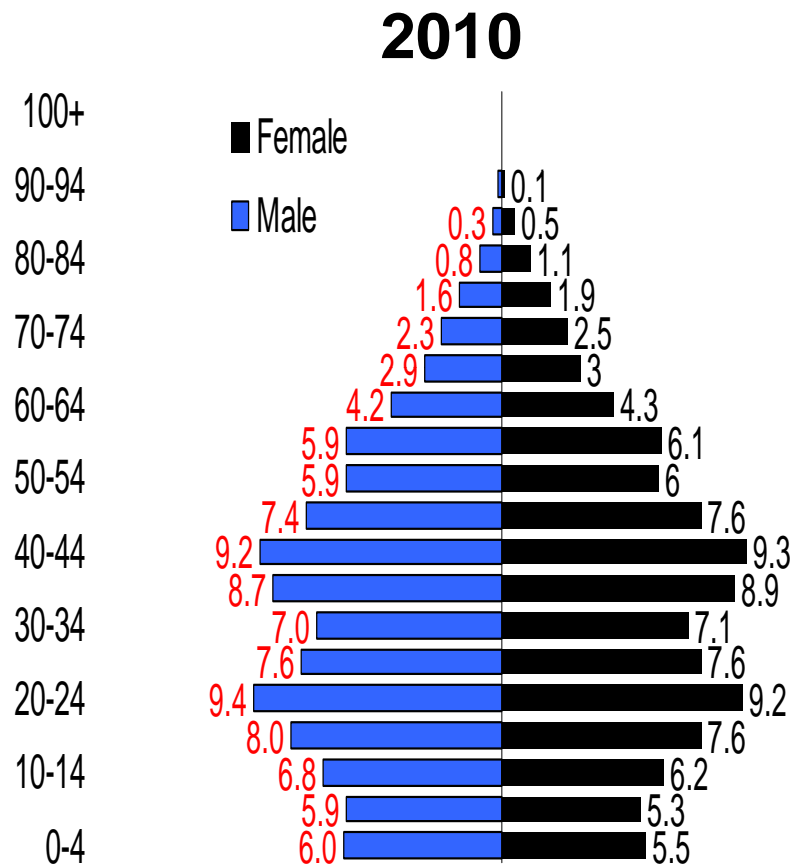
2050



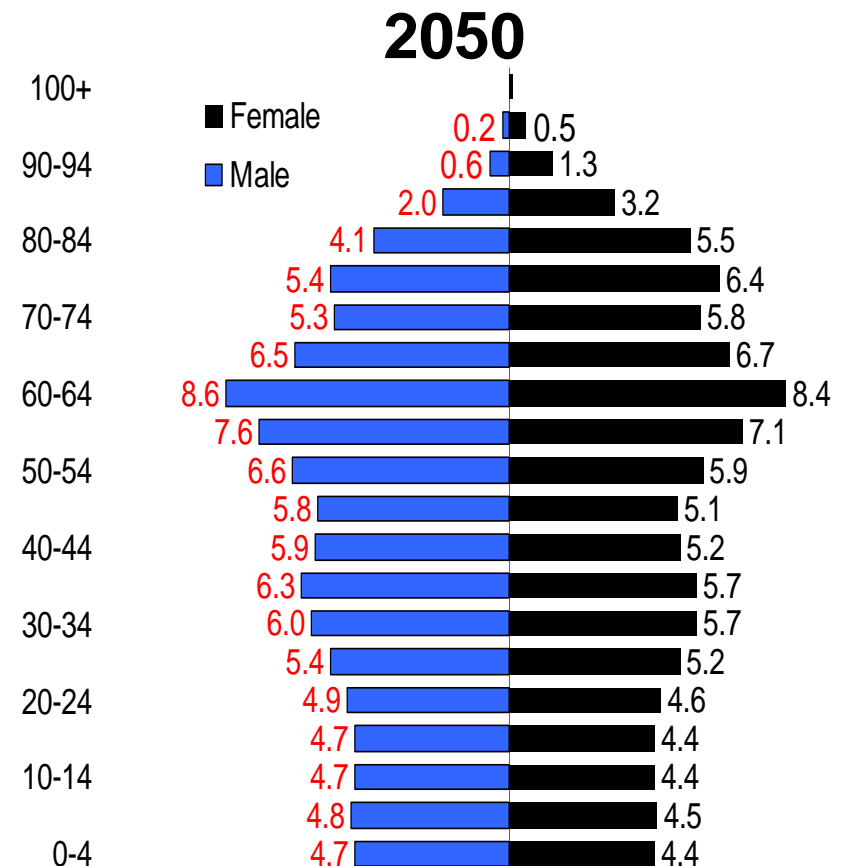
% of population within each age group



# Chinese population age structure also becoming more “top-heavy”

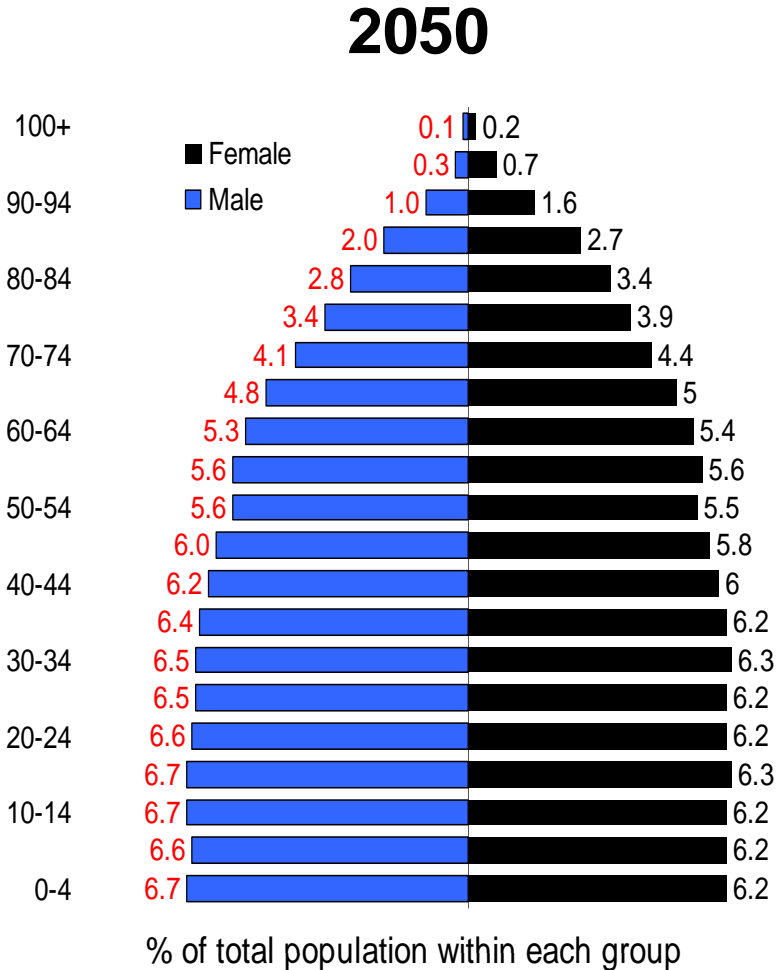
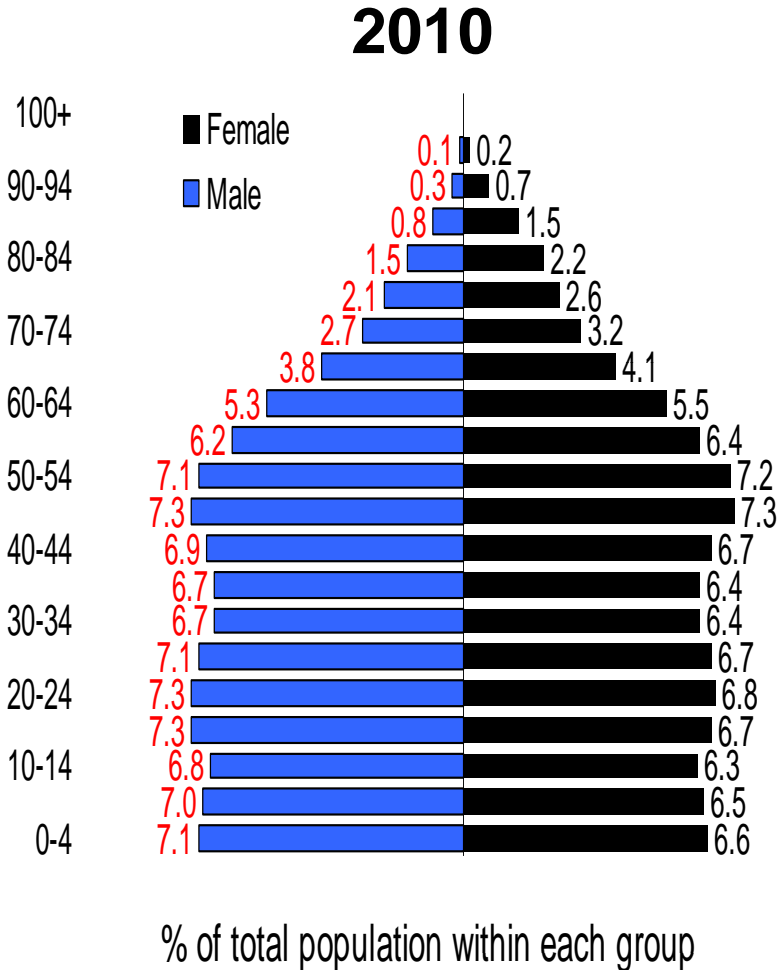


% of total population within each group



% of total population within each group

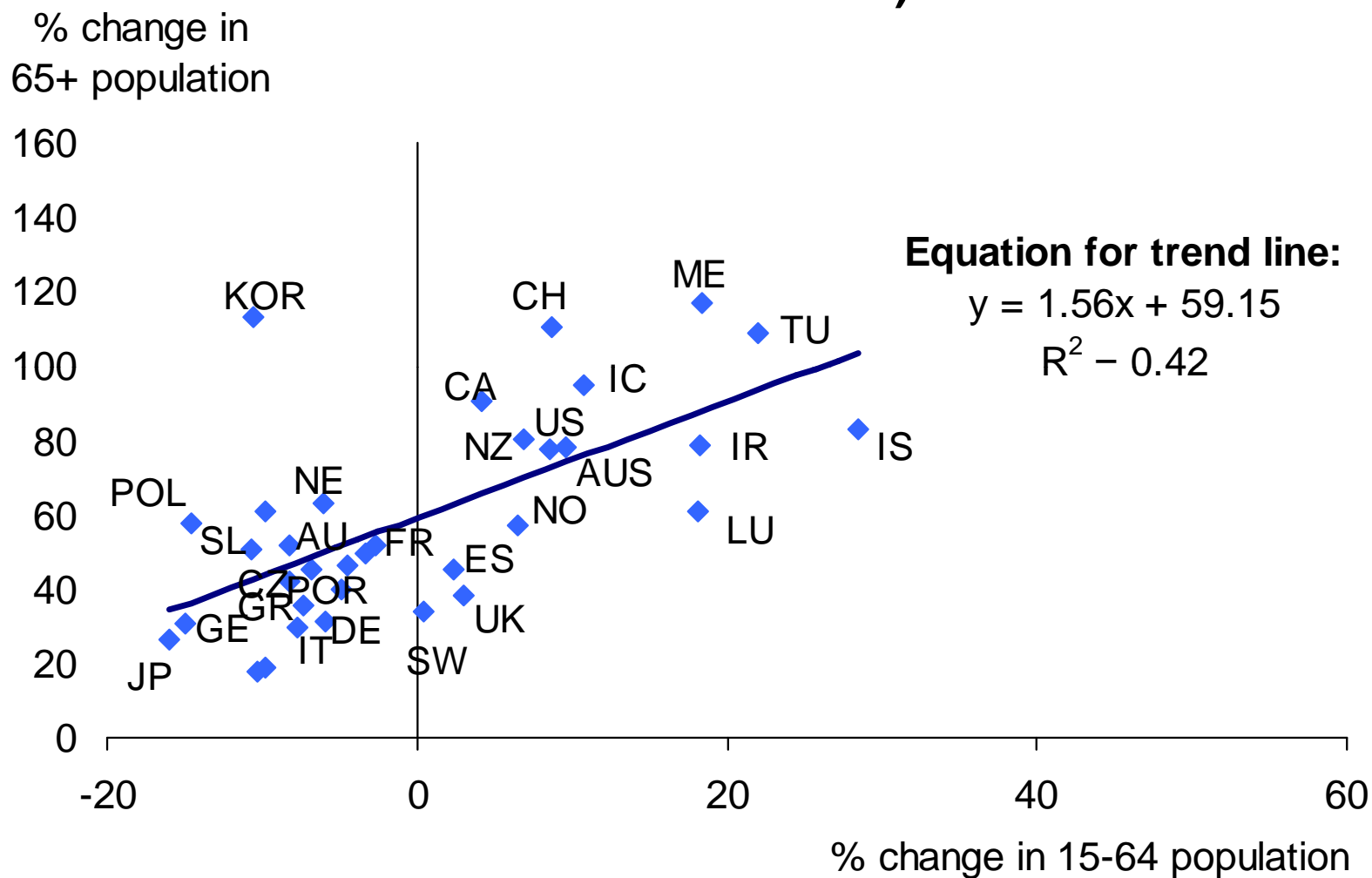
# US population age structure changing much less





# Better to be below this trend line

## OECD countries, 2010-2030 (projected, medium variant)

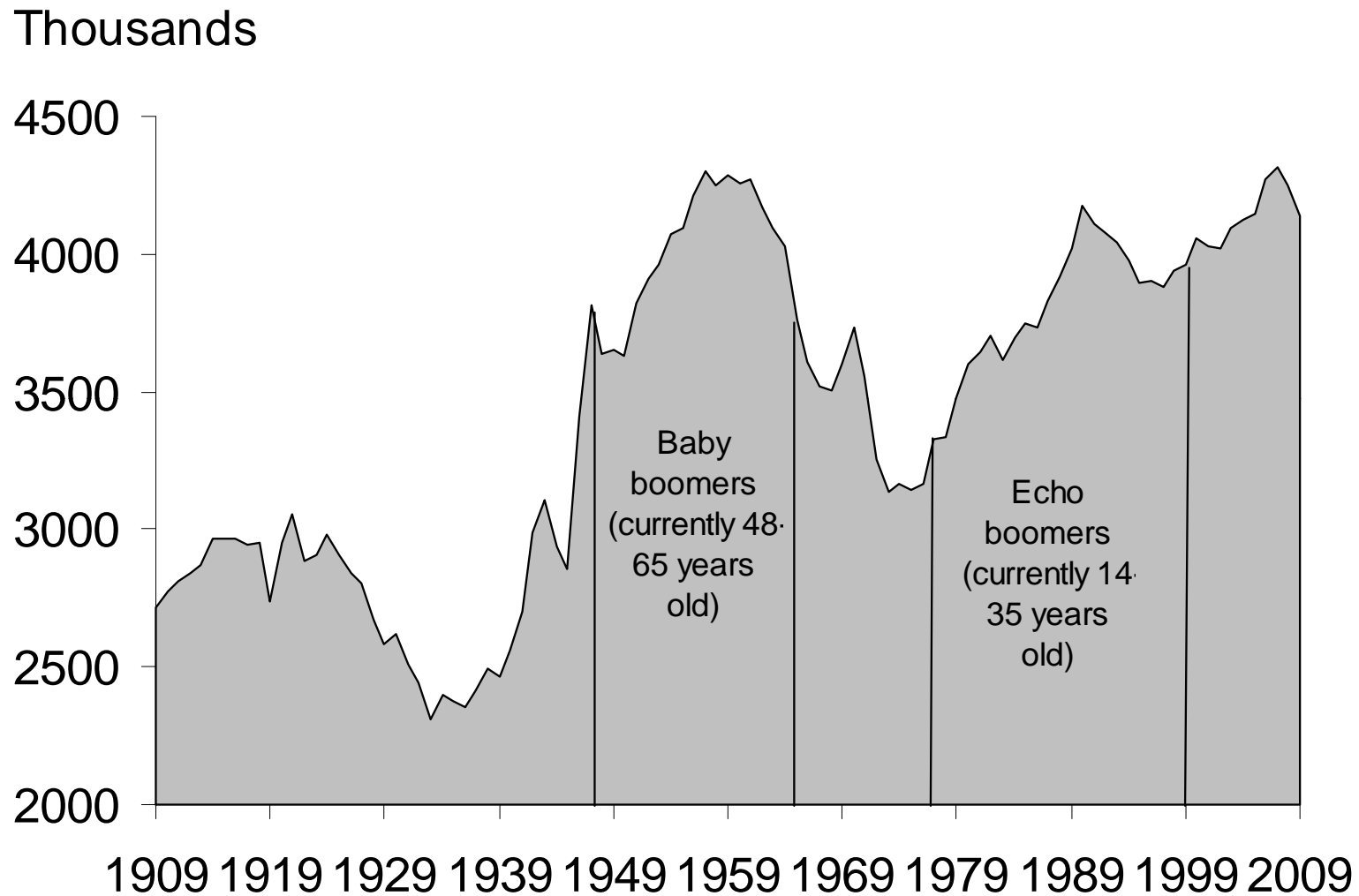




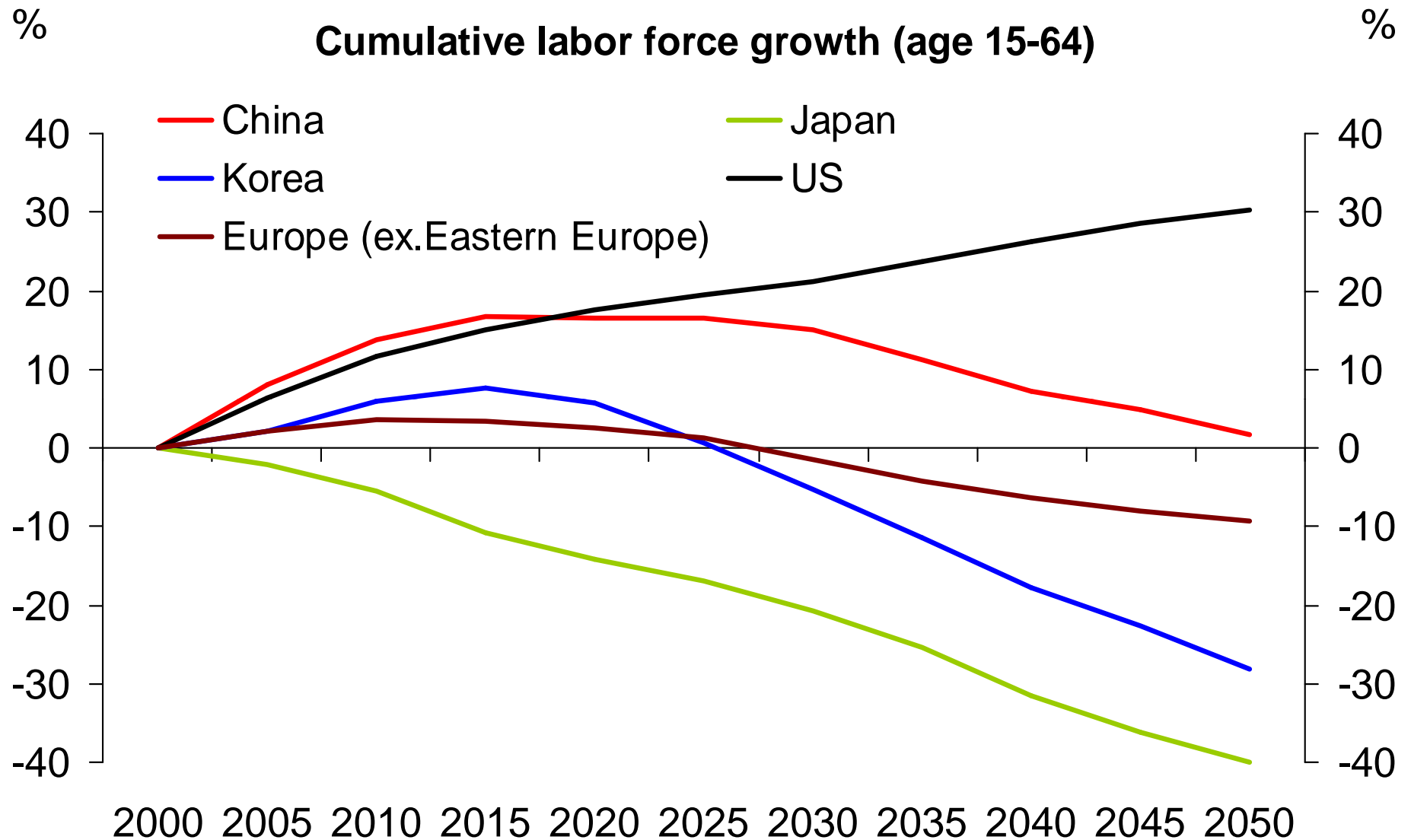
# Baby- and echo-boomers are important cohorts



## Births by generation



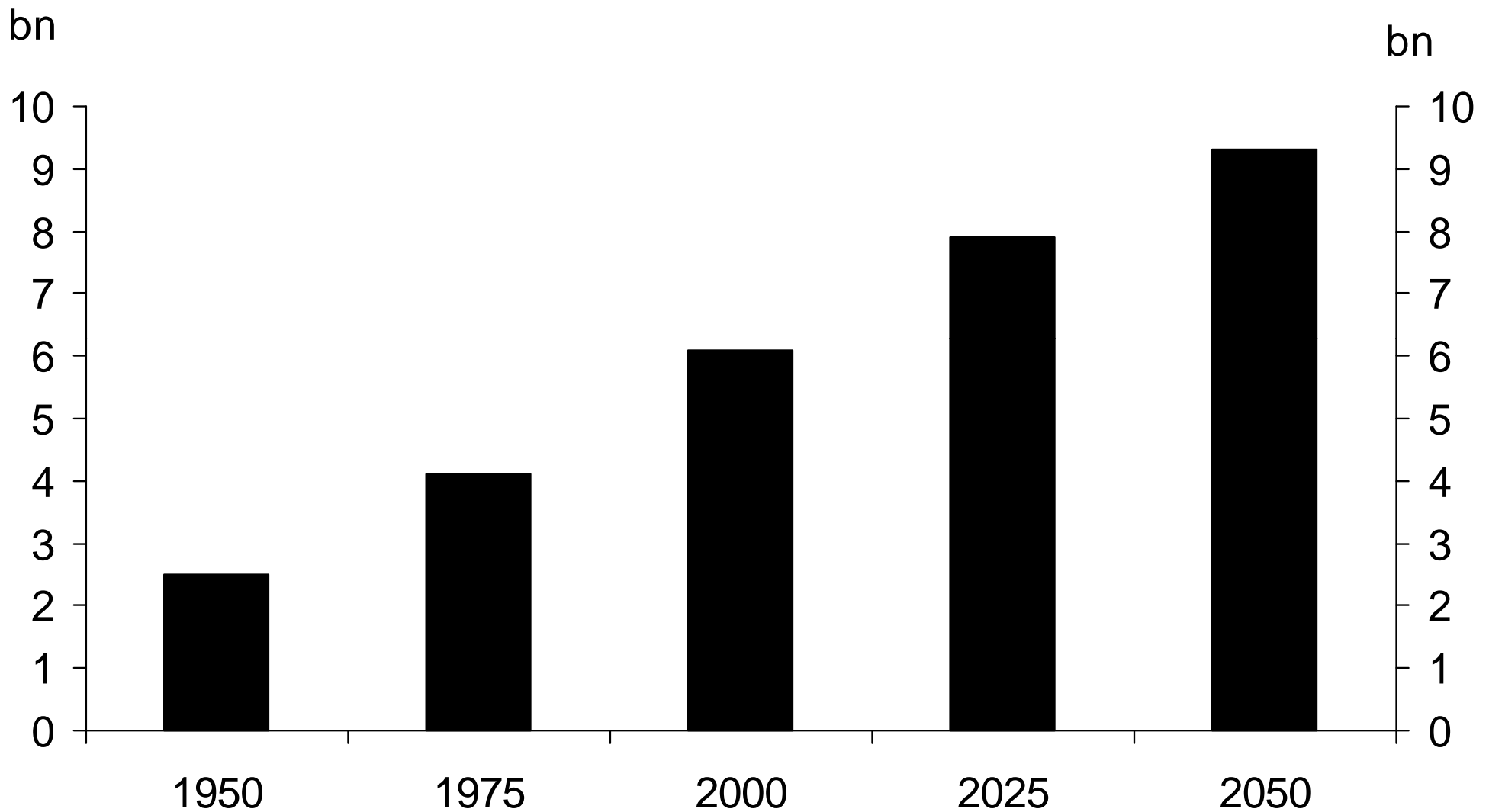
# Labor force shrinking in Japan



# World population reaching close to 10bn in 2050



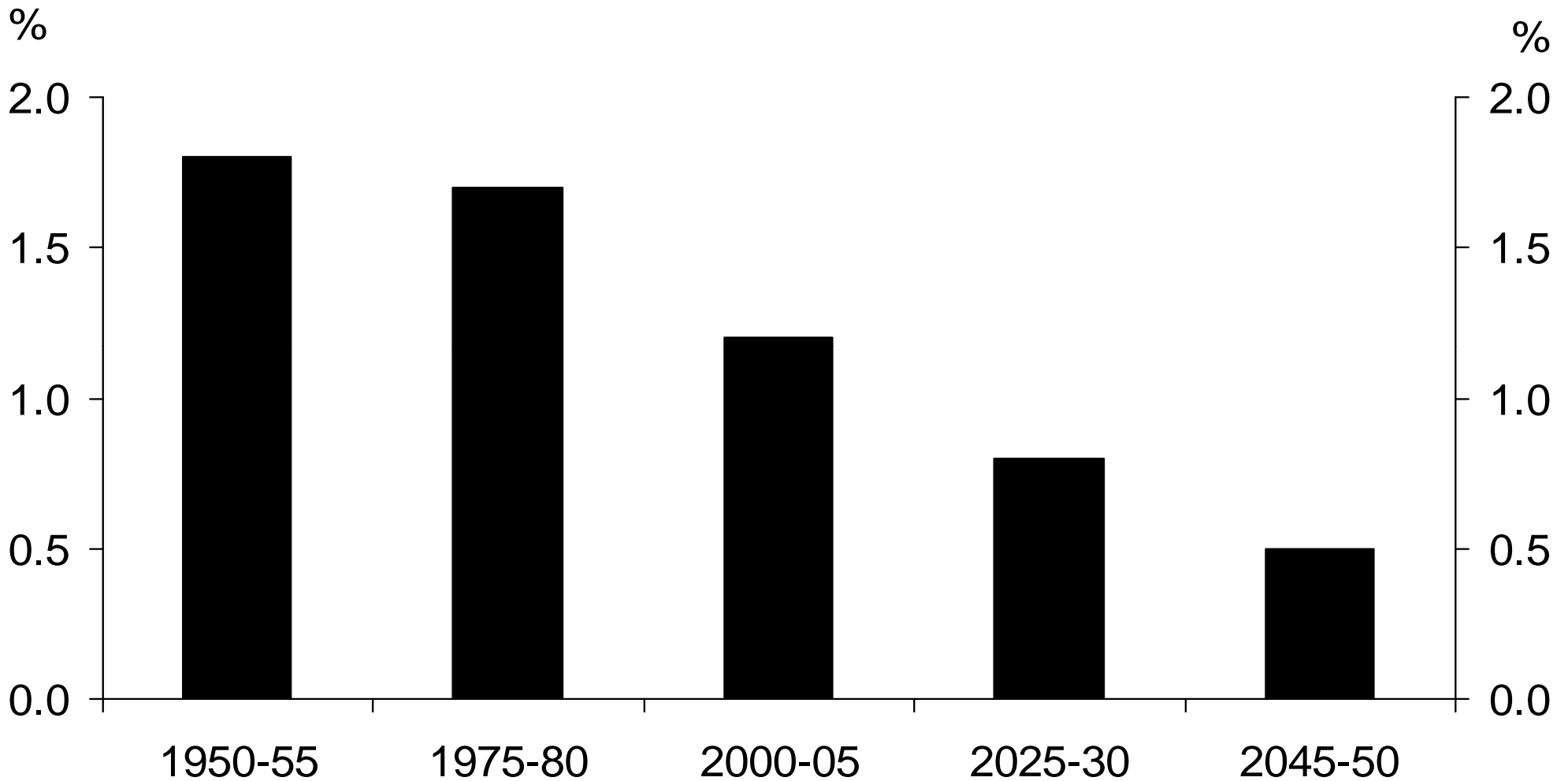
## World population



# World population growth slowing



## Growth rate in population: World



# Percentage of Global population by region and country in 2010 and 2050



	<b>2010</b>	<b>2050</b>
More developed world	17.9%	13.9%
Less developed world	82.1%	86.1%
Least developed world	12.4%	18.3%
India	17.6%	17.6%
China	19.6%	15.5%
USA	4.6%	4.4%
Brazil	2.8%	2.4%

# Brazil, India, and Russia have experienced significant moves in total fertility rates

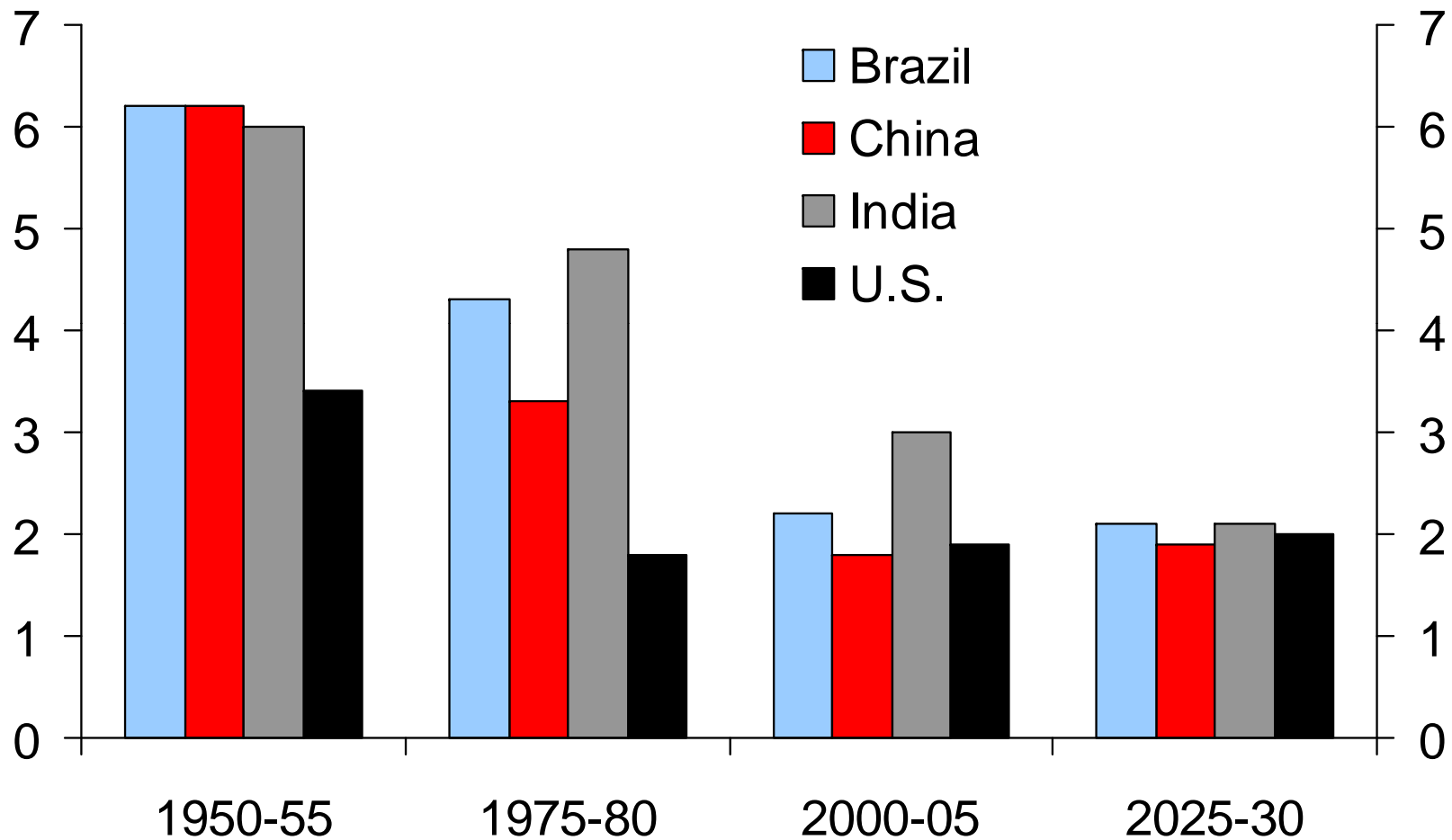


<b>Total fertility rate (number of children per woman)</b>		
	<b>1950</b>	<b>Latest</b>
Germany	2.2	1.4
United Kingdom	2.2	1.9
France	2.7	2
Italy	2.4	1.4
Japan	3	1.4
United States	3.5	2
South Korea	5.1	1.2
OECD average	NA	1.7
India	5.9	2.7
Russia	2.9	1.5
Brazil	6.2	1.7
South Africa	6.5	2.4



# Fertility rates converging

## Births per woman



## Urbanization rate in EM still well below G7 levels



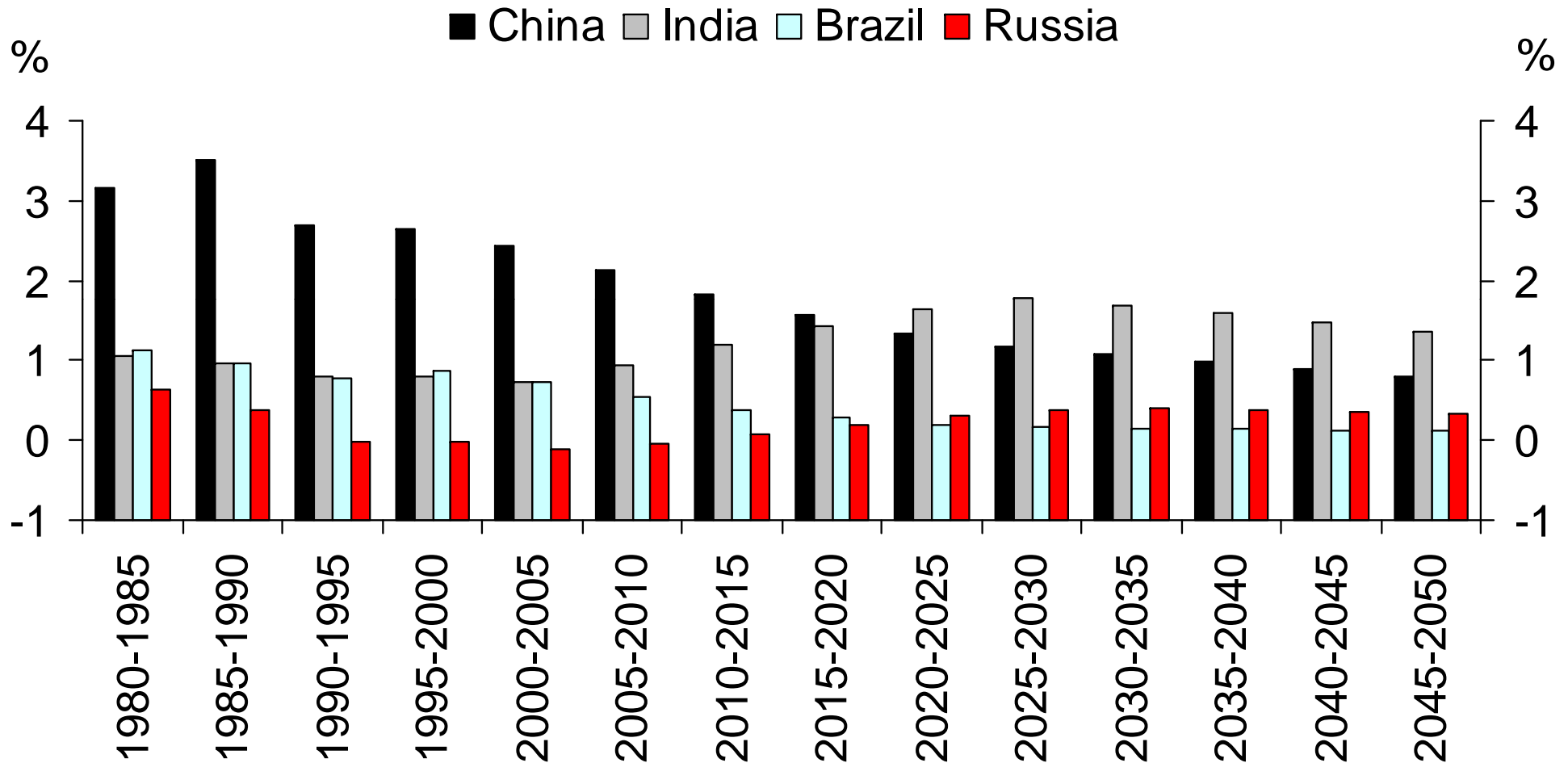
<b>Urbanization rates since 1800</b>				
<b>% of total population</b>	<b>1800</b>	<b>1890</b>	<b>1950</b>	<b>2010</b>
United Kingdom	20.3	61.2	79	<b>79.6</b>
Germany	5.5	28.2	68.1	<b>73.9</b>
Italy	18.3	21.2	54.1	<b>68.4</b>
France	8.8	25.9	55.2	<b>85.3</b>
China	3.8	4.4	11.8	<b>49.9</b>
Japan	12.3	16	34.9	<b>66.8</b>
India	3.4	5.4	17	<b>33</b>



# Urban population growing more slowly in China and Brazil but still growing faster in India and Russia



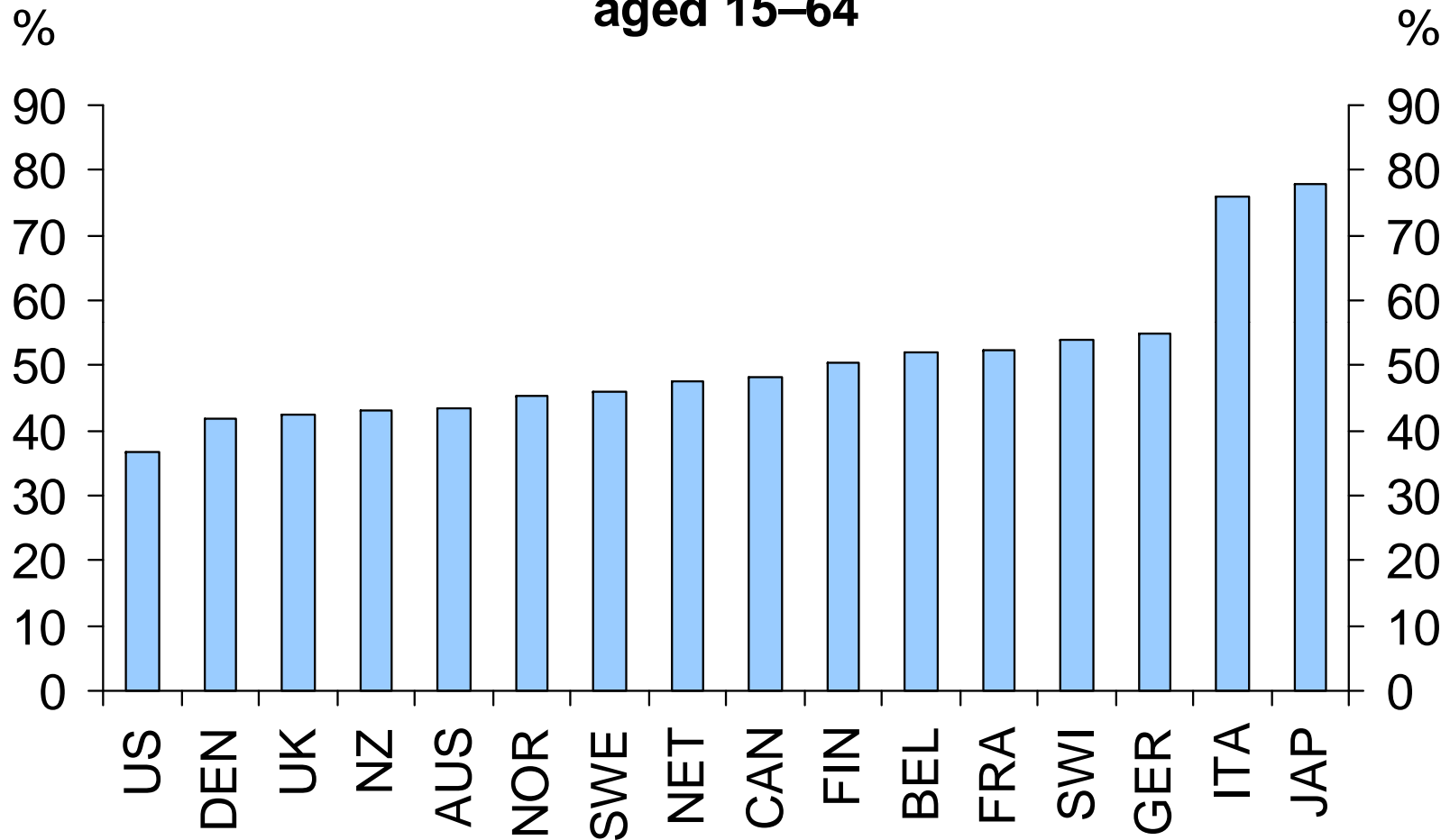
## Annual rate of change in percentage of urban population



# Old-age dependency differs significantly across countries...



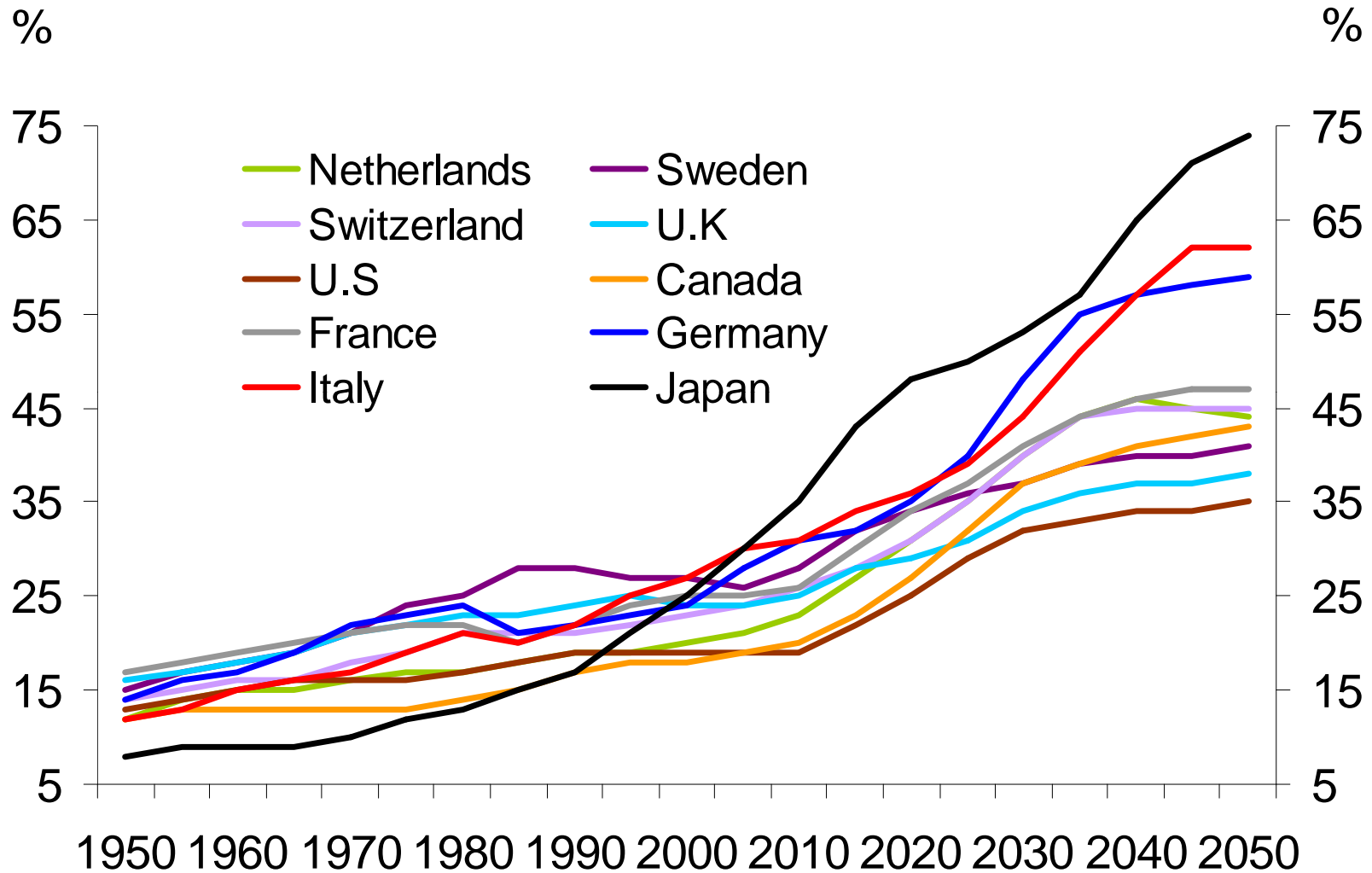
**Old-age dependency in 2050:  
population aged 65+ as a share of population  
aged 15–64**



...and the country ranking has changed little since 2000

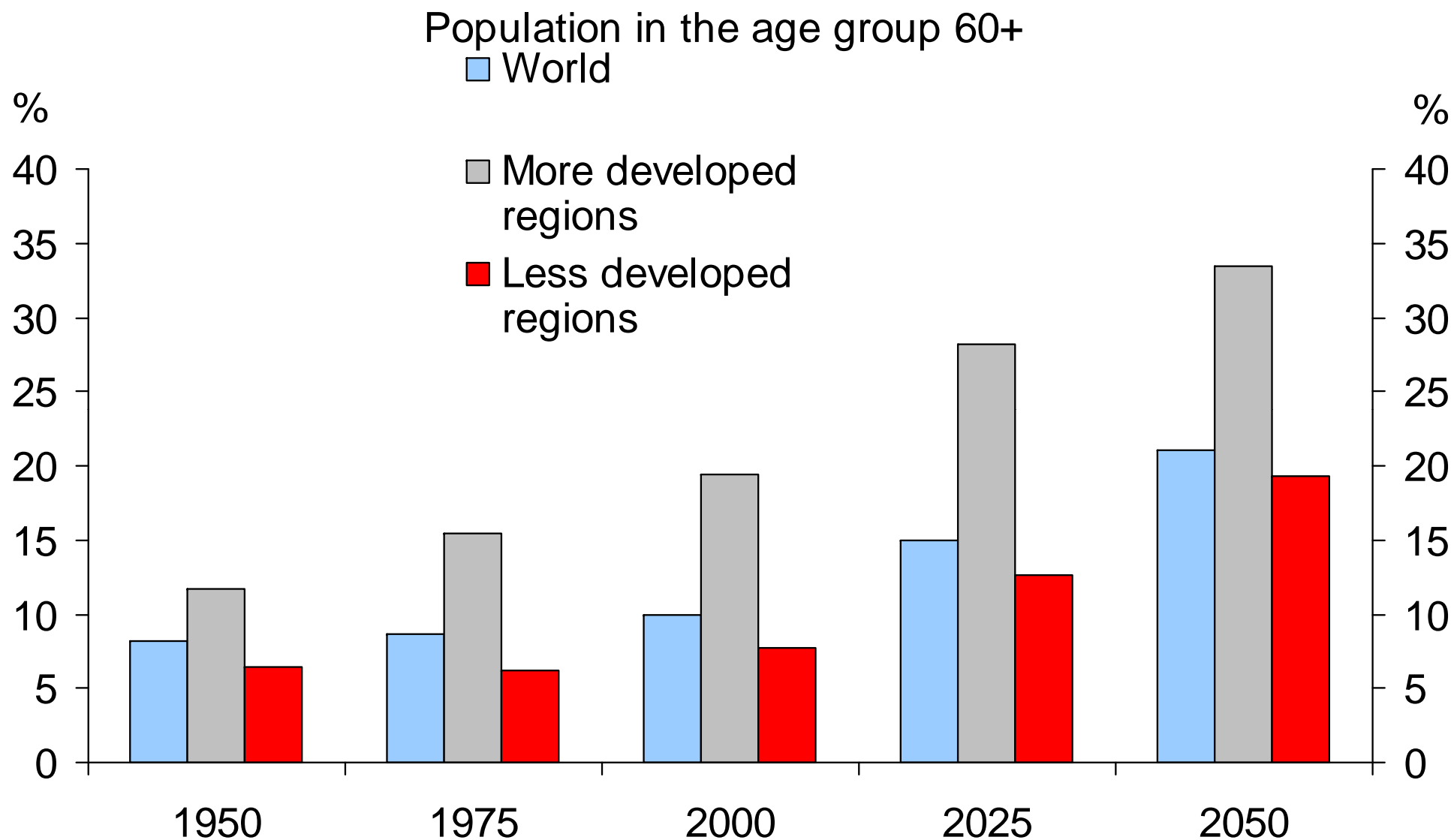


### Old age dependency ratio





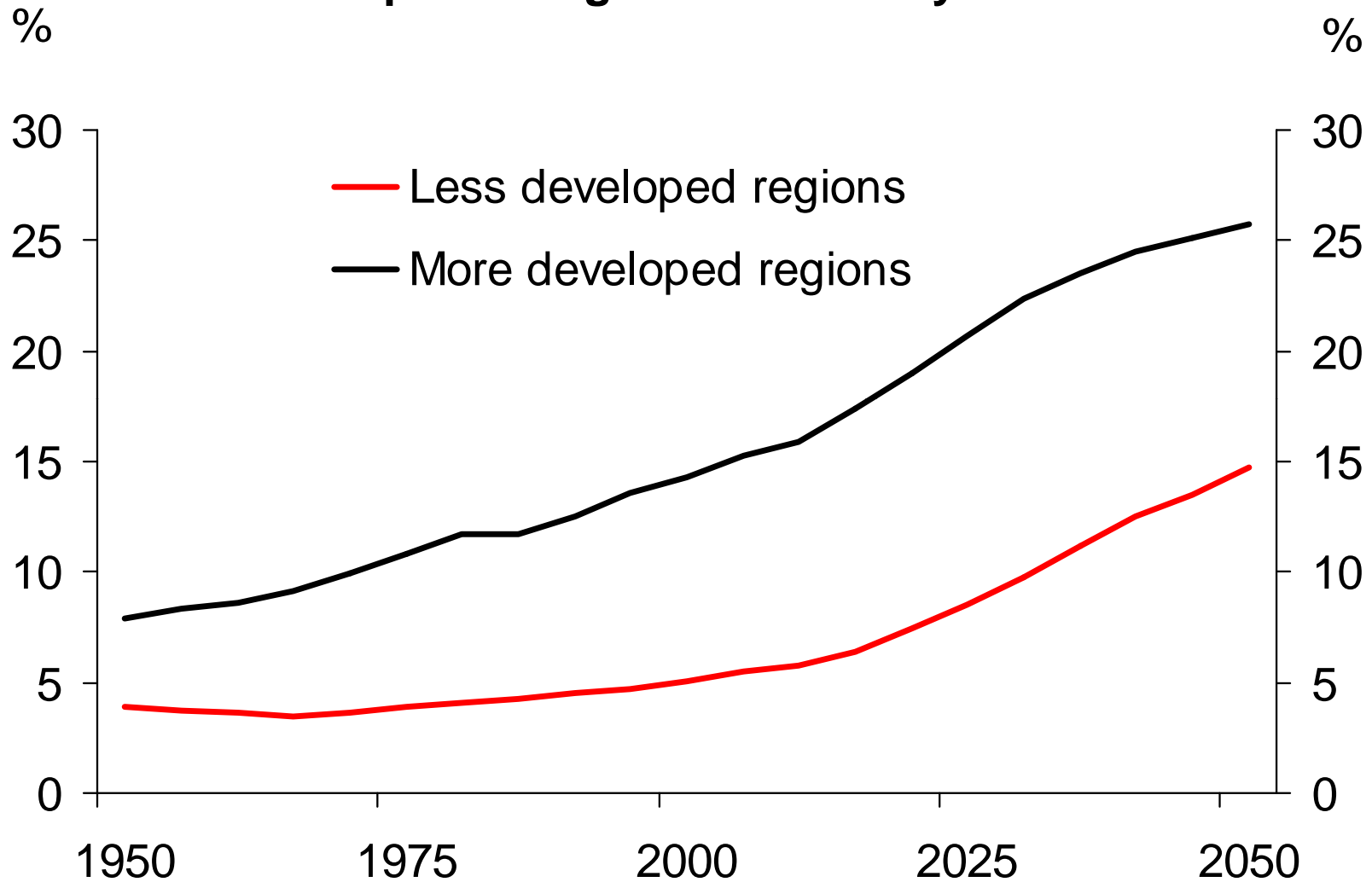
# The “graying” of the OECD area



# OECD more gray than EM



## Population greater than 65 years



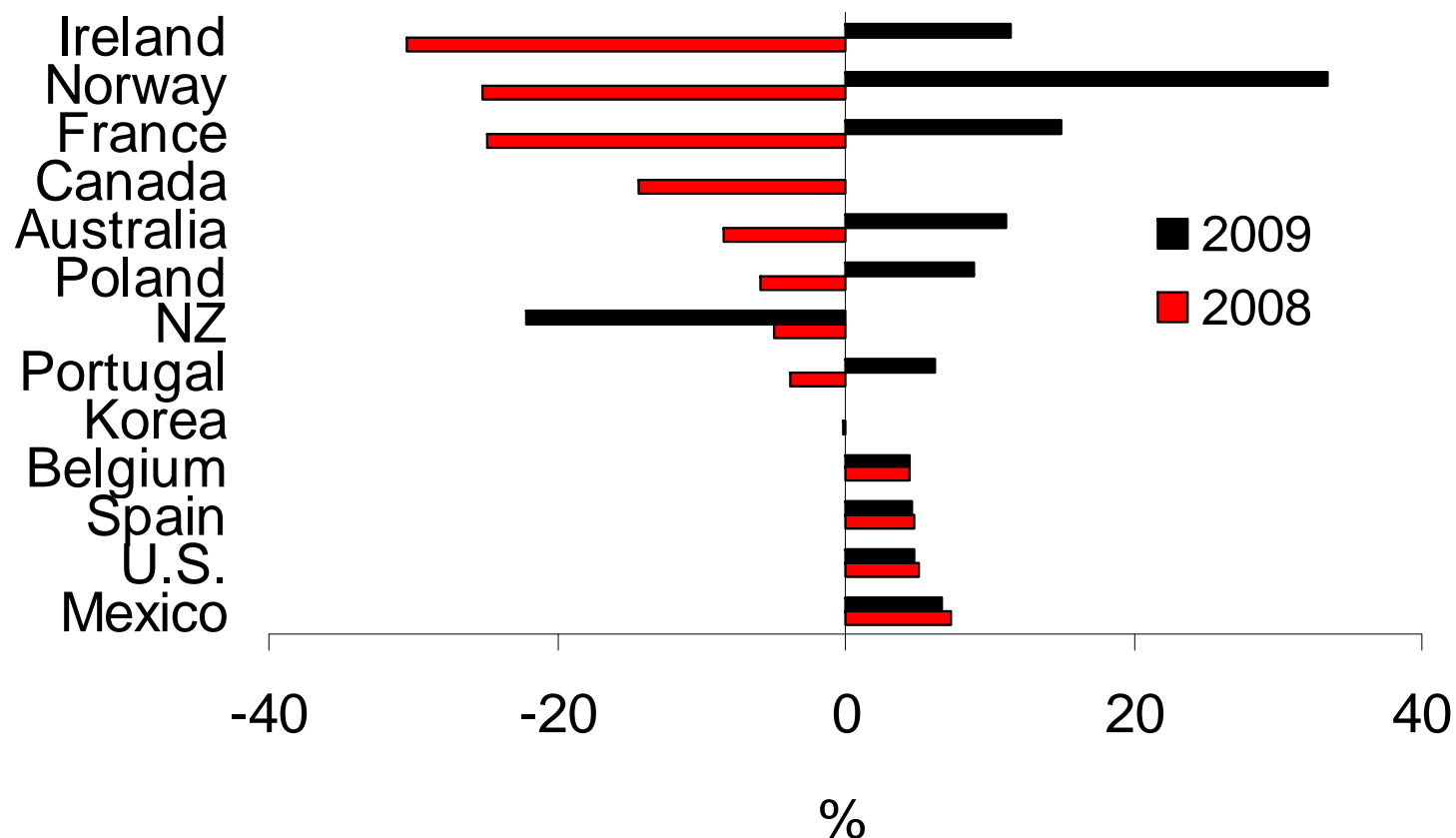


# Pensions/Preparedness



# Pension fund performance in 2008 and 2009

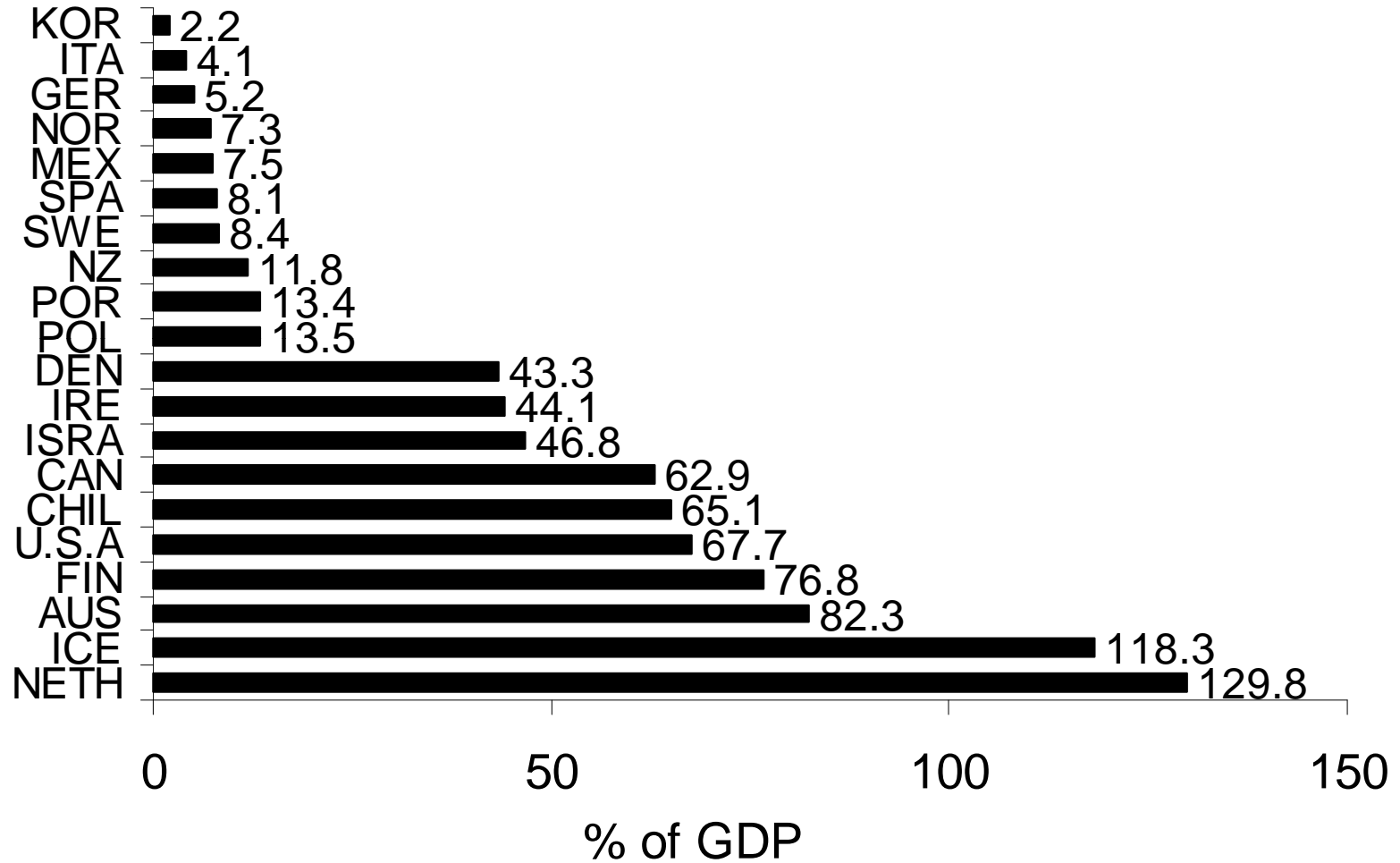
## Nominal net investment return on pension funds in selected OECD countries



Some countries are more prepared than others



### Pension funds as % of GDP

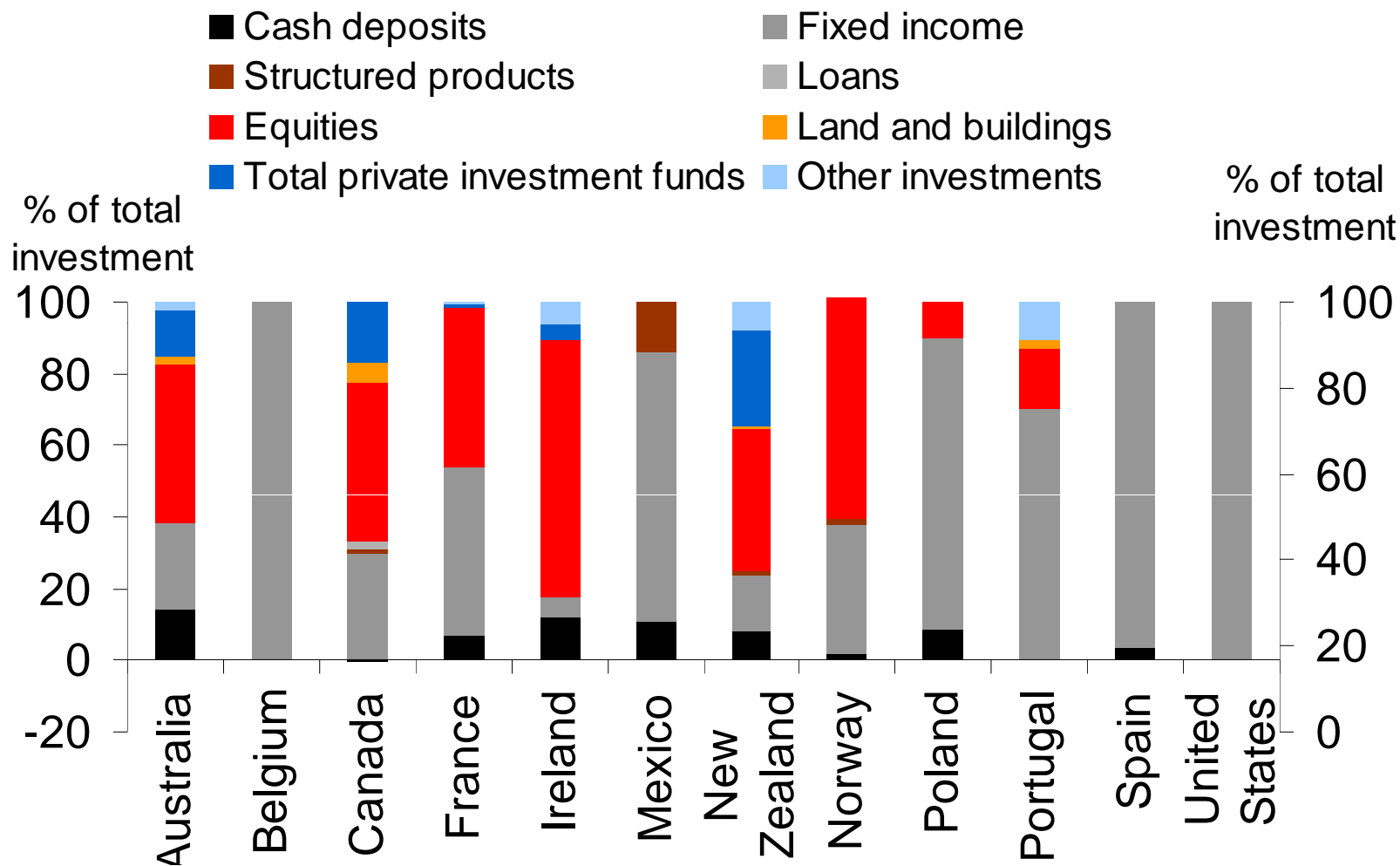




# Pension fund asset allocation differs significantly across countries



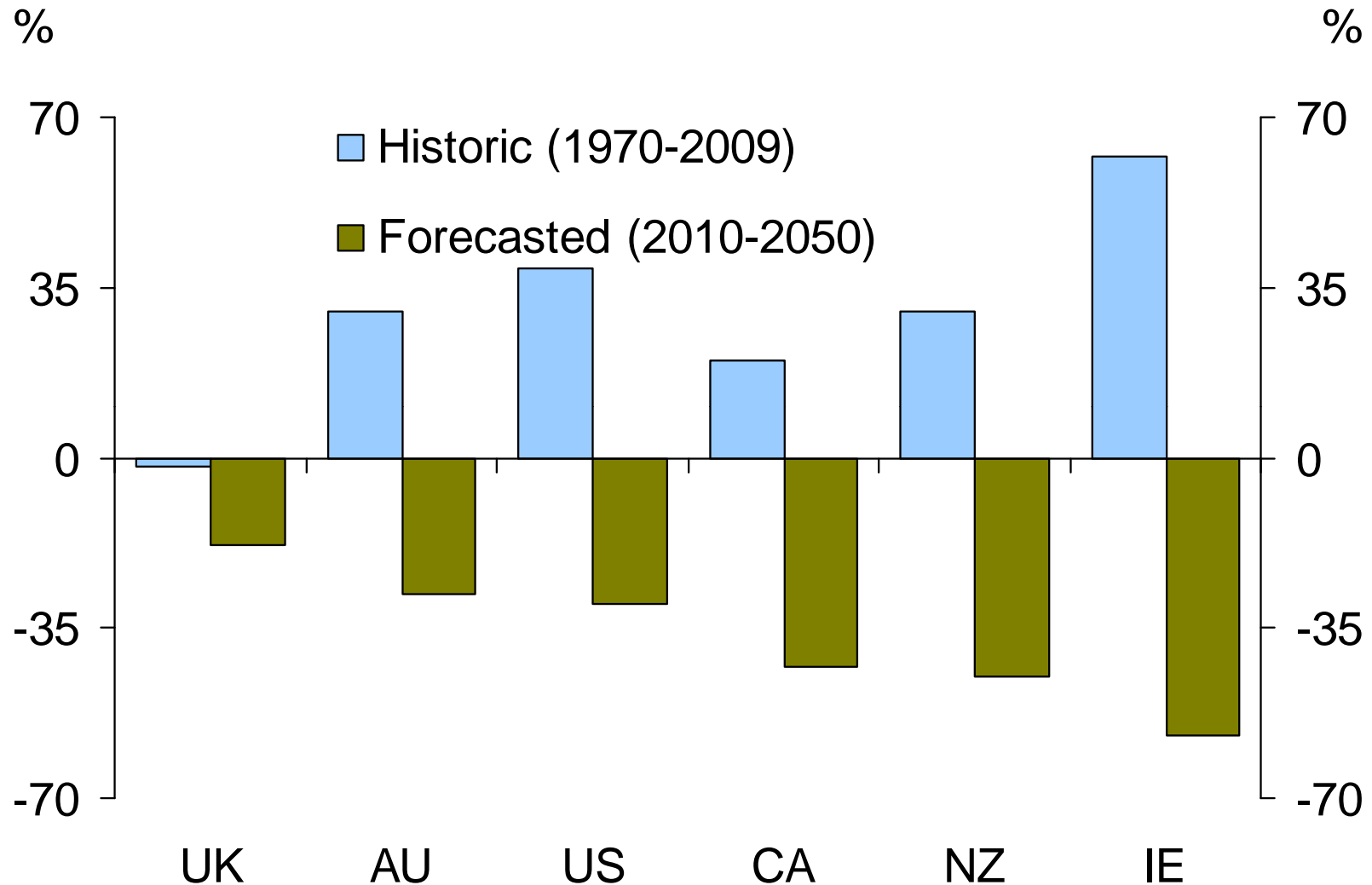
## Asset allocation of public pension reserve funds in selected OECD countries in 2009



# Demographics projected to put pressure on home prices going forward in English-speaking countries



## Demographic impact on home prices





## Torsten Slok, Ph.D.

**Chief International Economist**

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- Torsten Slok joined Deutsche Bank Securities in the fall of 2005 and is a senior member of the Global Economics Team.
- Mr. Slok's Economics team was ranked No. 1 in fixed income research by Institutional Investor in 2010. Slok currently serves as a member of the Economic Club of New York
- Prior to joining the firm, Mr. Slok worked at the OECD in Paris in the Money and Finance Division and the Structural Policy Analysis Division. Before joining the OECD he worked for four years at the IMF in the Division responsible for writing the World Economic Outlook and the Division responsible for China, Hong Kong, and Mongolia.
- Mr. Slok studied at University of Copenhagen and Princeton University. He has published numerous journal articles and reviews on economics and policy analysis.



# Appendix 1

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