



Repositioning Retirement-Income Systems

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OECD



Plenary address
World Pension Summit
Amsterdam, November 2011



Agenda: four key objectives and principles

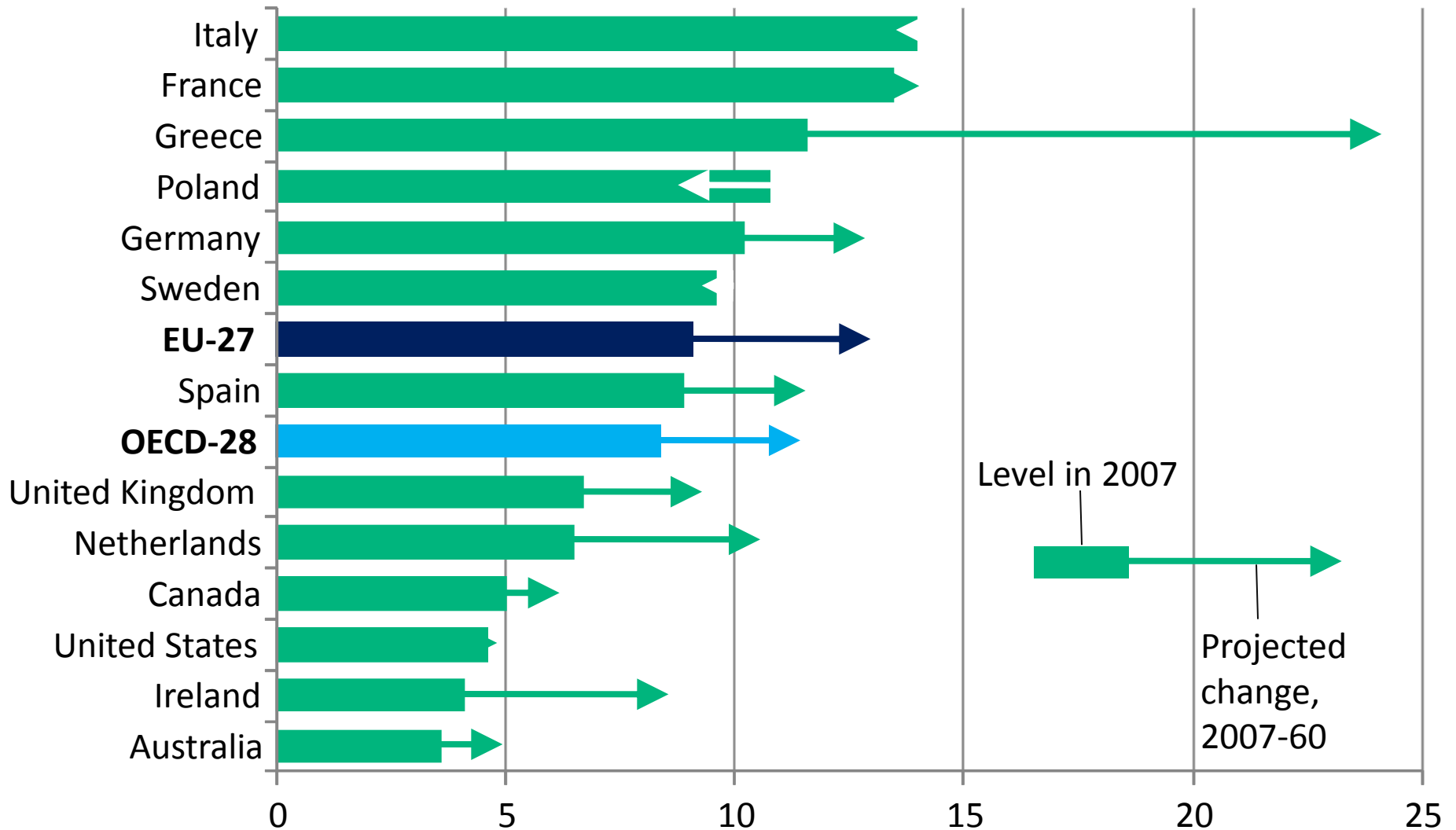
- Financial sustainability
- Work incentives
- Linking pensions to life expectancy
- Security in the face of risk and uncertainty



Financial sustainability



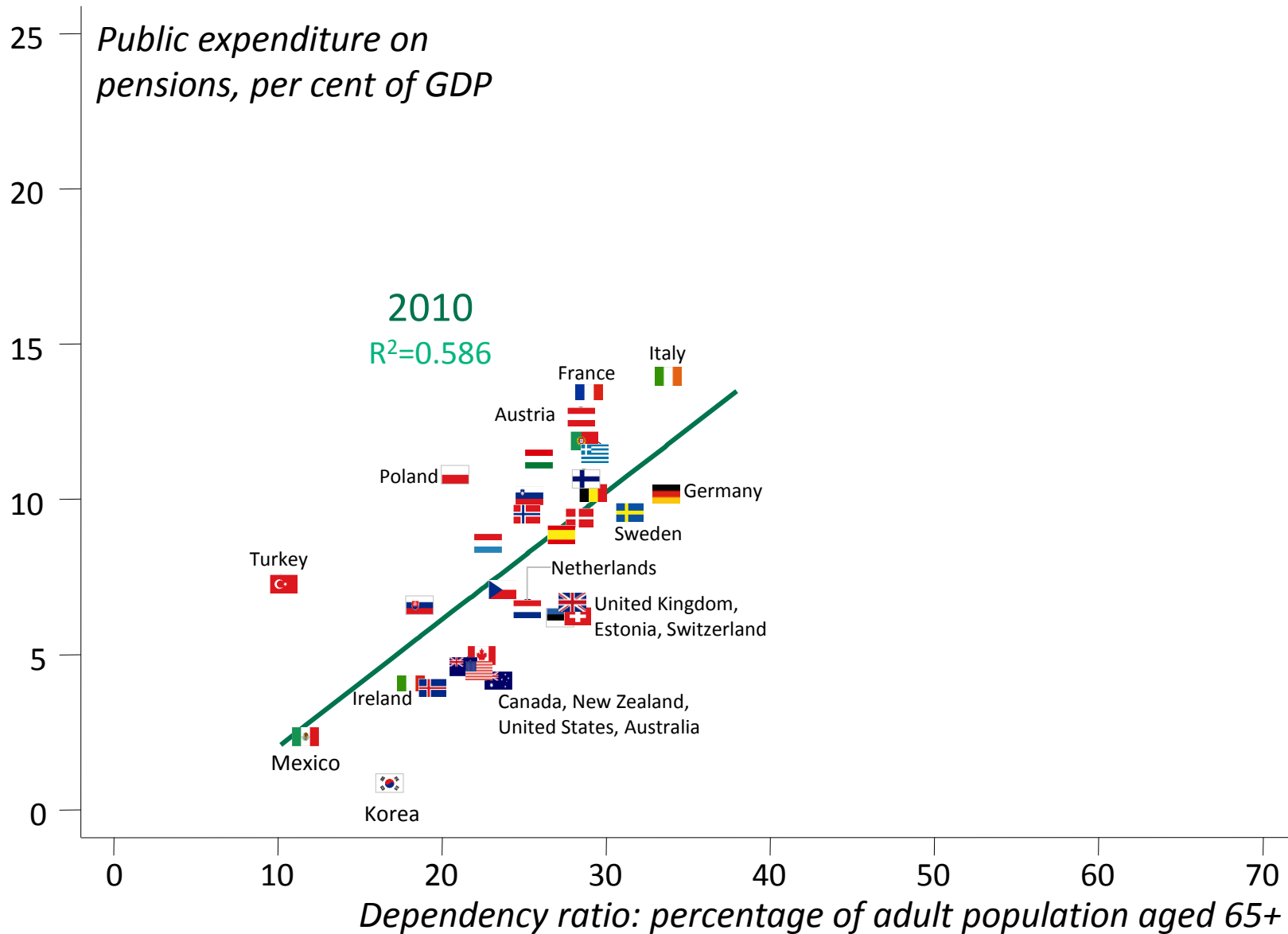
Public pension spending



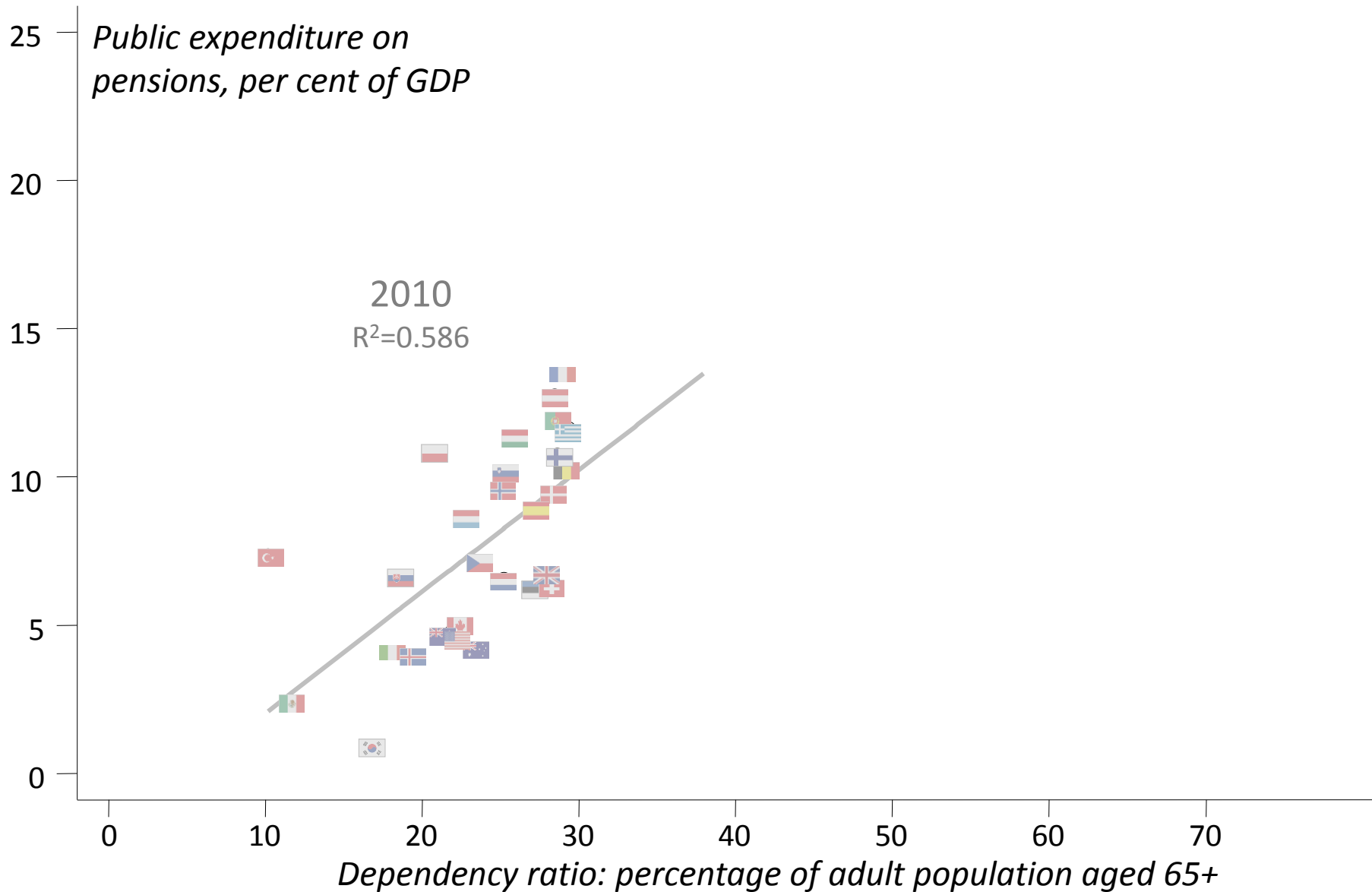
Note: 2050 for Australia

Public expenditure on old-age and survivors' benefits, per cent of GDP

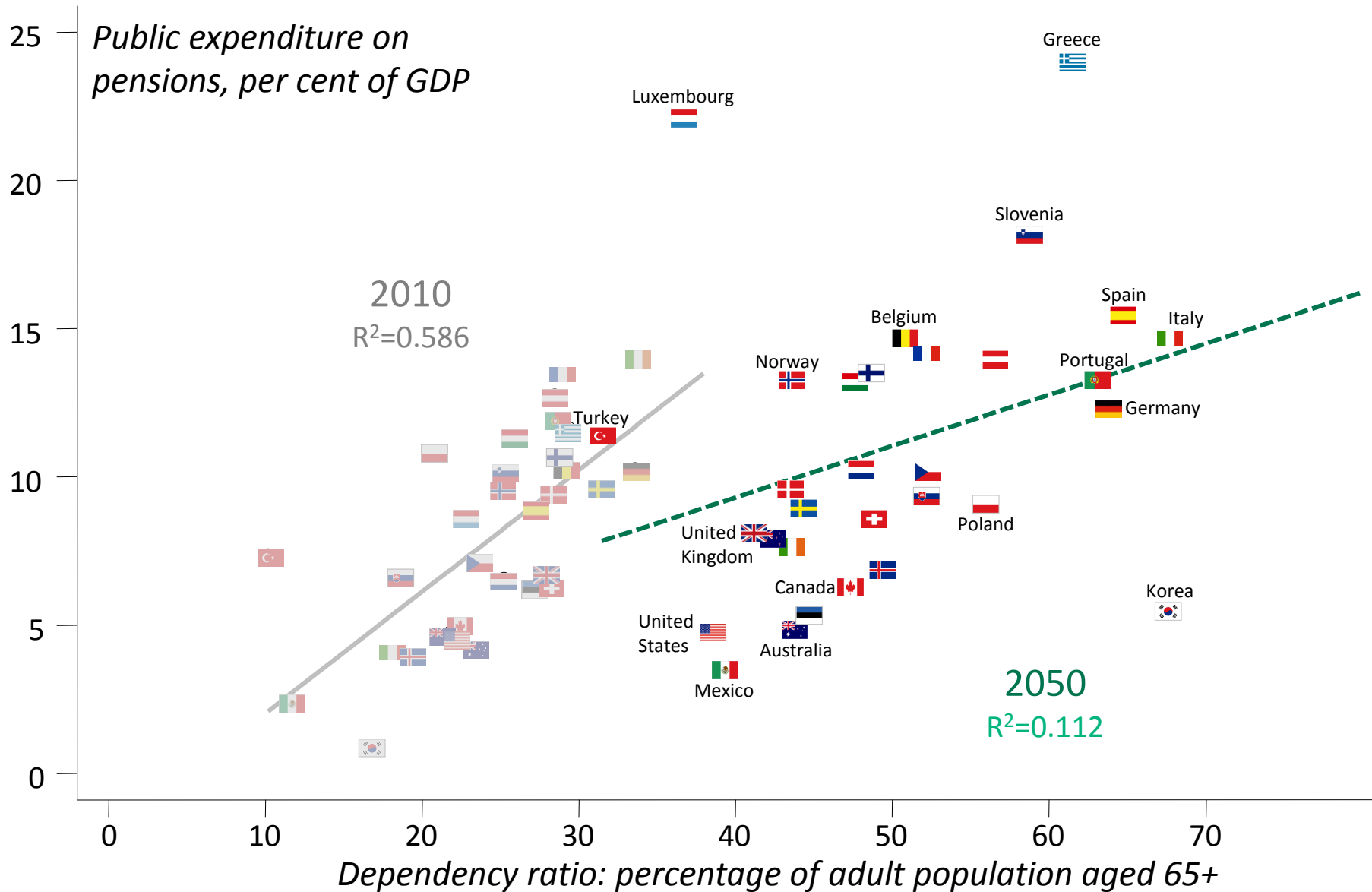
Demographic (in)determinism



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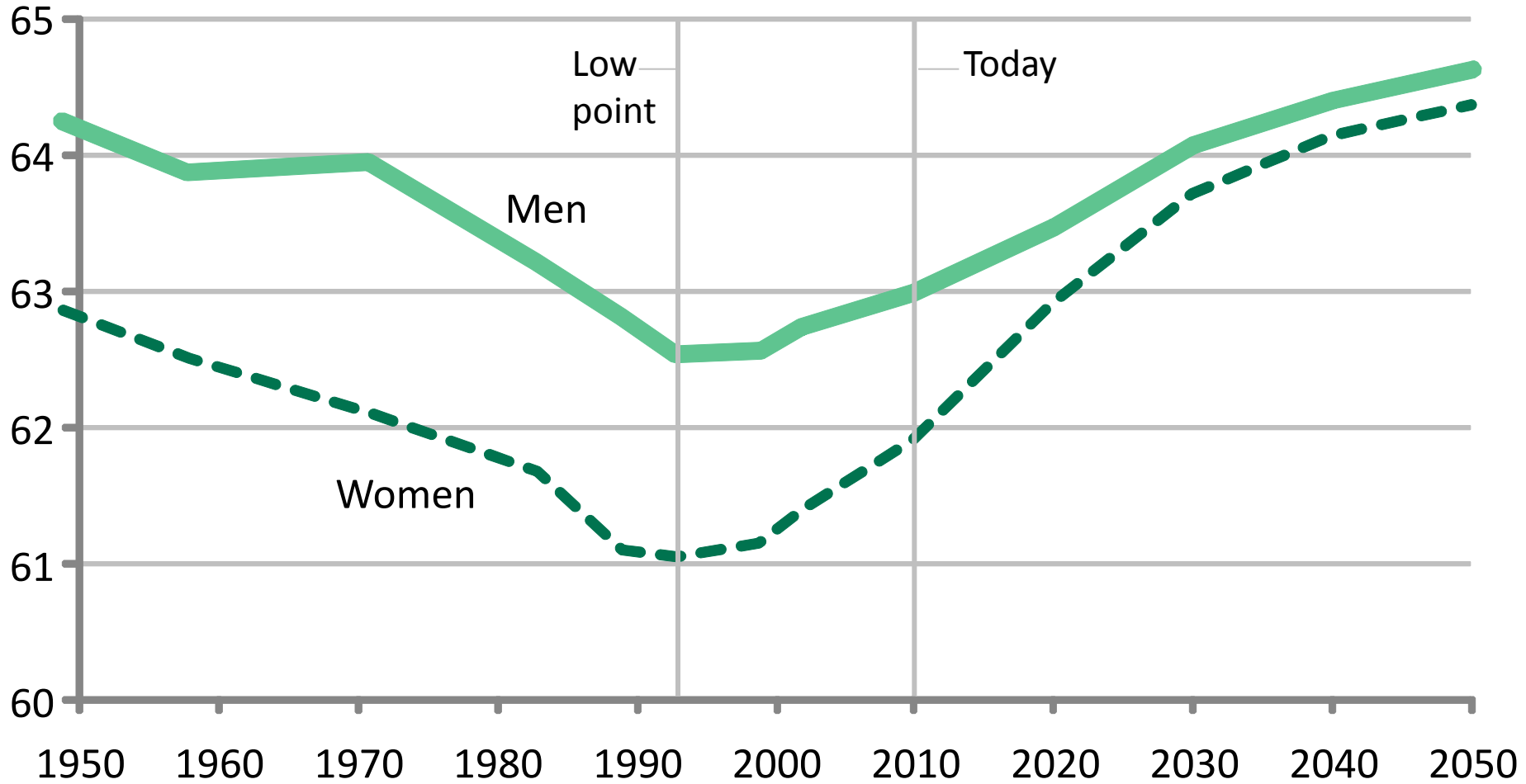


Work incentives



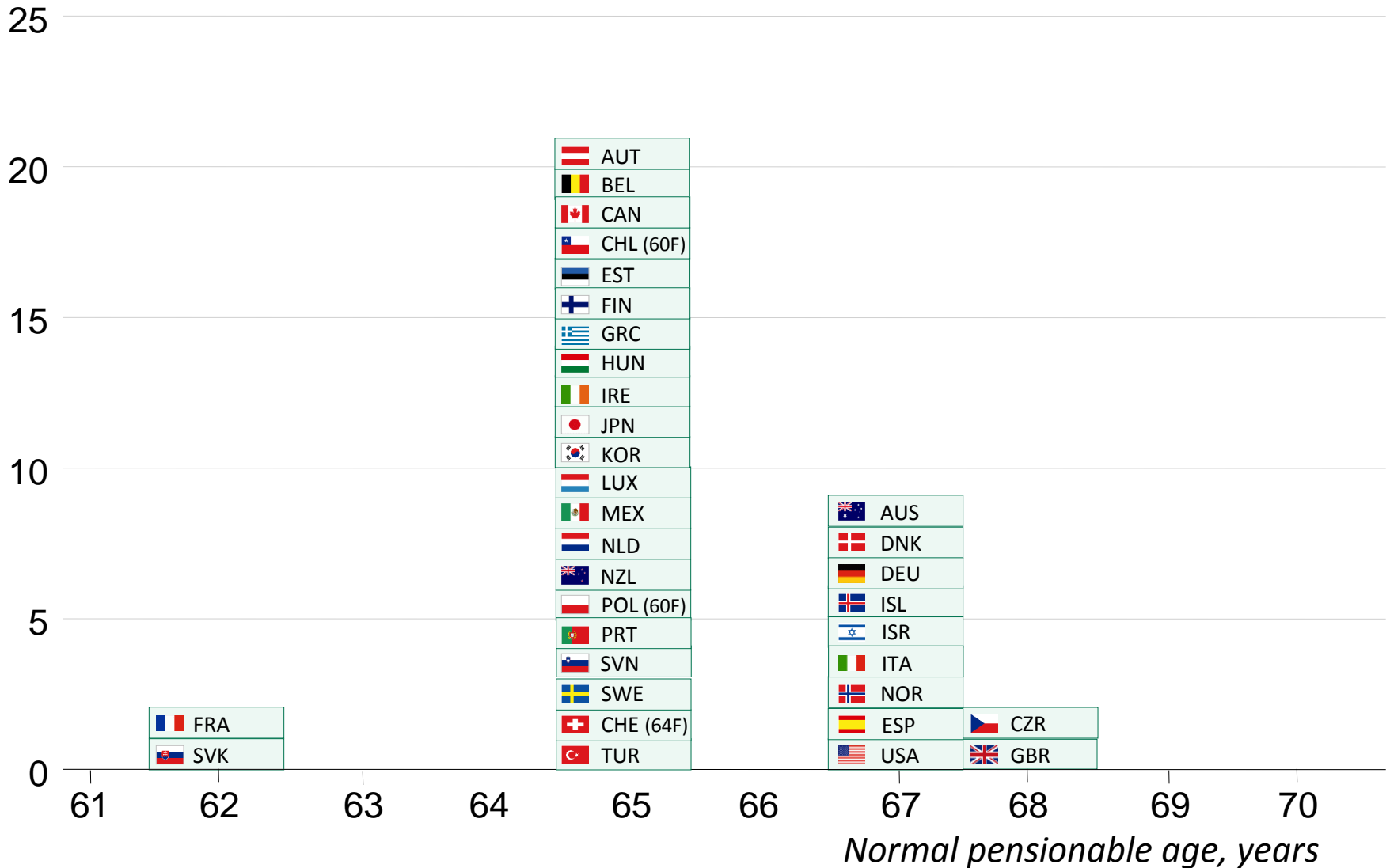
Trends in pensionable ages

Pensionable age, OECD average, years



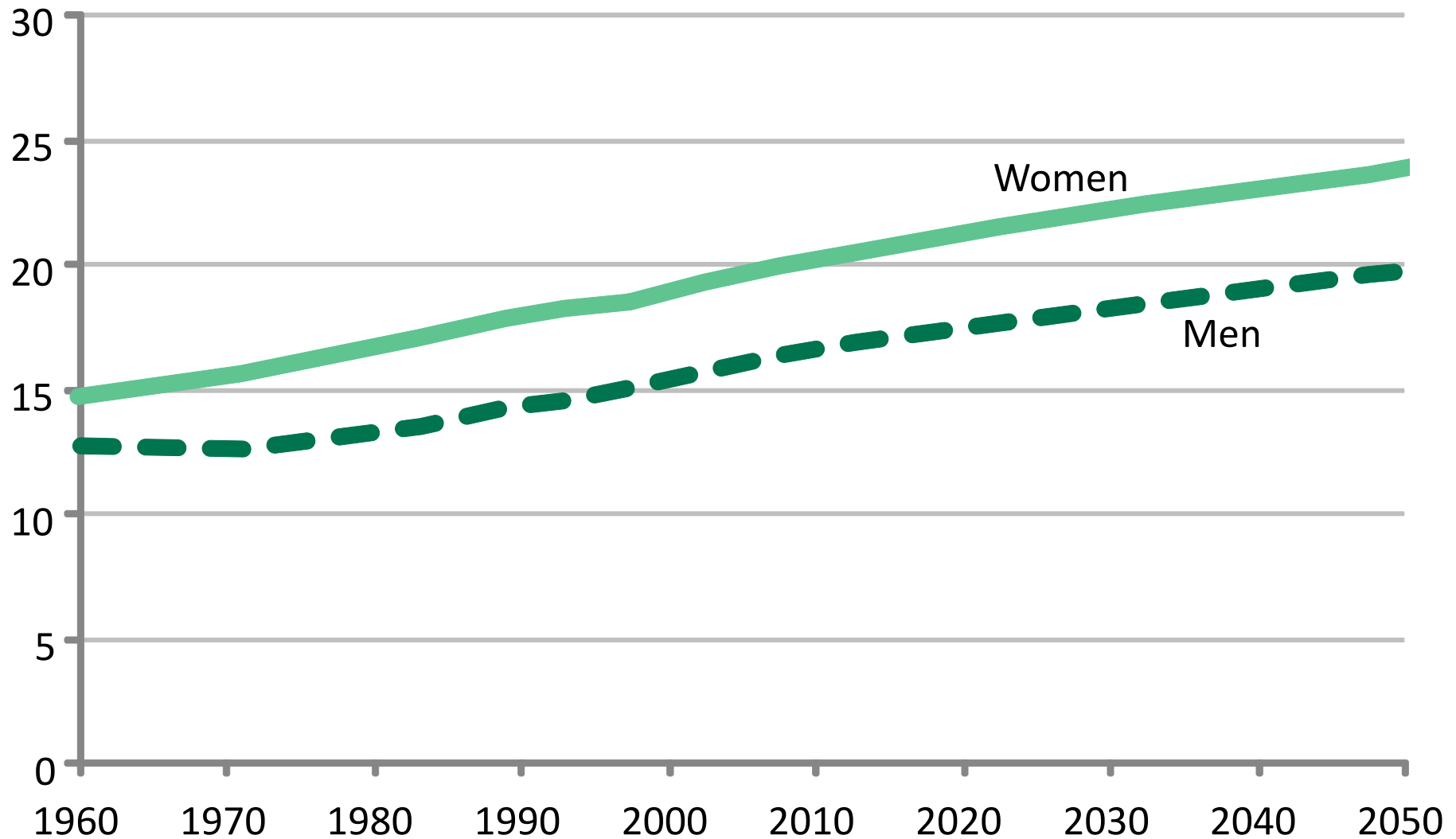
Normal pension age: long-term rules

Number of OECD-34 countries



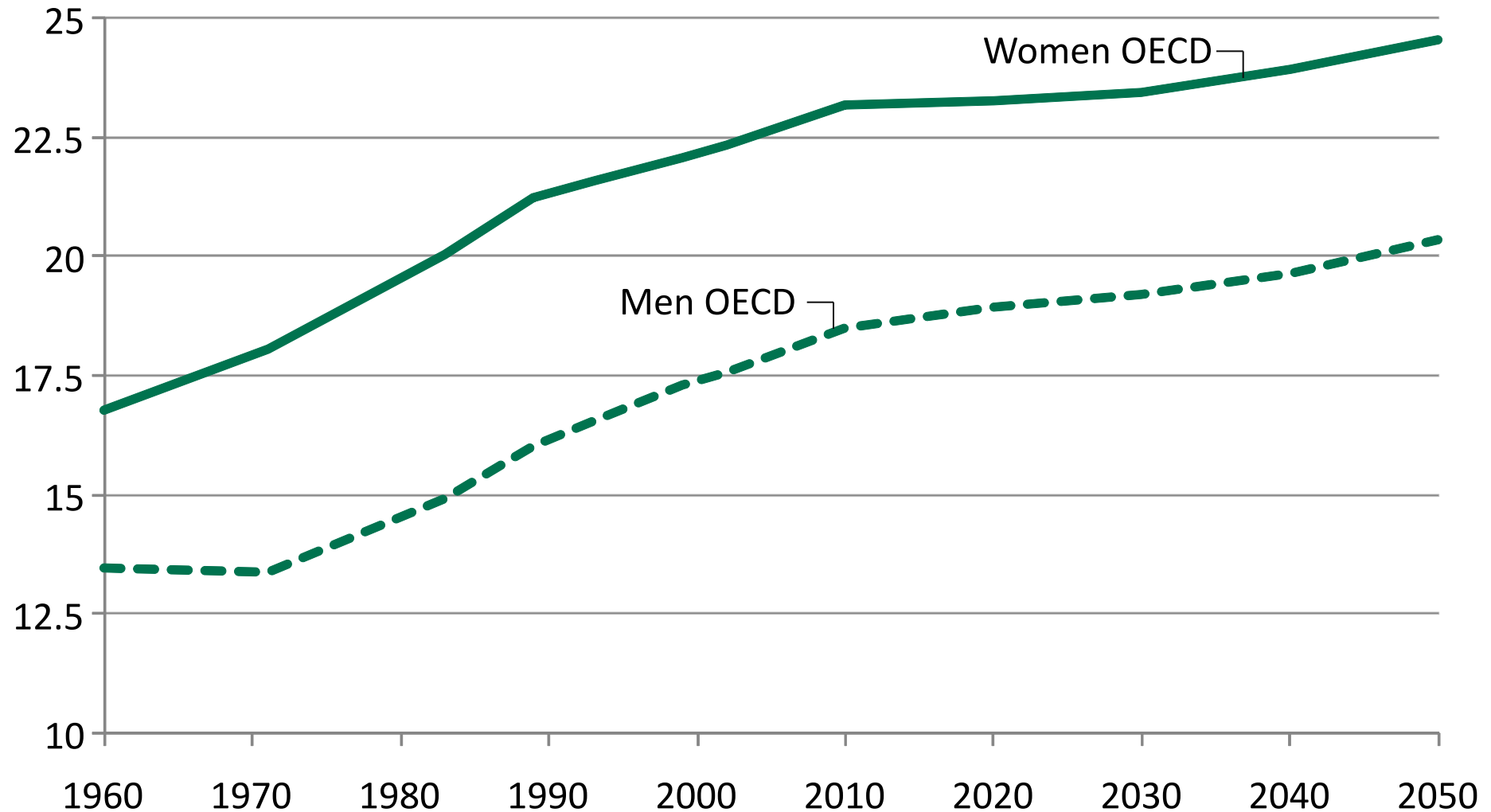
Trends in life expectancy at age 65

Additional years of life expectancy at age 65, OECD average



Life expectancy at pensionable age

Additional years of life expectancy at normal pension age



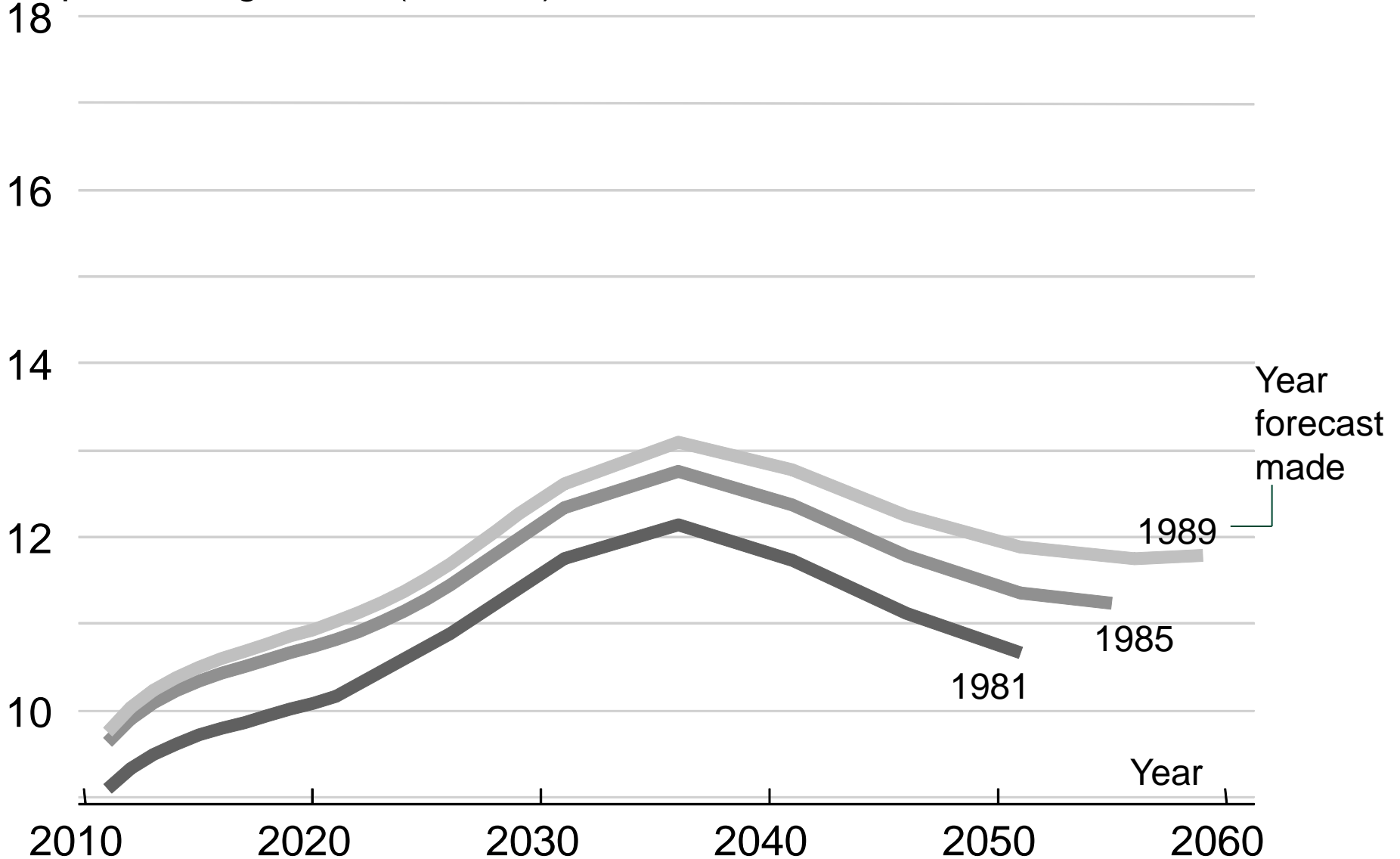


Linking pensions to life expectancy



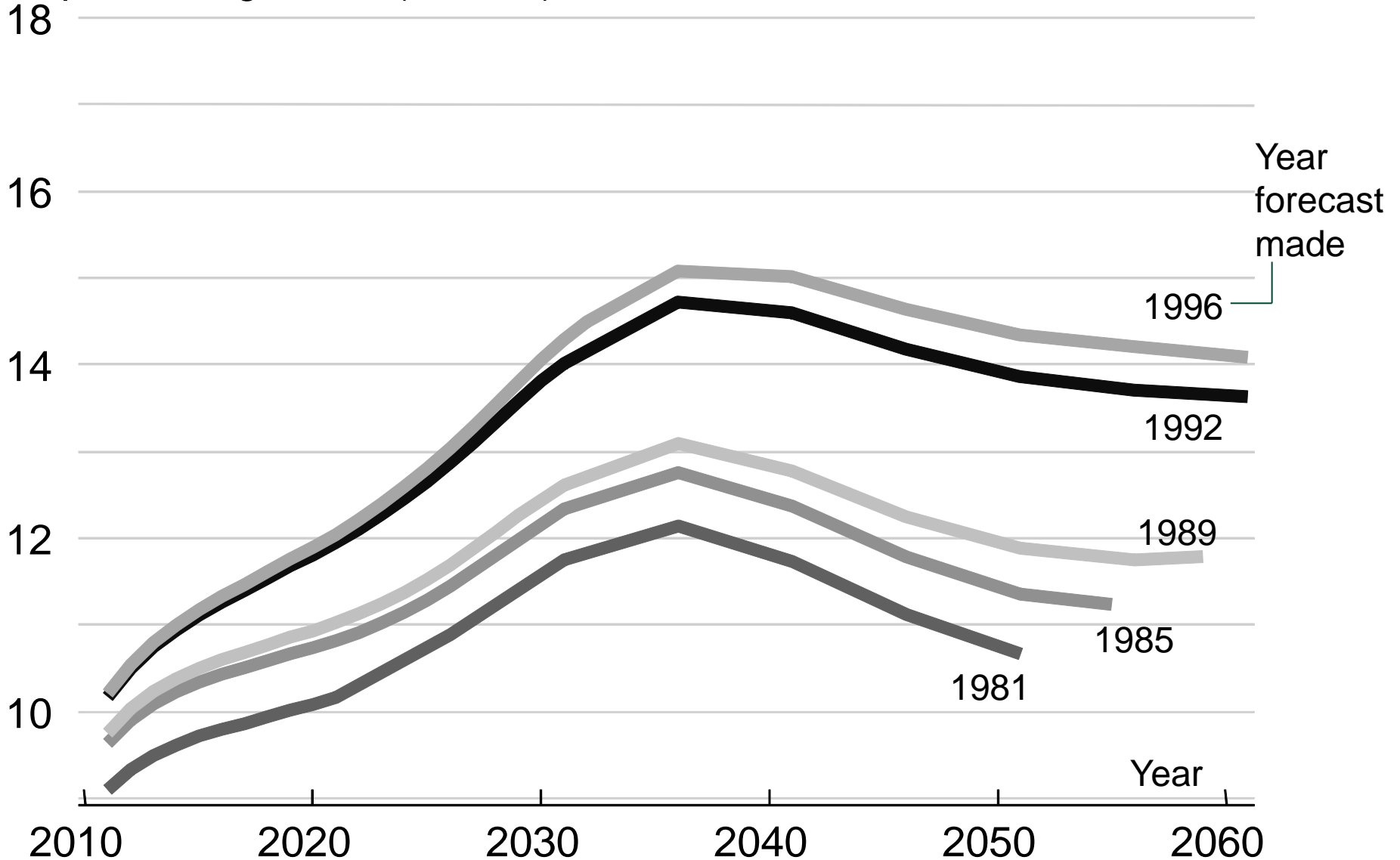
Forecast errors: UK example

Population aged 65+ (millions)



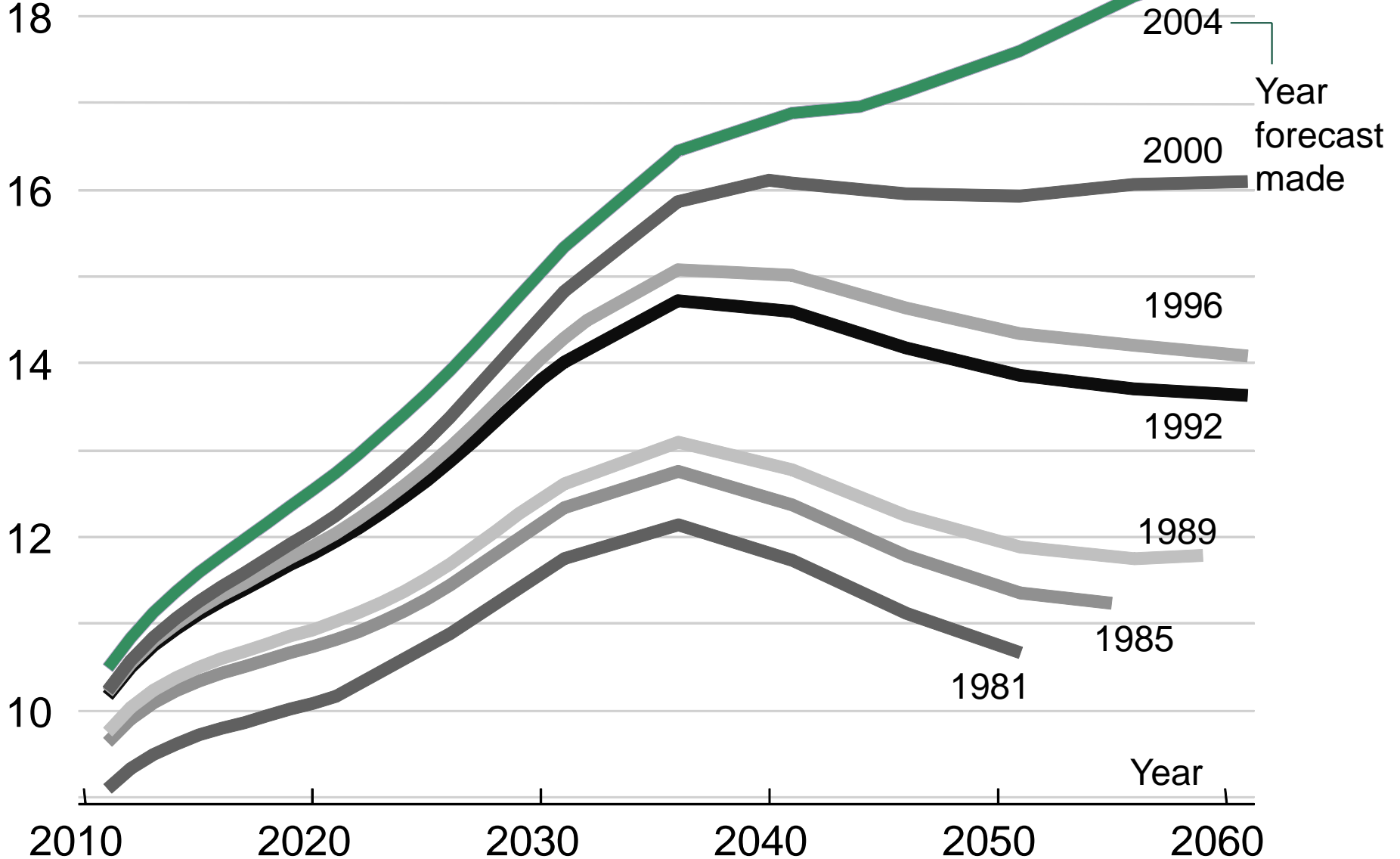
Forecast errors: UK example

Population aged 65+ (millions)



Forecast errors: UK example

Population aged 65+ (millions)



Life expectancy uncertainty

	Baseline	UN	OECD projection for 2050				
	2010	projection 2050	by percentile of the distribution of projected mortality rates				
			1st	25th	50th	75th	99th
Life expectancy at age 65 (years)							
Men	16.9	20.0	23.2	21.6	21.0	20.4	18.9
Women	20.5	24.0	26.9	25.5	24.9	24.3	22.9
Change from 2010 baseline (years)							
Men	0.0	+3.1	+6.3	+4.7	+4.1	+3.5	+2.0
Women	0.0	+3.5	+6.4	+5.0	+4.4	+3.8	+2.4

	Mandatory defined-contribution plan	Notional accounts scheme	Benefits linked to life expectancy	Qualifying conditions linked to life expectancy	DB-to-DC shift in voluntary private provision
Australia	●				
Austria					
Belgium					
Canada					●
Chile	●				
Czech Republic	●				
Denmark				●	
Estonia	●				
Finland			●		
France				●	
Germany			●		●
Greece				●	
Hungary	○				
Iceland					
Ireland					●
Israel	●				
Italy		●		●	
Japan					
Korea					
Luxembourg					
Mexico	●				
Netherlands					
New Zealand					
Norway	●	●			
Poland	●	●			
Portugal			●		
Slovak Republic	●				
Slovenia					
Spain				●	
Sweden	●	●			●
Switzerland					
Turkey					
United Kingdom					●
United States					●

How is life-expectancy risk allocated?

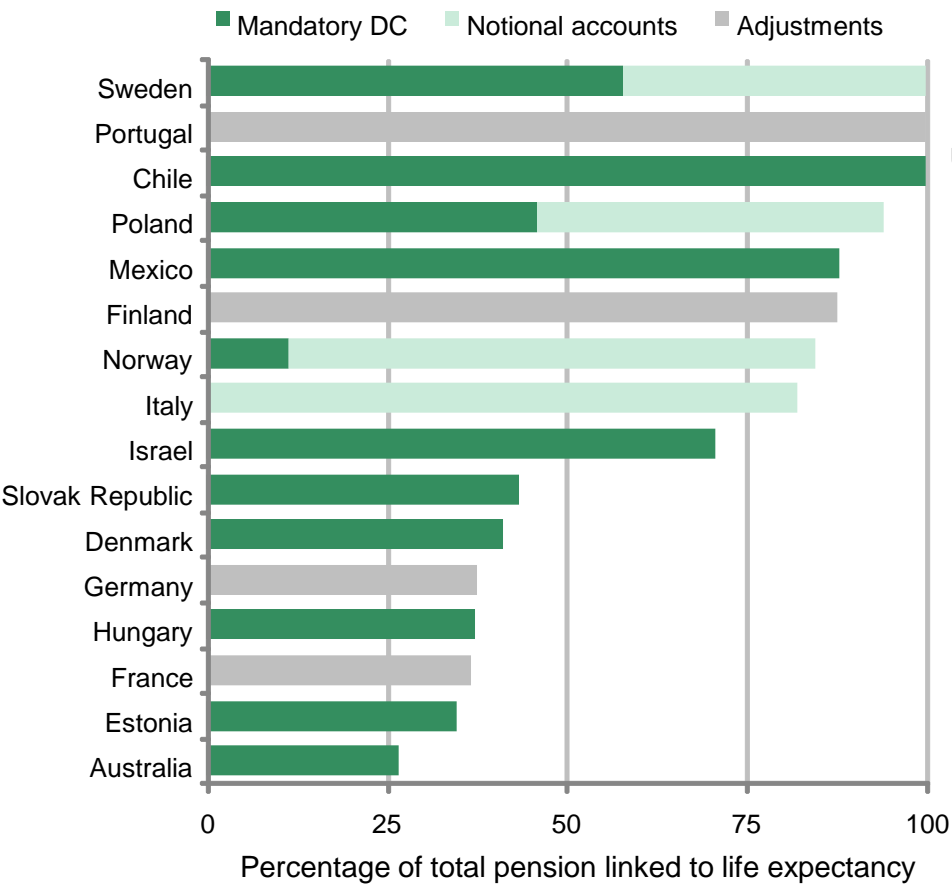
- Standard measures of pension entitlements:
 - replacement rate and pension wealth
- With a pure DB pension system:
 - replacement rate constant with changing life expectancy
 - pension wealth higher for higher life expectancy
- With a pure DC pension system:
 - replacement rate falls with higher life expectancy
 - pension wealth constant with changing life expectancy

Retirement incomes are a package

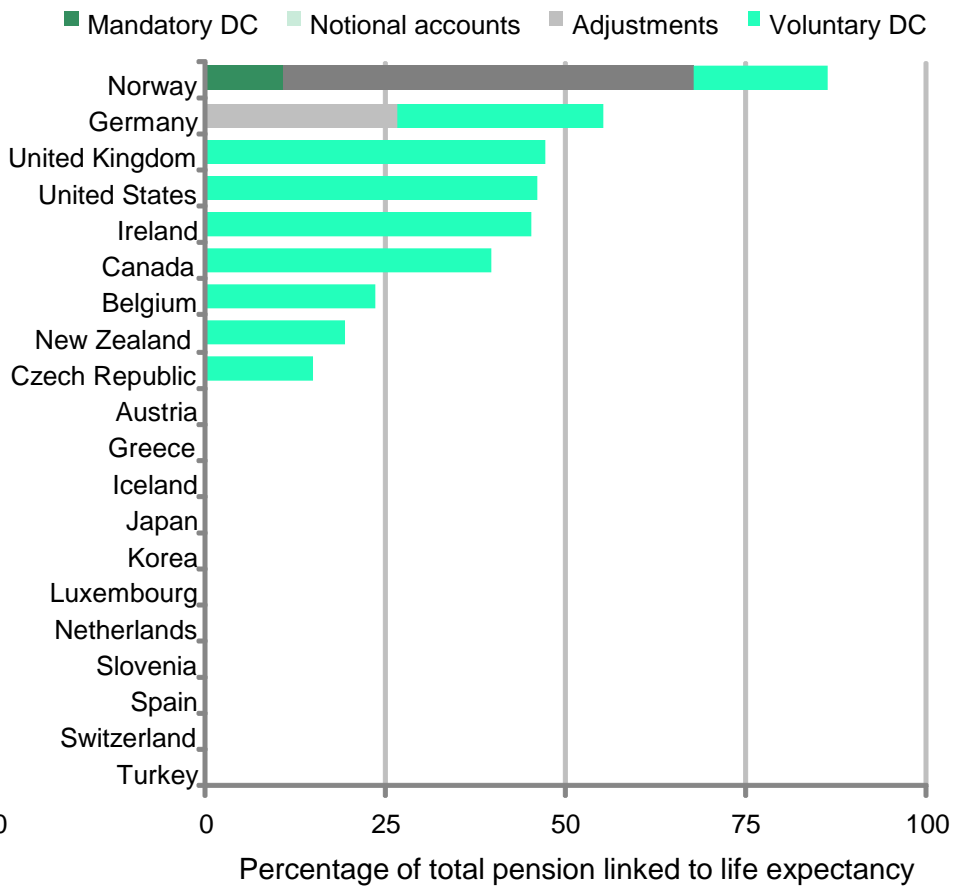
- Benefit levels **unaffected** by changing life expectancy
 - DB earnings-related, basic
- Benefit levels **affected** by changing life expectancy
 - DC, notional accounts
- Benefits levels **offset** reductions in other schemes
 - means-tested, minimum pensions

Index of pension links to life expectancy

Life-expectancy links in mandatory schemes



Life-expectancy link in voluntary schemes only





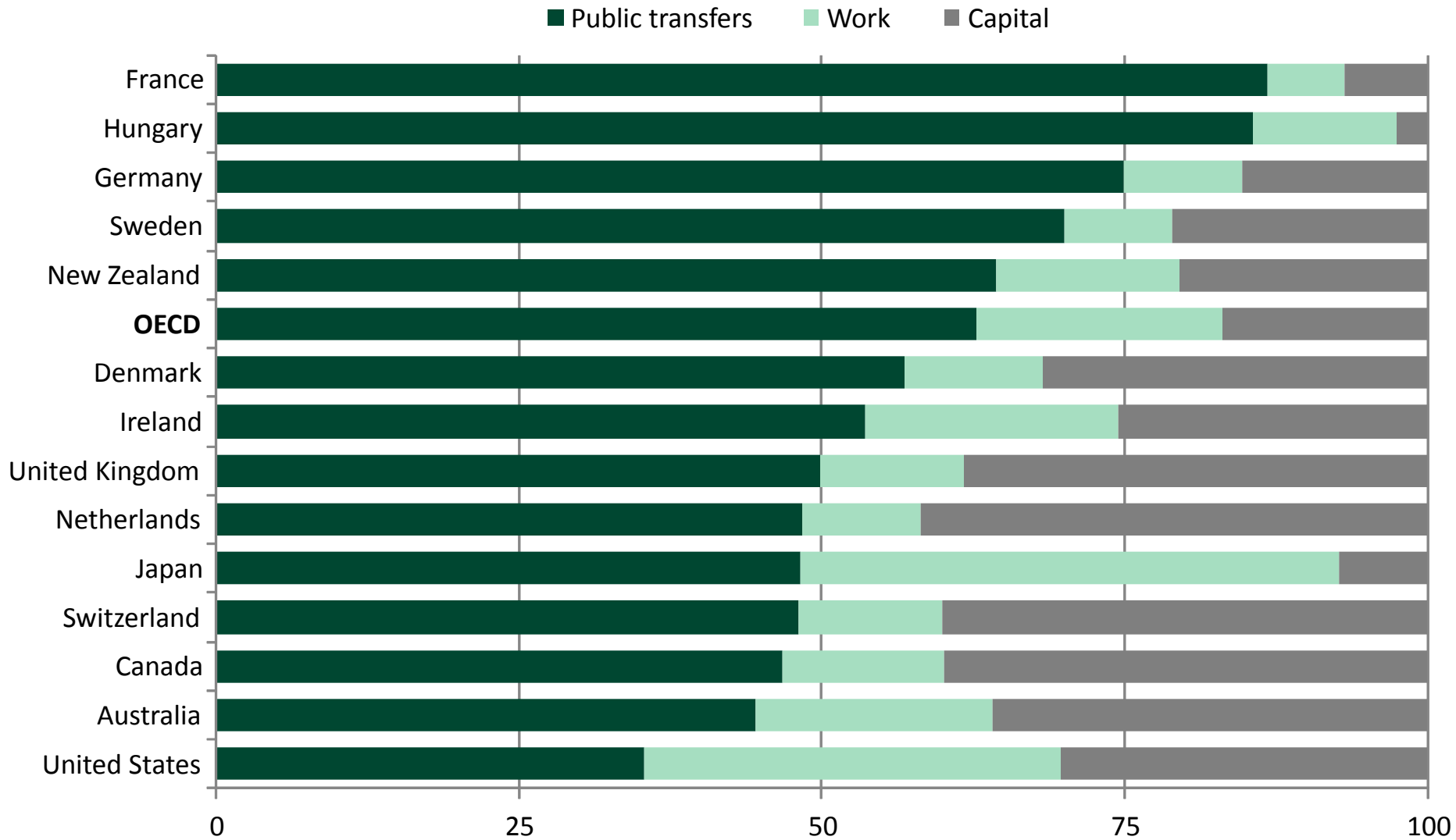
Security



Diversification

- ‘It is the part of a wise man to keep himself today for tomorrow, and not venture all his eggs in one basket’ (Miguel de Cervantes, 1605, *Don Quixote*)
- Pay-as-you-go public pensions:
 - sustainable rate of return = earnings growth + employment growth
- Funded pensions
 - rate of return in capital market directly or indirectly affects pension value
- Think of pension package as a ‘portfolio’ of different ‘assets’

Incomes in old age



Sources of income of over 65s, per cent of total

Investment risk

	Percentile of distribution								
	10	20	30	40	50	60	70	80	90
Market data									
Rate of return	5.5	6.1	6.6	7.0	7.3	7.7	8.0	8.5	9.0
Replacement rate	54.8	63.7	72.3	80.2	86.9	96.7	104.9	120.4	138.6

Note

10% contribution

OECD average mortality rates

40-year term to age 65

50:50 equity:government-bond portfolio

Market and individual returns

- Administrative charges
 - 0.75-2.00% in accumulation stage
 - 0.25-0.50% for annuity purchase
- Tracking error
 - 0.25-0.30% reduction in return
- Agency and governance effects
- Portfolio restrictions
- Ageing might reduce future returns

Investment risk

	Percentile of distribution								
	10	20	30	40	50	60	70	80	90
Market data									
Rate of return	5.5	6.1	6.6	7.0	7.3	7.7	8.0	8.5	9.0
Replacement rate	54.8	63.7	72.3	80.2	86.9	96.7	104.9	120.4	138.6
Rescaled									
Rate of return	3.2	3.8	4.3	4.7	5.0	5.4	5.7	6.2	6.7
Replacement rate	32.2	36.8	41.2	45.2	48.6	53.5	57.6	65.3	74.2

Note

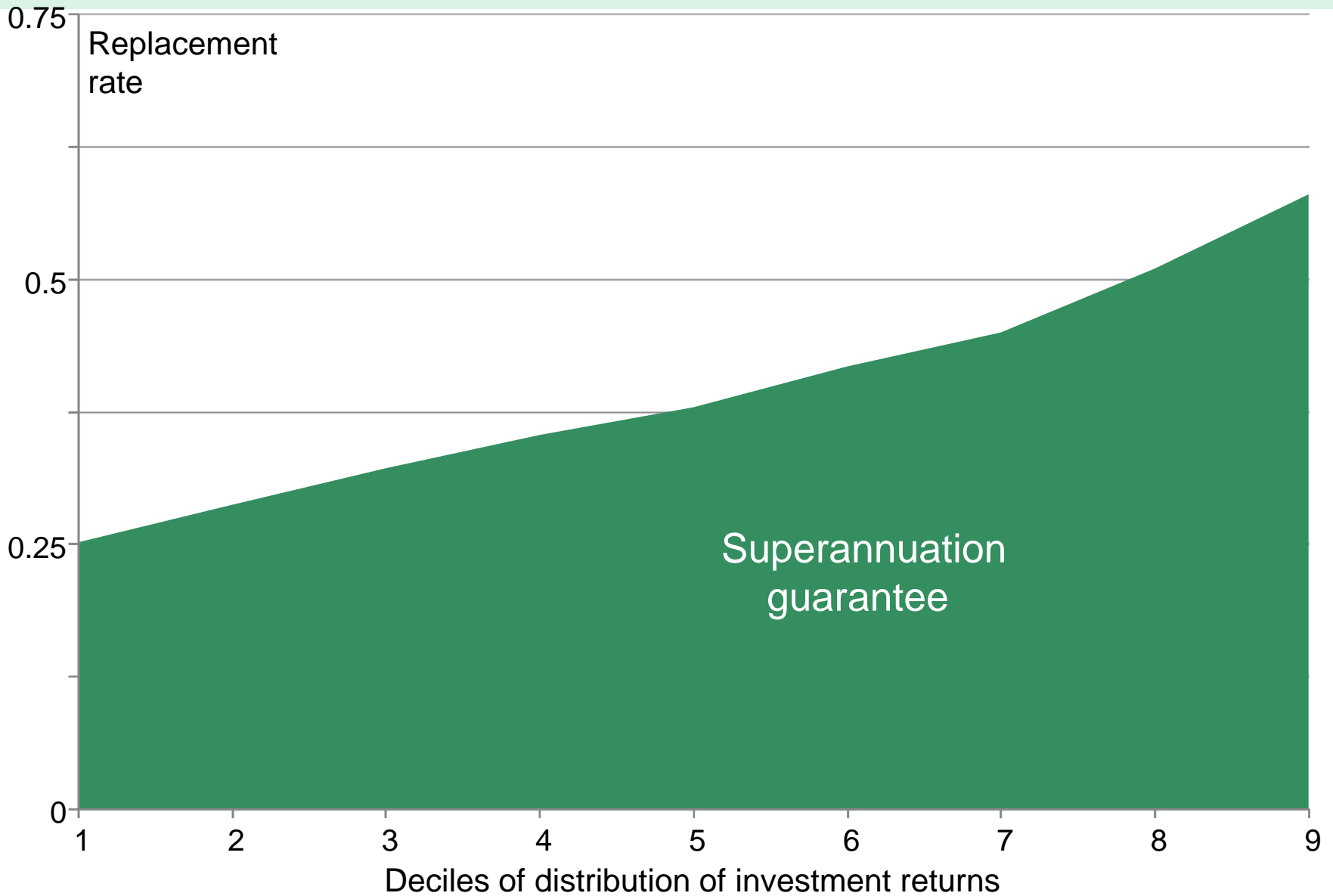
10% contribution

OECD average mortality rates

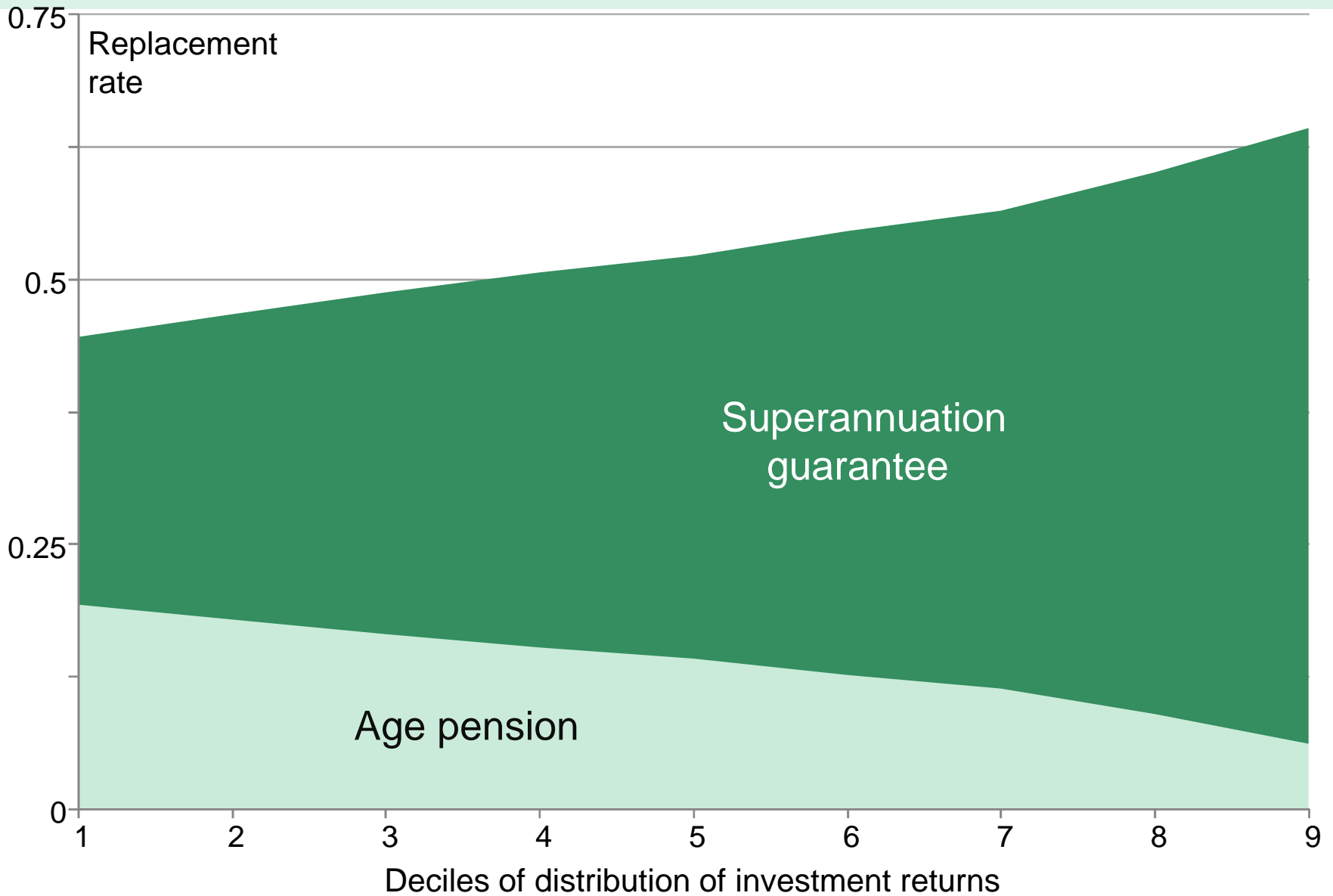
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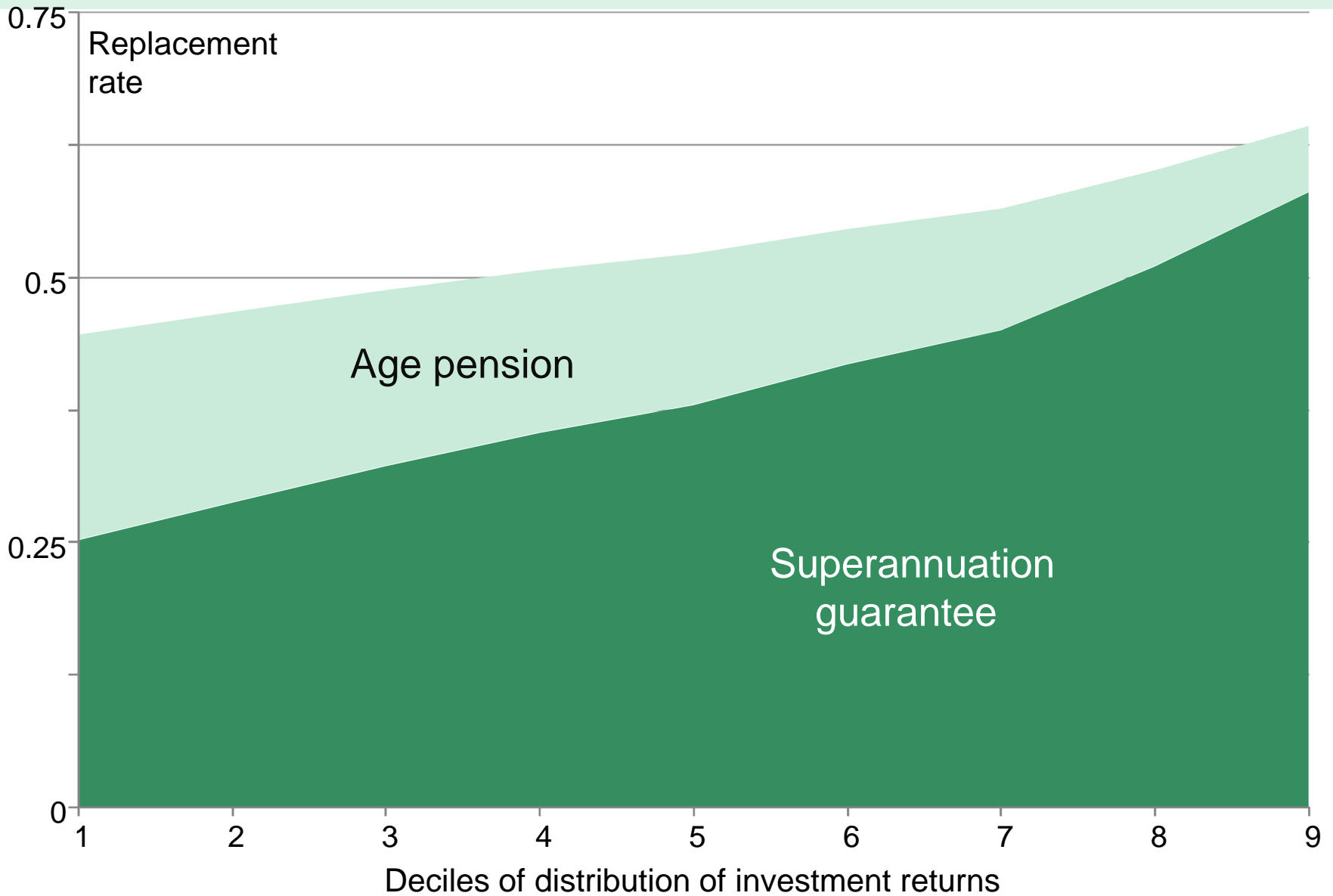
Australia



Australia



Australia



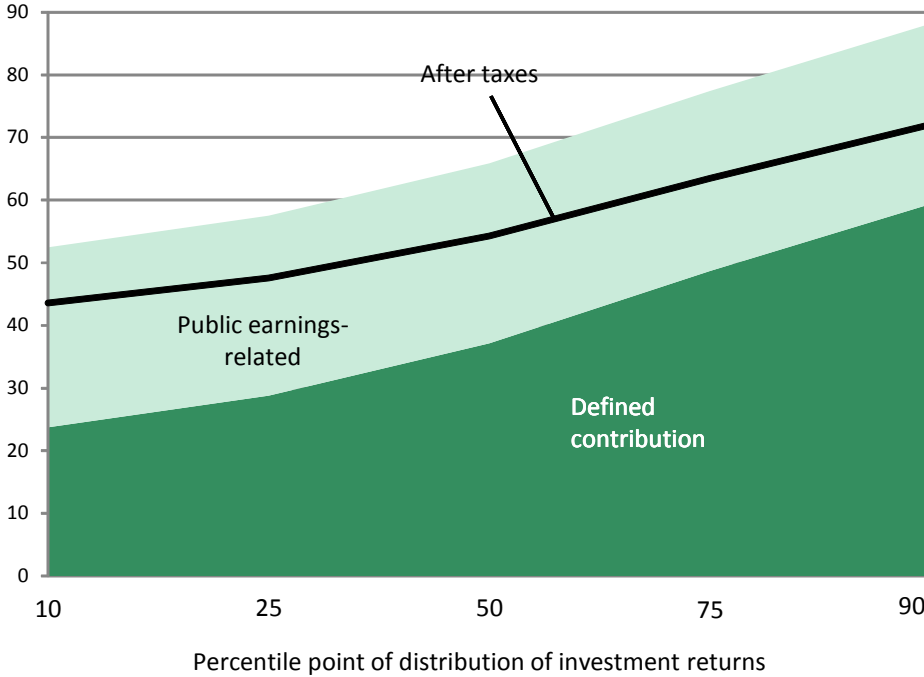
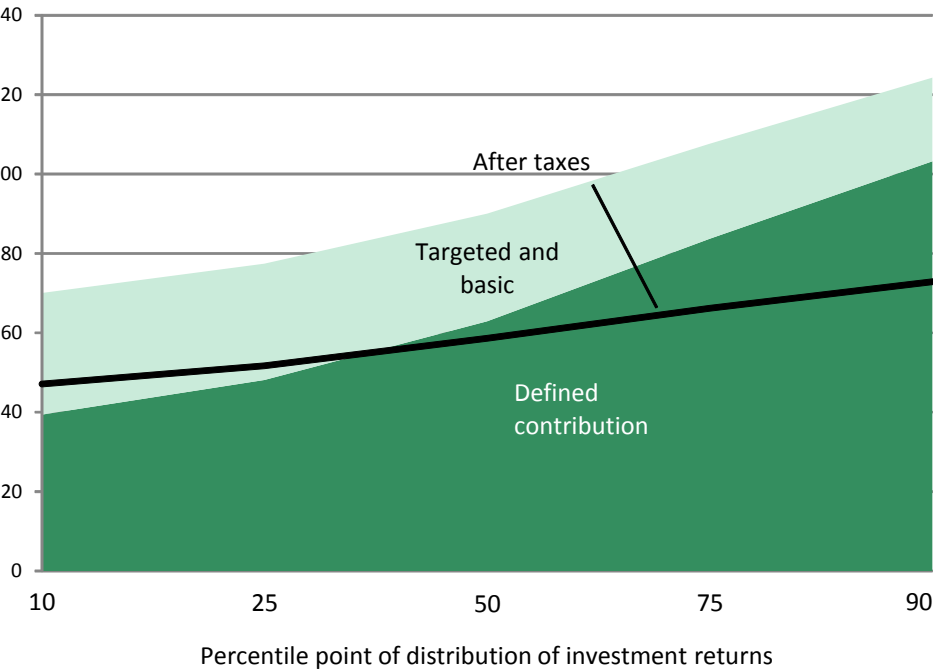
Other countries

Replacement rate
(% of gross earnings)

Denmark 

Replacement rate
(% of gross earnings)

Poland 





Conclusions



Policy directions

- Balancing objectives of benefit adequacy and financial sustainability
 - challenges of crisis and ageing
 - need to achieve both
- Improving the terms of the trade off
 - working longer
 - private pensions
 - targeting

Pensions
at a Glance

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2009

Pensions at a Glance
2011

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Pensions at a Glance 2011

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