



Society of Actuaries in Ireland

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**Towards a Fairer Future:  
Health, Housing, Pensions  
Finding Sustainable Solutions**

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SAI President's Conference  
8<sup>th</sup> November 2018

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Society of Actuaries in Ireland

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# Welcome & Introduction

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Maurice Whyms

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# The question posed today...

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*How do we solve the problems in Health, Housing and Pensions....*

*in a manner that does address those problems....*

*but which also balances the needs of all generations?*

# Disclaimer

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**The views expressed in these presentations are those of the presenters and not necessarily of the Society of Actuaries in Ireland or their employers**



Society of Actuaries in Ireland

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**Health:**

**The sustainability of Ireland's health system  
in a changing demographic environment**

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Aisling Kennedy FSAI

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# Agenda

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# Anti-microbial resistance

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The US Centers for Disease Control and Prevention (CDC) estimate that antibiotic-resistant microorganisms cause more than two million infections in the USA each year, resulting in at least 23,000 deaths.

“The thoughtless person playing with penicillin treatment is morally responsible for the death of the man who finally succumbs to infection with the penicillin-resistant organism”: Alexander Fleming

Every currently available antibiotic is a derivative of a class discovered between the 1900s and 1984

In 2017, research demonstrated that bacteria resistant to colistin, the “antibiotic of last resort”, had spread around the world within 18 months of the resistance first emerging.

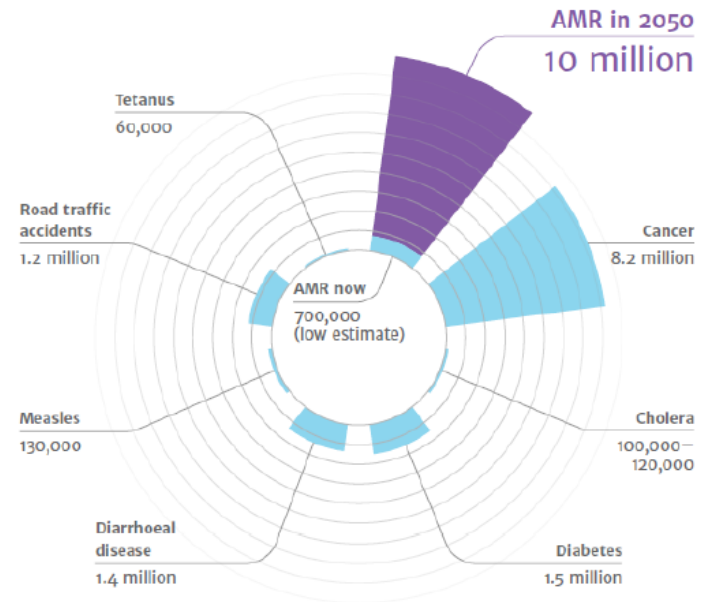
Dame Sally Davies, UK Chief Medical Officer warns of a potential *“future in which common infections and minor injuries kill once again, and where the types of intervention we routinely deliver today, such as caesarean sections, chemotherapy and hip replacements, become extremely dangerous... What is at stake here is nothing less than the basic integrity of modern medicine – and without this, quite simply, we, our children, and our grandchildren have nothing.”*



# Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations

The Review on Antimicrobial Resistance  
Chaired by Jim O'Neill  
December 2014

## DEATHS ATTRIBUTABLE TO AMR EVERY YEAR

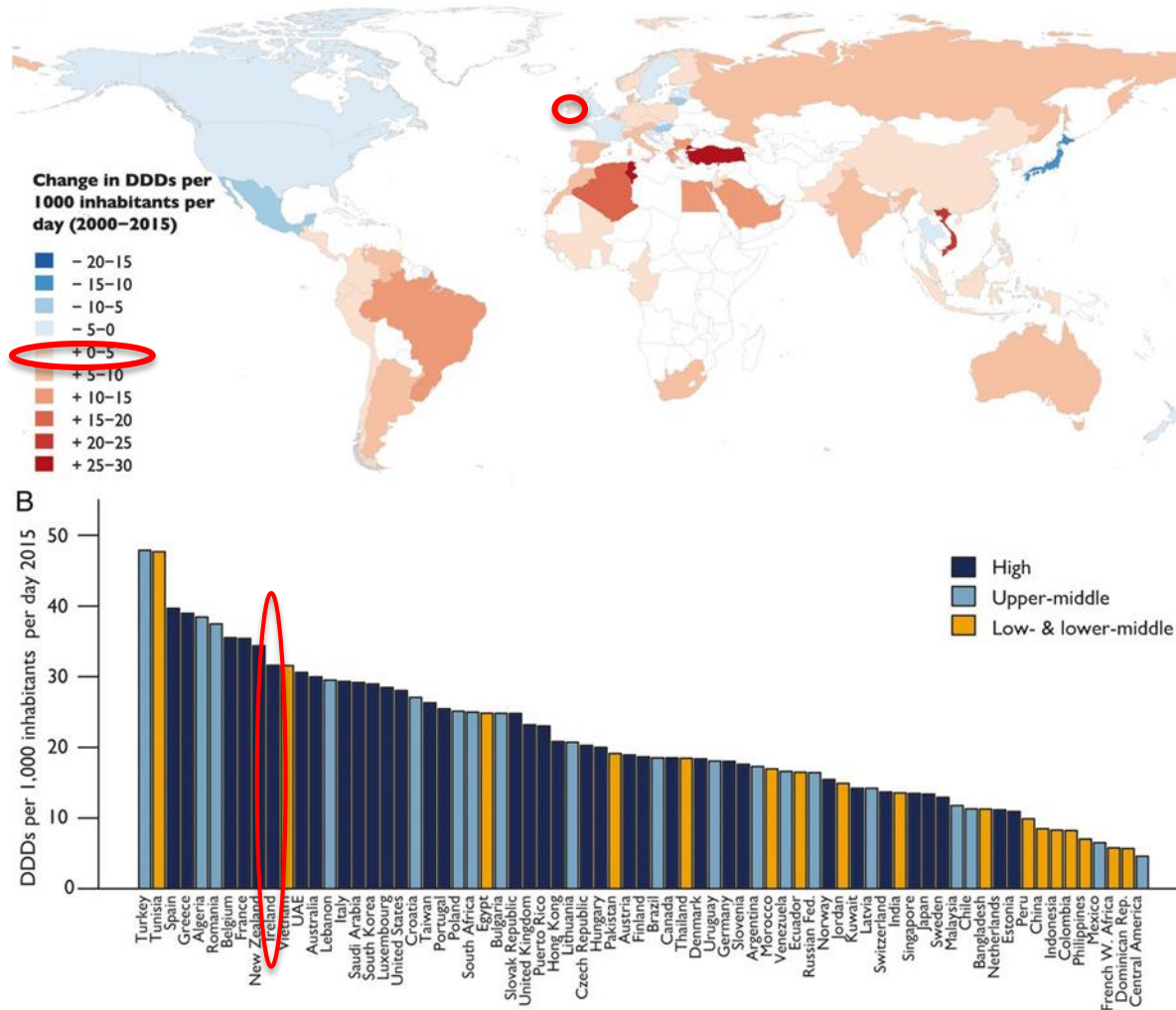


**Sources:**

Diabetes: [www.ncbi.nlm.nih.gov/pubmed/24711147](http://www.ncbi.nlm.nih.gov/pubmed/24711147) Cancer: [www.ncbi.nlm.nih.gov/pubmed/24711147](http://www.ncbi.nlm.nih.gov/pubmed/24711147)  
Cholera: [www.ncbi.nlm.nih.gov/pubmed/24711147](http://www.ncbi.nlm.nih.gov/pubmed/24711147) Diarrhoeal disease: [www.sciencedirect.com/science/article/pii/S0140673614011120](http://www.sciencedirect.com/science/article/pii/S0140673614011120)  
Measles: [www.sciencedirect.com/science/article/pii/S0140673614011120](http://www.sciencedirect.com/science/article/pii/S0140673614011120) Road traffic accidents: [www.ncbi.nlm.nih.gov/pubmed/24711147](http://www.ncbi.nlm.nih.gov/pubmed/24711147)  
Tetanus: [www.sciencedirect.com/science/article/pii/S0140673614011120](http://www.sciencedirect.com/science/article/pii/S0140673614011120)



# Global antibiotic consumption, 2000–2015



Eili Y. Klein et al. PNAS 2018;115:15:E3463-E3470



## Healthcare costs & metrics

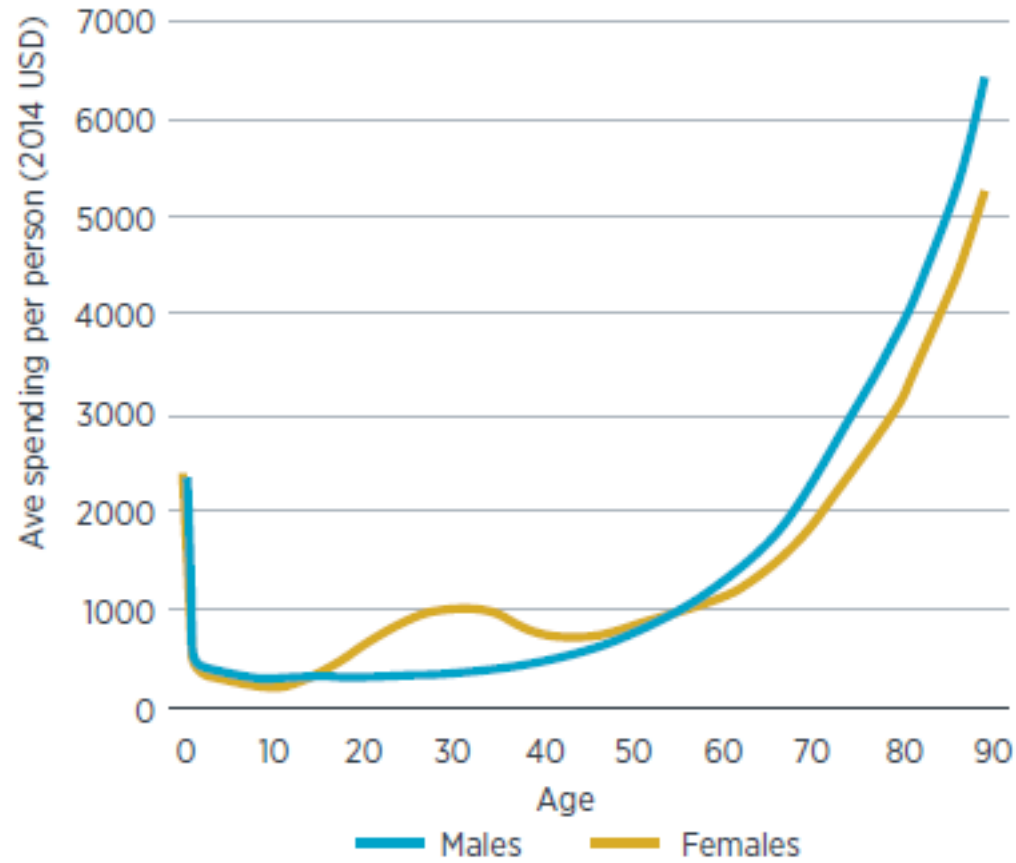
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# Health care spending by age

Average hospital spending by age and gender, UK, 2010/11 – 2014/15



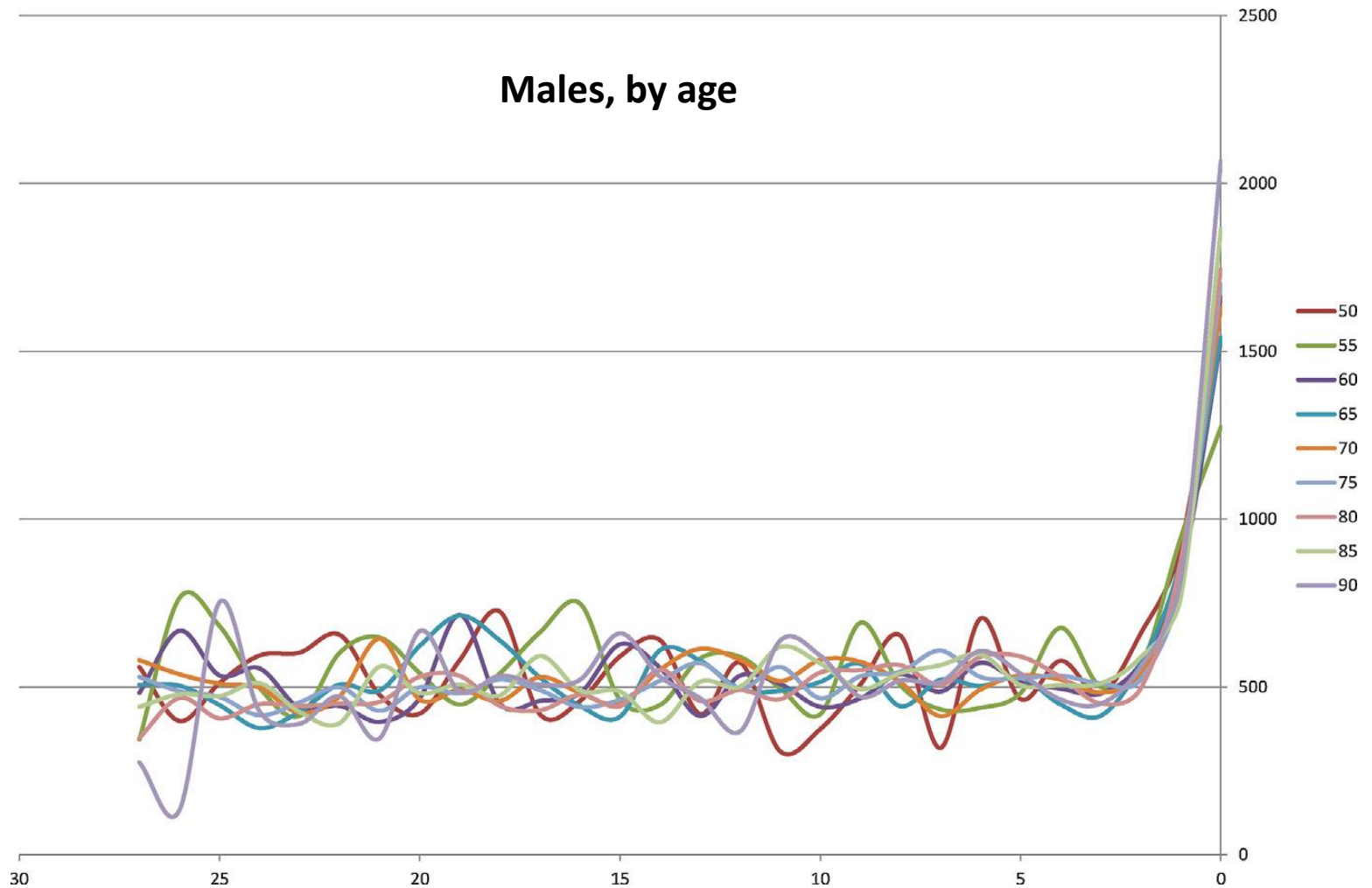


*“Population age structure is often included as a covariate in health expenditure regressions....these variables are generally insignificant when included in regression models explaining per-capita health spending.”*

WHO, 2011, “The determinants of health expenditure”



# Health costs by proximity to death



D. Howdon, N. Rice / Journal of Health Economics 57 (2018) 60–74 71



# ESRI projections of health care demand

Sector	Measure of activity	Baseline findings Volume of activity in 2015/ end 2015 <sup>1</sup> (‘000)	Projected percentage increase in demand 2015-2030	
			Projection range excluding unmet need/ demand %	Lower end projection range plus unmet need/demand %
Public hospitals	Inpatient discharges <sup>2</sup>	514	24 - 30	28
	Day-patient discharges <sup>2</sup>	1,010	23 - 28	29
	Inpatient bed days <sup>2</sup>	3,273	32 - 37	36
	ED attendances	1,138	16 - 26	-
	OPD attendances	3,299	21 - 29	30
Private hospitals <sup>3</sup>	Inpatient admissions	133	20 - 25	-
	Day-patient admissions	459	24 - 28	-
	Inpatient bed days	613	28 - 32	-
General practice	GP visits	17,551	20 - 27	22
	Practice nurse visits	5,944	26 - 32	-
Community pharma.	Prescription items (public)	73,059	34 - 37	-
	Total consultations <sup>4</sup>	5,977	19 - 25	-
Long-term care	Residents/places	29	40 - 54	44
	LTC bed days	10,582	40 - 54	44
Home care	Home help service	66	44 - 57	48
	HCP recipients	15	44 - 57	66
	Home help hours	14,311	38 - 54	-



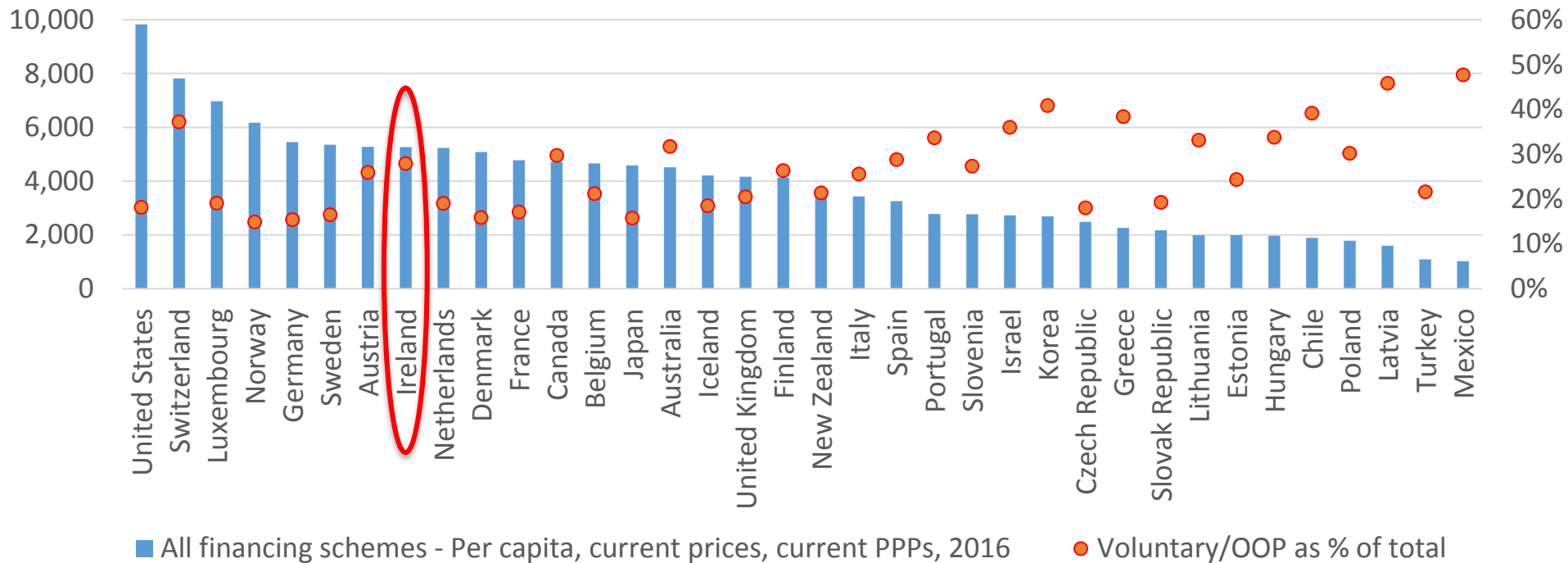
## Methodology

- *Dynamic equilibrium (i.e. life expectancy increases are equalled by additional years without ill health): hospital in-patient and day cases, home care*
- *Compression of morbidity (i.e. assumes the gain in health status exceeds the gain in life expectancy by 50%): residential long term care*

Projected population growth of 14% - 23%



# Health care costs

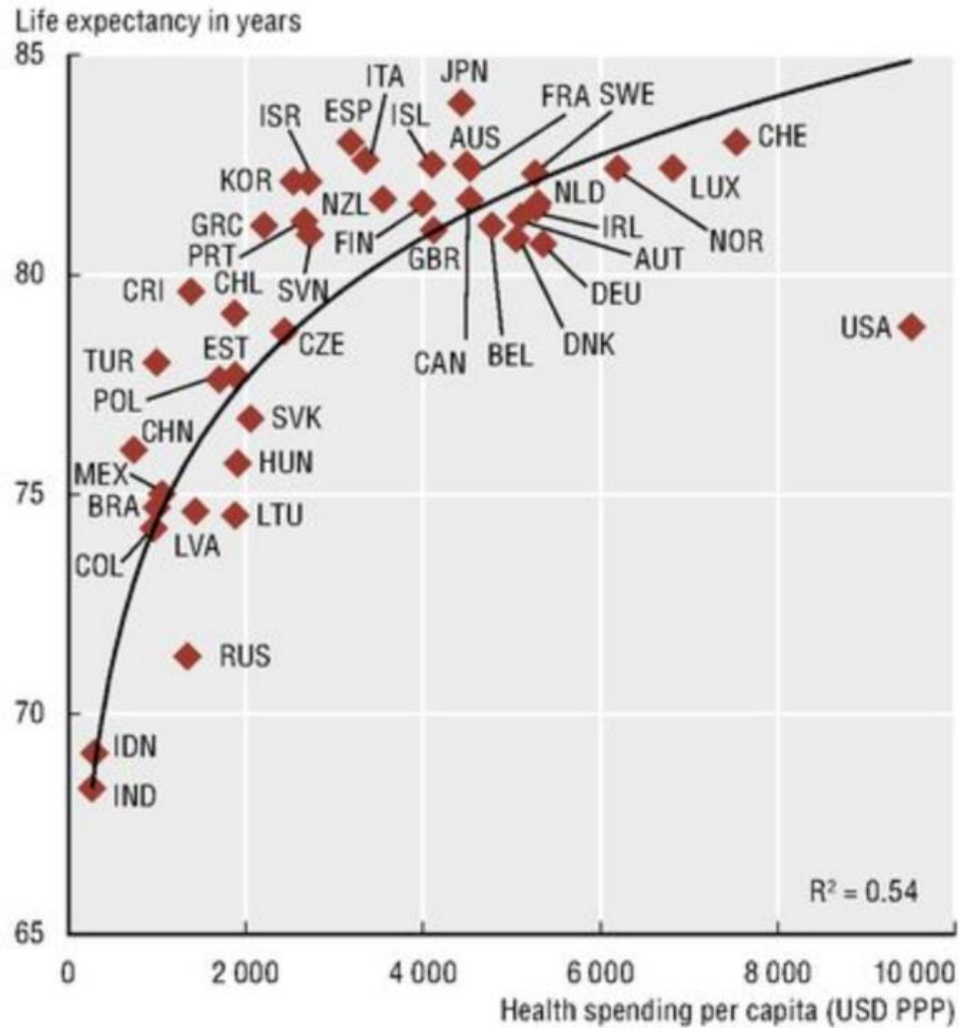


Source: OECD Health Statistics 2018





# Life expectancy at birth and health spending per capita (2015) or nearest year



Source: OECD Health Statistics 2017



Source: 2014, The Economist Intelligence Unit

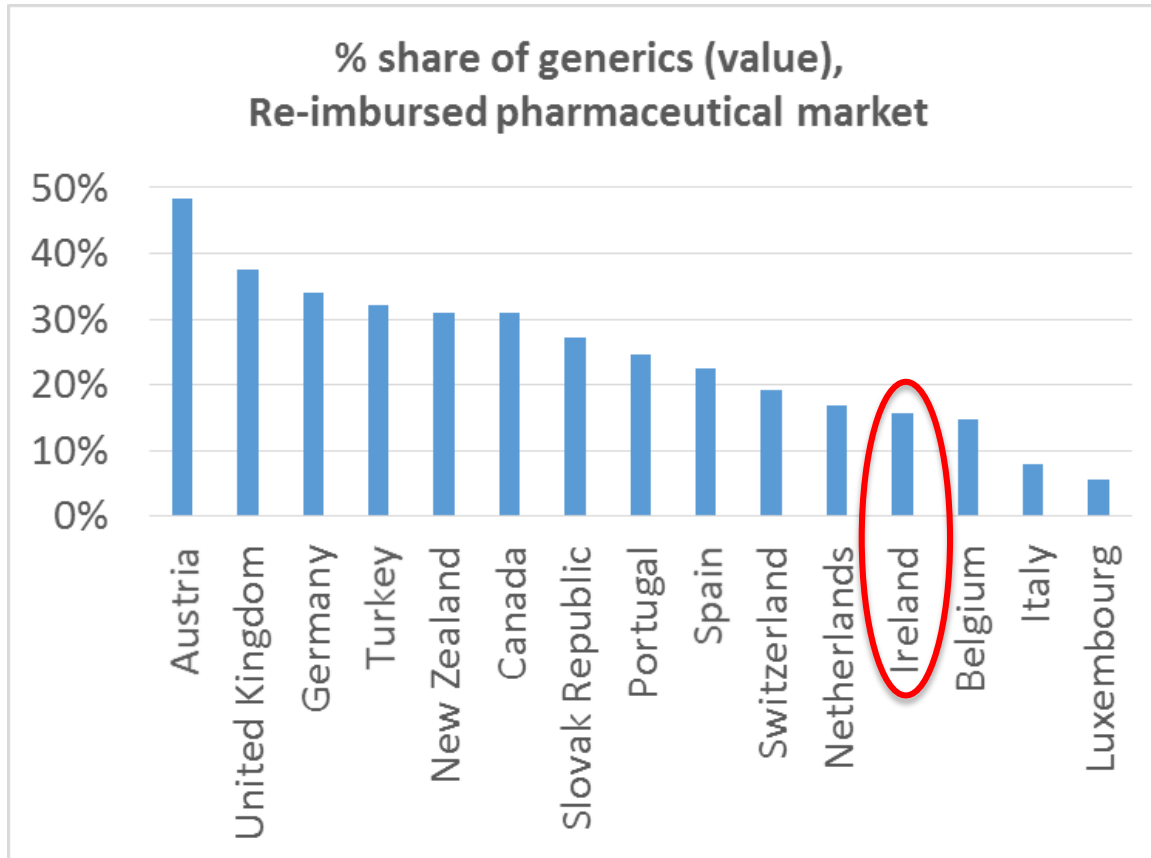
### Methodology

- DALYs (disability adjusted life years) and HALEs (health adjusted life expectancy) were used as the main outcomes measurement.
- Extra measures of average life expectancy at age 60 and adult mortality rates were added to distinguish performance at the top end of the outcomes scale.
- A composite outcome was generated from all four indicators and standardised into an outcomes index score, on a scale of 0 to 100 (with higher scores indicating better outcomes).
- All 166 countries were then ranked according to their score on this index.



# Generics

2016 calendar year



Source: OECD Health Statistics 2018



# Hospital bed capacity review

## Projected in-patient beds 2016 - 2031



	Public	Δ	Private	Δ
<b>Current</b>	<b>10,500</b>		<b>1,900</b>	
Project current performance	4,600	44%	500	26%
Reduce bed occupancy to 85%	1,200	11%		
S1 - Improved health and wellbeing	-800			
S2 - Comprehensive community based services	-1,900			
S3A - Hospital productivity: configuration	-200			
S3B - Hospital productivity - patient flow	-800			
<b>Overall</b>	<b>12,600</b>	<b>20%</b>	<b>2,400</b>	<b>26%</b>

**Recommendation 2:** Continuation of the current model of care is neither feasible nor appropriate and alternative scenarios of care offer the potential for a better way forward.



## Looking forward – global themes

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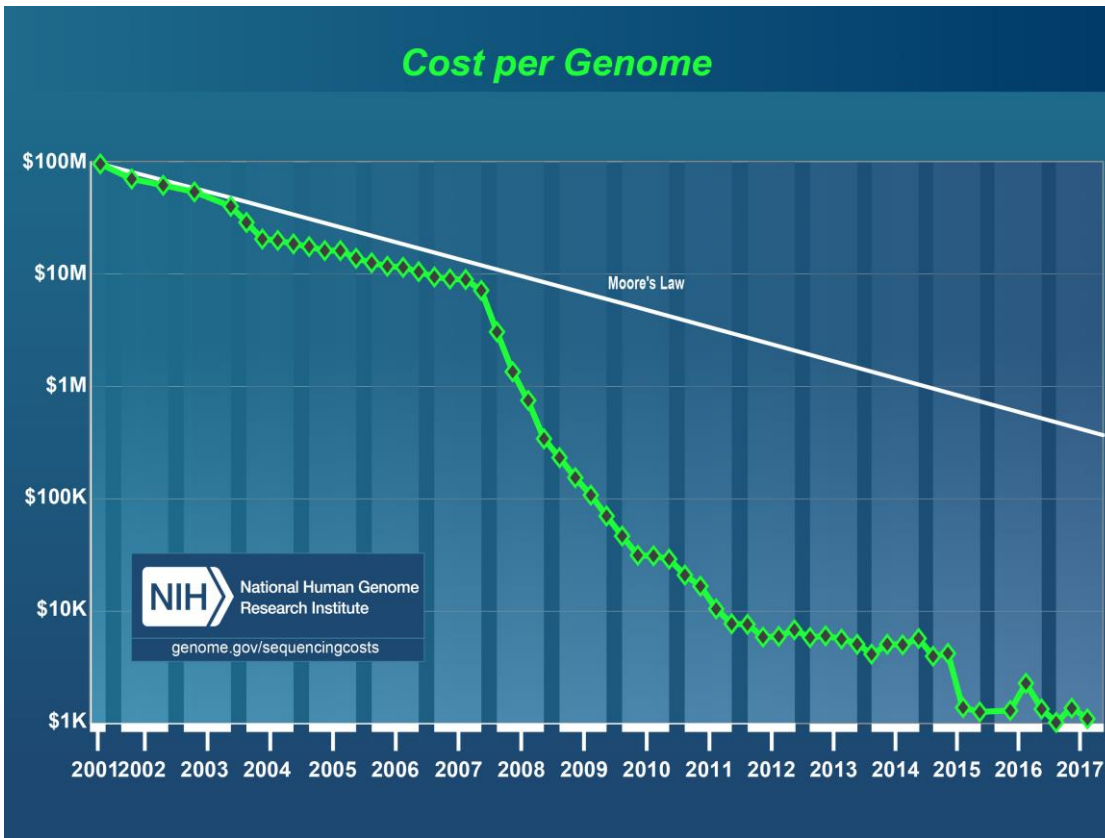
# Looking forward – global themes

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- Moving away from fee for service medicine
- Shift from treating illness to enabling wellness
- Integrated care / provider systems
- Activating patient engagement
- Technology enabled care
- Wearables
- End of life care
- Genomic medicine

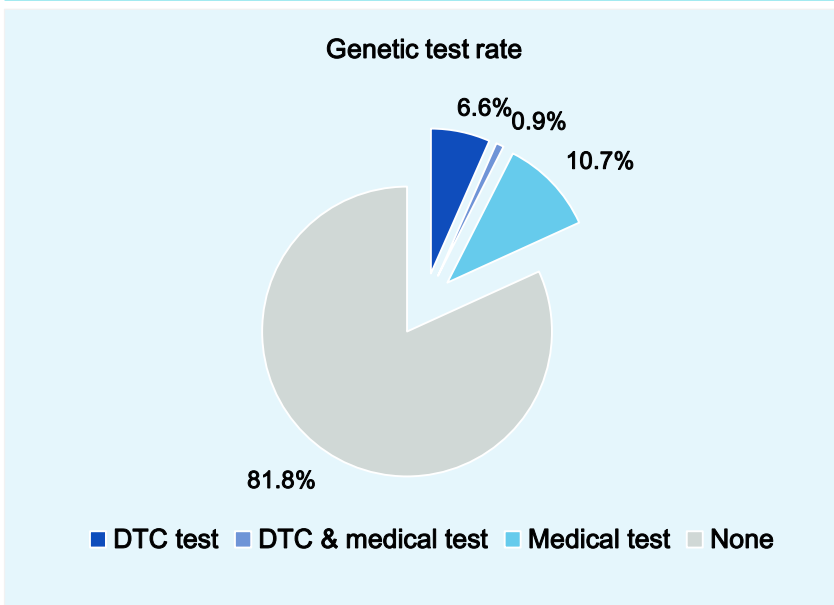


# Genetic testing



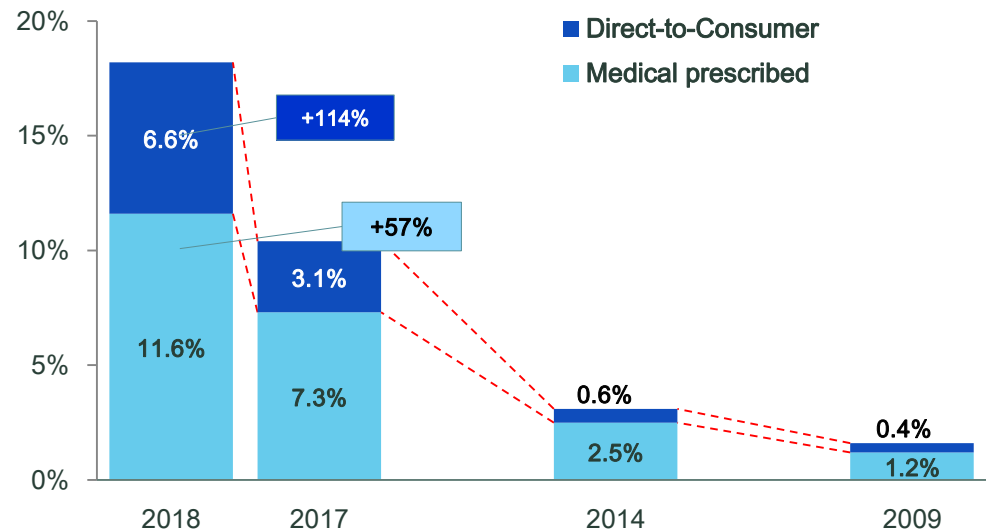


# Genetic testing



Swiss Re genetic testing consumer survey 2018

Share of US population with a genetic test (cumulative)







# Genomic medicine

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Risk assessment	e.g. women with a BRCA gene variation have a higher risk of breast cancer
Early detection	e.g. individuals with variations in genes that increase risk of colon cancer benefit from earlier and more frequent screening
Diagnosis	For some types of heart disease, detection of a gene variation can lead to diagnosis and treatment that can prevent sudden cardiac death before any symptoms occur
Prognosis	For many types of cancer, presence or absence of specific mutations means a higher likelihood of survival
Tailored treatment	Some of the variability in how people respond to medications is explained by the way their bodies interact with the drugs

Source: JAMA Patient Page, Genomic Medicine



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**Housing:**

**Solving Ireland's Housing Crisis**

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Tom Dunne

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# Housing: Solving Ireland's Housing Crisis

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- Housing is Important
  - Adequate Housing recognised as part of the right to an adequate standard of living in the 1948 Universal Declaration of Human Rights and in the 1966 International Covenant on Economic, Social and Cultural Rights
- Fundamental interest to every family/person
- State has vital interest in an adequately housed workforce
  - Impact on productivity & competitiveness
  - Impact on health, social welfare, education
  - Foundation for welfare state



# In the 20<sup>th</sup> Century Public Policy Heavily Incentivised Home Ownership

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- Governments reduced costs of housing through
  - Mortgage interest relief
  - Grants/ direct subsidies
  - Tax breaks
- These increased the attractiveness of ownership & allowed majority to buy
- Against a background of
  - Stable careers with growing incomes
- **By 1980 subsidies to home owners were the most generous in western Europe**



# Home ownership archetype

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- Deals with the perils of renting
  - Lack of security of tenure
  - Lack of security about the cost of accommodation - Particularly after retirement
  - Control over home environment
- Home ownership offers
  - More stable society –people have a property stake
  - Better neighbourhoods
  - Wealth accumulation & pension provision
  - Affordable retirement
  - Less inclined to dedicate money to pension provision



# Outcome for Ireland

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- High house prices & high home ownership
- By 1970
  - Ireland 61%
  - UK 50%
  - Sweden 35%
- By 2007 home ownership peaked at 80%
- Direct provision of Social Housing for those who could not buy
- From 1980s governments
  - Reduced tax breaks, grants & incentives
  - This should have reduced prices
- But home ownership grew anyway .....?



# Financialization of Housing

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- From 1980s **banks** not building societies provided finance
  - Building societies circulate existing money
  - But banks create it!
- Moving from
  - 2.5 X single income +1 X second income
  - to 3.5 X joint income
  - allows double the size of mortgage
- Increased credit drives property prices higher
- **Result – increase in property prices from 1980s**
- Despite withdrawal of subsidies
- The model seemed to work



# Housing Hypothesis

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- Home ownership can be made affordable by borrowing
- High property prices are good
- Property investment is lucrative & PRS will be provided by the market
- Enabling reduced direct state provision of social housing





# Property Ladder Concept


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- High prices a good thing & needed to drive supply
- Social housing -the safety net
  - For those who can't buy
  - Low rents & with secure tenure
  - Possibility of tenant purchase in long term
- Public Policy is framed by this
- Dominated thinking in late 20<sup>th</sup> century.....and continues
- Thinking of baby boomers



# Relationship between high house prices and development land muddled

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- **Need to understand causal link between high property prices and high land prices**
- High house prices  high land prices
- Development land & new houses can be taxed to provide infrastructure & fund social housing
  - eg Development Levies & Part V
- Housing policy dependent on high prices



# Housing crisis – A failure of public policy

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- System/ Market is now not responding adequately to Govt Policy
- Time to ask if policy correct
- Einstein's views on problem solving
  - “We cannot solve our problems with the same thinking we used when we created them”
  - “If I had only one hour to save the world, I would spend fifty-five minutes defining the problem, and only five minutes finding the solution”



# Buying a home now compared to past

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- Government subsidies and incentives reduced
- Lending criteria for mortgages more constrained
- Contingent/contract/precarious employment makes paying a mortgage off more risky
- There is an understandable wariness about debt
- **The contexts have changed**
- **So should the policy**



# Home ownership - a thing of the past for many

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- Will lower income households be able to finance house purchase?
- Is the property ladder now only for the very well off
- Inevitably more people will rent than before
- Some will never buy - Generation Rent



# The paradigm has changed

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- Policies driven by 20<sup>th</sup> century thinking will not solve the housing crisis of the 21<sup>st</sup> century
- Government policy should aim at reducing property prices so that buyers are not so indebted



# The Rental Sector

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**More people with lower incomes will rent but who from?**

And what happens when tenants retire?

- Assumption-- property investment is lucrative
  - Where is the economic analysis supporting this?
  - Unlikely that under-capitalised private investors can supply without finance - BtL from banks –
  - But gearing is risky
  - Risks of small scale property ownership underappreciated
- Pension Funds /Institutions/corporates have a role-
- But how?



# Social Housing

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- Has to be provided directly by the state - market won't solve this problem
- Part of infrastructure
- Much greater scale than currently envisaged is required
- Achieving mixed communities through Part V is a barrier to supply
- Subsidising tenants to rent in PRS crowds out other tenants
- Move to Public Housing





# Final thoughts

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- Shift thinking away from Residential Capitalism
- Tackle the housing problem from the bottom up not top down
- Directly employ builders & continue through the next recession

**Thank you!**



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## **Pensions:**

**Is the Government's 2018 Roadmap for Pensions Reform headed for success?**

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Roma Burke, FSAI

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*Leo Varadkar*

**LEO VARADKAR TD**

An Taoiseach



*Regina Doherty*

**REGINA DOHERTY TD**

Minister for Employment  
Affairs & Social Protection



*Paschal Donohoe*

**PASCHAL DONOHOE TD**

Minister for Finance  
& Public Expenditure  
and Reform



Rialtas na hÉireann  
Government of Ireland

# A Roadmap for Pensions Reform 2018 - 2023





United States Library of Congress's Prints and Photographs division  
digital ID cph.3c08091.





# THE IRISH TIMES

Sun, Nov 4, 2018

- NEWS
- SPORT
- BUSINESS
- OPINION
- LIFE & STYLE
- CULTURE

Ireland > Irish News

## Compulsory retirement age for public sector staff set to rise to 70

The new changes will not apply to frontline groups such as gardai

© Wed, Dec 6, 2017, 12:53 | Updated: Wed, Dec 6, 2017, 13:57

Martin Wall Industry Correspondent



Minister for Public Expenditure Paschal Donohoe says the traditional retirement age of 65 would be raised to 70.

Thousands of public sector staff will be asked to work until the age of 70 under new plans.



# Irish Examiner

- IRELAND > WORLD > SPORT > BUSINESS VIEWS > LIFE > PROPERTY TECH SHOWBIZ >
- HOT TOPICS: PITTSBURGH SYNAGOGUE ATTACK BREXIT HOMELESSNESS CLIMATE CHANGE

- HOME > BREAKING NEWS > IRELAND

## Public servants to work until 70 amid spiralling pensions

Wednesday, October 17, 2018 - 08:52 AM

By Fiachra Ó Cionnaith  
Irish Examiner Political Correspondent

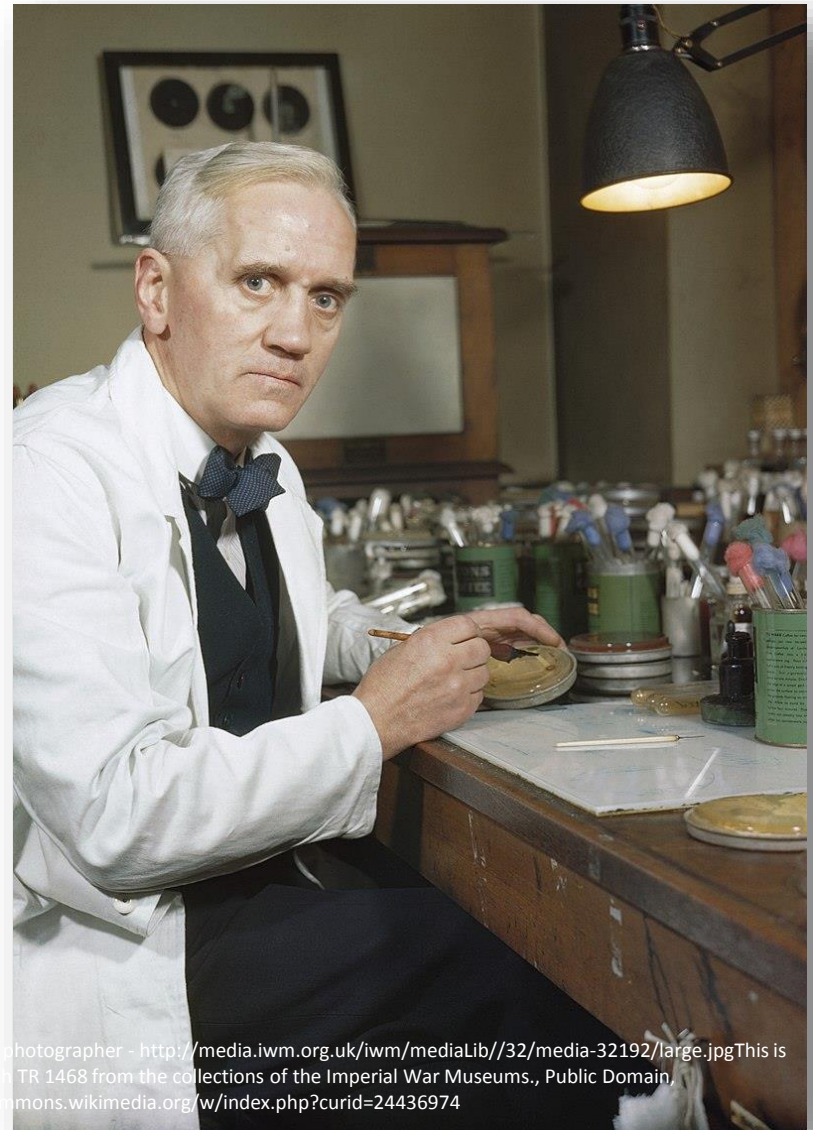
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Teachers, university lecturers, and other key public servants will be asked to work until they are 70 in a bid to cut back on spiralling pension costs and to shore up staff gaps in vital frontline services.

Cabinet signed off on the move at its weekly meeting yesterday after the plan was put forward





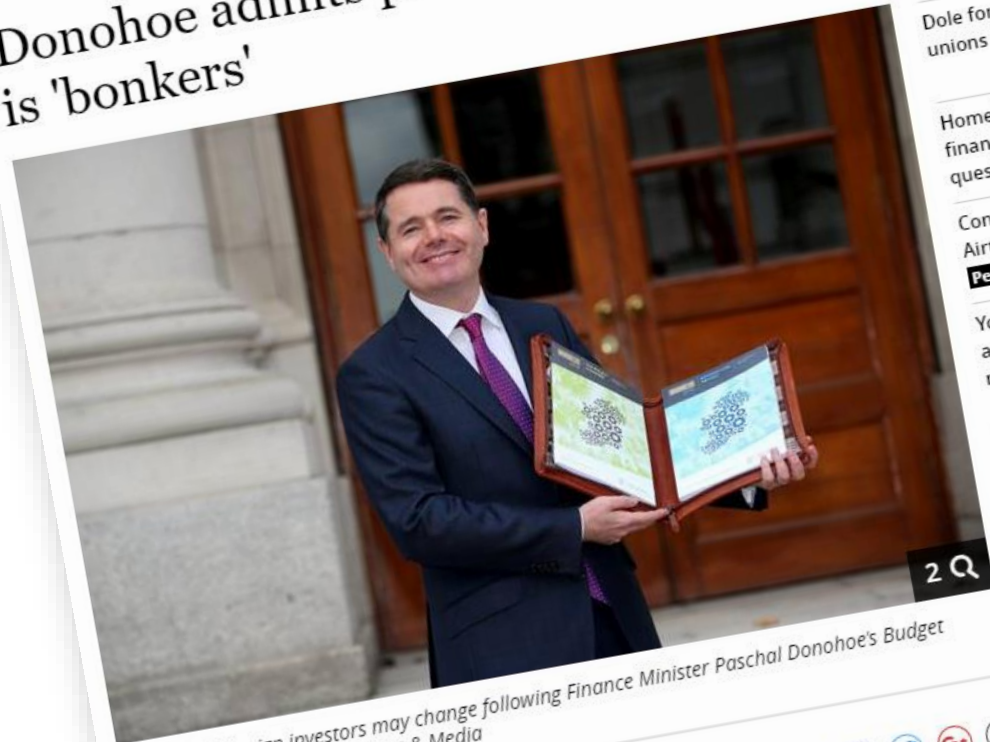
photographer - <http://media.iwm.org.uk/iwm/mediaLib//32/media-32192/large.jpg> This is  
in TR 1468 from the collections of the Imperial War Museums., Public Domain,  
[commons.wikimedia.org/w/index.php?curid=24436974](https://commons.wikimedia.org/w/index.php?curid=24436974)



Sunday 4 November 2018

# Business Personal Finance

## Donohoe admits pension hit to women is 'bonkers'



The view of foreign investors may change following Finance Minister Paschal Donohoe's Budget move. Photo: Independent News & Media

Most Read Most Shared  
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Dole for self-employed workers: unions complain **Labour**

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Your Questions: The answer to your questions about pensions - but what do you need one? **Personal Finance**

### Promoted link



This Incredible 2018 daily...



The Was Open Good



How Wor

 **Charlie Weston**    
October 12 2017 2:30 AM

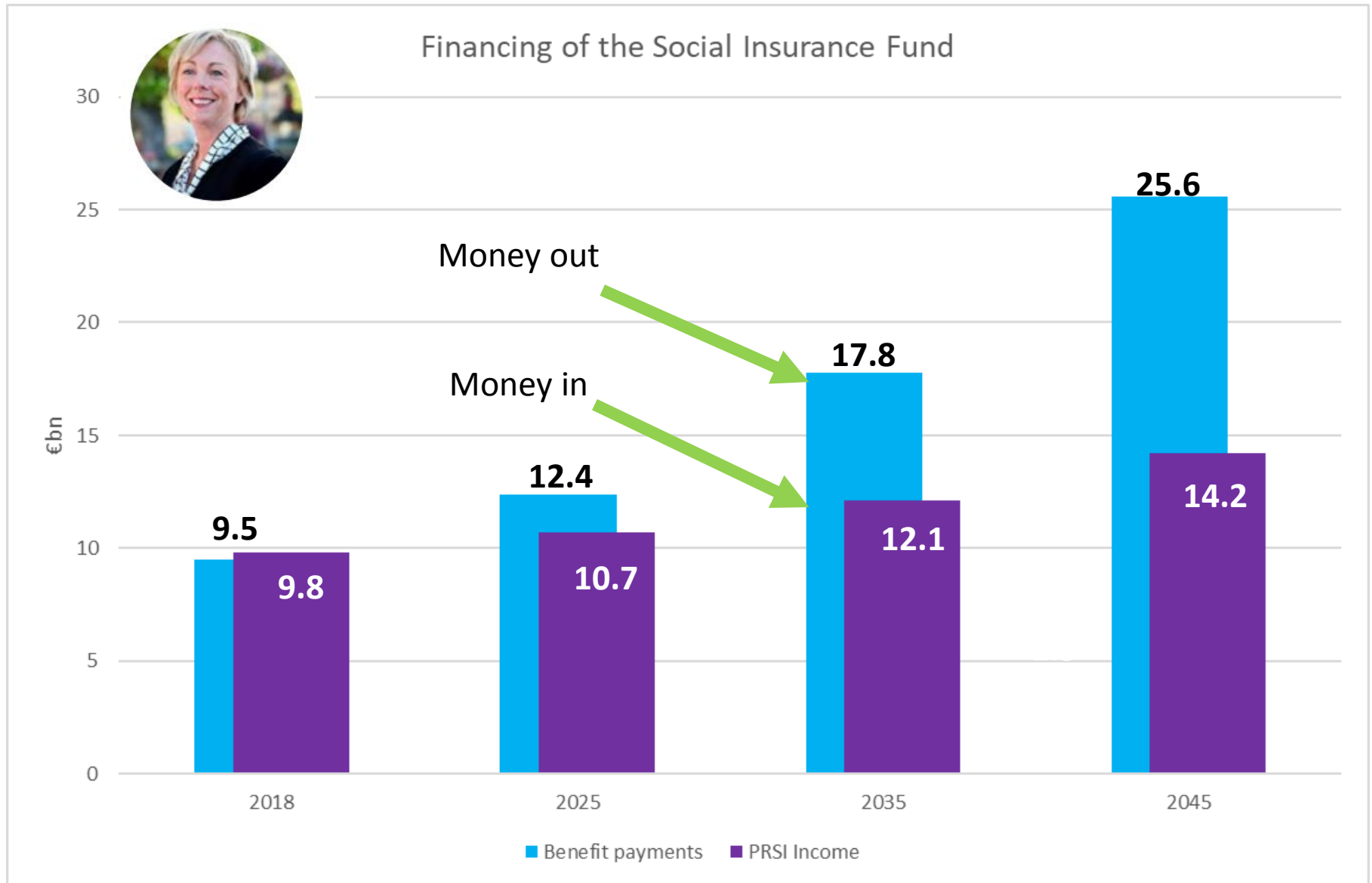
Finance Minister Paschal Donohoe has admitted it is "bonkers and unbelievable" that women are losing out on pension payments due to a recent change in the rules.







# 2015 Actuarial Review of the Social Insurance Fund





An Roinn Caiteachais  
Phoiblí agus Athchóirithe  
Department of Public  
Expenditure and Reform

## Spending Review 2018

### Public Service Occupational Pensions in Ireland - Cash Flow Analysis

JOHN PENDER FSAI AND ÁINE CHAMBERS

PUBLIC SERVICE PAY AND PENSION POLICY DIVISION

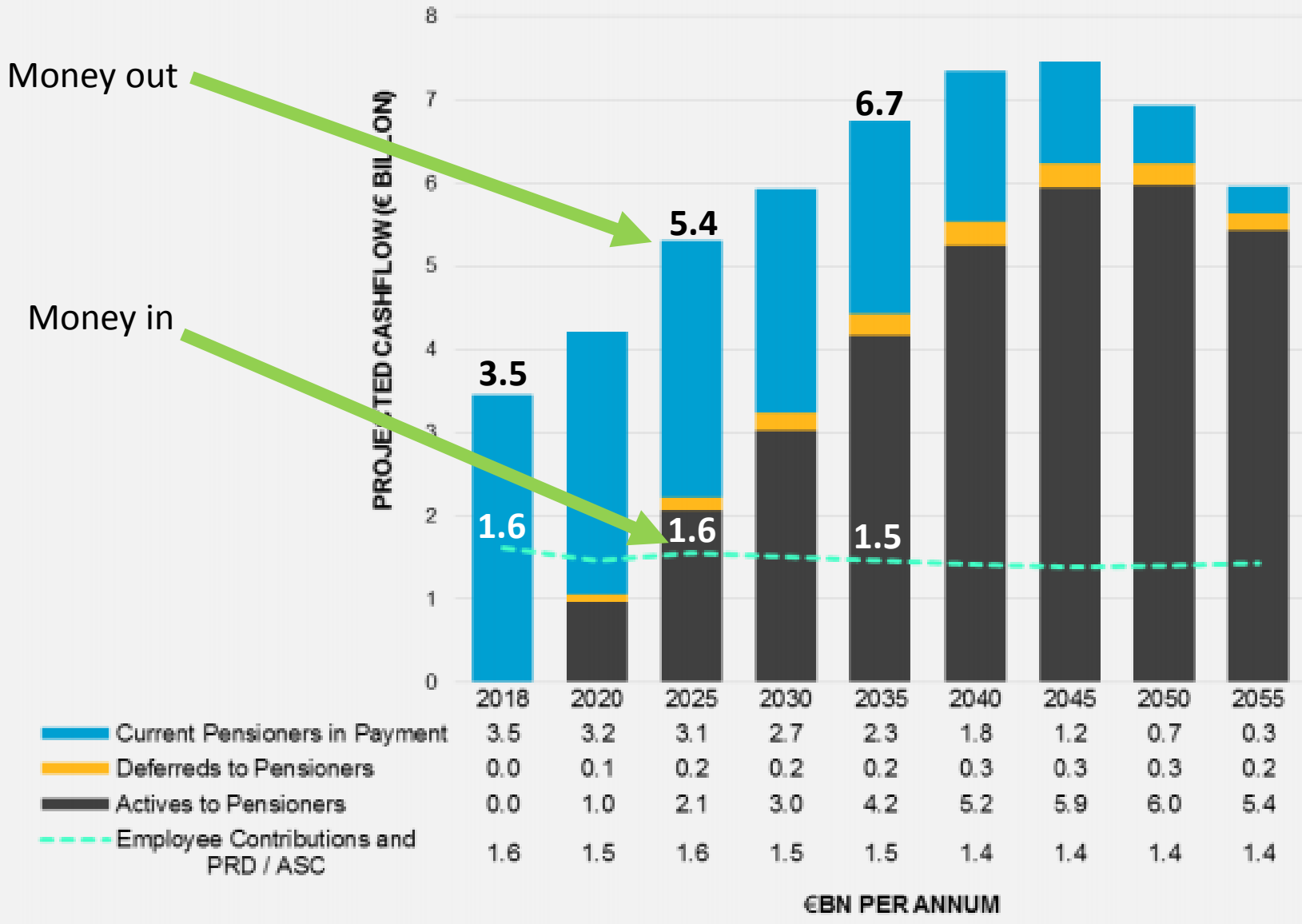
JULY 2018



This paper has been prepared by staff in the Department of Public Expenditure & Reform. The views presented in this paper do not represent the official views of the Department or the Minister for Public Expenditure and Reform.



**Chart 6.1. Projected Superannuation Cashflow (Real) with Static Public Service Numbers**



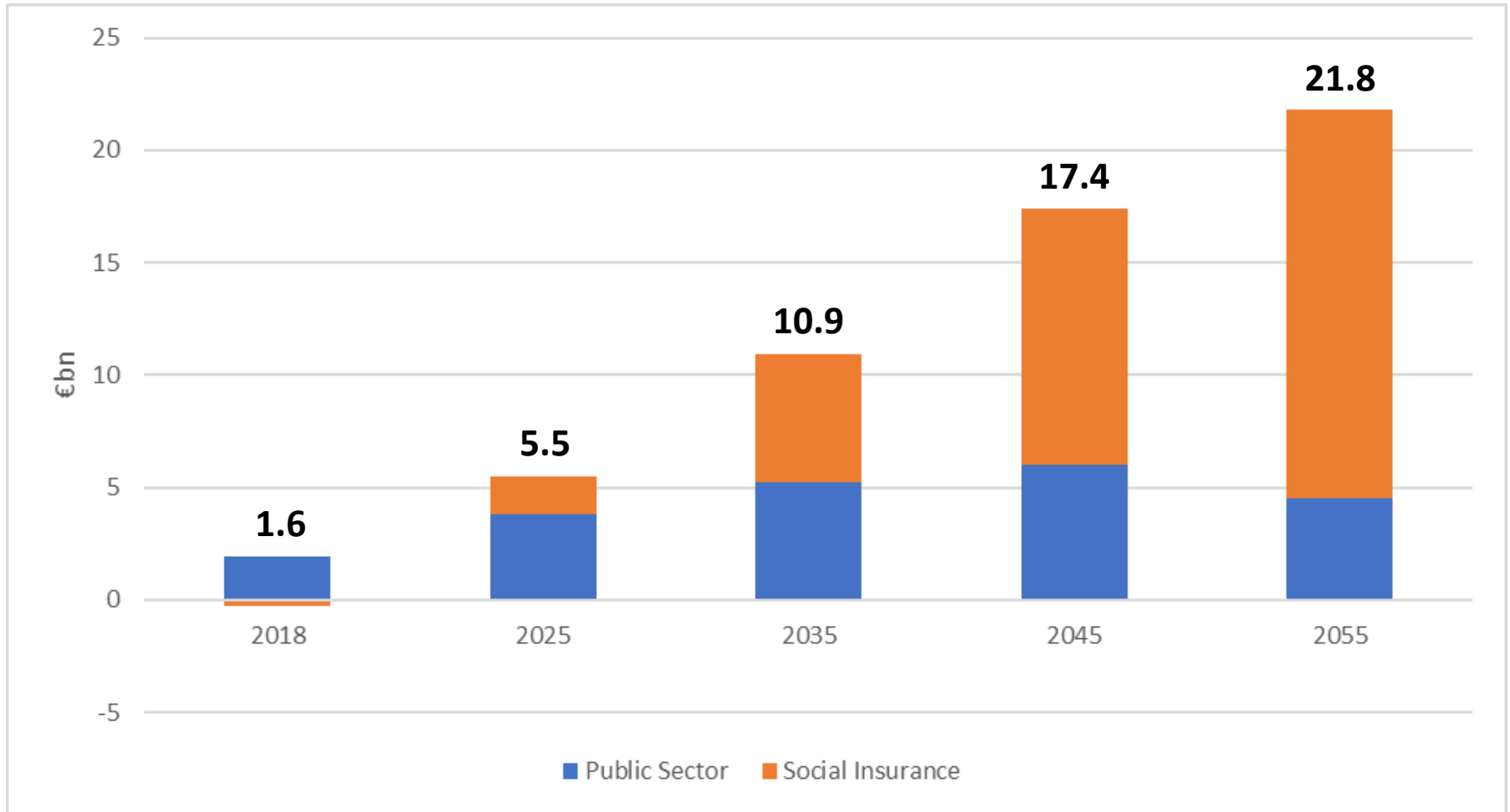


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*“The projected increase in expenditure may necessitate further reforms in public service occupational pensions to ensure its sustainability over future years”*



# Total projected shortfall: Social Insurance + Public Sector Pensions







# The Irish Longitudinal Study on Ageing (TILDA)

Menu Home News Participants Research Publications Data People Contact

Gaeilge



# tilda

Staidéar Fadaimseartha na  
hÉireann um Dhul in Aois

The Irish Longitudinal  
Study on Ageing

The Irish Longitudinal Study on Ageing (TILDA) is a large-scale, nationally representative, longitudinal study on ageing in Ireland, the overarching aim of which is to make Ireland the best place in the world to grow old.



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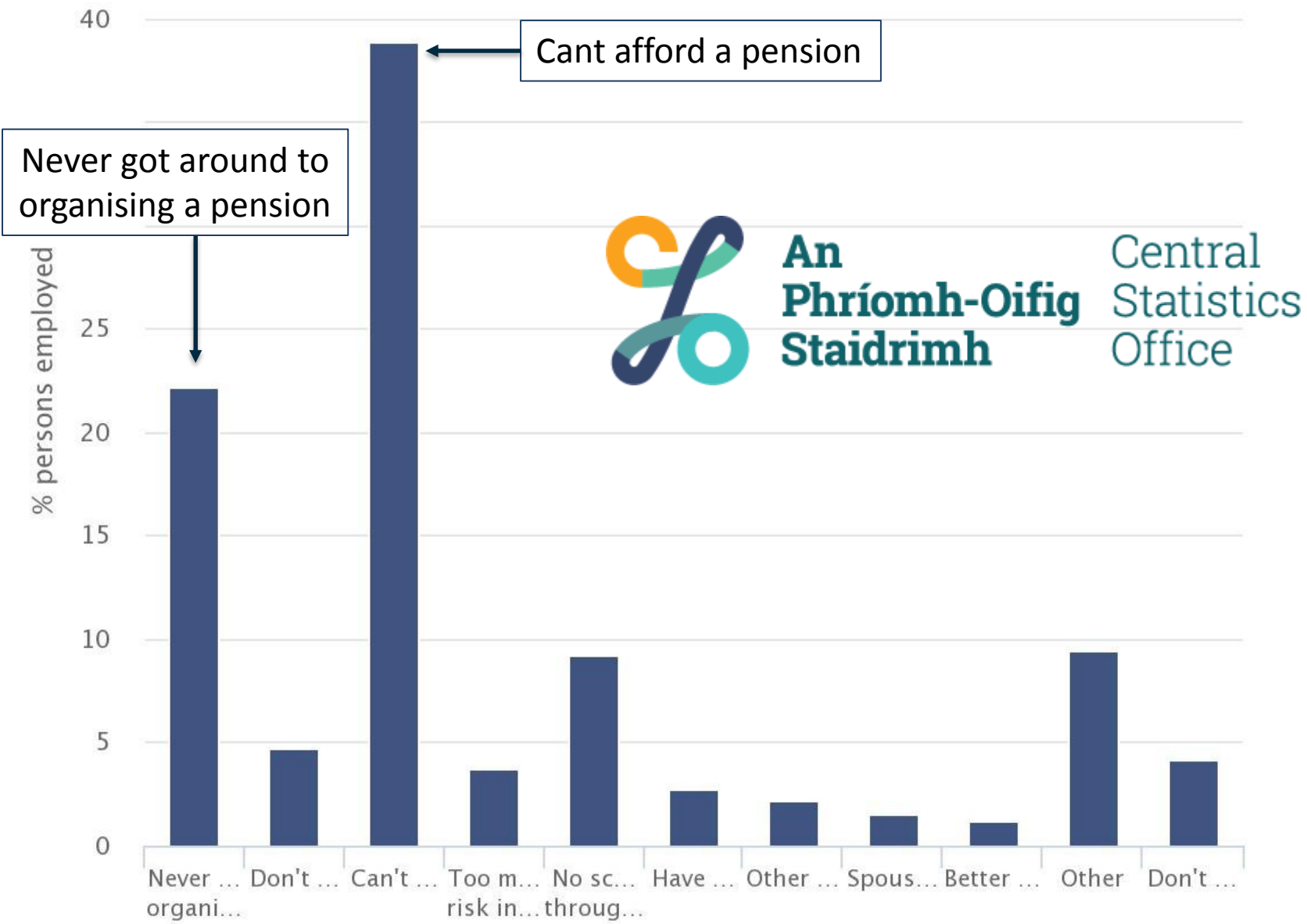
Rialtas na hÉireann  
Government of Ireland

## **A Strawman Public Consultation Process for an Automatic Enrolment Retirement Savings System for Ireland**

**Closing Date 4th November 2018**

**Department of Employment Affairs  
and Social Protection  
Automatic Enrolment Programme  
Management Office**





**An  
Príomh-Oifig  
Staidrimh**

Central  
Statistics  
Office

● **Main reason for not having a pension**

Persons in employment (ILO) aged 20 to 69 years without a pension by main reason for not having a pension Q4 2015

Source: CSO Ireland

# Some reasons not to save

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**I need the money for something else**

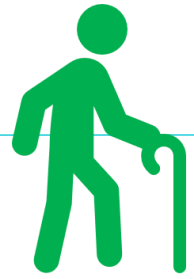
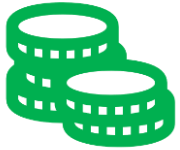
**I might need the money for something else**

**I'm afraid I'll lose money?**

**I don't understand pensions!**

**Is that really my money?**

Just Save



# Intergenerational Opportunities

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# Solving everything in one go

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*“Society is indeed a contract . . . [It is] a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born.”*

*Edmund Burke, “Reflections on the Revolution in France and on the Proceedings in Certain Societies in London Relative to that Event*



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# Panel Discussion

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**CLOSE**

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