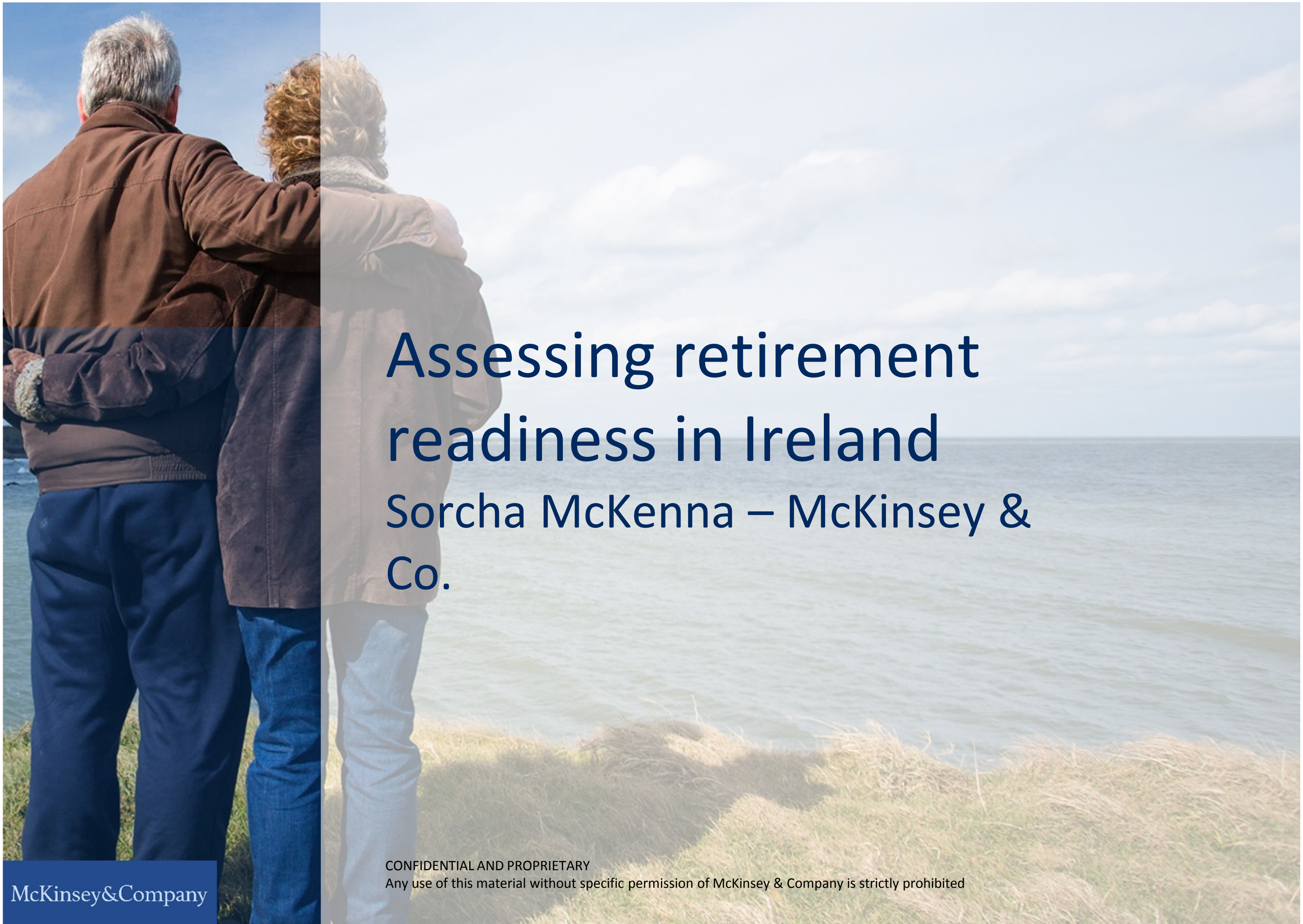


Assessing retirement readiness in Ireland

Sorcha McKenna – McKinsey & Co.

McKinsey&Company

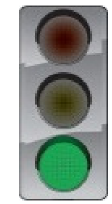
3 main dimensions against which to assess pension systems

Poverty in retirement	Does the system provide an appropriate absolute minimum income level for retirees to remain out of poverty?
Standard of living adjustment	Does the system encourage a level of savings that allow households to move into retirement without having to materially reduce their standard of living?
System sustainability	Are the current system promises sustainable for future generations given projected changes in demographics and uncertainty of future market returns?

1st dimension: Poverty in retirement

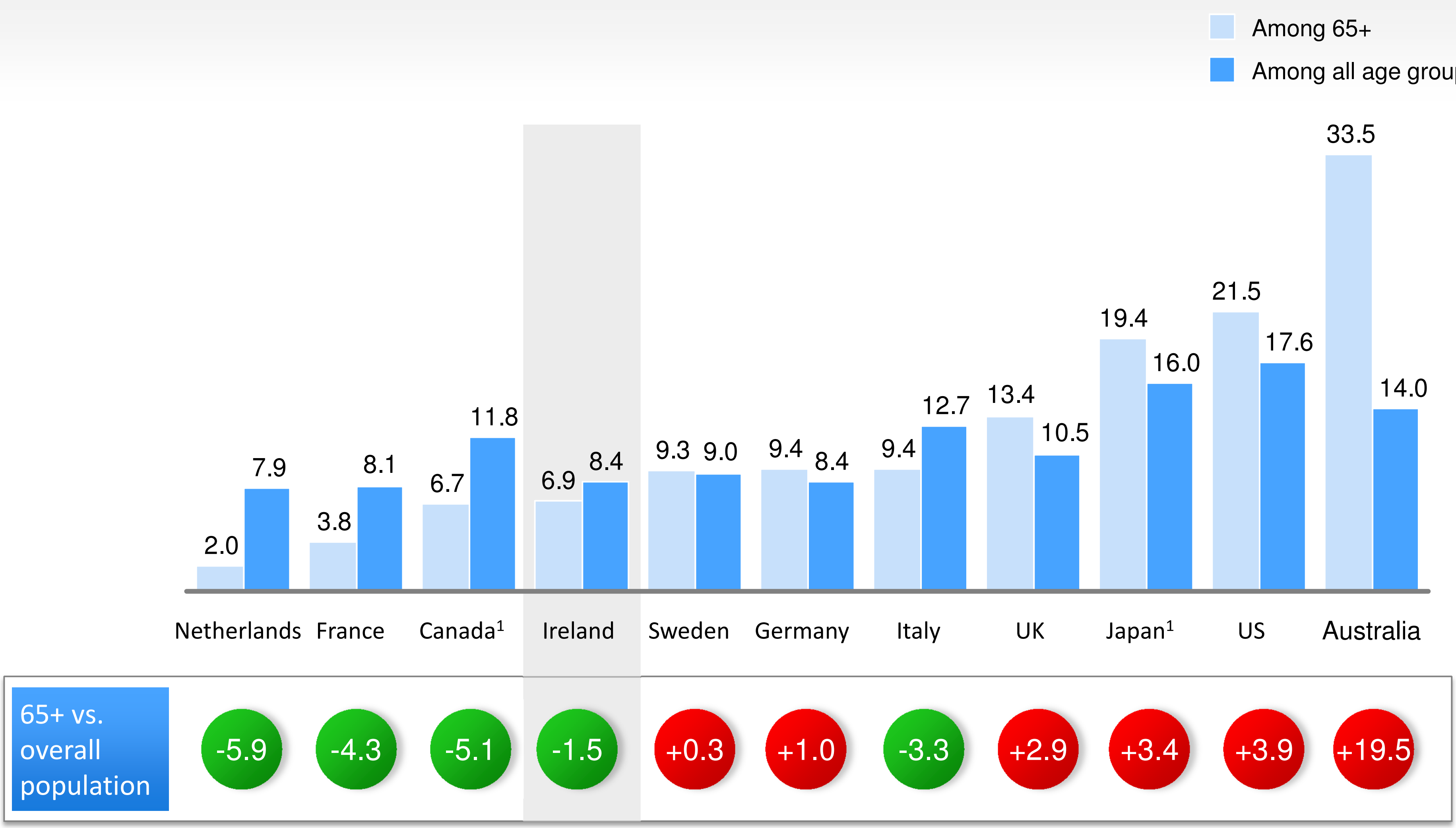
Poverty in retirement

- Poverty rate in retirement stands at 6.9%, lower than most large OECD countries
- Poverty rate in retirement is lower than poverty rate of overall population (8.4% according to the OECD)



Poverty rates across select OECD countries

Percentage of individuals with equivalent incomes less than 50% of national median, 2012[1]



McKinsey&Company

1 Data for 2011 or latest available

SOURCE: OECD 2011/12, most recent data available at time of publication

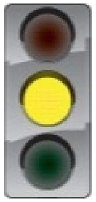
2nd dimension: Standard of living adjustment

Poverty in retirement

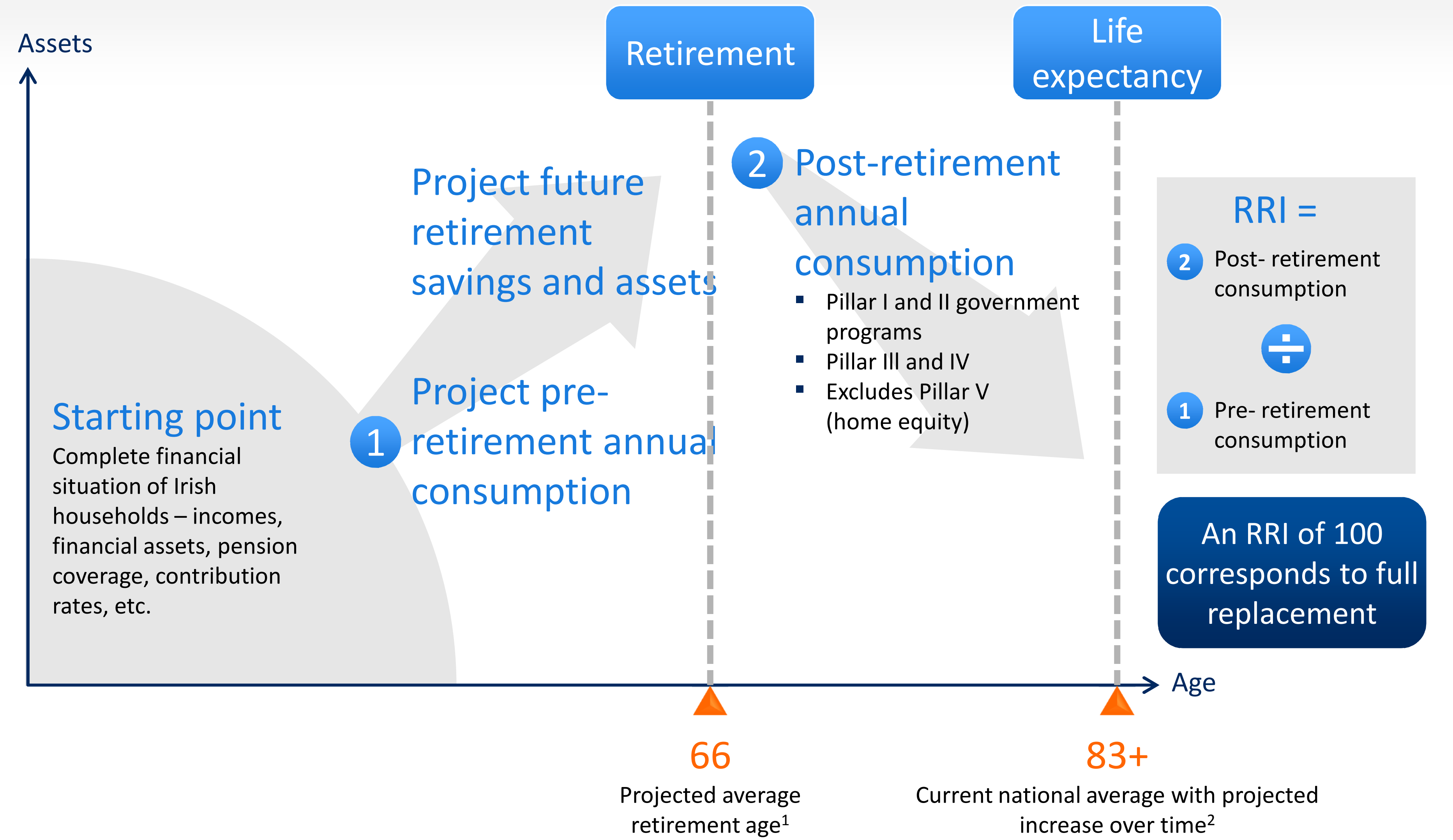
- Poverty rate in retirement stands at 6.9%, lower than most large OECD countries
- Poverty rate in retirement is lower than poverty rate of overall population (8.4% according to the OECD)

Standard of living adjustment

- While 71% of working households are on track to retire without significant adjustment, 29% are not
- Most of the households that are not on track are mid- to high-income and do not participate in a pension plan



McKinsey's Retirement Readiness Index (RRI)

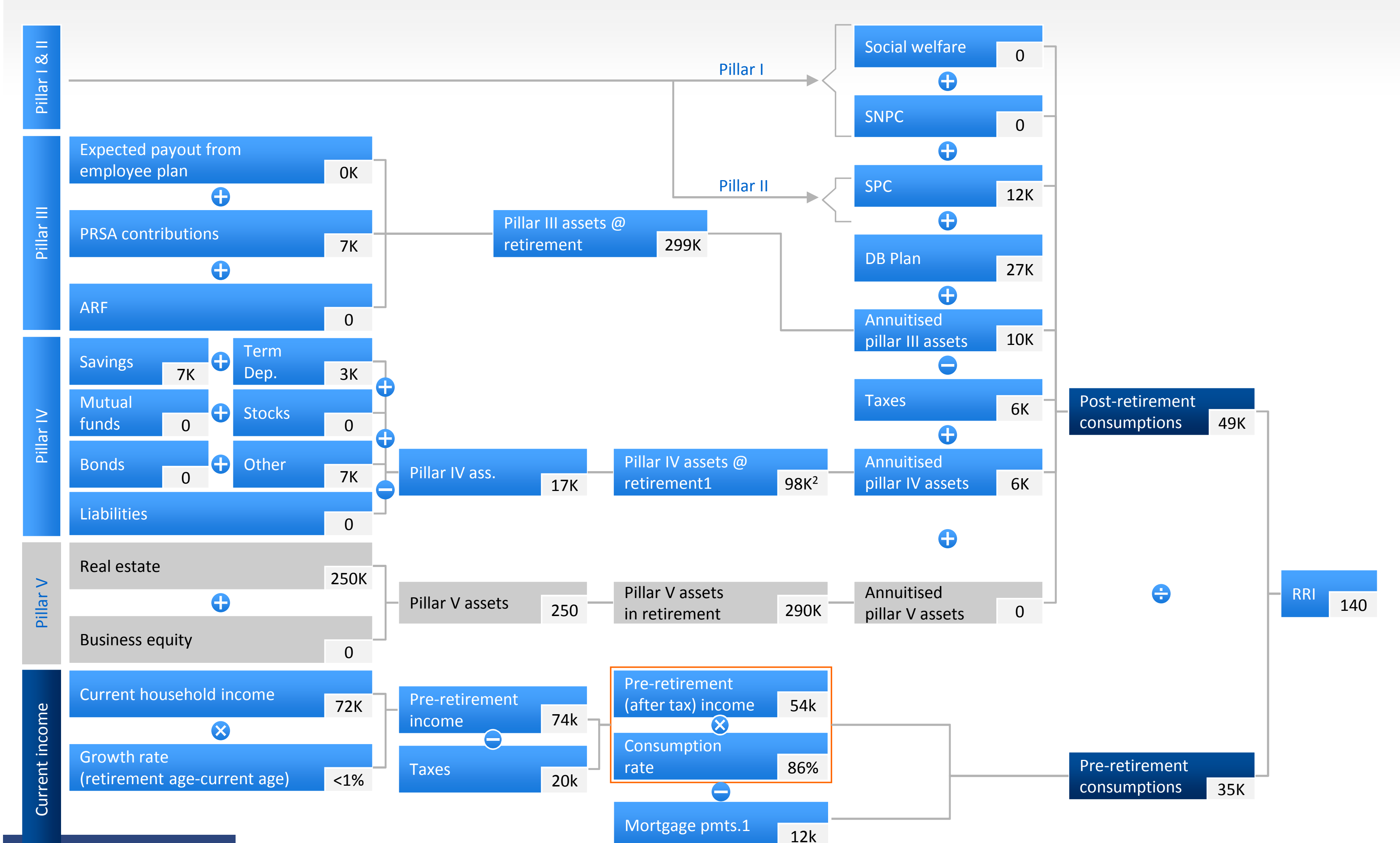


McKinsey&Company

1 Increasing to 67 in 2021 and 68 in 2028
2 Conservative estimate given that male life expectancy is 78 and female is 83 according to the CSO

Base case example: 2 adults (35 and 30 years old); 2 incomes

Not included in base scenario



McKinsey&Company

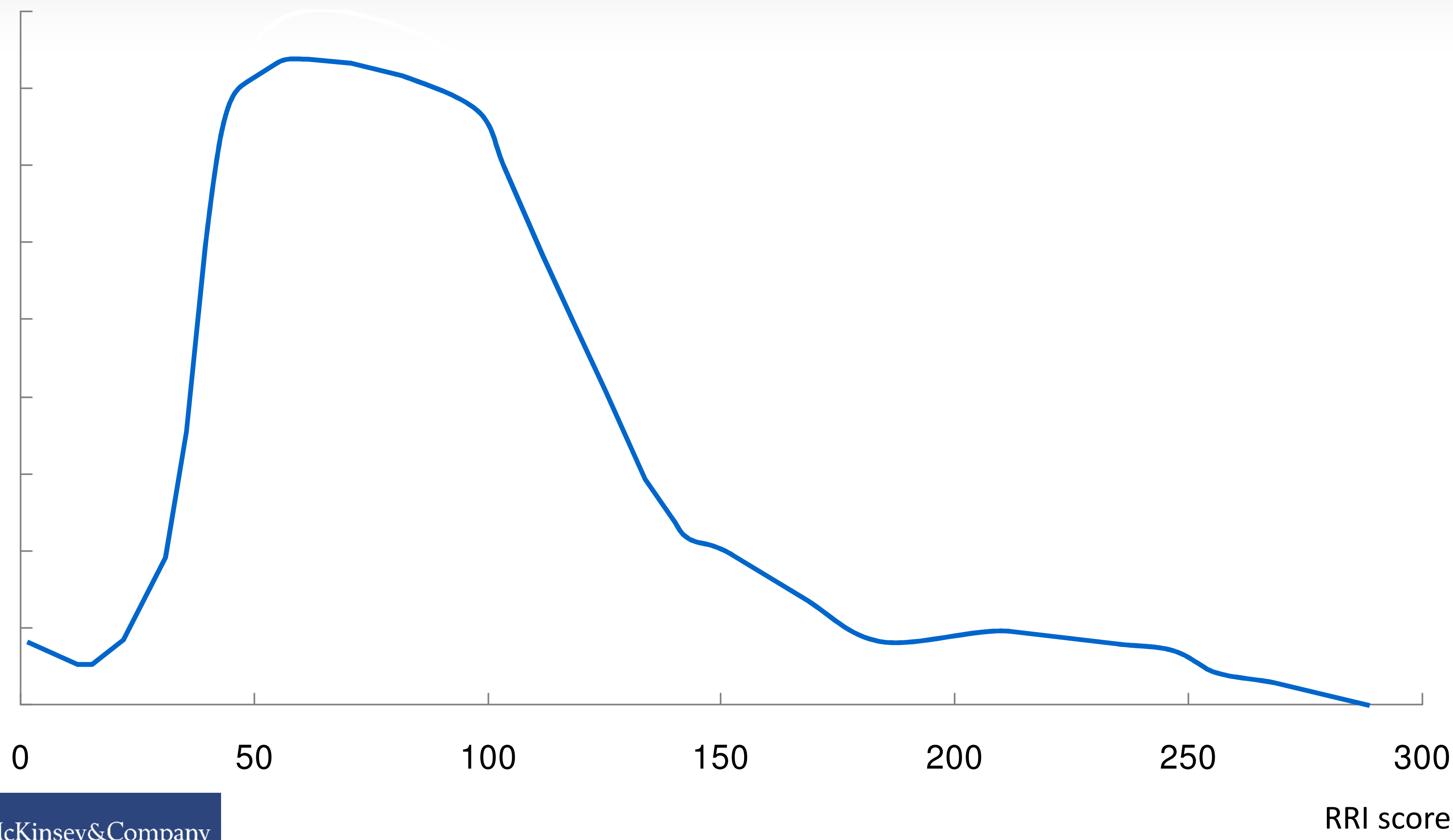
1 Assumed that once mortgage is paid off this amount is saved every year

2 Tax free lump-sum for public sector workers is applied

SOURCE: Retirement Readiness Model 2015 - Respondent ID: 12,217

Distribution of retirement readiness scores in Ireland

Percentage of Irish households; RRI score



McKinsey&Company

SOURCE: Retirement Readiness Index Model 2015

How much is enough in retirement?

			Min RRI (low income – Q1)	Min RRI (med-high income Q2-Q5)
1	General rule used by OECD (for income)	Income replacement rates required of 73-75% (low income), and 24-35% (high income)	75 *(on income)*	35 *(on income)*
2	Analysis of compressibility by type of expense	Household consumption analysis suggests ~75% of household expenditure is not compressible at retirement[1]	75	75
3	Survey data on actual retired spend	~60-70 based on those survey respondents who decreased consumption (Q1: 70%;Q2: 67%; Q3: 72%; Q4: 60%; Q5: 66%)	70	60-66
4	Other countries	In Canada, 80% of income not compressible for quintile 1 and 65% for quintiles 2-5	80	65
			75	65

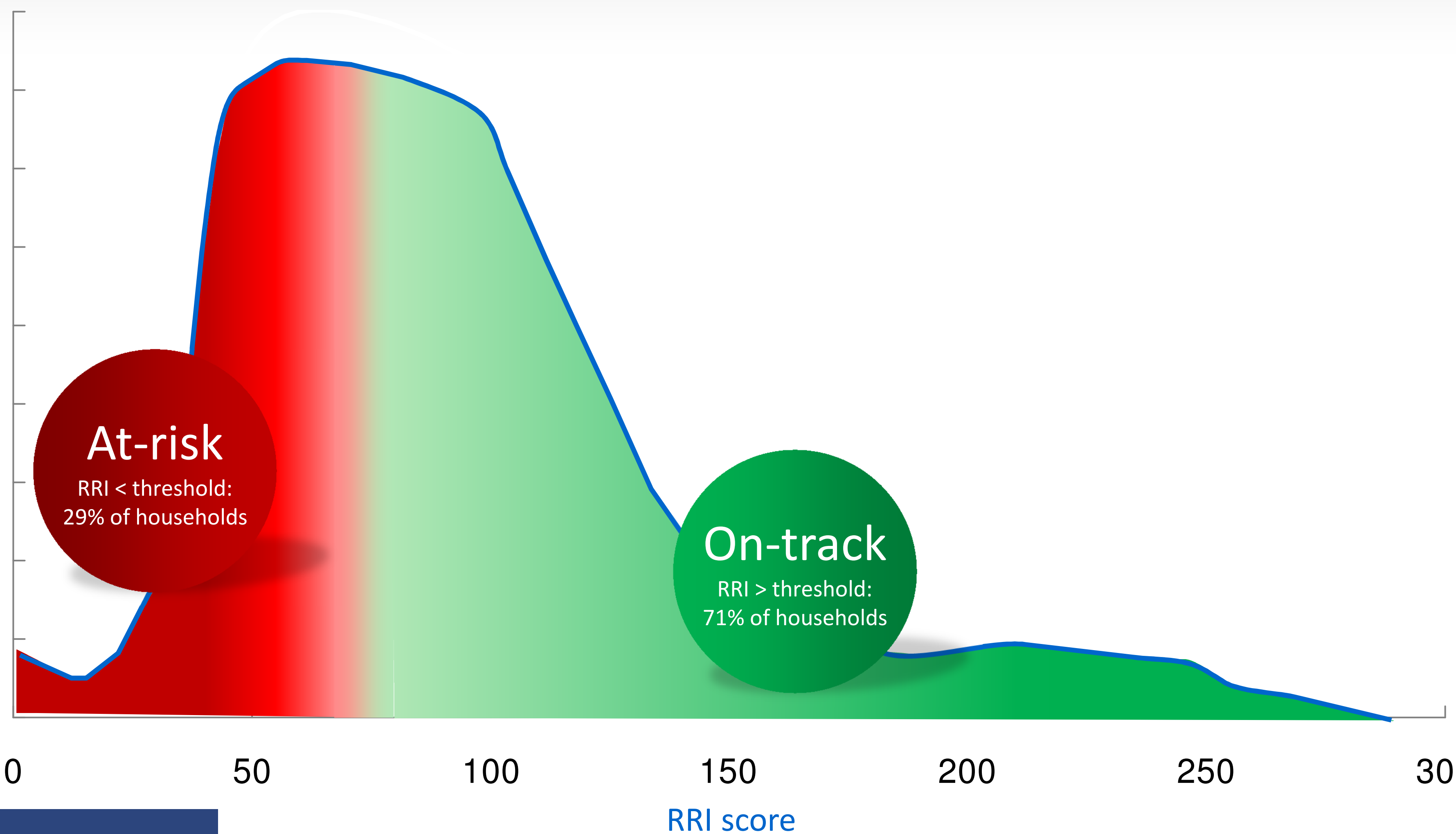
McKinsey&Company

1 75% based on team analysis - data from Central Bank, Vincentian Partnership for Social Justice, and OECD

SOURCE: OECD library indicators 2013, Vincentian Partnership, Central Bank of Ireland, Canadian RRI analysis, RRI 2015

29% of Irish households are not on track

Percentage of Irish households; RRI score



McKinsey&Company

SOURCE: Retirement Readiness Index Model 2015

Percentage of households on track for retirement by income quintile and age group

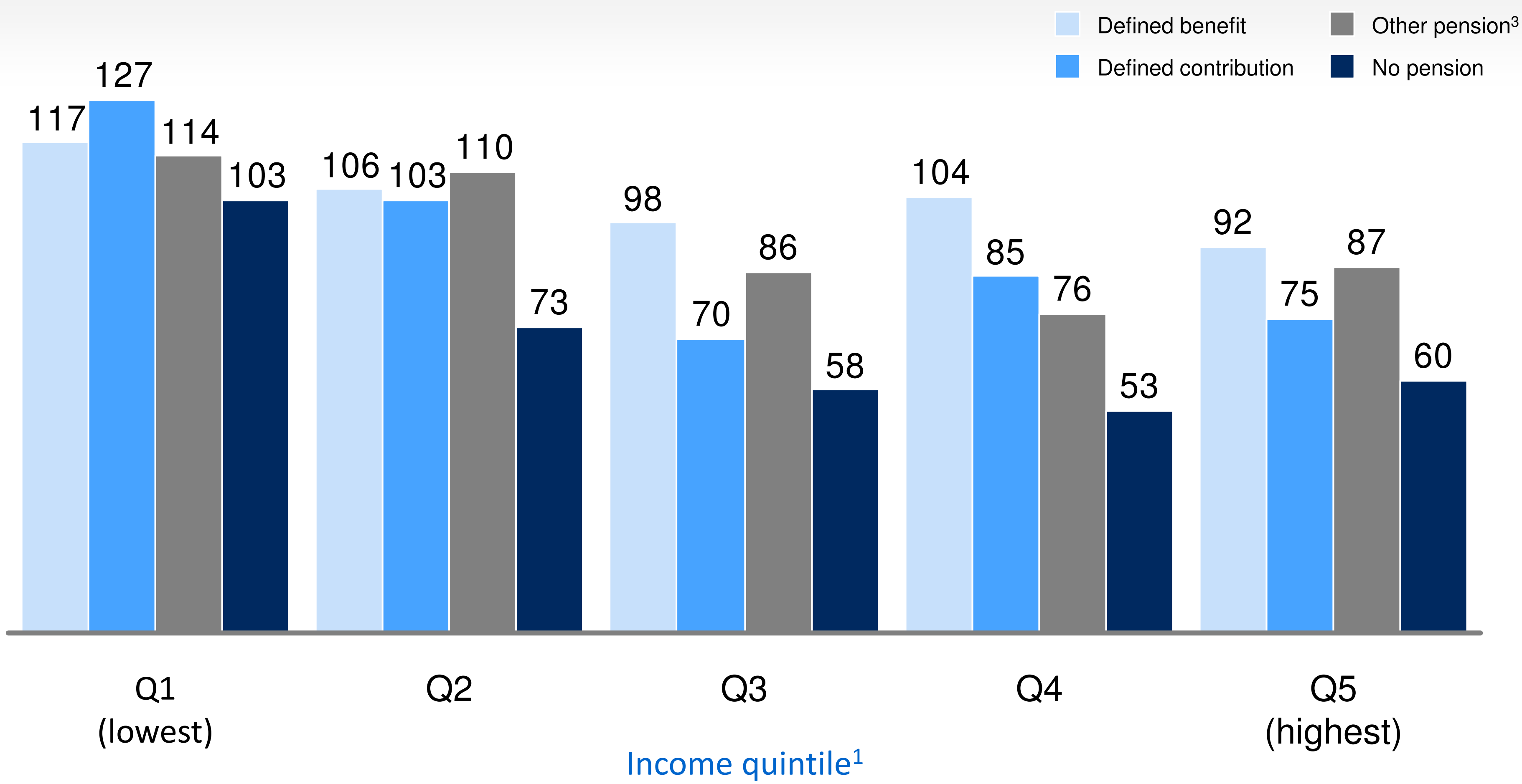
Income quintile[1]	25 - 34	35 - 44	45 - 54	55 - 64	Avg. income
Q1 *(lowest)*	94	96	93	99	EUR 13K
Q2	68	81	74	78	EUR 23K
Q3	56	60	65	54	EUR 35K
Q4	55	65	58	51	EUR 54K
Q5 *(highest)*	65	73	71	62	EUR 101K
Share of working-age population	24	37	19	19	

McKinsey&Company

1 Household income cut-offs: Q1 < EUR 19K, Q2 < EUR 30K, Q3 < EUR 43K, Q4 < EUR 65K, Q5 > EUR 65K.

SOURCE: Retirement Readiness Index Model 2015

Median RRI score by quintile and pension plan type



1 Household income cut-offs: Q1 < EUR 19K, Q2 < EUR 30K, Q3 < EUR 43K, Q4 < EUR 65K, Q5 > EUR 65K
2 Sample size of 1,651. Q1: 127, Q2: 204, Q3: 323, Q4: 326, Q5: 316. 320 respondents received government transfers; 35 had invalid responses
3 PRSAs or other private pension plans
SOURCE: Retirement Readiness Model 2015

McKinsey&Company

3rd dimension: System sustainability

Poverty in retirement

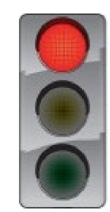
- Poverty rate in retirement stands at 6.9%, lower than most large OECD countries
- Poverty rate in retirement is lower than poverty rate of overall population (8.4% according to the OECD)

Standard of living adjustment

- While 71% of working households are on track to retire without significant adjustment, 29% are not
- Most of the households that are not on track are mid- to high-income and do not participate in a pension plan

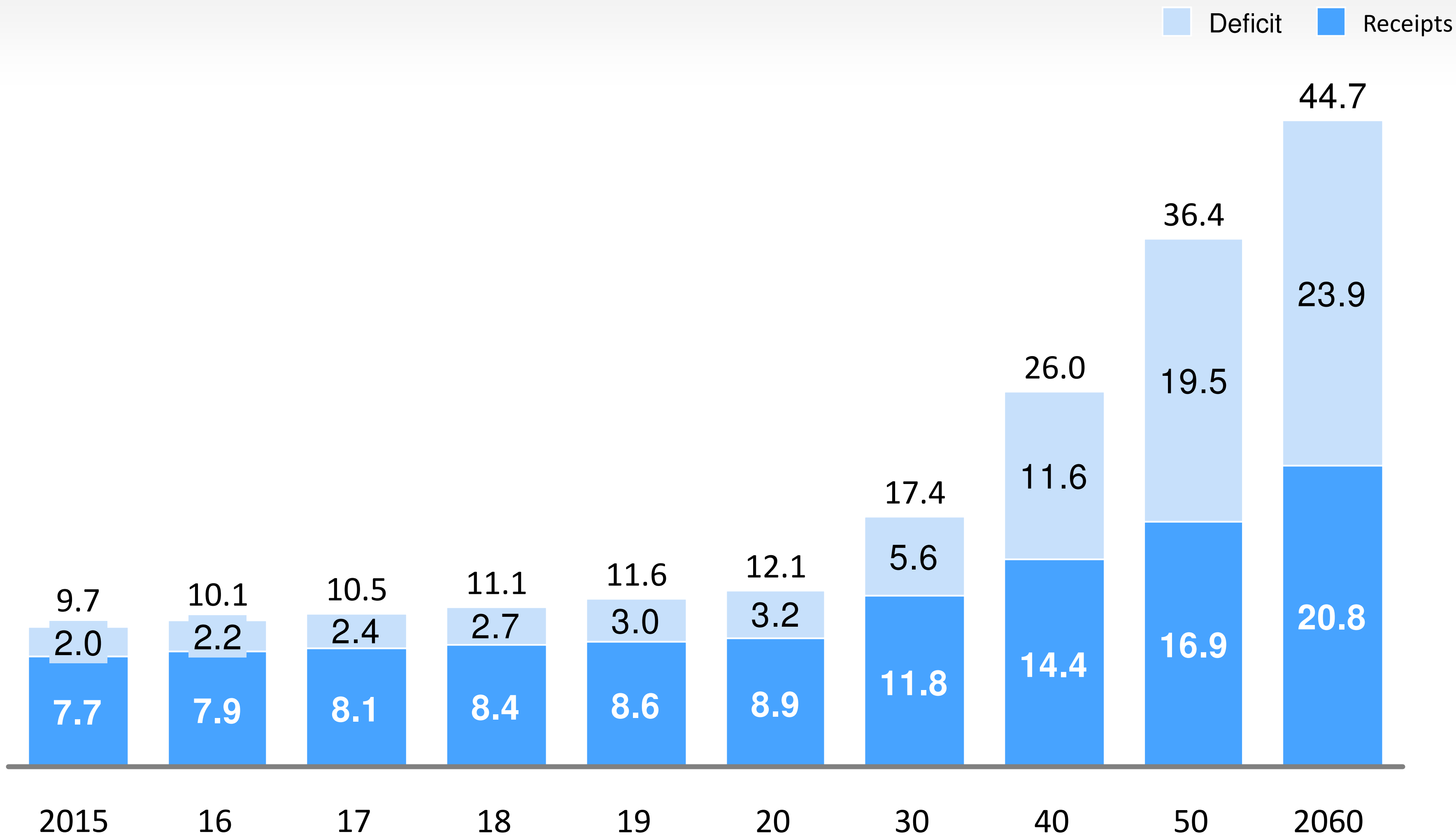
System sustainability

- State pension is unsustainable; before recent eligibility chances, deficit projected to stand at 35% of benefits in 2035
- Similar sustainability challenge with public sector pensions



Projected Social Insurance Fund receipts and deficits (2012 estimates)

EUR billions



McKinsey&Company

Note: Assessment does not include effect of recent changes to benefit eligibility.

SOURCE: Actuarial review of the Irish pension system

Options to address the projected Social Insurance Fund deficits

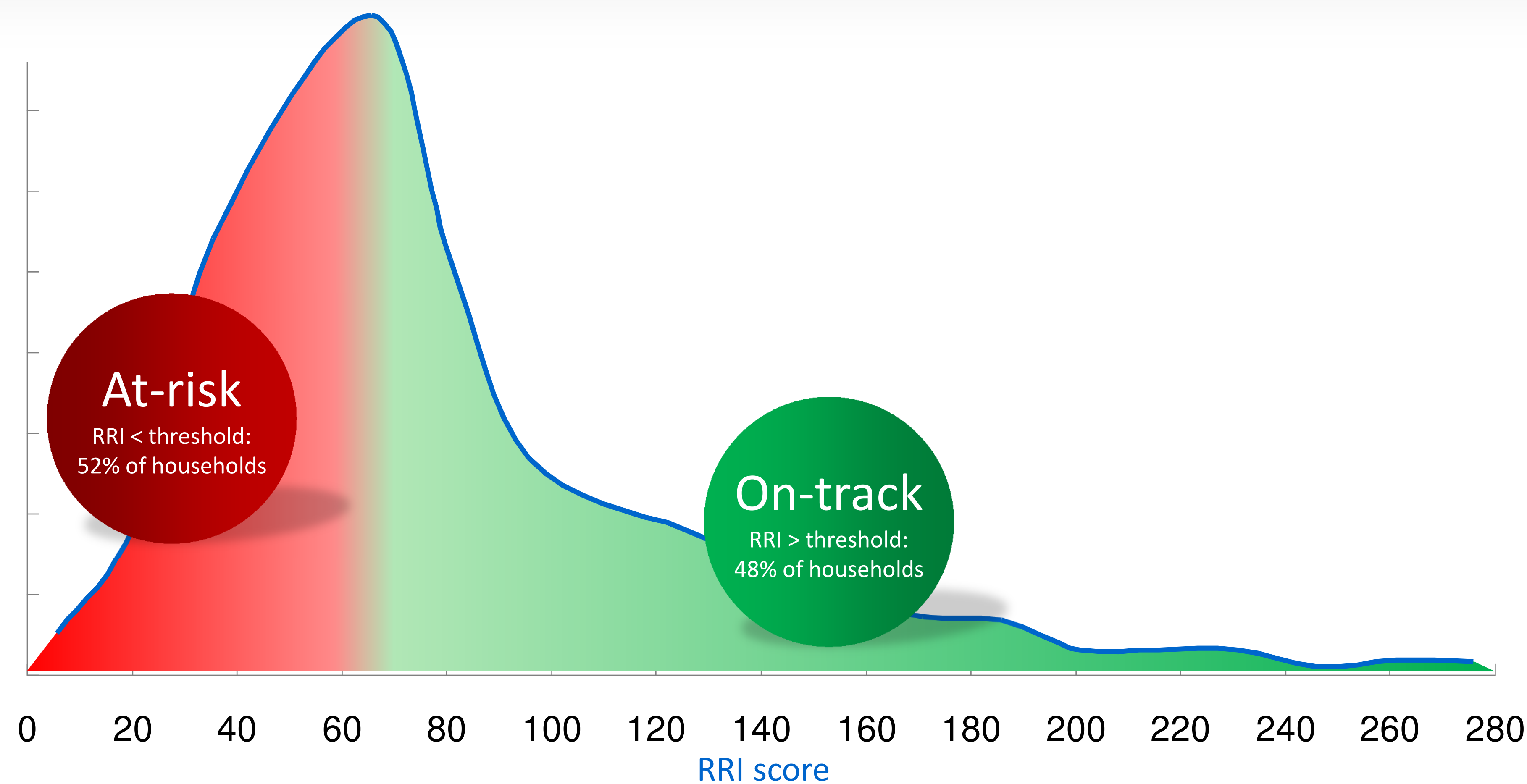
Range of possible options

	Description	Implications
Reduce future benefits	To eliminate future deficit by 2035, benefits would need to be reduced by ~35% (including changes to benefit eligibility already implemented)	Share of working population with RRI score above minimum threshold would go down to only 50% if no other measure is adopted in parallel Need for other parallel measure encouraging private pension savings (e.g., mandatory auto-enrollment)
Increase contributions	To eliminate future deficit by 2035, contributions would need to be increased by ~5% of income for all workers	Material increase in SIF contributions would impact economy and would limit ability to introduce other measures to boost savings

McKinsey&Company

Effect that a 35% reduction of SPC and SPNC would have on retirement readiness

Percent of Irish households; RRI Score[1]



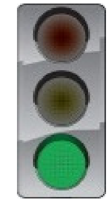
McKinsey&Company

1 ~3% of households have an RRI of greater than 300 and are not shown
Note: Calculations based on weighted data
SOURCE: Retirement Readiness Index Model 2015

Summary assessment of Ireland's retirement system

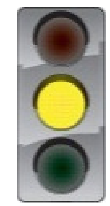
Poverty in retirement

- Poverty rate in retirement stands at 6.9%, lower than most large OECD countries
- Poverty rate in retirement is lower than poverty rate of overall population (8.4% according to the OECD)



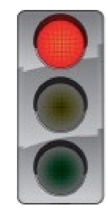
Standard of living adjustment

- While 71% of working households are on track to retire without significant adjustment, 29% are not
- Most of the households that are not on track are mid- to high-income and do not participate in a pension plan



System sustainability

- State pension is unsustainable; before recent eligibility chances, deficit projected to stand at 35% of benefits in 2035
- Similar sustainability challenge with public sector pensions



McKinsey&Company

Implications

- Define the solution to the system sustainability challenges first as it will inevitably have an impact on needs for pension coverage and for additional personal savings
- Encourage savings as Irish workers will need to put more aside in the future
- Preserve the elements of the system that are currently working well – amongst others a State Pension system that provides universal coverage to many individuals and a private pension system that allow many households to save sufficiently for retirement

Appendices

The pillars of the Irish retirement system

	Components	Total assets[1] EUR billions
Pillar I	▪ State pension, non-contributory (SPNC) ▪ Means-tested increase for qualified adult	20
Pillar II	▪ State pension, contributory (SPC)	
Pillar III	▪ Occupational DB plans ▪ Occupational DC plans	90
	▪ Personal retirement savings accounts (PRSAs) ▪ PRBs/buyout bonds	19
Pillar IV	▪ All non-registered financial assets	320
Pillar V	▪ All residential and investment real estate ▪ All private businesses	564

Total
~ EUR 1 trillion

McKinsey&Company

1 Estimates based on most recent data available.

SOURCE: OECD review of the Irish Pension System, 2014; National Pensions Reserve Fund Commission Annual Report and Financial Statements; IAPF; Eurostat; Central Statistics Office; The Pensions Authority; Department of the Environment

Assumptions used for our retirement readiness assessment in Ireland

	Assumptions	Rationale
Financial growth & real estate	▪ Real growth / investment rate of 2.25% ▪ 0% liquidity of primary residence and 100% liquidity of investment properties ▪ Real mortgage rate of 3% (5% minus inflation of 2%)	▪ In line with the real growth / performance of IL funds ▪ Assumption that households do not sell their primary residence in retirement; Investment properties have more potential to be liquidated ▪ Expected rate given tracker & variable rate split
Demo-graphics	▪ Male and female life expectancy of 85 ▪ Phased retirement age of 65, 66, and 67 depending on current age ▪ If public sector years > private sector then respondent defined as "Public sector"[1]	▪ Conservative estimate given male expectancy of 83 ▪ As per approved legislation ▪ Allows for classification of individuals who have worked in both sectors
Government taxes & state pensions	▪ USC, PRSI, and SPC calculated w/ 2015 rules ▪ SNPC simplified – eligible if income < 12K ▪ Current PRSI contribution estimated to be average contribution for last 10 years	▪ As per most recent tax rules ▪ Simplified given complexity of means testing rules ▪ In line with public pension system's reliance on last 10 years of contributions
Public sector pensions	▪ 1 time tax-free lump-sum payment in retirement for DB public sector workers of up to 1.5x salary	▪ To reflect current policy of salary*(30/8)*(# years)
Private pensions	▪ 20% decrease in payout of private sector DB plans ▪ One-time tax-free lump-sum payment of DB plans (1.5x salary) and ~25% for occupational pensions	▪ As ~40% of private plans are not funded ▪ As per pension rules
Annuitisation of assets & consumption	▪ Consumption compression of 25% for Q1 and 35% for Q2 – Q5 (i.e. RRI threshold of 65-75) ▪ Pillar IV assets annuitised in retirement at 1.5% ▪ If non-mortgage debt is <20% of income then the balance is not carried through to retirement ▪ Mortgage debt carried through in retirement	▪ As observed in survey data and external sources ▪ In line with industry average annuity products ▪ As long as non-mortgage debt is not significant (< than 20% of income) and paid-off pre-retirement ▪ Only if mortgage not expected to be paid-off based on projected payments

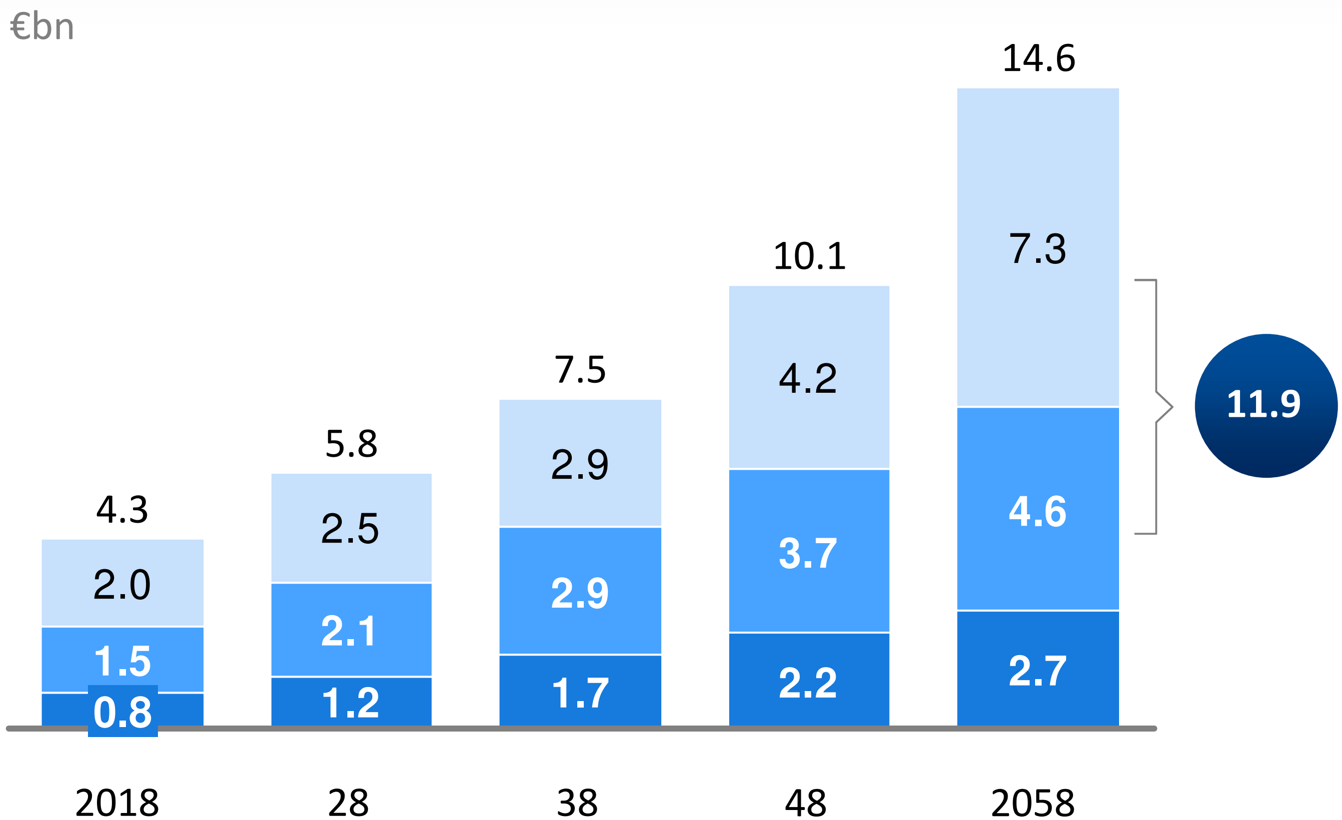
McKinsey&Company

1 If a respondent was initially labelled as public sector but didn't have a pension plan they were resurveyed to confirm whether they were indeed public sector workers or not

Public sector pension deficit of ~€1.5bn expected to rise to ~€7.9bn by 2058 assuming current public sector pension levy is maintained

Deficit | Pension levy (PRD) income | Standard contribution

Net outflow/expenditure for public sector pensions[1]



- Cumulative deficit by 2058 of **€157bn**
- Deficit could rise to €11.9bn without pension levy contributions
- Updated estimates[2] in 2012 found accrued liabilities had decreased by ~16%

McKinsey&Company

1 Assessment from Comptroller and Auditor General Report (2009)
2 Updated actuarial review conducted by the Department of Public Expenditure and Reform
SOURCE: Comptroller and Auditor General Special Report (2009)