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Social Insurance Issues in the GCC

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Agenda

- Basic Pensions Introduction
- Introduction to Social Insurance Schemes
- Demographic Trends
- Current Challenges
- Valuation Process
- Reform Process
- Questions?

Basic Pensions Introduction

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- Defined Benefit ("DB") versus Defined Contribution ("DC")
- Typical DB formula:
  - 1/30 * years * final salary = pension
- E.g. after 20 years:
  - Pension = 2/3 of final salary
  - 'Replacement rate' is 67%

Introduction to the Gulf

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- Lots of DB scheme work
- Schemes all still open
- Populations still very young
- Very different to the UK!
- **Schemes really in need of actuarial advice**

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Social Insurance Schemes

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- Civil Retirement and Social Insurance Schemes ensure pensions in each GCC state **for gulf nationals**;
- **Defined benefit and compulsory**;
  - Saudi Arabia - first social security scheme (GOSI, 1969)
  - Bahrain (GOSI, 1976)
  - Kuwait (KPISS, 1977)
  - Oman (PASI, 1992)
  - UAE (GPSSA, 1999 and ADRPBF, 2000)
  - Qatar (GRPA 2002)
- Largest and possibly only pillar in each of GCC countries so high expectations on income replacement.

Social Insurance Schemes

- Provide for old-age, incapacity and death risks;
- Benefits are **very generous**;
  - Pension replacement rate is very high;
  - Maximum pension attained through short service periods;
  - E.g. In Qatar*, only 20 years' service period to be eligible to get 100% final salary

	Maximum Pension (as % of final salary)
Bahrain	88%
Oman	80%
Saudi Arabia	75%
Kuwait	65%

Social Insurance Schemes

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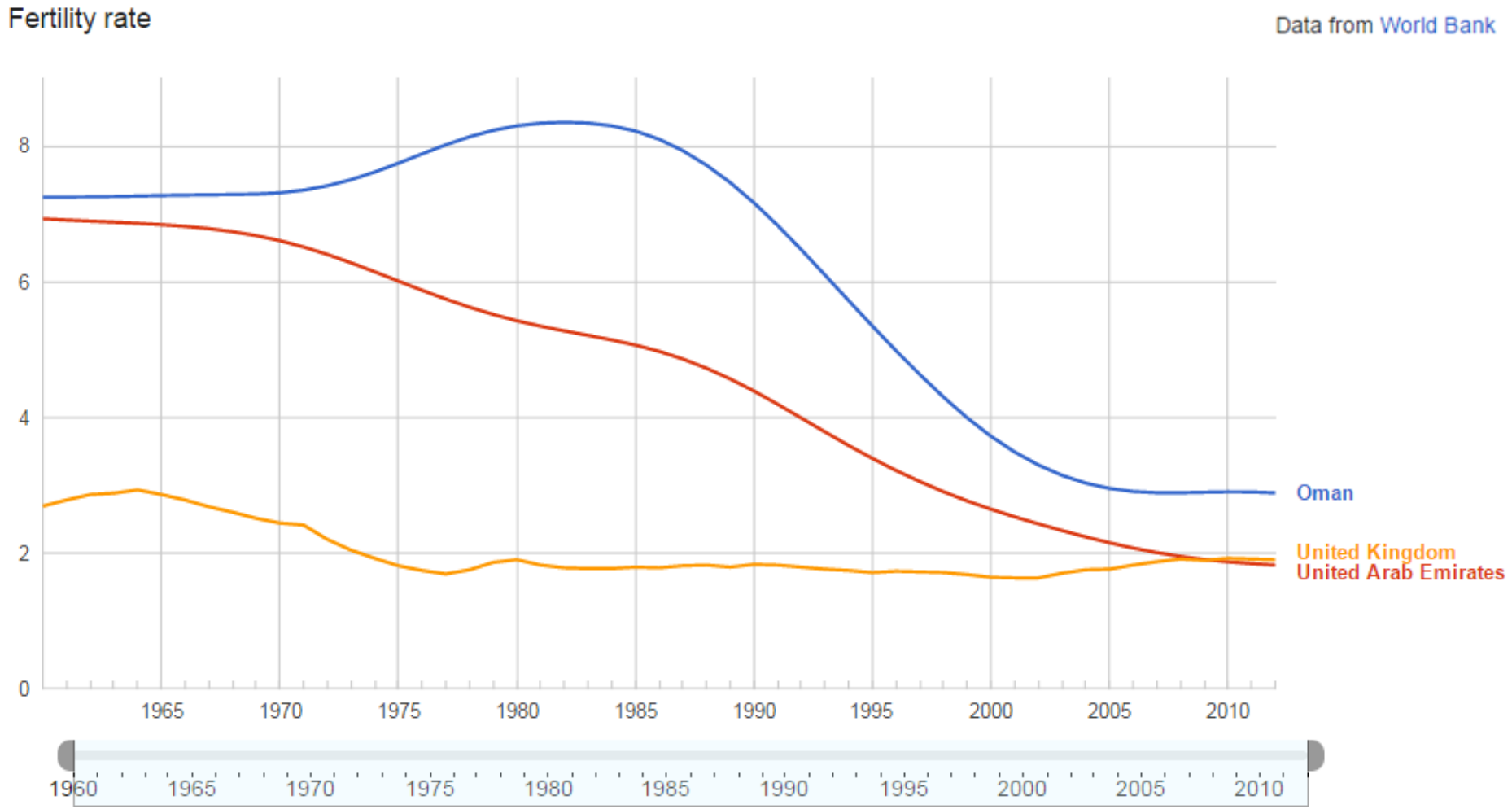
Beneficiaries:

- Widows and widowers;
- Children up to age 21 unless:
  - In full time education to age 26;
  - Is “unable” to earn a living;
  - Is a daughter and is unwed.
- Father, if his depended on deceased child;
- Mother, is she is divorced or widowed;
- Brother, to age 21;
- Sister, if unwed;
- Grandchildren, if their father is dead.

Current Challenges

- Poor funding positions, insufficient contributions, expensive benefits and increasing economic & demographic pressures mean schemes are **unsustainable;**
- Reducing fertility rates;

Current Challenges



Current Challenges

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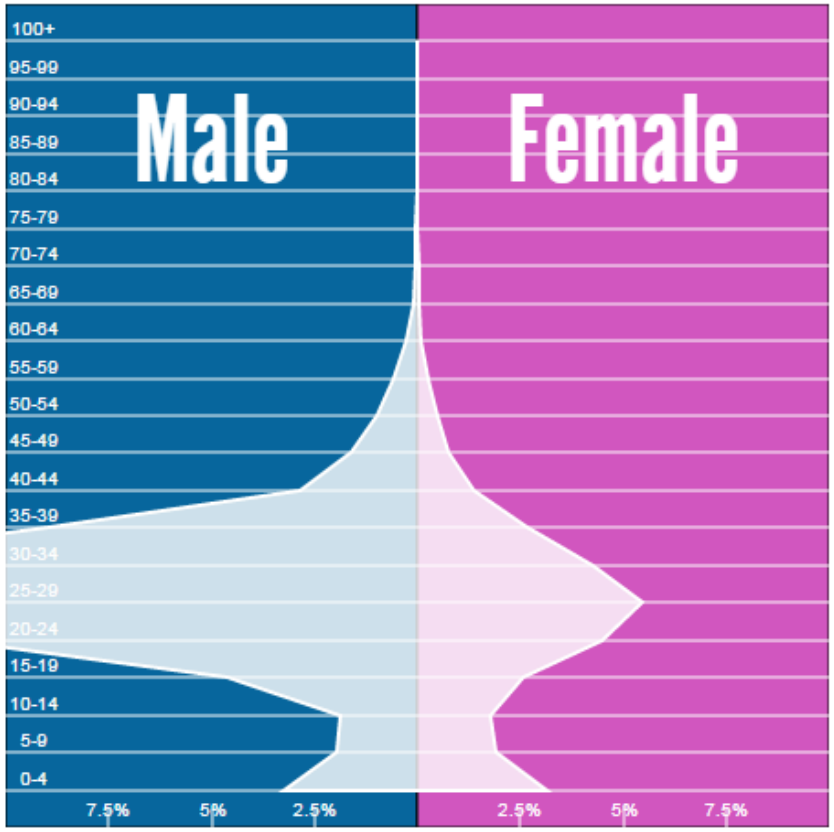
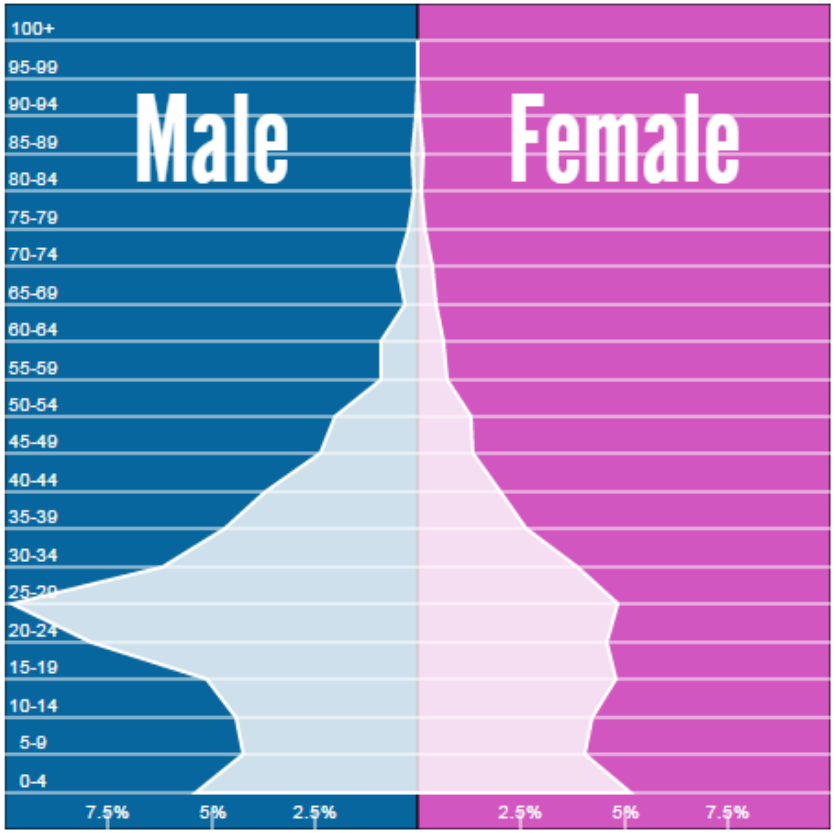
United Arab Emirates 2010



Oman 2010



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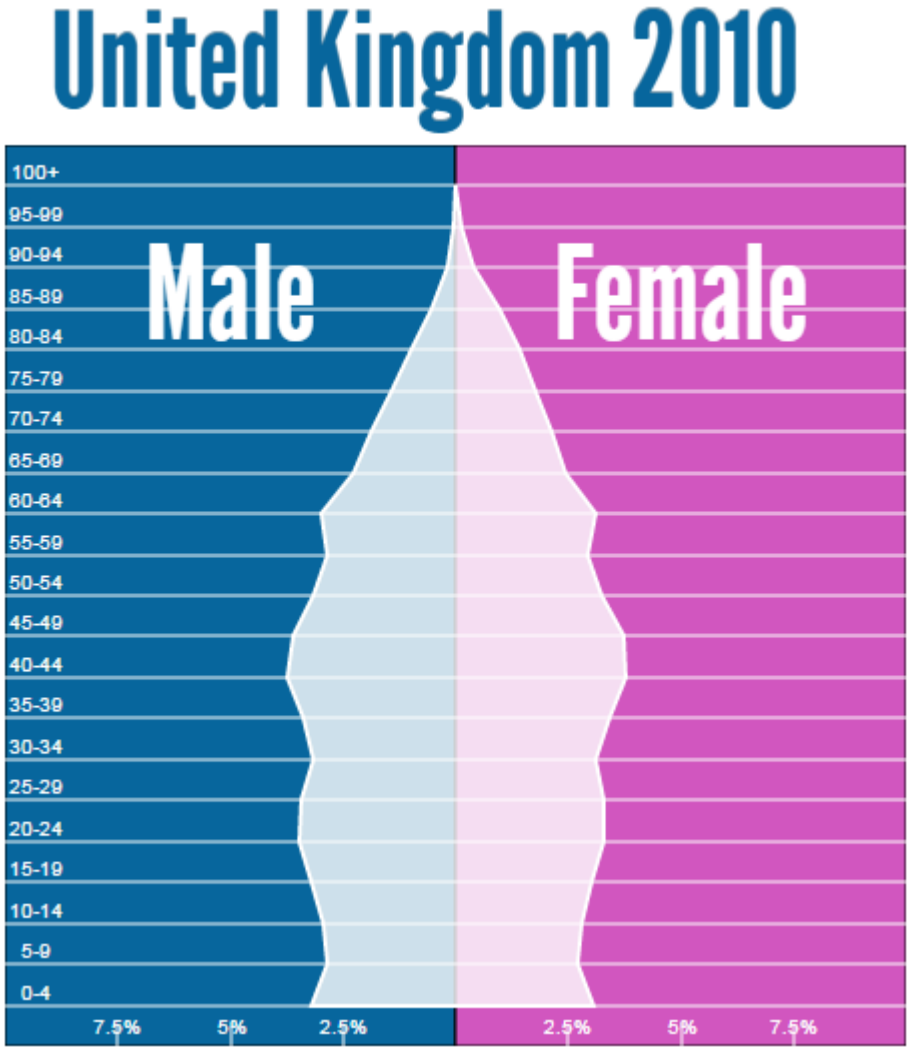
Source: United Nations, Department of Economic and Social Affairs, Population Division.

Current Challenges



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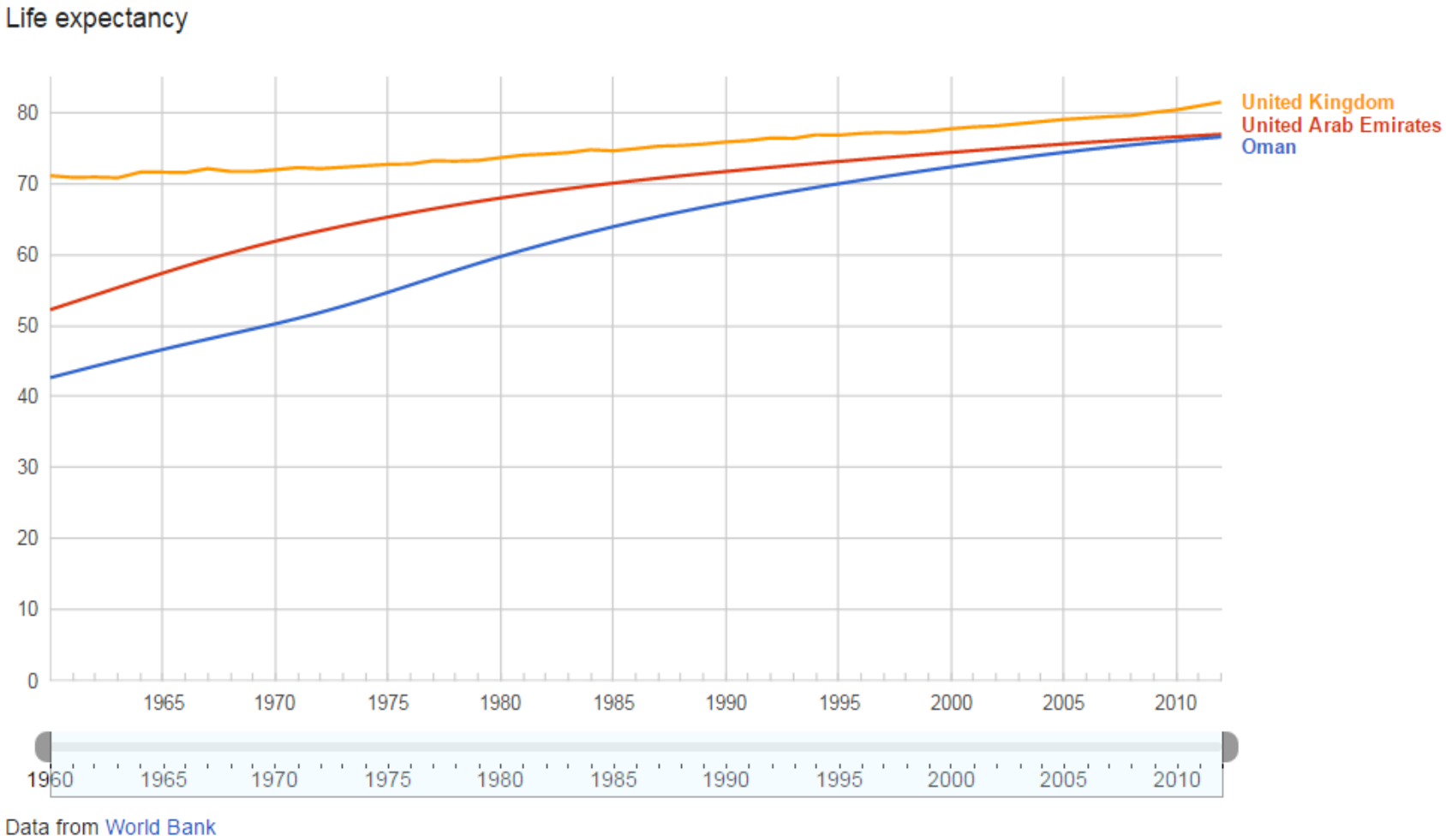
Current Challenges

- Poor funding positions, insufficient contributions, expensive benefits and increasing economic & demographic pressures mean schemes are **unsustainable;**
- Reducing fertility rates;
- Low retirement ages observed and increasing life expectancy;
  - Average retirement age in 2012 between 48 and 56 years old in GCC states.
  - Life expectancy in Oman risen more than 3 times faster than in UK since 1960

Current Challenges



Current Challenges

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Average life expectancy at birth and at 60 years of age in the GCC states, 2000–2012

(Unit: year)

State	Average life expectancy at birth			
	2000	2005	2010	2012
United Arab Emirates	76.20	77.80	75.70	77.60
Saudi Arabia	71.90	72.20	73.30	74.10
Oman	73.38	74.28	76.10	[1] 75.40
Bahrain	72.98	74.23	75.40	78.29
Kuwait	75.30	76.90	77.50	77.50
Qatar	74.46	77.22	77.55	[1] 78.64
State	**Average life expectancy at 60 years of age**			
	2000	**2005**	**2010**	**2012**
United Arab Emirates	18.00	19.00	16.00	21.00
Saudi Arabia	20.40	20.90	21.50	21.80
Oman	N/A	N/A	N/A	N/A
Bahrain	19.00	20.5	21.50	22.00
Kuwait	15.00	17.00	17.10	19.00
Qatar	20.66	22.85	21.62	*22.50

* 2011 data

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Source: World Social Security Forum, 31st ISSA General Assembly, Soliman S. Al-Humayyd

Current Challenges

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- Reducing fertility rates;
- Low retirement ages observed and increasing life expectancy;
  - Average retirement age in 2012 between 48 and 56 years old in GCC states.
  - Life expectancy in Oman risen more than 3 times faster than in UK since 1960
- Ratio of number of pensioners to number of contributors is increasing;
  - In UAE, from 24 contributors per one pensioner in 2000 to 5 contributors in 2012,
  - Average age of contributors rose from 29 in 2000 to 36.6 in 2012.

Source: World Social Security Forum, 31st ISSA General Assembly, Soliman S. Al-Humayyd

Current Challenges

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- In 2006, schemes' combined deficit c. $100 billion*;
- **25% of combined GCC GDP**
- Likely to be much worse now!

- Challenge is how to reform the scheme structures to achieve stability and sustainability.

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*Source: i.e. Muhanna & co

Valuation process

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- ✓ Individual contributors and retirees
- ✓ Asset data

- ✓ Liability calculations
- ✓ Future cash flow projections
- ✓ Future demographic projections

Data collection → **Assumption setting** → **Actuarial modelling** → **Results and reporting**

- ✓ **Economic assumptions**
  - Inflation, salary increases, investment returns, etc
- ✓ **Demographic assumptions**
  - Retirement, disability, mortality, family composition, future increases in head count, etc

- ✓ Funding reports signed by qualified actuary with recommendations

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Assumption setting - inflation

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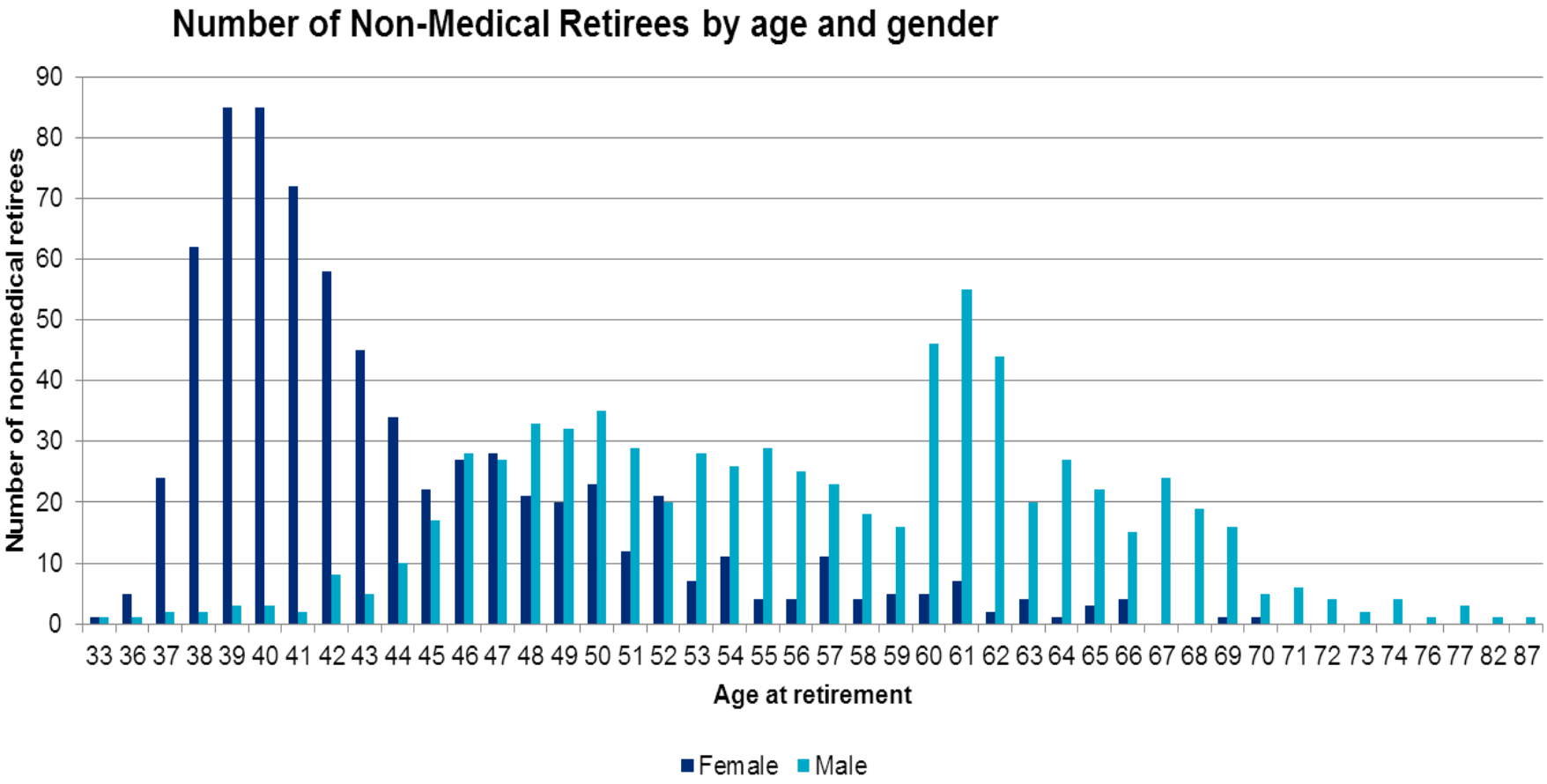
Abu Dhabi

Year	Inflation %[1]
2005	6.2%
2006	8.3%
2007	10.7%
2008	14.9%
2009	0.8%
2010	3.1%
2011	1.9%
2012	1.1%
2013	1.3%
2014	4.1%

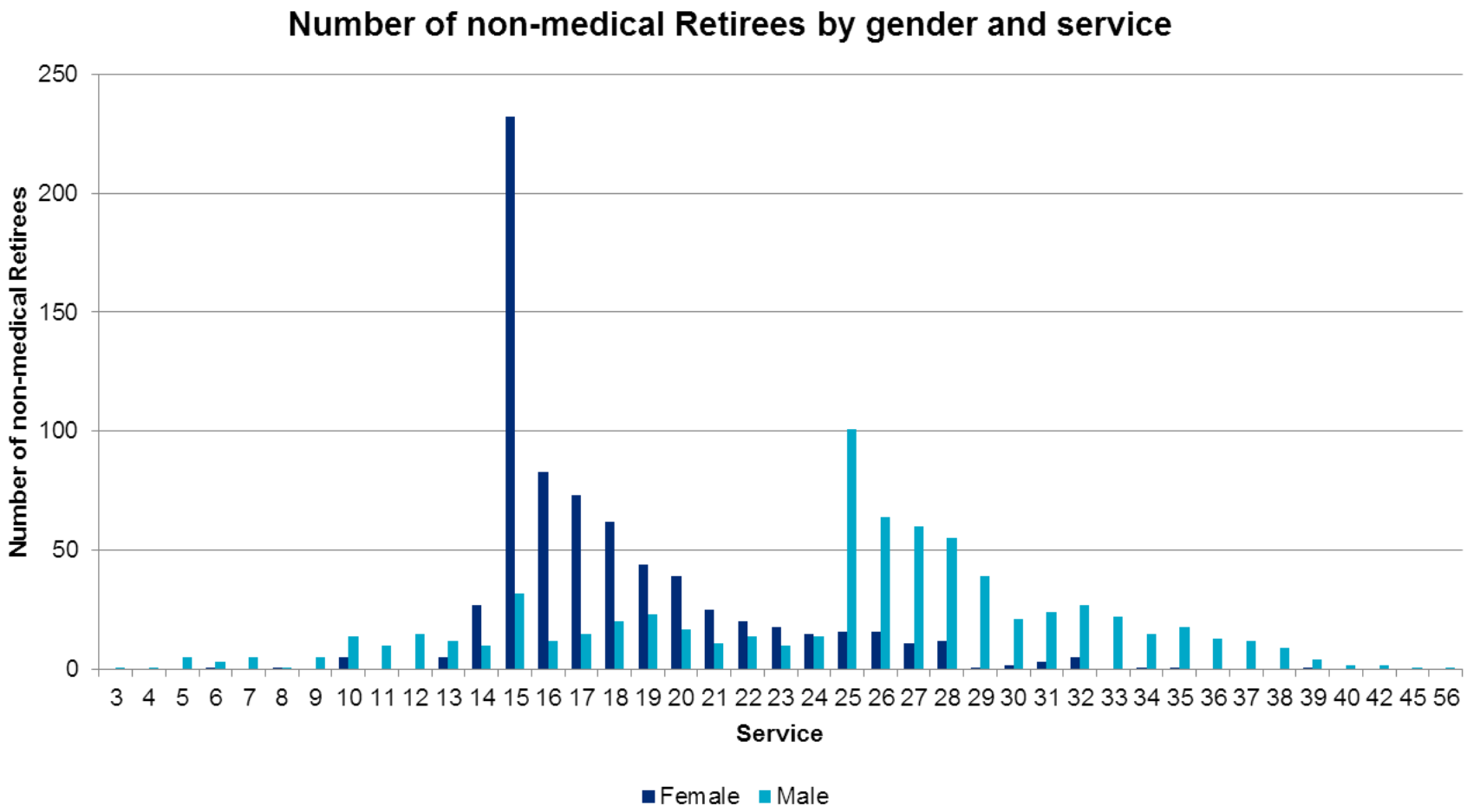
1 SCAD – Statistics Centre Abu Dhabi

- Avg inflation has been 5.1% in Abu Dhabi over the last 10 years - 4.2% in the last 20 years
- What is the expected long term future inflation over the next **100 years**?
- Is the past an indicator of the future?
- What economic indicators are available?

Assumption setting - retirement



Assumption setting - retirement



Assumption setting - retirement

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- Is age a good predictor for retirement? Does service play a role?
- Is retirement behaviour different between males and females?
- Have there been any special events/circumstances in the past that drove retirement behaviour?
- Is the past a good predictor for the future?
- What is the expected number of retirees next year? In 5 years? 10 years? 50 years?

Assumption setting – spousal age difference

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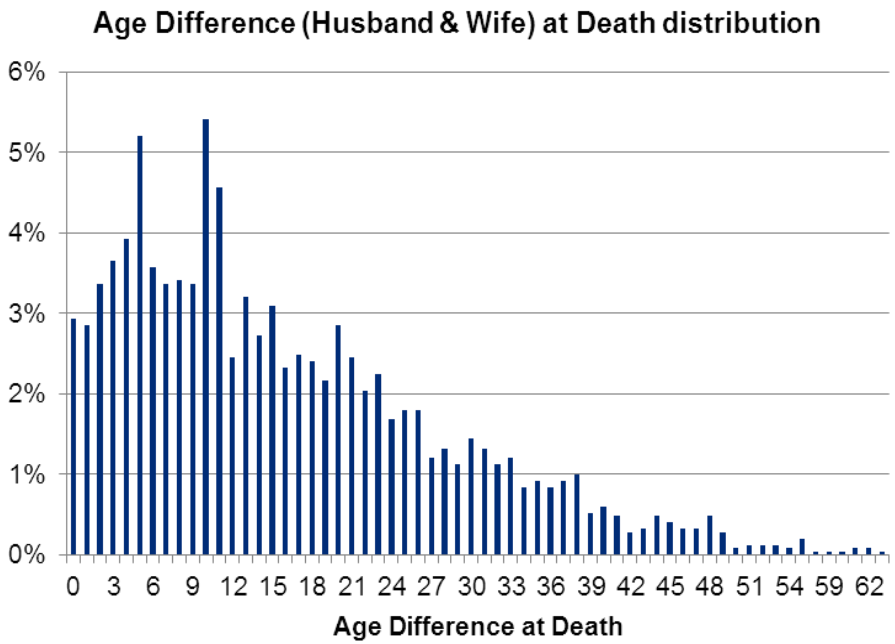

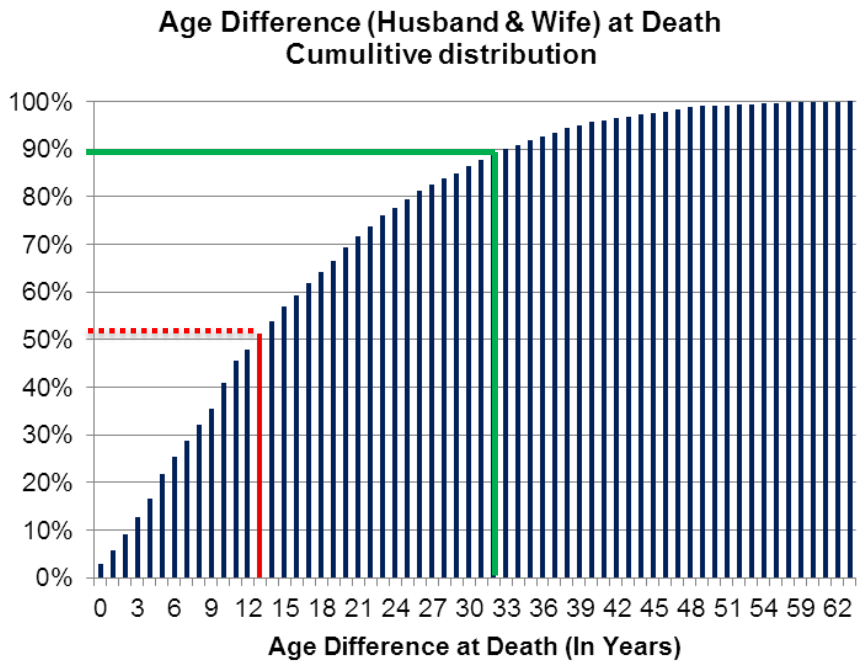

Median age difference between men and women at the time of death is 13 years

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Assumption setting – population growth/shifts

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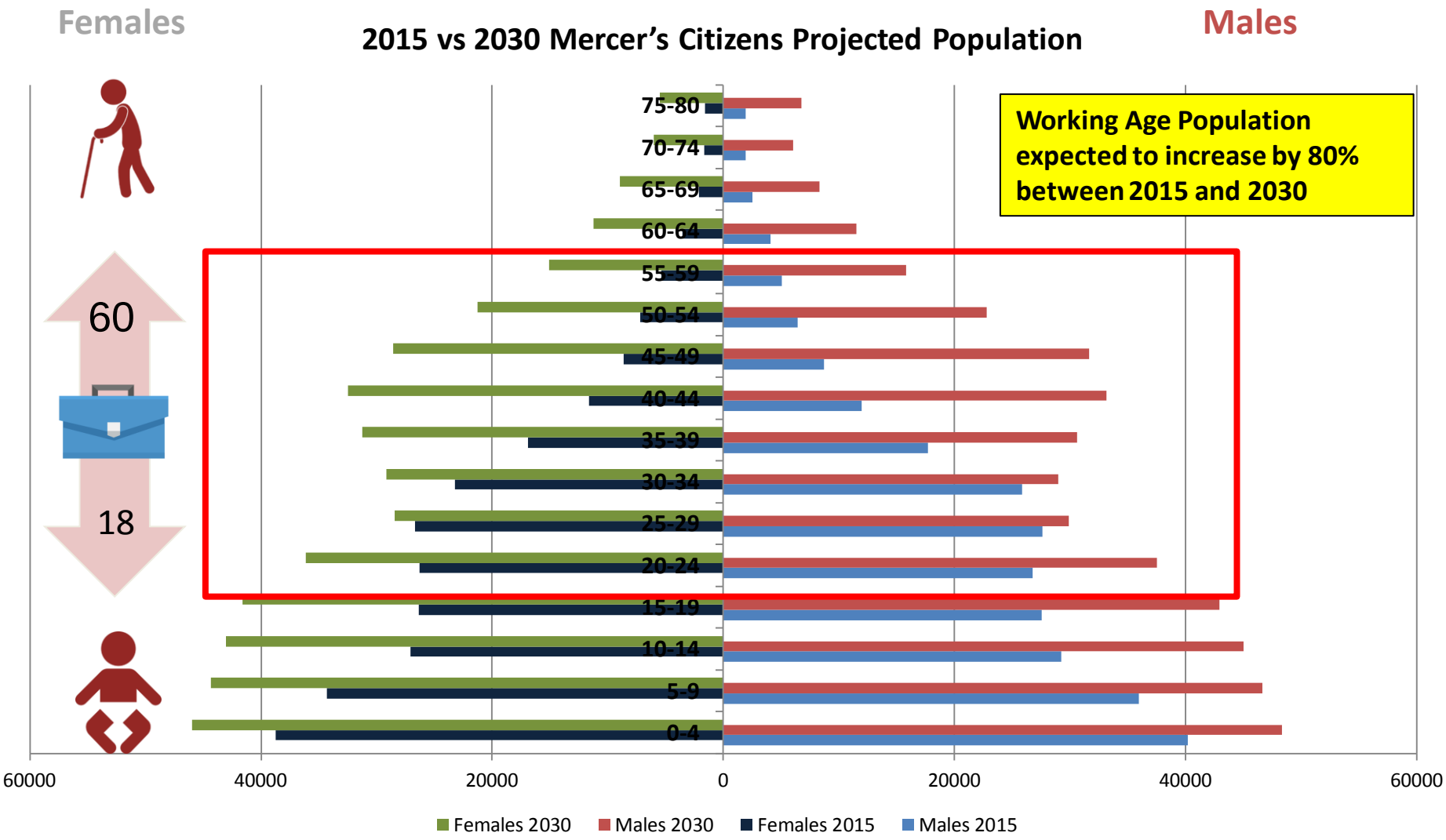

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Actuarial modelling

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Evolution of a Pension Fund

Breaking Point #1	Breaking Point #2	Breaking Point #3
Increasing reserve	**Decreasing reserve**	**Reserve exhaustion**
▪ Benefits exceed contributions ▪ Investment income is required to maintain increasing reserve	▪ Annual expenditure exceed contributions plus expected investment income	▪ Reserve is depleted and the plan turns into a PAYG system

Key statistics

General Average Premium	The constant contribution rate that will maintain a positive reserve for the projection period (ie. 100 years)
Reserve Ratio	The ratio of assets to expenditure in a given year
Dependency Ratio	The ratio of active contributors to pensioners in a given year
Pay-As-You-Go (PAYG) rate	The percentage of salaries needed to pay for expenditure in any given year

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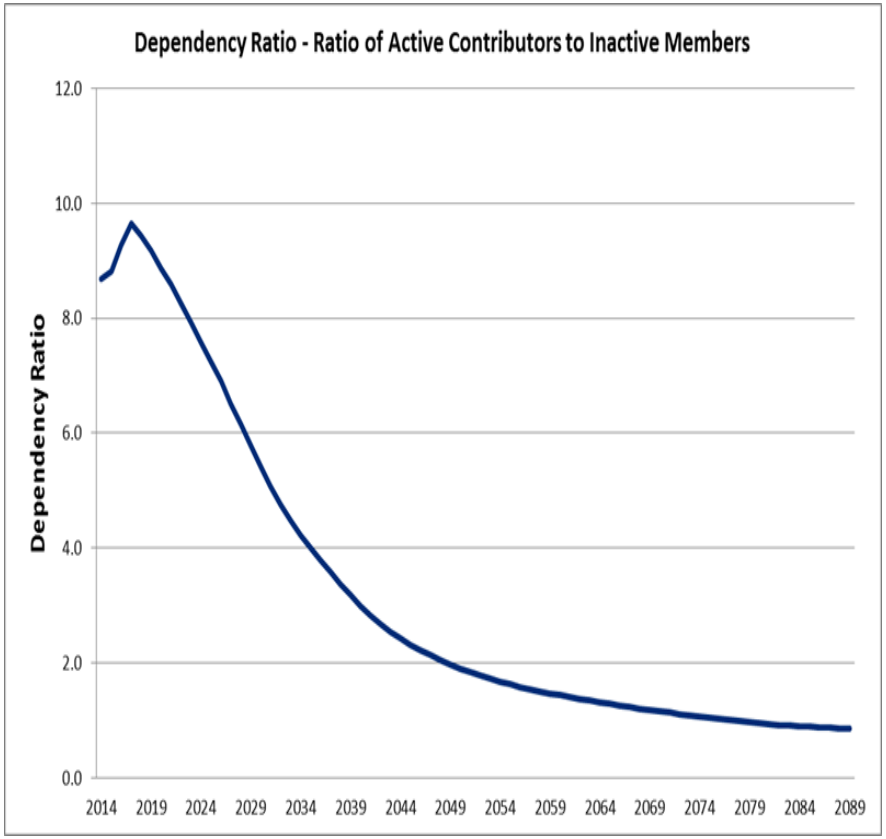
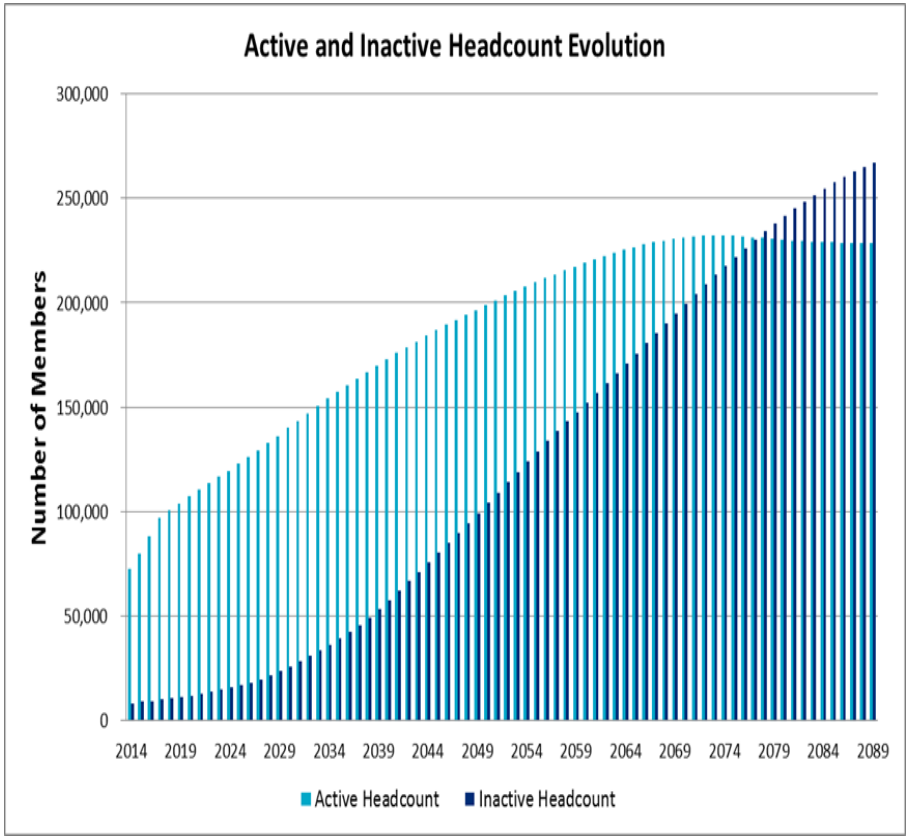
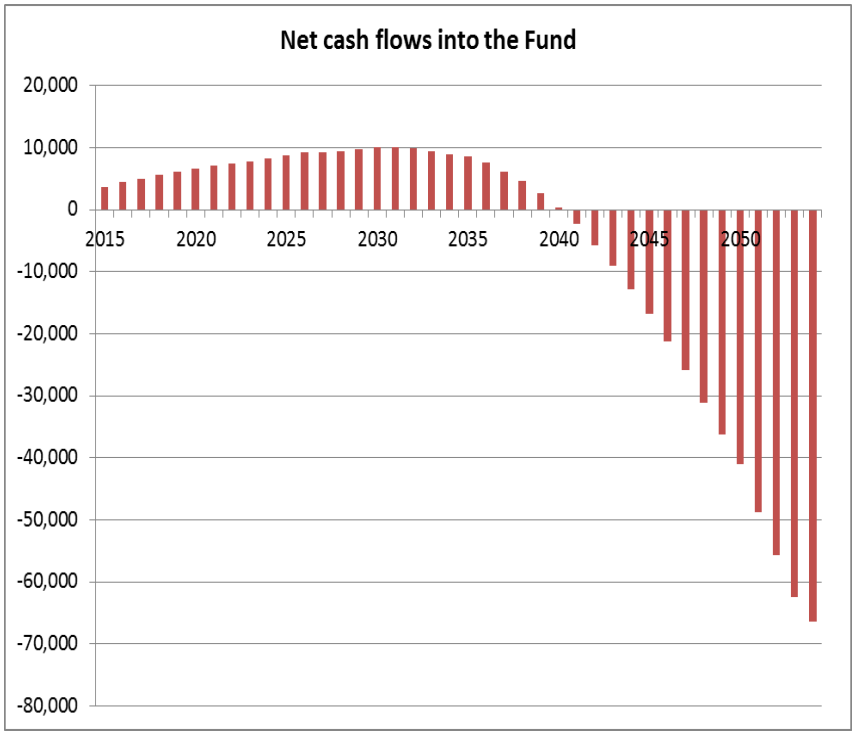
Actuarial modelling – demographic projections

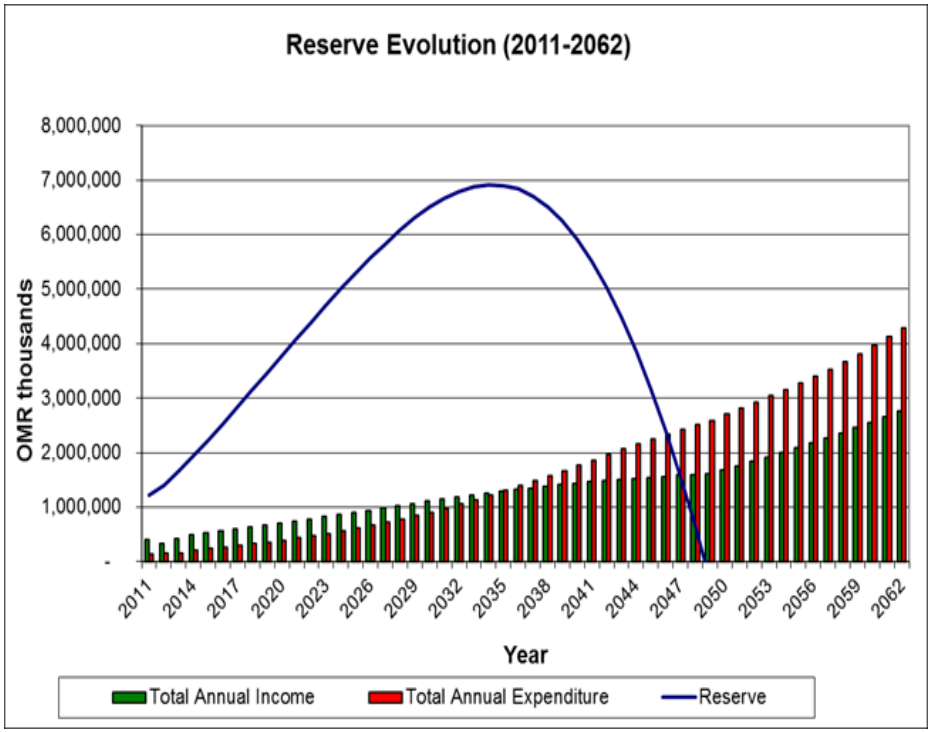




Low fertility and low mortality are driving the dependency ratio downwards!

Actuarial modelling – cash flow projections





The effect of early retirement

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	Males			Females		
	Early Retirement (Age 45)	Early Retirement (Age 50)	Late Retirement (Age 60)	Early Retirement (Age 45)	Early Retirement (Age 50)	Late Retirement (Age 60)
Entry Age	25	25	25	25	25	25
Retirement Age	45	50	60	45	50	60
Number of years of benefits covered by contributions	4.9	7.1	14.2	4.9	7.1	14.2
Payment period after retirement for member (in years)	31.3	26.9	18.9	35.1	30.6	22.0
Payment period for beneficiaries after death of member (in years)	11.9	11.5	10.2	3.3	3.1	2.6
Payment period not covered by contributions (in years)	38.3	31.3	14.9	33.5	26.6	10.4

Reform process

- Pension benefits are generous and contributions have been set years ago *without actuarial consideration*
- Major sustainability issues
- Governments have 3 levers to play with to reform their pension schemes
  1. Increase contributions
  2. Reduce benefits
  3. Delay benefits

✓ All options are equally difficult to implement without social, political, and now…financial, implications

Questions?

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