Getting the balance right:
Private insurance for social needs

Swiss Re Centre for Global Dialogue

Why voluntary insurance markets must age to survive

Jim Murphy

5 March 2013

Milliman

Discrimination or differentiation?

"Any discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited"

Article 21(1), Charter of Fundamental Rights of the European Union

What are the implications for private voluntary insurance markets if insurers are not allowed to differentiate on grounds of age?

Purpose of insurance

- Through pooling of risks, insurance can provide an affordable means of protecting against potentially large financial loss to:
  - The insured e.g. home insurance
  - Their family e.g. life insurance
  - Another party e.g. third party motor insurance
  - Society e.g. medical expenses, reducing the burden on the state
- Insurance is generally socially desirable

Milliman

Adverse selection (or anti-selection)

- Can arise where there is information asymmetry between two parties to a transaction
  - Allows one party to exploit the transaction to his/her advantage
- In insurance context
  - Can occur if insured has more information about the risk he/she represents than the insurer

    or
  - Insurer is restricted from risk rating and there are no other protections against adverse selection
  - Can result in insured paying less for insurance than the real expected cost of the underlying risk

Milliman

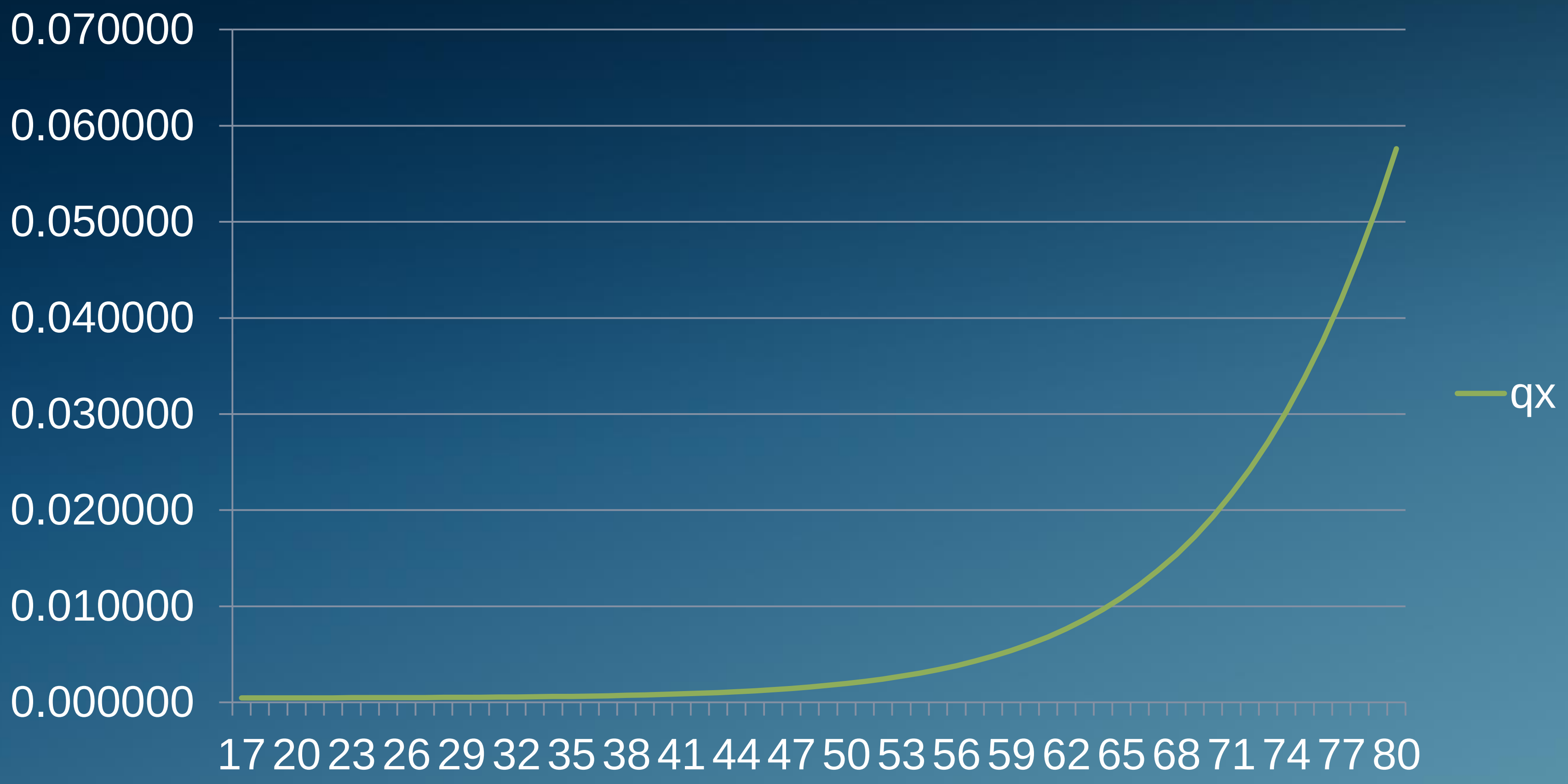
Compulsory versus voluntary insurance

Compulsory	Voluntary
Entire eligible population is insured	Individual choice to effect insurance
No risk of adverse selection	Risk of adverse selection
Examples Social security systems Dutch health insurance market Quasi-compulsory: group life cover	Examples Individual life assurance Annuities where consumer has choice Health insurance in some markets

Age as a risk factor in insurance

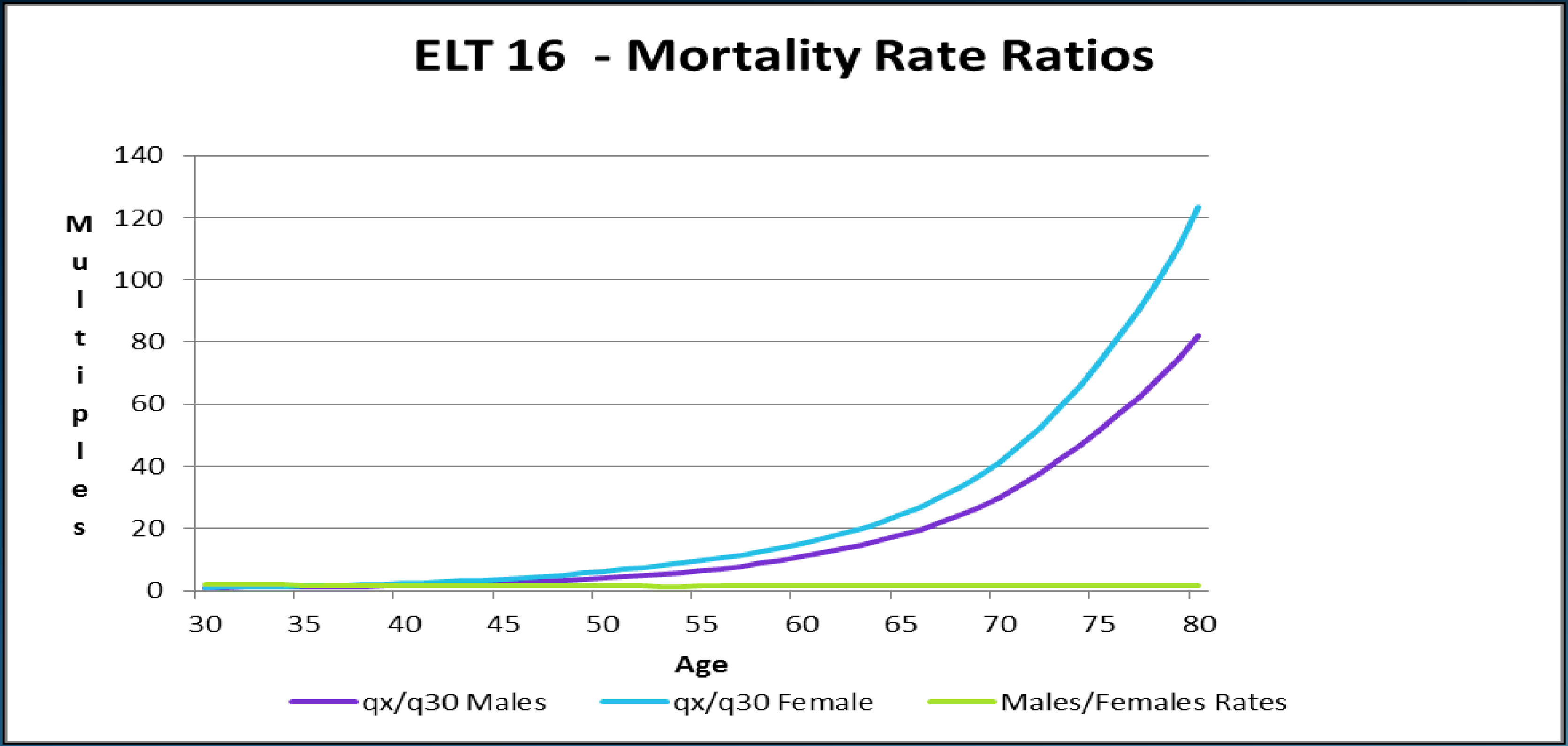
- Substantial evidence to show that risk can vary significantly by age for main lines of insurance:
  - Life cover
  - Critical illness cover
  - Annuities
  - Motor insurance
  - Private medical insurance

Age & life assurance



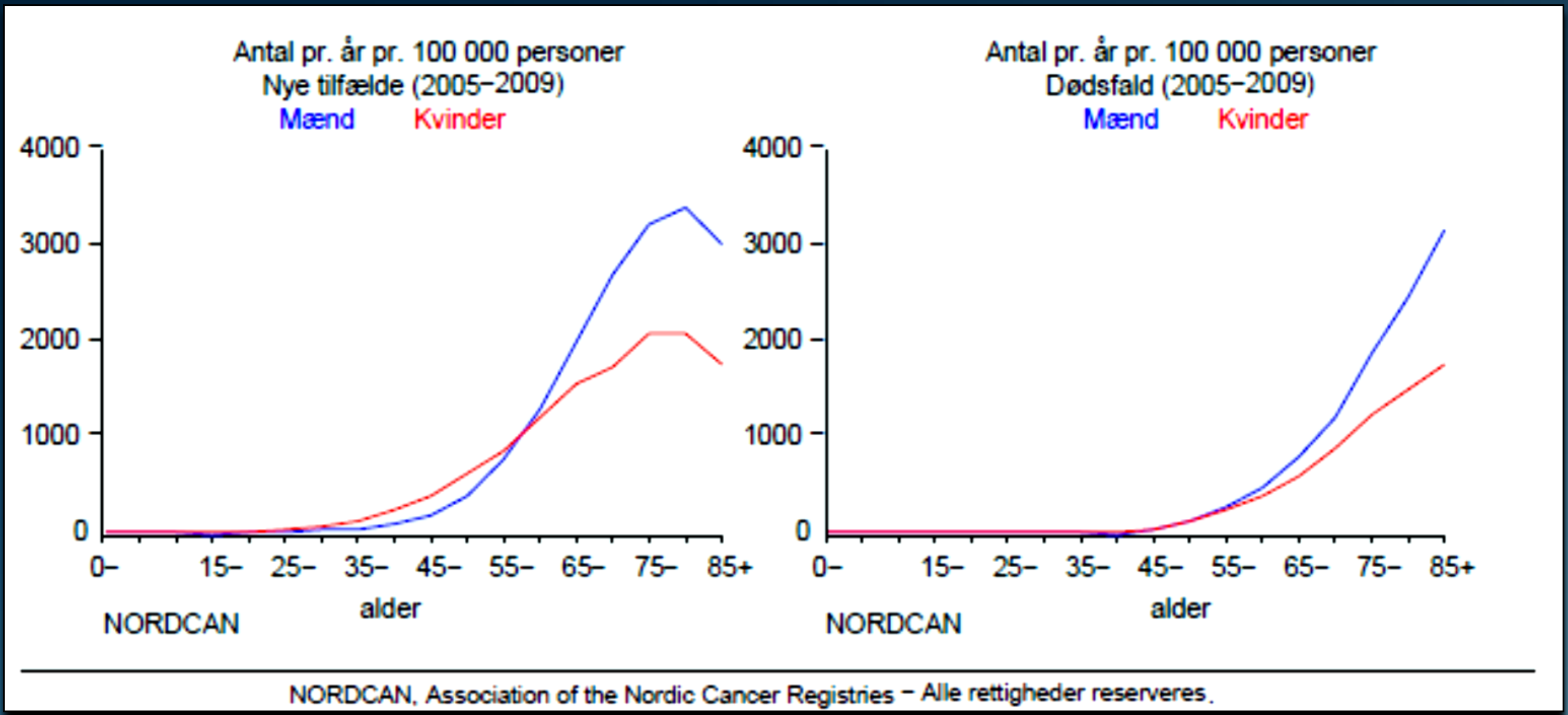
* UK Standard Mortality Table AMC00

Age v gender



- **Male life cover risk typically 1.5 to 2 times greater than risk for females – relatively narrow range**
- **Very significant range of life cover risks by age - up to 120 times**

Age v Gender – critical illness



** Population incidence and death rates for cancer excluding skin cancer by age and gender in Denmark from 2005 to 2009 (males are blue line, females are red line)*

Milliman

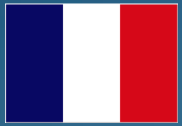
But community rating works in some markets...

- Community rating – everyone pays the same premium for the same benefits regardless of risk profile

- PMI markets in many countries are community rated, e.g.

- Mortgage Protection Assurance markets in some countries operate on a community rated basis, e.g.



- Group life cover markets – quasi community rating?

Conditions necessary for CR to work?

- Compulsory or quasi-compulsory market

  and / or

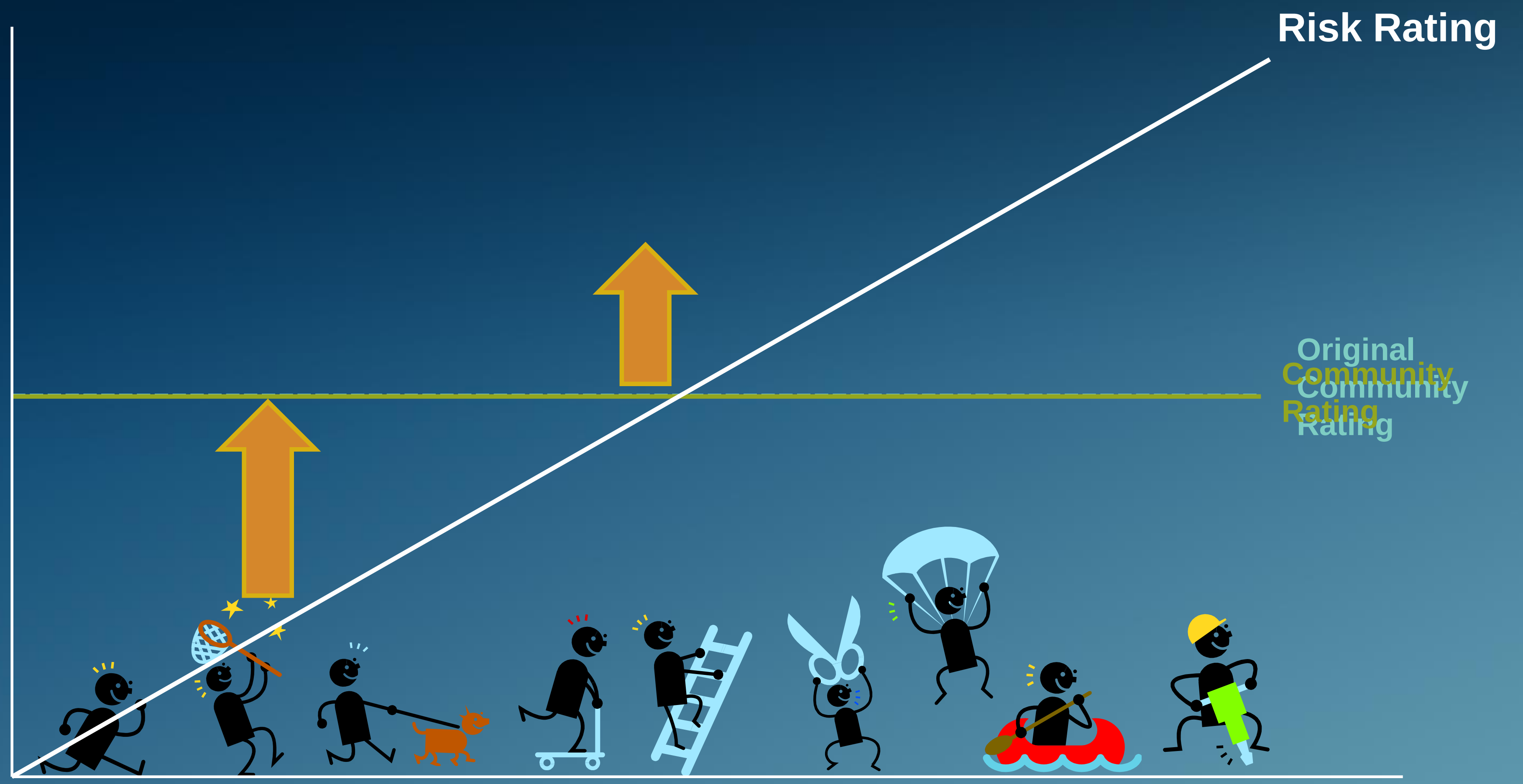
- Controls on the level of cover

Milliman

If required conditions are not present

- No restrictions on levels of cover can lead to unsustainable levels of risk for the market if community rated
- Without risk rating, adverse selection becomes a huge challenge
  - High risks choose high levels of benefit
  - Premium expensive for low risks
  - Low risks choose to exit the market
  - Average (community rated) premium increases
  - More low risk people exit
  - Potential death spiral

Death spiral effect



Milliman

Irish PMI market – CR example

Community Rated

+

Voluntary

+

Individuals can choose benefit level

=

Sustainable market?

Milliman

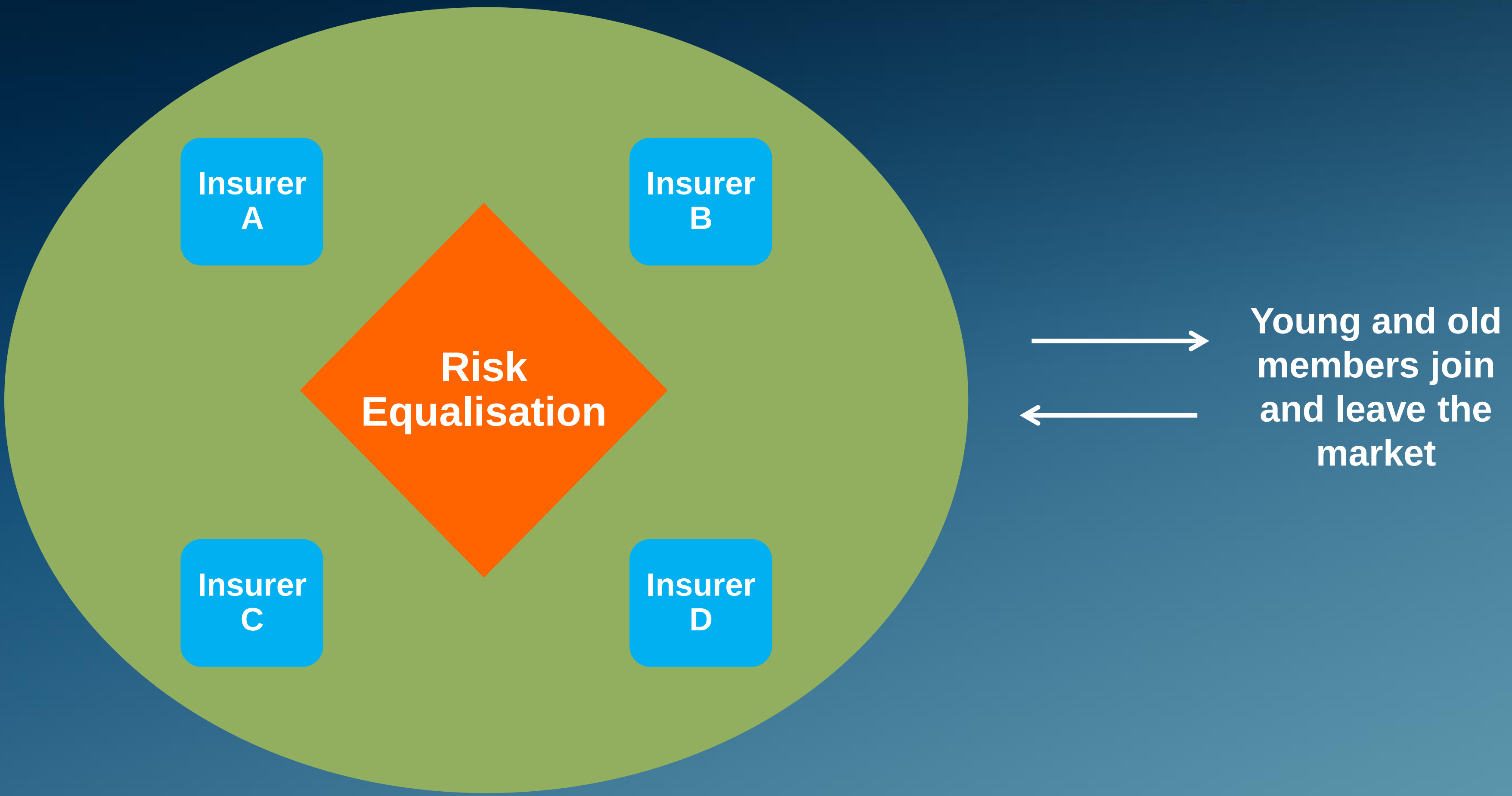
Irish PMI market (contd)

- Choice of product benefit levels, but not unlimited benefit
  - Indemnity benefit
  - Public health system

- Other protections in place
  - Waiting periods for new entrants and those increasing cover levels
  - Limitations in respect of existing conditions

Milliman

Sustainable market requires equilibrium



Irish PMI market (contd)

- Sustainability of market is an increasing challenge
  - Economic environment seeing younger people exit the market
  - Significant increases in claims costs and hence premium levels in recent years
  - Danger of a tipping point – despite protections in place

- Australian solution – Lifetime Health Cover
  - Incentivise people to join the market at younger ages

Milliman

What about other voluntary markets?

- Individual life assurance
  - Individual chooses level of cover (not indemnity)
  - Young subsidise old
  - Risk of adverse selection very pronounced

- Annuities
  - Risk of adverse selection also very pronounced
  - Old subsidise young

Annuity example

- Life expectancy at age 65 = 20 years
- Life expectancy at age 75 = 12 years

- Say insurer prices assuming 16 years life expectancy. Three scenarios:
  – One insured age 65 & one age 75, insurer pays out for 16 years on average
    → **Insurer breaks even**
  – One insured age 65 only, insurer pays out for 20 years
    → **Insurer makes a loss**
  – One insured age 75, insurer pays out for 12 years on average
    → **Insurer makes a profit**

- If consumers have choice, which scenario is most likely?
- How will insurers respond?

In conclusion

- Age is a key risk factor for most types of insurance
- However, not necessary to differentiate by age in compulsory markets for market to be sustainable
- For voluntary markets
  - Community rating might be possible in certain circumstance
  - In the main, risk rating by age is critical for sustainability of market
- If insurers could not risk rate by age
  - Profound consequences for availability of private voluntary insurance
  - Increased reliance on nationalised insurance systems