

Longevity Assumption Setting for Pension Risk Transfer Transactions



Jeffrey Gomes

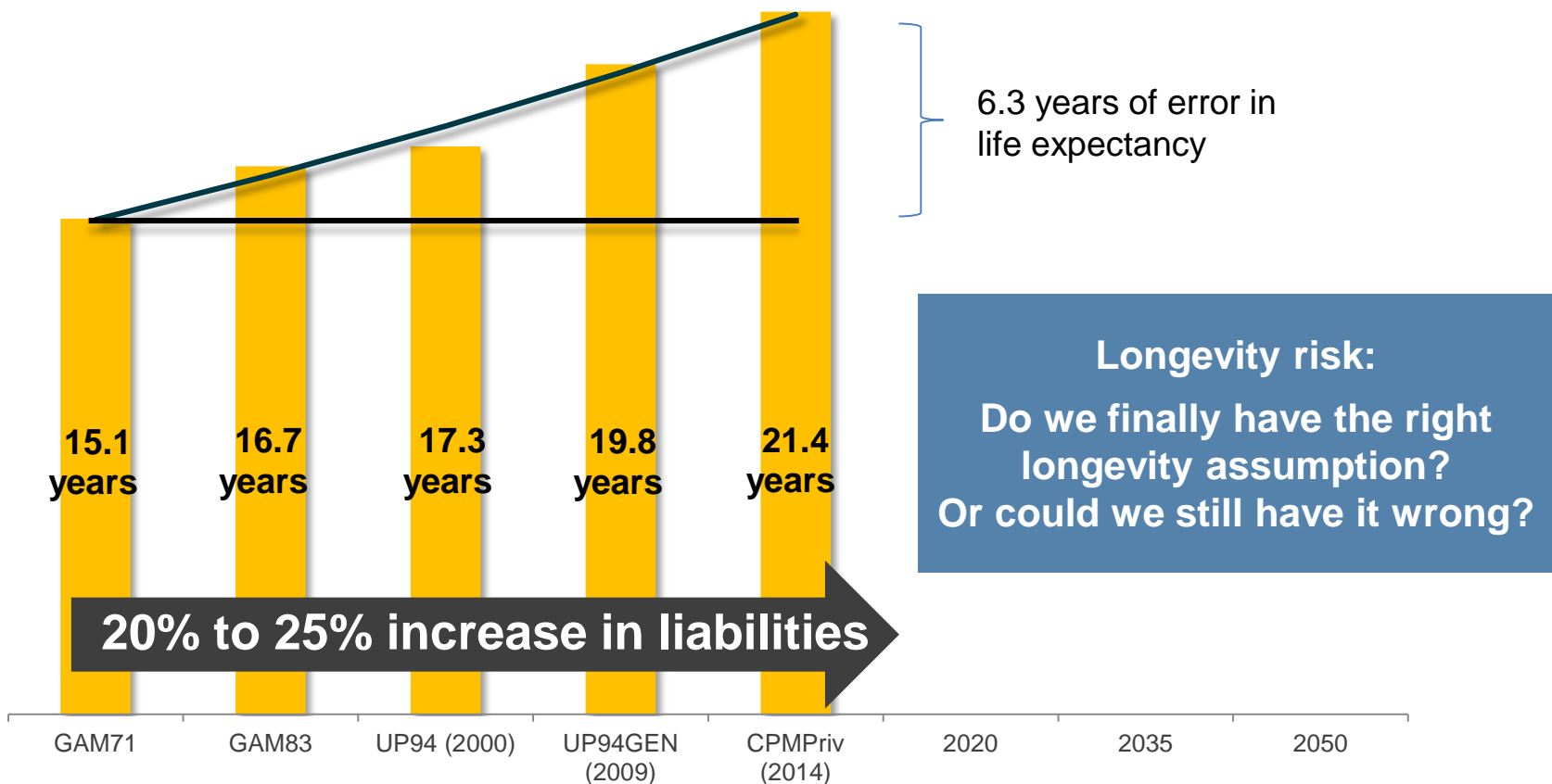
Managing Director, Longevity Research
Defined Benefit Solutions, Sun Life Financial

March 29, 2017

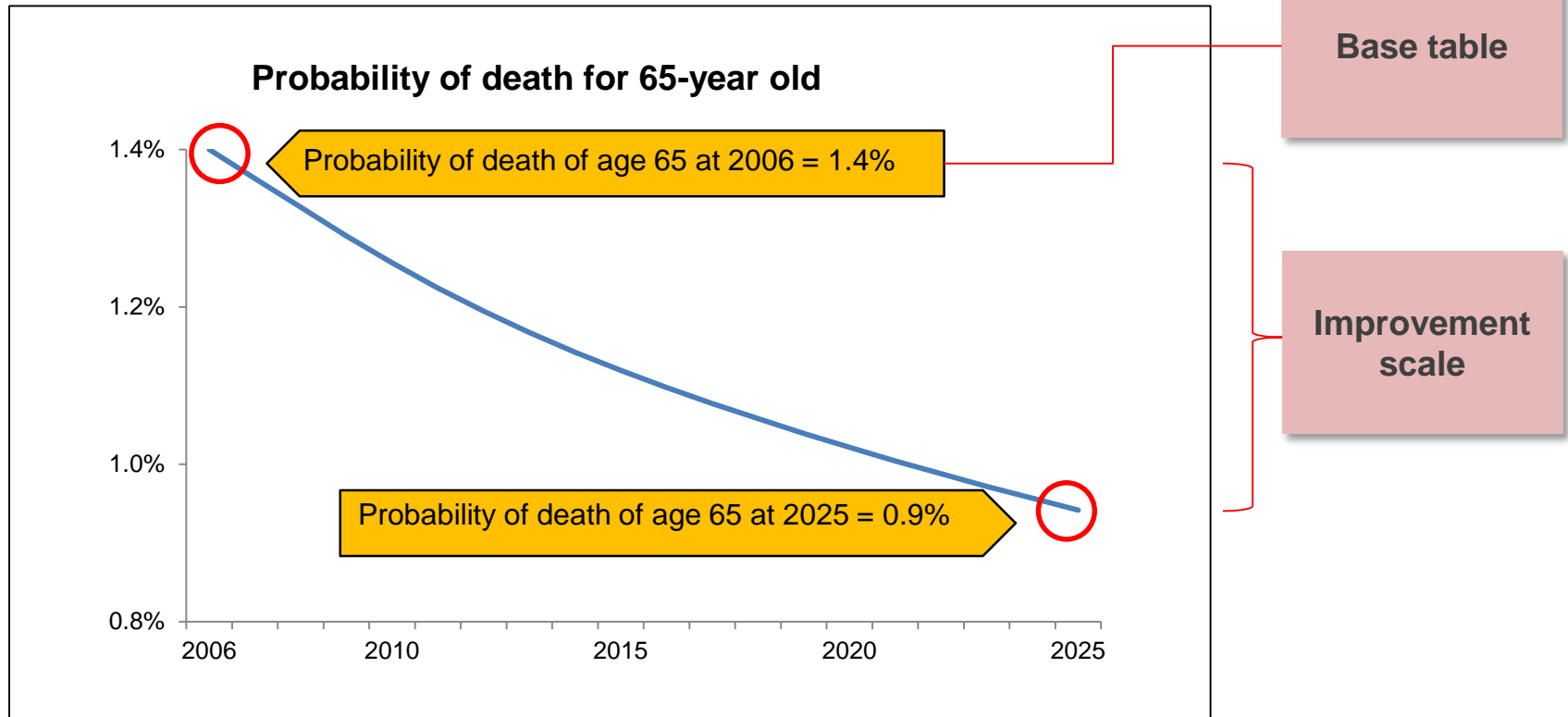
sunlife.ca/DBSolutions

LONGEVITY RISK HAS CREATED LOSSES IN THE PAST

Life expectancy (Canadian male – age 65)

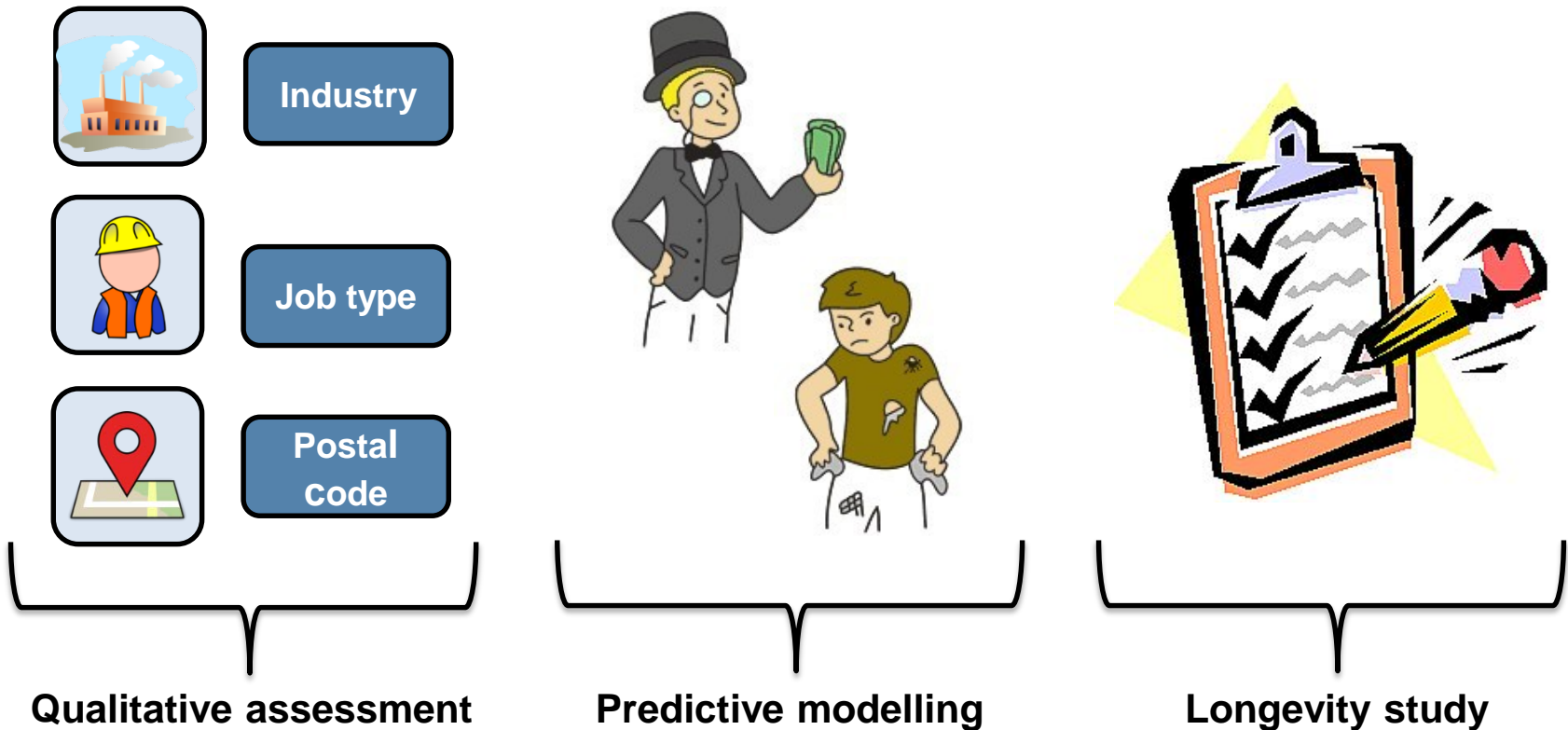


LONGEVITY BASE TABLE VS. IMPROVEMENT SCALE



Base table reflects current longevity experience and **improvement scale** predicts changes in future longevity experience

WE LOOK AT LONGEVITY FROM MANY PERSPECTIVES



Alignment of data points increases confidence in pricing

A WIDE RANGE OF LONGEVITY STUDY PRACTICES EXIST



Weight longevity study by pension income



Differentiate subgroups by longevity profile



Choose mortality table with an appropriate table shape



Be aware of trends and outliers

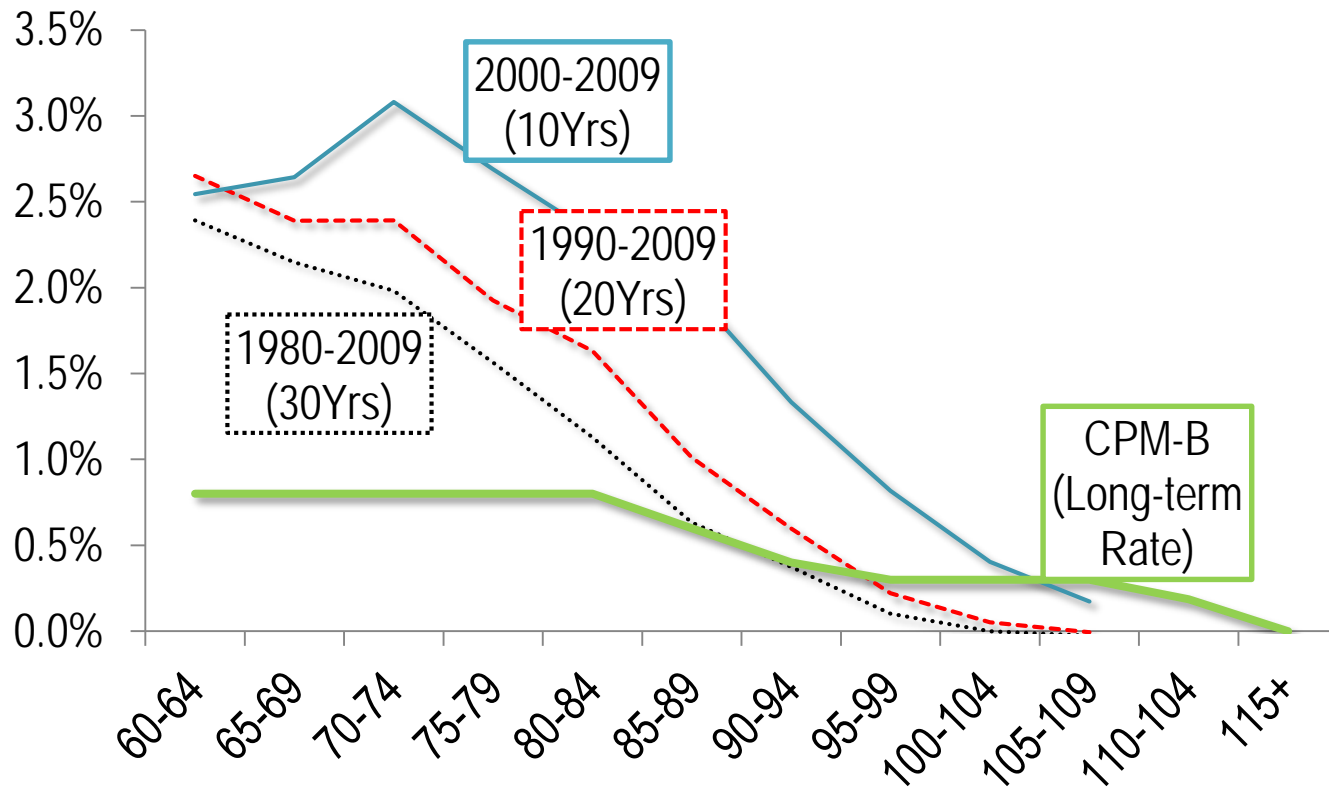


Rigorous data checking: quality in, quality out

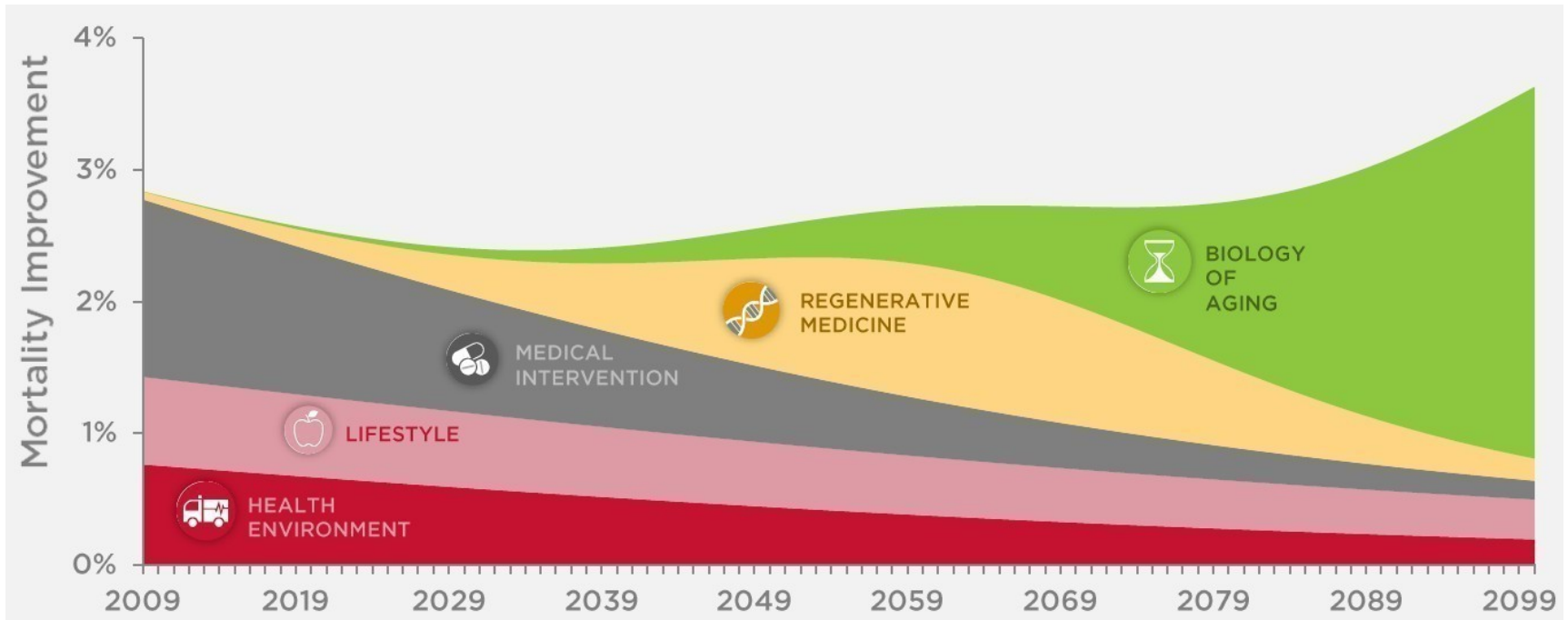
- Be cautious of repurposing valuation data

FUTURE IMPROVEMENTS: WHAT'S THE RIGHT BASELINE?

Canadian population historical longevity improvements (male)



RMS: FUTURE DRIVERS OF MORTALITY IMPROVEMENT



Source: RMS

Understanding the fundamental drivers of longevity improvements allows us to take a bottom-up approach