My conclusions are as follows.

1. The cost of defined benefit pension accrual is now so high that their decline is all but inevitable.

1.1. I have recently completed research on the change in the cost of pension accrual, and how this has changed over the last twenty years (overleaf).

1.2. This shows that the cost of accrual for a 40 year-old male rose from 4.2% of salary in March 1995 to 25.4% of salary in March 2015.

1.3. Allowing for interest rate changes alone since 2015, the cost of accrual rose to 25.6% of earnings in March 2016, and to 36.7% of earnings in September 2016.

1.4. It is possible that further benefit changes might make such schemes more affordable, but even removing future increases to pensions in payment would only reduce the cost of accrual to 27.0% of salary as at September 2016.

1.5. As such, the cost of future defined benefit accrual is such that it is unlikely that we shall see new defined benefit schemes opened; rather, we are likely to see an increasing number of schemes closed to future accrual if nothing is done.

1.6. At least as worrying is the fact that contribution rates to defined contribution schemes are so low in comparison to the cost of defined benefit accrual – in 2015, the average contribution rate to a defined contribution scheme was 4.0% of salaries, and the target from 2019 under auto-enrolment is only 8.0% of salaries.

1.7. Whilst this might not seem like a defined benefit topic, it is possible that requiring higher contributions to defined contribution schemes might make them seem less like a cheap alternative to defined benefit pension schemes, and thus might result in more defined benefit schemes staying open.

Figure 1: Cost of accrual for a 40 year-old male in a career average revalued earnings scheme with a retirement age of 65 and benefits in line with legislation

Source: Office for National Statistics, Human Mortality Database, Bank of England; author’s calculations

2. There should be no across-the-board reduction in accrued pension scheme benefits

2.1. It has been suggested that pension schemes should be allowed to reduce the value of accrued benefits in order to ease the burden on employers. I strongly disagree with this suggestion.

2.2. Responsibility for the payment of accrued pensions lies ultimately with the sponsoring employer, in the same way as the employer is responsible for servicing debt – indeed, any deficit when a pension scheme winds up is known as a debt on the employer.

2.3. It would therefore seem wrong for pension scheme members to be penalised whilst debtholders were not – especially if shareholders did not suffer any losses.

2.4. This is even more so given that most pension schemes hold benefits mainly for former rather than current employees.
2.5. As such, reducing pension scheme benefits in order to prevent employer insolvency could be seen as taking the past (albeit deferred) compensation of former employees and using it to pay current employees; it would be unthinkable to ask former employees to pay back past salaries to a struggling former employer, but this is essentially what cutting accrued pensions amounts to.

2.6. This implies that pension benefits should not be reduced until the value of shareholders’ investments are exhausted; however, there are circumstances where employer insolvency could leave scheme members worse off, though this is the exception rather than the rule.

2.7. Indeed, there is a risk that if benefits are reduced to help a failing employer, then the employer will fail anyway and scheme members will be no better off.

2.8. In other words, scheme benefits should be reduced only if to do so will leave members unambiguously better off than pursuing the employer to the point of insolvency.

2.9. Another issue arises if pension benefits are limited only whilst an employer is in financial difficulties, that such a concession might deter merger and acquisition activity if such activity caused pension liabilities to rise.

2.10. A particular suggestion in relation to defined benefit pensions has been that pension increases in relation to accrued pensions could be converted from LPI or full RPI to conditional indexation.

2.11. For the reasons above, I believe that this would be wrong, but I also believe that it would be ineffective.

2.12. Conditional indexation has been used in the Netherlands in particular, in an attempt to encourage pension schemes to take on investment risk.

2.13. However, many pension schemes in the UK are so poorly funded that removing increases to accrued pensions would not bring them into surplus; it would merely reduce the deficit.

2.14. Since many pension schemes are de-risking, following a path whereby improved funding leads to reduced investment risk, introducing conditional indexation would be more likely to reduce the level of investment risk taken by pension schemes than increase it.

Compelling or even strongly encouraging defined benefit pension schemes to invest in development issue would be unwise.

2.15. The United Kingdom needs increased investment in infrastructure, and pension schemes need long-term investments – and since many infrastructure investments offer long-term cash flows, which have a similar nature to pension scheme liabilities, it is argued that pension schemes should invest in infrastructure.

2.16. However, the type of infrastructure assets that appeal to pension schemes are indeed those providing stable, even bond-like, cash flows.

2.17. Such cash flows come from infrastructure that has already been created - power stations that are producing energy, ports that are servicing ships, toll roads that are carrying traffic.

2.18. But the UK needs investment in new infrastructure, and apart from the fact that new infrastructure projects do not generate cash for years, maybe even decades, the return on such projects is far less certain: new infrastructure investment has private equity-like characteristics.
2.19. Investments with a return profile like this might have been attractive to pension schemes thirty years ago, when they were still relatively young, but it is less clear that such development infrastructure should have a prominent role in today’s overwhelmingly cash flow-negative retirement benefit schemes.

2.20. The UK Government is better-placed to invest in these capital-intensive projects, particularly as it can borrow at a real interest rate of -1.5%, fixed for the next quarter of a century.

2.21. The Government should take the initial risks – and rewards – selling infrastructure to pension schemes only when a project is up and running and generating cash.

2.22. The returns for pension schemes may be lower, but the assets will match the needs of the investors.

Paul Sweeting Professor of Actuarial Science

Professor Paul Sweeting is a Professor of Actuarial Science at the University of Kent. Prior to this, he was Head of Research at Legal & General Investment Management, before which he was a Managing Director and European Head of the Strategy Group at J.P Morgan Asset Management. He has published widely on all aspects of pension scheme structure, investments, longevity and risks. He has also published a text book, Financial Enterprise Risk Management, which is used by actuarial associations around the world for examinations in enterprise risk management.

Professor Sweeting is a Fellow of the Institute of Actuaries, the Royal Statistical Society and the Chartered Institute for Securities and Investment. He is also a Chartered Enterprise Risk Actuary and a CFA Charterholder.

October 2016