

The £300bn Pensions Distortion

The Accounting Standards Board has proposed that pensions liabilities be determined by discounting future cash flows at the risk free rate. It believes the discount rate should reflect the time value of money only and pension liabilities should not be reduced to reflect credit risk.

Although logical, the proposal has far reaching implications for every private sector business with a defined benefit pension scheme, the economy as a whole and the Treasury. Of particular relevance is the impact such a proposal is likely to have in weakening the balance sheets of the big 5 banks - clearly unwelcome given the current credit squeeze.

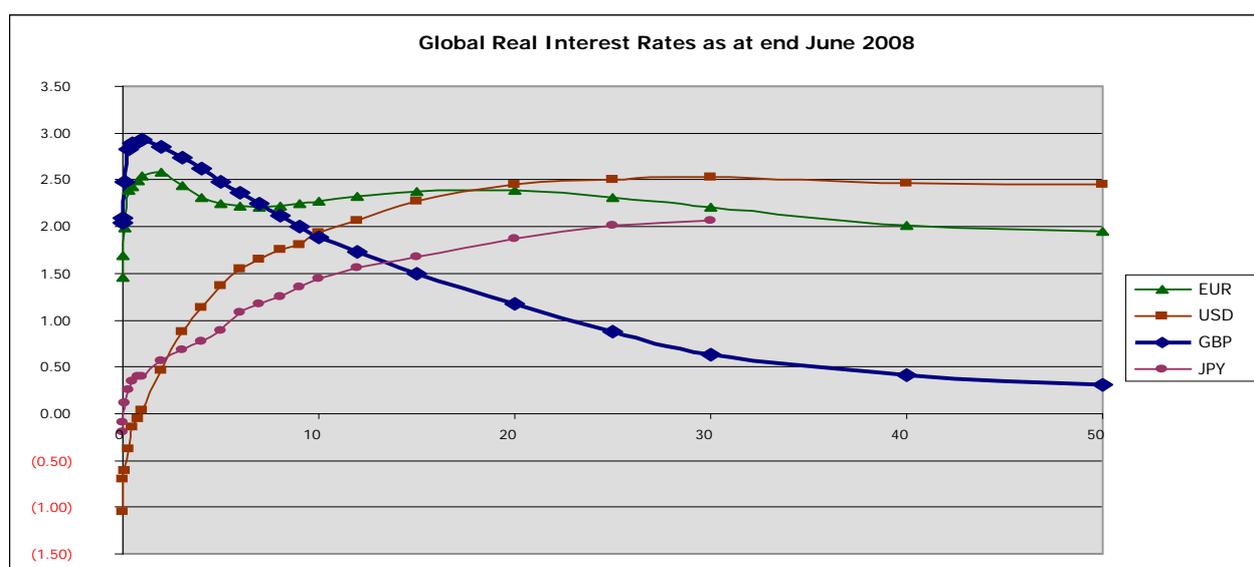
The market distortion

As we know, measurement of liabilities is inextricably linked to behaviour. Since pension and annuity liabilities are increasingly measured against the benchmark of risk free government stock, any variation in investment policy from investing in the benchmark instrument ("mismatch") costs the sponsor additional capital.

Private sector schemes alone have liabilities of some £800bn. Of these approx 85% are inflation linked, with 45% reflecting liabilities with durations over 20 years. There are therefore approx £300bn of UK inflation linked pension liabilities exceeding 20 years. The total quantum of inflation linked government stock of more than 20 years duration is only £30bn. In addition, particularly during the current crisis, there is minimal corporate issuance of high quality investment grade bonds of duration longer than 20 years, let alone inflation-linked. The demise of the monoline insurers will exacerbate this scarcity.

As a result approx £300bn of demand is chasing an absolutely fixed and limited supply of only £30bn of appropriate assets. This imbalance is causing a distortion in the price of long dated government stock that is unprecedented in relation to UK historical experience or current experience outside the UK.

Comparative charts of the UK real yield curve compared to the US and Eurozone starkly illustrate the seriousness of this issue. The extreme anomaly at the long end of the curve can only be explained by the market distortion.



Financial market levels are determined by supply and demand. Nonetheless, it is axiomatic that financial markets are forward looking – a falling stock-market is “predicting” worsening economic performance by its constituents relative to other financial investments. However, it is common for this “predictive” effect to fade quite rapidly with time. E.g. interest rate futures and the yield curve may be quite a reliable indicator of actual future rates over 6 months, a moderately useful indicator up to 3 years, and of some value up to 5 years. However, beyond 5 years, it can be shown that the link between actual outcome of current interest rates and those “predicted” by the yield curve 5 years earlier has no statistical validity whatsoever.

The current price of a 50 year index linked government bond is therefore set entirely by current supply and demand conditions for this instrument and has no relevance for what actual interest rates or inflation rates will be in 50 years.

If supply or demand is currently heavily distorted and one uses the resulting distorted price as a benchmark for measuring current liabilities, a highly distorted outcome is inevitable. In fact, the primary reason the benchmark bond price is so distorted is because it is the benchmark.

A recommendation to avoid using a heavily distorted benchmark is therefore not an attempt to fudge the numbers, but merely a recognition that a serious and damaging distortion has occurred and to try to see through to this reality.

Nor is it reasonable to expect that this distortion could be addressed through the issuance of more long-dated Government stock. The entire planned issuance of Government stock for 2008/9 is approximately £80bn, the highest it has ever been. It is therefore impossible for the DMO to fulfil its remit whilst simultaneously issuing sufficient long dated stock to correct this imbalance between supply and demand.

How Big is the Distortion?

Since reliable records began in 1900, excluding periods where inflation exceeded the pension liability (LPI) cap of 5%, actual realised real yields (T-Bill minus RPI) have averaged 3.0%.¹

In comparison, 30yr Index-Linked stock is currently yielding 0.6%, and implied forward real yields from 20-50yrs are, on average, *negative 0.25%*. This implies that if the forward yield curve were genuinely in equilibrium, then inflation will exceed interest rates by an average of 0.25% from 2028 to 2058.

Compare this to both the US (30yr real rates 2.5%) and Eurozone (30yr real rates 2.2%), neither of which suffer the same level of technical distortion as the UK. This prediction about the UK is not only hard to credit in the context of a century of UK financial history or the current experience of other economies, it is also clearly inconsistent with the Bank of England’s inflation mandate.

This differential is exaggerating long dated pension liabilities by 2.4% compounded over 30 years or by approximately **£290 billion**. This is not a theoretical number but a real liability that will have to be funded by *tax-deductible* corporate cash payments that would otherwise be invested in the UK economy.

¹ Source: Barclays Equity-Gilt Study 2008

Finally, not only is this distortion to the value of pension liabilities absolutely enormous in the context of the UK economy, but because of the illiquidity of these liabilities they become highly volatile and impossible to hedge. UK plc's pension liabilities can apparently fluctuate by tens of £billions in a single trading day. This is entirely unsatisfactory for business and government.

Distorting investment decisions

Not only is this distortion diverting resource from enterprise into pension schemes, potentially unnecessarily, but the nature of the benchmark is exacerbating the move from equity investment to fixed interest investment already caused by the closure and decline of defined benefit pensions schemes. DB Pension schemes invested 35% of their assets in cash and fixed interest securities at end March 2007 compared to 22% ten years previously. Is this appropriate?

The pensions promise is one given by an employer to provide an amount of money to an employee starting at some point in the future and continuing each year for the rest of the employee's life as well as possibly that of his/her partner's life. The amount of money is inflation-linked and the employer's business is therefore exposed principally to inflation and longevity risk, which it offsets through contributions and investment returns.

The ASB proposal to use a risk-free benchmark implies that every DB pension member is entitled to a UK Government guarantee that he/she will receive 100% of his/her pension entitlement. This is clearly a covenant stronger than that provided by any commercial enterprise and does not appear consistent with the actual level of "pension promise" expected by the regulatory authorities. By way of comparison, only 14% of pension scheme sponsors have sponsor covenants of AA or better, i.e. the level of risk to their most senior creditors.

It is not efficient for assets backing long dated pension liabilities to be invested entirely on a risk free basis. Put another way (and more controversially), the risk to members of corporate pension schemes of suffering *any shortfall at all* is not zero and should not be treated as zero. Why?

- Because with the average major employer having a rating of sub-investment grade, it suggests that pensioners should have a much lower risk (in fact zero) compared to current employees or when they themselves were employees. This does not seem fair, reasonable or economically tenable:
- Because effectively requiring all corporate pension schemes to invest risk free is depriving the economy of an enormous investment into economically productive assets:
- Because steering all corporate pension schemes to invest in risk free assets is maximising the pension deficits and depriving the companies and their current employees (and their pensioners) of all the cash needed to fund those deficits, which could otherwise be used for investment, additional employment etc:
- Because the returns on zero risk assets are, by definition likely to be very low. Worse, because the price of those assets is unnaturally high due to the current distortion, the actual risk of real economic loss is not zero but extremely high. (Ref war loans):
- Because suggesting an investment strategy with an average of very low risk (say AA) but not zero risk:
 - is still better than the covenants of 86% of all employers
 - combined with the employer's covenant, involves very little risk to pensioners
 - improves employer incentives to fully fund the pension scheme by encouraging a more profitable investment strategy by the pension fund
 - would free up funds to allow a modest increase in the PPF levy, which would surely cover risks at the above levels.
- Because a zero risk investment strategy massively distorts the market and hence damages a very wide constituency, including the pensioners themselves.

Employees' pension promises must be protected, and the risk to pensioners of losing their pensions should be small. However, the cost to the wider economy of saying that this risk must be zero should also be taken into account and some degree of trade-off therefore appears acceptable. For example, accounting principles which implied that pensioners could see a maximum of 2-5% shortfalls might be acceptable if:

- it allowed pension funds to pursue investment strategies that on average produced much higher returns;
- it allowed a sufficiently higher levy to the Pension Protection Fund to compensate for the small percentage risk of shortfalls; and if
- the benefits to the UK economy were very significant.

Of course, schemes with deficits can reach an irretrievable position if they are running off very fast in spite of investment returns. However, we should not take this as the norm and it is entirely legitimate for sponsors to mitigate the cost of their final pension promises through undertaking appropriate investment risk-taking, provided this is consistent with their ability to manage such risk-taking and meet the run-off of their pension liabilities. And we must not discourage such action through our accounting standards.

Some commentators have argued that money invested in pension schemes ultimately ends up invested in industry regardless, however this second order hypothesis is entirely unproven and not directly relevant. What is certainly true is that there is an absolutely visible first order effect of using a benchmark in any regulated financial industry and that makes capital costly to invest away from the benchmark. To use a benchmark that is not only distorted but which will also inevitably drive investment toward strategies that are not in the interest of the sponsors, their pensioners, nor the wider economy, therefore does not look to be a good idea.

The solution

The current benchmark falls short of the requirements described by the Accounting Standards Board in their recent consultation document 'The Financial Reporting of Pensions'. To quote from para 6.4

"In practice, pension liabilities often have to be estimated by discounting expected future cash outflows, since there is at present no active market for the pension liabilities. Present value is a very useful measurement method as long as we know what the present value that results from the calculation is intended to represent. A present value measurement of future expected payments of pensions would be equal to what the market price would be if markets were efficient and at equilibrium; in this situation market value and "run-off" value might be expected to be equal. But as long as there is no active market in pension liabilities, the values will differ. Consideration of an appropriate measurement objective, or premise of value, should give us more insight into what is an appropriate discount rate."

We would argue that the current fixed interest markets are not in equilibrium – at least by historical and other measures - and the ASB proposal fails its own criteria. Whilst some might attempt to argue with this view, the fixed interest markets can only be construed to be in equilibrium in the same way as a see-saw with one occupant.

A debate on the correct way to measure pension liabilities is needed. No accounting standard will be perfect. But it is clearly absurd that accounting defined deficits fluctuate wildly (tens of billions of pounds per week in these markets) when the reality is that nothing fundamentally has changed. Pension scheme economics change slowly over time and their measurement should reflect this. The current benchmark suffers from these problems and needs to be changed.

It is vital that the revised measurement system works off a robust benchmark. A financial benchmark only works when it is either an absolute benchmark (such as 0%, 1%, 2% etc.) or is

of such deep liquidity relevant to the investment pool it is benchmarking that it is unaffected. In other circumstances, a benchmark security will be distorted because it is the benchmark, with potentially severe consequences.

A Proposal

To start the debate we put forward the following proposal and invite others to comment and improve on it. The proposal is to change the benchmark to one that is acceptable, less likely to be distorted and will encourage pension schemes to invest in assets with the appropriate risk reward profile for their liabilities. It is as follows:

1. Liabilities of up to 20 years should be discounted using the actual LIBOR yield curve plus a spread equivalent to the average spread of a large basket of bonds with 0-20 year maturities and average AA ratings over the last 10 years. This spread should be a number (not a security or even a published basket of securities) reset and published [annually] by the regulator with appropriate advisers. [The spreads could vary at each duration].
2. Liabilities of more than 20 years should be discounted using the average of 0-20 year LIBOR plus the same spread as 1.
3. The inflation benchmark should be the actual curve derived from Index-Linked gilts/Inflation Swaps up to 10 years. After 10 years it should be the mean of the 0-10 year average inflation number and the Bank of England Target (unless the Bank's mandate has been changed).
4. Trustees should be instructed to pursue diversified investment strategies based on the assumption that additional capital will only be required if the *average* risk of the scheme is perceived to be higher than AA.
5. Although it is not the subject of this paper, mortality assumptions should be compulsorily moved to take account of most recent data and published clearly.

While the above-suggested benchmarks could be adjusted, it is critically important that the final choices are intentionally designed to be both crystal clear and very resistant to distortion. It is also imperative that scheme actuaries and trustees are instructed that these are the correct benchmarks and that discretion to use others is removed. Ideally, actuaries and trustees need to be specifically prevented from using very long-dated illiquid benchmark securities (longer than say 30 years).

Conclusions

Enormous demand for long-dated inflation-linked assets by UK pension funds and very restricted supply is contributing to an extreme technical distortion of financial markets. The ASB's existing benchmark for valuing pension liabilities, both contributes to this distortion and incorporates the distortion in the way it requires pension scheme liabilities to be valued. The ASB's current proposals are likely to exacerbate this situation.

The impact of this is to inflate the size of UK's Defined Benefit Scheme liabilities by circa £290 billion compared to fair value, which in turn deprives the UK of £290bn of investment, damaging the economy and exacerbating the current financial crisis. It also deprives the Treasury of approximately £90bn of tax revenue. Unless addressed, it will get worse.