

When accounting standards are correct in theory but dangerous in practice

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I know that writing "IFRS 17 Insurance Contracts" will make most readers' eyes glaze over. However, buried in the standard is a perfect example of how standard setters' desire to be theoretically correct can lead to accounting standards that are dangerous in the real world.

Required common understanding

Before looking at the standard, I want to ensure that all readers share a common understanding of the basics. To simplify, I avoid the details you encounter with real insurance companies.

Assume that an insurance company's year-end is 31 December 2020. On the morning of that day, for a price of £150, it sold an annuity contract under which it is obliged to make just two payments to the customer:

- £100 on 31 January 2021
- £100 on 31 December 2070

The insurance company invests the £150 in some investment assets, say quoted shares or bonds. It has no other assets or liabilities. (If you insist that it must have some share capital, assume that is an ignorable 1p!)

What does the company's 31 December 2020 balance sheet look like? How about:

Assets	£150.00
Liabilities	(£200.00)
Net assets (negative)	(£50.00)
Shareholders' funds (deficit)	(£50.00)

A Victorian might have accounted as above. However, we know that the above balance sheet is nonsense.

The obligation to pay £100 on 31 January 2021 is not the same as the obligation to pay £100 on 31 December 2070, so adding them together to show total liabilities as of 31 December 2020 of £200 is not valid.

How onerous on 31 December 2020 is the obligation to pay £100 in 50 years' time on 31 December 2070? The slightly unsatisfactory answer is that "it depends". What it depends on is the discount rate.

Most of us will remember the compound interest formula from school:

$$\text{Future Value} = \text{Present Value} \times (1 + \text{rate})^{\text{Time}}$$

In this case "rate" is the constant periodic compound interest rate applicable throughout the entire 50-year period.

If we use 5% per year for the rate, then with some simple maths:

$$\text{Present value} = £100 / (1 + 0.05)^{50} = £8.72.$$



The 31 December 2020 balance sheet is then as follows:

Assets	£150.00
Liabilities	(£108.72)
Net assets	£41.28
Shareholders' funds	£41.28

On the other hand, if the interest rate is 0.01% per year, then we calculate:

Present value = $£100 / (1 + 0.001)^{50} = £95.13$

On this assumption, the 31 December 2020 balance sheet is as follows:

Assets	£150.00
Liabilities	(£195.13)
Net assets (negative)	(£45.13)
Shareholders' funds (deficit)	(£45.13)

This gives a very different picture.

With this common understanding, we can now turn to IFRS 17.

Insurance company investment assets

Accounting for investment assets, such as listed shares or bonds, where there is a proper market, is straightforward. Put them in the balance sheet at market value, referred to in accounting standards as the "fair value". This comes from IFRS 9 Financial Instruments, paragraph 5.1.1.

The £150 used in the example is assumed to be the market value or fair value of the investments. Much more challenging is computing a balance sheet figure for the liabilities.

What IFRS 17 says about discounting long-term liabilities

The starting point is paragraph 36 of IFRS 17:

"An entity shall adjust the estimates of future cash flows to reflect the time value of money and the financial risks related to those cash flows, to the extent that the financial risks are not included in the estimates of cash flows. The discount rates applied to the estimates of the future cash flows described in paragraph 33 shall:

- a. reflect the time value of money, the characteristics of the cash flows and the liquidity characteristics of the insurance contracts;*
- b. be consistent with observable current market prices (if any) for financial instruments with cash flows whose characteristics are consistent with those of the insurance contracts, in terms of, for example, timing, currency and liquidity; and*
- c. exclude the effect of factors that influence such observable market prices but do not affect the future cash flows of the insurance contracts."*

"An entity shall adjust the estimates of future cash flows to reflect the time value of money and the financial risks related to those cash flows" is telling you to discount the future payment obligations. The obligations are in sterling, and fixed definite obligations. Accordingly, one would normally look at sterling gilt yields to find the discount rate.

A gilt such as Treasury 2.5% 2065 pays you £2.50 each year, and then £102.50 on the redemption date.

What you actually want is a discount rate to discount a single £100 payment due on 31 December 2070. If you know the prices of enough gilts, or look up the prices of gilt strips, you can compute what is known as the zero-coupon spot rate to discount from 31 December 2070 back to 31 December 2020. The details

would unduly lengthen the article. The key point is that normally one just discounts at the risk-free rate.

However, paragraph 36(a) tells you to reflect “the liquidity characteristics of the insurance contracts”. This is further explained in Appendix B paragraph B79:

“B79

For cash flows of insurance contracts that do not vary based on the returns on underlying items, the discount rate reflects the yield curve in the appropriate currency for instruments that expose the holder to no or negligible credit risk, adjusted to reflect the liquidity characteristics of the group of insurance contracts. That adjustment shall reflect the difference between the liquidity characteristics of the group of insurance contracts and the liquidity characteristics of the assets used to determine the yield curve. Yield curves reflect assets traded in active markets that the holder can typically sell readily at any time without incurring significant costs. In contrast, under some insurance contracts the entity cannot be forced to make payments earlier than the occurrence of insured events, or dates specified in the contracts.”

The published application guidance for IFRS 17 tells you what this means in greater detail in paragraph BC194 below:

“BC194

The Board concluded that, in principle, the discount rate for a group of insurance contracts should reflect the liquidity characteristics of the items being measured. Thus, the discount rate should equal the return on the underlying non-tradable investment (see paragraph BC193(a)), because the entity cannot sell or put the contract liability without significant cost. There should be no deduction in the rate for the implicit premium for the embedded put option, because no such put option is present in the liability.”

Our insurance company’s obligations, £100 payments due on 31 January 2021 and on 31 December 2070, are completely fixed. They cannot be accelerated, and the insurance company presumably cannot transfer them away without significant costs. They clearly fall within the definition of being illiquid.

Paragraph BC 193 of the application guidance goes on to explain in more detail:

“BC193

Discussions of the time value of money often use the notion of risk-free rates. Many entities use highly liquid, high-quality bonds as a proxy for risk-free rates. However, the holder can often sell such bonds in the market at short notice without incurring significant costs or affecting the market price. This means that the holder of such bonds effectively holds two things:

(a)

a holding in an underlying non-tradable investment, paying a higher return than the observed return on the traded bond; and

(b)

an embedded option to sell the investment to a market participant, for which the holder pays an implicit premium through a reduction in the overall return.

In contrast, for many insurance contracts, the entity cannot be forced to make payments earlier than the occurrence of insured events, or dates specified in the contract.”

Coming back to our illustrative gilt, Treasury 2.5% 2065 is of course a liquid investment. You can sell it any day you want.

The above guidance says that you cannot use the yield on such gilts to arrive at your discount rate. You first have to estimate how much of the price of Treasury 2.5% 2065 consists of the value of the theoretically embedded option within the gilt to sell it.

Treasury 2.5% 2065 was quoted on 30 December 2020 (I could not find a 31 December price) at 107.05. i.e., £100 face value of the gilt would cost you £107.05.

Suppose the Government offered to issue you with a special Illiquid Security 2.5% 2065. This also pays £2.50 per year for every year until 2065 and £102.50 on redemption in 2065. There is a special condition which is that once the security is issued to you, it can never be sold; it can be inherited, but your heirs also cannot sell it; it must be held until maturity. That is what being illiquid means.

You would never pay the Government £107.05 to buy £100 face value of Illiquid Security 2.5% 2065. Why should you when you can buy Treasury 2.5% 2065 for the same price, and you can sell that any day you want. You would only pay less for Illiquid Security 2.5% 2065.

Assume you would only pay £90. The yield to maturity of Illiquid Security 2065 would be higher than the yield to maturity of Treasury 2.5% 2065, since both have identical future cash flows, but Illiquid Security 2.5% 2065 only costs £90 while Treasury 2.5% 2065 costs £107.05.

That means when you discount your insurance liabilities based on the discount rate derived from Illiquid Security 2.5% 2065, you compute a lower number for the 31 December 2020 balance sheet than if you discount based on Treasury 2.5% 2065.

That is what the language of IFRS 17 and the related application guidance is telling you to do.

Why is this a problem?

Gilt securities exist in the real world, and you can compute their yield to maturity, and compute discount rates. Other people can check them, since everyone can look up gilt prices.

There is no such thing as Illiquid Security 2.5% 2065, and the Government is never going to issue it because it would cost the Government more in interest payments than normal gilts which can be bought and sold.

You may argue that if Illiquid Security 2.5% 2065 did exist, its price would be £90 (as assumed above), but there is no way of confirming that. Accordingly, the standard forces insurance companies to use discount rates that are essentially matters of judgment, in place of discount rates that are directly computable from observed market prices.

Does this matter?

The above discussion looks theoretical. However, the real-world implications are very large, because insurance company liabilities are very large.

I looked at the 31 December 2019 balance sheet of a large UK-listed insurance company. Its accounts do not quantify the impact of using calculated liquidity adjusted discount rates instead of rates from the gilt yield curve. However, by consulting the regulatory return which the company also has to file, I estimated that the impact of the adjustment was of the same order of magnitude as the entire balance sheet value of shareholders' funds.

What should be done?

IFRS 17 is a global standard. After leaving the EU, the UK has set up its own Endorsement Board to officially adopt international accounting standards for use in the UK. The EB cannot modify the standard; only accept or reject it in whole or in part.

However, I would like the EB to require all insurance companies using IFRS 17 to add the following additional disclosures in their accounts:

- A. Quantum of the insurance liabilities as stated in the balance sheet using discount rates computed using IFRS 17.
- B. What the quantum of the insurance liabilities would have been using discount rates derived from the prices of risk-free government securities denominated in sterling, dollars, euro, etc (as appropriate) without any IFRS 17 adjustment of those rates for liquidity.

C. The difference between A and B.

This would be very useful information for shareholders, and it is not something shareholders can ever compute for themselves. It would allow each shareholder to assess how well capitalised they think the insurance company is.

If the Endorsement Board asked for this, I am confident that insurance companies would comply, even though the disclosure is not required by IFRS 17.

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