



Making the most of index linked opportunities

Paul Stanworth of The Royal Bank of Scotland looks at the index-linked market and discovers a lucrative investment route worth considering.

With the start of the year 2000, the UK saw the first regular issuance in the index-linked corporate bond market. Starting with an equity-for-debt swap by BG Transco at the end of 1999, the market has seen issues from utilities, retailers, projects and supranationals. The deal flow has illustrated the capacity in a market that had seen only sporadic issuance at best and whose total market capitalisation consisted of a handful of old issues.

The market is gathering a critical mass and, with the beginnings of secondary trading in these instruments, companies should consider the index-linked market as their third alternative to fixed and floating. This article looks at the embryonic index-linked market and considers the sectors that are candidates for the future.

Back to basics

The serviceability of debt and the stability of credit rating ratios draws attention towards the correlation between revenues and interest costs. Ideally, these would be highly correlated to avoid volatility in net earnings. So what types of borrowing are available, and what is suitable? For some time, only two types of finance were available: fixed and floating. But more recently, index-linked borrowing has become an option.

To consider the suitability of index-linked debt for a borrower we consider revenue as a function of sales volumes and price levels, assuming stable profit margins, such that:

$$\text{Change in revenue} = \text{change in price level} \times \text{change in sales volume}$$

A well-hedged or highly correlated lending vehicle would exhibit a close

The market is gathering a critical mass and companies should consider the index-linked market as their third alternative to fixed and floating

relationship between the change in revenues to the changes in interest costs:

$$\text{Change in revenue} \propto \text{change in interest costs}$$

Or alternatively:

$$\text{Change in interest cost} \propto \text{change in price level} \times \text{change in sales volume}$$

So, sectors where the change in price multiplied by change in sales volumes are highly correlated to RPI would be an



Paul Stanworth

ideal candidate for index-linked issuance.

Which sectors are index linked candidates?

Following the Bank of England's independence, research was conducted into the effectiveness of interest rates in controlling inflation and economic growth rates. The research showed that the economy and inflation lagged the base rate changes and suggested that economic activity can be depressed for up to three years after the interest rate moves have been reversed. Furthermore, an earlier study looked at which sectors were affected and found that the least interest-sensitive sectors were:

- food;
- agriculture;
- drink; and
- tobacco.

Food retailers

Figure 1 looks at the relationship of interest rates and the value of food store sales. It shows low correlation clearly between the revenues (using the value of food sales as a proxy) and the interest rate levels.

Since the value of food store sales equates to sales volumes multiplied by prices, we have broken down the components. First, price levels. There is a good correlation between RPI and RPI (food only, see Figure 2). This suggests price changes for food retailers, at least, will correlate with RPI.

But what about sales volumes? The Bank of England research suggested that volumes were relatively insensitive to base rates. Figure 3 shows that the sales volumes are quite stable. Once again, this is intuitively reasonable since these products are 'necessities' and are needed

FIGURE 1



FIGURE 2

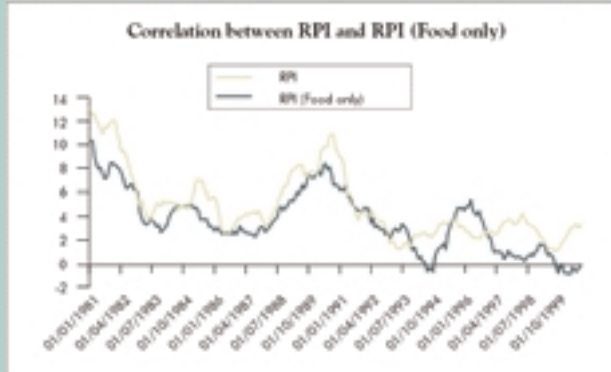


FIGURE 3

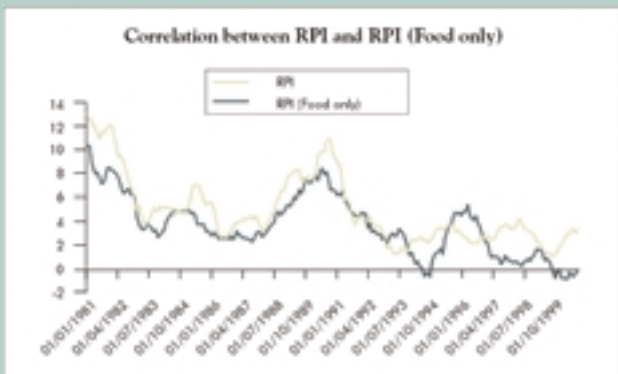


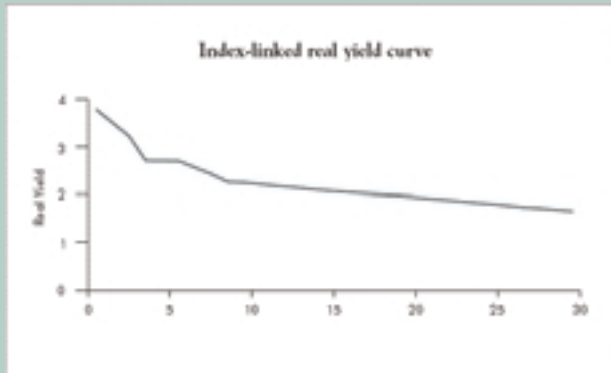
FIGURE 4



FIGURE 5



FIGURE 6



whatever the stage of the cycle.

Therefore, combining the sales volumes in addition to the price levels (as above) gives sales values as a proxy for revenues. When compared with the levels of RPI, the relationship is close and far more so than with base rates (see Figure 4).

Other sectors

Other obvious candidates for index-linked borrowing are the UK-regulated industries. The main reasons for this are

as follows:

- their pricing regulation is usually linked to an 'RPI - X' formula. For instance, the regulatory reviews by OFWAT and OFGEM for the water companies and the RECS; and
- part of the revenue formula that requires stability is the volume of sales. With regards to electricity and water, the domestic demand should be relatively inflexible. In addition,

these industries have almost impenetrable barriers to entry.

Taken together, these two points suggest revenues should correlate well with RPI (as shown in Figure 5).

There may be further examples, in addition to food retailers and UK-regulated utilities, as highlighted in the Bank of England's report (for example, tobacco companies).

However, there are significantly more

candidates for issuance than there are issues in the market.

Saving the inflation risk premium

In addition to efficient hedging, companies may also be able to save further costs because of a number of inefficiencies within the conventional and index-linked gilts market, known as the inflation risk premium (IRP).

Over the life of an index-linked gilt, the real return will broadly equate to a conventional gilt of the same maturity at a certain 'average inflation rate'. This average inflation rate, or 'break-even inflation rate' (BEIR), can be estimated closely using the simple formula:

$$\text{Conventional yield} = \text{Real yield} + \text{BEIR}$$

It would be intuitive to expect the BEIR to equate to the long-term expected inflation rate. Since the 1997 legislation granting the Bank of England independence, it is reasonable to expect this to be close to its RPI-X target of 2.5%. However, the observed rates (that is, conventional yield less real yields) are slightly higher:

Term	BEIR
10 year	2.61%
15 year	2.62%
20 year	2.57%
30 year	2.62%

The difference between the target 2.5% inflation rates and the observed rates of 2.57–2.62% are the inflation risk premia (IRP). These premia (while difficult in practice to observe until maturity) exist to compensate investors who hold conventional gilts against the risk that inflation exceeds the target of 2.5%. The greater the risk, the greater the IRP. Therefore, a conventional gilt yield can be broken down into three main components:

$$\text{Conventional yield} = \text{Real yield} + \text{Expected inflation} + \text{IRP}$$

However, conversely, what compensates investors is funded by the borrowers. If you believe the Bank of England will meet the inflation targets, on average, then issuing index-linked bonds can save the IRP on the benchmark gilt over the life of the bond – representing a real saving.

Is this a good time to issue?

The downward sloping index-linked real

The prospects for an acceleration of non-gilt index linked ownership look like a real opportunity in the bond market

yield curve has persisted since late 1998. The wisdom surrounding this phenomenon is that this is due to the minimum funding requirement (MFR) and the sharp reduction in the Government's borrowing requirement and not attributed to rational expectations of falling long-term real interest rates (see Figure 6).

Compared with the real interest rate commanded on 30-year dollar TIPS of more than 3.52%, the UK real rates look anomalous. The review of the MFR has contributed to this. The consensus among market participants is that the MFR will be at least broadened to include corporate bonds, if not actually abolishing the test altogether. This may reduce demand for both conventional and index linked gilts as investors search for yield which is likely to cause real interest rates to increase.

Another contributing factor is that the Treasury plans to aim gilts supply predominantly towards long-dated and index-linked gilts. Index-linked sales are planned at £3.5bn, representing 29% of gilt sales in the financial year 2000-2001, with the aim of satisfying what is viewed as an acute shortage of assets versus demand.

It is *unlikely*, therefore, that these low, real interest rates will persist in the short to medium term and the UK is probably going to see a return of real interest rates to higher global levels of 3% on average.

It is likely that the trend in real interest rates will be upward and there should be some urgency if borrowers wish to issue at these gilt levels. In addition, due to the shape of the real yield curve, the longer the maturity, the better – particularly over ten years.

Are there credit constraints?

There are some limits to the credit rating of index-linked issuers, because of the increasing debt burden in nominal terms. Investors in index-linked corporate bonds

are predominantly insurance and pension funds.

The latter are particularly keen on higher quality issuers. Both investor bases are likely to demand high ratings due to the 'balloon' payment on redemption and, therefore, this is a market for investment-grade issuers only. This is borne out by the distribution of ratings within the index-linked non-gilts market

Rating	Number of issues
AAA	44%
AA	11%
A	30%
Not rated	15%

This may change in the future, such that lower quality borrowers may access this market.

However, the evolution is likely to be slow given the current investment constraints of the main investors.

Opportunity knocks

The main arguments for index-linked borrowing from investment grade corporates are:

- a number of, but not all, sectors will find that their revenue is best hedged through RPI-linked borrowing;
- these borrowers can save the benchmark gilt IRP by issuing index-linked bonds; and
- should a borrower wish to issue, it should be at longer maturities to take advantage of the yield curve, while it persists.

The opportunities for growth in the corporate index-linked bond market are substantial. The ratio of the conventional government and corporate bond markets is about 1.5:1, whereas the same ratio for the £70bn index-linked gilts market is roughly 18:1.

This suggests that there is huge potential for investors to switch from gilts to corporates – supply permitting.

With the current trend among pension funds to increase their allocations of corporate bonds out of gilts, the prospects for an acceleration of non-gilt index linked ownership look like a real opportunity in the bond market. ■

Paul Stanworth is Credit Strategist at The Royal Bank of Scotland.
paul.stanworth@rbos.com
www.rbsmarkets.com