Financial futures can help cash management

Derivative fund structures have a valuable role to play in treasury management, argue Stuart MacKenzie and Christopher Lee of City Fund Management.

This year has brought us the debacle of the hedge fund collapse. This has, of course, added to the perception that anything related to derivatives, whether a structured product, a financial future or an option, is inherently risky and akin to the roulette table. Those of us involved in these product areas know only too well that this is an illusion.

The problem is a lack of control and understanding of risk rather than an intrinsic weakness in the products themselves. The unacceptable level of losses sustained in funds such as LTCM are an illustration of this lack of risk management control. This is no reason for ignoring or spurning the value of derivative-based funds and products; it is a reason for fully understanding the risks involved.

The reality is that many market participants take as much, if not more, risk in their underlying product exposures than they would by utilising a derivative-based product with the appropriate risk profile. The primary purpose of derivatives, as readers will know, is to control risk and have the exposure you want, rather than one you do not.

It is this question – how to use financial futures to provide enhanced returns from cash management, in a controlled risk environment – that we address here. Market liquidity, transparency, reduced credit risk, access to funds and the ability to be long or short of the market are just some of the ingredients that can be used in creating an effective cash management product.

This article seeks to demonstrate how this can be achieved and how the corporate treasurer can take advantage of the opportunities such a fund structure presents.

Leverage, volatility and control

The risk profile of the derivative futures contract is no greater than that of its underlying cash equivalent. The risk profile relates to the leverage that can be achieved for minimal up-front cost – in other words, owning more of the underlying product than you would of the product itself.

The reality is that, in order to obtain an enhanced yield, additional risk of some sort has to be assumed. The key is understanding the additional risks and believing them to be acceptable relative to the anticipated return.

If we assume that the 'risk-free' interest rate return in the UK is UK government debt, then we can make assumptions about the relative risks associated with other investment types. The UK clearing banks, for example, would be considered as systemic to the UK, and, in credit risk terms, represent the next best level of risk – and so on. The next judgement to make is whether the returns achievable from an asset with a higher risk profile compensate for this higher level of risk.

So it is with structured products using financial futures. Much is made of the impact of leverage when utilising these products for investment purposes. This is not, of course, the only element, and, arguably, not even the most important. The investment in a financial futures product is in the degree of price change, up or down.

Leverage is the multiple effect of a number of investment contracts greater than the underlying cash investment. It is important to compare apples with apples and for that reason other factors such as volatility of returns, market correlation and liquidity must also be taken into account.

Any cash management product must have certain characteristics, security of capital, immediate access to funds and a solid risk management structure. Combining the investment of cash balances with the yield enhancement capabilities of financial futures can create an attractive cash management product.

However, it is crucial that all the elements meet the above criteria and, most importantly, the downside associated with the yield enhancement capability is both understood and realistic.

The key elements

It is important with any investment product to break down the elements both individually and collectively. *Figure 1* illustrates the cumulative monthly cash return over a three-year period compared with an enhanced yield using financial futures.

This example is based on an average 99.5% of the total cash being invested

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in traditional high quality short term investments. An average 0.5% was utilised for short term trading transactions in financial futures. This represents the enhanced yield return.

This is compared with 100% of funds being invested in traditional high quality short term investments. In both cases the cash investment yield is assumed at one week Libor.

The enhanced yield return is based on actual trading results. We have listed the risk profiles for both cash and futures elements, with those of the former being common to both portfolios.

The maturity profile of the cash investments is determined by the client requirements for availability of funds. For all practical purposes, it is instant access. Credit ratings are defined by the client. The primary risks here are shifts in the yield curve and credit exposure.

The financial futures risk profile is the same in terms of the yield curve, and where credit risk is concerned the additional exposure is the London Clearing House for margin calls. The yield enhancement is created through short term trading in the futures markets.

In our example, these yields have been achieved primarily in interest rate based financial futures on the European exchanges, primarily LIFFE.

Consistency of performance

It is vitally important that the style of trading is consistent with the cash management product profile. For this to be the case, trading activity must be very short term, in this example mainly intra-day, with occasional positions being held for no more than a few days.

This means that there should be no attempt to capture long-term trends, as this would create difficulties in providing instant access to funds. It would also create greater volatility of returns. The objective within the product is to demonstrate consistency of performance through short term trading. In this way there is little or no correlation with other investment asset classes.

Risk control is paramount; stop losses, limits on margin to equity and adequate client reporting are all crucial, not only in setting the parameters for the client but also to demonstrate trading discipline.

The advantage of financial futures is their transparency through daily mark-to-market. The client can, and should, insist upon daily reporting that enables them to satisfy themselves that the risk management procedures are in fact being followed.

In our example, no more than 0.5% of total funds (0.5% margin to equity) on average was used for trading margin. This margin reflects the underlying price risk on outstanding positions.

In order for this product structure to work, the client should look for a proven stability of return on a monthly basis illustrated by a low standard deviation, combined with a low margin to equity – in other words, a steady return with reduced risk. When compared to a standard managed futures fund, the risk is substantially de-geared in terms of margin to equity. The managed futures fund industry utilises an average 15% margin to equity – some thirty times larger!

The message here is that this product is only viable with a certain style of financial futures trading and discipline. The investors must satisfy themselves that these are present and have been sustained over time before making an allocation.

The example we have shown has a proven track record over the last three years delivering an annual yield enhancement of over one hundred basis points, after all fees. The associated risks are quantifiable as a result of the structure, controls and risk management embedded in the product.

FIGURE 1

Cash investment – risk profile
- Interbank
- Top credit rating
- Maturity: overnight – one week
- Interest compounded
- Instant access subject to maturity

Financial futures – risk profile
- Daily mark-to-market
- Short-term trading: Intra-day – one week
- Stop loss at deal entry
- Daily client reporting
- Returns quoted net of fees
- LCH credit risk
- Margin to equity
- Total transparency
- Instant access

Conclusion

A financial futures yield-enhanced cash management product is no more risky than a foreign exchange position; in many cases less so. However the investor must be comfortable that the following elements are in place:

- a proven track record;
- trader profiles;
- stop loss limits;
- appropriate margin to equity profile;
- robust risk management controls;
- daily reporting;
- instant access to funds; and
- appropriate trading methodology.

Assuming that a thorough due diligence is carried out and that the investor is satisfied that there is adequate downside protection, this product is risk-efficient and can provide attractive risk-adjusted returns.

The final attraction of this product structure is the nature of the fees. In our example these are performance driven and only payable on a positive performance; there are no additional management fees. All other transaction charges are for the account of the client in terms of fund transfers and so on. It should also be noted that the returns quoted in our example are after all performance fees and charges. ■

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