

The Killer App For Single Stock Futures

Let's construct our own little SAT test:

Outright directional trade is to swap as:

- a. Tip is to iceberg
- b. Tail is to dog
- c. Tick bird is to rhinoceros
- d. All of the above

The answer, of course, is 'd,' all of the above. The fixed income, currency and physical commodity markets are dominated not by the outright buying and selling of goods, which both ties up and risks a lot of capital but by swap transactions.

Swaps come in various forms. The one that stands ready to turn the world of equities on its ear is the total return swap.

At its most basic, any swap is simply an exchange of cash flows and risk profiles. Swap participants do not exchange full payment. Instead, payments are made on periodic settlement dates, and default only risks the amount of the payments, not the much larger amount of the underlying notional principal.

The key words are "fixed" and "floating." A payment is fixed if its price is known and remains invariant over the life of the trade. All futures contracts settle into a fixed price over the delivery period, and all stock prices are fixed at the moment the trade is executed. A price is floating when it remains to be determined. This is quite common in physical markets with continuous delivery. Most natural gas contracts, for example, are based on prices floating with an index such as *Gas Daily* or *Inside FERC*. This is why the recent revelations of gas traders submitting phony prices to these reporting services were so damaging to the rapidly disappearing energy trading business.

Swap participants fall into two categories, fixed-rate payers and floating-rate payers. In a bond swap transaction, a fixed-rate payer borrows at a fixed rate and lends at a floating rate; he is said to be short the bond and long the swap. This position will profit if interest rates rise. The floating-rate payer does the opposite, borrowing at a floating rate and lending at a fixed rate; he is said to be long the bond and short the swap. This position will profit if interest rates fall.

Let's Go Do The Swap

With the advent of single stock futures, we should expect the equity swap market to grow and take its rightful in the multi trillion-dollar swap world. Why? Futures and swaps have a symbiotic relationship. The fixed leg of a swap frequently is set as the present value of the futures forward curve for a given market. Swap traders use strips of futures to either fix their floating position or to float their fixed position. This is why the eurodollar market can trade close to one million contracts per day with significant activity in the back months without interest rates changing much at all.

By contrast, the federal funds contract, which is employed for the standard hedging function of locking in a borrowing or lending rate for the following month and for speculating on the Federal Reserve's next move, has a steady but unspectacular volume in the tens of thousands each day.

Total Return

Stocks can provide a return to investors in one of two ways, capital gains when the asset is sold, or an ongoing stream of dividends. The tax code creates a powerful incentive for firms to minimize dividend payouts. The total return stream is shifted toward capital appreciation, which lengthens the effective duration of a stock in the same manner as lower coupon yields increase the effective duration of a bond.

The total return for a zero-dividend stock is easy to calculate; it is simply the price appreciation over the holding period. The calculation of total return for a dividend-paying stock involves making assumptions as to reinvestment costs, including both commissions and bid/ask spreads, whether the dividend is received in cash or reinvested in the stock, and what the effective tax rate is for the dividend.

Lost in the euphoria most investors feel while holding an appreciating stock is the ugly reality their risk is increasing as well: Unless you sell some of that stock and pay the appropriate capital gains tax, you are playing a poker game with your entire stake at risk each hand.

Taxes

Taxes create trading opportunities. A large number of institutional investors, such as pension funds, are tax-advantaged, as are offshore hedge funds. These accounts should prefer to receive their returns more in dividends than in capital appreciation as the dividend stream is untaxed and the lower capital gains tax rates do them no good. Moreover, the dividend income both lowers the risk of holding the stock and can be reinvested at the holder's discretion.

The setup is now clear: A tax-advantaged investor should want to swap capital appreciation for current income. If a low- or zero-dividend stock is appreciating rapidly in price, as many tech stocks did in the late 1990s, the total return may be quite high. This may delight risk-seeking investors in high tax brackets, but not tax-advantaged investors. The swap counterparty, the fixed-rate receiver, may be a conservative investor with large current income needs, such as a life insurance company.

A total return swap monetizes capital appreciation. Our tax-advantaged investor can get paid on the period's total return even if the stock is neither sold nor pays a dividend. The downside of this position, of course, is that he will have to pay the insurance company if the stock's total return falls below the low end of the target range. Effectively, our tax-advantaged investor is long an out-of-the-money call and short an out-of-the-money put and is paying a LIBOR+ premium to the insurance company as part of the swap.

In return, the insurance company will get paid a return over LIBOR. Its risk is now converted from being long equity to being long a high-yield bond plus a long put/short call option combination opposite of the tax-advantaged investor.

Both parties can both price this swap and hedge their risk by buying and selling a strip of single stock futures. The insurance company can buy the strip to hedge paying against a positive total return, and the tax-advantaged account can sell the strip to hedge paying against a negative total return. If other financial markets provide a valid basis for comparison, we should see numerous strip trades back and forth for strips of single stock futures.

The flurry of activity will provide liquidity for individual traders in single stock futures just as bond swaps provide liquidity in T-bond futures. Total return swaps therefore will be the "killer app," to borrow from the technology lexicon, for single stock futures.