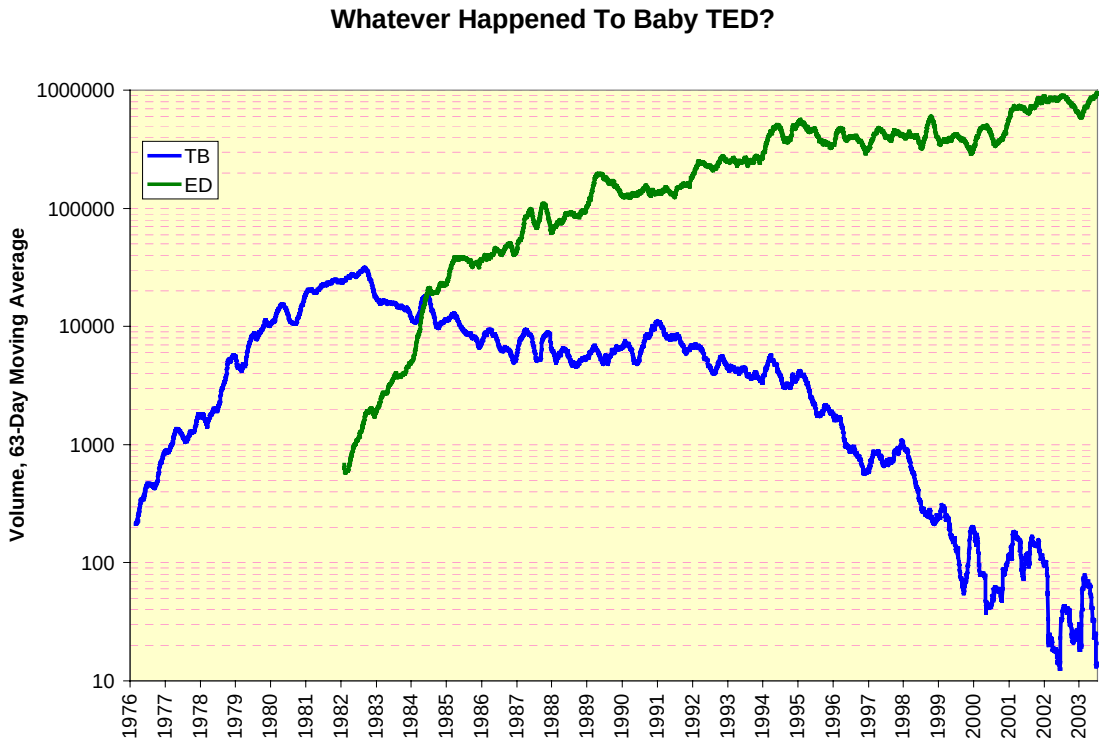
See TED Spread

If Rene Descartes were to make a special guest appearance on one of the many financial talk shows, he might sum up the futures trader's view of the world as "It is exchange-traded, therefore it is." That view, perhaps sufficient in the early days of both financial futures and modern risk management, has been inadequate for years.

No sector of the futures industry has been more vibrant than short-term interest rate (STIR) futures, but even that sector has had its share of mishaps. Consider the Treasury bill future at the Chicago Mercantile Exchange and how its long-term volume history compares to that of the eurodollar future.



Eurodollar futures did not surpass T-bill futures in volume until the middle of 1984, more than two and one-half years into their existence, and this was done on rolling three-month (63 trading days) volume of less than 20,000 contracts per day. In retrospect, the launch of eurodollar futures started to cannibalize T-bill future volume almost from the start, and while T-bill volume remained constant between 5- and 10,000 contracts per day until the early 1990s, the action clearly had shifted.

The origins of this shift are not at all mysterious. The early days of STIR futures corresponded to a period of both great interest rate volatility and of general financial system stress. The original intent and purposes of STIR futures might have been to speculate on or to hedge against interest rate swings, especially once Paul Volcker became chairman of the Federal Reserve in 1979. Two other applications soon dwarfed the original, the pricing and hedging of interest rate swaps and the trading of the spread between T-bills and eurodollars, or the TED spread. The swap market, largely interbank or bank-to-corporate client, naturally looked to the LIBOR rate; banks can borrow and lend at LIBOR but not at the T-bill rate. Trading in the TED spread, the premium at which these very same banks and corporates paid for money relative to the government, gravitated to the cash market wherein very large sums can be traded at very low cost.

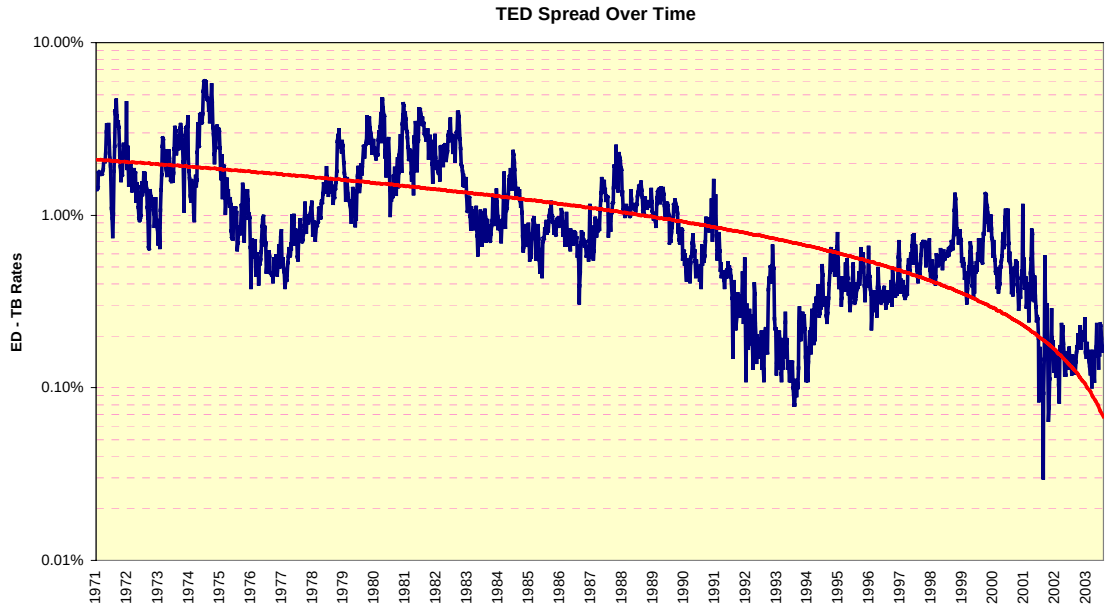
So while the TED spread trade flourished in the interbank world, it became increasingly invisible in the world of exchange-traded futures. However, the spread is readily visible in a number of venues, and it does convey a great deal of financial market information traders can use to their advantage.

A Brief History Of TED

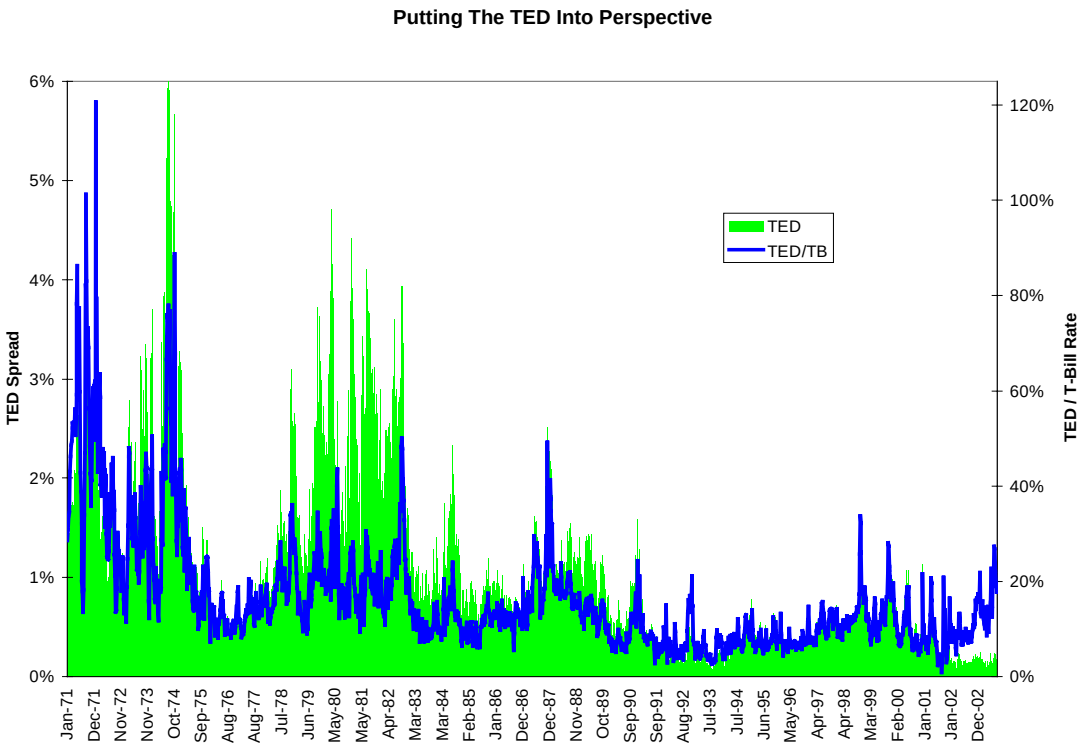
The TED is nothing other than a credit spread. T-bills have a single issuer, the U.S. Treasury, and they are defined as the risk-free rate. Eurodollars, by contrast, are certificates of deposit issued by any number of commercial banks outside of the United States. While there is a generic eurodollar yield based on LIBOR, each eurodollar CD carries the unsecured risk of the issuing bank. As no issuing bank has the credit rating of the U.S. Treasury, eurodollar yields always exceed T-bill yields. Whenever the global banking system gets into one of its periodic anxiety attacks for whatever reason, the TED spread widens.

On an absolute level, the TED has been declining fairly steadily over time, belying regulatory concerns over the increasingly complex web of interbank relationships. Nothing in the past quarter-century matches the mid-1970s highs in the TED associated with the long-forgotten collapse of the Franklin National Bank or the consistently high levels seen during the early Volcker years.

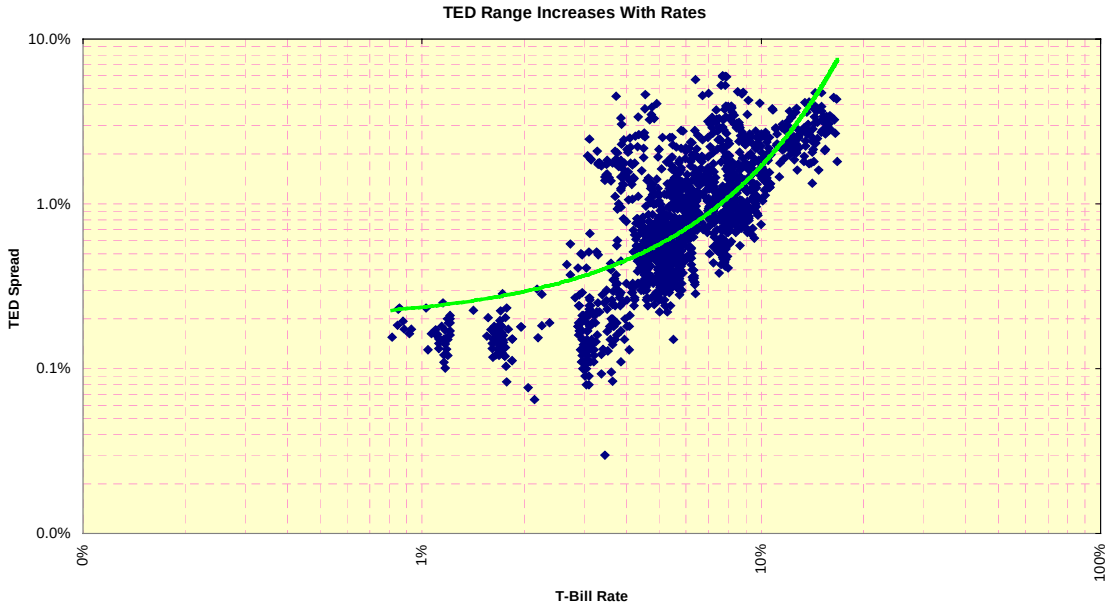
In deference to the 1976 start date of T-bill futures and the 1982 start date of eurodollar futures, we should note that weekly cash market eurodollar rates are available on the Federal Reserve's Web site going back to 1971. These cash market rates allow us to ignore the different methods of yield calculation for the two futures contracts; the T-bill future is calculated on a discount yield basis, while the eurodollar is calculated on an add-on yield basis.



Of course, the absolute level of the TED does not take the absolute level of T-bill rates into account. If we normalize the TED to the ordinal level of T-bill rates, a different story emerges. The high TED levels of the early 1970s, a period associated with the collapse of the Bretton Woods fixed exchange rate agreement and the first major devaluation of the dollar, were in some cases greater than the T-bill rate itself. Other events, such as the 1982 collapse of the Mexican peso, a seminal event in that it prompted Paul Volcker to abandon his high interest rate policy, stand out clearly. This decision ignited the 1982-2000 secular bull market in stocks. The 1987 stock market crash, the Persian Gulf War, the Russian default and collapse of Long Term Capital Management in 1998 all stand out as well. The historically low levels of the TED in 2002 and 2003 correspond to 45-year lows of T-bill rates. The TED rose as a percentage of the T-bill rate in this period, which confirms the opinion held by many that the low federal funds rate did nothing in itself to make bank credit more accessible.



In general, however, the TED increases exponentially with the underlying level of T-bill rates, as does its range. High T-bill rates often occur within the confines of an inverted yield curve, a situation stressful to banks who generally borrow at lower short-term rates to lend at higher long-term rates. As T-bill rates fall, the creditworthiness of global banks cannot fall at an equal rate, which leads to a compression of TED values at low interest rates.

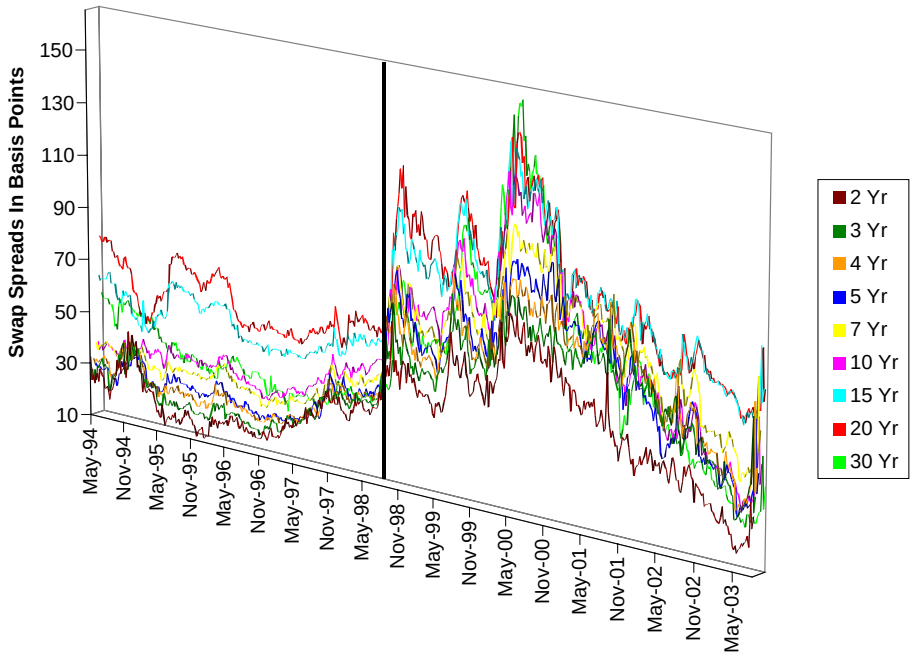


Moving Out The Curve

The TED discussed so far has been the 90-day money market spread. As global financing benchmarks have moved increasingly from a U.S. Treasury curve to a swap curve, longer-term TED spreads have assumed greater importance. While several exchanges have offered interest rate swap futures of different structures and tenors, none

of these futures has yet to capture a significant role in the hedging and pricing of the underlying swaps themselves. Once again, the focus will of necessity be on the actively quoted interbank market for swaps and swap spreads.

Swap Spreads Along The Yield Curve

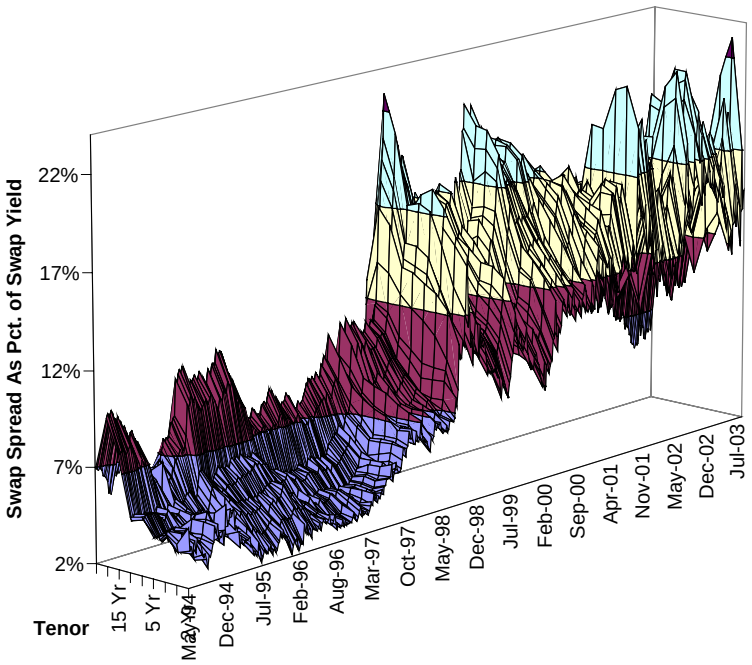


Term swap spreads remained at fairly consistent levels and had a well-behaved term structure between 1994 and the onset of the Russian crisis of 1998. Two-year TED spreads were lower than five-year spreads, etc. The 30-year swap spread was and is an exception to this relationship; swap activity is fairly low at this tenor. After 1998, swap spreads became far more volatile as the Greenspan Fed embarked on two episodes of activism, a tightening of the federal funds rate between June 1999 and May 2000, and then a series of thirteen rate cuts between January 2001 and June 2003.

The Federal Reserve has been blamed for keeping credit too loose during the final phases of the 1990s stock market bubble, but this accusation is not confirmed by swap spreads. The technology firms gorging on venture capital were unaffected by the Fed's rate hikes, but general credit conditions became tighter, not looser, during this period. Moreover, while swap spreads fell during the Fed's rate cutting of 2001-2003, they were quite slow in coming back to pre-1998 levels.

Just as was the case for the 90-day TED, the term TED spreads should be viewed on a normalized basis. If we normalize the term TED to swap yields, we can see just how much the relative price of credit for the corporate and banking sectors increased after 1998, and how they have stayed higher.

Pricing In Higher Risk



The TED may not be an exchange-traded instrument any longer, but it certainly exists and exists all along the yield curve. It still plays its original role of serving as a thermometer for the financial system, however, and it plays this role well. Nothing is more important to business than its cost of capital. If we start to re-enter an era of rising interest rates and inflation, the premium business has to pay for money relative to what the government pays will tell us when we will next see a "sweet spot" in the market, the next August 1982 heralding a new secular bull market.