

Interest rate spot and futures markets represent sensitive barometers of market conditions and sentiments of market participants. Recent years and months have witnessed a confluence of economic crises that are reflected in both the long- and the short-end of the yield curve.

Our intent is to highlight two spreads that reside on both the long- and the short-ends of the yield curve that have proven to be particularly interesting barometers of the general level of market risk. Specifically, the Swap-Treasury spread on the long-end of the curve; and, the 3-month LIBOR vs. OIS spread on the short-end of the curve.

**The Long of It** – A “swap spread” is a reference to the difference between the fixed interest rate associated with over-the-counter (OTC) interest rate swaps (IRS) vs. the yield associated with U.S. Treasury securities of similar maturity. This spread is a form of “credit spread” insofar as it represents a direct comparison between the private credit risks represented in IRS markets vs. public credit risks represented in Treasury markets.

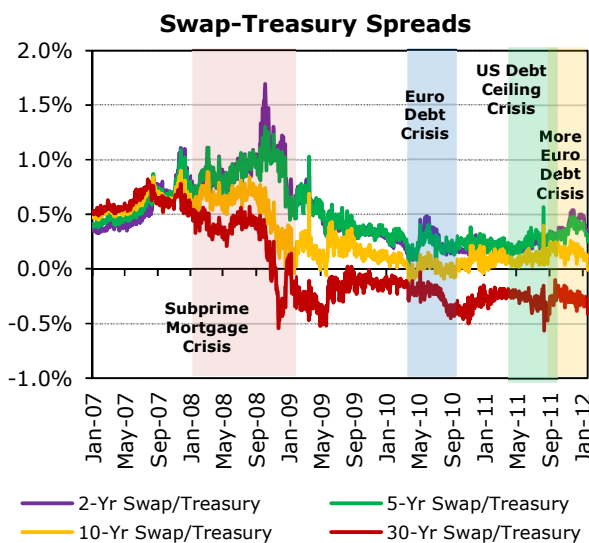
over Treasury instruments which reflect public credit risks or the so-called “risk-free” rate of return. But risk is a relative and frequently subjective issue. Certainly economic events such as last summer’s U.S. debt ceiling crisis culminating in a downgrade of U.S. long-term sovereign debt by Standard & Poor’s gives one pause to reconsider our historical assumptions. The subprime mortgage and ongoing European sovereign debt crises contribute to the concerns regarding public finances.

As such, we note that the 30-year swap spread has fallen into negative territory, flying in the face of the historical presumption that private credit risks and yields must exceed public risks and yields. Actually, all of these Swap spreads, found at various strategic points along the yield curve, have been impacted by these crisis situations. But only the 30-year swap spread has fallen so dramatically into negative territory and remained negative for an extended period.

Based on the apparent mispricing in the spread, one might investigate the possibility of placing an arbitrage transaction by buying long-term Treasuries and paying fixed rate on 30-year interest rate swap instruments. But this ignores the current reality that the balance sheets of many investors, notably including commercial banks, are under some stress. Thus, it may require an extended period before conditions return to “normal.” Some analysts have even gone so far as to suggest that the previous relationship between Treasuries and swaps may have been altered permanently.

They suggest that the Fed has essentially backstopped the banking industry during the subprime mortgage crisis while Standard & Poor’s downgraded the credit rating of U.S. long-term sovereign debt in August 2011, thereby causing the implicit credit risks to converge to a degree. They further suggest that the structure of interest rate swap instruments may imply reduced risk relative to long-term Treasuries. In particular, swaps do not contemplate an original exchange of principal values and may be marked-to-market. Thus, perhaps the spread belongs in negative territory?

Further explanation for this apparent pricing anomaly may be found in simple supply and demand considerations. So-called liability-driven investment (LDI) managers have increasingly turned to long-term IRS as an alternative to 30-year Treasury investment. This is driven, in large part, by limited supply relative to demand in the very long-term segment of the yield curve. This demand is



Our graphic depicts a series of swap spreads constructed from data gleaned from the U.S. Treasury Department’s daily H15 report. Specifically, we compare 2-, 5-, 10- and 30-year LIBOR-based interest rate swap instruments to “Constant Maturity Treasury” (CMT) yields.

These spreads tend to advance and decline as a function of credit conditions and the general level of macroeconomic concerns. Normally, of course, one would expect that the private credit risk implicit in an IRS instrument would dictate a premium yield

redirected into IRS and has resulted in a negative 30-year swap spread.

CME Group offers 5-, 7-, 10- and 30-year interest rate swap futures contracts. We further offer standard Treasury futures contracts covering the 2-, 3-, 5-, 10- and 30-year sectors of the curve; as well as on-the-run (OTR) Treasury futures covering the 2-, 5- and 10-year portions of the curve. Thus, one may construct a weighted spread to take advantage of risk-on, risk-off conditions.

If you believed that economic tensions are dissipating and wanted to adopt a so-called "risk-on" posture in current market vernacular, then you could buy Swap/Treasury spreads. If you believed that economic tensions might flare up, then you could adopt a "risk-off" position by selling Swap/Treasury spreads.

- "Risk-On" → Buy Swap/Treasury futures spreads
- "Risk-Off" → Sell Swap/Treasury futures spreads

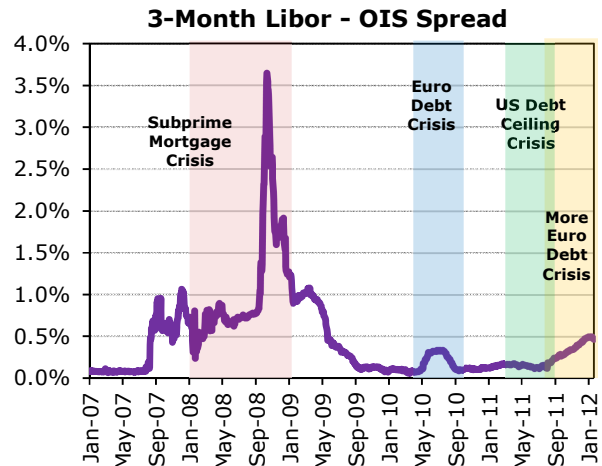
By buying a Swap/Treasury spread, you are buying swap futures and selling Treasury futures in anticipation that the yield spread between the two instruments might compress. By selling a Swap/Treasury spread, you are selling swap futures and buying Treasury futures in anticipation that the yield spread might expand.

**The Short of It** – The 3-month LIBOR vs. Overnight Interest Spread (OIS) rate has garnered a large and growing following in recent years as a key barometer of market stress. LIBOR is an acronym for London Interbank Offered Rate and represents the rate paid by commercial banks (in London) on U.S. dollar denominated deposits. OIS represents the rate paid on overnight deposits by a central bank such as the U.S. Federal Reserve to its member banks, i.e., the Fed Funds rate, as observed and compounded over a period of time such as three months.

To the extent that this spread gauges the difference between commercial bank and central bank deposit rates, the spread represents in a broad sense the risk of default on the part of commercial banks.

This spread has historically been observed around 10 basis points. But it skyrocketed to about 3.5% at the height of the subprime mortgage crisis. While the European sovereign debt crisis does not hit quite so close to home, it is interesting to observe how the spread spiked in mid 2010. It is now moving up

again as an indication of market distress and fears of Eurozone contagion spilling over elsewhere.



CME Group offers 3-month Eurodollar futures which are cash settled to the ICE Benchmark Administration Limited (ICE) 3-month Eurodollar time deposit rate. In addition, CME Group further offers futures based on 30-day Federal Funds rate. Thus, a properly weighted spread between Eurodollar and Fed Funds futures represents a nice proxy for the 3-month LIBOR vs. OIS spread.

If you believed that economic tensions were likely to dissipate and wanted to adopt a risk-on position, then you could buy Eurodollar/Fed Fund spreads. If you believed that economic tensions might flare up, then you could adopt a risk-off position by selling Eurodollar/Fed Funds spreads.

- "Risk-On" → Buy Eurodollar/Fed Funds futures spreads
- "Risk-Off" → Sell Eurodollar/Fed Funds futures spreads

By buying a Eurodollar/Fed Funds spread, you are buying Eurodollar futures and selling 30-day Fed Funds futures in anticipation that the yield spread between the two instruments might compress. By selling a Eurodollar/Fed Funds futures spread, you are selling Eurodollar futures and buying Fed Funds futures in anticipation that the yield spread might expand.

**Concluding Note** – CME Group offers the widest array of derivatives products by asset class of any exchange worldwide, covering the gamut from interest rates, equities, currencies and commodities. These products, and combinations of these products,

may be used to express a view regarding developing market conditions; or, to manage the risks attendant thereto.

The Swap-Treasury and LIBOR-Fed Funds spreads represent two useful barometers of market conditions on the long- and the short-end of the yield curves. CME Group offers futures which may be deployed to replicate the effect of these spreads for any number of trading or risk-management applications.

*For more information, please contact ...*

Daniel Grombacher, Director  
Research & Product Development  
(312) 634-1583, [Daniel.grombacher@cmegroup.com](mailto:Daniel.grombacher@cmegroup.com)

Mike Kamradt, Director  
Interest Rate Products  
312-466-7473, [mike.kamradt@cmegroup.com](mailto:mike.kamradt@cmegroup.com)

John W. Labuszewski, Managing Director  
Research & Product Development  
312-466-7469, [jlab@cmegroup.com](mailto:jlab@cmegroup.com)

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