

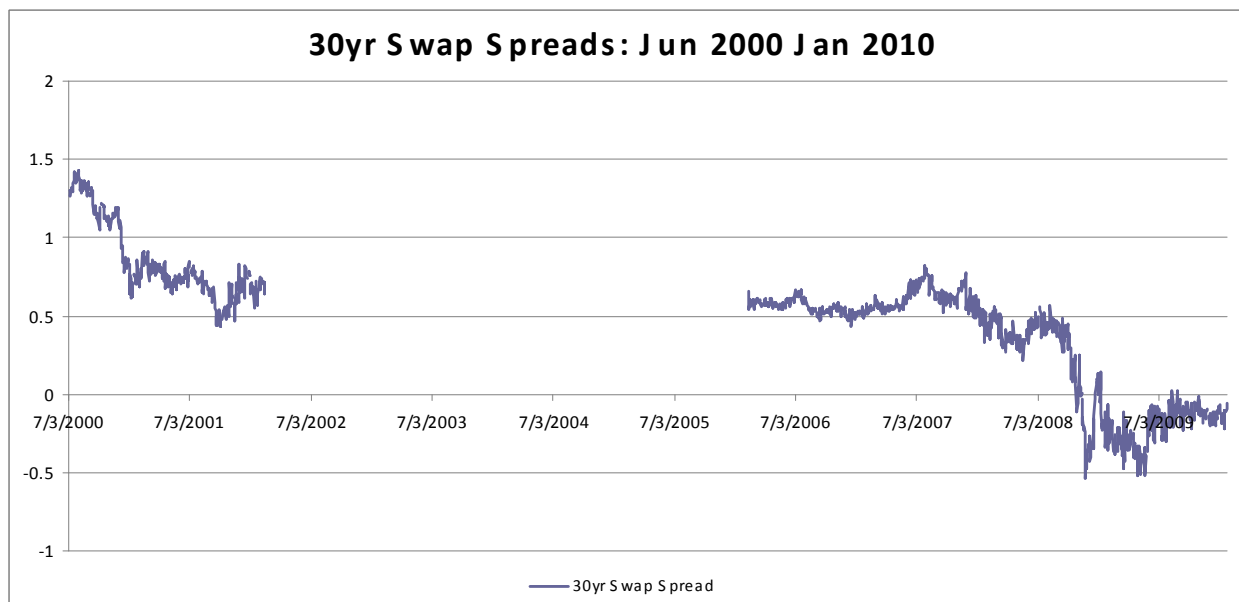
Hedge Funds Turn Down Free Money and Other Implications of Negative Swap Spreads JM

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The interest rate swap market is freaking huge and somewhat new (the first interest rate swap was in 1981 between the World Bank and IBM). It is also a weird animal in that its value derives from an offer rate and a bond yield, not an underlying asset. In this sense, they are more like an asset (bondish) than a derivative. The most elemental parts of the economy—government debt and inter-bank markets—converge in interest rate swaps.

Because the market is so big and used in so many different ways, swap spreads and swap vol are now arguably the central lynchpin of the interbank mechanism. In fact, swap curves are the benchmark for non-US sovereign issuers and just about all spread investors too. As a result, swap spreads tell you a lot. If an economy's nerve cord is the treasury market, then what makes it higher vertebrate is the swaps market.

Contemporary history has on tap two big swap spread mysteries. I already wrote in passing about [one](#): swap curve inversion. The second mystery is that the 30 yr swap spread is negative. That's right, negative. The long bond yields more than 30 yr swaps.



Cool heads may say that this is just the result of mortgage refis coming to an absolute standstill, and hedge books spewed volumes of long maturity swaps out their blow hole into a relatively illiquid 30yr market. But note the graph: swap spreads were negative when conventional wisdom says there was a big volume of refis going on. Further, US treasury swaps are not alone in this. I know that 20 year Gilt swap spreads have been negative too. Most mortgages there are trackers, no? Nobody will refi a tracker.

Swaps spreads are saying something more than hedging, I think. They tell a macro view that Zero Hedge has been harping on since I've been a reader: the final act of Gotterdammerung will have sovereign credit as the tragic hero. Swaps are ideal for

examining this thesis precisely because they are the nexus of the two basic building blocks of organized civilization: government debt markets and core financial intermediation.

The innards of the negative spread mystery revolve around how pricing is determined for swap spreads. As important as they are, quantifying what affects spread pricing is not adequately understood yet. This is because bond and LIBOR markets jointly determine the spread. Each market shares common drivers, making the mechanism complex and non-linear. The pricing mechanism is also obscure because many investors use them for many different purposes.

Even basic intuitions about swap mechanics seem to be square pegs in round holes. For example, it seems straightforward that the LIBOR-to-repo spread would be a significant determinant of pricing. Swap dealers hedge their swap books by buying or shorting Treasuries and then conducting a repo (or reverse repo) over the term. If the dealing is the fixed payer party, then the carry cost of its book is the LIBOR-to-repo spread (note that LIBOR is influenced by credit risk). Also a low repo rate implies a steep yield curve, which makes the demand for the fixed side of a swap increase. So then Lehman Brothers blew this intuition up in a [thorough study](#) that showed LIBOR-to-repo was an insignificant predictor. Many stat models developed in the last five years don't even retain LIBOR-to-repo spread as an explanatory variable in model!

Let's look a little deeper at some suspects that play a role in making an interest rate swap tick.

The Moving Parts Involved in Swap Pricing

Government deficits: Deficits mean more government bonds, more supply means the yields go up. This directly impacts the spread.

AA credit spreads: What affects the issuer affects the swap to some degree, counterparty risk or no. The majority of banks issuing swaps are AA rated, and perceived credit risk of issuers impacts LIBOR which impacts swaps. Remember that Lehman left a massive overhang of swap structures when it cratered. This is a hotly disputed issue honestly.

The repo rate: See example above.

The mortgage market: Lower treasury yields lower mortgage rates which increase refis, which shorten MBS duration. Swaps are a big part of the hedge book for those who hold MBS paper. Remember that negative swap spreads are more than a U.S. event. They happened to 20 yr gilt swaps too.

The yield curve!?! Given that the swap curve is inverted while 2s10s is at record wide, I can't unscrew that. I believe the curve is integral to the inversion story, but maybe not this mystery.

Swaps are Screaming what a Basis Package Would Whisper

A way to approach the mystery is to ask a common sense question. Why would investors take swap positions when their return is less than longing same maturity government bonds?

Perhaps in a climate of nationalization, ballooning debt, default fears, and bought-off legislatures, investors don't think govies are safer than AA rated banks anymore. Thus

one leg of the swap has its own risky issues. Eyes wide open know that nothing—not even Treasuries—are completely free of default risk anymore. One could argue that CDS spreads on gov bonds are hinting this, but not enough to explain a negative swap spread.

Note that this credit risk has little to do with the swap counterparties themselves. Think of the risk as a measure of aquarium acidity where they all swim around.

Swaps as an Indicator of Tight Liquidity Conditions

Another common-sense answer to the mystery is that supply and demand conditions make the spread negative. Sure. But that only puts a different light on the same mystery. Why are supply and demand conditions like this? Arbitrage (read: free money) should fix that.

The other leg of the swap is based on LIBOR. LIBOR is a credit-risky proxy rate, derived from a daily survey of offer quote from big banks. LIBOR is the trimmed mean of these quotes.

The arbitrage works like so. When swap rates are negative there is free money in borrowing at swap rates and longing bonds. Just fund the swap with the coupon and pocket the difference. This is free money! Where are the arbitrageurs?

Perhaps it's not so free after all. Possible explanations for why banks and hedgies would pass up "free money":

- Central bank discount window lending is the new LIBOR, but using it for such arb is restricted by convention or stipulation
- LIBOR is less than actual inter-bank funding cost
- They are severely capital constrained
- A bank "solvent in name only" will have high borrowing costs that they wouldn't want reflected in LIBOR
- They fear government quasi-default
- The potential for a banking crisis can impact the payer of the floating leg of the swap
- Any future banking crises would impair collateral embedded in the transaction

If LIBOR isn't an accurate measure of funding cost, then the interbank market is dysfunctional, which should be scary to any rational person. On the other hand, if fear is so intense and pervasive in the core financial system that the arb isn't a good risk, then take a swig of scotch or pop some Xanax or smoke weed because Ragnarok ain't over yet.

Another liquidity explanation is that many accounting methods put swaps off balance-sheet, and [as I wrote before](#), they require no initial cash outlay. This makes them extremely capital efficient. It is difficult to overestimate just how important this is in an extremely tight credit environment. Maybe the people holding loan books resembling a cratered moonscape know the world isn't flooded with excess liquidity after all. Still, that doesn't explain people passing up low risk arb.

Possible Implications

More benign implications are that one or both of these markets are dysfunctional because things that feed them are used in an out of control way, but these will resolve themselves in finite time.

- Like unsustainable treasury and gilt issuance.

- Or suppressed discount window rates at just about every central bank in the world have made LIBOR cockeyed.

If the latter is the cause, then we have a laboratory in which to observe an experiment. The latest Fed rate hike should pop swaps rates. When the United States finally goes on its austerity budget, we'll see what the lab says about swaps.

A more negative implication is that stable processes cannot be predicted, and unstable processes can't be controlled with all due respect to the genius of Janos von Neumann. Even hubris-riddled central bankers should know this, because the central bankers' central banker, Charles Goodhart, qualified [this](#). He said that in a human system using a measure of information as a lever to control behavior destroys that measure's information content. Controlled prices lose their signaling ability. Allocation becomes inefficient, and over time these inefficiencies exponentially make for a shambling heap of ruin. Just ask the Soviet Union.

If this is the case, for the here-and-now of swaps, the message is:

- The long bond is a pig with lipstick on it.

and/or

- Lending is a corpse with lipstick on it.

or

- Maybe long bond spreads are wrong, the swap market is wrong, and only a few pilgrims are right about the Llllooonnnnggg Bond.

Hmmmm...this is reason for long treasury guys (like me) to be racked with doubt. Either way, swap spreads just may be the most honest indicator out there.