Tyler Durden writes: The shadow banking system is the place where trillions in liabilities are created and destroyed via the repo market, to provide short-term funding for all sorts of financial intermediaries, frequently with zero actual exposure in bank Ks and Qs due to regulatory loopholes that allow the "netting" of hundreds of billions of offsetting repo exposure and keeping them off the books, exposure which than can be rehypothecated countless numbers of times.

The repo market is important because in recent years there has been much attention on one specific metric: securities margin debt as reported monthly by the NYSE, and which recently peaked at a record $465 billion. Some look at margin debt as an indication of how stretched investors are and further point to record margin debt peaks as inflection points in the market as the likelihood of margin calls surges and even the smallest drop in asset prices can result in an avalanche of liquidations and a self-fulfilling prophecy of selling.

In theory this is correct. In practice this is very much an anachronism of what the market used to look like. Unfortunately, in the New Normal, NYSE margin debt is completely useless in demonstrating just how stretched investors, especially sophisticated investors like hedge funds are. So where should one look for hints on the true leverage of market participants?

Hedge Funds largely finance their positions by either (i) pledging collateral to prime brokers (PB) to borrow money, or (ii) repurchase agreements (or repo) with either their PB or another dealer where the repo their collateral for funding.

To estimate repo related collateral from Hedge Funds for 2007, we take the assets under management (AUM) of $2 trillion and the 27 percent share of strategies that would use repo (i.e., primarily non-equity related strategies). Aggregate leverage is higher in fixed income, global macro strategies that are funded via repo relative to equity type strategies. Using the aggregate leverage of 4 (source FSA hedge fund surveys, United Kingdom), this would imply that approx US$540 billion times four or, US$2.2 trillion pledged collateral could have gone to the banks. However, about 60–70 percent of the strategies are hedged simultaneously so only one-third of US$2.2 trillion could reach the banks that can be re-pledged onwards—i.e., US$750 billion pledged collateral that came to the banks could be re-used onwards as of end-2007.

On the 60–70 percent threshold assumption—at the bottom of the rate cycle, there is more hedging so this threshold is higher when compared to top of the rate cycle. In other words, the threshold prior to Lehman’s demise maybe closer to 60 percent and thus more pledged collateral available (i.e., less simultaneous hedging) to the dealers. Present times are close to the bottom of the rate cycle; so threshold may now be over 70 percent (i.e., more simultaneous hedging) and thus, less pledged collateral for reuse passes to the dealers. Doing similar arithmetic for end-2013, with aggregate leverage, including derivative use, lower at 3.5 (relative to end-2007) but AUM much higher at US$2.6 trillion, and share of HF strategies using repo also higher (around 40 percent) relative to 2007, would put the estimate at US$900 billion (adjusted downward due to the higher

threshold for hedging due to the bottom rate cycle). With collateral reuse factor between 2 and 3 (largely due to inter-dealer collateral moves that link the supply/demand collateral chain), the size of the bilateral global repo market is at par or larger than the TPR (tri-party repo) in the U.S. [although HFs play a dominant role in bilateral repo, dealers also use collateral from primary issuance to cover shorts in their repo inventory].

To be technical, if about two-third strategies are hedged, the collateral from the remaining one-third may not all be reused/turned to cash by the banks—it depends on their balance sheet space and this issue is getting more traction as proposed regulations will take affect going forward. Also, banks can be very different with UBS bank curtailing balance sheet activities in pledged collateral area while others trying to enter this market.

In short, when it comes to funding, the most sophisticated market participants, hedge funds, have zero use for conventional cash exposure such as exchange margin, which is well below half a trillion, and instead obtain at least half of their funding needs in the shadow market via repo, to the tune of about $1 trillion (and likely more depending on one's assumption about collateral reuse).

Which is why the next time someone says to pay attention to market leverage and points out the NYSE margin debt, feel free to correct them that this accounts for a tiny fraction of the overall leverage involved in the market - almost exclusively that attributed to retail investors who, as we know barely exist. For a real representation of market leverage one has to evaluate just how much repo funding the shadow banking system has afforded to hedge funds. Sadly, since there is no regulatory required reporting framework for disclosing this information on a consistent basis, one is largely stuck estimating what true leverage in the market is.

Actually, there is one loophole. As we showed in April, once a year hedge funds update their annual Form ARDs to show not only their net assets, which exclude shadow banking liquidity, but all regulatory assets, which capture all forms of funding.

For all those curious, here is where the hedge fund world truly stands when accounting for all sources of funding, in the current market. We leave it up to readers to decide if leverage as high as 9.3x is "high."