

Synthetic Secured Lending Using Single Stock Futures EFPs

The structure of the single stock futures (SSF) market makes it as ideally suited for borrowing and lending money at the AAA credit rating of the Options Clearing Corporation as European-exercise index options on the S&P 500 (SPX). The reason is simple: Just as trades in European-exercise options cannot be exercised until the expiration date, neither can trades in SSFs.

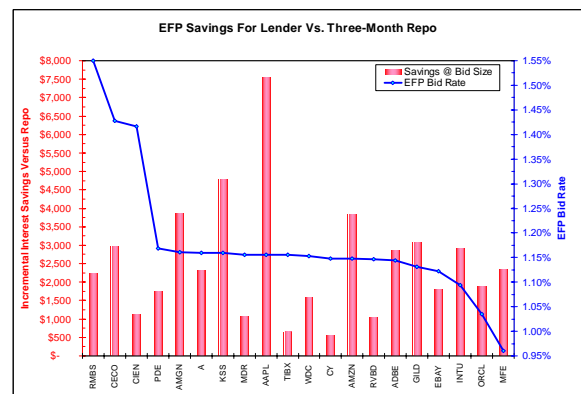
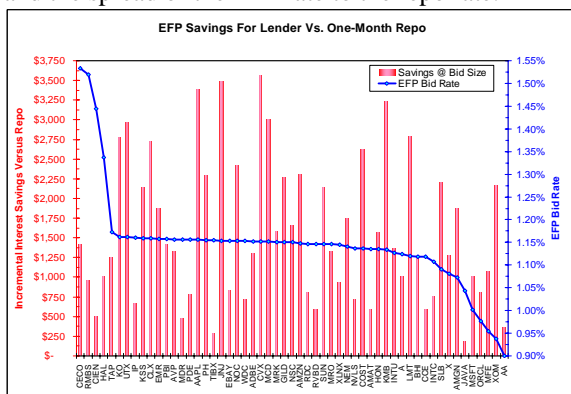
In addition, as long as short positions in SSFs deliver into long and short positions, respectively, in the underlying stock or exchange-traded fund, there is no basis risk. The future will be priced at the stock plus the interest rate cost of carry minus the future value of the expected dividend. As expiration approaches, the future's price converges to the stock's price and then delivers into the stock itself.

If we focus exclusively on stocks not going ex-dividend during the life of the future, we can eliminate the future value of the expected dividend from the equation and focus exclusively on the interest rate cost of carry:

$SSF = Stock * e^{r*((t_x - t_0)/360)}$, where r is the effective federal funds rate, t_x is the expiration date of the future and t_0 is the date of evaluation.

Market makers on OneChicago [quote](#) this net rate of convergence between the SSF and the underlying stock as an interest rate out to four decimal places in the exchange of futures for physicals (EFP) market. As market makers often have high and fluctuating needs for short-term funds as their positions change during the day, the rates quoted for borrowing and lending often are higher than those for other secured forms of lending such as the repo market. External traders with funds to lend over the short-term can and should take advantage of these high bid rates to earn a higher rate of return than available for other secured short-term loans.

The charts below show the EFP bid rates (blue lines) available for January and March 2009 (left- and right-hand charts, respectively) for dividend-free stocks at the close of business on December 5, 2008. Most bids are for 500 contracts (50,000 shares); regardless, the total dollar return available on the EFP relative to the one- and three-month repo bid rates of 0.15% and 0.25%, respectively, is calculated from the actual bid size, the closing price of the stock and the spread of the EFP rate to the repo rate.



The use of EFPs to borrow and lend is AAA-rated, centrally cleared and transparent and market-neutral. Just like the "box spreads" used by SPX option traders to borrow and lend by trading in precise convergence relationships, EFPs allow stock and SSF traders to borrow and lend with similar certainty. There is little reason for this EFP market not to match the success of the SPX option market – the most actively traded option in the world – as short-term lenders are looking for a safe way to enhance the return on short-term cash.