Discussion of Hedge Fund Tail Risk
by Ben Craig

This paper has three contributions to make to the literature of hedge fund risk. The first is to show that the correlation between hedge fund strategies increase in times of stress. The second is to document that seven commonly traded risk factors can explain much of the increase in correlation. Finally, the paper discusses the incentives facing the hedge funds that might drive this behavior.

I found the paper very interesting. I have several criticisms to make that are measures of how I see the duty of a discussant, rather than an overall assessment of the paper's quality, which I think is quite high.

To treat the three contributions in turn, the dependence of hedge funds on other funds is shown to increase during times of stress through the comparison of two sets of quantile regressions, measured at the 50% and 5% levels. The authors find, in table 1, that the hedge funds increase their dependence by 45%, on average. In the single example where being in a tail event decreased the dependence of a hedge fund on other funds, the dependence became less negative, making it less of a hedge against the direction of the other funds' exposure. So tail events increase the tendency of hedge funds to move together, a finding that is interesting and important for research into contagion. I would have liked to have know what distinguishes this finding from earlier research by Boyson, Stahel, and Stulz (2006) (which they cite) and others, such as Brown and Spitzer (2006) who have found the same phenomenon. Does the use of quantile methods make this a more reliable finding?

The second contribution is to investigate whether this phenomenon is affected when they use residual returns after taking into account seven risk factors, including excess market return, volatility measures, liquidity risk measures, and yield slopes. Once these are removed from the hedge fund returns, the 5% quantile regressions are reworked with the result that the much of the 5% sensitivity is accounted for by these factors. Presumably the factors should also account for the difference between the median sensitivity and the tail sensitivity as well. To be honest, reading figure 4 involved some confusion on my part as the dashed line plots the 5% sensitivity against the quantile (possibly a typo?) so I am not sure how much the tail sensitivity is affected by the risk factors, nor how exactly to interpret the numbers in offloaded quantile regressions. I would very much have liked a comparison of these results with similar earlier results such as Boyson, Stahel, and Stulz (2006), along with a discussion of where these results differ and why.

The final contribution concerns an observation often made anecdotally about hedge fund managers: these managers have no incentive to offload tail risk. The results from a regression shows when the tail risk decreases, inflow into that strategy also decreases, suggesting that managerial incentives are not to offload tail risk because this will reduce their management fees. This was a tantalizing result, but because it was only introduced, described, and reported in less than two pages, my experience was that of reading an abstract on a web page for which I was not a subscriber. There was so much I wanted to

know about this result, but the brevity of the description prevented me from finding out more.

So in the end, I am left wanting more, both in the description of where these results belong in the literature, but also in the description of what they have accomplished. I have a strong feeling that they have accomplished quite a bit, but I needed more description to know what it was.

References:
Brown, Stephen, and Spitzer, Jonathan, (2006) “Caught by the tail: Tail risk neutrality and hedge fund returns,” NY Stern School MS.