

Credit

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US TotalCredit

A Simple Add-on-Weakness Trading Rule

- **Overview:** In this article we provide a brief overview of exactly how volatile the price action has been (and is likely to be), and offer a simple add-on-weakness trading rule to help the typical money manager take advantage of the volatile times.
- **Step #1 – Be Formal:** One of the hardest things about buying on weakness is that it requires *doing one thing when others are doing the opposite, and doing so at a time when uncertainty reigns supreme*. Predefining the trading rule – who is the likely forced seller, which measures of fair value are important, what discount to fair value is enticing, etc. – helps to mitigate the fear of “catching a falling knife.”
- **Step #2 – Make Sure It’s Transitory:** When valuations change quickly and dramatically, it can be difficult to discern what is driving the price action. But to the extent possible, verify that any deviation from fair value is attributable to a transitory factor.
- **Step #3 – Find the Catalyst:** Again to the extent possible, verify that there is a catalyst for reversal. After all, what’s the point of adding on weakness if valuations do not revert back to fair value?

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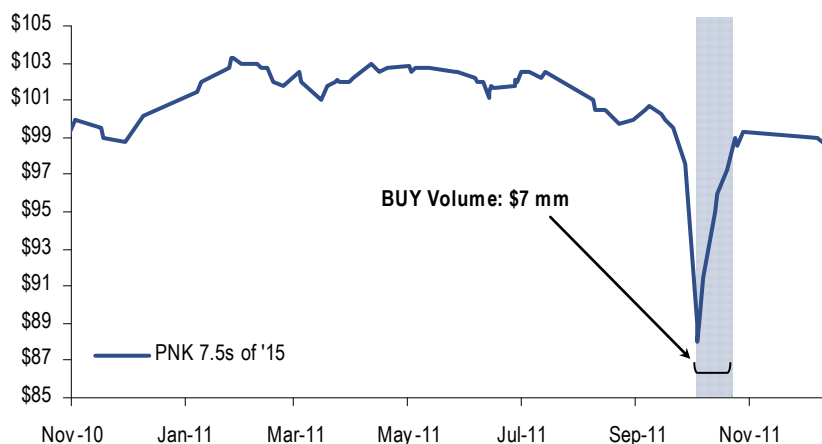
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Figure 1. “Buy on weakness? Are you kidding? The Pinnacle ’15s were more than 10 pts cheap to fair value, but how many could I buy at that level? \$1mm? Maybe? About \$5mm traded before those things were right back to fair value...” said an investor



Source: CIRA, Bloomberg

Note: As of December 12, 2011; Price of \$1mm or greater block size trades only

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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A Simple Add-on-Weakness Trading Rule

"Buy on weakness? Are you kidding? The Pinnacle '15s were more than 10 pts cheap to fair value, but how many could I buy there? \$1 million? Maybe? About \$5 million traded before those things were right back to fair value," fumed an investor.

Many investors have expressed similar frustrations to us in recent conversations. We are obviously in an extremely choppy trading environment, and investors that typically look to take advantage of market volatility have been frustrated by their inability to actually transact at stressed valuations.

In this article we provide a brief overview of exactly how volatile the price action has been (and is likely to be, in our view), and offer a simple trading rule to take advantage of current market conditions, including illiquidity.

Living in volatile times

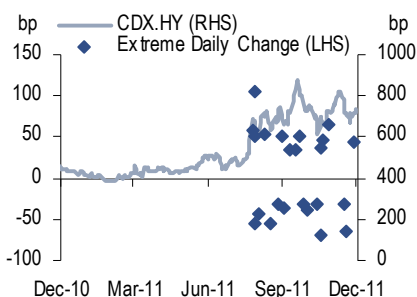
In a recent article titled [US TotalCredit: Short Risk + Wider Spreads = Negative P&L](#) (published on December 1, 2011) we examined how "gappy" the price action has been over the past few months, and from the vantage point of a leveraged investor, the extreme challenges that many face as a result. We encourage readers to refer to [that document](#) for a more in-depth discussion of this topic.

But to summarize that article, in Figure 2 we present the CDX.HY index spread level over the past year relative to "extreme" daily changes for this index. We define extreme as a daily spread change of 30 bp or more. In Figure 3 we do the same for the CDX.IG index, with extreme moves defined as daily spread changes as 4 bp or more.

We see that of all the extreme moves over the past year most – if not all – have occurred in recent trading. For example, in the high-yield space we observe 23 extreme moves over the past year, and all 23 of these observations have transpired since August. It is worth noting that the gappy price action is not an isolated phenomenon in the U.S. credit markets – we have observed similar trends in the European credit space as well as in the equity markets in both regions.

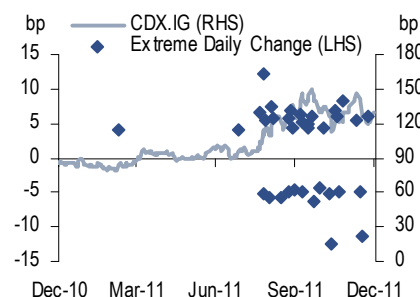
But in our view the gappy price action isn't the core problem; it is that extreme moves are two directional. For example, of the 23 extreme moves that occurred in the high-yield market (synthetic) in recent trading, 12 were moves wider and 11 were moves tighter. A coin flip!

Figure 2. CDX.HY has been experienced "extreme" daily spread changes frequently...



Source: CIRA
Note: As of December 14, 2011; we define extreme daily spread change as +/- 30 bp or more

Figure 3. ...and this is consistent with the CDX.IG price action



Source: CIRA
Note: As of December 14, 2011; we define extreme daily spread change as +/- 4 bp or more

So even if an investor has a strong directional view, expresses this view, and the view is ultimately correct, a profit is not assured. Rather, in the current environment there is a very good chance that the investor will get stopped out before the view comes to fruition.

Add-on-weakness framework

We believe that two of the major factors that are causing gappy trading will remain in place as we begin the new year (illiquidity, unquantifiable headlines out of Europe), and as such we advocate developing trading strategies that can benefit from a continuation of the current trend. **But what are those strategies?**

Obviously, there is no single answer in this regard. The distressed model tends to rely on longer-term capital commitments to mitigate mark-to-market risk, and option-based strategies are another approach. There is no single answer simply because investors' objectives / constraints vary so greatly.

In this article **we outline a generic add-on-weakness framework for a "typical" money manager that is looking to take advantage of forced sellers.** There are three basic tenets to this approach:

- **Step #1 – be formal:** One of the hardest things about buying on weakness is that it requires *doing something that others aren't, and doing so at a time when uncertainty reigns supreme*. Predefining the trading rule – who is the likely forced seller, which measures of fair value are important, what discount to fair value is enticing, etc. – helps to mitigate the fear of "catching a falling knife."
- **Step #2 – make sure it's transitory:** When valuations change quickly and dramatically it can be difficult to discern what is driving the price action. But to the extent possible verify that any deviation from fair value is attributable to a transitory factor.
- **Step #3 – find the catalyst:** Again to the extent possible, verify that there is a catalyst for reversal. After all, what's the point of adding on weakness if valuations do not revert back to fair value?

Step #1: Formalize what you are searching for

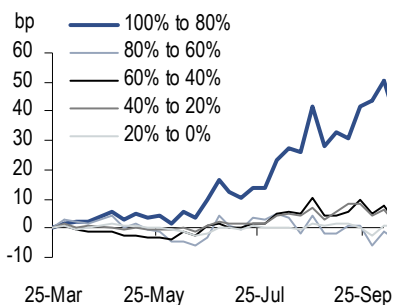
From the perspective of a typical credit investor looking to take advantage of forced sellers, one might hypothesize that during periods of heightened volatility market participants look to bolster their liquidity profiles. One way (the only way?) to do this is to sell what one can – liquid bonds. As such, **more liquid bonds may tend to be under disproportionate and transitory pressure during more volatile times.**

So we have a logical and clearly-defined hypothesis. Let's test it. In this regard, we grouped the CDX.IG constituents into five buckets based on their liquidity; the 100-80% portfolio is comprised of the most liquid names, 80-60% somewhat less liquid, etc. Liquidity is objectively defined as the total amount of risk transferred based on DTCC data.

We find that our hypothesis is fairly consistent with what unfolded in the marketplace when volatility picked up in mid- to late-summer. Figure 4 presents the beta-adjusted spread moves for the five liquidity buckets since late March. We see that the **spread widening for only one of the five buckets – the one comprised of the most liquid names – was under disproportionate pressure versus the market**. Everything else performed right inline after adjusting for beta.

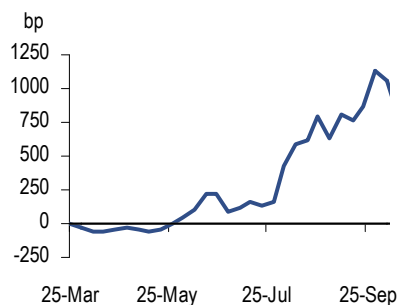
And it is not just a synthetic, high-grade phenomenon. If we look at the high-yield cash market, for example, with few tweaks to the hypothesis we find a similar pattern. Specifically, instead of focusing on the most liquid CDX constituents, we focus on some of the larger LBO issues at the CUSIP level (e.g., CCMO 5.5s of '14). Consistent with what we saw in the high-grade space, this sample underperformed by more than 1000 bp after adjusting for beta when volatility picked up in mid- to late-summer (Figure 5).

Figure 4. Liquidity bucketed non-market spread moves for CDX.IG constituents



Source: CIRA, Bloomberg, DTCC
Note: As of October 7, 2011 based on weekly data. For more detail, refer to [High Grade Strategy Notes](#)

Figure 5. Non-market spread moves for select liquid LBO names



Source: CIRA, Bloomberg
Note: As of October 7, 2011; Average of CCMO (5.5s of '14, 11s of '16, 10.75s of '16, 5.5s of '16), FDC (11.25s of '16, 9.875s of '15, 10.55s of '15), SDSINC 10.25s of '15; beta of triple-C index used

So our hypothesis that more liquid issues can underperform when volatility rises seems to ring true, but we still need to define what discount to fair value is enticing. This is a purely subjective exercise and will probably be different for each market participant. For the balance of this article we will assume that a discount of 35% to fair value is an enticing number (e.g., non-market spread move of 55 bp / index spread of 139 bp= 40% on October 6th).

Preliminary trading rule: *After adjusting for beta*, consider adding exposure to liquid names that trade at a discount of at least 35% to fair value.

Step #2: Make sure it's transitory

While our hypothesis appears to hold up, we still have to dig deeper and find out whether or not it was truly forced selling that pushed select bond spread disproportionately wide. Or was it attributable to some fundamental and therefore longer-lasting factor? We first focus on the dislocation in the high-grade space.

Specifically, we use DTCC data to see exactly how much risk was transferred through the most liquid bucket of the CDX.IG constituents during the Aug to Sep '11 period relative to the risk that was transferred via all constituents. We find that **the 25 most liquid names accounted for almost 40% of all risk transferred during this period** (Figure 6). This is consistent with the theory that disproportionate spread widening was at least partially attributable to transitory selling pressure.

And we saw a similar trend in the high-yield cash market as well. Using the same benchmark LBO issues as highlighted earlier, we looked at the average number of block trades (\$1mm+) during the first part of this year (Jan to Aug) and the Aug / Sept period. We find that on average there was a significant increase – 23% – in the number of trades during the sell-off period relative to the preceding period.

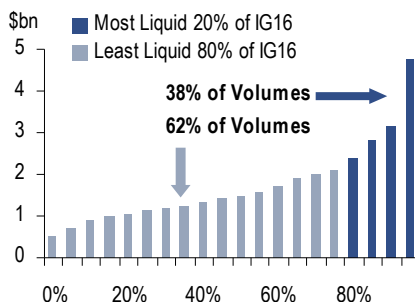
Revised trading rule: *After adjusting for beta, consider adding exposure to liquid names that trade at a discount of at least 35% to fair value if that discount can be at least partially attributed to a transitory factor.*

Side note: Food for thought...

We began this article with a quote from an investor that was frustrated by the inability to buy on weakness. But the above data seem to be at least partially inconsistent with that quote. Again, we observe an increase in the amount of trading activity for select names in both the high-grade (Figure 7) and high-yield markets during the sell-off – volumes don't wane until October.

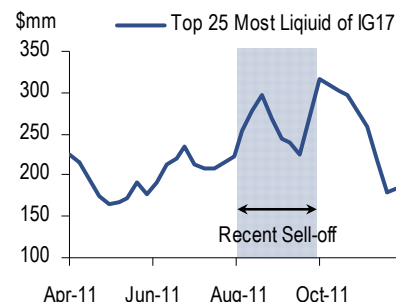
So, in our view, the problem may be that add-on-weakness strategies tend to be enacted at the wrong time – after sentiment has already changed and the market is no longer weak!

Figure 6. Total CDS risk-transfer activity, August and September, 2011



Source: CIRA, Bloomberg, DTCC
Note: As of October 1, 2011 based on weekly data. For more detail, refer to [High Grade Strategy Notes](#)

Figure 7. Risk-transfer activity for top 25 most liquid CDX.IG17 constituents



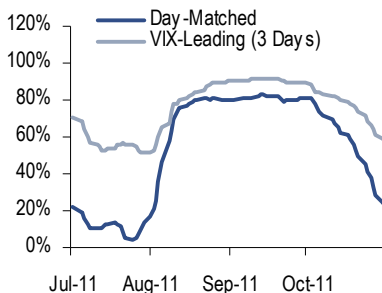
Source: CIRA, DTCC
Note: As of December 2, 2011; 1-month moving average of median

Step #3: Catalyst for reversal

Finding a cheap asset is always a good thing, but even better is finding one that has an identifiable catalyst for reversal. And in some cases such catalysts can be found. Consider the basket of the most liquid CDX.IG constituents. **We find that the VIX tends to mirror spreads for this basket fairly well, but only if we use it as a leading indicator.**

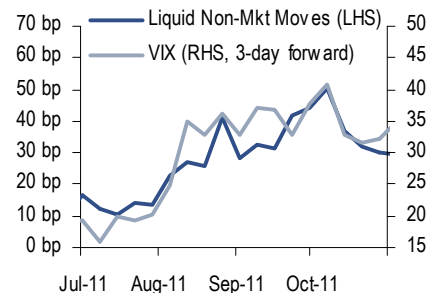
Figure 8 shows that three-month correlation between the VIX and non-market spread moves of the liquid IG names over time. We see that the correlation rises from an average of 51% when the VIX and beta-adjusted spreads for the liquid CDX.IG constituents are day-matched, but the correlation increases to almost 75% if we use the VIX as a three day leading indicator. Figure 9 illustrates how the leading VIX / non-market spread moves track over time.

Figure 8. 3-month correlation of VIX vs. beta-adjusted spread moves



Source: CIRA, Bloomberg
Note: As of October 31, 2011

Figure 9. Liquidity bucketed non-market spread moves vs. VIX



Source: CIRA, Bloomberg
Note: As of October 31, 2011

And to a certain extent this seems to make intuitive sense – in a period of heightened volatility the portfolio overlay instruments (CDX, SPX, VIX, etc.) should move quickly and track closely, in part because decisions tend to be made at the PM level. But rebalancing at the single name level may be a bit more complicated in part because more decision makers are involved (e.g., sector analyst).

Final trading rule: Look to add on weakness (on Thursday, for example) if liquid credits are trading at a discount of at least 35% to fair value after adjusting for beta and widening is at least partially due to forced selling and the VIX declines in previous trading sessions (e.g., Monday through Wednesday).

Testing the trading rule

With regard to performance of this simple trading rule, consider the experience in the high-grade space. When the signal flashes we go long the bucket of most liquid CDX.IG constituents vs. the index itself with a 1.5x hedge ratio.

Assuming that the add-on-weakness trading rule cannot be triggered on consecutive days, the signal flashes two times (October 6th and November 30th). Figure 10 (next page) presents beta-adjusted spread changes by week after each signal, and we see fairly consistent outperformance.

Adding exposure to a basket of names simply due to some trading rule may be too blunt of an approach for many, but having said that, it might work with a modest tweak – for example, compiling a list of favored names among those that are likely to be under pressure should volatility pickup.

And in this regard, when the new year begins, our high-grade and high-yield strategy teams plan to highlight favored names that have the potential to encounter undue pressure – and hence be potentially attractive add-on-weakness candidates – should volatility rise. For those with interest and that do not receive the high-grade and high-yield weekly publications please contact Jason Shoup (jason.b.shoup@citi.com, 212-723-6147) and Michael Anderson (michael.henry.anderson@citi.com, 212-723-3819) directly to subscribe.

Figure 10. How did the add-on-weakness framework perform?

Triggered Date	Spread (bp)		Signal		Position Spread Change (bp)			
	CDX.IG	Liquid Names Avg	Non-Market Move / CDX.IG	VIX Change*	1-wk	2-wk	3-wk	4-wk
Oct 6, 2011	139	266	40%	-4%	-17	-22	-26	-24
Nov 30, 2011	128	243	37%	-3%	-10	-10	—	—

Source: CIRA, Bloomberg

Note: * - VIX change is the 3-day average of daily change; we use 1.47x hedge ratio; liquid names are the top 20% of the most liquid CDX.IG constituents

Appendix A-1

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