

Presentation for Chicago QWAFEFW:

Hedge Funds and Credit Derivatives 2005 Review

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- Hedge Funds
- Credit Derivatives
- Hedge Funds and Credit Derivatives
- Conclusions and lessons from 2005 (and many prior years)

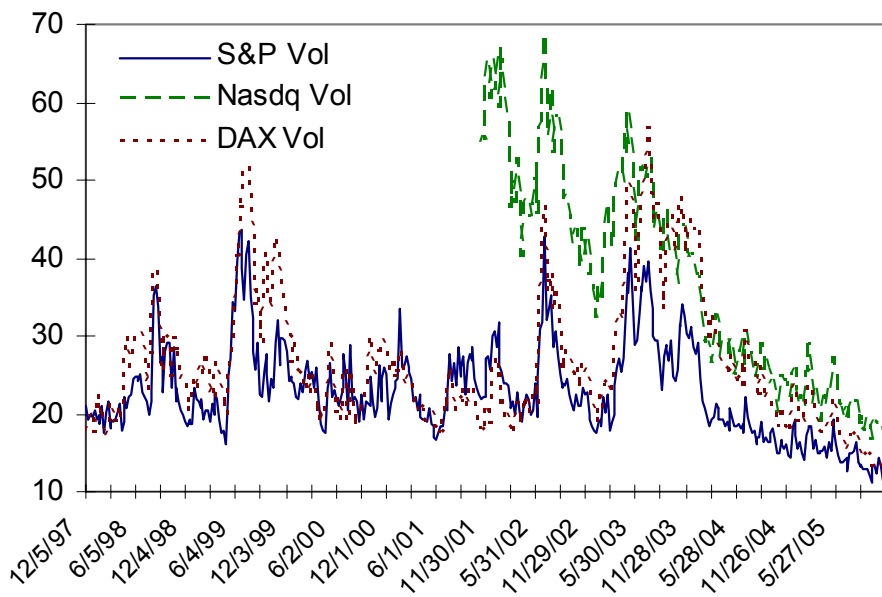
- Hedge fund assets now exceed \$1.0 trillion (\$1.08 trillion according to HFR)
- Through the third quarter, the biggest AUM gainers were Equity Hedge, Event Driven, and Global Macro (per HFR)
- The only significant AUM looser was Convertible Arbitrage (per HFR)
- The number of hedge funds increased by about 275 to 6,578 (per HFR)
- SEC registration in February 2006:
 - Some managers have opted for 2-year lock-ups to avoid registration
 - May reduce the number of smaller hedge fund launches
- Spectacular fraud (e.g., Bayou), continues to give fodder to proponents of regulation and places an emphasis on background checks and operational due diligence
- We saw large fund launches from big name Wall Street traders and a propensity for some of the larger hedge funds to continue to move into other areas in the financial industry—e.g., market making, middle-market lending, etc.

- Credit derivatives market continues to grow—notional amount of credit default swaps grew by almost 48% during the first six months of 2005 to \$12.43 trillion (source: ISDA)
- This represents a year-on-year growth rate of 128% from \$5.44 trillion at mid-year 2004 (source: ISDA)
- Backoffice is still an issue; the average time to sign a confirmation is twelve days, down from much higher levels earlier this year
- Innovation continues, despite (and in some cases in response to) the issues involving correlation trading:
 - Increased volumes of leveraged super senior deals
 - CDS on ABS
 - Electronic trading of CDS (will also address backoffice issues)
 - Credit options (e.g., CDX swaptions) are showing considerable growth; could be a big story in 2006 or 2007
 - POs and IOs on the equity piece (a PO being a contract for which one pays a premium today and receives the remainder of the up-front value of the equity piece minus defaults at CDO maturity)

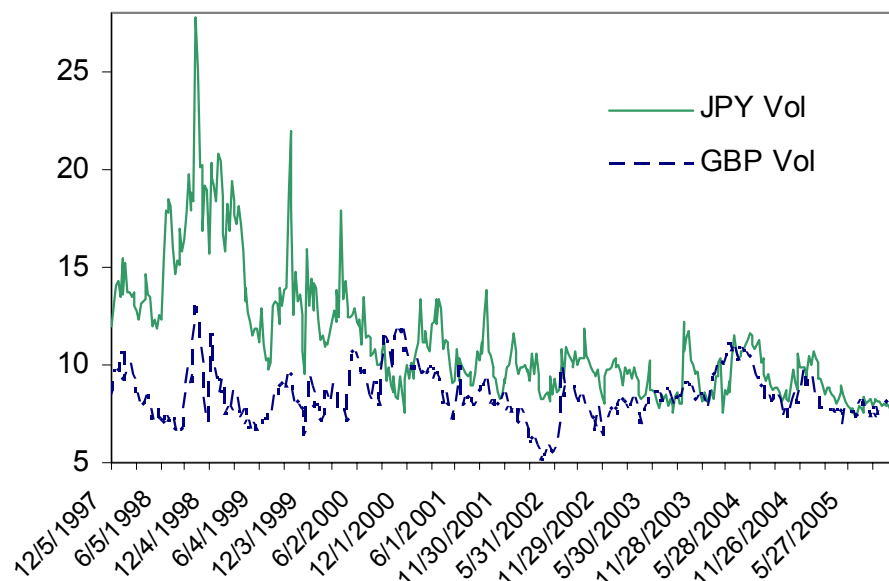
Hedge Funds & Credit Derivatives—A Tough Environment for Fund Managers

- The real story is the lack of volatility—both in terms of realized and implied
- If you believe that risk and return are related, this is bad for returns

Volatility Indices



USD|JPY & GBP|USD Implied Volatility

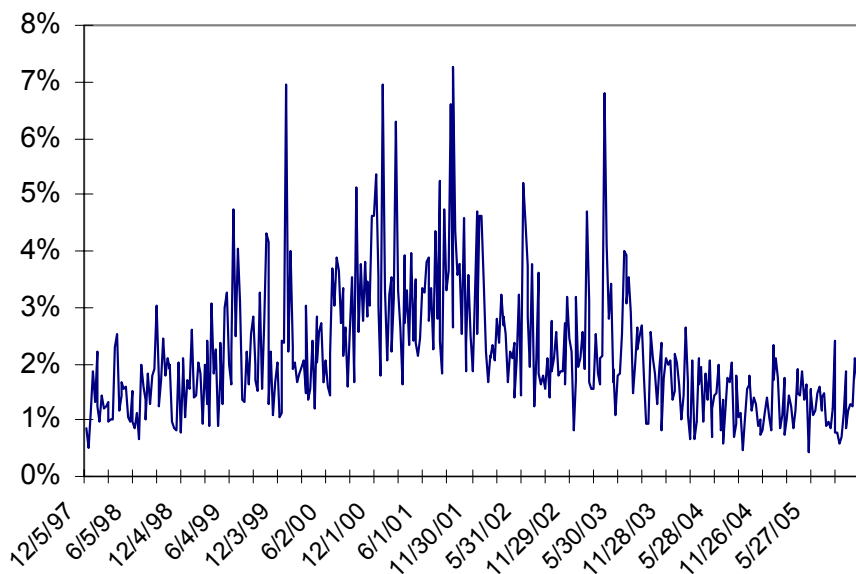


Source: Bloomberg

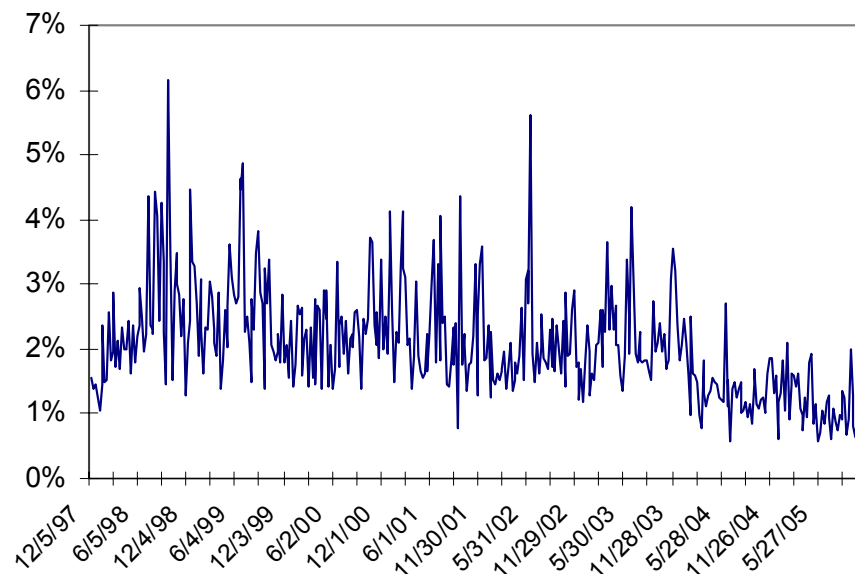
Hedge Funds & Credit Derivatives—A Tough Environment for Fund Managers

The lack of dispersion across countries and sectors (and across individual stocks), means that “arbitrage” returns are small even when you can capture them...

GICs Sector Return Dispersion



Country Return Dispersion

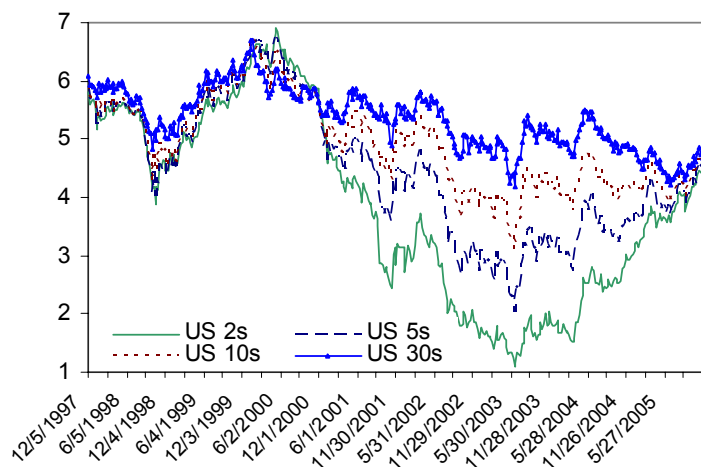


Source: Bloomberg

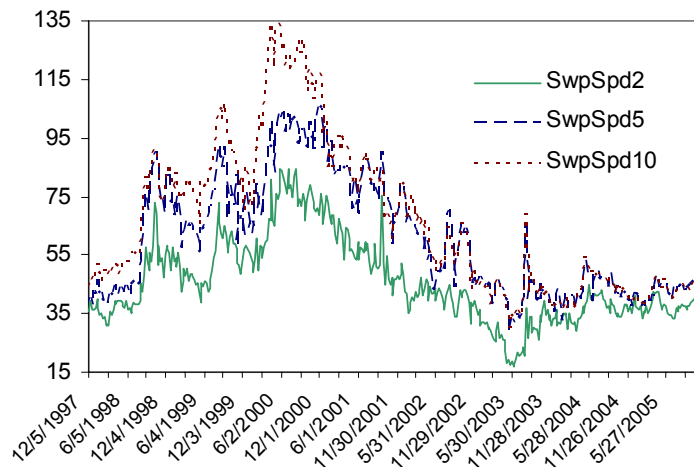
Hedge Funds & Credit Derivatives—A Tough Environment for Fund Managers

...and the opportunities for carry have collapsed as well

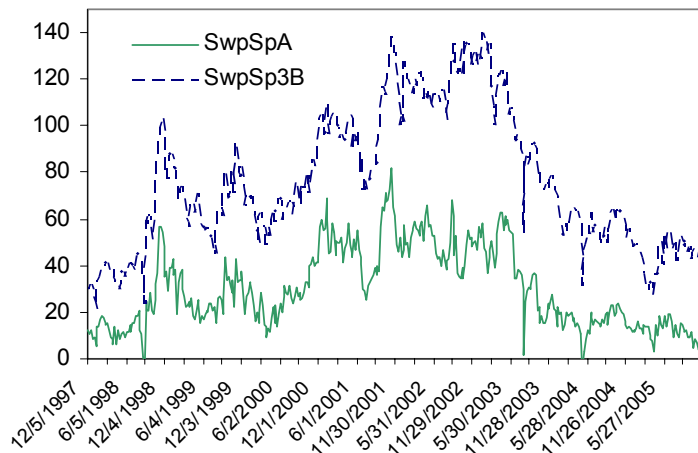
U.S. Gvt On-the-Run Rate Levels (%)



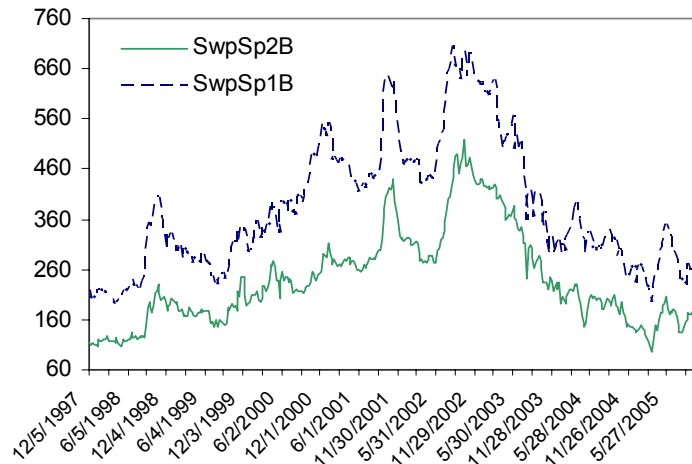
Swap Spreads to Gvt OTRs (bps)



Investment Grade Sprds to Swaps (bps)



Sub-Inv Grade Sprds to Swaps (bps)

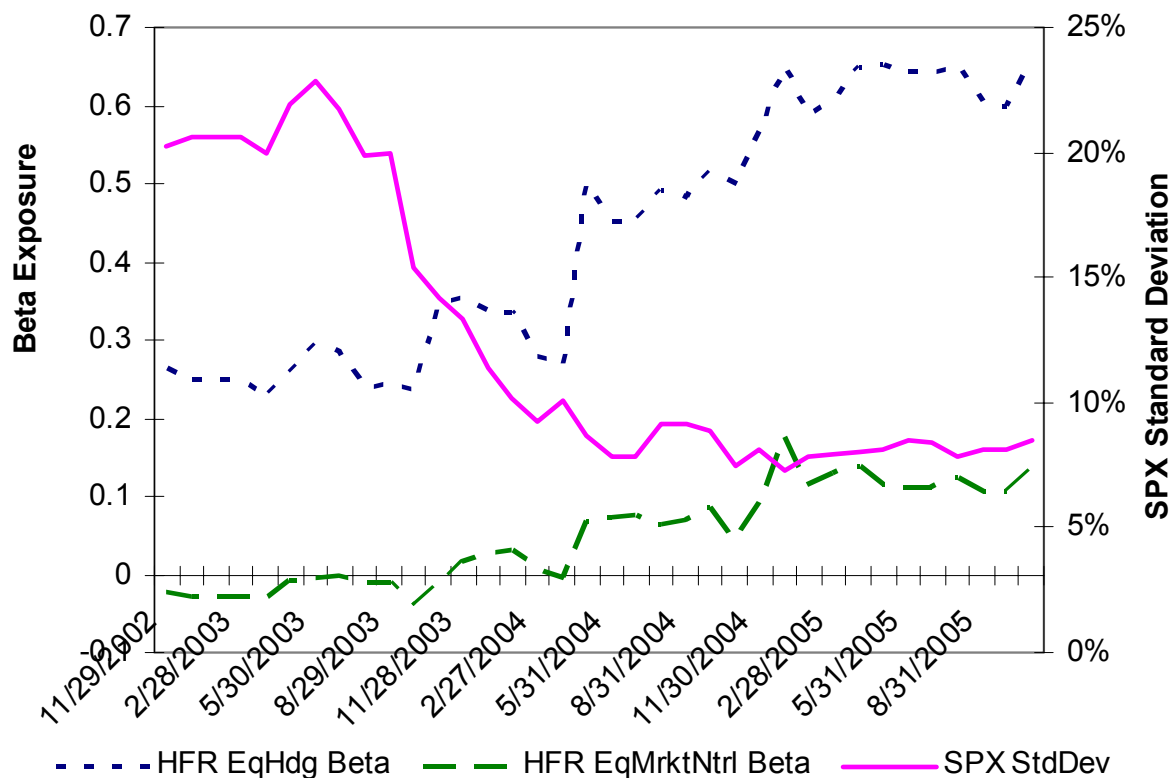


Source: Bloomberg

Hedge Funds & Credit Derivatives—A Tough Environment for Fund Managers

As both volatility and the returns have collapsed, managers of equity-oriented funds have opted to increase market exposure

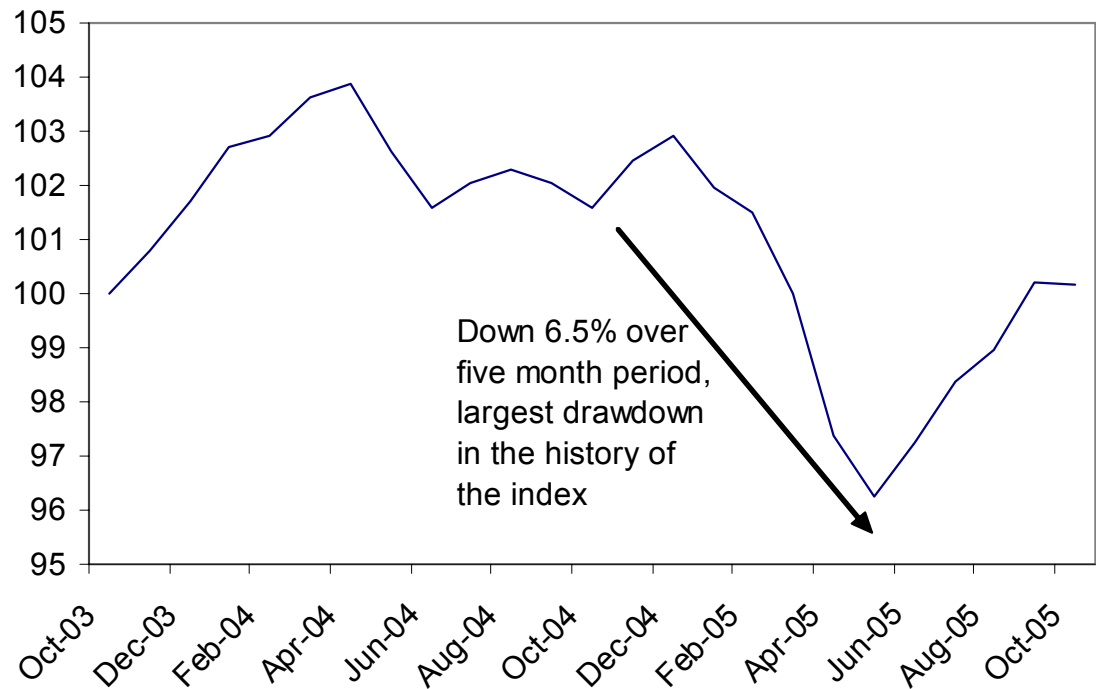
SPX Volatility Versus Hedge Fund Beta Exposures (Rolling 12 Months)



Sources: HFR and Bloomberg

- With implied volatility hitting multi-year lows, the traditionally “cheap” implied volatility attached to a convertible bond didn’t seem as cheap as in times past
- Additionally, with credit spreads at multi-year lows, there wasn’t much perceived upside from credit spread tightening
- The bonds sold off, triggering poor convertible arb performance, which in turn triggered client redemptions, which in turn triggered more selling, wide bid/ask spreads, and so on

HFR Convertible Arbitrage Index



Source: HFR

- With the traditional games under pressure, Multi-Strategy managers and more versatile convert managers turned to synthetic CDOs (collateralized debt obligations) during past couple of years as a source of potentially strong returns
- Key Trade: Go long the equity piece (or first loss tranche) and hedge by either:
 - Shorting the mezzanine piece
 - Delta hedging with CDS (credit default swaps) on the individual names in the CDO
- These trades offer significant positive carry and can perform quite well in either a stable environment or in the event of a broad-based and gradual spread widening
- Key Considerations:
 - **Equity is long correlation.** If default correlation increases, equity makes money.
 - **Mezzanine is typically short correlation.** If correlation increases, the mezzanine loses money.
 - Correlation is implied from the spreads associated with a particular CDO tranche and the CDS spreads of the underlying credits
 - Given the youth of this market, the range of possible correlations, the stability of these correlations, and the drivers of correlation levels were not fully understood

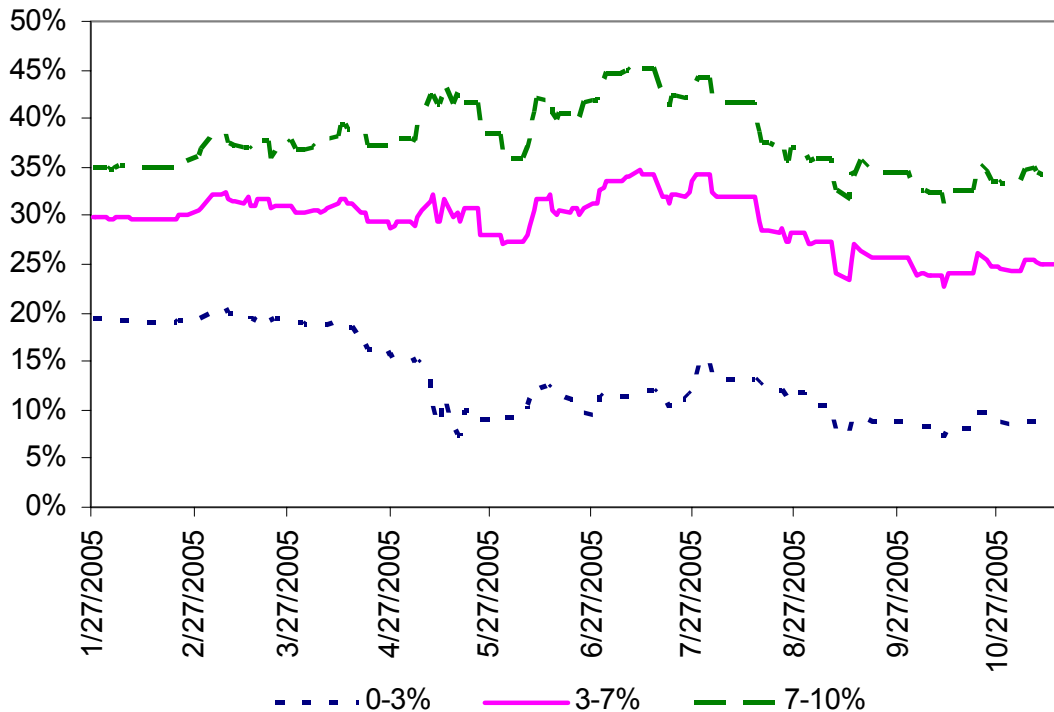
- The only real money buyers (pension funds, insurance companies and the like) were snapping up the mezzanine tranches and putting them away
- In effect, this created a bifurcated world:
 - Real money players (pension funds, insurers, endowments, etc.) were long mezzanine—**short to flat correlation**
 - Leveraged players (hedge funds and dealers) were long equity and short mezz—**long correlation**
- On May 5, Standard & Poors downgraded Ford and GM to sub-investment grade status
- While credit spreads in the overall market began to widen, the spreads of GM and Ford experienced extraordinary widening, and equity tranches of CDOs exposed to these names began to sell off—e.g., equity correlation declined rapidly
- Given that the credit deterioration was endemic to just a few names, the mezz holders felt no inclination to sell—e.g., mezz correlation held steady or increased

Hedge Funds & Credit Derivatives—Correlation Market Crisis

- Again, hedge funds were:
 - Long equity => long correlation
 - Short mezz => flat to long correlation

- In the wake of the downgrades
 - Equity correlation plummeted
 - Mezzanine base correlation remained generally stable—i.e., the hedge didn't work

5-Year CDX Base Correlations



- Even for those hedging more appropriately though CDS there were difficulties—the equity tranches lost value and most of the single name CDS changed little

Source: Morgan Stanley

Conclusions and Lessons From 2005 (And Many Prior Years)

- Both the hedge fund and the credit derivatives industries are likely to continue to grow at a healthy pace:
 - Investors will continue to search out sources of return that have little correlation with traditional asset classes, and hedge funds are the preferred vehicle for providing these return streams
 - Given the size of the credit markets worldwide and the benefits that a good number of market participants derive through the ability to easily transfer risk, the room for further growth in credit derivatives notional and trading volume is considerable
- As the low volatility environment continues, hedge funds will become increasingly short jump risk—portfolios are increasingly being positioned with a low volatility environment in mind
- As hedge funds and investment banks are leveraged and often take the same trades, understanding the flows of real money players is critical; it's important to know the incentives of real money players in relation to the incentives of leveraged players, the side of the trade each is taking, and the relative sizes of their positions