

What Would Quants Do?

*An Introduction to the Introduction to
Fundamental Analysis By Vishal Shah
By Varun Dube*

Gratis...Er...Gratzis?...THANKS!

- thanks for coming
- we are the best in Stern
- spread the word
 - Check for new people
- goal: developing quant skills in you
 - applications of those skills
 - how?
 - workshops, speakers, member perks

Board Changes

- ❑ Igor graduated! Yay...wait...crap.
 - Alexandru replacing him as Math Chair
- ❑ Andrew Whyte stepping in as Vice President
- ❑ Vishal Shah stepping in as Finance Chair
- ❑ Open: Computer Science Chair + Webmastergurulord

Eric = Marketing... = Rabbit???



DrumRoll...QuantFS DVD!!!

- OMG IT'S DONE!
- Don't believe me?
- I'll show you!
- [Show them]

Upcoming

- Math Workshop – [call on igor]
- Dr. Robert DeBellis on 04/24/07
- Taking suggestions for next year!
 - Because this club is about ***you!***

Introduction to Fundamental Analysis

By Vishal Shah



Agenda

- Defining Fundamentals
- Major U.S. Economic Releases
- Headline vs. components
- Scenarios of trading fundamentals
- A few of my trades
- How You can Learn
- The Portfolio

What are Fundamentals?

- The market movers: Event Risk
- 2 Types:
 - Predictable: Economic releases, surveys, corporate earnings
 - Unpredictable: 9/11, 7/7, Carry trade liquidation, Iranian Conflict
- Measured with reference to expectations; usually established by Bloomberg

The make-up of U.S. Economic Releases

- Primarily Released Monthly
- The headline number:
 - The number that flashes on the screen
 - The impetus for the first market reaction
- The Components:
 - Inflation component
 - Employment component
 - Inventory, new orders, imports, exports

The Most Important Releases

- NFP (Non-Farm Payrolls)
 - Measures jobs created, unemployment levels, wage inflation
- ISM Manufacturing (Institute of Supply Mgmt)
 - Measures manufacturing activity in the U.S.
 - A number above 50 is considered expansionary, and below 50 is considered contractionary
- ISM Non-Manufacturing
 - Measures strength of services sector
 - A number above 50 is considered expansionary, and below 50 is considered contractionary

The Most Important Releases

- GDP Advance
 - Measures anticipated GDP growth for the quarter with employment and cost indices
- CPI
 - Headline figure measures general price levels
 - Ex. Food & Energy component more important as food & energy prices are highly volatile
- PPI
 - Like the CPI, but measure price levels for producers

(*NOTE: a discrepancy in incremental increases between the CPI & PPI indicates that producers are absorbing either costs or profits

The Most Important Releases

- PCE Core Deflator
 - The inflationary gauge released with the GDP data
 - The Fed's favorite measure of inflation
- New Home Sales
 - Measures how many new homes were sold
- Existing Home Sales
 - Measures the relationship between supply and demand for homes already on the market

What matters More: The headline or the component?

- Headline provides the initial directional move
- Concerting components enforce that move
- However, conflicting components CAN create volatility
- Market scenario, positioning, and sentiment determines if the component or headline figure matters more; it takes to research to anticipate the impact of each

Trading the Fundamentals

- A few things to keep in mind:
 - Do not trade the news: do not jump in at the moment of the release
 - The market is thin and any large order can substantially move prices in one direction and an opposite order can reverse that action creating unnecessary volatility
 - Assess the risk of the figure either beating or falling short of expectations; which side bears the greater risk?

The Unpredictable Fundamentals:

- On 7/7/2005, I was trading the graveyard shift (12 AM-8 AM)
- While sitting in front of the Bloomberg screen at about 2:50 AM EST, I see a newsflash for an electrical fire in the London metro
- At 2:54 the claim is changed to a train crash
- At 2:55 the story is pulled off the air due to conflicting reports: very unusual
- At 2:59, my boss and I set-up to short a massive order of GBP/CHF
- At 3:04 a bomb is confirmed; the market has moved in our favor a great deal; we open another large size in the trade
- After a terrorist act is confirmed, we have profited a great deal
- My boss got a huge bonus; I was only an intern

The 7/7 Trade



Anticipating the NFP

- The market had expectations of a 100,000 printing
- Leading indicators earlier in the week had indicated possible strength in the figure
- The employment component of the ISM had risen during the prior month
- Consumer confidence was robust during the prior month
- The figure had failed to print below 90,000 in 2 years
- The risk was to the upside
- I took a small order at a low a few hours prior to the release to short GBP/USD
- The headline figure printed above the expectations
- The employment component also
- printed above expectations and showed concerns of wage inflation

Trading the NFP



Trading The CPI

- Oil prices were on the decline in the month of January
- The headline figure for the CPI was being anticipated to be robust; this was a mismatch
- With high expectations, the volatile energy component definitely guarded against upside risk
- However, core inflation had failed to register below 0.2% m/m for the past 4 years
- The correct trade involved anticipating an initial upside move on the lower CPI figure, and then the corresponding move downward if CPI maintained its 0.2% pace
- I entered to short with a hedge in another currency pair to guard against a continued move upward

Trading the CPI



How you can learn

- Involves a complex understanding of the markets
- Best method to approach fundamentals is to first study economic releases
- Best source: Bloomberg Terminals
- Log-on and type in "ECO" for U.S. economic releases, or "WECO" for an index of the world's economies

How you can learn

- ❑ Right clicking the releases themselves and looking at tables shows historical data and components
- ❑ Study these patterns, understand the economy, and apply these techniques to your own trades
- ❑ DO NOT go by what the media says; it leads to misleading and countervailing statements i.e. Sub-Prime and its effects on Housing

The Portfolio

- ❑ The Goal: to create a quantitative trading model for QFS
- ❑ The difference between IAG and QFS portfolio:
 - A real model based on quantitative techniques
 - Gauging numerically both fundamentals and technicals for trade optimization
 - Understanding and applying computer programming and product pricing principles
 - Learning and contributing to a project that could potentially lead to a lot of recognition