CME Group Fundamental Analysis
Market Education

Placing The Data In Context

Goals Of Section

- Develop an understanding of what the market has been expecting
- Develop an understanding of how a given market's reactions to an indicator have been changing
- Develop an understanding of whether an indicator has been constant or changing in its internal nature

Consensus Forecasts

Anyone Can Forecast

- The emphasis on “anyone” is not meant disparagingly, but rather to emphasize forecasts are an opinion and anyone has a right to express theirs
- Forecasts can be generated from a top-down point of view, from a bottom-up point of view and can range in their generation from highly quantitative to highly subjective
- Forecasts also serve client and customer interests, both internal and external

Everyone Must Forecast

- Every business decision and indeed every personal decision is based on at least a set of assumptions and an implicit forecast
- The collective landscape is shaped by actions taken in response to these forecasts
- This proceeds in a dynamic loop to the point where actions and collective views mesh
- This leaves everything vulnerable to new information, which is one reason why conventional wisdom is seldom correct

The Herding Instinct

- All forecasters are aware their work is compared against their peers'
- This leads to herding near the center of opinion
- Conversely, someone may wish to draw attention to their work by issuing an extreme forecast, but there is a great deal of career risk involved even if the extreme forecast turns out to be correct
- Many economists, especially those toiling in the blogosphere, have strong political biases in their work

The Key Paradox

- A credible forecast is inherently self-defeating
- If, for example, market participants hear from a famous economist who has been correct many times before interest rates will rise six months from now, they will act
  - Lenders will postpone lending
  - Borrowers will accelerate borrowing
- The higher rates forecast for the future get pulled forward in time for the present and raise the odds the forecast will be incorrect

Availability Of Forecasts

- Many widely read financial Websites provide tallies of consensus forecasts
  - Yahoo! Finance
  - Briefing.com
  - Marketwatch.com
  - Reuters.com
- Subscription services such as *Bloomberg* offer current and past forecasts not only on a consensus basis but on an individual forecaster basis as well
- Brokerage firms offer a similar slate

Market Sentiment

Bullish / Bearish Consensus

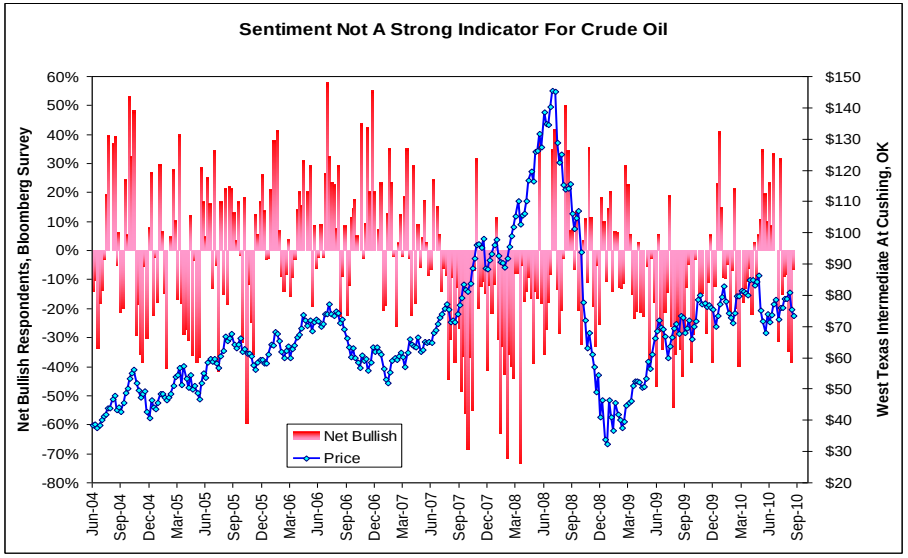
- Surveys of market participants are considered a contrary indicator at extremes: The idea is if a preponderance of responses are bullish / bearish, there are few left to buy / sell and existing traders have profits to protect
- The principle is similar to many countertrend indicators used in technical analysis, such as the relative strength indicator

Sentiment Survey Caveats

- Few surveys ever reach the number of respondents required statistically for a narrow confidence band
- Participants are not selected randomly, and many have a direct and vested interest in what they say
- Commercial traders often have to take positions directly contrary to their opinions on the market

Crude Oil Example

- The net bullish percentage of respondents to a Bloomberg survey never reached a positive extreme during the 2007-2008 rally, nor did it reach a negative extreme near the 2009 bottom
- No relationship is discernible



Tracking Market Sentiment

- Market Vane is a commonly followed subscription service
- The American Association of Individual Investors has a regular survey of stock market sentiment
- Mutual fund families with inverse and leveraged funds such as Rydex actually report on their customers' positions as contrary indicators
- Quotation services such as Bloomberg report on sentiment indices

Commitment Of Traders

Aggregated Positions

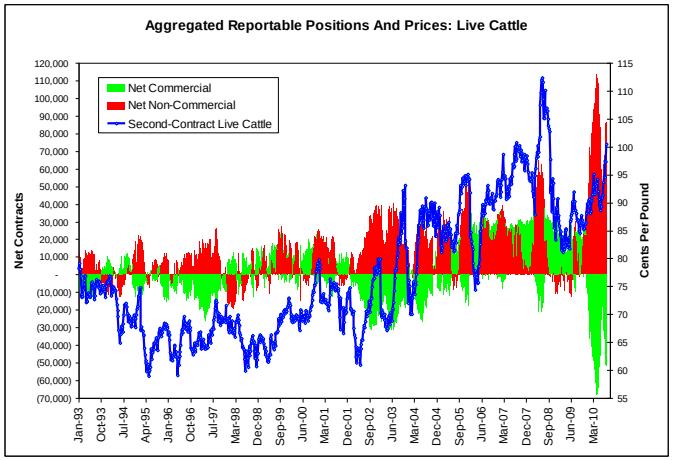
- The Commodity Futures Trading Commission has been reporting on long, short and spread positions by Commercial, Non-Commercial and Non-Reportable categories since 1992
- The original premise for COT analysis was when Non-Commercial traders' net positions hit an extreme, the trend was exhausted
- The rise of long-only index funds and other financial investments in commodity instruments after 2003 made these data increasingly unreliable

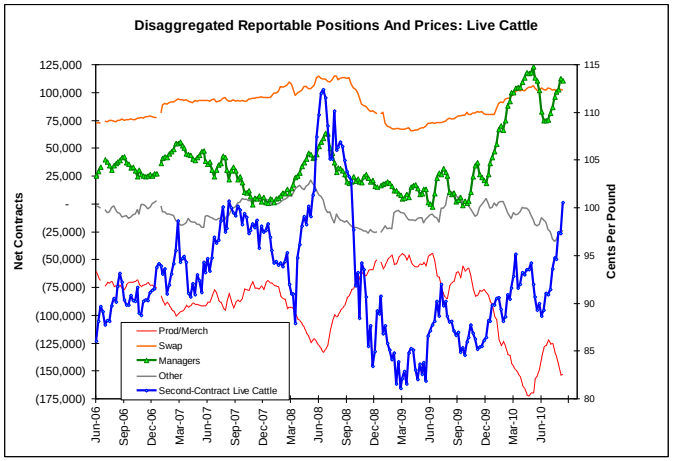
Disaggregated Positions

- A new report with history extending back to mid-2006 began in 2009 for physical commodity futures
- The positions of professional money managers, producers/merchants/processors, swap dealers and “other reportable” traders were broken out to assess the roles of commodity investors and financial traders

Commitments & Prices

- Some price moves occasionally appear linked to the net positions of non-commercial traders (top)
- Some price moves occasionally appear linked to the net positions of managed money (bottom)





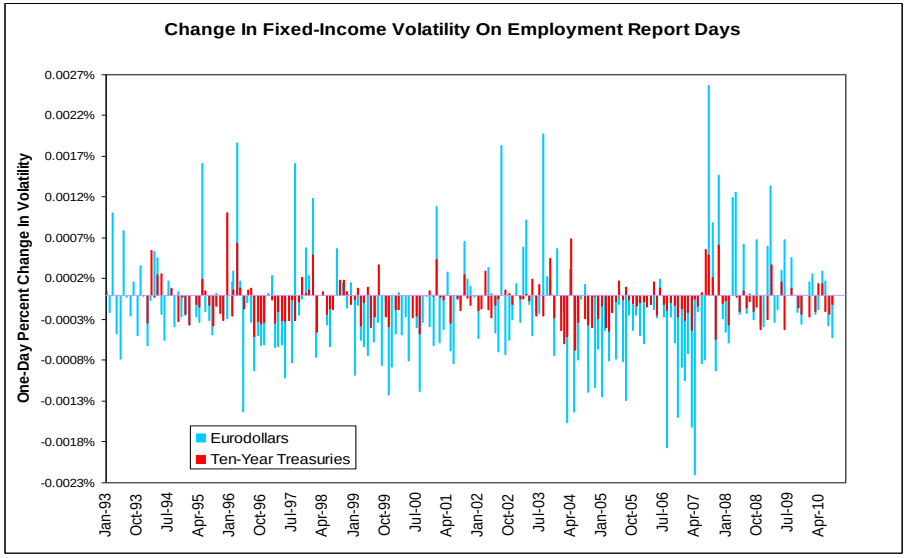
Volatility

Options Are Insurance

- The more traders are willing to pay for an option at a given strike price, the higher the implied volatility is for that option
- This gives an insight into the market's collective anxiety about a given price level being reached or exceeded
- Rising or falling volatility in conjunction with price trends signal the market's confidence in its own actions
- Volatility often expands going into a major economic report

News And Volatility

- Buying insurance in front of an event coming at a known time is risky
- The implied volatilities of Eurodollars and Ten-year Treasuries have tended to fall on employment report days

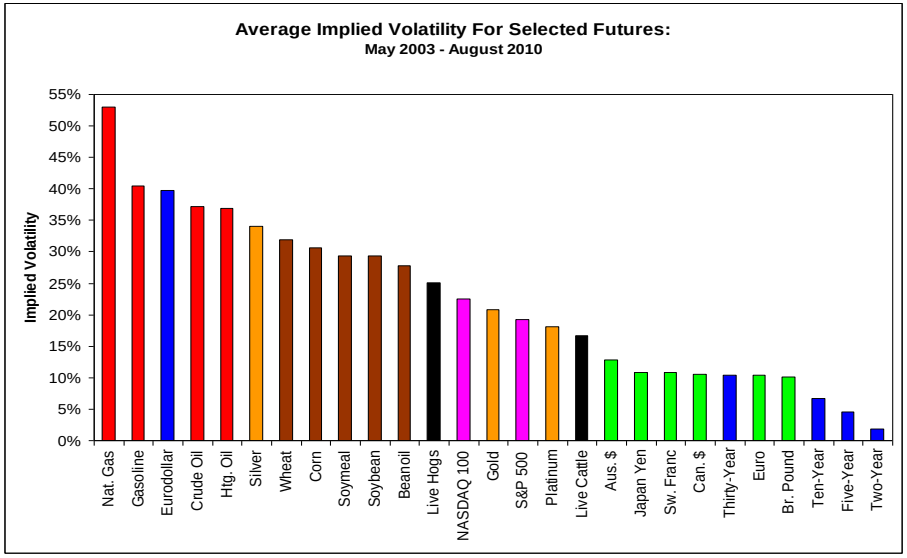


Insurance Changes Behavior

- Long positions hedged with put options or short positions hedged with call options have a limited risk
- The writers of those options have open-ended risk
- The resulting risk transfer often leads prices to drift toward strikes where a large number of options have been written; this is called “pinning” or “pin risk”

Volatility Across Markets

- Different market classes have different normal levels of volatility
- Energy markets (red) tend to be the most volatile; currency and interest rate markets (green and blue) the least volatile



Volatility Skews

- Different markets have different volatility reactions to price moves
- Some, such as stock indices or crude oil, tend to see their volatility rise as prices fall. This is called an “investor skew”
- Some, such as heating oil, tend to see their volatility rise as prices rise. This is called a “demand skew”

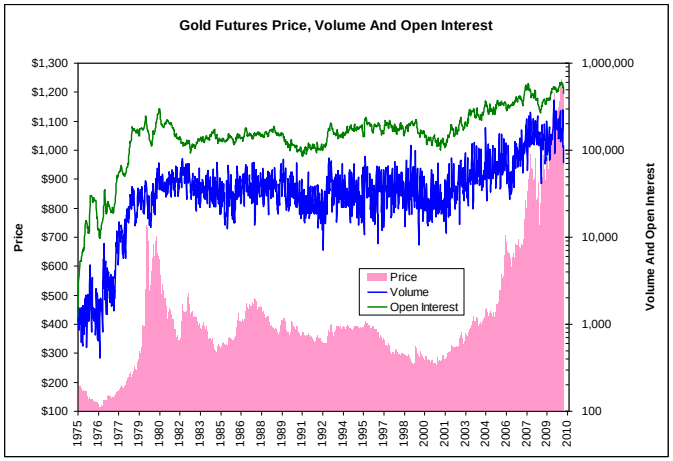
Volume And Open Interest

Changing Nature Of Markets

- Trading used to be done person-to-person via open outcry, and it was a relatively slow, people-intensive business where information was transmitted by voice, hand signals and runners
- Electronic trading has made trading a machine-to-machine business
- The old notion of rising volume and rising open interest confirming a move in price may have made some sense in the open-outcry world, but not in the electronic world

Gold Volume & Open Interest

- Rising open interest and volume during the 1970s gold rally are easy to see, but the 2001-2010 rally was not accompanied by rising volume and open interest
- Gold's long bear market between 1980 and 2001 saw stagnant, not declining, trading activity



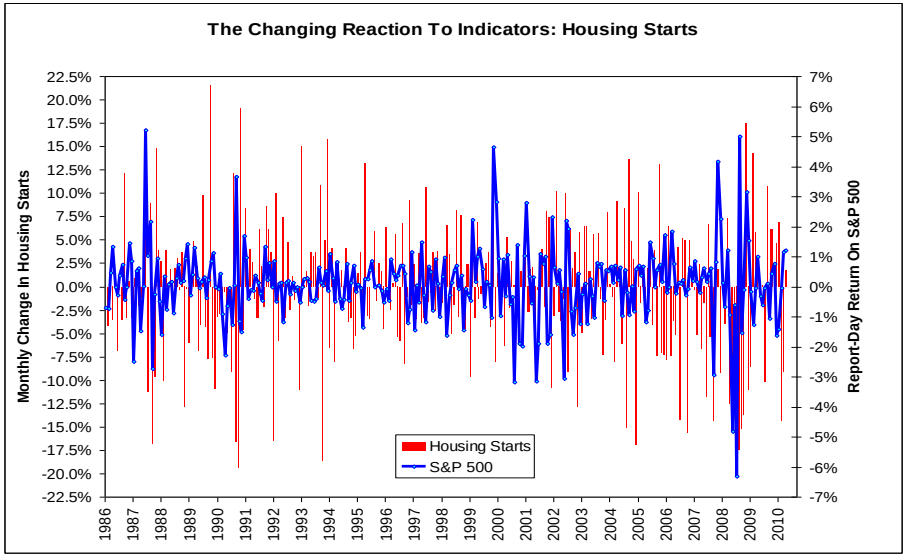
Reactions To Data

Develop A Mental Checklist

- Just as intelligence agencies listen to when and where “chatter” picks up, so should traders
- Financial news sources, blogs, Websites and chat rooms have hot and cold topics. Use them:
  - If the concern is recession, pay attention to the course of coincident indicators such as industrial production
  - If the concern is inflation, pay attention to the course of price indices
  - If the concern is housing, pay attention to mortgage & construction data

Markets Have Fashions

- Large changes in housing starts in the1980s or between 2004-2007 did not produce large changes in the S&P 500
- Large report-day changes in the S&P 500 in 2000-2002 were not accompanied by large reported changes in housing starts
- Only after 2007 did the housing starts report produce large changes in the S&P 500

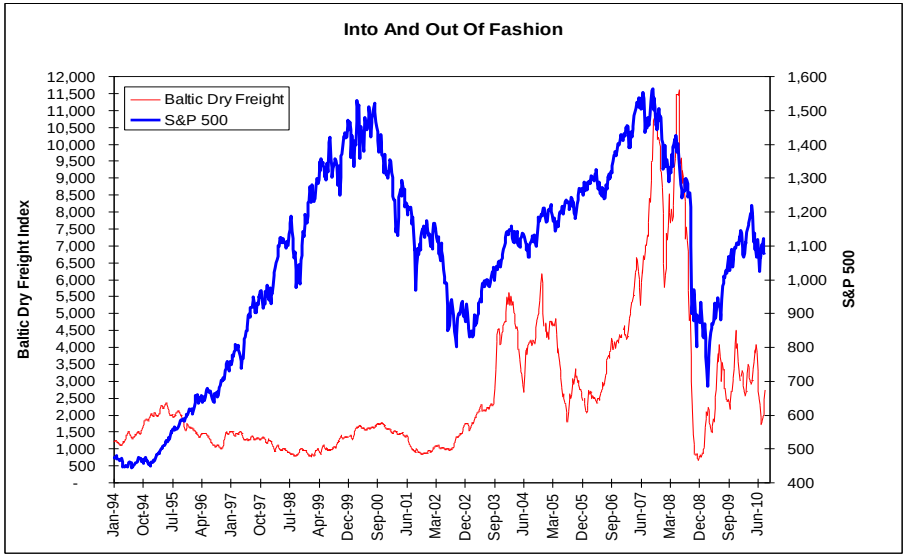


Context Is Everything

- A mid-1980s move to reduce the federal deficit, the Gramm-Rudman bill, was considered bullish for both stocks and bonds
- A similar bill proposed during and after the 2008 financial crisis would have been considered massively bearish for stocks and bullish for bonds

Suddenly Important Indicators

- Sometimes long-established indicators take on a sudden importance, and then lose it just as quickly
- The Baltic Dry Freight index, heavily influenced by Australia-to-China ore shipments, had been followed for years by economists
- Once traders began to look to at it daily after, it lost its value



Talk Can Be Cheap. Or Expensive

- Statements by officials often fall into the category of news that affects price without affecting value
- Announcements of new policy proposals, actionable Executive Orders, court decisions, etc, have to be interpreted as news that affects both price and value
- Developments affecting value without immediately affecting price, i.e., technology-induced “creative destruction” of an entire industry, often are the most important developments, but seldom are accompanied by news

Data Distortions

Are You A Trader Or An Economist?

- We want economic reports to be perfect the first time and consistent in their construction
- In reality, reports are revised and the bases for data series are changed all of the time
- No conspiracies are necessary: Surveys and reports are statistical estimates, and factors such as seasonal adjustments, weather-related shocks, numbers of days in a shopping season and estimates of business creation are just that, estimates

The Consumer Price Index Case

- The Consumer Price index is a critical number as many union contracts, pension & Social Security payouts and inflation-linked bonds rely on it
- By the late 1980s, most economists recognized where its construction was flawed
- Some proposals, including “hedonic adjustment” for technological change stood. Others, because they would have lowered the CPI too much, were rejected

Data Distortions And Trading

- Some distortions are massive, but are so unique their actual effects cannot be known until years later
- For example, the Federal Reserve's purchases of $1.25 trillion of mortgage-back securities and the first-time homebuyers' tax credit in 2009-2010 affected the housing market, which in turn affected all financial markets, but in what amount in unknown
- A trader imposing his or her judgment as to what the reaction "should be" is not likely to be successful in the endeavor

Summary

- Sentiment and relative anxiety are key fundamentals, but they cannot be read mechanically. In some ways, they are a collection of anecdotes in search of a theory
- Collective forecasts and the reactions to them are a fundamental in their own right
- The role and importance of major indicators changes over time. Once again, a mechanical approach will not work
- Market data are not absolutes; they are estimates and their construction is not always transparent