Nerds on Wall Street
A blog for market and financial technology. Hosted by "longtime financial markets AI geek" David Leinweber. Author of Nerds on Wall Street (Wiley 2009) Founding Director of the Center for Innovative Financial Technology at Berkeley Lab: http://www.lbl.gov/CS/CIFT.html

Event Driven Trading and the 'New News' (SF QWAFAFEW Movie Supplement)

Victim of Technology
I'm reading "Glasshouse", a fine cyber SF book by Charles Stross that has far future historians looking back on the mid 20th to 21st centuries as a "dark age", since all records became digital and vanished in a maze of obsolete incompatible technologies.

We don't have to wait for the 25th century to share the love on this. I confidently loaded up a USB key with fancy moving slides and videos in two flavors for a QWAFAFEW* talk in San Francisco. In moving from a mac to the windows laptop, everything went dark except the pdf version of the slides.

Simulation of a News Driven Portfolio
The talk was:

There are two information revolutions underway in trading and investing. Most of the headlines focus on structured quantitative market information at ever higher frequencies. The other technology revolution in trading and investing is driven by qualitative, textual and relationship information. This is important for people who make their living in finance on scales longer than microseconds, even days.

What constitutes "news" is a moving target, as vendors and investors expand and automate collection from primary and proprietary sources, including social media. This is increasingly used for event driven alpha signals. Demonstrations of this using commercial "state of the practice" news systems from Thomson Reuters are a part of this talk. A model sequestered for nearly a year and simulated, with trading costs, on unseen price and news produced an alpha exceeding 11% over its unseen test period, the first three quarters of 2010.
This last point, of putting the model in "cold storage" and then testing on unseen data would be a good standard for all papers of this sort, many of which appear (along with ours in the Winter 2011 issue) of the Journal of Portfolio Management. Alas, application of this rule would require a name change to the Pamphlet of Portfolio Management. The slides from the talk are here.

**The Missing Movies**

The movies were for an Event Study Explorer, a visual, interactive "quantextual" model building tool used to find alpha in news and other sources. Without the videos, I broke a few moves pointing to the still slides and pretending to fill in the motion. That worked poorly, so I am posting the four small movie segments on the Event Study Explorer, built in Spotfire, here. It addresses many of the (valid) critiques of event studies. The narration is by my collaborator and coauthor, Jacob Sisk, of Thomson Reuters.

The movies, in four segments, follow the still picture below.
Event Study Explorer Intro

Filter Description

Consistency over Time

Using Topic Code Metadata

All of this is available for test drives, contact Rich Brown at Thomson Reuters News Analytics.
(richard.w.brown@thomsonreuters.com)

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*QWAFAFEW* is the torturously arrived at name for a group of quants & Wall Street nerds who wanted to have tech talks with beer and snacks. It started in NY in the 80s and has thrived, meeting more or less monthly in nine cities.

Comments (2) | TrackBack (0)

**Top Books for Quants, plus HFT and Flash Crash Freebies**

Quantnet just published their list of best selling books, and it was good to see "Nerds on Wall Street" on there, along with some classics like 'Liar's Poker".
Two authors were there twice, Dan Stefanica and Steve Shreve, who wrote on the Mathematics of Financial Engineering, and Stochastic Calculus. If I was a bragging kind of guy, I'd say I was in third place, since "How I Became a Quant" is on there along with NOWS, and while HIBQ is credited to the editors, I wrote the first chapter of 24 in the book, so I can say I'm on the Quantnet list 1.04167 times.

I got the first chapter slot because the editor's charming and literate wife thought it had more laughs than the others and might sell a few books. Who knows? I hear Snooki gets $50K to show up and pass out.

Very technical stuff for the most part. Lots on what John O'Brien calls "financial engineering, with a small 'f' & small 'e'”, i.e., option and derivative pricing.

Here are a few more volumes to add to the list for a broader set of topics:

**Active Portfolio Management: A Quantitative Approach for Producing Superior Returns and Controlling Risk** - Grinold & Kahn


**The Econometrics of Financial Markets** - Campbell, Lo & MacKinlay

Many of us like to try the new new thing - neural nets, wavelets, genetic programs, machine learning and the rest. I'm certainly part of that group, but it's always a good idea to know the math. Lots of the latest often turns out to be statistical. One neural net researcher says he knows it's statistics, but "I create artificial neural nets" is so much better at cocktail parties.

**All About High Frequency Trading** - Durbin

High-Frequency Trading: A Practical Guide to Algorithmic Strategies and Trading Systems - Aldridge

HFT is mostly in the "Those that know, don't tell. Those that tell, don't know." phase of its life, so there are no texts like the two above. These two books tell some.

**SEC/CFTC Flash Crash Reports**

A May report on Preliminary Findings Regarding the Market Events of May 6, 2010
And September's FINDINGS REGARDING THE MARKET EVENTS OF MAY 6, 2010

By far the best values on these lists (free). A detailed and illustrated look at the stangest minutes in market history. Sample below shows Accenture trading at $30 and a penny in the same second. Can't blame Tiger for this money shot.

![Price Chart for Accenture plc (Ticker = ACN)](image)

**Figure 14: Price Chart for Accenture plc (Ticker = ACN)**

The figure above shows that bids for Accenture plc (ACN) rapidly decline seconds from about $30 at 2:47:47 p.m., to $0.01 by 2:47:54 p.m.. The black bar that trades were being made at both the stub quote of $0.01 and the ask price of 0 within the same second.

*(SEC/CFTC Preliminary report, page 35)*

For those with more space on the bookshelf, Quantnet also published a list of 150 or so books on the Goldman Sachs reading list.
Fingers don't get that fat. Error, Manipulation or Cyberattack?

Call me a paranoid old nerd, but the "fat finger" explanation for the 1000 point drop in the US stock market on Thursday just doesn't make any sense.

When I ran $6B in quant equities as an institutional manager in the 90s, we had multiple redundant layers of checks and checks-on-checks to avoid that kind of error. The early "electronic order working" systems (high frequency trading when frequencies weren't as high) had their own safeties. Additional layers were in place at the receiving end, at the brokers and the market centers.

There were stories of temp employees or traders coming back after a liquid lunch and offering to sell 900,000 shares of a stock at 1000 yen instead of 1000 shares at 900,000 yen, and getting whacked, but they didn't crash the market. (Things can be more extreme in Japan - there are no $900,000 US stocks.)

Legitimate traders who make these errors fess up fast, and work with the guys at the other end to tweak the filters so there are no encores. No one is stepping up on this one. (Added 5/9: Theory B is that there is a programmer with soiled trousers hiding in a Chicago basement who is too petrified to tell the management, who would report.)

So what happened? Maybe a market manipulation. Always a good way to make a lot of money in a hurry. There's an old (and very funny) novel called "Green Monday", by Michael Thomas, that tells a similar tale. It's been out of print for 29 years, but can be had on Amazon for $0.01 (plus five bucks shipping). It tells the story of a down-in-the-royal-weeds lower level Saudi prince who gets no respect as a garden variety multi-millionaire and wants to impress the family by making himself a mega-multi-billionaire. He goes to a thinly disguised version of BARRA (an early quant firm), where the Certified Neologic Investment Theorists (who take great pride in bragging "I am a fully certified NIT!") design a program trade to rapidly take and then rapidly unwind positions in stocks that would have large price moves after a manufactured oil shock engineered by the upwardly mobile junior prince, moving him up to the major leagues of prince-dom. Today, fast turns in leveraged index futures and options would be a turbocharged version.

It was remarkably prescient. Electronic trading was in its infancy - the NYSE DOT system, designed to free brokers from the annoying 100 share orders was only five years old when the novel was published. But then, as now, pump enough of those 100 share orders through the computer and pretty soon you're talking serious money. Back then only a small percentage of stock and futures transactions were done electronically. Today, it's approaching 100%. It good to hear that the SEC seems to be on the case, with the old Watergate mantra of "Follow the money". Maybe we'll know more next week.

A scarier explanation it that this was a test run for a potential cyber attack on US financial systems. Remember
Richard A. Clarke, a career civil servant who was chief of counter-terrorism at the National Security Council in the last years of the Clinton administration and the first years of Bush 43. He spent most of 2000 warning about trouble from that tall wacko Osama bin Laden. And being ignored.

Clarke ended his long government career in 2003 and is now warning of a new threat, Cyber attacks on our information infrastructure - electrical, water, communications and, yep, financial systems.

He documents some truly knee-trembling events that look like probe attacks. Bad enough to be visible to the perpetrators, but not so dreadful that we were all stuck in elevators in the dark. What happened on Thursday is eerily similar to the attacks he describes. If so, it may indeed be time to move the portfolio into canned goods, ammunition and tequila. And to hope the NSA and the nascent Pentagon Cyber Command are on the case along with the SEC, who would be way out of their depth on this.

Let's hope this was plain old greed, and not a test run for a Weapon of Mass Financial Destruction.

[Update 5/9 - Stories about Thursday's events are starting to include names of firms that might have been involved. A good sign, but there are still no definitive answers. Comments to the effect that this was a complex interaction of multiple HF trading systems across fragmented equity market centers raise the question of why this hasn't happened before. HF trading and sweep orders have been in wide use for years, and Thursday's trading before the event was unusual, but not in any extreme way.

I hope that this was an innocent accident. However, even if this was the case, it suggests that it could be repeated for less-than-innocent motives. During the cold war, the strategic goals of the US were Stability and Security. A good motto for modern markets as well.]

[Update 5/11 - From yesterdays WSJ story: "Tradebot Systems Inc., stopped trading to limit its losses. Other high-speed firms also pulled back. These firms typically buy and sell when other investors need to trade, so their withdrawal could have primed the market for a fall.

Around the same time, the big P&G sell order hit the NYSE floor. It is not clear where the sell order came from and how big the order was. It overwhelmed available buy orders, traders say."

How can this happen? Are anonymous channels open into the equity trading system?]

Unencumbered by the Thought Process

This is the web edition of Nerd on the Street,
Institutional Investor Magazine, November 2009
(Download the slick print version here)

Trying to understand what happened to capitalism in 2008 without serious data collection and analysis is a poster...
child example of reasoning “unencumbered by the thought process”, the theme of a brilliant commencement address given at the Massachusetts Institute of Technology by two smart graduates of that institution, National Public Radio’s Click and Clack, the Car Talk Guys, a.k.a. Tom and Ray Magliozzi, who only pretend to be morons on their show.

Click & Clack (not actual morons), and the UBTTP Flag, in Latin, with tailfins.

Behind their humorous message was a painful truth. We make all too many important decisions without firing up a full set of cerebral pistons. The U.S. Congress seems particularly prone to action without sufficient thought. Consider the House Financial Services Committee. It has — count them — 72 members, enough to field a softball league that could be coached by committee chairman, Congressman Barney Frank. Many are in dicey seats, having been placed on the committee to draw cash from this campaign contribution honeypot.

Coach Barney (in a much earlier season).

I’d like to believe that this crowd will use a careful, scientific approach, despite the distractions of health care, two wars and trying to get reelected. I also like unicorns.

The truth is, these public servants, seeking to interpret the greatest crisis since the Great Depression, are doing no more than rounding up the usual suspects — the fat-cat bankers, the slick fund managers and the like — and saying “You’ve been bad!” in front of a battery of cameras. Such theater may be great for scoring quick political points, but it isn’t particularly enlightening.

While Congress dithers, others have put forth some excellent proposals to help now. One comes from Andrew Lo, director of MIT’s Laboratory for Financial Engineering. He suggests a Capital Markets Safety Board modeled after
the National Transportation Safety Board. After the next financial crash, “an experienced team of forensic accountants, lawyers and financial engineers [will sift] through the wreckage” of financial institutions and prepare a public report explaining how it all happened. Not only will the study decipher the immediate causes of the crash, it will generate recommendations on how to avoid crashes in the future.

If financial systems had flight data recorders, what would they record?
And who would read them when they came back looking like this?

Another fine suggestion comes from the Committee to Establish the National Institute of Finance, a mix of academics and Wall Street sorts who have the wacky notion that this is a complicated business, and that perhaps keeping an eye on things before they crater the economy would be a good idea (sign up at ce-nif.org).

Either approach — a Capital Markets Safety Board or a National Institute of Finance — would offer a much-needed dose of the scientific method, fully encumbered by the thought process. Let’s not waste this crisis. And don’t drive like my brother.

Extra Web Goodies & News:

The SSRN site with the link to Andy Lo’s paper is an amazing place. A true testimonial to academic freedom (after tenure anyway) is found in the remarkable top-downloaded paper for much of last year, which has a four letter title that is sure to catch any scholar’s attention, particularly thirteen year old boys.

Harry Markowitz, Nobel Laureate in Economics (1990), is the latest member of the Committee to Establish the National Institute of Finance.

Comments (3) | TrackBack (0)

"Ready, Fire, Aim" Market Reform

This is an annotated, linked & expanded version of Nerd on the Street, Institutional Investor Magazine, September 2009
Previous disasters, all notably less damaging than the Great Mess of '08, have led to deep serious analysis of their causes. The general notion being that understanding the causes might be useful in avoiding nasty repeat performances. This has been Standard Operating Procedure for a long time for good reason. The alternative Ready Fire Aim approach can be hazardous to your health, yet that seems to be the plan for the newly announced Financial Crisis Inquiry Commission, tasked with reporting back on the crisis that nearly broke capitalism by the end of 2010, while the legislation to avoid a financial crisis is being crafted now.

There have been more than a few comparisons with the Pecora Hearings in 1933. Pecora was a former New York DA, who as counsel for the Senate Banking Committee, had enough clout, backing and sense of mission that in six intense months, his investigation led to the legislation that established the SEC and the basis for modern market regulation. He also, famously, got J.P. Morgan to admit to not paying taxes for years, and to let a lady circus midget sit in J.P.’s illustrious lap.

A more recent comparison is the Brady Commission, appointed by Ronald Reagan less than three weeks after the crash of October 1987. Let’s take a Nerd approach and compare a few salient features of the two investigations. The details are found in the "More than you want to know" section at the end of this column.
The absence of any sense of urgency in this is odd. Back in October of 2008, the Heritage Foundation called for a Brady style commission immediately: “Appointing a commission now would avoid losing the three months until the next President takes office.”

Now, a mere nine or ten months later, the commission has been named, but they appear to be in no great hurry to do anything. Angelides, a former California state treasurer, said, “he hoped to name an executive director sooner rather than later.” But he was unsure this could be done by [the first meeting on] September 17. “Contrast this with Brady, who named his executive director, Harvard Business School professor Robert Glauber, immediately. Together they assembled an 50 person team, and delivered a report that “surprised even Wall Street experts with its wealth of detail and cogent explanations of what went wrong”. They did this on schedule, in 60 days, less time the current commission is taking to pick a director, let alone a staff.

Ten members on the commission is hardly lean and mean. Brady had four. By all accounts, Phil Angelides is an able public servant, best known as the sacrificial democrat offered up to be whacked by the Gubernator in 2006 (a choice many voters may regret, as the state sinks into the fiscal sea). But he is not exactly a heavy hitter in the arcane world of modern Wall Street. Brady’s father was a partner of John D. Rockefeller. He knew the markets, and all the players knew that Brady and his team of financial and computer trading experts could not be fooled.

Others on the current commission, while accomplished citizens all, seem distant from the core issues that came close to burying us in toxic assets. A Las Vegas investor, Chairman of an anti-virus firm, a former McCain campaign operative. One member, Brooksley Born, clearly understands what’s going on. As chair of the CFTC in 2000, she was on the losing end of a battle with Rubin, Summers and others about regulating the very activities that caused the crisis. She has “I told you so” bragging rights. We can hope that she and her commissioners have the horsepower to expose what many would still like to hide.
In many investigations, choosing an irrefutable and universally respected leader provides that horsepower. Think of Nobel prize-winning physicist Richard Feynman in the investigation of the Space Shuttle Challenger accident. There are close to a dozen living American Nobel laureate economists, several in finance. Were any offered a job? In a parallel bizarro world, maybe we’d have a Volcker-Buffet Commission to figure out what hit us and what to do about it? It was nice to see the wise old guys during the Obama transition. Buffet was mentioned for Sec Treasury, but they’ve been scarce lately. Is it too late to actually give them something to do, and hold off on changing the game until they do it?

Supplements, bonus stuff and web exclusives!

More than you want to know about the Brady Commission (pdf)
Angelides Commission members & notes (pdf)

Comments (3) | TrackBack (0)

Back into the data mine.

Jason Zweig of the Wall Street Journal is the co-author of The Intelligent Investor: The Definitive Book on Value Investing, A Book of Practical Counsel, the one investment book everyone should have. Ben Graham's original version was published in 1949, the new one is co-authored with Warren Buffet, so you know this is quality merchandise. It is straightforward, gimmick-free advice, with no scent of dubious “get rich quick” formulas.

In contrast, a strong contender for the mother of all gimmicky, dubious, get-rich formulas is found in "Stupid Data Miner Tricks", chapter 6 of the Nerds on Wall Street book, which conclusively demonstrates the utterly meaningless and accidental correlations between butter production in Bangladesh and US stock market returns over a twelve year period. Throw in a couple of other bogus variables, and you get to a regression that "explains" 99% of the market returns over the period, but means nothing.

Jason did a story in the August 8 WSJ, Data Mining Isn’t a Good Bet For Stock-Market Predictions, that revisited the data mine, and included a four minute interview on the poster child for bad quant behavior.

Personal finance columnist Jason Zweig interviews David Leinweber, author of "Nerds on Wall Street."

The Journal wanted to put in the charts showing the butter numbers along with the S&P, but they have a policy of only using charts for which they have the underlying data, and the 14 year old CD-ROM that contained the Bangladeshi dairy data had gone missing.

Berkeley student Max Dama went in search of the Bangladeshi butter series, to get the WSJ some data in time for the deadline. Alas, some things, like 20 year old butter numbers, are hard to find even on the web*. In a display of
true data miner machismo, Max shifted his sights to mine elsewhere and found a NEW AND IMPROVED highly predictive (but useless) leading indicator for the US stock market.

By data mining we've found that the number of buried treasures discovered in England and Wales is predictive of the Dow Jones Average 1 year later. 92% of the variance, i.e. correlation=.9187, of the DJIA is "explained" by the treasure discoveries. (In compliance with the Journal's admirable standard, the data and source details are here.)

Note to World: This is why you should hire Berkeley students.

* Butter in Bangladesh update. The old data is still AWOL, but the UN does cough up this rather nasty butter data. Unlike the original data, there are lots of missing values, and it shows imports and exports, instead of production. FYI, Bangladesh imports about a thousand times more butter than it exports. The investment applications of the Bangadeshi Butter Balance are left for further research.

Comments (9) | TrackBack (0)

"Nerds on Wall Street" Book is out now

It's finally hatched. The book, "Nerds on Wall Street: Math, Machines and Wired Markets" by David Leinweber, with a foreword by Ted Aronson, is now published (Wiley 2009).

It is available at Amazon and all major booksellers.


NOWS should appeal to both techies and financial types with a sense of humor.

The whole thing can be searched with Amazon "look inside". Some pieces can be had here:

Chapter 1 - An illustrated History of Wired Markets, featuring never-before published photos of livestock on the floor of the Chicago Merc and the First Nerd on Wall Street.

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Videos from related talks are at the bottom of this post.
I'm gratified to see that some distinguished readers had nice things to say about it on the back cover, and inside.

**Praise for "Nerds on Wall Street"**

“Leinweber isn’t half as crazy as people said! He foresaw the profound change that wired technology would bring to markets (robots trading millions of shares in six milliseconds). Now he nails the Stupid Financial Engineering Tricks that dumped the markets, and offers his patented, sound insights on how the nerds will help bring us back.”

**Jane Bryant Quinn,**  
Financial columnist for Bloomberg.com and Newsweek  
**Author, “Smart and Simple Financial Strategies for Busy People”**

“David Leinweber has been a pioneer in developing and applying advanced technologies in the capital markets. This book is a virtual tour de force survey of many of the key innovations that ‘nerds’ and computational techniques have driven over the past two decades, with key insights on future opportunities in this area. It is a highly engaging, insightful, and entertaining book that will benefit all investors who want to understand the increasingly important role that technology plays in the financial markets.”

**Blake Grossman**  
CEO, Barclay’s Global Investors

“Leinweber leads his readers through a largely unexplored forest, turning over ordinary-looking rocks to reveal hidden colonies of peculiar creatures that feed on moldering mounds of numbers teeming with trailing zeroes. His book is absorbing, instructive, and very, very funny.”

**David Shaw**  
Founder D.E.Shaw & Co.

“Through the lenses of finance “nerds”, Dave Leinweber recounts the quantitative and technological revolution in equity trading. The book is humorously written but it is serious and insightful. It makes an important contribution to our understanding of financial innovation and the evolution of the capital markets.”

**André F. Perold**  
George Gund Professor of Finance and Banking  
Harvard Business School

“Finally, a book that rightly honors the pocket-protected, RPN-loving, object-oriented, C-compatible, self-similar Wall Street quant! This is a delightfully entertaining romp across the trading floors and through the research departments of major financial institutions, told by one of the early architects of automated trading and a self-made nerd.”

**Andrew W. Lo**  
Harris & Harris Group Professor  
Director, MIT Laboratory for Financial Engineering  
MIT Sloan School of Management

“David Leinweber is one of the great financial innovators of our time. David possesses a unique combination of expertise in the fields of money management, artificial intelligence, and computer science.”

**Blair Hull**  
Founder, Hull Trading & Matlock Trading

“An important, accessible, and humorous guide to today’s electronic markets. Like Capital Ideas mixed with Being..."
Digital, as told by Steve Martin.”

Frank Fabozzi
Professor in the Practice of Finance, Yale School of Management
Editor, “Journal of Portfolio Management“

“Most new technologies are exploited first by “alpha geeks,” the folks with the skills to push the envelope. This is as true on Wall Street as it was on the web. David Leinweber was one of those alpha geeks, but is also the first to chronicle the innovation process from early adopter to mainstream acceptance.”

Tim O’Reilly
Founder & CEO O’Reilly Media

“NOWS is a thoughtful, funny and comprehensive history of the overlooked role geeks have played in our financial markets from the earliest days of telegraph, to risk management systems in the current credit crisis. The book is an irreverent “I Was There” chronicle of how our financial markets were formed from silicon, savvy and software. Highly recommended.”

Paul Kedrosky
Infectious Greed
Senior Fellow, Kauffman Foundation
Consulting Strategist, Ten Asset Management

“For decades Dave has not only understood more investment technology than anyone, but with patience and a great sense of humor, he has made the effort to explain it to his less tech savvy friends. Nerds on Wall Street is a home run for us all.”

Richard Rosenblatt
CEO, Rosenblatt Securities

“Clear, light language and wry humor mask David Leinweber’s exhaustive compendium of technological innovations for and impacts on asset trading. Leinweber brings an entrepreneur’s experience and an academic’s perspective to financial technology; and has produced the definitive work, as up-to-date as it is encyclopedic.”

David K. Whitcomb
Founder and Chairman Emeritus, Automated Trading Desk
Professor of Finance Emeritus, Rutgers University

“Nerds on Wall Street is a wild, funny ride though the technological changes that underpin modern financial markets. You will find yourself laughing out loud at what could otherwise be a dry subject. And, if you’re not careful, you might even learn something!”

Richard R. Lindsey
Principal, Callcott Group LLC
Chairman, International Association of Financial Engineers

“If you’re interested in what computers are doing with your money, then this book is for you.”

Richard Peterson MD
Managing Director MarketPsy Capital LLC
Author, “Inside the Investor’s Brain“

“In David’s words, the stock market is a “victim not a cause” of the great mess of 2008. It’s refreshing to read a book with such insight during these difficult times. I applaud David Leinweber for this timely masterpiece.”

Bill Aronin
Co-founder Quantitative Analytics, Inc.
Sr. Manager, Thomson Reuters

“Dr. Leinweber continues to be a patron saint of any nerd who stumbles onto Wall Street. Many of his most insightful ideas are here in this book, the utility of which are only matched by the humor of their presentation. As
the markets have changed in 2008, the need to collect, process, and understand novel information sources has never been greater."

**Jacob Sisk**  
*Infoshock, Yahoo*

“Thoughtful insights covering trading, investment practice and system design encased in humor by an expert in all four: a good and practical read.”

**Evan Schulman**  
"Father of Program Trading", Founder, Tykhe, LLC

“David is one of the top practitioners in the fields of textual analysis and sentiment and its application to trading. Leveraging “smart” machines to parse and extract signal from massive quantities of textual data is hard, and David’s work has put him at the vanguard of the next wave of alpha generation.”

**Roger Ehrenberg**  
*Information Arbitrage*  
IA Capital Partners

**Video Material**

There are talks based on parts of the book available on YouTube

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"If you had everything Computationally, where would you put it, Financially?" - Google Tech Talk, about 1 hour long.

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"Markets & Technology” Light 15 minute lunch talk, with many fine pictures of livestock. Nicely broken into four YouTube size snippets.

http://www.youtube.com/watch?v=R_OdzQrBvGE
1-Introduction

http://www.youtube.com/watch?v=OQt_YsoQ6k4&feature=channel
2-markets

http://www.youtube.com/watch?v=gLxwxlfXrz4&feature=channel
3-technology

http://www.youtube.com/watch?v=fmDB9-7XjOQ
4-computers

Comments (27) | TrackBack (0)

**Money:Tech**

I have been shamed into going back and putting something new on this blog. Attending the O'Reilly Money:Tech conference in NY in Feb 08, and seeing rampant real-time blogging was a wake up call.

An usual conference, with a mix of nerds and Wall Street sorts, and more than a few hybrids such as yours truly. The presentations from Money:Tech are [here](http://nerdsonwallstreet.typepad.com/).

Comments (7) | TrackBack (0)

**Stupid Data Miner Tricks**

This collective web thing actually works. I got an email from ace quant investment manager [John Bogle](http://nerdsonwallstreet.typepad.com/) who’d seen a
post from Paul Kedrosky. Both were looking for a copy of Stupid Data Miner tricks, a paper in the current Journal of Investing.

The JIo is not fully onboard the "information wants to free" train, so as a good citizen of the interweb series of tubes, I'm depositing an earlier version right here. Download dataminejune_2000.pdf

Here's the introduction:

Disraeli's warning that "there are three kinds of lies: lies, damn lies and statistics" is particularly true when too much computation is applied to too little data. This paper presents some egregious yet instructional examples of data mining, and describes ways to avoid similar mishaps.

It started out as a set of joke slides showing silly spurious correlations over ten years ago. These statistically appealing relationships between the stock market and diary products and third world livestock populations have been cited often, in Business Week, the Wall Street Journal, the book “A Mathematician Looks at the Stock Market”, and many others. Students from Bill Sharpe’s classes at Stanford seem to be familiar with them. This was expanded, to have some actual content about data mining, and reissued as an academic working paper in 2001. Occasional requests for this arrive from distant corners of the world. So I’d like to thank the editors of the Journal of Trading for publishing this.

Without taking a hatchet to the original, the advice here is still valuable, perhaps more so, now that there is so much more data to mine. Monthly data arrives as one data point, once a month. It’s hard to avoid data mining sins if you look twice. Ticks, quotes, and executions arrive in millions per minute, and many of the practices which fail the statistical sniff tests for low frequency data can now be used responsibly. New frontiers in data mining have been opened up by the availability of vast amounts of textual information. Whatever raw material you choose, fooling yourself remains an occupational hazard in quantitative trading.

PS - DIY dataminers will want to check this: http://swivel.com/

Algo vs. Algo - With Pictures and Links

Algo vs. Algo is in the February 2007 issue of Institutional Investor Alpha Magazine on pages 44-51.

Alas, the financial visualization examples could not be included in the print version. And copying long links is tedious, so I offered an electronic version with links and pictures. It's downloadable here Download AlgosEdge0103.pdf

Here's a nice sample from Oculus, which will even move if the animated gif below works when you click the picture.

What you see (here or at the Oculus site) is a movie of the microstructure of the market for ORCL. The limit order book shows sells in red or yellow and buys in blue and green. The heights of the "buildings" show size. The trade history recedes from the front on a visual conveyor belt, with the heights of those purple buildings corresponding to trade size. A striking feature is that when the bulk of buildings on the buy or sell side of the book show a large imbalance, the price tends to move in that direction.

Hmm, maybe there is something to what they say about supply and demand.

This is suggestive of how a trader steering an algorithm might view the process. There would be overlays indicating which of the trades were yours, and the control parameters and
levels for the algo.