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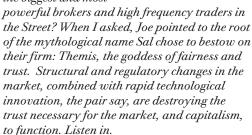
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listeningin

Playing Fair?

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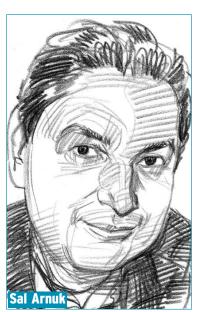
Sal Arnuk and Joe Saluzzi run a tiny institutional trading boutique, called Themis **Trading**, out of a small suite of offices in suburban Chatham, NJ., convenient mostly so that they can coach their kids' Little League games. So why are these industry veterans, who cut their trading teeth working at electronic trading pioneer Instinet, currently testifying at SEC market structure roundtables and locking horns with some of the biggest and most



KMW

You guys are becoming quite the media stars by criticizing high frequency trading - especially since the flash crash.

Joe: It has taken us a long time to get news organizations interested, and educated, but now some are pressing the issues and doing a good





job. We were in the FT today. Their reporter is pretty good. They actually link to our blog on their website now, which is pretty neat.

No one would have wished May 6 on anyone, but it has focused attention in a way that little else could on "market structure." Suddenly, it's not just "inside baseball."

Joe: Well, sometimes it takes a disaster to get a problem fixed. And it turns out it wasn't really a disaster because the market came right back – right?

So most folks would like to believe. But I suspect it was more likely a warning shot across the market's bow.

Sal: You bet, a wake-up call. Joe and I get so

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All rights reserved. Victor Juhasz Page One Illustrations upset when we hear chatter in the media, for instance from talking heads on CNBC, suggesting that the flash crash was a non-event. "If you bought a stock at 48 and it fell to 31 during the day, but then climbed back up to 46 by the close - and the low print was an error - what does it matter to you, as a long-term investor?" In other words, they are suggesting that if you invest for the long-term, you should overlook any shenanigans that go on, intraday. But what about the cost to confidence of a day like the flash crash? Consider what it did to many people who had stop orders in the market. And then there were all of the people who caught the news on TV and

said, "Oh my God, what's going on? Get me out!" I mean, markets trade on sentiment. So for anyone to suggest that it doesn't matter - or to take the opposite tack and suggest that, if you do care about what happens intraday, then you're not a long-term investor, you're a trader – and so you *deserve* what you get. No! No! Both suggestions are patently false.

Besides, all sorts of trades by all sorts of investors were executed amid that mar-

ket upheaval. With real economic consequences.

Joe: And many were *not* broken later. **Sal:** But the most troubling comment we've heard on TV since the flash crash came from Tom Joyce, the Chairman and CEO of Knight **Securities**, who was saying that the new circuit breakers the SEC is experimenting with are great. "Exactly what we needed. But I probably would have wanted them to be a little bit wider. I think 15% would have been better than 10%."

What's wrong with that, unless you really don't like circuit breakers?

Sal: My point is that comment was a giant joke. "This solves the issue; let's move on."

Joe: "Don't look here, guys. Don't stare at the crime scene. Everything is fine, keep moving people. There's nothing wrong here."

Sal: The issues surrounding high frequency trading are not only about fairness, though we talk about the fairness issues a lot. The bigger problem, as Senator Ted Kaufman, who actually gets it, has pointed out, is that it poses systemic risks. Now we've seen HFT implicated in the flash crash. How levered up are these HFT guys? Is it 10 times? Are the hedge funds doing HFT levered two, two and a half times? The proprietary HFT guys can be levered up more, because they're perceived to be riskless. They start the day flat and they end the day flat. If they're levered up 10-15 times now - which is what we hear – what happens when one of them

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The more people ask

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decides, "Gee, we've got to get levered up more to get the same are many more of us

Joe: And their margins have shrunk, just like the carry trade's, because there are so many guys who have gotten into the business – and more are entering all of the

returns because there now"?

That's a lot of leverage in this post-credit-crisis world.

Joe: Well, I have even heard of some HFT guys leveraged as high

as 30 times. But how much generally depends on the perceived risk level of the HFT strategy. If they're running a simple rebate strategy, they'll employ more leverage than if they're doing some sort of long/short strategy. And if the HFT is a DMM providing a market making function, such as a Goldman Sachs or a GETCO, a very large firm, it will likely carry the most leverage. But, let me be clear. We have no inside knowledge of these firms. This is just what we hear in the market. **Sal:** All we do is ask questions about the way high frequency trading works in today's fragmented markets. Does the sheer volume of our questions mean that there is something sinister about HFT? Maybe, but probably not. Still, the questions have to be asked. The more people ask questions, the more likely it is that the regulators will be spurred to get some answers. Somehow, the traditional U.S. market model, in which we used to have a handful of exchanges with onsite

regulators - who required them to balance profitability and investor protection has morphed into 50odd competing trading venues and destinations, dark and light, which are cross-owned up the wazoo. This brokerage firm owns a large stake in that high-frequency trader and they both own a large stake in this exchange. Is it any wonder that, if all this stuff is going on and if you're on the inside, life is real, real good? But if you're not on the inside - for the other 99.5% of us - it can be confidence shattering. They are basically arm-

ing very young math majors and Ph.D.s from every corner of the globe to design these incredible algorithms and these incredible strategies that are predatory on everyone else in the markets. What will happen to all of these intraday high-tech war games that are going on, when the true investors really lose confidence in the markets? You hear it already at cocktail parties: "I don't trust the markets. They're all crooks, look at Wall Street. Look at Goldman. Look at this one. Look at that one. Look at Bernie Madoff." It is getting worse. The flash crash, no surprise, caused confidence to plunge further. Meanwhile, the more layers that get peeled away, the more malfeasance everyone seems to see. When the true investors take their marbles and go home; when the long-term owners in the market abdicate - all you will be left with in the market will be the renters. It will just be a big video game. It'll be like "Call of Duty, "with burnt out, shelled out buildings and kids who are really well-armed just sniping at each other. In fact, we hope that's everyone's vision of an evolved market - because that's what we see coming, unless HFT gets reined in.

Wow. That's pretty apocalyptic -

Joe: It's not meant to be. We think the pendulum has swung way too far to the electronic side. At one point, it was way too far on the human side, when the specialists dominated



trading. But when people wake up and it swings back somewhere towards the middle, a technology-driven market will be just fine, as long as it includes the *people* needed to help out with capital formation. You just can't do that with computers.

Sal: Technology can be leveraged for efficiency, for improving speed and for improving productivity – we've done that our whole careers – but when it gets to the point where technology has taken over, where that is the end game and it has become an arms race, machine against machine, we end up with casino capitalism – and the market's capital raising function, which depends on trust and relationships, goes out the window.

Are you sure you aren't just fighting a rear-guard battle against progress - because you can't keep up?

Sal: I really can't stand it when I hear the "adapt or die" argument. My mom can't afford to co-locate or do all the other things that HFTs are doing. Neither can many institutional investors. That argument reveals a lack of understanding of the capital formation process. It requires broad participation. If all the regular folk take their money and go away, the game is up. Just in our relatively short careers – we're not the youngest guys in the world but we're not that old, either – I can't believe how the frame of reference and the moral compass in the

industry has become "Hey, to participate in the stock market you must compete with these HFT guys." It's crazy!

Joe: The evolution argument maybe works in the computer world, where Moore's Law applies. But the capital formation process is entirely different. By damaging it, HFT is affecting the economy, the equities market, jobs - I hate to sound like I'm on a soapbox - but this is important for America. Sure, we've had a couple of new listings on the New York Stock Exchange this year - of Chinese companies. Great. But how does that help capital formation *here*?

But can you really expect to turn back the clock on a technological innovation like HFT? Especially since all those trades are widely believed to enhance market liquidity?

Joe: We have May 6 now to prove that HFT *doesn't* increase market liquidity. We don't need to say anything further.

Sal: But here is the best counter to the liquidity argument: Average trading volume today is about three times what it was just a few years back. Yet we have recently heard the head of electronic trading at a major bulge bracket firm claim that the culprit in the flash crash was the *market order*. I'm not kidding. He said it in an editorial in *Traders Magazine*.

If you can't handle *market orders* in what's supposedly a very liquid market, it goes to show you that volume is *not* the same thing as liquidity. If the HFT crowd is providing liquidity for investors and lowering costs, then why can't we handle a simple 100-year-old order type in a market whose volume has increased 300%? What does it say when one of the guys who is playing the game is telling the world: "Do not trust our market because we can't handle a *market order*"?

Joe: "We may print you at a penny a share." **Sal:** So there is a downside to HFTs providing "liquidity". They provide it when they want to, *not* when the market needs them to. And only if their profit is virtually guaranteed.

Joe: They are also liquidity *demanders*. The same guys who provide liquidity when they want to also demand liquidity when *they* need to. On May 6, they demanded liquidity.

Sal: And they demanded it a lot more efficiently than anyone else could.

Joe: Because when you're levered up 10 to 15 times or more and it all starts hitting, the first thing you do is get rid of your buy orders and sell everything else – making you a demander

of liquidity. But we never hear that they are demanders of liquidity, by the way, in any of the public statements from the HFT guys. We hear all the time that they shrink spreads, increase liquidity and help the price discovery process. Well, none of that happened on May 6th. The price discovery process was gone. You could have priced a sub-prime rated CDO better than you could have priced GE or Procter & Gamble that day. What happened to the price discovery process for those 20 minutes? I would have rather traded on the Baghdad Stock Exchange at that juncture, because at least they have a white board with the prices, so you'd know what the prices were at any given point. We had no idea during the flash crash, because prices were moving all over the place when the HFT guys disappeared. That's not a healthy market.

Sal: Then the arbitrary cancellations of trades, post flash crash, was just outrageous. Where did that 60% threshold for busting trades come from? No one has answered that question. At bottom, it is a confidence issue. Do people have more confidence in the markets now? I doubt it.

Okay, how did a small agency trading firm in New Jersey end up in the forefront of critics of high frequency trading?

Joe: That *is* the question, right? It should be the title of a book one day, I suppose. Sal and I have been in the business since the early '90s. We were both at Instinct for 10 years, where we got our background in electronic trading, so we know how the guts of the markets and of the machines work. We started this firm eight years ago for the sole purpose of serving institutional clients with our abilities to trade for best execution, because we knew what was going in the machines. We figured, look, if we know how the machines work, we can certainly trade better than the machines themselves because they were pretty easy to spot – and we thought that we could add best execution. That was the model. The model wasn't research or any of the stuff that it has become over the last couple of years. And, for the first six years, we pretty much went about our business, traded, and did our agency thing; everything was fine. But it was around the time that Reg NMS was put in place [2005] that things started to change. When Reg NMS came out, we noticed right away that things were starting to feel differently. Stocks were moving a heck of a lot more than they used to, volumes exploded. So we started to dig around, ask questions. Eventually, we found enough to write a research paper in December of

'08, called "Toxic Equity Trading," for the sole purpose of letting our clients know: "Hey guys, when we trade your order flow, this is what we're seeing." We sent it to clients and put it on our website. For the next six months, it pretty much just sat there, even though we had put a lot of work into digging up the information and vetting it. But then the flash order controversy started and interest in what Themis was saying went boom. All of a sudden, the press wanted to find out what was going on with flash trades. And they didn't have to dig long to stumble on our research paper. The next thing I knew, we were doing commentary on electronic trading strategies in the business press – and the only media we'd done before were just standard market views. Then we got a phone call, "CNBC wants to do a piece," and I found myself debating high frequency trading with Irene Aldridge [author of "High-Frequency Trading: A Practical Guide to Algorithmic Strategies and Trading Systems," and managing partner of ABLE Alpha Trading Ltd., a proprietary HFT vehicle]. Well, the debate got a little heated. She called me a turtle. I yelled back. It made for great television.

You didn't hide in your shell?

Joe: No way. She said that I was complaining about HFT, "Just because you trade like a turtle." Implying that the only problem with HFT was that I was slow and it is so fast. So I came back and said, "No, you're unethical." Obviously, it got heated then, making for a good TV debate. It caused a little bit of stink. But we kept pressing and pressing. We got involved in industry conference calls. We kept digging. And every time we'd turn a rock, we'd find something ugly. Like you said, we're a small shop in the middle of New Jersey, how did this start? It started by us wanting to do the best job for our clients and because we would sense something when we were trading. We'd be like, "Well, that doesn't seem right. Let me call this guy up and ask what's going on or call the exchange and ask a few questions, or call whoever. Then we started looking into smart routers. The more we looked, the more we didn't like what we found and the more questions we asked. Again, the main goal was to inform our clients about what we were seeing. That's how we got involved. I guess the answer to why we're in the forefront now is that we're almost the only critics in the industry who are talking in public.

What does that tell you?

Joe: There are a couple of consultants, like the TABB Group and Rosenblatt Securities, who do a lot of work in the industry, and who have been a little critical. But they seem to be mostly on the other side, as well. No one is going to come out, like we are doing, and say, "We don't think this is right and this is why." Almost everyone else seems to have a vested interest - either because they have clients doing HFT or they're doing it themselves. Then, if you talk to the regulators, they don't quite understand it. The politicians, other than Senator Kaufman, really have no idea what's going on. Anyway, once we found ourselves in the middle of the controversy, we felt we had no choice but to keep researching it.

That must be a burden for a firm as small as yours -

Joe: And it keeps growing. We're just two or three or maybe four guys doing all this work—in addition to our trading. So you can imagine it's tough. But we feel that it's extremely important—and we want answers, too. We know we don't have all the answers. But we do have a lot of questions.

How about being more specific about what made you start asking questions?

Sal: I guess we're introspective, for traders. We had noticed, when trading for our clients, for lack of a better word, an increasing amount of "wiggle" in prices. Daily, we were hearing complaints from clients about how trading had become like a cage match. Daily, our clients would detail to us how they would have to explain to their portfolio managers why they were light on volume. Why they only got 2,400 shares bought, for instance, with the stock \$1.50 higher on only 16,000 shares. And because we care about what we do - and I think there's a whole mess of traders in the market who care about what they do, like we do - we started looking into it. We wanted to find out how we could improve outcomes for our clients. As we were looking into it, we started peeling away layers. When we peeled one layer, we discovered flash trading. The more layers we peeled away, the more questions we asked, the more we uncovered questionable actions.

Like what?

What we learned amazed us. HFT was accounting for as much as 70% of trading volume.
Under every rock we turned, we found HFT engaged in: (1) what clearly looked like a ques-

tionable practices that cost institutional investors money, or (2) raised questions about whether HFT was enjoying an unfair advantage versus traditional institutional investors.

Such as?

Well, because we are not on the inside of these robots' algorithms and their trading strategies to see exactly what's going on, nor are we involved in the meetings in which we believe the exchanges are complicit in so much of what's going on, it's hard for us to come back with specifics when defenders of HFT say, "Oh, you don't have the data to back it up."

So you only have questions and are saying the exchanges and the high frequency traders themselves own the data that you – or the SEC – would need to answer your questions?

Joe: Exactly. But we can still ask them. Sal: That's why we've been pretty big in pushing Washington to require trader tags and other ways to track what is happening in the markets in a very granular way. Also, let me stress that we are *not* here to say that all high frequency trading is horrible and wrong. There are *parts* of it that we don't like. We think the predatory aspect is sub-optimal for lack of a better word – Joe: Also rebate trading.

Sal: Right. Rebate trading is a market-distorting model. But the parts that are patently unfair are the parts of high frequency trading where we really get passionate. They go against everything we've been brought up to believe in, within our families, within this industry, within the firms where we've worked.

Let's back up here and make it clear what you're talking about when you use the term "high frequency trading".

Sal: HFTs are computerized trading programs that come in many, many flavors. But they basically make money two ways, in general. They offer bids in such a way so as to make tiny amounts of money from per share liquidity rebates provided by the exchanges. Or they make tiny per share long or short profits. While this might sound like small change, HFTs collectively execute billions of shares a day, making it an extremely profitable business.

Don't they also add tons of lovely liquidity to the market, every day, as their proponents claim?

Sal: It depends on how you define liquidity.

Our view is that HFTs provide only low-quality liquidity. In the old days, when NYSE specialists or Nasdaq market makers added liquidity, they were required to maintain a fair and orderly market, and to post a quote that was part of the National Best Bid and Offer a minimum percentage of time. HFTs have no such requirements. They have no minimum shares to provide nor do they have a minimum quote time. They can turn off their liquidity at any time – as we saw quite clearly on May 6. What's more, HFT volume can generate false trading signals, causing other investors to buy at higher prices, or sell at lower ones, than they otherwise would.

How so?

Sal: A spike in HFT volume can cause an institutional algorithm order based on a percentage of volume to be too aggressive. A spike can attract momentum investors, further exaggerating price moves. Seeing such a spike, options traders can start to build positions, which, in turn, can attract risk arbitrage traders who believe there's potential news that could affect the stock. And because most HFT servers are co-located at exchanges, they are much faster than other trading systems, enabling them to beat out institutional or retail orders, causing them to pay more for a stock or to sell it for less than they should have. Which raises all sorts of fairness issues that have grown in importance as HFT has come to dominate trading in the last several years.

Doesn't the fact that HFT has become so dominant in such a short time – and its evident profitability – tell you that they must be doing something right? Isn't making money what Wall Street is all about?

Sal: What we're saying is that HFT's rise to dominance in the market has been so rapid and so overwhelming that it raises questions about what it's doing to the health of the market. Has it simply gotten too large to be good for the marketplace? We just think HFT deserves regulatory attention commensurate with its influence on the market.

Joe: We often hear that the trading environment was worse back when there were specialists. The proponents of high frequency trading always say, "Oh, this is better. It was wrong then."

No argument, the specialist system meant that you could be robbed slowly - but they were regulated and did have an obligation to make orderly markets.

Joe: Our point is that "It's better now that you can do it a million times faster," is not a good argument.

Sal: No. 1, if stealing is bad, then hyper-stealing is hyper-bad. No. 2, at least the specialist didn't make money every day. That tells you something right there. You can't really quite equate the two - specialists and high frequency traders because the specialist did have a role, a function to fulfill. When there were periods of market stress, the specialists *did* slow the market down; for the most part they did the things they were supposed to do.

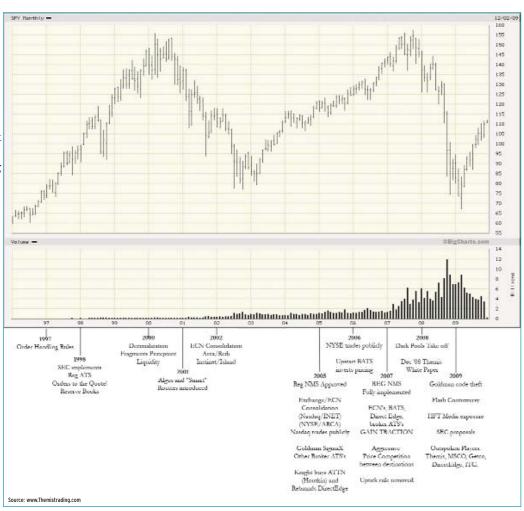
With greater or lesser enthusiasm and alacrity. But granted, the specialists did take hits at times, to protect their franchises.

Sal: There was an onsite regulator. There were governors on the

floor and the governors were *not* Designated Market Makers. They weren't the fox guarding the hen house. There wasn't a GETCO as a governor on the floor of the New York, a situation which is frankly comical to most of the buy side. Some really horrible conflicts of interest have materialized in the past five or six years, without anyone publicly questioning it. **Joe:** We're the only ones.

You guys have blamed the SEC's Regulation NMS for jumpstarting much of what you're complaining about. That was the regulators' last grand effort to *improve* the market's structure. What went wrong?

Joe: It morphed over the years. The whole point of Reg NMS, or at least one of its main points, was to encourage the display of *more* liquidity. That was the thought: "Hey, let's get more liquidity."



Ironically, but predictably, that is the opposite of what they got.

Sal: The markets have gone darker than ever. Reg NMS has led to an enormous number of unintended consequences – surprise! The most notable are market fragmentation and the lack of transparency which, along with technological advances, have resulted in a proliferation of new generations of the very profitable, high-speed computerized trading firms and methods we've been talking about, which are inducing institutional and retail investors to chase artificial or ephemeral prices. The U.S. equity market is now a fragmented web of for-profit exchanges, ECNs, ATSs and dark pools connected by high-speed, low-latency lines. Visible liquidity in all but the top-volume stocks has essentially disappeared as many market participants elect to hide in dark pools and piece their orders out in small slices throughout the day.

Joe: Yet the SEC keeps approving more dark pools, allowing new ATSs. It's almost like a

revolving door. Anybody can get in. The fragmentation of the market is staggering. But Reg NMS also tried to encourage a fast market and this is really where it *really* got sticky. The New York Stock Exchange had to convert from a slow exchange to a fast exchange, which immediately opened a whole new playground, 2,500 stocks, to the high frequency traders; stocks they had never touched before. High frequency trading had existed in the Nasdaq world as far back as when we were at Instinet in the early 1990s. They were the automated traders whose activity we saw in teenies back then. They were the "teenie jump" guys. Or the 32nds or the 64ths.

Sal: We would put in an order and the instant we would put it in, someone would jump up ahead of us in the system. So we'd cancel and they would cancel. Then we'd go in and they would go in. Then we'd cancel. There would be flickering all day long. Now, it's much worse because it's often predatory. The automated trading guys who are doing it essentially pay the exchanges to give them more information and more tools and more speed and co-location. In other words, they pay for every advantage so that high frequency trading has become a can't-miss proposition.

Can't miss? How can you say that?

Sal: Because now they can brag about making money for four years in a row, everyday, as **Tradebot** has done.

Okay, and all this, you lay at the feet of Reg NMS?

Sal: It – and a whole raft of other changes in regulation and technology. Look, the regulatory changes in the U.S. equities market over the last decade have been dramatic. The market has shifted from a slow paced auction market with 1/8-point spreads to a high speed, electronic market where penny-wide spreads are common. Consolidated average daily share volume and trades in NYSE-listed stocks have increased from just 2.1 billion shares and 2.9 million trades in January 2005, to 5.9 billion shares (an increase of 181%) and 22.1 million trades (an increase of 662%) in September 2009.

Sounds like everything is working swell.

Sal: Sure, on the surface, it might *appear* that these new regulations have been successful and that the market is healthy and liquid. But we think that's an illusion. We think the new environment has spawned many inequalities. Fairness

and transparency in the market seem to have lost out to the never-ending quest for profit.

And the HFTs are exhibit No. 1?

Joe: Well, we think that HFTs have unfair advantages in the marketplace. But we do not believe that high frequency trading is at the root of the problem. It is just a symptom. **Sal:** The basic problem, in our view, is the forprofit exchange model, which is filled with inherent conflicts of interest. In their quest to satisfy the bottom line demands of the for-profit model that has evolved since Reg NMS was introduced, the exchanges have basically sold out the institutional and retail investor. And left unchecked, the exchanges will continue to make choices that cater to the customer base that generates most of their revenue - the HFT community. Now, HFT is a very big bucket that catches many types of trading. For the most part - despite the claims my partner might make on TV to make his point - we don't question HFTs' morality or legality. HFT practitioners, even the predatory ones, are doing what our free market system encourages them to do: making money by all legal and acceptable means, collateral damage be damned. The problem is that our market structure has evolved to cater to them. And to date, our regulators have rubber-stamped every system and rule change placed in front of them by the exchanges.

And we *do* question a market structure that has allowed *predatory* HFT to flourish. Predatory high frequency trading, which picks off orders in dark pools using a plethora of tools (actionable IOIs, for example), and is amped up with co-located speed, *is* an issue, in our opinion. But make no mistake: it is a dwarf issue relative to the fact that for-profit exchanges, focused on next quarter's profits, cater to HFT firms at the expense of other investors.

So you're saying that the exchanges have "sold out" to the highest bidders?

Sal: Exactly. To understand what has happened, you have to understand a bit of history. Traditionally, the exchange business wasn't really very competitive, almost utility-like, and the exchanges could source revenues from three different areas: listings, transaction fees and market data revenue. But, as detailed in a 2009 study by **Grant Thornton**, it has changed dramatically in the last decade. The accounting firm developed what it referred to as "The Great Delisting Machine Timeline," [repro-

duced below] to show how a progression of regulatory changes destroyed economic incentives for traditional market making, investment banking and research. Grant Thornton's main conclusion was that that this robbed small companies of crucial capital-raising support. And the result was a drying up of a vital part of the U.S. economy, the IPO market – which, not incidentally, eliminated listing fees as a major source of revenue for the exchanges. So obviously, the exchanges have needed to look elsewhere for revenues.

Joe: And the exchanges now get most of their revenues from transactions and from the sale of market data and related services based on those transactions. This new exchange model is extremely competitive and filled with new entrants. There are now four major stock exchanges in the U.S.: NYSE, Nasdaq, BATS and **Direct Edge,** and a plethora of alternative venues. Two of these exchanges are publicly traded companies, the others, privately held, but all are very much for-profit enterprises. In fact, based on recent events, it is clear that the primary goal of all of these exchanges is to maximize profits. We grant you that they have every right - and even obligations - to do so. But the exchanges also have a dual mandate to protect all investors - and that's where recent events shows they have clear conflicts of interest.

How so?

Joe: The real issue is who drives change at the exchanges. Why do they make the changes they make in their systems? Is it because exchange executives have seen a better way? Or are they being driven by client demand? We obviously think, with all their cross-ownerships and evident conflicts of interest, that the changes in the way the exchanges operate have been driven by big clients, who say to them, "We want this. If you don't give it to us, we'll go down the block." So they do it, because it is a commoditized market; the exchange's thin spreads make that plain.

Sal: The conflicts of interest were most obvious in the flash trading controversy that boiled over last fall; that whole thing couldn't have made it clearer that the exchanges will do anything to stay competitive. Look what happened when Direct Edge instituted their flash trading program. What was it called?

Joe: ELP, which stands for Enhanced Liquidity Provider, and gives a small group of clients an advance look at orders before they're exposed to the rest of the market. Sal: Both Nasdaq and BATS saw their market shares drop drastically once that came in. They said, "Wait a minute, this is not fair. That's an order type that could actually damage some investors." They actually wrote to the SEC and complained. But the SEC did nothing. So they said, "Okay, we're losing market share. Here's our application to do the same kind of orders." Joe: Competitively, they felt they had to offer the same service.

Sal: What does this tell you about the exchanges? Remember, the head of Nasdaq actually stood in front of a Congressional panel and said, "We were shocked and did not think this was a proper order type. We only did it because..." What it tells you is that every time profitability runs up against fairness or transparency or the protection of all investors, profitability wins.

Every time? Or in that case?

Sal: They have a track record. This is not hypothetical. I don't need to ask them what they will do. I see what they have done, again and again. Joe: The exchanges have lost the revenue streams that IPOs and listing fees used to generate. That business model is gone, like we said, so they need new sources of revenue. And what are they doing? The NYSE is building a 400,000 square foot computer facility in Mahwah, New Jersey, for \$250 million – to attract high frequency traders who want to colocate. These are the same guys who on May 6 said that the human model worked, which left

The Great Delisting Machine Timeline

he Root Cause

Two phenomena are the root cause of The Great Depression in Listings that began in 1997.

Online Brokerage - 1996

The advent of Online Brokerage which disintermediated the retail broker who bought and sold small cap stocks. Retail salesmen, once the mainstay storytelling engine driving small cap stocks, had been chased from the business by the introduction of unbundled trading. (Unbundled trades separated commissions into discrete payments for research and trade execution, and online brokerage.)

Order Handling Rules – 1997

The advent of new Order Handling Rules by which ECNs were required to link with a registered exchange or the NASD, allowing exchange or NASD members to execute their trades against ECN orders inside the public bid and offer, thus eroding the economics that enabled capital commitment, sales and research support.

Compounding Factors

A number of other factors compounded the IPO Crisis and listings market decline, but each came after 1997, and thus did not precipitate The Great Decression in Listinos:

Decimalization - 2001

While the conversion of trading spreads from quarter and eighth fractions to pennies may not have triggered the decline, it certainly exacerbated it by ensuring that the U.S. listings market would not offer adequate trading spread to compensate firms to provide the market making, sales and research support.

Passage of Sarbanes-Oxley – 2002

Given its timing well after the onset of the listings decline, SOX clearly is not the precipitating factor in the Great Depression in Listings and the IPO Crisis. Rowever, public companies have incurred significant incremental costs in establishing, testing and certifying internal controls due to its passage and implementation. These costs likely have fueled some delistings and served to dissuade some companies from going public. However, since its passage, SOX compliance costs have declined and should continue to decline.

Global Research Settlement - 2003

Given that small capitalization stock coverage became unprofitable, the separation of research from banking eliminated banking compensation for analysts that was the last revenue source used to offset the opportunity cost analysts incur by covering fewer large capitalization stocks. Large capitalizations stocks are by definition held by many times more investors than small capitalization stocks. More investors per stock leads to greater demand and reputation for the analyst. Thus, the loss of investment banking-derived compensation for analysts contributed to declines in small capitalization stock coverage, IPOs and new listings.

us scratching our heads. Which way is it, guys? Sal: What's more, if you looked at the quarterly earnings reports from the publicly traded exchanges, I think you'd be stunned by how dependent they have become on derivatives, options. The growth in their revenues derived from co-location in options has been dramatic. We've been concerned for some time about the effects of high frequency trading on leverage in the cash market. But now they're getting into second derivative instruments, where we don't even know where the tail is wagging the dog, and to what extent. Someone has to be looking at this in terms of the potential systemic risk.

Joe: See, what Reg NMS did was open up a whole new world to the high frequency traders. It opened up an entire set of stocks that were not practical for them to trade before, because they had only traded on a slow market. Before Reg NMS, you couldn't trade **IBM** as a high frequency trader, it just didn't work. So while overall market volume has soared since Reg NMS, Nasdaq volume hasn't really increased much. All the increased volume is in the New York -listed stocks. That's where the high frequency traders are now playing the most, in the Citigroups, the Fords, the Bank of Americas; that's where all the rebate trading is going back and forth. So they have created this whole new world, post Reg NMS. Another thing that changed, post Reg NMS, that has proved quite helpful to the HFT guys, is the way the exchanges calculate their shares of market data revenue. That whole pot of money, amounting to some \$500 million a year, which is generated by selling market data, gets split among the exchanges based on the market shares that they bring to the table. This is something we wrote about in our comment letter to the SEC, which hasn't really gotten much attention yet. Maybe we'll focus on it a little bit more. The exchanges used to get a share of the data revenue based on the number of trades they did. But under Reg NMS, that calculation is based not just on the number of trades, but also on their share of the quotes. So 50% of the revenue now gets allocated based on quotes, if the exchange is on the inside, and 50% is based on how many trades it puts onto the ticker.

Sal: And you have to ask yourself, why?

Joe: Right. Here's the thing: You can get a
quote credit if you're up on the NBBO for one
second. That's all it takes. And the high frequency guys know when they can stay up there.
Now, you might say, "Wait a second, that doesn't make any sense, Joe." It is the exchange

that is going to get that market data money; it's not the HFT guy. If the HFT guy isn't getting that money, why would he be encouraged to quote? Well, there's a rebate, of course. There's always a rebate in this business. If you are a certain percentage – and it's like three quarters of one percent of market share on that exchange for that stock – they will rebate to you a portion of the tape data revenue that they collect from the tape revenue pot, up to 100%.

One hundred percent?

Joe: They just pass it along to the HFT firms. **Sal:** Amazingly enough, all this technology, all the leaps that we've made from millisecond to microsecond to nanosecond trading speeds, hasn't made things efficient enough for the data providers to actually cut the market data fees significantly for the institutional investors and others who are signing contracts to have those data feeds displayed on their **Bloomberg** or their **Reuters** terminals and everywhere else. Data fees keep going up and the revenue gets passed on from the exchanges to the HFT guys generating that volume. But all the rebate trading just distorts the market. Let me give you a real world example. For one customer of ours, we were buying a stock. We had to buy probably 30,000 or 40,000 shares, which is not a very big order, but it is a very big order when you consider that the stock trades 5,000-6,000 shares day. Well, as soon I displayed my first bit of liquidity, I started a chain of events. People stepped in front of me and then someone stepped in front of them. So I cancelled and walked away and said, "Okay, this is not the way to do it. We have to think about this." But while I adjusted the way we were going to play the stock, these two guys - without doing one single trade - and I say "two guys" but I mean the high frequency traders jockeying the quote - changed their quotes 1,600 times in a period of 20 minutes, alternating around the NBBO. Joe: And how many shares traded? Sal: Zero traded.

Zilch?

Sal: Yes, which goes to show you that there's a market data revenue element to what the high frequency guys are doing. Now, can I prove that? No. That would take the SEC going into the books of GETCO and Goldman Sachs and all of the rest. But I can easily imagine the HFT guys going to the NYSE Board of Governors, and claiming, "Look, we're on the inside 'providing liquidity' X percent of the time in our

350 stocks, and therefore we qualify, under your rules, for the higher rebates; we qualify for the non-locate ability for short sales; we qualify for the other perks that we get as DMMs on the floor, for trading at parity." They can match people in the crowd and step ahead of the line. This is all because they supposedly are quoting, and "providing liquidity." But going back to my example of the stock that traded zero shares, despite 1,600 quote changes in 20 minutes, what I want to know is whether those "quotes" are being averaged in with what they're actually doing in stocks that probably do need their liquidity provision? Is that being averaged in so that they can show one nice graph to people who are unsophisticated (i.e., 99.9% of us) and say, "See what we're doing, we're being so beneficial to the market and we're doing this out of the benevolence and goodness of our hearts."

You clearly suspect it is -

Joe: Market data revenue is a \$500 million a year pot, like we said. There was a group back in 2006, called The NetCoalition, that was started by **Yahoo Finance** and a few other guys who were trying to find out why market data fees were so high. It turned into a huge legal fight that the exchanges won. But in the course of discovery, the NetCoalition came up with an estimate that the actual cost to the exchanges of generating their market data feeds was only \$100 or \$200 million. They were basically questioning why the exchanges should be reaping so much in profits on what is more of a utility function than anything else. The real question now, however, is where is all of this money going? Each time we've looked, we've found the exchanges rebating little slivers; most of which feed into what's now the monster HFT industry.

Still, you're only talking about a couple of hundred million of revenue, over the cost of generating the market data, which the exchanges could be rebating to HFT firms. Spread across all of them, that doesn't sound like such a big deal.

Joe: Maybe not, but it is a big deal. Because if you start to peel away the HFT guys' revenue sources, you degrade their profit incentives. The exchanges – to every question we ask – always come back with the same answer: Their giving the high frequency traders the ability to profit from data rebates is completely legal. There is nothing illegal going on. Nonetheless, the HFT firms are getting all sorts of extra services and incentives from the exchanges, like

co-location, like special data feeds, like market data revenue —and that built the industry.

And you clearly have problems with that -**Sal:** It goes back, again, to how the economics of the exchange model have morphed. Since the early 1990s, when the Island ECN first introduced rebate trading, the equity market has used a maker/taker model. Liquidity makers get paid a rebate by the exchange/ECN and liquidity takers pay a fee to the exchange/ECN. Normally, the rebate is less than the take fee. This model has become the standard for all market centers. Almost nobody in the trading community even questions the maker/taker model anymore. It is assumed to be the only way stocks should trade. The buy side probably doesn't care much since they pay a flat fee to their broker regardless if they are making or taking. And the brokers who sponsor algorithmic trading systems have figured out a way for this model to be very profitable. Meanwhile, the exchanges are happy to bolster their revenues with the spread between the make/take

So what's your problem with it?

Joe: It is not just ours. Earlier this year three big-time academics published a paper concluding that "make-or-take pricing has significantly distorted trading." James Angel of Georgetown, Lawrence Harris of the University of Southern California and Chester Spatt of Carnegie Mellon.

According to their paper, "Equity Trading in the 21st Century," the maker/taker model has "...Distorted order routing decisions, aggravated agency problems among brokers and their clients, unleveled the playing field among dealers and exchange trading systems, produced fraudulent trades, and produced quoted spreads that do not represent actual trading costs."

That's a whole lot of blame -

Sal: Well, as we see it, the maker/taker model is at the core of the equity market structure problem. It has influenced how most smart order routers access liquidity. Some orders are not routed to the destination where best execution would dictate, but to the cheapest destination first. Which is why we beg institutional clients to ask what order routing hierarchy their smart routers use. Most institutional algos use a smart router to route orders in small pieces throughout the day. The pecking order of these routers differs depending on which broker sponsors the algo. But a common goal is to

always route to the least expensive destination first. Most of the time this means routing to a dark pool before routing to a displayed liquidity venue. Some of these dark pools are filled with predatory traders that are "hiding out" electronically, watching for footprints that the algos leave. And it's not just a few academics and us who see the conflicts of interest embedded in the maker/taker model leading to bad behavior in the markets.

What do you mean?

roles in the marketplace."

Sal: Would you believe Morgan Stanley sent a comment letter to the SEC, dated March 4, complaining – let me read parts of it: "The real, underlying problem that needs to be addressed is the conduct of ... diverse market participants...engaging in similar economically driven order handling/routing practices without being subjected to the same regulatory obligations merely by virtue of their respective defined

"We believe that many of these issues...are symptoms of the larger underlying cause – aggressive order handling/routing practices that have emerged in recent years. These practices, including the aggressive use of actionable lOIs [Indications of Interest] and blind pinging, are driven by economic incentives to engage in such practices across many different venues and market participants, not just by dark pools. The economic incentives that exist in the market to reduce execution costs inevitably lead to a race for cheaper execution alternatives."

"The acceptance of the 'free look for a free execution' mantra has lead to many market participants, including broker-dealers and exchanges, routing their orders to various alternative liquidity providers in lieu of the traditional lit marketplace. Competition and advances in technology have not only permitted, but have encouraged participants to look for the most cost effective execution, many times in conflict with the underlying customer whose order information is being 'leaked' to sophisticated market participants and who is not the ultimate recipient of the resulting economic benefit."

Joe: In other words, Morgan Stanley agrees with us that brokers are using algorithms that route to the cheapest venue and not necessarily to the venue that provides best execution. And the cheapest can include venues where HFT predators hide out and take advantage of robotic order flow based on simple volume weighted average price (VWAP) algos. This has been proven by recent research from Quantitative

Services Group (QSG), a leading provider of equity research and trading analytics to institutional investors – and to us.

Proven?

Sal: Yes. There are not many people who can measure that sort of trading cost slippage, so we're happy to plug QSG. They wrote a report not long ago called, "Beware of the VWAP Trap," which used a powerful set of tick-based algorithm evaluation measures to prove that VWAP is being pushed around by the activities of the HFT guys, who can spot a VWAP over a mile away.

Joe: Exactly. And the dark pools etc. are assisting the HFTs in identifying institutional activity. Why doesn't a dark pool charge to allow an institution to access it? Most of them are free. The answer is that the dark pools want the institutional order flow.

Sal: Because they're making money off it; taking the other side. You would be shocked by how little is really understood about what we call market minutia on the typical institutional desk.

Why sweat the small stuff?

Joe: Market minutia is really driving everything nowadays. If you don't understand what we call the minutia, then you're not going to understand what's going on. How your router is working, how your algo is working – you really need to know what is happening in the guts of the router. All too often, we think, people have gotten too reliant on their algorithms and their machines. At the end of the day, they get their average fill, their VWAP [volume weighted average price] execution. They get the volume they expected, so everybody is happy.

There certainly were lots of praises sung about market innovations lowering trading costs at the SEC's market structure roundtable last week.

Sal: I wasn't surprised. People tell us, "My explicit trading cost has come down dramatically over the last three years. I'm only paying half a penny a share; what's your problem, guys? Everything is working out great, there is tons of liquidity and I'm getting these great prices. I may even be getting sub-penny price improvements." Well, the problem is a lot of institutional traders don't quite understand what is in the secret sauce. They don't understand what's going on in the middle, and that's where all the money is being made.

So just what is going on in the middle?

Sal: The reality is that transaction costs are a moving target. The institutions' actual activity in participating in these electronic strategies – these algorithms and time-WAP and time-WAP with an alpha-bend to it and hyper on steroids, etc. – all the different twists they're doing – actually affect the costs they're targeting, but traditional trading cost analytics miss that kind of slippage.

Joe: Yes, that's the key.

Sal: Saying that you beat the target by "X" – when you've also moved that target – is an illusion. Somewhere along the line, I'd hope that someone in these firms would realize that he'd rather buy the stock at 40 cents than at 50 cents – instead of complaining that, at 40 cents, he was a penny worse than VWAP, and being satisfied that, at 50 cents, he was two cents better than the VWAP.

Joe: That is what CSG has proven, that the cost target is moved – but if you'll let us read one more quote, they state the ramifications a lot better than I can:

"...significantly higher impact costs and trading velocity are incurred for VWAP algorithms when compared to Arrival Price Algorithms... The results suggest that High Frequency Trading (HFT) strategies are materially contributing to these increased costs...The details of the study uncover an important artifact from today's trading environment: increased order parceling has three negative ramifications. First, more 'strikes', or executions per order, increase a client's exposure to adverse ticks and this tick risk translates into higher impact costs. Second, more strikes increase the chances of leaving a statistical footprint that can be exploited by the 'tape reading' HFT algorithms. Third, should HFT strategies identify the order and begin to trade in anticipation of the order flow, this will begin a positive feedback loop that can significantly change an algorithm's behavior and invite even more predatory order flow." **Joe:** That's why we beg institutional clients, "Call your provider of algorithms and ask them what is inside your smart router. What are your destinations? What would happen if you extracted one or two of the "toxic destinations"? Would your rate stay the same? We bet they would get very interesting answers. **Sal:** Because the broker is incentivized – often paid by the dark pools and the various alternative trading destinations – to send their orders there. Just as an **Ameritrade** is paid to send their

order flow to Citadel or whatever. It is the same

payment for order flow game, which is played on so many different levels, that is at the center of the maker/taker model.

But commission rates have been crushed, spreads have been crushed. Is there really enough money to be made in liquidity rebates to drive business like you're saying?

Sal: It's actually become more important, as those other revenue sources have been squeezed. In that same comment letter we quoted earlier, Morgan Stanley urged the SEC to carefully examine the way access and data fees are driving order routing and handling behavior, estimating that it could be amping broker revenues by \$63 million annually, based on 100 million shares of average daily trading volume, and turning what otherwise would be a \$10 million net loss at the exchanges into a \$76 million gain.

Joe: But that's only the tip of the iceberg. The real money is being made by HFT firms as they detect the footprints of the algorithms and interposition themselves with the help of their lightning fast technology and access to direct market feeds from the exchanges. HFT is estimated to be an \$8-20 billion a year industry. That money comes from somewhere – and we believe a good part of it is coming from the leakage of institutional algos because brokers and exchanges have economic incentives to route to the cheapest venue.

Sal: As we wrote in our own comment letter to the SEC, "Reevaluate the maker/taker model." How much liquidity in stocks like Citigroup, which trades a billion shares a day, needs to enticed into the market with rebates? From where we sit, it looks like the model, with assistance from some algos and exchanges, is being used by predatory high-speed traders to pilfer millions of dollars, daily, from long-term investors' pockets.

There you go again, HFTs "pilfer" millions from long-term investors? How?

Sal: First off, flash order types haven't gone away. The political hue and cry were too much for Nasdaq and BATS, which pulled their preroute order strategies last September. But favored clients are still getting a sneak peek at order flow elsewhere because, while the SEC has *proposed* banning them, it hasn't yet *acted*. But an even more important factor is what's known as latency arbitrage, which has become one of the fastest-growing strategies on Wall Street. We wrote about a predatory HFT prac-

tice, which is based on information gleaned through latency arbitrage, in our latest white paper, comparing it to ID theft, on an institutional scale.

Joe: What we demonstrated in that paper is that both BATS and Nasdaq have been - all quite legally, we point out – providing sensitive trade data to HFTs in their high-speed data feeds to court order flow. This is a kind of information leakage that most institutional and retail investors haven't had a clue about. **Sal:** It is part of the reason we have sort of mixed feelings about May 6th - the events of that day really have helped focus investors on what we've been saying. Soon after that, when we published the data theft white paper [W@W guest perspective, May 14], we actually were approached by some very large buy side firms who were not even customers of ours. They arranged a half-hour, after-the-close conference call, in which Joe and I had an opportunity to discuss our research with the heads of the desks of 10 of the largest firms in the country. It was a chance to say, see, as a firm, we position ourselves as allies of the institutions. We have no ax to grind. We don't do prop trading. We are a very small firm, but we are an extension of the institutions' desks, when they work with us. In that sense, we welcome anything that helps us get our message across, even the shock of a May 6th.

What did you tell them?

Joe: They wanted to know about the data theft paper. "Give us more details about your paper." That was the point.

So let's get into the nitty-gritty.

Joe: It's tough to follow; you have to dig into trading minutia pretty deeply to see what is happening. That's why some of the language Sal uses to write our white papers can sound a little hyperbolic. He makes analogies to things like ID theft to grab attention and make it comprehensible. You can't start out talking about things like subsection 4.62 of the Nasdaq TotalView-ITCH Feed protocol; no one would read it!

Understood. But you guys *have* read it. What did you find that raised your hackles so?

Joe: It is all about the leakage of information related to hidden or non-displayed order flow – it could be from a broker or from an institution – that, in one of these cases, goes through Nasdaq to the HFTs who take the exchange's

direct data feed. The exchanges argue that this information is public and available to all investors. Technically, this may be true, however, realistically, not many retail or institutional investors have the capital to invest in the type of computer systems needed to access and use this information and most are not even aware that it exists at all. Nasdaq also stresses that the ITCH data feed they're selling doesn't give up any *pre-order information*, and we don't dispute that.

But once you've been executed, if you think

you're working a hidden order, well, think

again. Every time a non-displayed (or hidden) order is executed, this direct data feed that Nasdag sends to HFTs includes a message that not only identifies that a trade has occurred, but also identifies if the hidden order was a "buy" or "sell." In addition, the trade order ID associated with that trade is "cumulative." This means that every time a trade executes that is part of a hidden order, the *same ID number* is attached to that trade as to the original trade. By re-engineering that info, ITCH subscribers can figure out how much of the stock in question the hidden buyer or seller has accumulated. Which is valuable market intelligence. **Sal:** Our first problem with that – even though it is perfectly legal under current rules - is that the vast majority of institutions are unaware that the private trade information they are entrusting to the market centers is being made public by the exchanges. They don't realize that they have signed away - in their exchange agreements - their rights to that data. **Joe:** The exchanges are confident that they own it and can do what they want with it. Sal: Very many investors think that there's a single consolidated tape for U.S. markets, on which is recorded the security, the price, quantity, time and location of every trade. Never in

Joe: It has got a heck of a lot of information in there.

leaves in the order number ID.

their wildest dreams have they imagined that

Some of them provide it free, to attract volume,

others sell it, using it to generate revenue. But

either way, the second feed includes more data, and is compressed so that it's faster, and it also

the exchanges are going out and offering to

provide a second raw data feed to anybody.

Sal: This order number ID is a key. As soon as you come in with a tranche, the exchange is tagging executions with the same order ID as the parent order. So it's basically allowing a video camera to record your trading strategy.

The direct data feed doesn't actually reveal a trader's identity, does it?

Sal: No. The info doesn't go out pre-trade, and doesn't tell anyone that it's, say, **Fidelity** selling 168,000 shares of, for instance, **Abbott Labs**. But it does show that someone has accumulated 168,000 shares in 13 minutes. That's not valuable?

Joe: What the exchanges also claim is that we can't prove for sure that anyone is using their high speed data feeds to re-engineer market information. And, by the way, they also say that the fact those order numbers don't change is merely an artifact. They claim that they didn't even realize the ID numbers were in the feed until we started writing about it. But if you ask them to take them out, well, they can't. There are all sorts of complexities involved. Sal: They say, "These Themis guys, they don't know what they're talking about." They're right, we don't have evidentiary proof that someone is re-engineering trade information. But if I were in a court of law and had circumstantial evidence - "If the glove fits, you must not acquit." We have enough information to ask lots of questions. Why don't they just elimi-

stantial evidence – "If the glove fits, you must not acquit." We have enough information to ask lots of questions. Why don't they just eliminate those ID numbers from their feeds, if no one is using them? By the way, they did get rid of them awfully quick overseas after we called attention to them. They were able, technologically, to do it in a heartbeat over there when some institutions started to boycott their European dark pools. Though, frankly, we're a little skeptical that they took out everything we'd find objectionable if we had the regulatory power to comb through their records.

A "little" skeptical?

Joe: Okay, a lot. Basically, we're asking if this sort of thing is part of the reason why latency arbitrage has become so big, so fast. **Sal:** Let's explain. The latency that is being arbitraged refers to computer communications speeds, which are, ultimately, limited to the speed of light. That is why everyone wants to "co-locate" their servers right next to the exchanges'. Communications latency has been steadily decreasing as hardware, software and networking have improved and through the isolation of inefficiencies in circuits and cabling. There is now an entire industry of consultants available to develop ways for corporations and trading firms to reduce latency from endpoint to endpoint. Staying on top of this rapidly evolving technology requires major expenditures for continuous upgrades of systems and

equipment. But HFTs evidently find it worth paying for. HFTs use this kind of cutting-edge technology and co-located servers at exchanges and ATSs, combined with purchases of raw data feeds from these market centers, to create their own inside National Best Bid and Offer (NBBO) quotes and depth of book substantially earlier than what is publicly available to the rest of the world, via the Security Information Processor, or SIP, quote. The SIP feed quotes are what are generally seen on professional terminals, on the algorithmic trading systems used by institutions for as much as 50% of their orders, and are the quotes seen by retail investors on internet sites.

HFTs also employ technologies such as "feed handlers" to further speed the receiving of data from the exchanges. Recently, a firm named QuantHouse announced that its feed handler technology, used to standardize exchange raw market data feeds, is able to decode more than 5.55 million messages per second. As a result, HFTs know with near certainty what the market will be microseconds ahead of everybody else - valuable knowledge that HFTs take advantage of when they trade thousands of stocks, thousands of times, every trading day. HFTs will then use techniques, such as Predatory Algos, Immediate or Cancel (or "cancel and replace") orders, and Dark Pool Pinging, to determine what kind of institutional algo orders are in the market, such as those driven by commonly used VWAP formulas, and how those orders will react if the bid /offer of a stock moves up or down. Valuable information, no?

Sure sounds like it. But how can the exchanges legally sell data feeds that are faster than the publicly available consolidated quote?

Joe: Through an enormous loophole in the regulations. As the SEC's own concept release on market structure explains: "Exchanges, ATSs, and other broker-dealers are prohibited from providing their data directly to customers any sooner than they provide their data to the plan processors" (who put together the consolidated tape). However, "the fact that trading center data feeds do not need to go through the extra step of consolidation at a plan processor... means that such data feeds can reach end-users faster than the consolidated data feeds. The average latencies of the consolidation function at plan processors (from the time the processor receives information from the SROs to the time it distributes consolidated information to the public) are as follows: (1) Network A and Network B - less than 5 milliseconds for quotation data and less than 10 milliseconds for trade data; and (2) Network C - 5.892 milliseconds for quotation data and 6.680 milliseconds for trade data."

That's not much time -

Sal: It may not sound like much time, but it's evidently plenty for the HFTs. Let me read you a little more from the SEC's concept release: "Some proprietary firms' strategies may exploit structural vulnerabilities in the market or in certain market participants. For example, by obtaining the fastest delivery of market data through co-location arrangements and individual trading center data feeds, proprietary firms theoretically could profit by identifying market participants who are offering executions at stale prices."

"When it adopted Regulation NMS in 2005, the Commission did not require exchanges, ATSs, and other broker-dealers to delay their individual data feeds to synchronize with the distribution of consolidated data, but prohibited them from independently transmitting their own data any sooner than they transmitted the data to the plan processors. Given the extra step required for SROs to transmit market data to plan processors, and for plan processors to consolidate the information and distribute it to the public, the information in the individual data feeds of exchanges and ECNs generally reaches market participants faster than the same information in the consolidated data feeds. The extent of the latency depends, among other things, on the speed of the systems used by the plan processors to transmit and process consolidated data and on the distances between the trading centers, the plan processors, and the recipients.... So there you have it. The SEC just made our case for us. They acknowledge that HFTs are seeing information before everybody else because they are buying direct data feeds and paying for their servers to be co-located. They acknowledge that HFTs are profiting at the expense of the average investor. They acknowledge that there are currently two sets of data in the public domain: fast data, which is accessed by privileged firms that can afford all the technology and market data expenses, and slow data, which is what the rest of the investment

community receives.

Joe: It comes down to this: When a market center provides an HFT with the ability to outmaneuver institutional orders, is not the exchange putting institutions and their brokers in breach of their fiduciary responsibilities, especially those institutions managing ERISA funds? It is one thing entirely for an HFT firm to use proprietary algorithms to try to predict how an institution's own algo will operate, so that the HFT can out-maneuver the institution. It is the buy side trader's fiduciary responsibility to protect his/her firm's orders by adjusting execution methods and tactics regularly, in order to avoid predictability. But what if the entire playing field is rigged in favor of the HFTs?

I might have known you'd leave me with a question. Thanks, fellows.

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INSIDE

guestperspective By

By Michael E. Lewitt

Contain Complexity

The First Thing We Do, Let's Kill All The Quants

"No matter how much we believe in our institutions and in the regularized procedures of our societies, no matter how just, rational, and durable we think them, they are at best only loosely grounded on some form of bedrock reality or immutable truths that endure beyond human beings. To a considerable degree, they are sustained by collective belief and consensus, by tacit, unquestioned, and often grossly simplistic assumptions about how the world works, and often by mutual and willful self-delusion. Our societies cohere and function in no small part because most of us want them to cohere and function, and because the alternatives are, for the most part, literally unthinkable."

Thomas Homer-Dixon¹

A straight line connects the oil spill in the Gulf of Mexico to the near-1000 point plunge in the stock market on May 6th. Both events – one flesh-and-blood tragedy, one accident averted – were the result of growing complacency in our ability to manage an increasingly complex world.²

In 2000, Thomas Homer-Dixon, a professor at the University of Toronto, published a truly original and brilliant book entitled The Ingenuity Gap, in which he argued that "the complexity, unpredictability, and pace of events in our world, and the severity of global environmental stress, are soaring." Professor Homer-Dixon went on to argue that "[i]f our societies are to manage their affairs and improve their well-being they will need more ingenuity – that is, more ideas for solving their technical and social problems. But societies, whether rich or

poor, can't always supply the ingenuity they need at the right time and places. As a result, some face an ingenuity gap: a shortfall between their rapidly rising need for ingenuity and their inadequate supply." Drilling for oil more than 5,000 feet below sea-level is a perfect example of our reach exceeding our grasp. Doing so without taking steps to address the worst-case scenario that is now washing up on the beaches of the Gulf Coast is not only tragic but inexcusable.

We didn't start out drilling for oil in such deep waters. It is *HCM*'s understanding that there are a limited number of deep sea rigs operating in the world today, and that the technology involved is highly complex. As Professor Homer-Dixon describes it, deep sea drilling, like so many other activities in our world, crept up on us incrementally. "The past century's countless incremental changes in our societies around the planet," he writes, "in our technologies and our interactions with our surrounding natural environments, have accumulated to create a qualitatively different world. Because these changes have accumulated slowly, it's often hard for us to recognize how profound and sweeping they've been...In combination, these changes have sharply increased the density, intensity, and pace of our interactions with each other; they have greatly increased the burden we place on our natural environment; and they have helped shift power from national and international institutions to individuals and subgroups."4 As a result, "the complexity and speed of operation of today's vital economic, social, and ecological systems exceed the human brain's grasp."5 The fact that neither

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the government nor the private sector was prepared for the blowout of the British Petroleum rig indicates a profound failure of planning, execution and regulation. While Congress and others look for individual causes and scapegoats, the truth is that this was a systemic failure with profound consequences for America's economy and energy policy. But it is also another indication of broader flaws in how we manage our affairs and think about complex problems.

The oil spill in the Gulf of Mexico is tragic in too many ways to count. It reminds us of the costs of incompetently managing our affairs, the high costs of America's reliance on fossil fuels, and the risks of assuming that technology can solve all of our problems. Professor Homer-Dixon writes: "Seduced by our extraordinary technological prowess, many of us come to believe that external reality - the reality outside our constructed world - is unimportant and needs little attention because, if we ever have to, we can manage any problem that might arise there. And, in any case, as the pace of our lives accelerates, we have less time to reflect on these broader circumstances. All these trends can push us into narcissism, as they weaken our sense of awe at the universe beyond our human ego; and what is perhaps most important, they also weaken our receptivity to critical signals from the external reality that might awaken us to our deep ignorance of the potential consequences of our actions, and warn us against hubris."6 When we can only see an actual drillsite via closed-circuit television and only physically access it through deep-sea robots and submarines due to its extreme depth, we tend to lose our sense of its reality - its pressure and freezing temperatures, the impossibility of its physicality. This leads us to let our guard down, to become less prudent in an endeavor that requires the highest degree of vigilance at every moment. The result is an environmental disaster that will haunt us for decades, not only with its physical and economic damages but with the knowledge that the accident was entirely avoid-

The Imminent Failure of Financial Reform

What is even more alarming about the oil rig disaster is that we are about to demonstrate our inability to learn from our mistakes by repeating them in the arena of financial reform, where current legislative proposals continue to rely on the ability of both technology and regulators to deal with increasingly complex products and systems. In order to understand why this is the case, we need to make a slight detour to discuss another important book.

Nassim Taleb has just published the second edition of his classic book, The Black Swan. What we loved about The Black Swan when we first read it (and we acknowledge that our reading may be a bit idiosyncratic) was its identification of a truth about the human condition - the fact that each human being's life is disproportionately impacted by a limited number of events, virtually all of which are unseen (and most of which involve the people we meet and end up spending our lives with as colleagues or mates). Moreover, these events can trump factors such as genetics and birth. What we came to love about the book as it became a huge public success was how it came to be misunderstood by most of its readers, who came to call many events Black Swans that were nothing of the kind.

In an extended postscript essay included in this new edition, Mr. Taleb addresses the 2008 financial crisis in the following way: "I will only very briefly discuss the crisis of 2008 (which took place after the publication of the book, and which was a lot of things, but not a Black Swan, only the result of fragility in systems built upon ignorance – and denial – of the notion of Black Swans. You know with near certainty that a plane flown by an incompetent pilot with eventually crash)...[Moreover] since there is nothing new about the crisis of 2008, we will not learn from it and we will make the same mistake in the future." 7

As one of the few who predicted the 2008 financial crisis, HCM welcomes Mr. Taleb's words, which many will no doubt find surprising. But we also must express our intense frustration as we watch so many market participants (i.e. investors, the media) try to explain away the crisis as an unforeseen event when it was so obvious that the economic and market trends of the mid-2000s were unsustainable. As Professor Homer-Dixon writes: "The experts and elites at the apex of modern capitalism have a practically boundless capacity for afterthe-fact rationalization. As soon as evidence allows, they paper over any cracks that have developed in their worldview. They rush to backfill the voids of doubt."8 The post hoc rationalizations are so frustrating because

investors and the media continue to give managers and strategists who missed the obvious (and lost billions in the process) the benefit of the doubt by continuing to entrust them with intellectual authority and money (perhaps because they too missed the obvious). HCM can at least take comfort in the fact that readers of this publication didn't miss the obvious, although whether they acted on what they learned in these pages is quite another matter.

There is no doubt in *HCM*'s mind that Mr. Taleb is correct - it will happen again. "It" is a severe financial crisis that threatens the stability and viability of the financial system. The reason such an event is inevitable is that inadequate steps are being taken by policymakers to introduce the necessary confinement mechanisms into the financial system to prevent a crisis from spreading and threatening the viability of large financial institutions and sovereigns. Mr. Taleb writes that "the idea is not to correct mistakes and eliminate randomness from social and economic life through monetary policy, subsidies, and so on. The idea is simply to let human mistakes and miscalculations remain confined, and to prevent their spreading through the system, as Mother Nature does."9 We are not going to change human nature (even with the creation of artificial life, which is proceeding apace). 10 Regulators are not going to suddenly become competent, and legislators are not going to start placing principal above political expediency and personal interest. In order to prevent contagions from spreading, however, the system must eliminate the germs that cause them. Those germs are born in leverage and speculation. 11 We cannot eliminate mistakes and randomness from the markets, as Mr. Taleb reminds us, but that doesn't excuse us from the responsibility to create safeguards that can limit the ramifications of such inevitable dislocations.

The financial reform legislation currently being debated in Congress unfortunately fails to eliminate the conditions and products that exacerbate systemic risk. In particular, the failure to ban (or place any meaningful limits on) naked credit default swaps leaves the financial system vulnerable to another contagion because these instruments connect all significant financial institutions into a single web that can only be as strong as its weakest link. As a result, the failure of one institution could unleash a series of failures among other institutional counterpar-

ties similar to the string of failures that occurred when Lehman Brothers filed for bankruptcy in September 2008. The unique characteristics of credit default swaps render them particularly noxious instruments whose use for pure speculation is uniquely destabilizing to the financial system. These contracts create incentives for their holders to see companies fail, and to accelerate the timetable on which the fail; this is inimical to economic growth and capital development (and is even disruptive to the concept of creative destruction enunciated by Joseph Schumpeter that so many believe is a healthy attribute of capitalist development and progress). The legislative proposals being debated require these instruments to be traded on exchanges and only modestly increase the capital required to trade them, but these requirements will do little to reduce the systemic risks they pose because they still leave in place their ability to link financial institutions together into one large leveraged web. As a result, the failure to ban naked credit default swaps renders much of the remaining financial reform legislation irrelevant in terms of preventing future financial crises.

But perhaps the most disappointing aspect of the entire financial reform debate is its elision of the broader issue that is steadily sinking the American economy into an uncompetitive position: the promulgation of a regime of rules and regulations that favor speculation over productive investment. These rules include tax laws that favor debt over equity, accounting rules that privilege obscurity over transparency, and industrial policy that fails to create the proper incentives for productive economic growth. Just as healthcare reform did little more than increase healthcare costs without improving the quality of care, financial reform is shaping up to be another empty legislative victory because it treats the symptoms without curing the underlying disease of misplaced incentives and misbegotten fiscal, monetary and regulatory policies.

Moreover, as the legislative effort engages in a great deal of sound and fury that will end up signifying nothing, the institutional investment community continues to follow the conventional thinking that has led it to terminally underperform and produce disappointing returns on its capital. Concepts such as volatility, risk, diversification, benchmarks, and returns remain fundamentally misunderstood and mis-

interpreted by the vast majority of institutional gatekeepers who continue to rely on the false mantras of efficient markets and investor rationality. In asset classes such as private equity, returns remain unadjusted for factors such as leverage, concentration risk, fees and illiquidity while institutions sit and wonder how their funds remain trapped in vehicles that lack both transparency and liquidity. The bottom line that institutions need to understand is that they remain grossly overexposed to the Ponzi-like structure of the global economy. The fulfillment of too many financial promises is reliant on the repayment of debts that require high rates of economic growth for which the prospects can only generously be described as dubious. Accordingly, institutions need to adjust both their return expectations and their strategies for achieving those returns instead of clinging to specious assumptions and flawed strategies that are only digging deeper holes from which they can never dig out. The failures of both the public and private sectors to understand the realities of markets and the true nature of capital grow costlier every day.

Killing the Quants

With apologies to William Shakespeare, who suggested we do to the lawyers what HCM is suggesting we do to the quants, as well as to our friend **Doug Kass**, who has already suggested killing the quants, 12 it is abundantly clear that quantitative traders have been allowed to assume control of the financial markets to an extent that is injurious to capitalism and economic growth.

In the April 2008 issue of this publication, entitled "How To Fix It", that upset so many entrenched interests on Wall Street, some of my harshest criticism was reserved for quantitative investment strategies. I wrote the following more than two years ago:

"Quantitative Strategies: Quantitative investing has not only introduced an unhealthy amount of volatility into the markets, but has contributed to a larger trend in the financial markets that divorces the investment process from the concept of fundamental value. HCM would defy the quants to explain in any degree of detail what the companies in their portfolios do. This is another type of investing activity, like private equity, that does little or nothing to provide capital to increase the productive capacity or physical

stock of the economy. In fact, quantitative investment strategies are the quintessential "hot money." Enslaved by their computer models, they trade in and out of positions at the blink of an eye. When things go wrong, they blame everybody but themselves. Being a quant means never having to say you're sorry.

At some point, society has to figure out that the way an investor earns his money is even more important than the amount of money he makes. This is why human beings were vested with moral sentiments, so they could distinguish the quality of human conduct from the quantity of its results. Until that happens, we will continue to extol the types of investment activity that contribute little to our world. HCM would respectfully propose that a new school of "ethical investing" be adopted that takes into account how particular kinds of investments contribute to the economy. On this basis, quantitative strategies would be eliminated from consideration."

The increasing amounts of intellectual and financial capital devoted to speculative rather than productive activities are slowly but steadily squeezing the life out of the American economy. In the financial markets, this phenomenon is manifested by the increasingly dominant role played by quantitative trading, which is largely comprised of computer-directed algorithmic trading strategies that, when stripped of their mathematical and technological paraphernalia, are little more than momentum-based trading strategies. They are another example of the deconstruction of all types of financial instruments - stocks, bonds, loans, mortgages - into 1s and 0s, which obliterates the underlying fundamental character of the human relationships that give rise to economic value. Quantitative traders have no interest in what a company does because their trading strategies are based on the technical trading attributes of the securities rather than the fundamental business attributes of the companies those securities represent. This is antithetical to capital formation because it diverts enormous amounts of capital into activities that have nothing to do with directing capital to businesses based on their productive contribution to the economy.

Quantitative trading activity also, as Doug Kass and others have pointed out, significantly increases market volatility, which is also an enemy of capital formation. The most radical example of quantitative trading is "dark pools" that have sprung up around the world like black holes throughout the galaxy. HCM has been critical of "dark pools" in the past, describing them in the August 2009 issue of this publication ("At the Risk of Repeating Ourselves") as "private playgrounds that hedge funds and investment houses use to trade in secret." It is particularly inexplicable that regulators permitted "dark pools" for stocks to flourish at the same time that they insisted that corporate bond trades be rendered more transparent through the creation of the TRACE system, which requires all broker dealers to report all trades in publicly listed bonds within 15 minutes of execution. While HCM recognizes that consistency is the hobgoblin of little minds, allowing stocks to be traded in secret while requiring bonds to be traded in the open is nonsensical.

 $\textbf{Paul Wilmott}, a \ highly \ respected \ figure \ in \ the$ quantitative investing world, has also been critical of these secret trading exchanges, writing: "Thus the problem with the sudden explosion of high-frequency trading is that it may increasingly destabilize the market. Hedge funds won't necessarily care whether the increased volatility causes stocks to rise or fall, as long as they can get in and out quickly with a profit. But the rest of the economy will care."13 "Dark pools" are antithetical to the transparency that breeds confidence in financial markets. The fact that regulators are unable to explain the 1000 point drop in the Dow Jones Industrial Average that occurred within a 15-minute time span on May 6 is evidence enough of the need to disinfect the markets with the sunlight of transparency (and in this case is probably not another example of regulators' terminal incompetence, although we can never rule that out). "Dark pools" only benefit those who are trying to conceal their trading activity from the eyes of regulators and other traders. Fortunately, regulators have been fairly aggressive in proposing strict volume and other limitations on these exchanges, although *HCM*'s understanding is that these have not yet been imposed formally. "Dark pools" are terrible public policy and should be banned, and HCM would be happy to debate this point with anybody who is prepared to take the opposite side of the argument.

What Are The Markets Telling Us?

HCM has been expecting U.S. equity and credit markets to continue to rally throughout the rest

of 2010 and into 2011 before succumbing to the dead weight of debt that is drowning government balance sheets around the world. The markets have definitively told us that we were wrong and that a sell-off couldn't wait. Nonetheless, the downward action of the markets is giving short shrift to the pronounced improvement in certain indicia of economic growth and corporate profits. In particular, the S&P 500 is now trading at what would seem to be an extremely attractive valuation of less than 15x 2010 estimated earnings, and earnings are trending upwards. In addition, lower interest rates, mortgage rates and oil prices should contribute to economic growth. While the stock market is supposed to discount the future, stock market investors (particularly in the era of the quants) have become increasingly shortterm oriented. Accordingly, it is odd that the market has been selling off on longer-term concerns. Odd, that is, until one understands just how serious those long-term problems are shaping up to be.

If the American economy is compared to a set of corporate financial statements, there are three things to look at: the income statement, the balance sheet, and the statement of cash flows. It is hard to make a case that any one of these is improving. In fact, all three would make a banana republic look good in comparison (especially if one watched C-Span for more than a few minutes to see how our republic is governed). The income statement is generating vast amounts of red ink - something on the order of negative \$1.5 trillion in fiscal 2010. The balance sheet is showing a growing debt burden that is close to reaching \$20 trillion when so-called off-balance sheet obligations (the hopelessly underwater Fannie Mae and Freddie Mac) are included. And the cash flow statement is showing far more cash going out than going in, on the order of trillions of dollars (even Social Security is now a use and not a source of cash). In short, the public sector finances of the world's largest economy are deteriorating before our eyes.

Contrast that with improving private sector finances. Corporate America has done a yeoman's job reducing debt (outside the realm of companies under the control of the private equity industry). Balance sheets are healthier, earnings and even revenues are improving, and the job picture is stabilizing. Unfortunately, a significant amount of the economy remains in

the hands of private equity, whose debt burdens continue to place a stranglehold on economic growth. Healthier private sector balance sheets bode well for the performance of corporate credit over the coming months despite the recent sell-off in high yield bonds. At the risk of sticking our neck out and getting it chopped off, HCM continues to expect the economy to show growth in the 2.5 to 3 percent range for the rest of the year and the stock market to be higher at the end of the year than it is today (1100 on the S&P 500).

The Credit Markets

The corporate credit markets have been in rapid retreat all month, with spreads on high yield bonds widening by more than 150 basis points to more than 700 basis points over 10year Treasuries. This has led to sharp mark-tomarket losses in a market that is currently experiencing very few defaults. The good news is that the market is again starting to properly price risk, and that higher spreads and interest rates will cut off the spigot for speculative private equity deals such as dividend deals and sales of portfolio companies by one buyout shop to another. These types of transactions allow private equity firms to conceal their mistakes and continue to con institutional investors into thinking that they are somehow creating value and providing attractive returns when they are doing nothing of the sort.

The so-called mega-buyouts, which deserve the same fate as the dinosaurs, are struggling under the enormous debts that were employed by their so-called "smart money" investors to grossly overpay for companies that had no strategic reason to go private in the first place. The typical large buyout today sits with debt equal to 10 or more times EBITDA (earnings before interest, taxes, depreciation and amortization). It is amortizing little debt, but is also unlikely to default due to the relatively low cost of its debt (rising Libor could change this for companies with high amounts of floating rate bank debt) and flexible covenants. Accordingly, these companies will be able to bump along for several years barring an economic collapse. However, the equity invested in most of these companies is currently worthless, which is not what the private equity firms are telling their investors. More aggressive private equity firms, such as Apollo Management, L.P., have been buyers of the discounted debt in these deals, realizing that the only way to salvage their equity investment is to shift value from the bond investors who were foolish enough to fund these deals at inception. What does all of this add to the productive capacity of the U.S. economy? Zilch. But it lines the pockets of the private equity partners at the expense of the institutions that entrust them with their money.

The Carried Interest Tax RIP

While the private equity industry tries to dig out from its mistakes, it continues to argue that it deserves special tax treatment for its contribution to the American economy. This is, not to put too fine a point on it, nonsense. The current debate about the private equity carried interest tax is so frustrating because it is filled with so much dishonesty about the true nature of the private equity business. There are certainly some activities, such as venture capital, that create jobs and add to the productive capacity of the economy. Such activities may deserve favorable tax treatment such as the lower tax rate on carried interests, which effectively tax labor as capital. But such is not the case for private equity. Private equity is a drag on the economy, not a boost. It does not create jobs, or fund research and development, or finance production. All it does today is replace equity with debt on the balance sheets of corporations while lining the pockets of its general partners with undeserved fees.

Private equity's idea of innovation is to load companies with too much debt and, if they can pay some of that debt down, quickly reload the balance sheet with more debt to pay dividends to their sponsors. The buyout firms then crown themselves "financial engineers" and lord over the financial markets because their investment bankers and lawyers and paid-for politicians and lobbyists don't have the courage to tell them that they are drowning the economy with too much debt and draining money from their investors and employees. There is no intellectual or policy justification for taxing the income of such activities at a lower rate than we tax other economic activities. In fact, in a rational world we would penalize such economically unproductive activities by imposing higher taxes on them. The carried interest tax for private equity is bad public policy and Congress must finally stop giving incentives to economic activities that cause economic harm. At the same time, Congress should make sure that the legislation does not remove incentives for legitimate productive investment strategies such as

venture capital, which create new businesses and products.

The Shrinking Superpower

One of the reasons that the markets have sold off in recent weeks is a clear concern that the financial system is still highly unstable and vulnerable to collapse. Whispers about Greece, Portugal and Spain did not have to travel far to morph into concerns about the finances of the United Kingdom and United States, both of which are on clearly unsustainable fiscal paths. But there may be other forces working to legitimately undermine the belief that the governments on which the world used to rely to enforce global stability are still up to the job (and not just their inability to manage markets or stop oil spills). Case in point is the failure of the world's powers to rein in the nuclear ambitions of Iran. This failure, which can only be described as both abject and ominous, was crystallized in the photograph of the president of Brazil, America's largest Latin American ally, and the prime minister of Turkey, the Muslim anchor of NATO, flanking and holding hands with the anti-Semitic thug Mahmoud Ahmadinehad (whose 2009 re-election to the Iranian presidency was clearly illegitimate) as they announced a so-called deal regarding Iran's nuclear capabilities that side-stepped American efforts.

As the journalist Charles Krauthammer has noted, this photograph stands as an appalling verdict on the diminished status of the United States in the world. It is damning evidence of how rising powers feel they can appease rogue nations that have publicly declared themselves America's enemies without fearing American anger. While the Obama administration tried to put the best face on this tripartite agreement among two of its most important allies and Iran, this was a humiliating blow (although the liberal press for the most part ignored it). Brazil's involvement in this disgraceful action is particularly ominous in view of the United States' passivity in the face of Hugo Chavez's deepening commercial and military ties with Russia, Iran and China. As Chavez's socialist policies further trash the Venezuelan economy and destabilize that nation, Venezuela's ties with Iran are a direct provocation to the United States. The Obama administration, however, appears to be asleep at the switch in Latin America, which will prove to be a very dangerous proposition if it does not wake up. HCM

expected much better of a foreign policy team led by Hilary Clinton.

Yahoo! Is *#^%'d

Those living in glass houses should be the last ones to throw stones, but HCM cannot resist raising the subject of the latest intemperate four-letter outburst aimed at Tech Crunch editor Michael Arrington at a New York symposium on May 25 by Yahoo! Inc.'s CEO Carol **Bartz**. Nor can we let the occasion pass without noting that Ms. Bartz, who appears to have an extremely high opinion of herself, was recently awarded a \$47 million compensation package despite the fact that Yahoo! continues to significantly underperform its peers and sink into increasing irrelevance in the Internet space. Since Ms. Bartz became CEO in January 2009, Yahoo! Stock has risen by only 16 percent compared with a 50 percent move in Google and a better than 40 percent move in the overall NAS-DAQ index. There is a good reason for this: Yahoo!'s performance continues to deteriorate as it becomes increasingly clear that Yahoo! is yesterday's news in a business where there are no yesterdays, only tomorrows.

The Wall Street Journal reported that in the year to April, unique U.S. visitors to Yahoo! rose by a mere 4 percent compared to 10 percent growth for the Internet overall, while page views fell by 13 percent compared with double digit gains for the Internet. It was also reported by *comScore* that Facebook passed Yahoo! in share of display-ad impressions (the number of times users saw an ad) in the first quarter of 2010. This poor performance occurred despite Yahoo!'s big marketing push. Yahoo! is trying to compete against Facebook and Google based on its belief that it has an advantage in offering content, but that is an illusion. The one thing that is available in abundance from multiple sources on the Internet is content (in fact, there is too much of it, not too little), and more content providers are entering the market each day. Yahoo! Is facing a losing battle and will continue to lose market share and importance.

So perhaps Ms. Bartz is trying to gain market share for her company by attracting users to YouTube to watch her curse out her critics. One can only wonder what the directors of her company are thinking after awarding her an egregious and obviously undeserved financial windfall and then seeing her embarrass herself and the company. After all, this is not the first time

Ms. Bartz has found herself unable to adequately express herself in the English language without resorting to words that are best left on the locker room floor. Being the head of a public company is a privilege, not a birthright or license to act out. The last CEO who wilted under the pressure by resorting to cursing out critics was Enron's Jeffrey Skilling (although we will leave the comparison at that). It is one thing for an overpaid and arrogant CEO to ignore her critics; it is quite another for her to

publicly curse them out. Coupled with the poor performance of the company, it suggests her that she is temperamentally and probably otherwise unfit for her job. Yahoo!'s directors need to start looking for somebody who can handle the job that their arrogant and intemperate CEO is failing to perform. Yahoo! stock is a short

Footnotes:

- ¹ Thomas Homer-Dixon, <u>The Ingenuity Gap</u> (New York: Alfred A. Knopf, 2000), p. 150.
- ² As David Brooks wrote in *The New York Times* ("Drilling for Certainty,' May 28, 2010, p. A19): "Over the past years, we have seen smart people at Fannie Mae, Lehman Brothers, NASA and the C.I.A. make similarly catastrophic risk assessments. As [Malcolm] Gladwell wrote in [a] 1996 essay, 'We have constructed a world in which the potential for high-tech catastrophe is embedded in the fabric of day-today life'....There must be ways to improve the choice architecture - to help people guard against risk creep, false security, groupthink, the good-news bias and all the rest...It's a challenge for people living in an imponderably complex technical society." Mr. Brooks probably gives too much credit to the alleged intelligence of the folks at Fannie Mae and Lehman Brothers, whose judgments were corrupted by motives other than intellect.
- ³ Homer-Dixon, 1. Italics in original. The *HCM* Market Letter June 1, 2010
- ⁴ Ibid., 3.

- ⁵ Ibid., 4.
- 6 Ibid., 83.
- ⁷ Nassim Nicholas Taleb, <u>The Black Swan: The Impact of The Highly Improbable</u> (New York: Random House, 2010), pp. 321-22. The same could be said of the Gulf oil spill that it was not a Black Swan, not that we won't take steps to prevent future accidents which was clearly foreseeable once the facts concerning operational and regulatory lapses on the rig are disclosed.
- 8 Homer-Dixon, 163.
- ⁹ Taleb, 322. Italics in original.
- ¹⁰ See J. Craig Venter and Daniel Gibson, "How We Created the First Synthetic Cell," *The Wall Street Journal*, May 26, 2010.
- ¹¹ Mr. Taleb repeatedly makes the point that eliminating or reducing leverage reduces the harm that Black Swan events can cause.
- ¹² Doug Kass, "Kill the Quants Redux," May 7, 2010. Doug Kass is general partner of Seabreeze Partners and his essay was written for TheStreet.com.
- ¹³ Peter Wilmott, "Hurrying Into the Next Panic?" The New York Times, July 29, 2009.

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INSIDE

guestperspective

By Paul Brodsky and Lee Quaintance

Leverage As Culprit

The Tyranny Of The Short Term

We recently asked a friend in charge of polling for a large media company whether it is possible to manipulate survey responses. He said an objective pollster had to be careful about how questions are asked; noting the manner in which questions are phrased produces predictable responses. And then he said this: "Thinking is work. Cognitive function is a capital expenditure and people tend to husband their resources."

It occurred to us that his insight is consistent with our market experience; day-to-day asset values have less to do with investors' collective processing ability than with their willingness to apply what they know. As a result, investors seem most comfortable following discernable trends regardless of new information that should rationally alter their thinking. Such views seem to hold up to even casual observations and explain much about empirical capital flows.

We think contemporary investors in all shapes and sizes and with ostensibly different objectives have short-term investment horizons, whether stated or implied. The reason for this is easy to put one's finger on – investors in highly-levered markets <u>must</u> follow trends or else system-wide leverage will unwind. Further, the trend they follow must be an uptrend because the assets being levered also act as collateral for the leverage itself. Thus, the crowd stays put even as relative value declines.

This would seem to explain why financial asset markets repeatedly go too far in one direction (up) before suffering from "unforeseen events". It is not that few investors see it coming; it is that discounting future crowd behavior trumps discounting the present value of future income or gains.

Global policy makers seem to behave similarly. No one would accuse Von Havenstein, Norman and Strong then, or Summers, Bernanke, Geithner & Trichet today of dullness. However, it would be difficult to defend them against the charge of acquiescing to contemporaneous "political realities".

Politics is effectively giving the most people what they want when they want it. So, it seems policy makers that study and then base their decisions on "political economics" will always and predictably opt to save the economy from near term adversity. When the economy is highly levered, saving the economy from near-term adversity means saving the markets from near term adversity.

So we think policy makers are just as capable as investors are of anticipating potential dangers, and just as unwilling, in over-levered societies, to do anything about it. They cannot take the proverbial punchbowl away because they fear short-term output contraction and rising unemployment, which, in a de-levered economy, would be the natural economic digestion necessary to maintain a sustainable long-term growth path. So, they find themselves distorting natural economic equilibriums and then perpetuating those distortions, perhaps having to hide them from public recognition. They dig deeper holes.

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And yet markets are not structured to care. Adverse selection takes hold over time among asset sponsors. The vast majority of investors that collectively price markets become trained to follow trends and not to think in terms of trend reversals or to invest in a counter-cyclical manner. The most successful investors become the ones conditioned and, perversely, disciplined enough to never bet against a secular uptrend.

More strategic investors may see the great imbalances and may marvel at the opportunities, but they are usually too early. They also do not receive adequate financial sponsorship capable of enforcing more sustainable equilibriums. They may be right but they are usually too small to matter and be respected.

The Prey - "Sophisticated Investors"

Most professional market participants have trained themselves to be sophisticated micromarket investors, strategists and tacticians looking for – and dependent upon – a rigid set of fundamental conditions to drive asset prices.

Consider that financial asset markets are sponsored mostly by large institutional investors acting as fiduciaries for others. A fiduciary's first obligation is to do no harm. The vast majority of fiduciaries would define "harm" in today's world as a contemporaneous mark-to-market loss. Is this prudent? Is a large pension fund with one year to 25 year future obligations investing rationally by trying to beat an index each month, or even by trying to avoid monthly or quarterly losses?

What about the professional fund manager investing on behalf of that pension fund? The reality is that most for-profit investment funds do not try to outrun the bear, only their competition. They are generally in the business of merchandising rigidly structured, often indexlinked investment products to fiduciaries afraid of short term losses. They are not in the business of seeking positive risk-adjusted real returns over time, or even positive absolute nominal returns each month.

Investor intelligence is not easily defined in markets characterized by systemic distortions. A momentum trader picking up pennies in front of steamrollers may only care about the next penny. Is she less sophisticated than the value investor tearing apart balance sheets?

(Maybe yes, maybe no - depending upon results.) What about the line-worker that picks mutual funds from a menu of mutual funds offered by his company's pension plan based on whether he has heard their name before? Both may be "less sophisticated" than MBAs or CFAs, yet their relative ignorance may serve them better than a more experienced investor over an extended period of time.

Copious amounts of assets under management do not make investors smart or sophisticated, nor do stated objectives or risk controls, or rigid disciplines, or advisory groups, or fiduciary protocols. In fact, we would argue that risk of loss increases as extraneous layers in the decision making process are added that separate objective analysis from executing and maintaining investment strategies. By their very nature, most large institutions have a plurality of objectives.

Objectivity and independence should be one of the most highly valued principles, and while size does not necessarily preclude adherence to this principle, it usually does.

* * *

There is a price for everything. Buyers and sellers disagree about the future direction of assets on every trade that occurs everywhere, on exchanges or over the counter. Otherwise there would be no trade or the trade would be executed at a different price. So, either there should be a rule that counterparties must have exactly equal levels of information and sophistication, (which would be silly), or it must be accepted that the value of opinions cannot be known coincident with trade executions. Like beauty, the value of assets at any given time must remain in the eyes of the beholders.

So then is an investment bank with public shareholders seeking good quarterly earnings supposed to care that an ostensibly sophisticated institutional investor sees more value in a sub-prime CDO than it does? Is there a commonly accepted presumption of a hierarchy of sophistication? Is one counterparty's fiduciary responsibility more important than the others'? Does one party have a fiduciary responsibility to the other if the lesser sophisticate is also a fiduciary over even lesser sophisticates? Who is supposed to decide which one is the lesser sophisticate? Congress?

Our friend in polling tells us it is much tougher

for most people to disagree or to be negative than to say "yes" or to acquiesce. So to increase revenues then, a financial intermediary need only find a susceptible investor (a weak link) to whom dubiously priced merchandise may be jammed. To the decision maker at the institution buying the dross it is easier to have the issue go away immediately and not explain himself to the awesome bank than to disappoint a highly intelligent and fabulous representative of it.

While it would certainly be best for all market participants to behave ethically, natural market incentives have predatory principles associated with them. (Perhaps the markets would be best served if it was generally perceived that they are risky places where investors can and do lose money?)

Wall Street traders and banks may or may not be more sophisticated on average than the people and institutions that buy their merchandise (don't kid yourselves, they are), but they are most definitely more energetic about seeing that trades actually get done (and at the widest acceptable vig). This means it will always be unlikely that all "sophisticated" decision makers on the buy-side will say "no" to toxic assets about to go pear-shaped, pitched to them by highly regarded Wall Street institutions. All it takes is one large investor to say "yes" in a moment of weakness to get the deal done.

That "print" then sets a new pricing equilibrium in the market for similar product, much as an aberrant genetic mutation provides the basis for an evolutionary shift. One print means more transactions at the new, distorted level can be justified, which in turn rationalizes the initial distortion. While some may argue that markets are always efficient, being so does not necessarily mean they are always properly and rationally priced. They may adjust in proper proportion daily for all known data, but they may also adjust from ridiculous levels to even more ridiculous levels. Price does not equal value.

So size, financial complexity and price execution do not define investment sophistication. All investors – from a busy physician rebalancing his tech stock portfolio once a quarter to a professional cross market trader – should accept and internalize an uneven set of circumstances and invest by their wits.

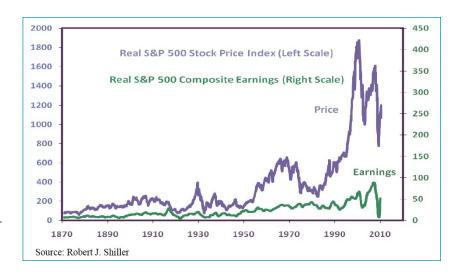
The independent investor (of any size) has distinct advantages over levered professional arbitrageurs and gargantuan monolithic index tracking institutions. The only thing holding him back is insecurity that he does not know enough. Of course it is better to know more than less, but it is best to know enough, to be secure enough to accept what one does not know, and to recognize the market's weak spots.

What is a sophisticated investor? We think a truly sophisticated investor is a capable analyst willing to take his or her own counsel and disciplined enough not to be over-influenced by irrelevant existential inputs. It is a willing saver that sees sporadic opportunity where price and value part.

Exploiting Wayward Incentives & Manufactured Distortions

So markets are biased to rise most days due to perpetually easy monetary conditions and reliable trend-adhering investor sponsorship. As we have often noted, a secular uptrend in financial asset markets is the product of systemic credit build-ups channeled through banking systems.

The result of this leverage is mind blowing over time. Total global financial assets including stocks, bonds and unreserved bank loans amounted to about \$214 trillion in the third quarter of 2008, while the global monetary base was only about \$6.8 trillion. This is almost 32 to 1 leverage in fiat currency terms. The total value of the world's above-ground gold supply (as a historic benchmark for sound money) at about \$844 billion implies a global financial asset to gold ratio of 254:1.2



Logic dictates there must be decreasing *real* benefits to output and income from this massive global leverage. Robert Shiller's economics team at Yale provided the data for the graph on page 3. It shows time-series of inflation-adjusted S&P earnings and the inflation-adjusted S&P 500 Index since 1870.

The graph illustrates clearly that: 1) real corporate earnings have not risen materially over a long stretch of time; and 2) real index and earnings volatility have increased materially in recent times. The immense and widening gap separating real earnings from the index, as well as the obvious increase in volatility of both components of the graph implies that the massive systemic leverage added to the system in recent years has de-stabilized the economy and the markets. This should make intuitive sense to all. There is very little currency in circulation today to repay the whopping 32-fold claims on it.

We know there is a high and consistently growing bid for money to repay that immense and growing funding gap, given historically low interest rates today. On one hand, it seems entirely rational that sovereign yields are historically very low because there is such an enormous future demand for money embedded into the system. By investing in sovereign bonds, investors are capturing priority over all future claimants for money with which to satisfy claims. By implication, bond buyers (creditors) believe they have future claims on a scarce commodity – fiat money. We would agree with the fundamental premise but disagree with its pragmatism.

Consider that there has been a long history of public sector intervention into private markets, such as implicit GSE backing that replaced fear of loss in the housing market with widespread lust for gains. More recent public interventions, in 2000 following the dot-com bubble and in 2008 amid the first wave of credit evaporation, further prove there are no limits to political willingness to intervene to ensure systemic loss protection, or what economists call "moral hazard".

The unspoken secular public policy that promotes moral hazard is being manifest today in great force through quantitative easing, debt monetization, distaste among legislators to write germane lending regulations, and continuing socialization of real estate and financial asset losses. It seems highly likely that policy makers and politicians will extend this policy to inflate away the burden of their constituents' debt repayments. It is the method they have always used and it has recent precedent.

Within this environment, a very high present value of fiat money actually seems quite irrational. What creditors are not considering, in our view, is that policy makers are currently demonstrating that there will be an abundance of money. Fiat money may be scarce today but it will be abundant when needed.

Thus we believe bond investors are behaving irrationally by paying a high price to lock-in future fixed coupon and principal payments. Though they will no doubt take priority vis-àvis levered financial asset investors and the majority of unlevered investors in over-levered markets that will be forced to sell their lesser claims to fund near term obligations, they will not have the purchasing power to actually buy assets. They see only the credit deflation that will hit equity investors and bond investors further down the capital structures. They are turning a blind eye to government-derived monetary inflation, and the reason they are doing this, we think, comes back to their incentive structure.

Ultimately, a Fallacy of Composition

Let's close the circle, tying together investor incentives with market distortions. The issue is one of micro-investing versus macro investing. Going back to our assertion about short-termism and investor sophistication, most financial asset investors today have incentive to see the trees but not the forest. Most are investing for nominal returns and the big presumption they share is that all money is the same, or that they can't do anything about fluctuating exchange rates (or that they are not paid to care about them).

If an equity investor believes XYZ Corp will surprise next month on the upside, and a million other investors think the same of a thousand other companies, they will invest accordingly. If a bond manager thinks Acme Widget debentures are historically cheap to Mega Doohickey notes, and millions of investors in a thousand other companies think the same, they too will invest accordingly.

Financial asset markets are priced by micro-investors for discrete expectations based generally on short-term mean reversions. There is a fallacy of composition at play, wherein the parts of the asset markets seem fairly priced to its participants yet the whole is woefully unstable. Investors and policy makers are guilty of functionally destroying their future real returns (investors) and capital markets (policy makers) by trying to meet today's micro-economic, micro-regulatory and micro-market objectives.

Consider, for example, the issues facing large fixed-income funds presently. Harley Bassman, a trader's trader, long highly regarded within Treasury, MBS and volatility circles, points out that U.S. quantitative easing has distorted the MBS market so much that its largest buyers are being forced to take on significantly more risk to comply with their stated mandates.

Bassman notes the Fed now owns well over onethird of all outstanding fixed-rate MBS, yet these bonds have not been removed from indexes off which large investors are benchmarked. He does not know how money managers "intend to beat an index that doesn't exist," and observes that "the professional investing class as a whole cannot mathematically match the index without taking on substantial risk in other sectors."

Bassman fears corporate credit spreads may be bid to unjustifiable levels as investors grab incremental yield where they can find it, and that many investors will be forced to sell option premium to increase portfolio yields to match their indexes. He notes:

"By effectively forcing the Index and Total Return managers to sell options to replicate the return profile of MBS (and match the yield of the unadjusted Aggregate Index), the Fed has found a mechanism to transfer risk from the market to itself. However, as time progresses, the portfolios of otherwise passive Index managers will become unstable with an increased usage of negatively convex derivatives." ³

Bassman believes the markets should "be prepared for this to end badly if too many managers choose this path." We don't think Harley Bassman will be one who shrugs his shoulders and says; "who could have foreseen this?" The negative unintended consequences of active economic and market policy intervention keep coming and it seems highly unlikely they will stop.

The more global politicians and policy makers seek to satisfy wayward near-term interests and imperatives, the sooner we believe wealth will flee leveraged financial assets and find less-leveraged, unleveraged, and even de-leveraged assets. The fundamental mispricing of real factors of production like wages and scarce commodities vis-à-vis leveraged capital assets is too wide to ignore and too great for the political dimension to suppress.

Footnotes:

- ¹ International Monetary Fund; Global Stability Report; October 2008
- World Gold Council; Quarterly Gold and FX Reserves; 03 2008
- ³ (QB note: Convexity is the rate of change of a bond's duration, and is measured as the second derivative of price with respect to yield. Negative convexity occurs when the shape of a bond's yield curve is concave, implying the bond's duration generally lengthens as interest rates rise and shortens as interest rates decline.

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INSIDE

guestperspective

By Stephen J. Nelson

End Of An Era?

FINRA's NYSE Reg Takeover Upends Principles Of The Exchange Act

It was announced a month ago, on May 4, and was greeted without much fanfare: The New York Stock Exchange will delegate to FINRA responsibility for performing market surveillance and enforcement over trading on the NYSE.

To comply with the niceties of the Securities Exchange Act of 1934, the NYSE will retain responsibility for making sure that FINRA is doing its job. Lawyers will prepare appropriate procedures to demonstrate that this oversight function is being carried out properly. But, I very much doubt that anyone believes this will amount to anything more than window dressing. The NYSE's oversight role will be mainly perfunctory.

FINRA already provides market surveillance functions for Nasdaq, BATS and the ISE. With the NYSE under its wing, it can't be long before FINRA also supervises Chicago and the Midwest, as well as anyone else that registers as an equities exchange in the future.

After all of the changes that have taken place over the last decade, this latest transition seems anti-climactic. Not much will change. About 225 NYSE

employees will either transfer to FINRA, or join the millions now on the unemployment line. But, trading will go on much as it has since Reg NMS was implemented—automated, cheap and fast. Those who are regulated, for the most part software programmers and systems mechanics, are unlikely to notice that a different regulator is now running the ship.

Nonetheless, this is a sea change that removes the assumptions about market structure that are the founding principles of the Exchange Act.

In the late 1990s, the NYSE's management realized that substantial investments in technology would be required to modernize the exchange to respond to the growing competitive threat by Nasdaq and alternative off-exchange trading systems. At the time, the NYSE was a mutual organization, owned by its members. There's a lot to be said for mutuals, but it is very difficult for them to raise a significant amount of capital. So, the NYSE hired some prominent investment bankers to provide advice about ways to access the capital markets, which meant demutualizing and issuing securities to the public.

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For the NYSE, going public presented significantly more complex issues than would confront the typical widget manufacturer, or even the typical mutual savings bank. For one thing, no one had ever taken an exchange public before. More important, the NYSE is regulated by the SEC as a national securities exchange, and the SEC had one big problem with the idea.

The NYSE is a self-regulatory organization, which means it creates and enforces rules of its members. The SEC was concerned that as a public company, the NYSE would tend to cover up rule violations of its members, rather than act as a zealous enforcer of the securities laws. So, the SEC suggested that the NYSE come up with a plan to divest its regulatory functions. The NYSE's response horrified the Commission; even it's more pro-business and conservative members.

Richard Grasso, the NYSE's CEO at the time, told the SEC that its investment bankers believed most of the value of the NYSE was vested in its power to regulate its members. This power enabled the NYSE to maintain its exclusive franchise. The SEC's request to divest its regulatory functions would therefore deprive the NYSE of most of the value of its franchise and make it difficult to offer securities to the public at an acceptable price.

Regulation's nature is to restrain competition, generally by creating a favored status for those that are regulated.

Lawyers, for example, have an exclusive franchise to practice law in every one of the 50 states, and this means that non-lawyers cannot compete with them for business.

The NYSE and other exchanges are reg-

ulated entities, which means they enjoy some competitive advantage over non-exchanges. But, they are also regulators. This means that they can improve their market power by exercising control over their regulated members. Since an increase in market power is associated with greater profits, it follows that a publicly owned regulator can use its regulatory power to increase its profits. Indeed, it can be argued that it owes a fiduciary duty to its shareholders to increase profits through anticompetitive use of market regulation.

Of course, the use of regulatory power to stifle competition is not in the public interest. The practice inevitably results in higher costs without any corresponding public benefit. Grasso's candid conversation with the SEC provoked a serious examination of the NYSE's behavior as a regulator. It is fair to say that the SEC was not pleased with what it saw, and the result was a series of market structure regulations intended to deprive the NYSE of its monopoly power over equity markets.

On the other hand, regulation is also expensive. If the NYSE as a public company cannot use market regulation to increase its profits, then its self-regulatory powers are a costly burden, rather than a revenue-enhancing benefit. In that case, an exchange would owe its shareholders a duty to divest its costly regulatory function, if possible.

It is no coincidence that the NYSE's share of trading in its own listed securities has fallen to around 25 percent. To compete on a level playing field with Nasdaq, BATS and other fleet-footed competitors, the NYSE needs to be free of the dead weight of market regulation. The May 4th announcement reflects the final transformation of the

NYSE's business model and its capitulation to market forces.

This raises the question about the meaning of "exchange" status. The "national securities exchange" created by Securities Exchange Act of 1934 is first and foremost a self-regulatory organization with rules to govern the conduct of its members. In the absence of this self-regulatory function, what is it that sets an exchange apart from an alternative trading system?

The concept of "national securities exchange" is a cornerstone of the Exchange Act. Removing it would reduce the grand regulatory edifice to rubble. But, the fact is that the commercial realities of modern equity markets have already done the job. The only sensible thing to do is to haul away what can be salvaged and junk the rest.

The Exchange Act must be thoroughly revised. Postponing the project will only increase the pain and suffering involved in the process.

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VOLUME 12 ISSUE 11 JUNE 11, 2010

INSIDE

newsbites Flash Crash

Preliminary SEC/CFTC Report On May 6 Market Mash

Excerpted from the May 18, 2010 report of **Preliminary Findings Regarding the Market Events of May 6, 2010** by the staffs of the U.S. Commodity Futures Trading Commission and the U.S. Securities and Exchange Commission. Log onto http://welling.weedenco.com for full 151 page report.

I. INTRODUCTION

The Commodity Futures Trading Commission ("CFTC") and the Securities and Exchange Commission ("SEC" and collectively, the "Commissions") have established a Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues (the "Committee"). The establishment of the Committee was one of 20 recommendations included in the agencies' joint harmonization report issued last year.1

The first item on the agenda of the Committee will be to conduct a review of the market events of May 6 and to make recommendations related to market structure and liquidity issues that may have contributed to the volatility experienced on that day, as well as disparate trading conventions and rules across various markets.

This report to the Committee reflects the preliminary findings of the Commissions' respective staffs resulting from their ongoing review of the events of May 6. The report is intended to brief the Committee regarding the May 6 events and to provide certain context regarding the current structure of the equity and futures markets and the regulatory framework for those markets.

This report includes: (a) an executive summary; (b) an overview providing general market context with respect to the events of May 6; (c) preliminary findings with respect to those events; and (d) areas for further analysis and initial next steps. In addition, this report contains several appendices providing relevant background regarding the market structure of the

securities and futures markets.

It is important to emphasize that the review of the events of May 6 is in its preliminary stages and is ongoing. The reconstruction of even a few hours of trading during an extremely active trading day in markets as broad and complex as ours-involving thousands of products, millions of trades and hundreds of millions of data points-is an enormous undertaking. Although trading now occurs in microseconds, the framework and processes for creating, formatting, and collecting data across various types of market participants, products and trading venues is neither standardized nor fully automated. Once collected, this data must be carefully validated and analyzed. Such further data and analysis may substantially alter the preliminary findings presented in this report. The staffs of the Commissions therefore expect to supplement this report with further additional findings and analyses.

II. EXECUTIVE SUMMARY

On May 6, 2010, the financial markets experienced a brief but severe drop in prices, falling more than 5% in a matter of minutes, only to recover a short time later. Since that day, the staffs of the Securities and Exchange Commission and the Commodity Futures Trading Commission have been collecting and reviewing massive amounts of information in order to understand the events and to recommend appropriate measures.

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SECURITIES MARKETS

Preliminary Findings

May 6 started with unsettling political and economic news from overseas concerning the European debt crisis that led to growing uncertainty in the financial markets. Increased uncertainty during the day is corroborated by various market data: high volatility; a flight to quality among investors; and the increase in premiums for buying protection against default by the Greek government. This led to a significant, but not extraordinary, down day in early trading for the securities and futures markets.

Beginning shortly after 2:30 p.m.,² however, this overall decline in the financial markets suddenly accelerated. Within a matter of a few minutes, there was an additional decline of more than five percent in both the equity and futures markets. This rapid decline was followed by a similarly rapid recovery. This extreme volatility in the markets suggests the occurrence of a temporary breakdown in the supply of liquidity across the markets.

The decline and rebound of prices in major market indexes and individual securities on May 6 was unprecedented in its speed and scope. The whipsawing prices resulted in investors selling at losses during the decline and undermined confidence in the markets. Although evidence concerning the behavior of the financial markets on May 6, 2010 continues to be collected and reviewed, a preliminary picture is beginning to emerge.

At this point, we are focusing on the following working hypotheses and findings-

- 1. possible linkage between the precipitous decline in the prices of stock index products such as index ETFs and the E-mini S&P 500 futures, on the one hand, and simultaneous and subsequent waves of selling in individual securities, on the other, and the extent to which activity in one market may have led the others;
- a generalized severe mismatch in liquidity, as evinced by sharply lower trading prices and possibly exacerbated by the withdrawal of liquidity by electronic market makers and the use of market orders, including automated stop-loss market orders designed to protect gains in recent market advances;
- 3. the extent to which the liquidity mismatch may have been exacerbated by disparate trading conventions among various exchanges, whereby trading was slowed in one venue, while continuing as normal in

another;

- 4. the need to examine the use of "stub quotes", which are designed to technically meet a requirement to provide a "two sided quote" but are at such low or high prices that they are not intended to be executed;
- 5. the use of market orders, stop loss market orders and stop loss limit orders that, when coupled with sharp declines in prices, for both equity and futures markets, might have contributed to market instability and a temporary breakdown in orderly trading; and
- 6. the impact on Exchange Traded Funds (ETFs), which suffered a disproportionate number of broken trades relative to other securities.

We have found no evidence that these events were triggered by "fat finger" errors, computer hacking, or terrorist activity, although we cannot completely rule out these possibilities.

Key Avenues for Further Investigation

Much work is needed to determine all of the causes of the market disruption on May 6. At this stage, however, there are a number of key themes that we are investigating.

Futures and Cash Market Linkages. The first relates to the linkages between trading in equity index products, including stock index futures and the equity markets. About 250 executing firms processed transactions for thousands of accounts during the hour 2:00 p.m. -3:00 p.m. in the E-Mini S&P 500 futures contract. Of these accounts, CFTC staff has more closely focused their examination to date on the top ten largest longs and top ten shorts. The vast majority of these traders traded on both sides of the market, meaning they both bought and sold during that period. One of these accounts was using the E-Mini S&P 500 contract to hedge and only entered orders to sell. That trader entered the market at around 2:32 and finished trading by around 2:51. The trader had a short futures position that represented on average nine percent of the volume traded during that period. The trader sold on the way down and continued to do so even as the price level recovered. This trader and others have executed hedging strategies of similar size previously.3

Data from the CME order book indicates that, although trading volume in E-mini S&P 500 futures was very high on May 6, there were many more sell orders than there were buy orders from 2:30 p.m. to 2:45 p.m. The data also indicate that the bid ask spread widened sig-

nificantly at or about 2:45 p.m. and that certain active traders partially withdrew from the market. Considerable selling pressure at this vulnerable period in time may have contributed to declining prices in the E-Mini S&P 500 – and other equivalent products such as the SPY (an ETF that tracks the S&P 500).

All of these markets are closely linked by a complex web of traders and trading strategies. The precipitous decline in price in one market on May 6 may have influenced a sustained series of selling in other financial markets. The rapid rebound in price in one market could similarly have been linked to a rebound in price in another.

Implications for the Equity Markets. The great majority of securities experienced declines that are generally consistent with the decline in value of the large indexes. Some were less than the approximately 5% decline in the E-mini S&P 500 during that period, and some were greater. Approximately 86% of securities, however, reached lows for the day that were less than 10% away from the 2:40 p.m. price.

The other 14% of securities suffered greater declines than the broader market, with some trading all the way down to one penny. The experience of these securities exposed potential weaknesses in the structure of the securities markets that must be addressed.

One hypothesis as to why the prices of some securities declined by abnormally large amounts on May 6 is that they were affected by disparate practices among securities exchanges. In the U.S. securities market structure, many different trading venues, including multiple exchanges, alternative trading systems and broker-dealers all trade the same stocks simultaneously. Disparate practices potentially could have hampered linkages among these trading venues and led to fragmented trading in some securities. Two types of disparate practices on May 6 relate to the NYSE's liquidity replenishment points ("LRPs") and the self-help remedy in Regulation NMS. These and other practices merit significant ongoing review:

• LRPs and Similar Practices. The NYSE's trading system incorporates LRPs that are intended to dampen volatility. When an LRP is triggered, trading on the NYSE will "go slow" and pause for a time to allow additional liquidity to enter the market. Some have suggested that LRPs actually exacerbated, rather than dampened, price volatility on May 6 by causing a net loss of liquidity, as orders were routed to other trading venues for immediate execution rather than waiting on the LRP mechanism. If this occurred, it potentially could have caused some NYSE securities

to decline further than the broad market decline. However, others believe that the LRP mechanism indeed dampened volatility by rebuilding additional buy side liquidity that soaked up some of the excess selling interest in these securities on May 6. LRPs and other types of exchange procedures for handling or executing orders will be closely examined to determine whether they inappropriately impede liquidity.

- <u>Self-Help Remedy</u>. Another disparate exchange practice potentially relevant to the thinning of liquidity is the self-help remedy. Two exchanges declared self-help against NYSE Arca in the minutes prior to 2:40 p.m. Exchanges are entitled to exercise the self-help remedy when another exchange repeatedly fails to provide a response to incoming orders within one second. A declaration of self-help frees the declaring exchanges from their obligation to route orders to the affected exchange. Some have suggested the exercise of self-help led to a net loss of liquidity as the declaring exchanges stopped routing orders to NYSE Arca.
- Stop Loss Market Orders. An additional hypothesis as to why some securities suffered more severe declines than the broader market on May 6 is that they were particularly affected by stop loss market orders. These orders have stop prices that, for sell orders, are lower than current prices. When the stop price is reached, such orders turn into market orders to sell. In fast-falling market conditions, stop loss market orders could potentially trigger a chain reaction of automated selling if they are in place in significant quantity for a particular stock. We are investigating whether such a chain reaction led to abnormally large declines for some stocks on May 6.
- Short Sales and Stub Quotes. We also are examining the use of short sales and stub quotes on May 6. Our analysis thus far of broken trades has found that short sales accounted for approximately 70 % of executions against stub quotes between 2:45 p.m. and 2:50 p.m., and approximately 90 % of executions against stub quotes between 2:50 p.m. and 2:55 p.m. Notably, short sale executions against stub quotes would be subject to the alternative uptick rule (Rule 201) adopted by the SEC in February 2010, with a compliance date in November 2010.

In addition, we will evaluate the use of stub quotes by market makers. As noted above, stub quotes are not intended to be executed and effectively indicate that the market maker has pulled out of the market. Their presence at the bottom and top of order books on May 6 may have led to a very large number of broken trades. We will examine the extent to which market makers used stub quotes to nominally meet their market making obligations on May

Exchange-Traded Funds. Of the U.S.-listed securities with declines of 60% or more away from the 2:40 p.m. transaction prices, which resulted in their trades being cancelled by the exchanges, approximately 70% were ETFs. This suggests that ETFs as a class were affected more than any other category of securities.

Based on our analysis to date, we are focused on a number of issues that may have contributed to the ETFs' experience, including:

- Because ETFs generally track securities market indices, the extraordinary price declines in certain individual securities likely contributed to the ETF price declines. For the most part, the severe ETF price declines followed, in time, the sharp decline in the broad markets. ETFs that track bond indices generally did not experience severe price declines. We therefore are considering the linkages between ETF price declines and the declines in the equity market.
- The role of market makers and authorized participants in ETFs, and whether an inability to hedge their ETF positions during periods of severe volatility may have contributed to a lack of liquidity in ETF shares.
- The use of ETFs by institutional investors as a way to quickly acquire (or eliminate) broad market exposures and whether this investment strategy led to substantial selling pressure on ETFs as the market began to decline significantly.
- The impact of ETF stop loss market orders, particularly from retail investors, on the overall ETF market price declines.
- Given that NYSE Arca is the primary listing exchange for almost all ETFs, whether the declaration of "self-help" against NYSE Arca by other exchanges may have impacted NYSE Arca-listed stocks generally and ETFs in particular. The loss of access to NYSE Arca's liquidity pool may have had a greater impact on market liquidity and trading for ETFs.

FUTURES MARKETS

Preliminary Findings

Economic evidence from the futures markets is also consistent with the conclusion that a liquidity drain likely played a role in the dramatic and sudden move-

ments in the price of stock index futures. As noted above, preliminary data indicates that, although trading volume in E-mini S&P 500 futures was very high on May 6, there were many more sell orders than there were buy orders from 2:30 p.m. to 2:45 p.m. The data also indicate that the bid ask spread widened significantly at or about 2:45 p.m. and that certain active traders partially withdrew from the market.

Starting at 2:45:28 p.m., CME's Globex stop logic functionality initiated a brief pause in trading in the E-mini S&P 500 futures. This functionality is initiated when thelast transaction price would have triggered a series of stop loss orders that, if executed, would have resulted in a cascade in prices outside a predetermined 'no bust' range (6 points in either direction in the case of the E-mini). The purpose of this functionality is to prevent sudden, cascading declines (or increases) in price caused by order book imbalances.

The stop logic functionality has been activated previously for a variety of instruments. In the case of the Emini S&P 500 futures, the stop logic functionality has been triggered a number of times in the past few years, including several times during the financial crisis in the Fall of 2008, when market data indicates similar conditions as those seen on May 6.

On May 6, activation of the stop logic functionality initiated a five second pause in trading on the E-mini S&P 500 futures contract. The price of the E-mini S&P 500 futures rebounded after the five second pause imposed by the stop logic functionality.

Staff analysis of market performance measures is consistent with the conclusion that a very temporary, but serious liquidity shortage occurred across the securities and futures markets.

NEXT STEPS

Securities Markets

SEC staff will continue our ongoing investigation of the nature of the overall market liquidity dislocation and the impact on individual stocks. Where appropriate we are moving quickly to prevent a recurrence of the harm that investors suffered on May 6.

We anticipate that the self-regulatory organizations (exchanges and FINRA) will propose circuit breakers for individual stocks that are designed to address temporary liquidity dislocation. Specifically, a pause in trading should provide an opportunity for all available sources of liquidity (both manual and automated) to be mobilized to meet sudden surges

in demand for liquidity.

- The procedures for breaking trades that occur at off-market prices should be improved to provide investors greater consistency, transparency and predictability.
- We are also continuing to review a range of other policy options, including addressing the use of stub quotes, reviewing the obligations of professional liquidity providers and evaluating the use of various order types (market orders, stop loss orders).

Futures Markets

CFTC staff will continue its analysis into the events of May 6. Specifically, CFTC staff is carefully reviewing the activity of the largest traders in stock index futures.

CFTC staff will also continue its analysis, already begun by our Office of Chief Economist, of liquidity provision in futures markets, with a particular focus on electronic trading. The subjects to be reviewed here include high frequency and algorithmic trading, automatic execution innovations on trading platforms, market access issues, and co-location.

CFTC staff is considering a proposed rulemaking with respect to exchange co-location and proximity hosting services. The purpose of the proposed rule would be to ensure that all otherwise qualified and eligible market participants that seek co-location or proximity hosting services offered by futures exchanges have equal access to such services without barriers that exclude access, or that bar otherwise qualified third-party vendors from providing co-location and/or proximity hosting services. Another purpose of the proposal would be to ensure that futures exchanges that offer co-location or proximity hosting services disclose publically the latencies for each available connectivity option, so that participants can make informed decisions.

CFTC staff will also be considering possible rules to enhance the CFTC's surveillance capabilities. These measures include automation of the statement of reporting traders in the large trader reporting system and obtaining account ownership and control information in the exchange trade registers.⁴ These initiatives would increase the timeliness and efficiency of account identification, an essential step in data analysis.

Joint Actions

Staff also intends to pursue a joint study to examine the linkages between correlated assets in the

equities (single stocks, mutual funds and ETFs), options and futures markets. The study could partly focus on examining cross-market linkages by analyzing trading in stock index products such as equity index futures, ETFs, equity index options, and equity index OTC derivatives using, to the extent practicable, market data, special call information, and order book data.

• Existing cross-market circuit breaker provisions should be re-examined to ensure they continue to be effective in today's fast paced electronic trading environment. Although the coordinated circuit breakers between futures and equities were not triggered, the events of May 6 reinforce the importance of having communication links between futures and equity markets so that there is meaningful and appropriate coordination of trading pauses and halts.

PROCESS OF ANALYSIS

Over the last ten days, the SEC and the CFTC have collected and analyzed a wide range of data from many different sources in order to prepare this preliminary report. Specifically:

- The SEC has sourced and analyzed price, time, and volume data on over 19 billion shares executed on May 6, and quote data representing the best bid and best offer for over 7,800 securities, for each exchange, for each millisecond during the trading day. Our goal is to gather data necessary to create a complete order book showing snap-shots of the full displayable depth on a particular market and audit trail data containing detailed information on all orders submitted.
- -Analysis of the complete order book is necessary to examine how changes in the provision of liquidity below the best bid, and above the best offer, led to rapid changes in execution prices, with some trades hitting high and low "stub quotes."
- -Analysis of order audit trail data is necessary to examine what types of orders were driving these price swings (e.g., market, limit, etc).
- -The audit trail contains information on introducing brokers but does not include details regarding the trading activity of specific market participants. Currently, such data is only available directly from broker-dealers through "blue sheet" requests. Furthermore, even in this data participants are identified only in the way that they are known to the broker-dealer, as there are currently no uni-

form standards⁵

-The order book and order audit trail are maintained at exchanges, FINRA, broker-dealers and other market centers. In some cases this information must be collected by the SROs, and then must be compiled and organized by the SEC. Every exchange has established its own requirements for what constitutes an audit trail, including what items are captured, how they are named, and the structure of the data file.

- The SEC has sourced and analyzed aggregate data on the volume and type of liquidity, provided and taken, by the largest liquidity providers and takers on various exchanges.
- The SEC has worked extensively with the relevant securities exchanges and FINRA to assess the circumstances of the market events on May 6. In addition, the SEC is analyzing detailed data for all NYSE LRPs occurring on May 6th, as well as over the last 5 months.
- CFTC staff has analyzed transaction and order book data on stock index futures, including the E-Mini S&P 500 futures contract.
- CFTC staff has been reviewing information from a special call on over 40 large traders for their trading activity in the E-mini S&P 500 and Russell 2000 futures contracts on May 6, 2010. A special call is a CFTC directive to a trader holding a reportable position to furnish any pertinent information concerning the trader's positions, transactions, or activities.
- CFTC staff also has been reviewing information from a special call to swap dealers about their activity in over-the-counter broad-based security index derivatives markets on May 6, 2010. In addition, staff has been engaged in a detailed review of trader activity on May 6 through a comprehensive examination of trade-register data. To date, staff has received over 25 gigabytes of data in over 307,000 files, with more data expected.

Both the CFTC and the SEC have had extensive conversations with a wide variety of market participants (investors, hedge funds, exchange traded funds, dealers, high frequency traders, etc.) to better understand their trading activities throughout May 6, and to gather anecdotal evidence from which common themes and/or trends can be identified to inform further areas of investigation.

Footnotes:

1 Joint Report of the SEC and the CFTC on Harmonization of Regulation, October 16, 2009.

2 All times in this report are EDT.

3 Statement of Gary Gensler, Chairman, Commodity Futures Trading Commission, Before the House of Representatives Committee on Financial Services, Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises, May 11, 2010, at 8. Except as specifically authorized, Section 8 of the Commodity Exchange Act generally forbids disclosure of additional information regarding such traders.

417 CFR 18.04.

⁵For example, the same market participant may be known to different broker-dealers by different names making the aggregation of orders for a single participant very difficult. For further details, see the SEC's recent proposal for the Large Trader Reporting System.

Log onto http://welling.weedenco.com for full 151 page report of Preliminary Findings Regarding the Market Events of May 6, 2010

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VOLUME 12 ISSUE 11 JUNE 11, 2010

INSIDE

acuteobservations

"At this point, I'm still bullish, but I doubt that many readers will agree.

Thoughts On Volatility

Today's stock market is a strictly professional affair, dominated by flash traders and the more conventional hedge funds. Market liquidity is sporadic. When the professional crowd wants to buy there are no sellers once a move gets underway, just as there are very few buyers when the move is down. While the flash traders may be active in the early stage of a move, arbitraging quote differentials (providing some liquidity in heavily traded stocks) they quickly back away or go with the flow when the move appears to be decisive. In addition most conventional hedge funds are not prone to fight a trend.

.....This is why we see so many 90% days in today's markets. This is why 100 point intra-day moves in the DJI and 10 point moves in the S&P are now commonplace (both up and down).

.....This is why a significant piece of good news could, at any time, now trigger a 600 point one day move in the DJIA and a 60 point move in the S&P."

Steve Leuthold View From The North Country June 10, 2010 www.leutholdgroup.com

"What are the implications of my theory [which asserts that financial markets do not necessarily tend towards equilibrium; they can just as easily produce asset bubbles] for the regulation of the financial system?

First and foremost, since markets are bubble-prone, the financial authorities have to accept responsibility for preventing bubbles from growing too big. Alan Greenspan and other regulators have expressly refused to accept that responsibility. If markets can't recognize bubbles, Greenspan argued, neither can regulators-and he was right. Nevertheless, the financial authorities have to accept the assignment, knowing full well that they will not be able to meet it without making mistakes. They will, however, have the benefit of receiving feedback from the markets, which will tell them whether they have done too much or too little. They can then correct their mistakes.

Second, in order to control asset bubbles it is not enough to control the money supply; you must also control the availability of credit. This cannot be done by using only monetary tools; you must also use credit controls. The best-known tools are margin requirements and minimum capital requirements. Currently they are fixed irrespective of the market's mood, because markets are not supposed to have moods. Yet they do, and the financial authorities need to vary margin and minimum capital requirements in order to control asset bubbles.

Regulators may also have to invent new tools or revive others that have fallen into disuse. For instance, in my early days in finance, many years ago, central banks used to instruct commercial banks to limit their lending to a particular sector of the economy, such as real estate or consumer loans, because they felt that the sector was overheating. Market fundamentalists consider that kind of intervention unacceptable

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but they are wrong. When our central banks used to do it we had no financial crises to speak of. The Chinese authorities do it today, and they have much better control over their banking system. The deposits that Chinese commercial banks have to maintain at the People's Bank of China were increased seventeen times during the boom, and when the authorities reversed course the banks obeyed them with alacrity.

Third, since markets are potentially unstable, there are systemic risks in addition to the risks affecting individual market participants. Participants may ignore these systemic risks in the belief that they can always dispose of their positions, but regulators cannot ignore them because if too many participants are on the same side, positions cannot be liquidated without causing a discontinuity or a collapse. They have to monitor the positions of participants in order to detect potential imbalances. That means that the positions of all major market participants, including hedge funds and sovereign wealth funds, need to be monitored. The drafters of the Basel Accords made a mistake when they gave securities held by banks substantially lower risk ratings than regular loans: they ignored the systemic risks attached to concentrated positions in securities. This was an important factor aggravating the crisis. It has to be corrected by raising the risk ratings of securities held by banks. That will probably discourage loans, which is not such a bad thing.

Fourth, derivatives and synthetic financial instruments perform many useful functions but they also carry hidden dangers. For instance, the securitization of mortgages was supposed to reduce risk thru geographical diversification. In fact it introduced a new risk by separating the interest of the agents from the interest of the owners. Regulators need to fully understand how these instruments work before they allow them to be used and they ought to impose restrictions guard against those hidden dangers. For instance, agents packaging mortgages into securities ought to be obliged to retain sufficient ownership to guard against the agency problem.

Credit default swaps (CDS) are particularly dangerous they allow people to buy insurance on the survival of a company or a country while handing them a license to kill. CDS ought to be available to buyers only to the extent that they have a legitimate insurable interest. Generally speaking, derivatives ought to be registered with a regulatory agency just as regular securities have to be registered with the SEC or its equivalent. Derivatives traded on exchanges would be registered as a class; those traded over-the-counter would have to be registered individually. This would provide a powerful inducement to use exchange traded derivatives whenever possible.

Finally, we must recognize that financial markets evolve in a one-directional, nonreversible manner. The financial authorities, in carrying out their duty of preventing the system from collapsing, have extended an implicit guarantee to all institutions that are 'too big to fail.' Now they cannot credibly withdraw that guarantee. Therefore, they must impose regulations that will ensure that the guarantee will not be invoked. Too-big-to-fail banks must use less leverage and accept various restrictions on how they invest the depositors' money. Deposits should not be used to finance proprietary trading. But regulators have to go even further. They must regulate the compensation packages of proprietary traders to ensure that risks and rewards are properly aligned. This may push proprietary traders out of banks into hedge funds where they properly belong. Just as oil tankers are compartmentalized in order to keep them stable, there ought to be firewalls between different markets. It is probably impractical to separate investment banking from commercial banking as the Glass-Steagall Act of 1933 did. But there have to be internal compartments keeping proprietary trading in various markets separate from each other. Some banks that have come to occupy quasimonopolistic positions may have to be broken up."

George Soros Speech at Institute of International Finance, Vienna June 10, 2010 www.georgesoros.com

"... the harshest voices now warning of disaster from Wall Street reform and moral hazard are the very same voices that, a few years ago, claimed that pure, free markets did a far better job than any regulatory agency could or would. Before mounting their soapboxes, these avatars of ideology might look in the mirror.

They might think about apologizing for the numerous errors in their theories that helped cause this crisis. And they might adopt a cloak of humility, as at least the housing advocates seem to have done.

The debate should not be about moral hazard, it should be about the entirety of financial reform. The conservatives are right that regulation sometimes creates flawed incentives. But their opponents - a group that now includes pragmatists who once resided in the conservative camp - are right that such moral hazard is to be anticipated and designed around.

Just as we do not want to undermine optimal economic outcomes, neither should we reward the free-market zealots with any additional attention. As Ben Bernanke, a convert to pragmatism, famously observed in the midst of the meltdown: 'There are no ideologues in financial crises.' Nor should there be in Wall Street reform."

Marc Lackritz
Beware the biggest moral hazard of them all
June 10, 2010
www.FT.com

"The key ECRI leading indicator has slumped in recent weeks. Together with the rapid rate of erosion in the pace of analysts' EPS upgrades, this suggests that we are set for a very gloomy H2. As we head into a double-dip, the current technical correction will rapidly turn into a resumption of the structural bear market for stocks. We have not seen the worst yet."

Albert Edwards Freddie is worried June 8, 2010 www.sgresearch.com

"I'll reiterate that from our perspective, the essential difficulty of the market here is not Greece, it is not the Euro, it is not Hungary, and it is really not even the slow pace of job growth in the latest report. The fundamental problem is that we have not, as a global economy, accepted the word 'restructuring' into our dialogue. Instead, we have allowed our policy makers to borrow and print extraordinarily large band-aids to temporarily cover an open wound that will not heal until we close the gap. That gap is the difference between the face value of debt securities and the actual cash

flows available to service them. The way to close the gap is to restructure the debt. This will require those who made the bad loans to accept the associated losses. By failing to do that, we have failed to address the essential problem faced by the world, which is that we have created more debt than we are able to service."

John Hussman Extraordinarily Large Band-Aids June 7, 2010 www.hussman.net

"Whatever happened to that wonderful Wall of Worry that bulls used to drool over? That magical wall that grew with every piece of bad news and, more than that, provided rock-solid assurance that the market had plenty of room on the upside. These days, it's conspicuous by its absence. Perhaps when everyone was snoozing, somebody stealthily dismantled it, backed up a truck and spirited it away, taking along the Goldilocks economy while he was at it.

Which is too bad, because gosh knows there's plenty to worry about besides the gooey mess in the Gulf: the Middle East, the euro, Hungary, China's real-estate bubble, Korea, Iran, softening retail sales, the cloudy outlook for housing, the parlous condition of state finances, intimations that even Uncle Sam the Munificent is toying with the alarming idea of exercising some fiscal restraint – and that is by no means the whole roster of rue. In short, there's worry enough to build a wall to the moon and still have some bricks left over.

Yet despite the occasional powerful flare-up, the stock market seems barely able to maintain a semblance of balance, much less gird itself to climb anything higher than a footstool. And it's no great mystery why. Gradually but inexorably, investors are starting to realize that their great expectations for the economy that propelled the indexes 80% higher from the lows of early 2009 are not due to be realized anytime soon.

The economy is staging a kind of half-baked recovery, far from the high-stepping number that was envisioned by the wild bulls. The nasty legacy of the big credit bust and awesomely steep recession is still very much with us, and even more lugubriously stalks a sizable slice of the global economy.

In other words, what's really ailing the market

is a strong whiff of reality – for which, it grieves us to say, there's no quick cure." Alan Abelson Up And Down Wall Street
June 5, 2010
www.barrons.com

"If Obama is to have a truly transformative presidency, there could be no better catalyst than oil. Standard Oil jump-started Progressive Era trust-busting. Sinclair Oil's kickback-induced leases of Wyoming's Teapot Dome oilfields in the 1920s led to the first conviction and imprisonment of a presidential cabinet member (Harding's interior secretary) for a crime committed while in the cabinet. The Arab oil embargo of the early 1970s and the Exxon Valdez spill of 1989 sped the conservation movement and search for alternative fuels. The Enron scandal prompted accounting reforms and (short-lived) scrutiny of corporate Ponzi schemes.

This all adds up to a Teddy Roosevelt pivot-point for Obama, who shares many of that president's moral and intellectual convictions. But Obama can't embrace his inner T.R. as long as he's too in thrall to the supposed wisdom of the nation's meritocracy, too willing to settle for incremental pragmatism as a goal, and too inhibited by the fine points of Washington policy debates to embrace bold words and bold action. If he is to wield the big stick of reform against BP and the other powerful interests that have ripped us off, he will have to tell the big story with no holds barred.

That doesn't require a temper tantrum. Nor does it require him to plug the damn hole, which he can't do anyway. What he does have the power to fix is his presidency. Should he do so, and soon, he'll still have a real chance to mend a broken country as well."

Frank Rich
Don't Get Mad, Mr. President. Get Even
June 4, 2010
www.nytimes.com

"Admittedly, it is not easy to explain how the dots from Greece are connected rather directly to the U.S. economy. They are affixed through global financial conditions – our New Age financial infrastructure of market-based Credit; gigantic risk markets where asset prices play prominently in confidence and spending; the massive pool of performance-chasing speculative finance; and market perceptions that are too often dictated by government policy actions. In this extraordinary age of marketable finance and activist central bank inflationism, the securities markets and market perceptions have become (too) critically important.

When confidence is running high, financial conditions run loose. The marginal borrower – Greece, a highly-leveraged U.S. corporation, or perhaps a private-equity fund – enjoys easy Credit Availability. The tendency of things is for finance to expand, asset prices to inflate and economic 'output' to increase. And they all feed merrily on themselves. But – in this unstable financial world - the Credit noose begins a rapid tightening the moment confidence is shaken. And the inevitable reversal of financial flows and attendant speculator deleveraging ensures vicious contagion effects, acute fragility, and destabilizing crises of confidence.

One can say that reflations fueled by marketable-based finance are prone to be dynamic and powerful. Unfortunately, once unleashed, these forces are just as powerful on the downside as during expansionary periods. Payback time comes when greed turns to fear and bull falls victim to bear. Finance proves fickle and unreliable. I fear U.S. financial and economic recoveries were built upon inflated expectations and unjustified confidence. Fleeting confidence now creates myriad risks associated with unmet expectations, disappointment and disillusionment."

Doug Noland Gauging Financial ConditionsJune 4, 2010
www.prudentbear.com

"Again, in my view, enhanced resolution regimes, by themselves, are not enough to end TBTF. Even a combination of enhanced regulation and resolution would likely be inadequate. The temptation to use regulatory discretion to avoid disruptions is just too great.

Shrink 'Em

This leaves us with only one way to get serious about TBTF-the 'shrink 'em' camp. Banks that are TBTF are simply TB-'too big.' We

must cap their size or break them up—in one way or another shrink them relative to the size of the industry.

In its latest version, the financial regulatory reform bill has left regulators (specifically, the Board of Governors and the Federal Deposit Insurance Corp.) with the authority to impose greater restrictions on firms whose living wills are not credible. That authority, as I mentioned previously, could include "[divesting] certain assets or operations ... to facilitate an orderly resolution."[10] I would argue that regulators should freely use this broad authority to commit credibly to resolution with creditor losses by reducing big banks' size and interconnectedness.

(You can see why my stance on TBTF hardly endears me to audiences on Wall Street. I am given to quoting Winston Churchill in response. He said that 'in finance, everything that is agreeable is unsound and everything that is sound is disagreeable.' It is most disagreeable to the big bank, big money lobby to countenance restrictions on size, and hence it is the perceived wisdom that this approach is disagreeable. And yet it is perhaps the most sound approach of all those proffered.)

Some counter that even if all banks were made small or mid-size (or at least not TBTF), systemic threats-and thus the incentive for regulators to step in and save financial institutionswould not disappear. For instance, if a lot of small banks got into trouble simultaneouslyor, as I like to say, forgot they had already been to the Ocean View Restaurant before and made the same bad bets at the same time-one might expect the central bank and regulators to protect bank creditors, extending TBTF protections once again. As the argument goes, breaking up big banks may be necessary but is possibly not sufficient-policymakers still must grapple with the possibility of many smaller banks getting into trouble at the same time, causing a 'systemic' problem.

I consider this argument hollow for a few reasons.

First, even if this possibility turned out to be true, the threat of a loss from more isolated difficulties would mean creditors could reasonably expect losses in certain circumstances—a situation unlike TBTF.

Second, going by what we see today, there is considerable diversity in strategy and performance among banks that are not TBTF. Looking at commercial banks with assets under \$10 billion, over 200 failed in the past few years, and as we have seen, failures in the hundreds make the news. Less appreciated, though, is the fact that while 200 banks failed, some 7,000 community banks did not. Banks that are not TBTF appear to have succumbed less to the herd-like mentality that brought their larger peers to their knees. We saw similar diversity during the Texas banking crisis of the late 1980s. Small banks had diverse risk exposures. The most aggressive ones failed, while the more conservative did not

Some have also pointed to the Great Depression as a period when many small banks got into trouble at the same time. That situation seems less relevant to the policy questions we face today. Those failures were the result of a liquidity crisis that brought down both nonviable and viable banks. Such a liquidity crisis among small banks would be unlikely today, as we now have federal deposit insurance, which protects deposits for funding. And, I might add, the Federal Reserve has demonstrated quite effectively over the past two years that we not only have the capacity to deal with liquidity disruptions but also the ability to unwind emergency liquidity facilities when they are no longer needed.

The point is this: The arguments against shrinking the largest financial institutions are found wanting. And sufficient or not, ending the existence of TBTF institutions is certainly a necessary part of any regulatory reform effort that could succeed in creating a stable financial system. It is the most sound response of all. The dangers posed by institutions deemed TBTF far exceed any purported benefits. Their existence creates incentives that will eventually undermine financial stability. If we are to neutralize the problem, we must force these institutions to reduce their size.

I do not want to be naïve here. I am not suggesting that our banking system devolve into institutions like the Bailey Building and Loan Association in It's a Wonderful Life. Large institutions have their virtues. They can offer an array of financial products and services that George Bailey could not. A globalized, inter-

connected marketplace needs large financial institutions. What it does not need, in my view, are a few gargantuan institutions capable of bringing down the very system they claim to serve."

Richard W. Fisher Financial Reform or Financial Dementia June 3, 2010

http://www.dallasfed.org/news/speeches/fisher/2010/fs100603.cfm

"In our view, the present macro squall was triggered by investors who are beginning to connect the dots between the rally in risk assets that has been supported over the past 18 months by cheap government money, and daily reminders that governments can't afford it4. Market participants are displaying anxiety over where the debt crisis is leading us, and maybe outright fear that our political process is not up to the challenge. We expect the clouds to persist for quite a while, as the issues become better defined and appropriate solutions are fully debated.

Debt itself is just a symptom. It may have proven much easier to move debt from the private to public sector than it will be to make it go away. Ensuring that excessive debt doesn't then reappear will be something else again. This structural issue hasn't even made it to policy and market radar screens yet.

The debt crisis will be with us until the habits driving it are changed. The underlying disease is an increasingly complex and destructive model of global growth that marries the West's insatiable appetite for consuming cheap Eastern product on credit, with the East's continued over-dependence on selling and lending to the West. The present crisis gives policy makers the opportunity to begin a necessary process of re-balancing leverage and consumption patterns on both sides, and thereby moving toward a more sustainable model of global growth.

China's slowing doesn't help sentiment, though we think it's good for medium term sustainability of this growth path that is now the fulcrum of the global economy.

The twilight of the debt supercycle may be less dramatic yet more chronic and possibly more difficult to position around than the '08 financial crisis. There will be no quick fix here, no more big government-spend-us-back-to-status-quo band-aids. Pivotal policy accomplishments and changes in consumer behavior are going to be required in both the East and West. We in the West need to consume less and borrow less, while our friends in the East need to consume more and lend less.

How? In addition to tightening their own fiscal belts, governments will have to work together using globally coordinated interest and exchange rate policies to level the playing field so Western companies enjoy export opportunities too. China needs to establish a social safety net so its own consumers become comfortable enough to consume more, after which it can begin to re-value the Yuan. And EUR/USD exchange rate policies will have to be stabilized to give companies on both sides balanced access to each others' markets, as well as to Asia's.

Hopefully, Secretary Geithner's recent shuttle diplomacy in Asia and Europe started these discussions, because the alternative of un-coordinated currency devaluation and beggar-thyneighbor policies could be chaotic and counterproductive.

This process is likely to take years."

Daniel J. Arbess
Perella Weinberg Partners Xerion Fund
May 2010 Portfolio Review & Commentary
June 2010

www.pwpartners.com

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Our World, Refracted For Grins

"Oil Spill Continues, Immigration Walls, Mideast Peace?..."





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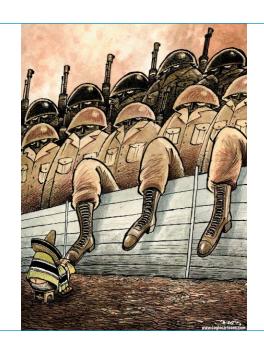
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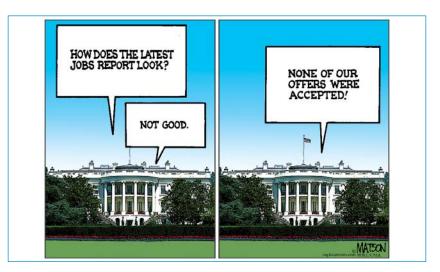
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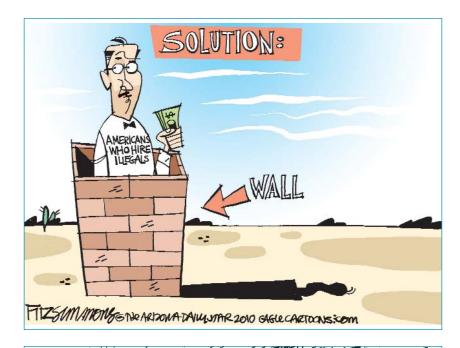


White House Job Offers

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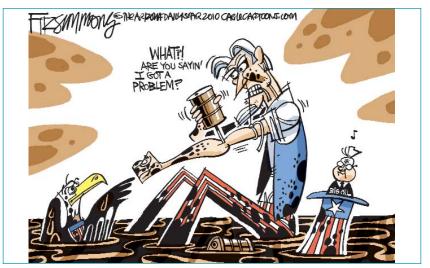
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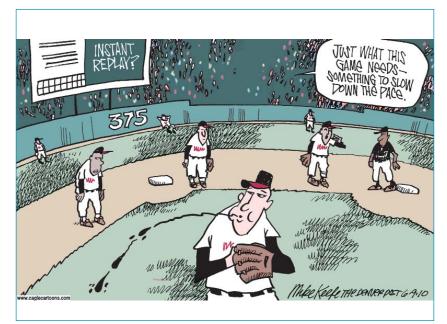
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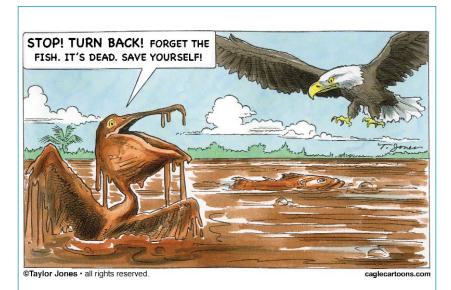
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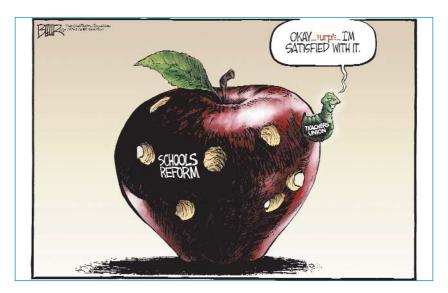
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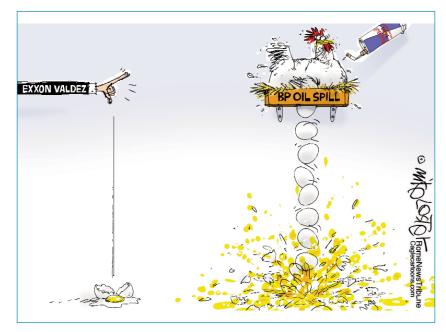


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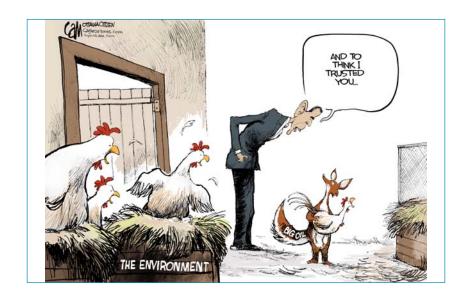


Repeal "Don't Ask, Don't Tell"

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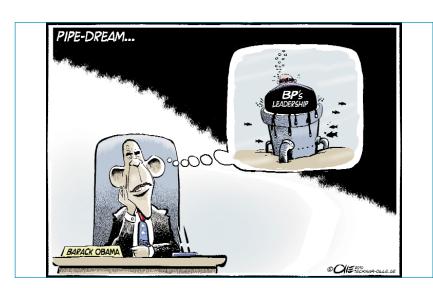
Recession Sinkhole

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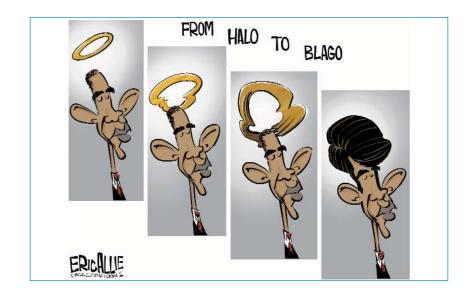


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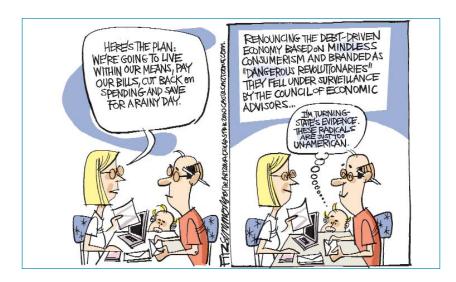
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Bobby Jindal, Tony Hayward, Sarah Palin

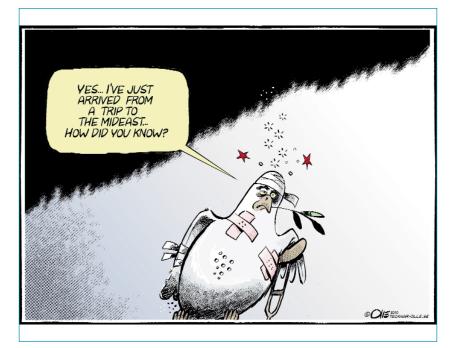
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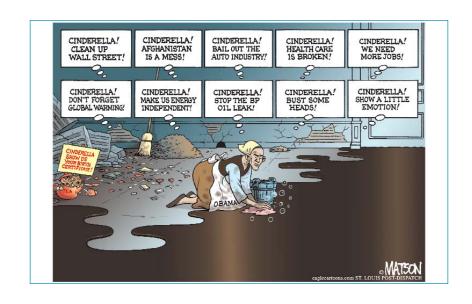


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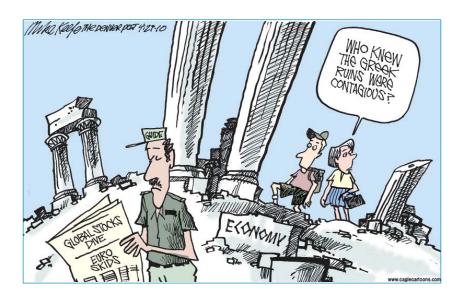
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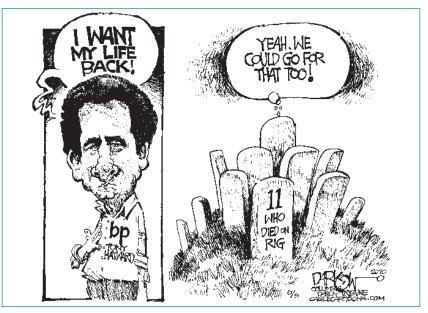
Greek Economy

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