THE NEW BULL MARKET FALLACY

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Since March lows, the S&P 500 is up over 51%, while myriad media outlets have propagated the idea of the return of economic growth to the United States and the end of its recession. Political figures and pundits offering observations of "green shoots" and sentiments of optimism and recovery are intertwined in this new bull market hysteria sweeping the financial world. Meanwhile, troubled banks and insurers who just months ago were saved from complete implosion by the taxpayer have been reporting record earnings and record compensation to go with them.

Yet the optimism reflected by equity markets and the rose-colored perspective almost pervasively offered by economic analysts and commentators is rooted in fallacious logic and Panglossian interpretation of economic conditions. The reality is, the economy is worsening, deleveraging and writedowns are far from reaching finality, earnings are misrepresenting truth, and the market has staged a bubbly technical-driven and bank/government collusion-financed bear market rally.

The rally is premised on unsustainable earnings and weakening economic fundamentals, driven by liquidity monopolization catalyzed by bank/government collusion, and is a success to those involved inasmuch that record levels of equity and debt have been sold into the rally (as well as record levels of insider sales relative to purchases), leaving the taxpayer to be the bagholder. We remain in the heart of a secular, credit-driven recession and the stock market is set for a massive correction.

There are four main aspects to the new bull market thesis and its refutation:

1. Bank and corporate earnings
2. Economic indicators
3. Market technicals, internals, and participants
4. Government involvement

Bank and corporate earnings

The market initially began its rally back in March based off of earnings pronouncements from Citigroup, JP Morgan Chase, Bank of America, and General Electric, forecasting a very surprising billions in Q1 profits. They, along with Wells Fargo, Goldman Sachs, and a number of other banks, ended up posting huge (often record) profits in Q1 2009, with trading dominating the revenue power.

Yet these earnings were merely a result of one-time taxpayer-funded revenues and accounting shenanigans.

Zero Hedge published an alarming piece subsequent to the pronouncements suggesting counterparty settlements to AIG's outstanding CDS obligations were executed in a wholesale, hasty manner, and the unwinds were in fact responsible for *billions* in revenues per bank. FICC trading indeed turned out to be the big variable in the earnings reports of Q1 2009 vs Q4 2008 as far as revenue creation was concerned.

The April 2 rule change of FAS 157 further inflated bank earnings, by allowing banks to mark assets at well above market value. For example, Wells dodged *$4.35 billion worth of writedowns* solely because of the rule change, without which ceterus paribus it would have posted a $1.35 billion *loss* instead of its $3 billion profit.

But the accounting tricks didn't stop there. Loan loss provisions were nowhere to be found, as were charge-offs, with Wells' declining over 50% from its Q4 combined percentage with new acquisition Wachovia. Goldman's missing month and Citi's booking of $2.5 billion in profits from the widening of its own credit spreads further exemplified the accounting treatment used to inflate the books of banks. I delved into Q1 bank earnings in this article, which provides quite comprehensive explanation of the lunacy of bank earnings and their blatant divergence from reality.

Q2 was no different. Pro-forma non-GAAP incomes dominated the headlines, grouped as positive earnings, yet substantially hiding losses and misrepresenting reality. Bearish News published an

impressive refutation of Q2 earnings, also focusing on the accounting aspect. Nonrecurring gains were pervasive in corporate earnings, as companies tried to sweep in all the profits they could so they could sell equity into the rally before the next huge wave down.

Banks again posted huge trading profits, as it became clearer that the market's recent move was a little more sinister than immediately thought (Goldman's 42 $100M+ trading days and JP Morgan's daily IOI advertisements didn't exactly appease us skeptic bears). In addition to trading, investment banking revenues were through the roof, mainly due to equity underwritings and fees, as everyone and their mother issued secondaries into this massive rally to pass off equity to shareholders in exchange for King Cash. Again, no writedowns to be found anywhere, nor were loan loss provisions at any level reflective of reality. Goldman did however book a substantial loss on its commercial real estate portfolio, and knowing Goldman's history with timing writedowns (AIG collateral calls come to mind?), this could suggest the commercial real estate implosion that has been obvious for so long may finally be imminent along the horizon.

As I wrote in an earlier article:

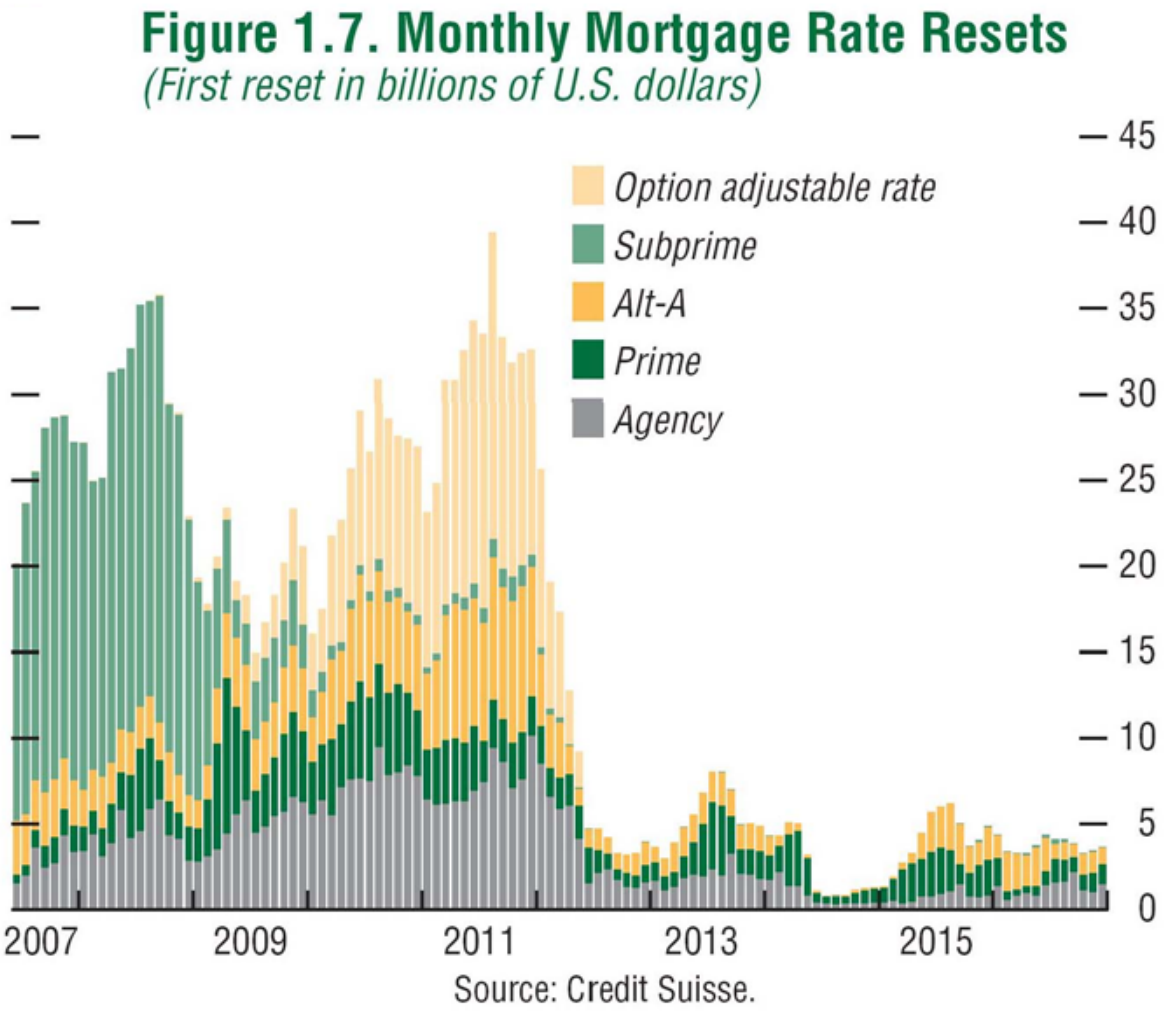
It is clear to any logical, unbiased market observant that the economy has not turned around. Wells has a $115B option ARM portfolio from its Wachovia acquisition and is marking it at 81 cents on the dollar. Meanwhile, housing prices have plummeted over 50% since most of these loans were written and even still, they are experiencing negative amortization.

JP Morgan has over $40B in option ARM exposure, nearly $90B if off-balance sheet vehicles are counted. GE has $450B+ of short-term debt to be rolled over, an $8B immediate payment required in the event of a GECC credit rating cut, a TA/TCE leverage ratio of over 200x, and an “other” asset category worth more than overall GE shareholders equity. Citi still has a TA/TCE of over 50x, $1.8T of assets (almost $3T if off-balance sheet SPVs are included), and $115B in short-term debt that needs to be rolled over by issuing more equity before the 1.7% decline in its assets needed to wipe out out the entirety of its TCE occurs.

Commercial real estate is a $3T problem for CMBS holders, but also banks and insurers, which hold the whole loans that contribute to over 70% of the problem. Mall vacancies over 10% and office vacancies over 15% aren’t helping. The Federal Reserve wrote down losses of almost 30% in commercial mortgages and almost 40% in residential mortgages in its Maiden Lane balance sheet, while Citi continues marking both residential and commercial loans and securities at 90-95+ cents to par. Citi has an enormous CRE book and a further 20-25% write-down on its CRE assets would easily drain all of its equity. All you need to do to see how deep Citi’s valuations are embedded in fantasyland is go check out some strip malls and office space uptown.

According to an IMF report released in April, global credit losses will top $4.1 trillion by the end of 2010, while just over $1 trillion of losses have been written down. Off-balance sheet SPVs and SPEs could compound affairs, as will the notional derivative exposures of the biggest banks (Goldman has 1056% TCE in IR swaps, for example; so much for converting investment bank risk to BHC sustainability). Thus, less than 25% of losses overall through the end of 2010 have been written down. Yet banks are rallying on “end of recession” optimism and the idea of valuation bottom and growth recovery has become almost ubiquitous in American media.

Financials' equity values are grossly overvalued, mainly due to a lack of asset write-downs. This is understandable: GE, for example, with its TA/TCE ratio over 200x. Regardless, losses eventually have to be taken, if not through market valuations, then on event of default, marks from par to zero. And subprime was just the beginning; banks have massive exposure to CRE and Alt-A/Option ARM portfolios. As can be seen below, we are not out of the woods yet by any means, as a bigger and more pervasive default wave than subprime is yet to come (see next page):



Economic indicators

Over the past couple of weeks, massive in-flows of “less-bad” economic news have gone from accelerating the prices of equities off their March lows at a record pace to perpetuating the frighteningly false assertion that “the recession is over.” Namely, better than expected GDP figures and unemployment numbers have left the business news networks, the Obama White House, economic commentators, analysts, and investors in a bullish frenzy this August.

First, we had the report on Q2 GDP that was released on July 31. The report was hailed as a glorious return to prosperity even though it still showed a decline in GDP of 1% compared to a revised 6.4% decline in Q1. This marked the fourth consecutive quarterly decline in GDP, the first time such an event has occurred since the government started keeping quarterly records in 1947. It’s reasonable to expect that such a large 2nd derivative improvement in economic output would spawn more green shoots, especially when the mainstream media reports such data at face-value without delving deeper into the numbers. In reality, Q2 GDP was a disaster. Economic output during the second quarter was not powered at all by healthy private-sector expenditure and investment, but by unprecedented and unsustainable increases in federal and state-government spending. Personal consumption fell by 1.2% in Q2 compared to a .6% increase in Q1. Durable goods decreased by 7.1% in Q2 compared to a 3.9% increase in Q1, and non-durable goods (consumed goods) decreased by 2.5% in Q2 compared to a 1.9% increase in Q1.

The American consumer is deleveraging on a massive scale (we'll discuss this more in-depth later), and this inevitably leads to decreases in spending, the beginnings of which can be observed in the most recent GDP report. This is a problem, especially for an economy in which 70% of GDP growth comes from consumer spending. Consumer deleveraging will continue to accelerate for the remainder of the year and beyond, leading to further decreases in the personal consumption, durables, and non-durables portions of GDP in Q3 and Q4.

So who's there to pick up the slack from an exhausted consumer? The government, of course. Real federal government consumption expenditures increased 10.9% in Q2, compared to a decrease of 4.3% in Q1. Real state and local government consumption expenditures and gross investment increased 2.4%, in contrast to a decrease of 1.5% in Q1. This government-spending spree is clearly unsustainable, especially on the state and local level. The states are broke, and they'll need to cut expenditures considerably in Q3 and Q4 to avoid bankruptcy. The federal government, on the other hand, will undoubtedly continue to spend borrowed money in a hapless attempt to jump-start economic growth in the medium-term, but any increases in output that result from such massive public-sector spending programs are in no way indicative of a widespread and sustainable economic recovery. The folks in Washington have been able to temporarily stabilize the economy and the financial system through economic intervention on a grand scale, but they cannot permanently delay or reverse the inevitable market adjustments in consumer debt and spending levels that must take place in order to begin the real recovery process. If anything, the Q2 GDP report is a Cassandra, warning market participants of potential rough waters ahead.

Many emerging markets have seen stunning economic growth since the crisis "bottomed," and perma-bulls regularly use these figures as ammunition in their assault against reality. The fact of the matter is that growth in the emerging markets has been even more driven by government spending and easy credit policies than it has been here in the U.S. China, the poster child for the global economic recovery, is perhaps the guiltiest of inflating its economy and creating new bubbles in equities, real estate, and other assets through government mandated liquidity. China reported 7.9% GDP growth for Q2, and it set a year-over-year growth target of 8% for 2009. Shanghai's two stock markets are up 75% and 95% respectively on the year, while fixed-asset investments have soared 30% from their levels in 2008. All this amazing growth has been the result of a colossal government stimulus program and a campaign by the Chinese government to encourage (require) bank lending. It's worked wonderfully- new loans for the first half of 2009 have totaled $1trillion, compared to only $600 billion in new loans for all of 2008.

All this liquidity has effectively been channeled into various assets in what can only be described as a speculative frenzy, leaving many to believe that Chinese equities could be 50-100% overvalued. Even Chinese officials have described their economic recovery as "unbalanced." Growth in the People's Republic and in other emerging markets is much less impressive when one considers the sheer scale of government spending that has been necessary to shore up export-driven economies during one of the worst global export slumps in history. The most recent data out of China shows that exports fell 23% year-over-year in July, while domestic industrial production increased at a comparably slower rate of 10.8%. This glut between foreign demand and domestic industrial output will have to be filled by even more government-directed bank lending and stimulus in the coming quarters. The Chinese will keep the liquidity spigot open, but only time will tell whether this government-led recovery bubble will burst in the future.

Let's turn our attention back to the United States, where the July unemployment report was one of the catalysts that pushed the S&P 500 to new 2009 highs in a continuation of what has been a seemingly unstoppable rally in the equity markets. Economists and market participants were surprised when the BLS announced that the unemployment rate had actually fallen to 9.4% in July from 9.5% in June. While the economy lost only 247,000 jobs in July compared to an average of 331,000 over the previous three months, the real reason for the slight drop in the unemployment rate was a precipitous drop in the total number of labor force participants. The labor force consists of those who are currently employed and

those who are actively searching for jobs, and in July that number fell by 422,000. People who were once searching hard for new work are giving up and turning to unemployment benefits for sustenance until the job market recovers. The problem is that even extended unemployment benefits, which can now be collected for up to 79 weeks in half the states, will soon run out. In fact, as many as 1.5 million jobless Americans could see their benefits dry up before the year's end. Once unemployment benefits have been exhausted, jobless individuals will be forced back into the still struggling labor force by necessity, driving the unemployment rate much higher. White House press secretary Robert Gibbs said that even President Obama expects to see unemployment reach 10% by the end of the year.

Even those who have been fortunate enough to keep their jobs have been hurt by free-falling incomes, plummeting home values, and declining personal net worth. U.S. personal incomes tumbled by 1.3% in June, the sharpest decline in nearly four years. July boasted the highest monthly consumer bankruptcy total since October 2005, with bankruptcy filings reaching 126,434, a 34.3% increase year-over-year and an 8.7% increase from June. Home prices fell by 12.1% year-over-year in Q2, with 23% of all single-family homes owing more on their mortgage than the actual value of their home. Deutsch Bank analysts have predicted that such "underwater" loans could reach 48% of all mortgages, or 25 million homes, by the first quarter of 2011.

The only way for the U.S. consumer to survive today's tumultuous economic environment is to cut spending, increase savings, and pay off debt. As mentioned earlier, in in-depth examination of the Q2 GDP report shows only the beginning of what will be a long and difficult movement away from debt-financed consumption toward productive individual saving. The financial crisis has exposed the U.S. consumer's decade-long addiction to debt. Since 2000, the U.S. has seen total debt double from $26 trillion to a peak of $54 trillion just a few months ago (we currently stand at $52 trillion). This is 375% of GDP, which is much higher than the historical debt-to-GDP ratios in the U.S. during the Depression era and in Japan in 1989. Our economy has gone from requiring $1.50 of debt to generate $1 of GDP in 1960, to requiring an eye-popping $5.40 of debt to generate $1 of GDP over the past decade. Almost ¾ of our total debt belongs to private sources.

All of this is beginning to change. As the federal government expands its share of the total U.S. debt burden by borrowing massive amounts to pay for bailouts, stimulus plans, health care reform, etc., the consumer is once again embracing fiscal conservatism. The personal savings rate, which was close to zero before the crisis began, has risen to 4.6%. Consumer credit contracted at an annual rate of 4.9% or $10.3 billion in June, which was almost double what analysts had expected from the government report. This was the third straight quarter and fifth straight month of significant declines in consumer credit.

Globally, emerging markets have been helped by the Fed's foreign liquidity swaps increasing excess liquidity, rising commodity prices (weakening USD), and a reverted TED spread (good LIBOR with excess liquidity and UST tanking with risk appetite and deficit spending/QE). But this is again all unsustainable, and the recent surge in Chinese equity and property values has been described by renowned analyst Andy Xie as Ponzi-like in nature (I also indeed see a crash imminent in the Shanghai index):

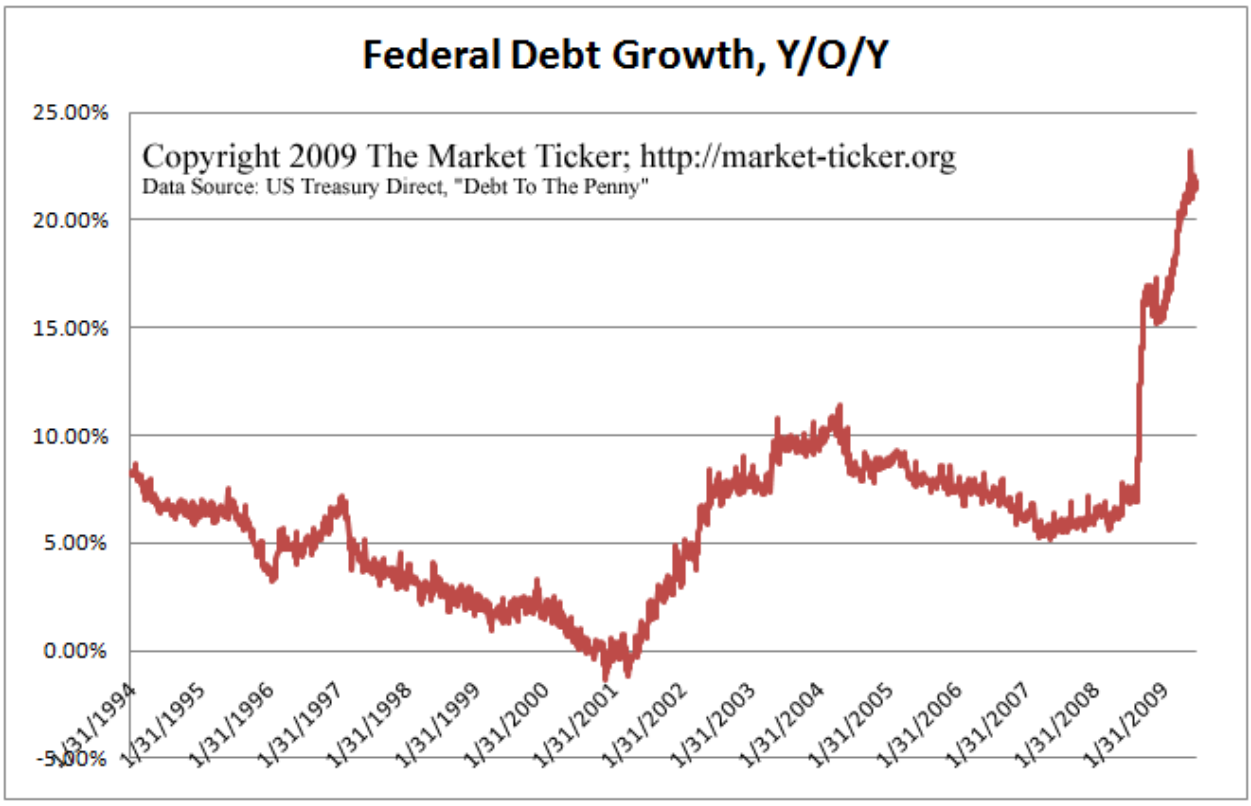
> Chinese stock and property markets have bubbled up again. It was fueled by bank lending and inflation fear. I think that Chinese stocks and properties are 50-100% overvalued. The odds are that both will adjust in the fourth quarter. However, both might flare up again sometime next year. Fluctuating within a long bubble could be the dominant trend for the foreseeable future. The bursting will happen when the US dollar becomes strong again. The catalyst could be serious inflation that forces the Fed to raise interest rate.
>
> Chinese asset markets have become a giant Ponzi scheme. The prices are supported by appreciation expectation. As more people and liquidity are sucked in, the resulting surging prices validate the expectation, which prompts more people to join the party. This sort of bubble ends when there isn't enough liquidity to feed the beast.

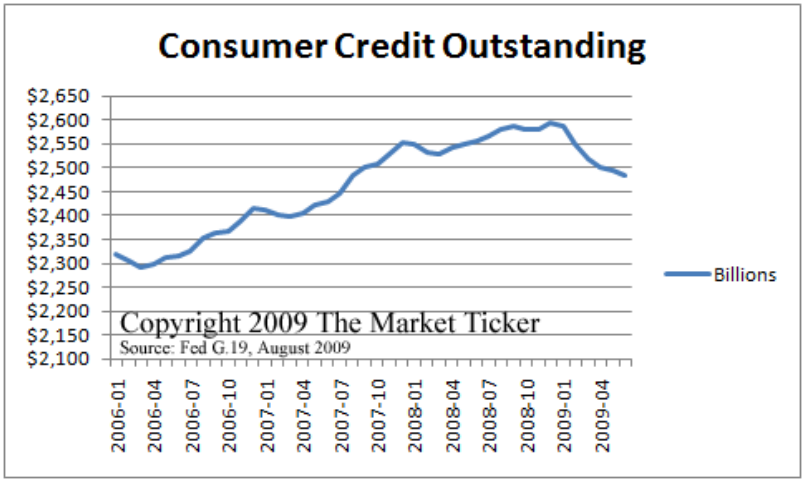
"Less-bad" economic data is not a sign that one of the worst recessions in this country's history is abating.

For that type of recovery we would need to see legitimate employment and income growth, not just second derivative improvement. Instead, better GDP figures and unemployment numbers tell us that we're in the "eye of the storm."

And in any case, YoY Q2 showed a 15.2% decline in housing prices, a new record. Where is the bottom? Where is the recovery? It is all illusory, based on assuming pulled-forward demand (Ponzi scheme?) and unsustainable bank earnings.

The charts, courtesy of Karl Denninger, below summarize the true economic situation in the United States quite well:





Market technicals, internals, and participants

High frequency trading

High frequency trading (HFT) trading generally refers to the use of algorithmic program trading in which super computers analyze and respond to incoming data, entering and exiting positions that last milliseconds at a time. HFT has become a topic of increased public concern as debate has gripped the national scene to determine exactly what HFT does in today's market. HFT topics like "flash trading" and "dark pools" have become subjects of intense scrutiny due to their lack of transparency.

HFT gain further advantage by utilizing the option of co-location, where, for a fee, companies are permitted to host servers and computers directly at exchanges, reducing the distance between market centers and certain market participants and shaving crucial milliseconds off information transfer times. Although co-location proponents argue that this capability is available to everyone, practically speaking, there are significant barriers that prevent the majority of investors from doing so, namely time commitment, re-location difficulty, and most importantly perhaps money (according to Murray White, senior vice president of global technologies at NYSE, as little as $50,000 a year, but as much as $500,000).

In their HFT piece entitled *Why Institutional Investors Should Be Concerned About High Frequency Traders*, Sal L. Arnuk and Joseph Saluzzi identify the two primary means by which HFT participants earn revenue:

> HFTs are computerized trading programs that 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.

With major exchanges enacting HFT programs, HFT has become an integral part of current market structure today. Advocates claim that HFT is extremely useful because it "provides liquidity which may not be there otherwise." This additional liquidity, they argue, is critical in reducing bid-ask spreads, resulting in a far more efficient and accurate identification of an asset's true market price. HFT advocates claim that the additional liquidity provides benefits for all market participants by establishing for greater accessibility to the public investors. To some, this explanation appears to be wholly satisfactory; however, others argue that the complex and rigid (and in some cases illegal) nature of HFT spells danger for markets in the future.

Unlike traditional market makers, HFT is not subject to standard reporting and regulatory procedur. HFT does not require participants to publicly display minimum size, minimum time, or capital commitment; and while HFT often does provide liquidity for the markets, High Frequency Traders (HFTs) are not obligated to provide this liquidity, which can evaporate at any time. As Arnuk and Saluzzi point out, this liquidity provided by HFT is of such low caliber that it is a detriment, rather than an asset, to the stability of current markets. Instances of this liability were readily apparent early this year, when many investors were befuddled by arbitrary trading anomalies that moved stocks like CIT significant amounts without any corresponding fundamental change. As explained by Saluzzi, it turned out that HFT may have played a significant role in this manipulation of individual equities.

Due to the opaque nature of HFT in general, it has drawn staunch criticism during a time when calls for increased transparency dominate the financial environment.

Flash trading

At this moment, the most scrutinized aspect of HFT has been flash trading, which relies upon access to dark liquidity (explained later) to circumvent NBBO and Reg NMS standards. In her July article regarding flash trading, Nina Mehta introduces the concept, aims, and criticisms of this controversial order technique. She states:

> Flash orders are also called "step up" or "pre-routing display" orders. The rationale for these order types is simple: Better me than you. They allow a venue to execute marketable orders in-house when that market is not at the national best bid or offer, instead of routing those orders to rival markets. They do this by briefly displaying information about the order to the venue's participants and soliciting NBBO-priced responses. **If there are no responses, the order can be canceled or routed to the market with the best price.**

Instinet elaborates upon this process in a July 30 letter to clients, saying:

> Flash order types work as follows: When a market center has an order that will cross the spread and must be routed out to a competing market center under Regulation NMS, it will first send out either a flash quote (NASDAQ and BATS) or notification (Direct Edge) to liquidity providers that an order is about to be routed. Any participant listening for that message has a very short time to respond with the other side of the trade back to the market center, where it will then be executed. **This enables the market center to save routing charges while protecting market share and associated revenue. If the execution cost savings are passed on to the end-client and there is no real value to the information the order contains**, then this order type and technology can clearly serve a bona fide purpose.

While some HFT advocates are quick to dismiss the relevance and impact of flash trading, it is an expanding phenomenon in markets today. According to current estimates, flash trading accounts for 2-3% of overall equity market volume in the United States. In recent years, stock exchanges have incorporated programs utilizing HFT methods like flash trading to attract institutions and provide additional liquidity to their exchanges. Facing increased competition due to the success of Direct Edge's Enhanced Liquidity Program (ELP), NASDAQ, BATS, and CBSX entered the flash trading market this year. As was previously the case with ratings agencies, the competitive nature of market centers cannot be overlooked, especially in regard to flash trading.

Market centers benefit tremendously from flash trading because it allows them to circumvent fundamental regulations (namely NBBO and Reg NMS), saving them "routing charges while protecting market share and associated revenue." Market centers incentivize participation in relevant programs by offering discounts to participating institutions. As Mehta points out:

> Firms whose orders are flashed pay a lower liquidity-taker fee for those executions on Direct Edge and CBSX than they do for regular executions. On Nasdaq and BATS, they get a rebate instead of paying a fee.

Ironically, NYSE (which claims it does not allow flash trading) has been a vociferously vocal critic of the use of flash trading on other exchanges. Many other market participants have joined in this critique, Mehta states:

> These firms and SIFMA argued that flash order types call into question some of the basic tenets of the equities market structure. In various combinations, they claimed that the effort to keep flow in-house undermines the concept of a quotation, impairs the meaningfulness of the NBBO, jeopardizes liquidity provision by hurting liquidity providers quoting at the NBBO, and potentially upsets the pursuit of best execution.

This is particularly ironic because while it denies any involvement in flash trading, NYSE has enacted (with initial assistance from Goldman Sachs) and extended a Supplemental Liquidity Provider (SLP) program, which exhibits characteristics similar to the competition it so boldly opposes. In fact, an NYSE statement explaining the expedited procedure for the extension of SLP states:

> The Exchange believes that the proposed rule is non-controversial as it is a rule that has been in operation for approximately six (6) months and, as stated above, **is similar to existing market maker and rebate rules of other market centers**. Moreover, the NYSE believes that the rule has

> provided significant benefits to NYSE customers in the New Market Model. **Such benefits include price discovery, liquidity, competitive quotes and price improvement**. The Exchange contends that the benefits produced by the SLP program further justify filing the rule for immediate effectiveness.

The NYSE SLP program, despite NYSE rhetoric otherwise, provides the same services (including flash orders) as similar programs at rival market centers and is just as dangerous, if not more so (due to its almost exclusive connection with Goldman, examined later), as its competition. Nasdaq was more than happy to respond to NYSE criticisms regarding its flash trading program, alleging far more serious criticisms regarding the NYSE's supposedly "non-controversial" rule.

If flash trading provided the additional liquidity its proponents say then what makes it such a conductor of criticism? The truth is, beyond this simple explanation of liquidity injection, flash trading also presents several acute, fundamental risks to markets.

The first and most unique issue arises from the exemption of flash trades from standard regulatory protocol. The Reg NMS Quote Rule requires all market centers to publicly display their best bids and offers through the securities information processors; however, orders that are immediately executed or canceled are exempt from this requirement. This exception has become increasingly nebulous as the term immediate has fallen victim to the development and integration of technology in market centers. Flash trading involves transactions less than 500 milliseconds in duration and as such, is technically categorized as an immediate transaction, exempting it from the requirements of the Quote Rule. Thus, market centers are not required to publicly display crucial information regarding flash trading, essentially creating a separate domain of orders that may not contribute to public markets.

Because flash orders essentially create two separate pools within an exchange, institutions observing flash trades can gain an advantage both in terms of information and execution. By allowing a select few participants access to trade information unavailable to others, exchanges essentially create a tiered market, which by definition is illegal in the U.S. today. Mehta writes:

> In its letter, SIFMA made a related point. It complained to the SEC that flash orders raise "fair access issues." A two-tiered market, SIFMA wrote, will lead to a playing field in which "some [investors are] able to pay for a non-public direct feed to trade with better-priced quotes versus those quotes that are accessible to the general public." It also said that broker-dealers unable to readily distinguish flash quotes from protected quotes could run into compliance problems with Reg NMS and their best-execution obligations, since those obligations are tied to the official NBBO.

Furthermore, with better executions available for first tier participants, market centers entice participants to execute trades in non-public pools of liquidity. However, perhaps the most troubling aspect of flash trading comes from orders that are not executed, but canceled instead. By ordering and canceling numerous flash trades within fractions of a second, flash trading is able to identify not a necessarily more accurate price of an asset, but rather the limit price of the counterparty order. Better stated, instead of providing the liquidity its proponents so decisively celebrate, HFT can be used to illegally probe the market to compile a comprehensive perspective of counterparty orders. This information is particularly valuable if used for the illegal purpose of frontrunning, in which HFTs armed with knowledge of incoming orders can temporarily manipulate bids and offers, capturing advantageous executions. While it is difficult to support accusations of frontrunning, there is significant circumstantial evidence that promotes such claims. In his NYT piece, Charles Duhigg provides a detailed example of this blatant abuse of market technology.

Due to an unusually rapid and cogent public response, the potential dangers of flash trading have become readily apparent. In fact, the campaign against flash trading, led congressionally by Senator Charles Schumer, has been so effective that an SEC ban on flash trading in the very near future is all but a foregone conclusion. Even stock exchanges themselves, have preemptively taken action or voiced

opinion against flash trading. The NASDAQ has resolved to "voluntarily cease offering the flash dark order type on September 1, 2009;" Joe Ratterman, Chairman and CEO of BATS has stated that BATS would support an exchange-coordinated withdrawal of flash orders for reasons disclosed in a July 7th newsletter; and while the NYSE actively promotes HFT by means of its SLP program, it fervently opposes what it considers flash trading.

And in the recent Sergey Aleynikov case, according to U.S. prosecutor Joseph Facciponte:

> [Goldman Sachs] has raised a possibility that there is a danger that somebody who knew how to use this program could use it to **manipulate markets** in unfair ways.

This begs the question: in Goldman's own hands, with a liquidity monopoly through its SLP, can its algo codes gun the market?

Dark pools

Flash trading relies upon access to uncharted pools of liquidity for execution, commonly known as dark pools. Dark pools are essentially non-displayed collections of liquidity, which are used to by institutions to execute large block orders off-exchanges while minimizing adverse price impact. HFT use dark pools by splitting large, "parent" block orders into smaller "child" orders, which are then exposed to these areas of non-displayed dark liquidity so as to avoid arousing attention and execute an order with minimize adverse price impact. As with flash trading, the lack of transparency characteristic of dark pools has attracted considerable contention recently. Despite this, dark pools have become an increasingly popular phenomenon; according to Rosenblatt Securities, dark pools accounted for 7% of all U.S. trades in June.

While there is substantial evidence to support the notion that dark liquidity improves order execution, as its supporters claim (there are arguments to the contrary as well), other, more dubious questions persist, most notably regarding overlooked costs that result from the use of dark pools.

Dark pool participants use public bids and offers as reference points to conduct their off-record transactions without having to display their private, dark bids and offers. While this may provide some benefit as previously identified, it incetivizes the use of dark liquidity, taking away vital liquidity from public exchanges, resulting in increases in public bid and offer differentials and ultimately the mitigating the efforts of public price discovery. This problem is increasingly exacerbated as the popularity of dark pools continues to grow.

Robert Greifeld, president and CEO of the Nasdaq Stock Market has joined the chorus demanding a more transparent answer to the tangible costs of HFT and dark liquidity. He recently stated:

> Flash orders, which are a fundamental part of high-frequency trading, are but one symptom of the current evolving market structure. Nasdaq OMX is concerned that the securities industry appears willing to accept more and more 'darkness' and limits on the availability of order information. Instead, the policy goal should be clear: to eliminate any order types or market structure policies that do not contribute to public price formation and market transparency. (…) The industry has a unique opportunity at this time to take a hard look at dark order types and the underlying market structure issues that do not support public price information.

Even SEC Chairwoman Mary Schapiro has noted the unsustainable model of dark liquidity, confirming that the SEC is looking into the dark pool realm. She recently stated in a WSJ interview:

> It is ironic that dark pools rely primarily on the price discovery provided by the public markets to run their trading mechanisms, yet if dark pool volume were to continue to expand indefinitely, their success could threaten the very price discovery function on which their existence depends.

While rational proponents of market liquidity welcome this sentiment, the SEC has yet to take meaningful

action regarding the use of dark liquidity, creating a moral hazard so pervasive, its victims include the stock exchanges themselves. In the same WSJ interview, Robert Greifeld noted the conflicted position of markets like Nasdaq, which on one hand wish to produce efficient, transparent, and fair markets, but pragmatically cannot do so if they continue to lose market share to rivals who allow HFT. He states:

> From a philosophical point of view we think the dark orders have to be looked at, ours included, but from a pragmatic point of view, we need to compete with the rules that exist at the time.

Goldman connection

Looking for another market to dominate, Goldman Sachs entered the comedy market in a letter to clients earlier this year, saying that it aims to increase "transparency, confidence in our industry, and the understanding of our complex market structure." However, an examination of Sigma X, Goldman's dark liquidity pool, and its HFT participation tell a radically different story. This in-house GSES piece explains Sigma X's method of avoiding public exchanges, specifically noting that if an execution occurs within the Sigma X liquidity, the order is never publicly displayed until the transaction is complete. Just how much does Goldman rely upon its Sigma X dark liquidity pool? From reports by Goldman itself, Zero Hedge states:

> In order to get a sense of the size of this potential abuse, as Goldman itself discloses, SIGMA X traded over 123 million (matched-only, single counted) shares daily in May, over 600 million per week. This is a staggering amount of shares over a cumulative extended period of time, and could potentially provide the firm with a substantial unfair advantage over other participants.

Because of its unique role as both a market maker (through HFT and SLP) and a market participant (Goldman prop trading), Goldman is in a remarkable position to abuse HFT, fostering accusations as far as front running.

A recent Zero Hedge letter to Senator Charles Schumer states:

> Whether or not Goldman can implicitly take advantage of the advance looks Goldman receives compliments of its own dark pool, SIGMA X, and then subsequently reroutes this informational advantage to trades executed on the NYSE, and other exchanges and ECNs, is also a very pertinent question.

However, because of the non-transparent nature of dark liquidity, accusations of HFT abuse are difficult to support and often times, dismissed as lunatic conspiracy. Goldman has firmly stated that "even under the broadest definition," HFT accounts for less than 1% of its total revenue and further, vehemently denies the use of flash trading in the execution of client orders. The letter concludes with the lovely, prototypically Goldman statement:

> Our philosophy is always to put clients' interests first, protect the firm's reputation, and conduct our business with the utmost level of integrity.

However, it would be very difficult for even Goldman to explain the highlighted portion of the Client Access Agreement of its subsidiary company Spear Leeds and Kellogg LLC (creator of Sigma X), which states:

> You acknowledge that we may monitor your use of the Services for our own purposes (and not for your benefit). We may use the resulting information for internal business purposes or in accordance with the rules of any applicable regulatory or self-regulatory body and in compliance with applicable law and regulation.

In light of the current HFT discussion, this sub clause is extraordinarily incriminating. It clearly allows Goldman (through Sigma X) to use client orders to serve its own purposes in legal applications (which would currently include flash trading); and while frontrunning is illegal, Goldman (like much of the financial community) is not perceived to be the most credible of sources.

Even if Goldman were true to its word, avoiding the use of flash orders and front running market participants, the ambiguous nature of dark liquidity clearly presents problems in of itself; and while many HFT advocates attempt to separate the more generally accepted use of dark liquidity from the now-vilified flash trading, the inherent link between the two is unmistakable.

Even more troubling that is potential for abuse in the realm of client front-running, Goldman's HFT shenanigans are being used to monopolize liquidity in equity markets. According to HedgeFund.Net, market-neutral funds are up just over 3% YTD. This is a marked underperformance to the S&P's over 40% return in the same timeframe. Market-neutrals, the traditional liquidity provisioners, have been getting squeezed and suffering forced de-leveraging since the SLP's inception. The correlation implies that Goldman's SLP status allowed it to bid the market higher, forcing deleveraging by (and thus minimizing the influence of) market-neutral quant funds, which in turn provided Goldman a “monopoly” on liquidity, causing a positive feedback loop taking liquidity out of the market and magnifying the effect of each bid. Goldman's record Q2 trading performance (46 +$100M days vs. 0 -$100M days with a decline in VaR QoQ) provides confluence to this correlation, inasmuch to suggest a causation.

Liquidity

While creating various regulatory and execution hardships currently, the potential black swan from HFT is due to its perversion of public liquidity. A recent study by the Tabb Group, estimated that HFT accounts for as much as 73% of total U.S. equity trading volume, a dramatic increase from the 30% figure in 2005. Advocates of HFT claim that HFT contributes liquidity otherwise unattainable to the market, providing benefits for HFT and other market participants alike. However, all simplistic rhetoric aside, the facts regarding the effects of HFT on liquidity depict a polar reality.

In truth, the use of HFT and dark pools have merely created an illusion of enhanced liquidity, a mirage of safety that will disappear at a time of its convenience. The 73% of trading volume that HFT advocates say is indicative of HFT’s success, is the cause of grave concern among many other investors. Understanding the difference between true liquidity and volume is critical in analyzing the effects of HFT, something HFT proponents can overlook.

Perhaps the most worrisome development in the new liquidity scene is the teaming up of Goldman Sachs and NYSE through the SLP program. As the primary participant in the SLP program, Goldman’s share of NYSE Principal trading has exploded since the initiation of SLP program, outpacing all other trading institutions, documented quite thoroughly by Zero Hedge; and although NYSE claims it will add additional SLP, do not expect Goldman’s dominance in the program to be affected.

Competition has a habit of disappearing when going head to head with Goldman and there is significant room for expanded market share for Goldman, given the forced deleveraging and in some cases implosion of high-frequency quant funds, which previously served as market makers (i.e. Dutch liquidity specialist firm Van der Moolen filing for the European equivalent of a Chapter 11 Bankruptcy filing).

Given Goldman’s recent success and the pervasive nature of mimicry on Wall Street, it is inevitable that other institutions will attempt to enter and navigate the SLP program with their own HFT algorithms. If left unregulated, HFT will indubitably become increasingly integrated with the market structures of today, effectively eliminating traditional liquidity (and its providers) and replacing it with fleeting liquidity determined by unresponsive computer algorithms; and while volume may give the appearance that there is still substantive liquidity within market centers, the lack of diversity in the liquidity provided will leave markets unstable and vulnerable to anomalies like intense momentum-based movements and positive feedback responses. A 2003 State Street presentation elaborates upon the characteristics of quality liquidity, saying:

> The presence of liquidity problems in the largest of markets suggests that liquidity is not about size,

> but diversity. In an illiquid market the same size of sell order will push the market down further than in a liquid market. Imagine a market where there is a large number of market participants, using the exact same information set, in the exact same way, to trade the exact same financial instruments. When one buys they all do and vice versa. Market participants would face volatility and illiquidity when they came to buy or sell. This would not be reduced by having more players, only by increasing the amount of diversity in their actions. (Indeed, on these assumptions it is possible to show that the bigger the market was, the less liquid it would be). Now imagine a market with just two players but with opposite objectives or opposite ways of defining value. When one wants to buy the other wants to sell. This market is small, but the price impact of trading would be low and liquidity would be high.

The potential dangers of poor liquidity provided by HFT cannot be understated; in an interview with Bloomberg, Joe Saluzzi warns:

> There is problem structurally in the equity markets that nobody wants to talk about. There is intervention, there is manipulation going on. No one has exact proof of what is going on but it's out there, and the real liquidity has been gone for a while. People don't understand, the liquidity is not coming back.

This replacement liquidity has already proven itself to be more susceptible to irregularities when compared to traditional liquidity, with temperamental and inauspicious swings in the past. However, now both the quantity and quality of liquidity of markets have begun to diminish as a result of HFT. SPY volume reached its lowest levels of the year on August 10 and one only need to look back to the recent quant crunch in April for a light preview of the impending liquidity crisis. Zero Hedge points out:

> The above tracking charts indicate that something is very off with the "slow", "moderate" and "fast" liquidity providers, indicating that liquidity deleveraging is approaching (if not already is at) critical levels, as the vast majority of quants are either sitting on the sidelines, or are merely playing hot potato with each other (more on this also in a second). What this means is that marginal market participants, such as mutual and pension funds, and retail investors who are really just beneficiaries of the liquidity efficiency provided them by the higher-ups in the liquidity chain, are about to get a very rude awakening.

Carl Carrie, the former head of product development in the electronic client solutions group at JP Morgan, captures this fear perfectly in a discussion with Zero Hedge. He says:

> It's not just about price volatility. It's about volume volatility. It's about timing of that volume volatility. It may be there today, and when you want to get out of your position, it may not be there tomorrow. And how do you reflect that into your own trading and into, not just your alpha generation, but on the risk side of the alpha generation? Most risk models don't really take into consideration the kinds of anomalies that we may see on a yearly basis.

If the distinction between quality liquidity and ephemeral volume is not understood and accounted for in the very near future, it is likely that market participants will be forced to learn this nuance the hard way: by means of liquidity crisis. In his NYT op-ed, Paul Wilmott discusses the similarities between HFT and the dynamic portfolio insurance that spawned the 1987 stock crash. While extremely unnerving, if HFT is not reined in, Wilmott's comparison may not be too far off. HFT utilizes various methods of wide scale deception and parasitism to abdicate the purpose of traditional market makers and award its profits to the ever-consuming financial institutions of the world.

What will happen to this so-called liquidity if (when, according to some experts) conditions take a turn for the worse?

What will happen when high-volume supply (this market has been bid up on low-volume demand) enters this highly illiquid equity market environment? October 1987, August 2007, January 2008, and September 2008 are analogous conditions to current market conditions.

Technicals and internals
Yet the overbought, beta-chasing, unsustainable, Ponzi-like, pulling-forward nature of this equity rally, in the face of worsening economic conditions, makes it markedly different than the analogues mentioned above.

According to Standard & Poors, the current P/E for the S&P 500 is just under 145x reported earnings. That is a record high, more than triple the P/E at the 2000 top of the stock market, suggesting a level of risk appetite and optimism that is unsustainable and due for a massive correction, especially considering the weakening economy.

This is remarkably high and shows a ludicrous deal of risk aversion, as it implies investors are willing to pay $145 for $1 of reported earnings.

A look at previous recessions indicates that this current level is much more indicative of a market top than a bottom.

At the 2000 top of the dot-com bubble, the S&P's P/E was around 45. In contrast, at the 2002 bottom, the P/E was about 15.

Even the March "bottom" represented an above 20 P/E, which is much higher than the usual bear market bottom capitulation P/E.

The current price levels of the S&P are pricing in a tripling of earnings just to get back to the bubble top valuations of 1999 and a 7-fold multiplication of earnings to get to 2002 bottom valuations.

So who's buying stocks and why? Have we reverted to the long-term demand curve of the investor, who is paying for earnings and dividends? Or is this a mini-bubble 1987-style liquidity event run-up, with stock purchases being done by HTFs trading for liquidity rebates? With a 40% rally since the SLP's inception ($0.0015 "liquidity" rebate) and Goldman accounting for around half of program trading volume week in and week out, I'm putting my money on the latter.

Mean reversion? Capitulation? I think not.

As of August 6, 86% of S&P 500 stocks (and a staggering 95% of financial stocks in the index) were above their 50DMAs. These are very overbought levels, and such breadth indicators are good contrarian indicators. Anything above 75% is usually indicative of a top. Levels this high suggest the market is running on a positive-feedback, bid-chasing-bid, low volume ramp that will reverse twice as hard and twice as fast once volume enters on the supply side.

The NYSE's margin debt/credit balances tables provide context for this bear market rally. Instead of increasing equity (from rising stock prices) lowering debt and increasing credit balances, during this rally, margin debt has increased from $182B to $189B while credit balances have shrunk from $137B to $117B. This means the demand driving this rally has been increasing not only its exposure, but its leverage. This is highly unsustainable, makes very much sense in the context of highly levered HFTs, and indicates a drastic lack of liquidity in the market.

This market has eerily similar characteristics to other market tops. The MSCI Emerging Market Index is trading at 19x reported earnings, the highest since October 2007, the all-time top in the stock market. The confidence-market divergence (as measured by the Conference Board Situation and S&P 500 indices) has also retraced to October 2007 levels, at below a -2.4 sigma. Insider sales outpaced purchases by over 22x in June (and 29x in the week ending August 7), reaching levels not seen since… you guessed it – October 2007… and even outpacing them. The point is, even if this isn't the top, the current move up is unsustainable, as when it reverses, it will reverse hard and fast.

Technically, the S&P reached a quadruple influx of resistance last week on multiple timeframes, suggesting supply in high volume will be entering this highly illiquid market soon. The chart below shows the four resistances:

1. the support (turned resistance) trendline for the 2007-present bear market
2. the 38.2% retracement level (which corresponds with horizontal resistance from November)
3. the resistance line defining the rising wedge bear market rally since March
4. the resistance line defining the rising channel since mid-July, often a topping pattern

In addition, Fibonacci arcs from the August 2007 top to March 2009 lows show a 38.2% retracement at the same level as the above four resistances: S&P 1015.

Even if 1015 is taken out, volume is diminishing, fundamentals are worsening, stocks are being chased, investor sentiment is at extreme levels, and supply will be entering soon. In addition, this current rally, the Dollar Index has declined from several-year highs to late 2007 levels, indicating a carry-trade, inflation-based nature to the rally in equities. Equities have become commoditized effectively, at least in the context of this rally, and their returns are being chased. Unsustainability pervades market internals.

Government involvement

The March 18 FOMC statement announcing the purchase of $1.15 trillion agency debt/securities and Treasuries sent yields tanking, with the 30-year Treasury yield dropping from 3.78% to 3.37% in a matter of minutes. However, Mr. Bond Market wasn't impressed past this knee-jerk reaction, and the 30-year

yield has since risen to 4.52%, momentarily touching 4.63% in June, a level not reached since August 2008. The Treasury bubble implosion that every libertarian and his/her mother has been predicting has indeed manifested, as shorting Treasuries has been a very profitable trade this year (one that I recommended on January 5).

However, with yields this high and the US Dollar tanking, inflationary worries have returned, as all of the government's spending (and an array of bank/government antics of a tad greater opacity) has led to the illusory yet ubiquitously perceived "green shoots" V-shaped recovery from the financial crisis.

If this rally continues and the USD keeps falling, rates will skyrocket. The DXY's floor at 72 being taken out would lead to a massive move down in the Dollar and move up in rates. $120/bbl oil and 7% mortgage rates will kill any economic recovery, real or illusory, and consumption and earnings would tank. Not to mention the government's interest payments on its massive federal debt would be grossly unsustainable.

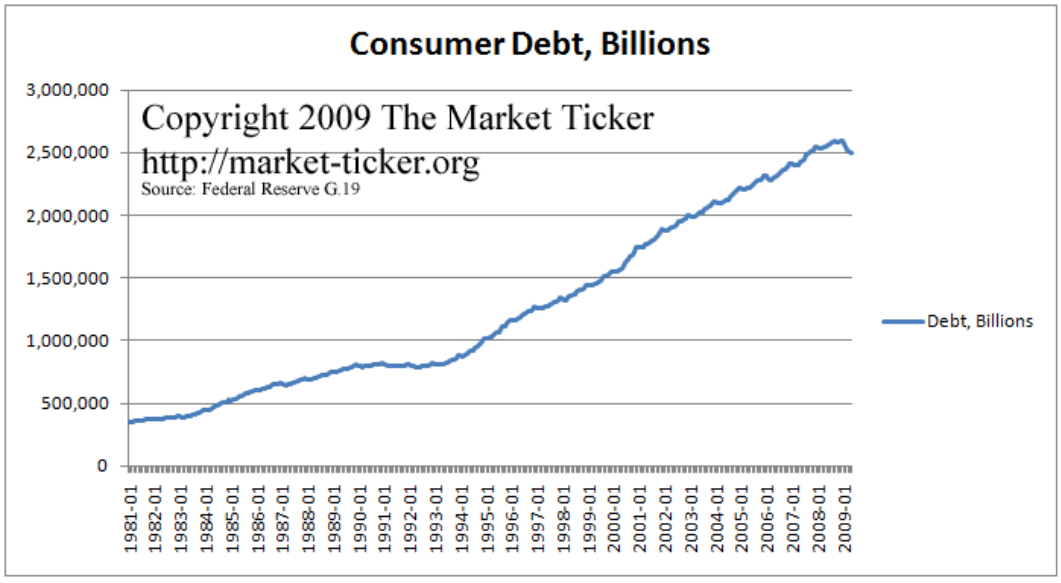
My point is, the government is incentivized, through a Scylla and Charybdis scenario like last summer, for a market crash.

The FOMC announced on August 13 they would not be expanding their QE program that started in March. With rates this high and the USD this low, the Fed is draining liquidity. Last July, through the ESF, the Fed bid trillions in USD through Euro-based liquidity swaps, catalyzing the commodity bubble to collapse, which in turn in my opinion led to the acute liquidity crisis and stock market crash of fall 2008.

The excess system liquidity has been injected through the Fed's liquidity swaps, but also through more

surreptitious means, as well. I have written in detail before about the divergence in money market fund contractions relative to the addition of stock market capitalizations since March lows ($2.7 trillion stock inflows relative to $400 billion bond outflows). The Fed's QE and bank excess reserves (which the Fed pays interest on, for the first time in history) are adding liquidity, as well. Karl Denninger goes into detail in this issue:

> We're told this is "money was on the sidelines" and "people are rushing in."
>
> But the statistics say otherwise: Only $400 billion has shifted out of money market accounts.
>
> So where has all this buying pressure come from, if not from people shifting assets into the market?
>
> Zero Hedge nailed it, I believe:
>
> > *Why the Federal Reserve of course, which directly and indirectly subsidized U.S. banks (and foreign ones through liquidity swaps) for roughly that amount. Apparently these banks promptly went on a buying spree to raise the all important equity market, so that the U.S. consumer who net equity was almost negative on March 31, could have some semblance of confidence back and would go ahead and max out his credit card. Alas, as one can see in the money multiplier and velocity of money metrics, U.S. consumers couldn't care less about leveraging themselves any more.*
>
> This sort of pernicious game looks risk free, and it is - to the banks who got this money. After all, they're "too big to fail", and its very important that these folks be able to issue new stock (thereby soaking you out of that $400 billion) in a vapid attempt to recapitalize.
>
> The problem comes when the consumer doesn't come back in and leverage themselves up any further - either because they refuse or worse, because they can't.
>
> The latter is my postulate, as I've shown from the consumer credit numbers - consumers simply haven't taken down any material amount of leverage:



> So once again we have The Fed blowing bubbles, this time in the equity markets, with (another) wink and a nod from Congress. This explains why there has been no "great rush" for individual investors to "get back in", and it explains why the money market accounts aren't being drained by individuals "hopping on the bus", despite the screeching of CNBC and others that you better "buy now or be priced out", with Larry Kudlow's "New Bull Market" claim being particularly offensive.

> Unfortunately the banksters on Wall Street and the NY Fed did their job too well - by engineering a 50% rally off the bottom in March while revenues continue to tank, personal income is in the toilet and tax receipts are in freefall they have exposed the equity markets for what they have (unfortunately) turned into - a computer-trading rigged casino with the grand lever-meister being housed at the NY Fed.
>
> Bull Markets are not formed out of The Fed playing "Quantitative Easing", throwing literally $500 billion dollars into the pool which then get "fractionally reserved" by 10:1 to produce a literal $4 trillion dollar market ramp job. Go ask the Japanese how that works - the BOJ did the same thing, the Nikkei rallied off the bottom in the 90s like a rocket ship, but when reality asserted itself (and it always does) it collapsed again and has never been back to its all-time highs since.
>
> No, real buying is just that - real buying from real retail investors who believe in the forward prospects for the economy and business, not funny-money Treasury and MBS buying by The Fed from "newly created bank reserves" funneled back into the market via high-speed computers. The latter is nothing more than a manufactured ramp job that will last only until "the boyz" get to the end of their rope (and yes, that rope does have an end) as the fractional creation machine does run just as well in reverse, and as such "the boyz" cannot allow the trade to run the wrong way lest it literally destroy them (10:1 or more leverage is a real bitch when its working against you!)
>
> Is it coming to an end now? Nobody can be certain when, but what is certain is that over the last week or so there have been signs of heavy distribution - that is, the selling off of big blocks of stock into the market by these very same "boyz." This is not proof that the floor is about to disappear, but it is an absolute certainty that these "players" are protecting themselves from the possibility and making sure that if there is to be a bagholder, it will be you.
>
> Beware the unwind of this mess; unfortunately bubbles, when blown, have a nasty habit of detonating with surprising force and reverting not just to the mean but well beyond it.

To add to the mess, bonds have no real demand left and the government has finally hit its debt wall, for now. I wrote about this in a previous blog post on my site:

It has now become apparent that the “success” of the recent 7yr Tsy auction was due to the Fed buying 48% of Primary Dealer purchases a week later. So, with the 5yr auction effective a failure (Primary Dealers were the sole reason of bid-to-cover > 1) and the 7yr finding a bid only from an indirectly monetizing Federal Reserve, where is the demand for bonds, especially to keep rates low and a credit bubble inflated to keep a stimulus-based recovery going?

As I’ve noted, money market funds have only declined by $400B since March lows, which supported inflows to catalyze the $2.7T expansion in equity market caps. Risk appetite causes more money leaving these money market funds, which offers massive supply into bond markets, which are already clearly only being held up with printed money.

Organic bond demand is the only way any of this will work. If equities and commodities power higher, diminishing risk aversion will kill the bond market, raise rates, kill the USD, and implode any attempt at recovery. There isn’t any actual demand backing bond auctions.

A $2T decline in stock market capitalizations could do something about that, however.

This has been my thesis for months now. Rates are much too high and since the Fed’s first attempt at QE was an utter failure at keeping rates low, fear needs to return, risk aversion needs to return, or the bond market, as well as the US Dollar, will effectively implode. I expect rates to go to 70s style double digits within the next few years and bad inflation in the USD, but controllable. But what’s going on now is completely unsustainable for any recovery.

A market crash is imminent and necessary.

The real question, however, is as the UST is considered the safe haven for stock outflows (besides gold, that is), what's the Treasury black swan going to manifest itself? The trillions of federal liabilities is clearly unsustainable and a crowd herd rush into these toxic toilet paper securities is going to lead to a very nasty unwind. China, Japan, Joe Taxpayer, and anyone else in cash/Treasuries and not precious metals (in the long run, short term cash is highly king) is going to be screwed.

With rates this high, so much excess liquidity (which the Fed is attempting to drain to protect the "recovery"), the USD this low, and no real earnings or long-term investors in the market, there needs to be a mass exodus into bonds to suppress rates and keep credit bubble reflation going. Otherwise, we'll be back to the 70s in no time. The Fed is incentivized, like last year, to crash the markets. And with the lack of liquidity in the market, supply in big volume hovering above current levels, the current bond/equity relationship, and complete lack of economic recovery (new record YoY decline in housing prices Q2 2009), you can bet this rally is a bear market bounce.

The n e w b u l l m a r k e t thesis is a fallacy.

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