Credit Suisse welcomes the opportunity to comment on the Securities and Exchange Commission’s Equity Market Structure Concept Release. We respectfully submit this letter which summarizes our views.

The United States broker-dealer subsidiary of Credit Suisse Group has been operating continuously since 1932, when the First Boston Corporation was founded. As one of the world's leading banks, Credit Suisse Group provides its clients with private banking, investment banking and asset management services worldwide.

Credit Suisse is the largest broker-dealer in America by volume traded in major stocks, as well as the top broker in overall equity trading and the top broker in algorithmic trading in several recent industry surveys. Additionally, Credit Suisse owns and operates Crossfinder, which is the largest Alternative Trading System (“ATS”) in the U.S.

Credit Suisse supports the Commission’s efforts to review the existing equity market structure. As noted in the Commission’s concept release, technology and trading strategies have changed significantly in recent years, and a thorough review of the current rules and regulations is timely. We commend the

---

2 Bloomberg RANK for Nasdaq 100 stocks and Dow Jones stocks, 1st quarter 2010
3 Greenwich Survey, April 2010, Tabb Report, November 2009
4 Rosenblatt Securities, “Let There Be Light”, February 2010
Commission for taking a deliberate and thoughtful approach before making changes to our markets.

**Introduction**

With the implementation of Regulation ATS in 1998, the Commission embraced competition of market centers as one of the hallmarks of U.S. market structure. This was an innovative and daring move at a time when every other developed financial market in the world had an exclusive national exchange monopoly model. Regulation ATS radically departed from this model, based on the economic principle that multiple trading venues would lead to the benefits of competition seen in other industries: lower costs, innovative products, and better client service. Regulation NMS, which went into effect in 2007, built further on this competitive approach.

Twelve years into this experiment, it cannot be called anything other than a complete success. Exactly as intended, Regulation ATS and Regulation NMS fostered a marketplace with many trading venues engaged in a vibrant and healthy competition. [See trading venue market share chart in Appendix A] Today, there are 10 exchanges, 3 Electronic Communication Networks (“ECNs”), and over 20 ATSs that execute trades daily. And despite initial fears that fragmentation would create chaos, the consolidated tape and the creation of smart order routing systems have effectively stitched all these market centers together into a true national market system. For the typical investor, the presence of all these venues remains behind-the-scenes and opaque, but they have certainly benefited from the decrease in their commissions as well as the improvements in bid/ask spreads, speed of execution, reliability, and service.

The numbers tell the story. Bid/ask spreads in the U.S. are currently the tightest in the developed world, benefiting retail investors. [See the bid/ask spreads chart in Appendix B] Retail commissions are the lowest they have ever been, while average institutional commissions have dropped 65% since 1998, and 31% since 2006. [See the institutional commissions chart in Appendix C] As trading costs have dropped due to competition among executing venues, volumes have risen. [See the historical volume chart in Appendix D]

Volume is the most important measure of a market’s health. When a market is corrupt, expensive, or unreliable, investors avoid the marketplace. In markets that are fair, low cost, and reliable, trading volume is high, because investors have confidence in the marketplace. High volumes and large numbers of investors lead to efficient price discovery, and equally important, they provide the assurance that investors will be able to liquidate a stock when they need cash. It is that promise
of future liquidity - provided by healthy secondary trading activity - that allows companies to raise capital through equity offerings.

In short, volume is the lifeblood of the markets, and high volume is a sign that regulators are doing something right. Volume has grown materially since Regulation ATS and Regulation NMS. In 1997, the year before Regulation ATS was launched, average daily U.S. equity volumes stood at 1.2 billion shares per day. By 2006, the year before Regulation NMS was fully launched, volume had quadrupled to 4.8 billion per day. Post-Regulation NMS, volume continued to increase, growing to a healthy 8.7 billion shares per day in the first quarter of 2010, which is a tremendous affirmation of the efficiency and fairness of the existing U.S. market structure.5

“Phantom” Volume

U.S. equity volumes are 7 times higher in 2010 than they were before Regulation ATS went into effect.6 The concept release asks if this new volume is really “phantom” volume that “disappears when most needed.” Empirical analysis does not in any way support that notion. In fact, the opposite is true. Periods of high volatility, when liquidity is “most needed”, are associated with high volumes. In September and October of 2008, when panic hit the world’s investors and volatility reached its all-time high, under the “phantom” theory, we would expect to have seen volumes crash as all the phantom traders would have headed for the hills when their liquidity was “needed most.” Instead, we saw some of the highest volume days of all time, averaging 11.3 billion shares per day in September 2008, and 12.1 billion shares per day in October of 2008. [See the historical volume chart in Appendix D]

Furthermore, the empirical evidence shows that intra-day volatility has decreased over time relative to longer-term volatility, which is contrary to the idea of “phantoms” fleeing the market at the first sign of volatility. A Credit Suisse study analyzed intra-day volatility for the S&P 500 index over the past six years. From 2005 through 2010, we found that intra-day volatility actually decreased after

---

5 Credit Suisse AES Analysis. Appendix D shows volume over time.

6 See Appendix D
accounting for longer-term volatility.\textsuperscript{7} [See the volatility comparison chart in Appendix E]

Measures of overnight volatility as of April 2010 are at three-year lows, despite the continuing uncertain economic and political outlook in the post-crisis period.\textsuperscript{8} It appears from the data that volatility has been dampened on both an intra-day and on a longer-term basis, thanks to a greater number of trading participants and higher trading volumes. The evidence reveals something most 3rd graders already know: that while “phantoms” make for a scary story, they don’t really exist.

\textit{Trade-At Rule}

We have discussed how both Regulation ATS and Regulation NMS have been tremendously successful, creating a vibrant and healthy competition for order flow that has led to high volumes and the tightest bid/ask spreads in the world. We believe that the “Trade-at” rule that is discussed in the concept release would reverse some of these gains. A trade-at rule would damage competition among exchanges and ATSs, and therefore drive exchange fees higher. It might also lead to some unintended consequences, including an increase in retail commissions, a decrease in the average print size, and more flickering quotes.

The existing system wisely does not allow “trade-throughs,” \textit{e.g.}, a broker-dealer is not allowed to buy stock for his client at 20.64 on an ATS if there is an outstanding offer at 20.63 displayed on the quote. The trade-through rule promotes fairness and encourages competition by assuring clients that orders displayed on smaller exchanges or ECNs get the same protection as orders on larger exchanges.

But a key aspect of the current system is that \textit{at any given price point}, all venues are considered equal, and the broker-dealer is empowered with the right to choose which venue will achieve best execution for his client. Although all venues are considered equal, not all executions at the same price are equal: at a given price, brokers may still prefer one venue over another based on reliability, speed of execution, access fee, customer service, average trade size, or other factors. It is this freedom of choice that has put exchanges in constant competition with ATSs

\textsuperscript{7} Credit Suisse examined high/low volatility in 30 minute intervals vs. a moving average of the 30 day high/low for the period Jan. 2005 – March 2010 for the S&P 500 index. The results are shown in a chart in Appendix E.

\textsuperscript{8} See realized volatility chart in Appendix G
and over-the-counter ("OTC") market makers, resulting in the exchanges’
dramatic improvements in recent years in fees, speed, reliability, and customer
service.

Requiring broker-dealers to sweep displayed offers at a given price point before
trading with undisplayed liquidity would drive costs for institutional investors
significantly higher. For example, the “take” fee on displayed Nasdaq liquidity is
0.3 cents per share. On Level ATS, which does not display liquidity, the take fee
is only 0.05 cents per share. Under a trade-at rule, if Level ATS matched two
orders, and Nasdaq happened to be offering stock at the same price, Level ATS
would need to take Nasdaq’s displayed offer first, ultimately raising the buyer’s
costs by 0.25 cents per share.

The Commission recognized in the concept release that a trade-at rule would
logically need to take access fees into account, and suggests that a possible
solution would be to allow market centers to “opt-in” to trade-at protection. The
Commission would restrict any market centers that want trade-at protection to
charging a de minimus access fee. However, this would not solve most of the
problems presented by a trade-at rule. Even a de minimus access fee, say .02
cents per share, may impose a considerably higher cost than trading with an OTC
market maker who currently rebates for market orders. Furthermore, such a rule
would interfere with a broker’s ability, consistent with best execution, to take into
account factors such as speed, reliability, and customer service. This opt-in
mechanism would not solve the fundamental problem of a trade-at rule: that it
would remove competitive pressures from the marketplace.

Under any form of trade-at rule, retail investors would likely see an increase in
their costs, and a reduction in their quality of execution. In the current system,
most retail orders are sent to OTC market makers rather than exchanges or ATSs.
These market makers typically pay rebates to the retail broker, and provide better
quality of execution than exchanges, as evidenced by the Commission’s Rule 605
statistics [See the chart in Appendix F on 605 statistics]. OTC market makers
provide price improvement on retail orders, and they also turn order execution
into a source of revenue for retail brokers, which in turn allows retail brokers to
charge very low commissions to their customers.

If a trade-at rule was implemented, retail brokers would be required to route
marketable orders to displayed markets. Routing orders to displayed markets
would prevent the current standard practice of market makers providing
guaranteed price improvement and enhanced liquidity to retail investors, and
would therefore result in worse pricing for the retail orders. It would force retail
brokers to incur access costs which would almost certainly be transferred to their
customers in the form of higher commissions. The retail investor is well-served by the current system: immediate execution, typical price improvement, the tightest bid/ask spreads in the world, and very low commissions. This system would be negatively impacted under a trade-at rule.

Trade-at may also have other unintended consequences, such as further decreasing the average size of an executed order in the U.S. and increasing flickering quotes. Block prints done by “upstairs” brokers or computerized ATSs would often get broken up, reducing the size of the blocks. More significantly, even if fill rates dropped on undisplayed venues, it is highly unlikely that institutional investors would transfer their orders to displayed venues. For example, a pension fund manager who today offers 200,000 shares in a dark pool pegged to the national best offer would not show that order publicly under a trade-at rule. If fill rates on dark pools decrease due to a trade-at rule, the pension fund manager would be more likely to respond by using broker algorithms to slice the large “parent” order and place a series of tiny pieces spread out across multiple ECNs and exchanges, with the thousands of resulting “child” orders being cancelled and replaced based on expected fill rates, quote moves, and other factors. The result would be smaller average print size, greater quote traffic, and an increase in flickering quotes.

Overall, we believe that trade-at in any form is a dangerous change that would damage the U.S. markets by curtailing the incentive for market centers to innovate and compete for order flow. Tinkering with the markets in this manner should only be done if the Commission has significant empirical evidence that public price discovery has been harmed by the existing rule, and evidence that a trade-at rule would significantly improve the quality of displayed quotes. We know of no such evidence. The trade-at rule appears to be a solution in need of a problem.

The Benefits of Dark Liquidity

Institutional traders, many of whom invest the savings of millions of Americans, expend a great deal of effort finding ways to buy and sell large amounts of stock in a manner that will not adversely move stock prices and hurt their investors. To accomplish this, traders use a variety of trading techniques, including the growing use of dark order types that do not display liquidity.

Dark liquidity is not a new phenomena. Before computerized dark pools existed, traders still often chose to keep their bids and offers undisplayed. In the old days, this was accomplished by giving a “not-held” order to a floor broker on the exchange, who would then keep sensitive orders “in his pocket.” The broker would literally drop the order ticket in his pocket, without displaying it to the
world, while keeping his eyes and ears open for the other side of the trade. This process also occurred at the specialist post on the exchanges, and in the “upstairs” market, where brokers would hold client orders while looking for the other side.

Dark pools, and dark order types on exchanges, simply automate this ancient process. Traders drop orders into the computer’s “pocket.” The computer, just like the floor broker of old, does not tell anyone about the order. If the other side of the trade happens to also drop into the dark pool or the exchange, the computer matches the two orders, and a trade occurs.

Computerized dark pools have been around for more than 20 years, and exchanges have offered dark order types since 2006. Today, dark order types are an integral part of the trading ecosystem, and they exist because they fill a need: the need for an investor to be able to trade without signaling to the entire world that a new buyer or seller has entered the marketplace. Dark order types are a positive presence that reduce transaction costs for firms that trade market-moving size, such as mutual funds and pension funds.

**Price Discovery**

The commission has asked whether dark pools have damaged the amount of size displayed on the National Best Bid Offer (the “NBBO”). Empirical evidence indicates this is not the case. Although dark pool volumes have steadily grown over the past decade, peaking at their current level of approximately 10% of all market volume, a Credit Suisse study found that displayed size has actually increased 72% since 2004. [See the displayed liquidity chart in Appendix H]

Also worth noting is that dark pools must report all trades to the public tape immediately, and their real-time prints are a valuable source of “last trade” data, clearly aiding the public in pricing stocks.

**Fair Access to ATSs Based on Objective Criteria**

---


10 Credit Suisse studied the median quoted size in all stocks in the Dow Jones Industrial Average. Every tick was included from August 2004 through March 2010. We found the median displayed size on the NBBO was 5500 shares in the 1st quarter of 2010, up from 3200 in 2004. See Appendix H for a chart showing displayed size over time.
Although Regulation ATS has been a tremendous success, it is not perfect. Brokers and investors searching for dark liquidity in the current market structure can be denied access to an ATS for anti-competitive or capricious reasons. We do not believe the current “fair access” requirement in Regulation ATS serves the Commission’s goal of preventing two-tiered markets.

Those who are against fair access typically argue that ATS operators should be allowed to protect their clients from trading with particular classes of traders. In response to this concern, we note that the current fair access rule, Rule 301(b)(5), allows ATSs that cross the triggering threshold to deny access – they just must document why they denied access, and the denial must be based on objective criteria in a non-discriminatory way.

The structure of the current fair access rule is also problematic. Credit Suisse has long argued that applying these thresholds on a stock-by-stock basis is not practical or wise, and serves to undermine the intent of the rule. Brokers will not bother to connect to an ATS for just one stock. A significant investment in time and resources is required to negotiate an agreement, run a connection, and set up and test trading and clearing with an ATS. It is almost never going to be worth the cost to connect to an ATS for access to a single stock. The solution is simple: eliminate the concept of a threshold, and force all ATSs to create objective criteria for access and document denial of access.

Note that we do not support a lower threshold – only a complete elimination. A lower threshold of say, 1% of volume, would only serve to create odd incentives to split ATSs into multiple smaller ones, or to shut down trading once the threshold is approached.

**Market Surveillance**

The Commission asks whether ATSs should be required to contribute more directly to the cost of market surveillance. We believe that as broker-dealers paying volume-based FINRA fees, ATSs already contribute fairly to the cost of surveillance. The logic behind why some in the industry have suggested that ATSs should contribute more to surveillance is that ATSs and exchanges are not “on a level playing field.” This is a correct statement - the playing field is not level. In fact, it is heavily slanted towards exchanges. Exchanges have free clearing through the RIO system, compared to the significant clearing costs ATSs pay by settling through NSCC. Exchanges receive tape revenue from the Consolidated Tape Association, worth approximately $450 million per year, whereas ATSs are not entitled to this major source of revenue. And exchanges have no net capital requirements.
Although exchanges often claim they are at a disadvantage to ATSs, it is worth noting that BATS and DirectEdge, two of the largest ATSs have both voluntarily chosen to become exchanges within the past two years. Unless the management of these two innovative and successful ATSs was irrational, it is self-evident that the playing field is slanted towards the exchanges. Rather than damaging ATS competition by raising costs further, the Commission should consider other ways to truly level the uneven playing field, such as opening up tape revenue to ATSs. Charging ATSs more for surveillance would slant the competitive position further in favor of exchanges, and would risk weakening the healthy and vibrant competition that exists today among market centers.

**Odd Lots**

The Commission notes in the concept release that consolidated market data does not include odd lot orders or odd lot transactions. The exclusion for odd lot transactions is based on history, not economic reason or technology limitations. We believe that odd lot transactions and orders should be publicly reported in real-time like all other transactions.

**Execution Quality Statistics**

The concept release discusses the Rule 605 and 606 order execution reports, and the Commission asks whether these rules should be updated to provide more useful information for investors and their brokers. The equity markets have unequivocally changed since 2000 when the rules were adopted, resulting in the need to update the reports.

For example, the shortest execution report time category in the reports is 0-9 seconds. In today’s trading, where market centers have begun clocking their executions in microseconds (millionths of a second) because milliseconds (thousandths of a second) were too slow, categorizing a 9 second execution in the top speed category renders the reports less meaningful than intended.

**ETFs**

In a discussion of high frequency arbitrage trading, the Commission asks whether the impact of ETF trading has been positive or negative for long-term investors and overall market liquidity. ETFs are useful trading vehicles that contribute to the depth-of-book and liquidity of the market for underlying securities. ETF volume in March of 2010 accounted for 30% of the notional value traded and 15% of share volume. [See the ETF charts in Appendices I and J] We believe the
success of ETFs demonstrates that they are valued by investors, both institutional and retail. We have not seen any evidence of ETFs reducing liquidity in stocks or causing damage to the market structure.

Conclusion

Credit Suisse believes that markets work best when there is a vibrant competition among numerous types of trading centers, with all investors given an equal opportunity to access all of them. With a diverse mosaic of exchanges, ECNs, ATSs, and OTC market makers all competing with each other for order flow, the investor inevitably wins, as competition drives lower fees, innovative products, and improvements in reliability, speed, and customer service.

Our embrace of competitive market centers is the overriding philosophy that drives our market structure opinions. In summary, we believe:

- ATSs are beneficial because they create competition for exchanges.
- Dark pools create a competitive marketplace for orders that would otherwise still be sitting in a floor broker’s pocket.
- The fair access requirement in Regulation ATS hurts competition and therefore should be updated.
- The trade-at rule is a bad idea, because it would decrease competition and therefore ultimately raise investor expenses.

Implementing changes to the market structure must be done carefully to avoid unintended consequences, and it should only be done to fix documented problems supported by evidence. With so much at stake for the nation’s economy, we commend the Commission for taking a deliberate and thoughtful approach on these important issues.

Respectfully submitted,

Daniel Mathisson
Managing Director
On behalf of Credit Suisse Securities USA, LLC
cc: Hon. Mary Schapiro, Chairman
Hon. Kathleen L. Casey, Commissioner
Hon. Elisse B. Walter, Commissioner
Hon. Luis A. Aguilar, Commissioner
Hon. Troy A. Paredes, Commissioner
Mr. David Becker, General Counsel and Senior Policy Director
Mr. Robert W. Cook, Director, Division of Trading and Markets
Mr. James Brigagliano, Deputy Director, Division of Trading and Markets
Mr. David Shillman, Associate Director, Division of Trading and Markets
Mr. Henry Hu, Director, Division of Risk, Strategy, and Financial Innovation
Appendix A: Competitive landscape in the U.S. equity market, March 2010
Source: Credit Suisse AES Analysis

Appendix B: Bid/ask spreads in developed markets, 1st quarter 2010
Source: Credit Suisse AES Analysis
Appendix C: Average institutional commissions in the U.S., 1995 – 2009
*Sources: SIA Database, Tabb Group, Credit Suisse Research, AES Analysis*

Appendix D: Volume and volatility in the U.S. equity market, 1998 - 2010
*Source: Credit Suisse AES Analysis*
Appendix E: Short-term volatility normalized by long-term volatility, 2005 - 2010
Source: Credit Suisse AES Analysis

![Intraday Volatility Over Time](normalized to 30day Hi-Lo)

Appendix F: Effective spreads vs. quoted spreads in listed S&P 500 stocks, (marketable shares, order size: 100 to 1,999 shares) 2002 – 2009
Source: Thomson Reuters, based on SEC Rule 605 statistics

![Effective / Quoted Spread](OTC Markets Makers, Exchanges)
Appendix G: Volatility in the US equity market, 2000 - 2010
Source: Credit Suisse AES Analysis

![S&P 10-day Realized Volatility](image)

Appendix H: Displayed size in the Dow Jones stocks, 2004 - 2010
Source: Credit Suisse AES Analysis

![Average Quote Size at NBBO](image)
Appendix I: ETFs as a % of total dollar value traded
Source: Credit Suisse AES Analysis

Appendix J: ETFs as a % of total shares traded
Source: Credit Suisse AES Analysis