VIX Trading:
The Structure of Uncertainty

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Executive Summary

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In an era of electronic trading and rapid product innovation it is fascinating to observe how quickly markets evolve with a changing investing environment. Over the past five years, the volatility market has been a key growth area for the derivatives industry. This of course should come as no surprise. We've seen a slew of tail risk events over the past few years, including: a housing market collapse, a calamity of earthquakes, a global financial crisis, a flash crash, an Arab spring, and an ongoing sovereign debt crisis in Europe. As fund managers sought out effective diversification and tail risk hedges, volatility products became en vogue.

VIX trading quite literally exploded over the past few years. The notional value traded of VIX products grew at an ear-piercing 5-year compound annual growth rate of 131% from 2006. VIX exchange traded products (ETPs) have been instrumental in opening access and driving trading of the VIX futures and options. Indeed, many volatility traders say it is quite possible VIX ETPs may be influencing the price of the futures index the products were designed to track.

An eco-system of volatility products has emerged to provide customized slices of volatility exposure for a broad range of goals and strategies. SPX volatility traders can take their pick: VIX ETPs, VIX futures/options, OTC variance swaps or delta-hedged SPX options. Market makers and dealers ensure the liquidity flows across the products as they too harvest bountiful alpha and arbitrage opportunities that emerge as new participants enter the fold.

While record trading volumes in the VIX complex have raised concerns of its impact on the SPX options market, we find no discernible evidence to verify the effect. Potential issues do emerge, however, especially as we consider the impact of index and volatility trading. Options market liquidity, while improving, has narrowed to the top tier of underlying equity names. At the same time, implied correlation among the S&P 500 index has been elevated above pre-2008 levels. These symptoms suggest the indexes have in large part been driving price movements in the component stocks.

Though most market participants do not believe that volatility is driving equity prices, there is a concern that fundamentals are of decreasing relevance. And so far, it seems no one know how to decouple volatility stemming from the macroeconomic and political crisis from the dynamics of the market itself into separate factors. Or if someone has figured it out, it ought to be a pretty hot strategy in 2012.

This TABB Group Vision Note **VIX Trading: The Structure of Uncertainty** explores the growth of VIX products and the evolution of the S&P 500 implied volatility market. It examines the drivers behind the VIX product set, as well its potential impact on the overall US options market structure. This vision note is based on conversations with key participants in volatility markets including sell-side brokers, market makers, hedge funds, proprietary trading groups, exchange traded product issuers, and exchanges.

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