

The presidential election has been a factor in volatility market dynamics for most of 2020. There have been three notable elements to the volatility environment recently: abnormal term structure expressed in the Cboe® Volatility Index (the VIX®) futures curve and specific index option expirations, above average implied volatility levels and significant positive spreads between implied volatility and realized volatility (a phenomenon known as *Volatility Risk Premium*). Election uncertainty has been a component of each phenomenon, but other factors have played a role as well. How might the passing of election day impact these three key elements?

Implied Volatility Term Structure

For much of 2020, pricing curves for VIX® futures contracts reflected expectations of elevated volatility near the election, creating an abnormal 'hump' in the pricing curve when contracts with October and November expirations had higher prices than September and December contracts. Likewise, this phenomenon expressed itself in other volatility-linked derivatives such as index options with expirations near the election, which had more implied volatility priced into them than contracts with earlier or later expirations. As the election approached, volatility pricing reached extreme levels. For example, the implied volatility priced into at-the-money S&P 500® Index contracts expiring on November 4 and 6 reached 42.17 and 41.84, respectively, at their closing prices on October 30. The prices of these contracts implied an expectation of one-month post-election realized volatility nearly three times higher than average.

While the election's influence on volatility pricing in 2020 is notable for the duration of time that it persisted and the extreme levels it reached, the phenomenon of specific contracts having unique levels of volatility priced into them is not unprecedented and will likely continue to occur in the future. Such pricing anomalies can be driven by scheduled policy decisions such as Federal Reserve meetings and congressional votes on fiscal policy measures or more fundamental factors, such as key corporate earnings announcements.

Elevated Implied Volatility

The VIX® year-to-date average through October is over 30, more than 50% higher than its long-term average. It is noteworthy that the VIX® remained above its long-term average of 19.40 in August even as the equity market reached full recovery from its losses earlier in the year and accelerated to new all-time highs. Uncertainty around the economic impact of the COVID-19 pandemic has been the main driver of elevated implied volatility levels this year, but concerns over the potential for a delayed or contested outcome of the presidential election contributed to keeping volatility elevated from August through October. If the worst-case outcomes of the election are avoided, it is likely that the VIX® trends down after the election. However, significant uncertainty about the ongoing economic effects of the pandemic remain, as do lingering geopolitical tensions such as conflict with China over trade. Thus, there is strong potential for a continuation of the elevated volatility environment after the election.

Volatility Risk Premium

After a record inversion in March 2020, implied volatility has exceeded realized volatility consistently since April. In fact, July and August produced the two largest positive differentials between the two statistics on record and the spread in October was more than double the average monthly spread over the history of the VIX®. Clearly, above-average implied volatility levels have contributed to the significant amount of Volatility Risk Premium recently. Surprisingly, though, low realized volatility has contributed as well, particularly the below-average realized volatility of July and August. A factor that has contributed to relatively low realized volatility is low correlation across individual stocks. Policies to mitigate the spread of COVID-19 have impacted businesses differently – for example, businesses related to people traveling, shopping, dining and working outside their homes have suffered while businesses related to home-based work, entertainment and shopping have benefited. Thus, the prices of stocks related to these disparate factors have responded differently to changes in pandemic statistics and the prospects for passage of legislation to address the negative effects of the pandemic. The low correlation of price movements across business sectors has had a volatility-reducing diversification effect at the broader market level, not unlike a body of water with a relatively calm surface but intensely churning currents below.

Reducing equity market risk through index option writing has increased effectiveness in environments featuring elevated implied volatility with positive spreads between implied and realized volatility. Furthermore, varying term structure of implied volatility can create opportunities for active managers who are not systematically tied to certain expiration dates or maintaining positions to expiration. Over the many decades that Gateway has managed index option writing strategies, we have found opportunity and delivered consistency in environments that are beneficial to our approach as well as environments that pose challenges. Regardless of how the market environment changes after the 2020 presidential election, we will stay true to the risk-first, active approach that has served our investors well.