

Bridgewater®

Daily Observations

August 15, 2018

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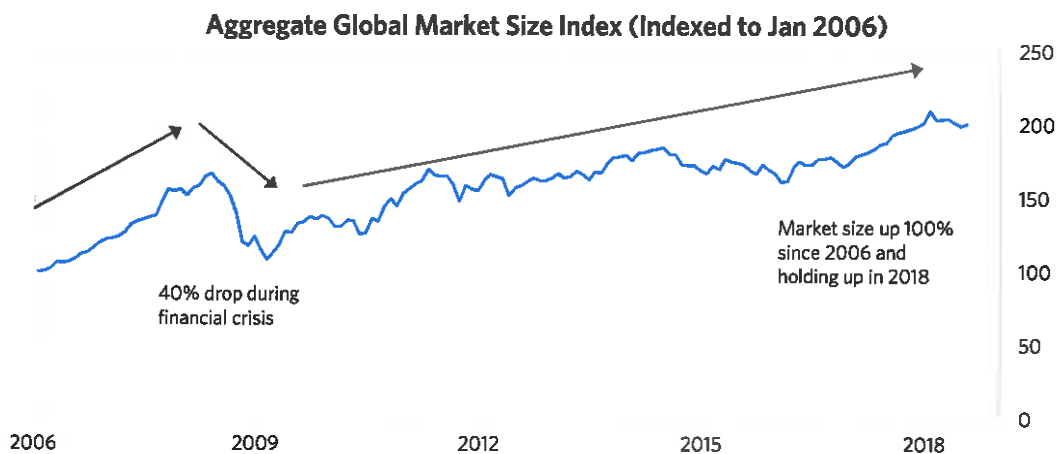
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The Costs of Trading Remain Low Across Major Exposures

In these *Daily Observations*, we provide an update on our assessment of market size, or the capacity of markets to absorb trade flows without large moves in market prices. There has been robust growth in market size across asset classes in recent years, as markets have evolved in response to a wholesale change in the regulatory regime for many financial entities and markets. Our holistic measures of trading costs are roughly at lows across asset classes as a result of increased standardization and centralization, rising transparency, continued electrification and automation, and the expansion of the global stock of financial assets. In markets that have experienced recent upticks in volatility (e.g., Italian government bonds, the Turkish lira), we have not seen impairment in the ability to trade and invest. Liquidity in those markets has held up, as the transaction volume remains healthy and cost measures such as bid/offer spreads have increased in line with what we'd expect given elevated volatility. Further below, we focus on our assessment of liquidity in the corporate credit market. For investors seeking broad-based investment-grade or high-yield exposure, our measure of activity and size in corporate credit is about as high as it has ever been and costs are about as low as they have ever been.

The chart below shows our measure of aggregate global market size across all asset classes. We build this by weighing a variety of metrics, such as the outstanding quantity of assets, typical daily trading volumes, and other indicators of market activity. We also incorporate changes in the efficiency and anonymity with which buyers and sellers interact, and triangulate with our own realized trading cost experience. The 100% growth in the market size index since 2006 means that it now takes a 100% larger trade to create the same move in market prices as compared to 2006 (at a fixed volatility).

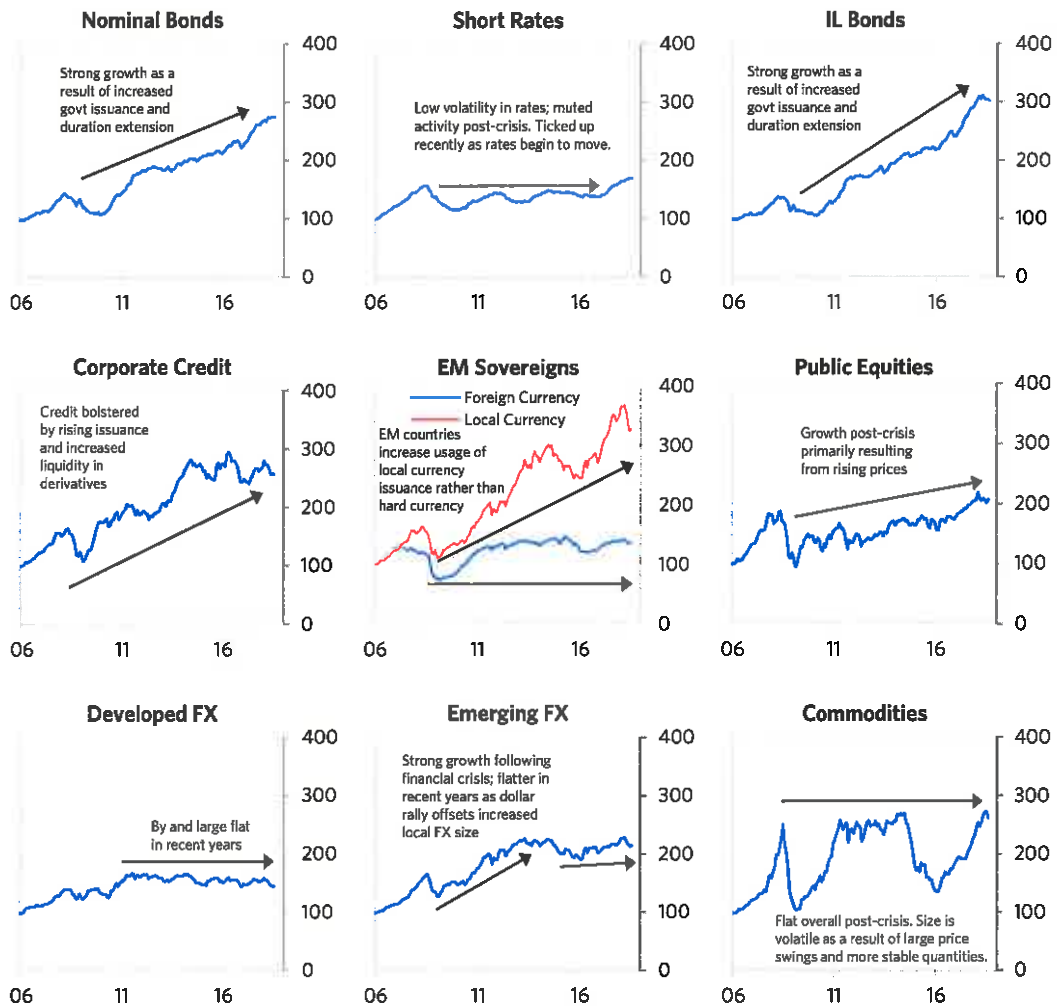


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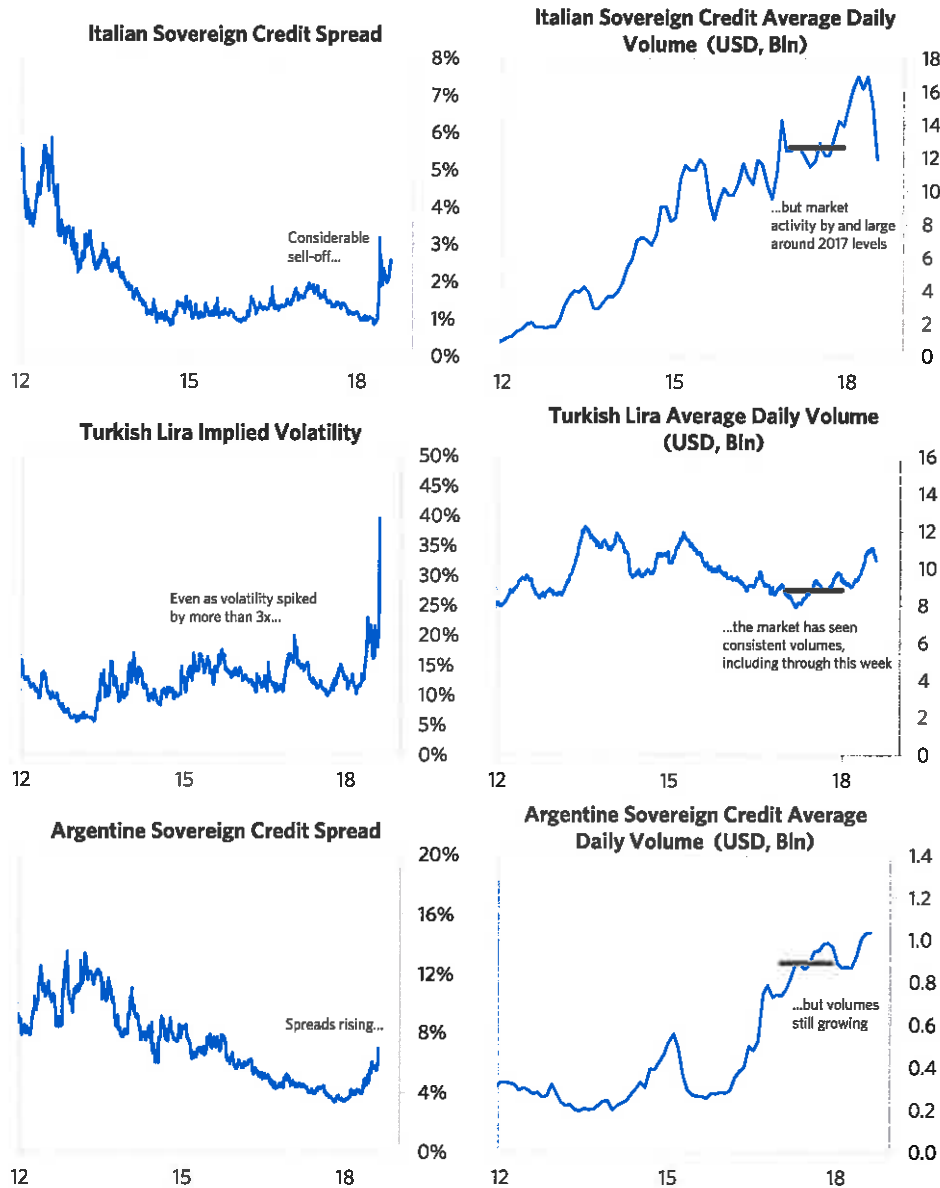
Market Size by Asset Class

Below, we show a scan of the evolution of market size by asset class. Broadly, market sizes remain at or near all-time highs.

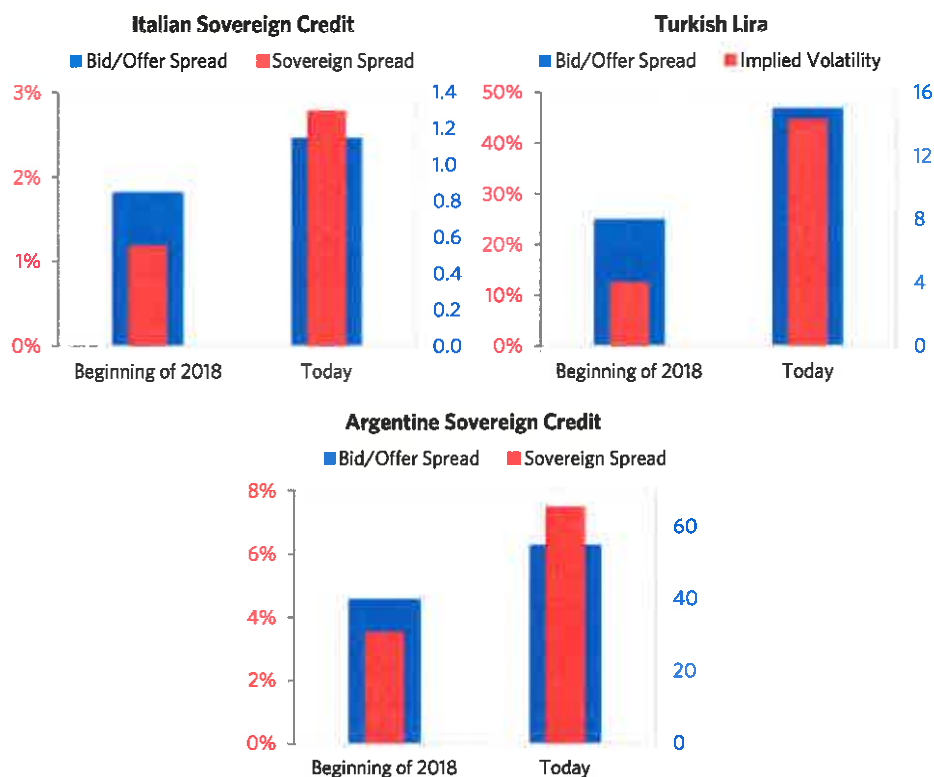
Market Size by Asset Class (Indexed to Jan 2006)



We generally see liquidity holding up well in the major markets where volatility has risen materially this year. This is indicative of markets continuing to function rather than gumming up. We scan a handful of these cases below—Italian sovereign credit, the Turkish lira, and Argentine sovereign credit. Even as short-term volatilities or credit spreads have risen substantially, aggregate activity remains at or only a bit off highs, trading is happening in an orderly manner, and our recent experience trading these markets has been in line with expectations—i.e., we continue to be able to shift our positions in line with our views at manageable costs. As shown below, daily trading volumes have held steady and in some cases have actually risen relative to 2017 averages.



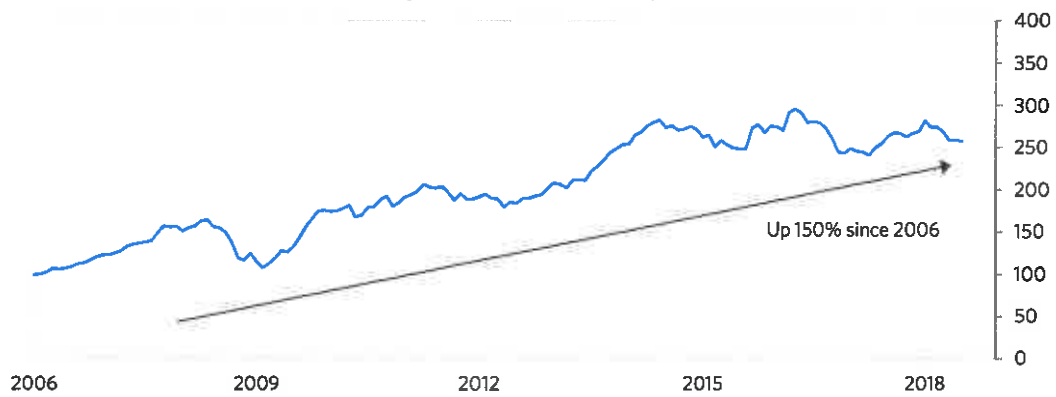
Cost measures such as bid/offer spreads have increased in line with what we'd expect given the elevated volatility. This reflects a roughly steady cost per unit of risk as market makers demand a higher compensation when the risk of price moves is higher and does not point to a more concerning breakdown in market structure or a pullback in the willingness of players to transact in these markets.



Our Assessment of Corporate Credit Market Size

In the section below, we focus on our assessment of liquidity in the corporate credit market. Since the financial crisis, the regulatory regime has favored and fostered centralization and standardization relative to over-the-counter (OTC) markets that require more bank or broker intermediation. As a result, banks and broker-dealers (historically the most important intermediaries in the corporate credit market) have reduced their role in the market. The shrinking of dealer balance sheet available to intermediate flow has been a headwind, particularly for players looking to trade bespoke issues. At the same time, over this period the corporate credit market has seen several structural changes that have enhanced the liquidity of an otherwise fragmented market. The development of central clearing and swap execution facilities in Credit Default Swap Baskets (CDX), the rise of corporate bond ETFs, transparency enhancements such as TRACE and SDR, and the emergence of new all-to-all trading protocols have all enhanced liquidity, offsetting the impact of the dealers' withdrawal. On net, our assessment is that for investors seeking broad-based investment-grade or high-yield exposure, activity and market sizes are about as high and costs are about as low as they have been at any point. The chart below shows our overall market size measure in corporate credit.

Global Corporate Credit Market Size (Indexed to Jan 2006)

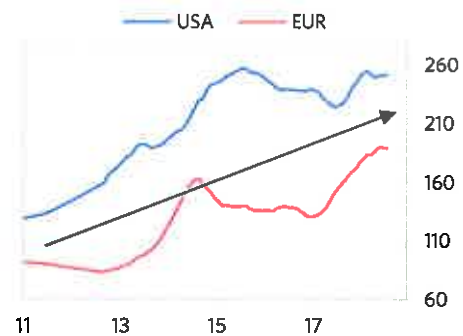


The big improvement for investors looking to capture broad corporate credit exposure has come from index derivatives, which have improved the ability to trade large volumes of corporate credit at low costs. The US and European investment-grade and high-yield CDX are good examples of how the standardization of a fragmented exposure can enhance overall liquidity by broadening the investor base, concentrating activity, increasing depth, and reducing bid/offer spreads through market maker competition. These instruments allow for more electronic and more anonymous trading than cash securities. Post-crisis regulatory changes such as the development of swap execution facilities have improved CDX pricing transparency and made it easier to transact electronically with a large number of counterparties. Central clearing has allowed offsetting risks to net off with each other, reducing residual credit and operational risks and the associated required bank capital. There is more volume traded in the derivatives than in the cash counterparts, and it is concentrated in just several instruments.

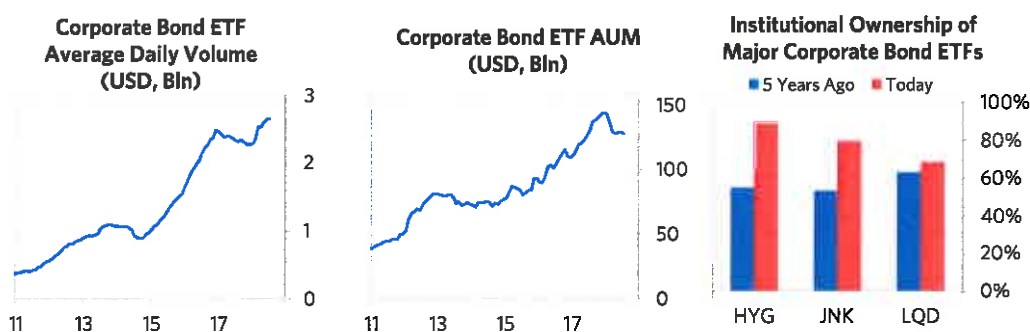
CDX Average Daily Volumes (USD, Bln)



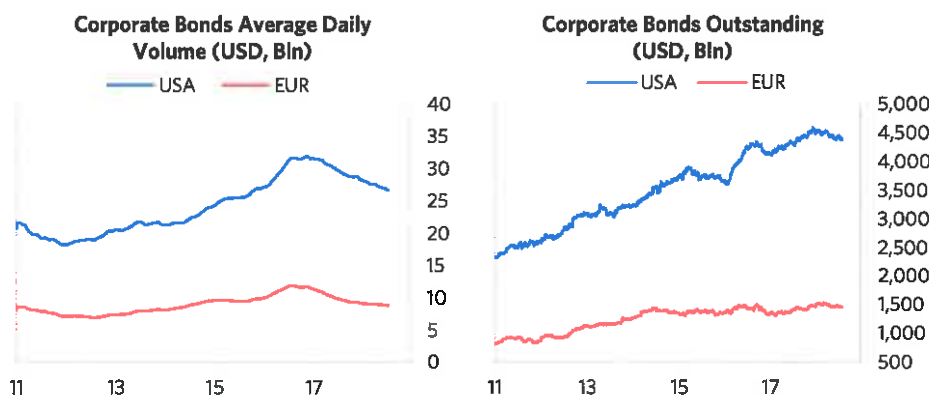
CDX Open Interest (USD, Bln)



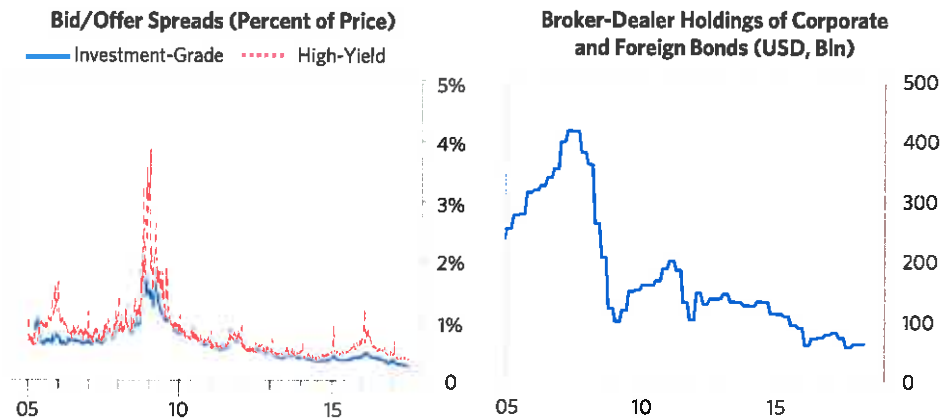
Additionally, ETFs are becoming a bigger part of the corporate market and are contributing to improving liquidity. They reflect another way to get broad index exposure to corporates while concentrating liquidity to a single, efficient product. ETFs are mostly traded electronically and anonymously on equity exchanges. They currently represent about 5% of the overall volume, but have almost tripled in activity over the past three years. The growth has been driven largely by institutional investors, which now represent more than 75% of the ownership.



Even in cash corporate bonds, we see an improvement in liquidity. This has come about mainly through increased issuance and volumes traded, but improvements in trade execution have also put downward pressure on transaction costs for cash bonds.



This deepening of the corporate market and declining bid/offer spreads has occurred even with the reduced role of broker-dealers as intermediaries and investors. The punitive capital treatment assigned to trading books under Basel III and Dodd-Frank ensures that dealers will hold fewer inventories than they used to and generally need to get higher fees to offset the higher balance sheet costs. The reduced participation by broker-dealers has on the margin led to more frictions in trading corporate bonds (e.g., wider bid/offer spreads and reduced depth), particularly on off-the-run issues. But even with this headwind, corporate cash bond bid/offer spreads have tightened. Part of this tightening is cyclical because volatility has declined, but it is also reflective of greater competition and the more extended use of electronic platforms to match buyers and sellers without the need of increased inventories. Post-trade reporting through TRACE has also brought transparency, which has helped reduce price dispersion and bid/offer spreads, especially in the most liquid securities.



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