An Imperfect Storm
Declining Credit Market Liquidity and the Rise of ETFs

Summary  Just when we seemed to be leaving the 2008 financial crisis behind, another aftershock may be building. Changing banking regulations have prompted investment banks to reduce the amount of corporate credit securities they hold in inventory, draining liquidity from the markets. At the same time, investors’ thirst for higher-yield credit has driven explosive growth in bond exchange-traded funds (ETFs), whose sheer size and tendency to trade as a bloc now distort an ever-shrinking market.

While these converging forces are likely to result in a more volatile and challenging environment, we see opportunity for managers equipped to understand the fundamental risk and reward of individual credit securities.
**Unintended Consequences**

We have seen significant structural and fundamental shifts in the financial markets since the 2008 crisis, and the credit markets are not immune to these changes.

The crisis hit banks hard, prompting a general wave of cost-cutting and balance sheet de-risking. In recent years, new banking regulations aimed at preventing future crises have altered market dynamics in ways that were not necessarily intended or expected. For example, the proposed Volcker rule, likely will make it costlier and more difficult for banks to trade and hold securities. They may not be able to hedge their inventory risk in the credit default swaps market because of regulatory and market hurdles. Banks also will be required to hold higher levels of capital under the Basel III accord, a global set of regulations that is being phased in through 2019.

As a result, large investment banks have cut their inventories of corporate credit securities by about 50% over the past year. Banks held roughly $42 billion in corporate securities with more than one year to maturity at the end of February 2012, compared with $93 billion a year earlier, according to the New York Federal Reserve Bank.

<table>
<thead>
<tr>
<th>Exhibit 1</th>
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<tbody>
<tr>
<td>Dollar Amount of Corporate Bonds in Bank (Primary Dealer) Inventory ($M)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>0</th>
<th>50,000</th>
<th>100,000</th>
<th>150,000</th>
<th>200,000</th>
<th>250,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/03</td>
<td>1/04</td>
<td>1/05</td>
<td>1/06</td>
<td>1/07</td>
<td>1/08</td>
</tr>
<tr>
<td>2/12: $42,394</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

*Source: Bloomberg. As of 2/29/2012.*

Investors are affected by bank inventories because the corporate credit market, a key source of funding for U.S. companies, is an over-the-counter market that relies on primary dealers acting as “market makers” to facilitate transactions. Dealers provide end liquidity to the credit markets, inventorying securities while buyers and sellers are matched up over periods of time. Some of the Wall Street banks that formerly acted as primary dealers, such as Lehman Brothers and Bear Stearns, no longer exist. Others have reduced inventory and are participating less actively in the market.

At the same time, U.S. corporate debt issuance has grown as companies seek to take advantage of low interest rates to issue or refinance debt. Between February 2011 and February 2012, as dealer inventories were reduced by half, the total amount of outstanding U.S. corporate credit rose by nearly 10% to approximately $3.7 trillion. The effects of shrinking dealer inventories are even more pronounced as the total pool of securities grows.

With fewer dealers buying and selling bonds, liquidity in the market has changed. Investors often find a wider gap – a liquidity gap – between the bid and offer prices. In an increasingly illiquid market, they may not be able to buy or sell securities when they want to do so, or for the price that they believe is efficient.

**The Volcker Rule**

The proposed rule, part of the 2010 Dodd-Frank Act, is intended to curb speculative trading by investment banks. The rule is not yet final. However, at present it is expected to include:

- A ban on short-term proprietary trading, defined as a position held for 60 days or less
- A ban on proprietary trades that would result in a material conflict of interest with clients or counterparties
- Exemptions for foreign exchange and commodity spot trading, loans, U.S. Treasury and agency mortgage-backed securities (MBS) trading

Overall, the rule is likely to make it more costly for banks to maintain inventory, given increased oversight and the need to demonstrate that trades were made for market-making purposes, not proprietary gains.
The wide credit spreads presented in the years following the 2008 crisis, as well as the exceptional value that corporate credit has offered relative to other fixed-income investments, have attracted investors and provided extra liquidity over the last three years. However, as credit spreads have tightened, the relative value and comparative advantage of credit versus mortgages and other alternatives has narrowed. This amplifies the importance of the liquidity provided by Wall Street.

**ETFs Move In**

Amid the changing landscape, the corporate credit market has offered a sought-after source of value for investors. As the economic recovery sputtered and equity markets struggled, investors have looked to fixed-income markets – particularly corporate credit – for yield. One of the easiest ways for them to enter the corporate credit market seemingly has been through an ETF. ETFs held $169.5 billion in taxable corporate bonds at the end of 2011, compared with $34.1 billion four years earlier. During the same time period, ETFs' high-yield credit assets have grown from about $300 million to $21 billion.

**Exhibit 2**

**Taxable Bond ETF Assets ($B)**

<table>
<thead>
<tr>
<th></th>
<th>Investment Grade</th>
<th>High Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/07</td>
<td>$34.1</td>
<td>$0.3</td>
</tr>
<tr>
<td>12/08</td>
<td>$53.1</td>
<td>$2.4</td>
</tr>
<tr>
<td>12/09</td>
<td>$94.3</td>
<td>$8.0</td>
</tr>
<tr>
<td>12/10</td>
<td>$122.0</td>
<td>$14.0</td>
</tr>
<tr>
<td>12/11</td>
<td>$169.5</td>
<td>$21.0</td>
</tr>
</tbody>
</table>

Source: Strategic Insight. As of 12/31/11.

After successfully building a presence in the equity markets, ETFs are now making a foray into the fixed-income market. Fixed income ETFs are designed to mirror the performance of an index, or benchmark, just as equity ETFs do. However, there are key differences between the markets. While equity ETFs generally will own the same stocks that are in a benchmark, a bond index may contain thousands of individual securities. For example, the Barclays Capital U.S. Aggregate Bond Index (Agg) contained more than 7,800 debt securities at the end of February 2012. The Barclays Capital U.S. Corporate High Yield Bond Index contained 1,870 debt securities. It is not practical for fixed income ETFs to own them all.

Instead, fixed income ETFs usually attempt to track a broader benchmark's characteristics and movement. The easiest way to achieve this is to buy credit securities from the largest, most liquid and most recent new issuers represented in the broader benchmark. Not surprisingly, the largest issuers of debt may not represent the best issuers in terms of creditworthiness or the likelihood of a fundamentally improving credit profile.

ETFs have a short time window in which to invest the funds they receive from investors, and generally will invest regardless of price. These indiscriminate buyers can become indiscriminate sellers. When ETFs buy or sell the same security at the same time, their activity exaggerates its price movement. As crowds of momentum traders seek to bid or offer in a thinly traded market with little dealer support, prices may “gap” lower or higher. These liquidity gaps can make it difficult for other investors to execute trades at a desired time or price.

As ETFs grow larger and liquidity becomes thinner, their trading has had an increasingly distorting effect on the corporate credit market, contributing to volatility and liquidity gaps. It’s worth noting that ETFs have piled into the market during a period when both investment-grade and high-yield corporate credit generally have rallied. As such, we have not yet seen the effects of massive ETF selling in these markets.

**Meeting The Challenge**

While these market forces present new and significant challenges, we believe that corporate credit offers some of the best risk-adjusted return opportunities to be found anywhere in the world. However, how one approaches an investment in corporate credit matters a great deal.

We believe that bottom-up fundamental security selection is more important in this environment than ever before. In our opinion, the key to long-term investment success is to distinguish between the securities of companies that are fundamentally improving and engaging in capital structure transformation from those that are sought merely for beta.
A credit default swap (CDS) is a financial swap agreement that the seller of the CDS will compensate the buyer in the event of a loan default or other credit event.

An Exchange-Traded Fund (ETF) is a security that tracks an index, a commodity or a basket of assets like an index fund, but trades like a stock on an exchange. ETFs experience price changes throughout the day as they are bought and sold.

Barclays Capital U.S Corporate High-Yield Bond Index is composed of fixed-rate, publicly issued, non-investment grade debt.

Barclays Capital U.S. Aggregate Bond Index is made up of the Barclays Capital U.S. Government/Corporate Bond Index, Mortgage-Backed Securities Index, and Asset-Backed Securities Index, including securities that are of investment grade quality or better, have at least one year to maturity, and have an outstanding par value of at least $100 million.

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Lower-quality debt securities that generally offer higher yields, involve greater risk of default or price changes due to potential changes in the credit quality of the issuer. Investments in bond ETF products and in fixed income securities are subject to interest rate, credit and inflation risk.

Although bonds generally present less short-term risk and volatility than stocks, the bond market is volatile. Bonds entail interest rate risk (as interest rates rise, bond prices usually fall, and vice versa). This effect is usually more pronounced for longer-term securities. Bonds are subject to issuer credit risk, and the risk of default, or the risk that an issuer will be unable to make income or principal payments. Additionally shorter-term bond investments typically have greater inflation risk, or the risk that the return of an investment will not keep up with increases in the prices of goods and services, than stocks.

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Charting A Safe Course
We believe that a manager with the skill to analyze the fundamentals and risks of each individual credit security, and the discipline to remain independent of market moves, is better positioned to take advantage of these liquidity dynamics to deliver solid risk-adjusted returns over the long term.

Investors naturally will seek higher yields, but it’s important to understand the risks of doing so. It’s also important to remember that risks, managed appropriately, can lead to good returns, and that sometimes moving against the current is the smartest course to take.