Mike Salice, CFA
Sr. PM, Dir. of Research & Strategy
msalice@skyhcm.com
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SKY Harbor Weekly Briefing

SKYView: Supply Chain Pressure Easing

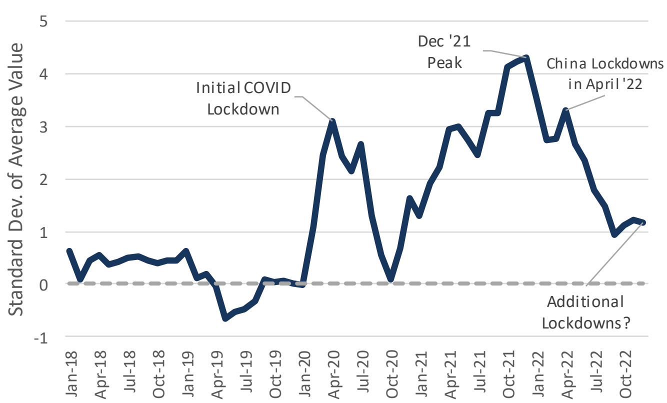
Risk assets continued to generate strong performance this past week, with year-to-date total returns for the ICE BofA US High Yield Index (H0A0) up a blistering 3.3% through the time of writing this piece (January 12). Optimism for a soft landing has become increasingly more prevalent, as lower CPI and average hourly earnings have served to offset a still alarming number of job openings in the economy. As we look toward drivers of high yield constituent earnings growth in the coming year, we are encouraged by significantly diminished supply chain pressure – despite a recent pause – on a global basis. In this *Weekly Briefing*, we attempt to identify credits negatively impacted by supply chain disruptions in the post pandemic era that could be beneficiaries as market dislocations continue to subside.

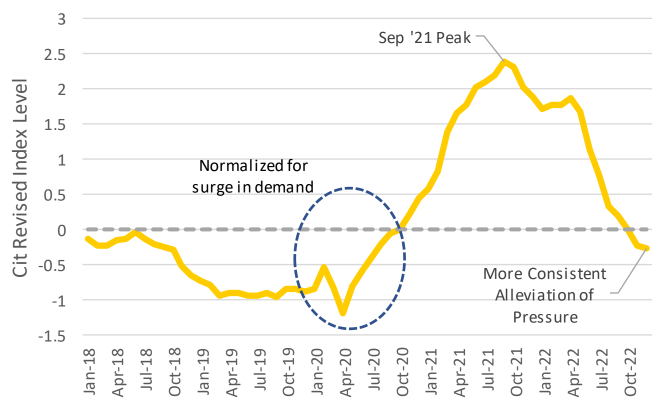
China's COVID Policies Central to Supply Chain Health

The Global Supply Chain Pressure Index (GSCPI) is a measure, designed by the Federal Reserve, to gauge global transportation costs, product delivery times, backlogs, and purchased stocks for manufacturing firms across the US, UK, Euro area, Japan, South Korea, Taiwan, and China. **The index, which peaked at 4.3 standard deviations above the historical mean back in December '21, has largely signaled a reduction in supply chain pressure over the last 12 months** (April '22 was an exception, mainly due to China COVID lockdowns and disruptions stemming from the war in Ukraine). Though improvement has somewhat stalled more recently – likely the result of a surge in COVID rates in China during Q4'22 as policies became more lenient – **the most significant headwinds appear largely behind us, particularly as their vaccination rates and efficacy begin to rise**. As an alternative measure, Citi developed a similar index (right chart below) uniquely taking into account the impact of rising demand on supply chain pressures, with resulting data demonstrating a more smoothly trending downward trajectory over the last year.

NY Fed Global Supply Chain Pressure Index Recently Stalled But Much Improved; Citi Supply Chain Index Shows Similar Trajectory

monthly data, trailing 5 years





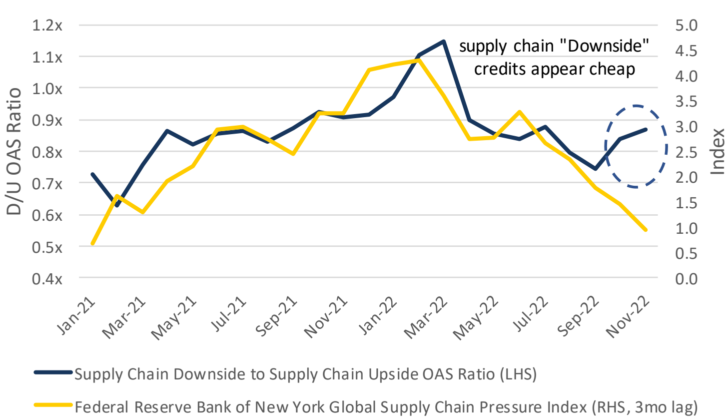
Source: SKY Harbor, Federal Reserve, Citi, Bureau of Labor Statistics, Bloomberg

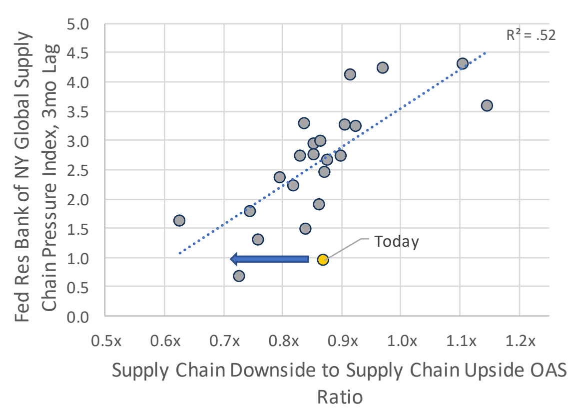
Which Names Have Been Impacted?

A report by Goldman Sachs back in October '21 highlighted a list of high yield issuers thought to possess the most notable downside credit risk stemming from supply chain disruptions, which they dubbed the "Supply Chain Downside" basket. At the same time, they also created a "Supply Chain Upside" basket which included issuers thought to benefit from the same disruptions. Leveraging this work, we then created custom high yield indices of those issuers, equal-weighted by ticker and inclusive of all underlying bonds in each respective capital structure. As demonstrated below, **a spread ratio comparing "Downside" to "Upside" supply chain risk indices proved highly positively correlated to the Federal Reserve GSCPI index over time** (note: the latter basket excludes Energy credits given the outsized impact of commodity prices independent of supply chain conditions). The results, which in our view make sense intuitively, also demonstrate a stalling of "downside" supply chain risk spread compression relative to the "upside" bucket despite recent pressure alleviation (right chart below). Said otherwise, **the analysis implies credits that suffered most from supply chain disruptions trade wide of relative fair value, particularly if supply chain repair persists in the coming months**.

Downside/Upside (ex-Energy) OAS Ratio Highly Correlated to Supply Chain Pressure Index

monthly data, trailing 2 years

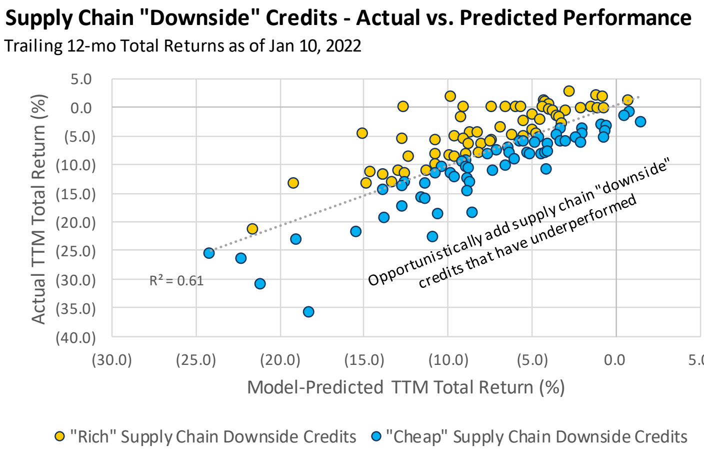


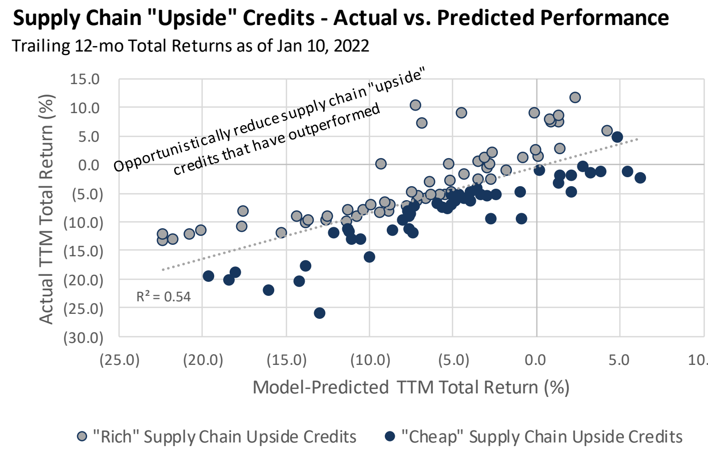


Source: SKY Harbor, Goldman Sachs, ICE Data Indices, Federal Reserve, Bloomberg

Identifying Relative Value Opportunities

In an attempt to narrow the investment universe to names potentially poised to outperform from supply chain improvement (provided some subsequent reflection of this dynamic in spread levels), we created a multi-step quantitative screen. First, we compared trailing 12-month performance of every security in the high yield index to a factor-driven expected return model, the latter driven by starting duration, size, rating, and sector characteristics of each issue. Next, we identified credits with actual TTM total returns that fell below the model-implied fair value, isolating names that underperformed their starting cohort. Finally, we cross referenced the underperforming bonds from our model with issuers identified in Goldman's "Supply Chain Downside" basket, augmenting the list to also include issuers who mentioned supply chain pressure in multiple investor calls since the onset of the pandemic. As demonstrated below, **our resulting output identified trailing 12-month cohort / factor-driven underperformers potentially poised to benefit from supply chain repair (light blue points on the scatterplot).** We also isolate trailing 12-month cohort / factor-driven outperformers who benefitted from supply chain disruptions that are now at risk if the dynamic reverses (grey points on the scatterplot). Importantly, the screen narrows down the universe of credits potentially poised to benefit from supply chain repair to a very manageable 60 issues – relative to over 1,900 in the full index – from which to conduct further bottom-up credit analysis for potential inclusion in portfolios.





Source: SKY Harbor, Goldman Sachs, ICE Data Indices, Moody's

On Balance, A Tailwind

A recent pause along the path of improvement aside, the overall supply chain picture has improved significantly over the last 12 months. Looking forward, relaxation of China's zero COVID policy, coupled with better vaccination efficacy, should further push supply chains back toward normalcy. While these are positive developments, we also acknowledge that global growth is expected to be pressured in the coming year, and Q4'22 financial results – which are yet to be released – will still contain some drag from China's recent COVID wave. Nevertheless, we continue to view the "Downside" / "Upside" Supply Chain OAS ratio dislocation as compelling, and believe some rotation, on the margin, could enhance total return generation in the coming months.

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