Junior-Subordinated Capital Securities Markets

August 2022 Updates

The fixed income credit markets reversed course rather dramatically in August in anticipation of the Fed becoming more decidedly hawkish (from seemingly dovish) on inflation. Though there was no Fed meeting to report on this month, the messaging from Chairman Powell at Jackson Hole confirmed the market's conviction on more rate hikes to come. The Federal Open Market Committee's most important goal is to bring inflation back down close to its 2% objective. Equity rose to start the month and just about touched its 200day moving average before falling through its 50day moving average again. The S&P 500 closed 8.13% off its high this month and down 4.24% for the month, which is 17.02% lower on the year. Credit prices declined across the board primarily from duration risks that prevail when US Treasury yields rise. Credit spreads were mixed. This month, the price performance between the IG & BIG hybrid sectors marginally favored BIG paper.

The 30yr bond closed August yielding 3.26% (28bps higher) and the 10yr note closed yielding 3.13% (16bps higher). Real rates on the front end of the treasury curve (e.g., UST 5yr TIPS) rose 86bps (to 0.76%) after going negative last month: the 5yr implied breakeven inflation rate (i.e., the difference in yields between the 5yr UST and the 5yr Treasury Inflation Protected Security) declined 17bps to close at 2.64%. The VIX (i.e., Chicago Board Options Exchange Volatility Index) rose 21.3% to 25.87 as the S&P 500 finished the month at 3955, down 175 points and still above the 3800 line which is indicative of a recession and was breached last June.

Before we talk hybrids, the performance in some of the more senior corporate credit sectors for comparative references on returns and yield changes is shown below:

- The junk market (measured by the ICE BofA High Yield ***h0a0*** index) fell 2.40% to close yielding 8.40% (67bps higher).
- Global bank credit (measured by ICE BofA ***e0ba*** index) fell 2.04% to close yielding 4.71% (46bps higher).
- The BBB rated 5-10yr corporate sector (measured by ICE BofA ***c6a4*** index) fell 2.53% to close yielding 5.24% (46bps higher).

Review of Market Structure:

The market for hybrids or **global junior-subordinated capital securities** (*i.e.,* "**Jsubs**") as we call them is comprised of two core sectors:

1. Preferred Securities, and
2. Contingent Capital Securities

Each sector has evolved with unique technical, structural, and fundamental features that are discussed and updated below:

Global junior subordinated capital securities are comprised of two sub-sets that represent a broad group of global junior-subordinated capital securities, which can be referenced by two ICE BofA indexes: 1) The ICE BofA US All Capital Securities Index (***i0cs***) and 2) The ICE BofA US Dollar Contingent Capital Index (***cdlr***).

Our litmus test for hybrids satisfies two core characteristics:

1) any non-payment of distributions would not accelerate an event of default (i.e., distributions are "junior-subordinated" to ordinary interest obligations) and,

2) balance sheet classification is something other than common stock under GAAP disclosure.

The US All Capital Securities (***i0cs***) benchmark of preferred securities represents $358 billion (face amount) of investment grade and below investment grade instruments in both the retail $25par market (36%) and the institutional $1,000par market (64%). The USD Contingent Capital Index of US dollar denominated junior-subordinated capital securities ***(cdlr)*** represents $157 billion (face amount) of investment grade and below investment grade fixed-rate instruments with contractual triggers that could subordinate them to common stock in a reorganization that would not fall into a receivership after the bail-in. These two benchmarks combine for a $516 billion universe of fixed-rate junior-subordinated USD capital securities with preferred securities (measured by ***iocs***) being a 69% subset and contingent capital securities (measured by ***cdlr)*** being a 31% subset of the total global USD junior subordinated group.

Preferred Securities

In the preferred securities sleeve, there are four sub-component indexes in the US All Capital Securities Index (***i0cs)*** – this entire index is comprised of global "preferred securities". A **"preferred security"** can represent a capital security issued either through charter amendment (i.e., as a stock) or through indenture (i.e., as a bond) typically within the context of a "gone-concern" statutory authority (*e.g.,* US banks). As a gone concern, a company reorganization would be processed through a bankruptcy court. Preferred security payments are in priority to common stock dividends, yet can be deferred (i.e., payments are cumulative) or eliminated (i.e., payments are non-cumulative) without causing an immediate event of default; any principal loss absorption on a preferred security would be forced only *ex-post* through a statutory resolution in a bankruptcy proceeding.

The four sub-components of the *i0cs* benchmark that consolidate into the retail and institutional sectors of rated preferred securities are:

1. ***ICE BofA Fixed Rate Preferred Index (*p0p1*) @ 44% of i0cs***
    - Comprised of IG $25par and IG $1,000par (incl. US AT1)
        - The *p0p1* fell 3.38% this month to close yielding 5.28% (-95bps)
        - Headcount was up 2; face value up $1.2billion
2. **ICE BofA US Capital Securities Index (*c0cs*) @ 24% of *i0cs***
    - Comprised of dated IG $1,000par dated hybrids (excl. US AT1)
        - The *c0cs* fell 0.08% this month to close yielding 5.69% (-29bps)
        - Headcount was unchanged; face value up $781mil.
3. **ICE BofA High-Yield Capital Securities Index (*h0c*s) @ 5% of *i0cs***
    - Comprised of BIG $1,000par legacy Tier1 and BIG $1,000par hybrids
        - The *h0cs* fell 0.45% this month to close yielding 6.71% (-51bps)
        - Headcount unchanged; face value unchanged
4. **ICE BofA High Yield Fixed Rate Preferred Index (*p0hy*) @ 27% of *i0cs***
    - Comprised of BIG $25par and BIG 1,000par (incl. US AT1)
        - The *p0hy* fell 2.92% this month to close yielding 6.17% (-100bps)
        - Headcount was unchanged; face value was unchanged

Overall, the ICE BofA All US Capital Securities Index (***i0cs***) fell 2.30% in August to close yielding 6.38%, which was 67bps higher than last month's closing yield and a spread of +317bps over comparable US Treasury securities (26bps wider).

Contingent Capital Securities

A **"contingent capital security"** (i.e., a "CoCo") represents a capital security issued through indenture typically within the context of a "going-concern" type regulatory regime for banking, which would reorganize a potentially insolvent bank through the contracts of its capital before falling into a conservatorship proceeding. CoCos payments are non-cumulative and *pari passu* to common stock dividends and can be reduced or eliminated without causing an event of default. Principal loss absorption on a CoCo could be forced ex-ante through a regulatory action in advance of any bankruptcy proceeding (note that an actual bankruptcy may not happen because enough loss absorbing bail-in capital, including tier-2 capital, could be available through the "living will" of the entity's core capital). The ICE BofA USD Contingent Capital Index (***cdlr***) is comprised of US dollar denominated constituents (exclusively), which represent 65% of the mature master multi-currency benchmark (*coco*). We will utilize the USD benchmark (*cdlr*) as it more meaningfully reflects the contingent capital currency primarily held in our portfolios. The ICE BofA USD Contingent Capital Index (***cdlr***) fell 2.30% this month to close yielding 7.58%, which was 75bps higher than last month and a spread of +436bps over comparable US Treasury securities (39bps tighter).

Discussion of Retail and Institutional Sectors:

We report on the retail and institutional sectors using statistical tables in a *Spread Value Matrix* to provide readers with data on absolute and relative spread positionings. The data samples are sourced from ICE BofA benchmarks starting in March 2017, which is when retail benchmark calculations on yield-to-worst for currently callable $25par preferred securities were improved to reflect actual yields, even if negative. We provide measures of inflation coverage in a *Purchasing Power Matrix*; and a table for yield-to-worst, net of inflation and of historical default in a *Real Yield Matrix* that compares hybrids, investment grade corporates and high yield bonds. Finally, we show data on prior credit cycles for each sector to give you a *Comprehensive Risk Estimate* to the average bottom of the last 3 credit cycles (2013, 2016 and 2018) -- the rationale here is to illustrate risk measures relative to prior down credit cycles, but not necessarily an outlook to that direction. By following these tables monthly (and sometimes as "pop-outs" in flash reports), investors should gain consistent insights to assist in making more informed and supportive asset allocation decisions using junior subordinated capital securities.

Snapshot of Junior Subordinated Spread Sector Moves vs. Global Financials:

Capital Securities Spread Value Matrix	p0p4 (a) Retail	p0p4-e0ba (b) Retail	stb8 (a) NoCo	stb8-e0ba (b) NoCo	cdlr (a) CoCo	cdlr-e0ba (b) CoCo
Sample Periods	03/31/2017 to Date		03/31/2017 to Date		03/31/2017 to Date	
Jr-Subs	*Absolute	**Relative	*Absolute	**Relative	*Absolute	**Relative
High	588	251	486	205	660	313
Low	-178	-267	176	60	223	143
Range	766	518	310	145	437	170
Average	55	-53	247	139	327	219
Stdev	121	105	47	28	61	34
Monthend	189	51	286	148	380	242
Spread Scores:						
(monthend-ave)/stdev	1.11	0.99	0.83	0.32	0.87	0.68
Δ from Last Month	0.61	0.75	-0.41	-0.29	0.38	0.79

Source: Bloomberg; ICE BofA Bond Indices

* *Absolute = Option Adjusted US Government Spread; (current-ave)/stdev*

** *Relative = spread to global financials measured by e0ba ICE Bond Index; (current-ave)/stdev*

The way we interpret the above option adjusted spread table is by the statistical positioning of the *Spread Scores* where, **zero** = "*fair value*", **+/- 1stdev.** = "*undervalued"/ "overvalued*", respectively and **+/- 2stdevs** = "*very undervalued"/ "very overvalued*", respectively.

Spread performance for hybrids was mixed in August, after all three sectors tightening significantly last month. The institutional $1,000par preferred securities sector ("NoCos") tightened a bit which is why the spread score change from last month is green (i.e., -0.41). The retail sector and CoCo sector both widened. In particular, the retail sector slipped into the *undervalued* zone in the absolute and is almost there in the relative. CoCos went from being *overvalued* in the relative last month to being a *significant fair value* this month compared to more senior financials.

<u>Implications of Market Activity</u>:

<u>$25par Retail Preferred Securities Sector</u>

The retail preferred securities sector measured by *p0p4* fell $$5.18 in August to $87.33, adding a 6th negative month to the sector this year. Even if the sector were to go up in each of the next four months, this would still be a new record for the $25par market in being down half the time over a rolling 12month period. The following table illustrates the retail sector's three prior credit cycles compared to month end valuations:

Retail Pfds.	Valuation Implosions			Average		Diff. to	
Credit Cycle Bottoms >	2013	2016	2018	Prior Bottoms	Current	Average	
GA10	2.98%	1.64%	2.74%	**2.45%**	3.13%	0.68%	
PCE DEFY	1.48%	0.59%	1.86%	**1.31%**	6.30%	4.99%	
Real UST10yr	1.50%	1.05%	0.88%	**1.14%**	-3.17%	-4.31%	
$25Coupon	6.64%	6.46%	6.05%	**6.38%**	5.46%	-0.92%	
$25Price	$94.06	$98.66	$93.09	**$95.27**	$85.26	-$10.01	
$25Current Yield	7.06%	6.55%	6.50%	**6.70%**	**6.40%**	-0.30%	
Mdur Worst	9.52	10.44	10.95	**10.30**	12.51	2.21	
CY Spread vs. T10yr	4.08%	4.91%	3.76%	**4.25%**	3.27%	-0.97%	
Source: Bloomberg; ICE BofA Bond Indices						-3.00%	Est. Price Risk to AveCY
				Comprehensive Risk Est.		3.40%	Est. Price Risk + CY
				Recapture Rate (yrs.)		0.47	Est. Price Risk / CY
					Memo:	-14.13%	Total Return YTD

The current yield of the retail sector closed August at 6.40%, which was 51bps higher than last month and 30bps lower than the average current yield at the bottom of the last three credit cycles. The current yield spread to the 10yr is 97bps less than the average of the last three credit cycle bottoms. The implication of a 0.30% yield increase to 6.70% (the average current yield of the prior bottoms) is an estimated 3.00% price decline using the average modified duration of 10.30; then adding back a current book yield (assuming a 12month path) of 6.40% makes the *Comprehensive Risk Estimate* for the retail sector positive again (for the third time this year) at 3.40% after also being positive at the end of April and June. It would take 0.47yrs to recapture this assumed capital loss with book income, which implies that there is more opportunity than risk in the retail sector (again).

$1,000par Institutional Preferred Securities Sector

The $1,000 par institutional sector of the preferred securities market fell $1.13 as yields rose 26bps to 6.49% by the end of August. The following table illustrates the institutional preferred securities sector's three prior credit cycles compared to closing valuations this month:

Institutional Pfds.	Valuation Implosions			Average		Diff. to	
Credit Cycle Bottoms >	2013	2016	2018	Prior Bottoms	Current	Average	
GA10	2.94%	1.75%	2.74%	**2.48%**	3.13%	0.65%	
PCE DEFY	1.17%	0.59%	1.86%	**1.21%**	6.30%	5.09%	
Real UST10yr	1.77%	1.16%	0.88%	**1.27%**	-3.17%	-4.44%	
Coupon	6.77%	6.43%	5.88%	**6.36%**	5.21%	-1.15%	
Price	$103.96	$99.62	$97.23	**$100.27**	$93.85	-$6.42	
Current Yield	6.51%	6.45%	6.05%	**6.34%**	**5.55%**	-0.79%	
Mdur Worst	5.90	5.23	4.64	**5.26**	4.04	-1.22	
CY Spread vs. T10yr	3.57%	4.70%	3.31%	**3.86%**	2.42%	-1.44%	
Source: Bloomberg; ICE BofA Bond Indices						-3.18%	Est. Price Risk to AveCY
				Comprehensive Risk Est.		2.37%	Est. Price Risk + CY
				Recapture Rate (yrs.)		0.57	Est. Price Risk / CY
					Memo:	-9.83%	Total Return YTD

The current yield of the institutional preferred sector closed August at 5.55%, which was 8bps higher than last month. This brings the current yield of the sector to 79bps less than the average current yield at the bottom of the last three credit cycles. The current yield spread to the treasury 10yr note is 144bps lower than the average of the last three credit cycle bottoms. The implication of an 0.79% yield increase to 6.34% (the average current yield of the prior bottoms) is an estimated 3.18% price decline using the modified duration of 4.04; then adding back a current book yield (assuming a 12month path) of 5.55% makes the *Comprehensive Risk Estimate* for the NoCo sector equal to a 2.37% horizon return to accept the risk. It would take 0.57yrs to recapture this capital loss estimate with book income. The combination of higher yields despite some spread tightening has moved the NoCo sector into an improved cushioned valuation than last month.

Contingent Capital Securities Sector

The CoCo sector fell $2.80 as even as the European bank stocks slipped a bit after a mid-month rally, yet held 8% above the bottom posted in last month for the sector's common equity. The high yield spread differential to CoCos is 123bps and the net default differential between the two is 115bps, so CoCos look like the better value, net of default, in our opinion given the paltry 8bp differential.

The following table illustrates the contingent capital securities sector's three prior credit cycles compared to closing valuations in August:

CoCo Securities	Valuation Implosions			Average		Diff. to	
Credit Cycle Bottoms >	2013	2016	2018	Prior Bottoms	Current	Average	
GA10	3.01%	1.75%	2.88%	**2.55%**	3.13%	0.58%	
PCE DEFY	1.48%	0.59%	1.86%	**1.31%**	6.30%	4.99%	
Real UST10yr	1.53%	1.16%	1.02%	**1.24%**	-3.17%	-4.41%	
Coupon	7.63%	6.40%	6.78%	**6.94%**	6.18%	-0.76%	
Price	$105.04	$89.12	$96.21	**$96.79**	$90.82	-$5.97	
Current Yield	7.26%	7.18%	7.05%	**7.16%**	**6.80%**	-0.36%	
Mdur Worst	4.76	5.30	3.95	**4.67**	2.88	-1.79	
CY Spread vs. T10yr	4.25%	5.43%	4.17%	**4.62%**	3.67%	-0.94%	
Source: Bloomberg; ICE BofA Bond Indices						-1.04%	Est. Price Risk to AveCY
				Comprehensive Risk Est.		5.77%	Est. Price Risk + CY
				Recapture Rate (yrs.)		0.15	Est. Price Risk / CY
					Memo:	-12.18%	Total Return YTD

The current yield of the institutional preferred sector closed August at 6.80%, which was 23bps higher than last month and 36bps lower than the average current yield at the bottom of the last three credit cycles. The current yield spread to treasury 10yr notes is 94bps lower than the average of the last three credit cycle bottoms. The implication of a 0.36% yield increase to 7.16% (the average current yield of the prior bottoms) is an estimated 1.04% price decline using the modified duration of 2.88; then adding back the current book yield (assuming a 12month path) of 6.80% makes the *Comprehensive Risk Estimate* for the NoCo sector 5.77% -- 96bps higher (i.e., a lower risk) than last month. It would take 0.15yrs to recapture this assumed capital loss with book income. CoCo prices have underperformed performed NoCo prices by over 3pts this year even though CoCos have about 1yr less duration risk. The combination of virtual spread parity to high yield (net of default), 3pts of underperformance to NoCos and less than a 2-month recapture rate makes the CoCo sector appear very undervalued to preferred securities.

Outlook:

The month ended with more US Federal Reserve Bank headlines – this time not from a specific policy move but from a hardened policy narrative. The statements came from Chairman Jerome Powell in a very short and to the point speech at the central bank's annual Jackson Hole symposium. Here are the highlighted messages from the speech:

> *"The Federal Open Market Committee's (FOMC) overarching focus right now is to bring inflation back down to our 2 percent goal. Price stability is the responsibility of the Federal Reserve and serves as the bedrock of our economy. Without price stability, the economy does not work for anyone. In particular, without price stability, we will not achieve a sustained period of strong labor market conditions that benefit all. The burdens of high inflation fall heaviest on those who are least able to bear them.*
>
> *Restoring price stability will take some time and requires using our tools forcefully to bring demand and supply into better balance. Reducing inflation is likely to require a sustained period of below-trend growth. Moreover, there will very likely be some softening of labor market conditions. While higher interest rates, slower growth, and softer labor market conditions will bring down inflation, they will also bring some **pain** to households and businesses. These are the unfortunate costs of reducing inflation. But a failure to restore price stability would mean far greater **pain**."*

Notice the use of the word "pain" – this is not a message of a Fed that will be quick to reverse course on interest rates, which was the mood of markets earlier this summer. Indeed, a slowing rate of increases is not a reversal by any means. Once a "neutral rate" is achieved (street consensus expects that to be achieved at 4.00%-4.25% early next year) the Fed says that "*restoring price stability will likely require maintaining a restrictive policy for some time. The historical record cautions strongly against prematurely loosening policy."*

As we said last month, the Fed intends to tighten financial conditions enough to create the needed reduction in demand functions that are bidding against restricted supplies and helping to raise costs. The balance sheet will be an important tool to further tighten financial conditions once the full force of the reductions gets underway this month.

Hybrids can be a constructive way to help offset inflation when spreads are above average (like now). Here's a look at the multiples of 5yr average inflation (by today's measure) that are available in hybrids compared to more senior financials:

	A	B	C	D=B/C	E=D/A
Purchasing Power Matrix: Financials	Mdur	YTW%	5yrBE Inflation%	Inflation Coverage	Inflation Coverage/ Mdur
Retail $25par (p0p4)	12.51	6.23	2.64	2.36	0.19
NoCos (stb8)	4.04	6.51	2.64	2.47	0.61
CoCos (cdlr)	2.88	7.64	2.64	2.89	1.00
More Sr. Fins (e0ba)	5.00	4.73	2.64	1.79	0.36

Source: Bloomberg; ICE BofA Bond Indices

The coverages are higher than they were last month on the heels of the summer relief rally. The contingent convertible sector (CoCos) is still the winner on *Inflation Coverage* and risk adjusted coverage when factoring in duration. The Noco sector wins the silver medal again on both scores, but the retail sector closed the gap to NoCos on inflation coverage this month.

Defense continues to be our primary investment objective this year and positive real yields for hybrids helps us run the playbook. Real yields are quite attractive for most hybrids and even more so when we adjust historical default risks from real yields. Below we assess a more comprehensive view of real yields net of inflation and net of default in a *Real Yield Matrix* to double risk adjusted yield comparisons in hybrids, investment grade corporates and below investment grade corporates (i.e., junk bonds):

Real Yield Matrix	Hybrids		Corporates	
	Preferreds	CoCos	IG Corps	BIG Corps
Bloomberg Index	*cips+hips*	*cdlr*	*c6c0*	*h0a0*
Mod.Duration	4.04	2.88	6.31	4.47
Yield-to-Worst	6.51	7.64	5.01	8.45
Inflation[1] Adjustment	2.64	2.64	2.64	2.64
Real Yields	3.87	5.00	2.37	5.81
Default[2] Adjustment	-0.09	-0.09	-0.03	-2.47
YTW, net, net adj.	**3.78**	**4.91**	**2.34**	**3.34**
Composite Rating	*BBB2*	*BB1*	*BBB1*	*B1*
Last Month End:	**Hybrids**		**Corporates**	
	Preferreds	CoCos	IG Corps	BIG Corps
YTW, net, net adj.	3.30	3.91	1.66	2.35
Change from Last	☆ 0.48	☆ 1.00	☆ 0.68	☆ 0.99

Source: Bloomberg; ICE BofA Bond Indices

[1] *Inflation assuption based on the UST5yr breakeven inflation rate*
[2] *Sprectrum's 10yr annual default study through 2020*

Hybrids offer the most positive double-net real yield opportunity in credit -- the best real yields (or the bottom in prices) across the board was in June. But as of the end of August, the YTW differentials (net, net) are better now for CoCos; and are almost as high for NoCos as they were at the end of June. As the Fed begins to accelerate the balance sheet moves this month, yields are likely to elevate somewhat more as spreads retrace into yearend with equity expected to be under pressure from downward earnings revisions. The Fed will focus more on labor (i.e., one of its policy objectives) than it will on recession and will keep at its restrictive policy until their job is done. In Chairman Powell's closing remarks in Jackson Hole, he said:

> "*The successful Volcker disinflation in the early 1980s followed multiple failed attempts to lower inflation over the previous 15 years. A lengthy period of very restrictive monetary policy was ultimately needed to stem the high inflation and start the process of getting inflation down to the low and stable levels that were the norm until the spring of last year. Our aim is to avoid that outcome by acting with resolve now.*

In the press conference Chairman Powell said, when asked of lowering inflation, "*There is a path for us to get there while maintaining a strong labor market.*" No doubt, the Fed's objective is a "soft landing", but without sea changes in business formations that protect and reform western supply chains, our conviction for what is hoped for is unlikely to happen without some pain – and the risk of that pain is certainly well telegraphed by the Fed.

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