CWCapital Markets Update

November 2022

<u>In this Issue:</u>

- Economy: Strength despite aggressive Fed tightening and inflation. Expect slowing.
- Property values begin to decline as interest and cap rates climb.
- Feature – Sorting Out Risk in the Current Environment – Near-term Maturities

In this issue of the CWCapital Markets Update, we focus on the fundamentals and trends affecting national commercial real estate debt markets. Our feature includes a review of near-term loan maturity risk in the current environment. We synthesize and present information gathered from various industry research, public resources, and our own research.

The Economy

- **Employment** - The US Unemployment rate stands at 3.7% as of this writing. This level is generally consistent with the 3.5% to 3.7% range we've been in for the past 10 months. While it is positive that some 261,000 jobs were created in October, this figure is well below the average pace of 400,000(+/-) over the past 2 years, indicating somewhat of a slowdown to us. As the Federal Reserve ("Fed") continues to tighten policy, we expect appreciably higher unemployment rates going forward.
- **GDP** - The Bureau of Economic Analysis reported that Real GDP increased at an annual rate of 2.6% in its advance estimate for Q3 2022. Increases in exports of industrial supplies (including petroleum), consumer and government spending were the main drivers. Notably, residential construction and transactions slowed. When the full impact of Fed interest rate and quantitative tightening is felt, we believe a sharp economic slowdown could be in store.
- **Inflation –** Despite a 300 basis-point increase in the Fed Funds rate, the economy continues to be strong. Hourly wages grew by 4.7% over the 12 months ended October 2022, with such average wage growth struggling to keep up with an inflation rate (CPI change) of over 7%. Although beneficial in the short term, continued wage growth can add to inflationary spirals in a significant way.
- **Interest Rates –** Over the past 12 months, relevant interest rates have more than doubled. Funds + 300bp, UST10 + 249bp, and the UST 2/10 inversion stands at -44 basis points at this writing.

CRE Credit and Capital Markets:

- **Delinquent / defaulted loans** - Continued to remain low (1.78%), close to pre-pandemic performance, as many of the weaker properties were previously identified during the COVID spike. The rate of post-covid decline has slowed however, and we anticipate that increases may materialize given current macro market conditions.
- **Capital Markets** – We have reviewed data indicating the first year-over-year price declines in generic Retail, Hotel, and Office asset types, with marked slowing in Multi-family and Industrial. CMBS Conduit and Corporate credit spreads have also generally doubled over the past 12 months (BBB- CMBS 714 vs 360). All-in required yields have also doubled (BBB- approximately 11%). Accordingly, primary market issuance year-to-date in October 2022 has declined by approximately 25% from the same period in 2021.

Three significant trends we are watching:

- **Capital Markets** - Doubling of required yields – how much repricing of credit in the capital markets can occur before liquidity becomes an issue? Lending slowdowns are already apparent.

- **Economy** – As the full impact of the Fed's rate increases and quantitative tightening are felt, what seems an inevitable slowdown could be sharp. Lagging inflation could make matters worse.

- **Office Properties** – We have written previously about the dual incentives of work from home and employer cost reductions via reduced floorspace. Combined with economic slowdown, we believe it is just a matter of time until defaults increase.

Feature – Sorting Out Risk in the Current Environment – Near-term Maturities

Investors may want to keep an eye out for a wave of loan extensions or other opportunities to acquire good properties at more favorable levels over the next 18 months.

It goes without saying that there are several significant headwinds facing commercial real estate properties. The combination of record spikes in interest rates, high inflation, work from home, falling household formation, softening rents, and geopolitics, to name a few, introduces uncertainty that we haven't seen in a long time. As investors, we have to start somewhere in sorting out and assessing the potential for near-term distress. The benefits are realized in both risk management and in identifying potential new opportunities which may have previously been too expensive or even unavailable.

In this edition of the Capital Markets Update we look at current benchmarks and relationships in the market, and then overlay what we know is coming up in the near term. Specifically, how easy will it be for borrowers who have near-term maturities (next 18 months) to refinance loans in the current market?

Our Methodology – The first objective is to identify generic benchmarks for financing. To accomplish this, we make an assumption that lenders will generally size **10-year loans** (in any environment) in such a way to target a **1.25x debt service coverage ratio** at a **65% LTV**. Further, we assume that **commercial loans** have a required credit spread of **250 basis points** to benchmark 10yr Treasuries, while **Agency Multifamily loans** carry a **180 basis point** credit spread to the same benchmark.

Once those assumptions are in place, the rest of the benchmarking process becomes just math. We can calculate a P&I Constant, an implied Break-Even Cap Rate (what loan size results in 1.0x DSCR cover), an implied Cap Rate to Cover (at 1.25x DSCR cover), and then an Implied Benchmark Debt Yield. The Implied Debt Yield is critical in that we can compare it to the current property performance to predict whether the current property is unlikely to refinance, likely to refinance, or easily refinanced.

Our Sample Population – We analyzed over **1,200 loans** (850+ from CMBS, 439 from Agency Freddie Mac) **maturing over the next 18 months**. Loan populations were formed from all non-defaulted, non-defeased properties backing the CMBX 6-15 indexes, as well as from all near-term maturities we could find in Freddie Mac 10-year, 7-year, Floating Rate, and other public securitizations. We excluded special property types such as Co-Op loans, land, parking garages, ground leases, etc.

Feature – Sorting Out Risk in the Current Environment – Near-term Maturities

Conduit - Benchmarks		Mos Fwd	# Loans	$mm	9.08%	< Curr DY >	10.1%
Min DSCR Cover	1.25	3	66	1,010.0	**220.7**	71.0	718.3
Target LTV	0.65	6	16	166.7	**10.0**	12.3	144.5
Avg Loan Spread	2.50	9	227	4,125.4	**1,252.2**	385.1	2,488.1
UST10	4.10	12	320	4,727.3	**1,581.3**	494.5	2,651.5
Coupon	6.60	15	201	3,114.6	**755.9**	489.6	1,869.1
P&I Constant	7.66	18	22	829.1	**479.1**	82.3	267.7
Break Even Cap Rate	4.98	Total	852	13,973.2	**4,299.2**	1,534.8	8,139.2
Cap Rate Req to Cover	6.23			By Balance>	**31%**	11%	58%
Benchmark Debt Yld	**9.58**			By Count>	**19%**	8%	73%

Agency - Benchmarks		Mos Fwd	# Loans	$mm	8.45%	< Curr DY >	9.45%
Min DSCR Cover	1.25	3	52	1,087.6	**457.8**	307.4	322.4
Target LTV	0.65	6	51	759.3	**167.6**	94.5	497.2
Avg Loan Spread	1.85	9	76	1,744.9	**452.8**	237.7	1,054.3
UST10	4.10	12	73	1,175.2	**314.4**	79.4	781.4
Coupon	5.95	15	136	1,833.7	**361.2**	435.4	1,037.1
P&I Constant	7.16	18	51	1,157.0	**360.5**	276.7	519.8
Break Even Cap Rate	4.65	Total	439	7,757.7	**2,114.3**	1,431.1	4,212.3
Cap Rate Req to Cover	5.81			By Balance>	**27%**	18%	54%
Benchmark Debt Yld	**8.95**			By Count>	**20%**	12%	68%

The Results – Not surprisingly, we were able to identify some fairly significant risks in the short term. Assuming our Benchmark Debt Yield is accurate, and allowing 50bp either way, our belief is that some

- 19% by count, 31% by balance of conduit loans are over-levered (across property classes), as are
- 20% by count, 27% by balance of Agency loans (see table).
- For conduit loans, **most of the risk is concentrated in Q3 and Q4 2023**. Risk is more evenly distributed on the Agency side, but still persistent.

The Implications – The most likely impact is that an increasing number of borrowers may be unable to refinance current loans. Resolutions could include seeking subordinate financing, coming out of pocket, approaching the lender to seek relief (extension), or defaulting on the loan. Worst case, the owners are forced to liquidate the property in what is now a significantly less favorable market, or otherwise turn them over for servicers for long term liquidation.

Both credit risk and the value of commercial properties are re-pricing.

Investors may want to keep an eye out for a wave of loan extensions (can benefit Interest Only and Premium bond investors, or be a detriment to deep discount subordinate investors), or other opportunities to buy good properties at re-priced levels via servicer liquidations.

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Selected Market Data – Economic and Real Estate Fundamentals and Trends

Item	Oct-17	Oct-21	Dec-21	10/31/22
Economy				
UNEMP	4.10	4.60	3.90	3.50
GDP Gr 1yr	4.8%	11.8%	11.8%	6.9%
CPI-TTM	2.0%	6.2%	7.0%	7.3%
Rates				
Fed Funds	1.06	0.07	0.07	3.07
SOFR1	X	0.04	0.05	3.76
UST2	1.60	0.50	0.73	4.49
UST10	**2.38**	**1.56**	**1.51**	**4.05**
Swap5	1.84	1.00	1.12	4.01
Swap10	2.02	1.30	1.32	3.80
Prime	4.25	3.25	3.25	6.25
2/10 Spread	**0.78**	**1.06**	**0.78**	**(0.44)**
Markets				
DJIA	23,377	35,820	36,338	32,733
S&P 500	2,575	4,605	4,766	3,872
WTI	50	75	73	87
Gold	1,271	1,783	1,829	1,634
Copper	6,839	9,496	9,721	7,450
Real Estate value per unit				
Multi	152,798	221,962	235,061	240,829
Retail	182	211	214	208
Hotel	136,698	159,624	180,439	140,043
Office	235	306	290	243
Indu	79	128	129	142
1 Yr Price Chg				
Multi	1.0%	30.0%	27.2%	8.5%
Retail	-15.7%	8.2%	20.2%	-1.6%
Hotel	0.5%	56.3%	41.5%	-12.3%
Office	-5.6%	14.1%	-0.4%	-20.8%
Indu	-4.1%	27.1%	27.3%	11.3%
Issuance ($mm)				
Conduit	48,523	31,428	31,428	20,461
SASB	36,500	79,128	79,128	42,510
FHLMC	63,127	70,302	70,302	42,560
Market $bn	649	1,031	1,041	1,089
Delinquency				
30 Days	0.05	0.16	0.27	0.07
60 Days	0.02	0.07	0.08	0.07
All Delinq	3.41	2.63	2.51	1.78
ARA %	1.30	0.72	0.66	0.57

	Oct-17	Oct-21	Dec-21	10/31/22	Variance (months) 10	12	60
CMBS							
AAA5	44	52	50	172	+ 122	+ 120	+ 128
AAASup	85	68	71	190	+ 119	+ 122	+ 105
AAAJr	105	90	108	265	+ 157	+ 175	+ 160
AA	135	110	120	294	+ 174	+ 184	+ 159
A	175	150	172	396	+ 224	+ 246	+ 221
BBB-	415	360	360	714	+ 354	+ 354	+ 299
BB- (est)	*615*	*560*	*560*	*914*			
All-In Yields							
AAA5	2.28	1.52	1.62	5.73	+ 4.10	+ 4.21	+ 3.45
AAASup	2.87	1.98	2.03	5.70	+ 3.67	+ 3.72	+ 2.83
AAAJr	3.07	2.20	2.40	6.45	+ 4.05	+ 4.25	+ 3.38
AA	3.37	2.40	2.52	6.74	+ 4.22	+ 4.34	+ 3.37
A	3.77	2.80	3.04	7.76	+ 4.72	+ 4.96	+ 3.99
BBB-	6.17	4.90	4.92	10.94	+ 6.02	+ 6.04	+ 4.77
BB- (est)	8.17	6.90	6.92	12.94	+ 6.02	+ 6.04	+ 4.77
REIT	3.26	2.16	2.25	6.23	+ 3.97	+ 4.06	+ 2.97
CORP-A	2.94	2.01	2.11	5.78	+ 3.68	+ 3.77	+ 2.85
CORP-BBB	3.44	2.43	2.55	6.23	+ 3.68	+ 3.80	+ 2.80
CORP-Ba	4.08	3.33	3.30	7.36	+ 4.05	+ 4.02	+ 3.28
CORP-B	5.29	4.67	4.57	9.33	+ 4.76	+ 4.66	+ 4.04
CORP-CCC	8.43	6.57	6.82	15.31	+ 8.49	+ 8.74	+ 6.88
CMBS/CORP	**5yr Vol**	**3yr Vol**	**1yr Vol**				
AAAJr / A	0.13	0.19	0.29	0.67	+ 0.37	+ 0.48	+ 0.53
AA / BBB	(0.07)	(0.03)	(0.03)	0.51	+ 0.54	+ 0.55	+ 0.58
BBB-/AvgBIG	0.24	0.04	0.02	0.28	+ 0.26	+ 0.24	+ 0.04

Total Return	Avg Cpn	10	12	60
AAAJr	4.50	-28.4%	-24.9%	-0.7%
AA	4.50	-29.4%	-25.2%	-0.5%
A	4.50	-31.9%	-28.2%	-1.1%
BBB-	2.75	-40.5%	-34.7%	-2.7%
BB-	4.50	-35.1%	-29.5%	0.3%
CORP-A				
CORP-BBB	5.14	-25.1%	-21.5%	0.6%
CORP-Ba	6.28	-25.5%	-20.8%	1.0%

Current Events - Potentially Impacting CRE Property Values and Credit:

Tech Industry Lay-offs
Kroger / Albertsons - Potential Merger - Pending anti-trust review
Hurricane Ian - Lingering effects in Southwest Florida
Cineworld Bankruptcy
Store Closure Announcements - Bed, Bath and Beyond, CVS
Interest Rates - consistent increases - impact on property values

Sources

The third-party Information set forth herein may have been derived from one or more of the following sources:

Bloomberg
CBRE Capital Markets
Commercial Mortgage Alert
CRE Direct
FHLMC
Intex Solutions
MSCI / RCAnalytics
National Center for Education Statisics
National Real Estate Investor
Published Lending Program Guidelines
Trepp Information Systems
US Bureau of Labor Statistics
US Census Bureau
US Federal Reserve
US Treasury
Wells Fargo Research