



CWC Capital Markets Update

May 2016

CWCapital Markets Update, May 2016

In this issue of the Capital Markets update, we are focusing on the fundamentals and trends affecting national commercial real estate debt markets and a brief glimpse into CW's experience handling REO in CMBS trusts. We synthesize and present information gathered from various industry research, public information resources, and our own research.

The Economy

- The unemployment rate ticked up slightly in March to 5.0%. The participation rate improved to 63.0%, its highest level in two years, but it still remains 100bps below the 10-year average.
- While job growth continues in construction, furniture manufacturing, building materials, specialty contractors, and garden stores (likely fueled by multi-family and residential construction), some of these gains are now offset by continuing losses in oil and gas extraction.
- Macro trends of low (or negative) interest rates continue with the 10 year US Treasury finishing at 1.78%, testing 2012's lows. Although implied inflation showed a small increase to 1.62% it continued its long-term decline. WTI crude improved from near historic lows to the \$40s/bbl range.

Property Markets

- Effective rent growth - National average of 2.97% experienced across all property sectors with multi-family leading at 4.49% and industrial lagging at 2.01%.
- Vacancy rates - Multifamily saw another increase of 10bps to 4.50%. This is the highest reading in three years. The trend bears watching as robust construction and deliveries continue.
- National property price levels on a \$/unit basis showed a decline in Q1-16 across all categories except office. While interim data can be volatile, we note that 3-year multifamily price growth rates have generally been decelerating for the past year. Current month's reading is 7.6%. Recently, Moody's / RCA reported their first decline in office and industrial prices in six years (1% in Jan).

Debt Capital Markets

- Conduit originations and issuance have slowed significantly this year as market volatility, liquidity, and risk retention all begin to apply. Current year issuance through April lags 2015's same period issuance by over 30%.
- Credit spreads on new issue long AAAs have now tightened by 15bp since 12/31, while BBBs are still some 45bp wide. Spread volatility early in 2016 has led some lenders to widen average loan coupons by 15 to 40bp this year. AAA's have varied by 45bp, while BBBs have varied by 325bp.
- Delinquency trends continue to improve, with 3.37% overall rate, less than half of 2010's high.

Three trends we are watching

- Maturity wave and risk retention - potential for increased loan defaults as liquidity recedes from securitized markets due to risk retention, bank capital rules, and regulatory requirements.
- Transformation of the lending base - as conduit lenders and securitized markets withdraw, could be an opportunity for new balance sheet or long-term lenders to enter the space.
- Early signs of softening in property markets.



CWC Capital Markets Update – Sector Focus – CMBS: Increasing Value in REO

This quarter, we prepared a preliminary study of CWCAM’s experience with REO in CMBS trusts. Since 2007, CWCAM has managed over 1,200 REO properties. Of these, over 1,000 have been sold, while some 200 are still in the process of being resolved. The basic finding is that REO hold period and or bond loss in isolation are too simplistic to be used as measures of economic gain or loss to CMBS trusts.

While losses are important to certain bondholders, a more accurate assessment of resolution strategy and value to the trust as a whole should include whether during the hold period there was value created in excess of property carry costs. In other words, did property value increase by more than it cost the trust to hold such property during the workout period. For property carry costs, we consider costs ultimately funded from liquidation proceeds including Tax and Insurance (T&I) Advances, Servicing Advances, Interest on P&I, T&I, and Servicing Advances, as well as Special Servicing Fees.

Even though recovery of P&I does have an impact on nominal losses, bondholders of the trust are the ultimate beneficiary of these payments. P&I advances effectively result in continued funding to certain bondholders at the cost of principal recovery to certain other bondholders. As a whole, the trust should be neutral with regard to P&I advances aside from the interest cost associated with such advances.

We compared actual REO sales price (or projected sales price for assets currently in inventory) against the sum of initial valuation (adjusted for market conditions at transfer) and allocated interim carry costs. We call this difference the net incremental value.

- A preliminary analysis of the study of CWCAM’s REO portfolio over the past 10 years reveals that an estimated \$230 Million in net incremental value has or could be created for trusts overall as a result of the resolution strategies we have utilized.
- We believe CWCAM’s REO portfolio generated estimated gross gains of over 7% during the measurement period despite the general distressed nature of foreclosed REO. For its current inventory of REO, CWCAM estimates an additional \$127.4 million of incremental value could be realized upon sale of the properties.

We expect to update the preliminary study in the future, and to publish additional refinements and insights. While past results and conditions have been favorable, there can be no assurance that such trends will continue or that any specific results can be achieved.



CWCapital Markets Update – Sector Focus – CMBS: Increasing Value in REO

The following table presents and demonstrates summary results and insights from our preliminary study. We expect to update this preliminary study, and to publish additional refinements and insights about the REO portfolio and CWCAM’s overall experience in future editions of the CWCapital Markets Update.

Year	Transfer	Est Appr Multiple	Liquidation	Avg 3 yr RE Growth	Overall Time SS	Avg REO Time	REO Period Increment	Unrealized Increment
2007	7	1.390	-	-	-	-	-	-
2008	75	1.318	-	(2.80)	-	-	-	-
2009	355	1.245	-	(13.00)	-	-	-	-
2010	322	1.173	73	(2.00)	22	12	(24,166,020)	-
2011	192	1.100	192	1.90	22	11	(13,122,058)	-
2012	125	1.000	233	16.20	29	16	4,019,103	-
2013	71	1.000	184	3.60	36	23	(91,171,053)	-
2014	55	1.000	210	6.00	41	25	116,133,893	-
2015	21	1.000	148	3.60	46	33	87,602,789	-
2016	-	1.000	5	-	53	44	24,062,946	-
Current	-	-	-	-	-	30	-	126,310,687
	1,232		1,045				103,359,601	126,310,687

Notes:

Table shows asset count for transfer date and liquidation date

Est Appr Multiple shows the est over-statement applied to initial appraisal given the transfer year

Scale for Est Appr Multiple interpolated from Olasov Conway study, chart 3a of the published study

REO period increment shows trend for the measure by year of disposition

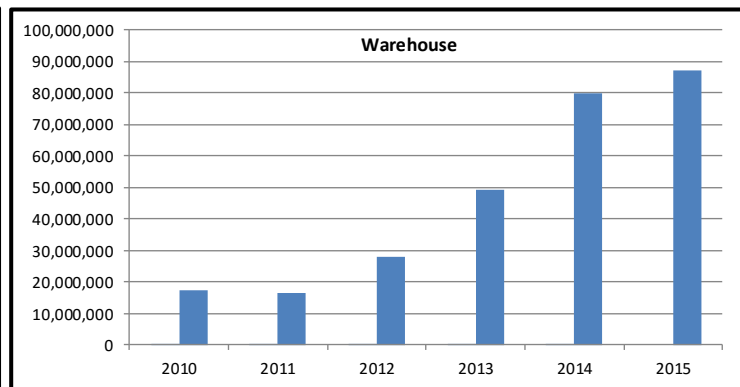
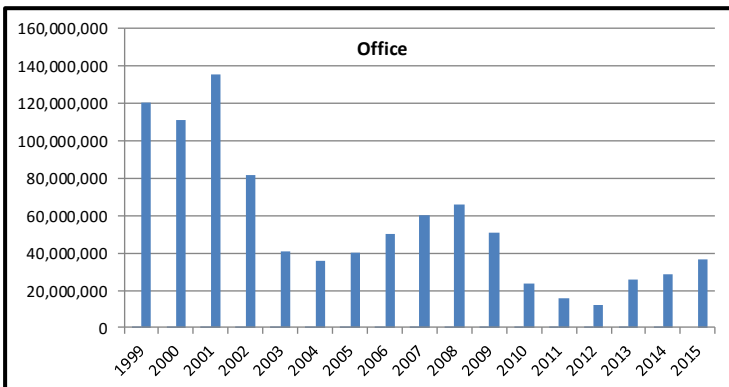
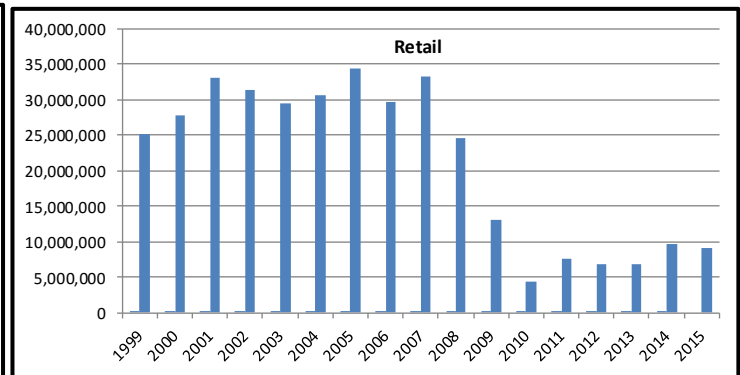
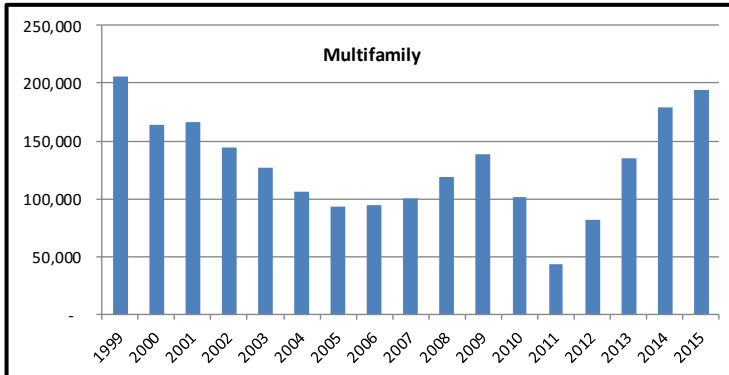
Unrealized increment associated with current portfolio. Uses current appraisal or sale contract price.

Market Data

	2005	2006	2007	2010	2012	2014	2015	Q1 2016	1yr	5yr	10yr
Economic											
UNEMPLOYMENT	4.90	4.40	5.00	9.30	7.80	5.60	5.00	5.00	-0.5%	-3.9%	0.3%
PARTICIPATION	66.00	66.40	66.00	64.30	63.60	62.70	62.60	63.00	0.3%	-1.2%	-3.2%
GDP	13,382	14,066	14,685	15,230	16,333	17,616	18,165	18,221	3.24%	3.91%	3.35%
CPI-TTM	3.20%	1.77%	3.76%	1.15%	1.30%	-0.05%	1.44%	0.91%	1.31%	-1.59%	-1.76%
UST IMPL INF	2.33%	2.30%	2.31%	2.30%	2.45%	1.68%	1.54%	1.62%	-0.14%	-0.86%	-0.89%
Interest Rate											
1M LIBOR	4.34%	5.35%	5.23%	0.32%	0.27%	0.17%	0.43%	0.44%	0.25%	0.14%	-4.31%
Eff Fed Funds	4.16%	5.24%	4.24%	0.18%	0.16%	0.12%	0.24%	0.25%	0.14%	0.11%	-4.34%
Prime	7.15%	8.25%	7.33%	3.25%	3.25%	3.25%	3.37%	3.50%	0.25%	0.25%	-4.03%
UST2	4.41%	4.82%	3.05%	0.61%	0.25%	0.67%	1.06%	0.73%	0.17%	-0.07%	-4.09%
UST10	4.39%	4.71%	4.04%	3.30%	1.78%	2.17%	2.27%	1.78%	-0.16%	-1.69%	-3.08%
2/10 Spread	-0.02%	-0.11%	0.99%	2.69%	1.53%	1.50%	1.21%	1.05%	-0.33%	-1.62%	1.01%
Real10	2.06%	2.41%	1.73%	1.00%	-0.67%	0.49%	0.73%	0.16%	-0.02%	-0.83%	-2.19%
Vacancy (REIS)											
Multi	5.70%	5.80%	5.70%	6.60%	4.60%	4.20%	4.40%	4.50%	0.30%	-2.10%	-1.20%
Retail	6.80%	7.10%	7.50%	11.00%	10.70%	10.20%	10.00%	10.00%	-0.10%	-1.00%	3.20%
Office	14.70%	13.40%	12.60%	17.60%	17.10%	16.70%	16.20%	16.20%	-0.40%	-1.40%	1.50%
Industrial	n/a	n/a	n/a	14.00%	12.10%	11.20%	10.60%	10.60%	-0.40%	-3.40%	n/a
Hotel											
Rents (REIS Effective)											
Multi	891	930	974	987	1,049	1,124	1,183	1,188	4.49%	4.07%	3.33%
Retail	16.6	17.16	17.57	16.51	16.58	17.16	17.54	17.64	2.20%	1.37%	0.63%
Office	20.39	22.21	24.55	22.09	22.98	24.19	24.97	25.21	3.19%	2.82%	2.36%
Industrial	n/a	n/a	n/a	4.21	4.27	4.46	4.55	\$4.57	2.01%	1.71%	n/a
Hotel											
National \$PSF (RCA)											
Multi	107,028	113,416	95,251	99,503	120,789	132,159	148,228	145,310	6.54%	9.91%	4.53%
Retail	158	174	169	152	228	198	213	188	-23.09%	1.90%	1.78%
Office	197	232	255	222	226	223	239	266	-4.39%	5.78%	3.14%
Industrial	62	67	69	51	62	69	73	81	7.23%	10.98%	2.08%
Hotel	133,060	136,505	117,311	138,350	121,202	134,398	138,162	137,583	-25.20%	-0.68%	-0.04%
National Cap Rate (RCA)											
MF	6.22%	6.23%	6.23%	6.55%	6.12%	6.05%	5.91%	5.67%	-0.33%	-0.75%	-0.58%
Ret	6.78%	6.66%	6.68%	7.61%	7.22%	6.63%	6.48%	6.56%	-0.03%	-1.00%	-0.25%
Office	7.07%	6.69%	6.63%	7.57%	7.10%	6.75%	6.70%	6.63%	-0.11%	-0.94%	-0.39%
Ind	7.33%	7.14%	7.12%	8.23%	7.49%	6.99%	6.61%	6.93%	-0.02%	-1.04%	-0.13%
Hotel	9.01%	8.92%	8.85%	8.21%	8.14%	8.14%	8.38%	8.42%	0.29%	0.17%	-0.51%
Risk Premium											
MF	1.83%	1.52%	2.19%	3.25%	4.34%	3.88%	3.64%	3.89%	-0.17%	0.94%	2.50%
Ret	2.39%	1.95%	2.64%	4.31%	5.44%	4.46%	4.21%	4.78%	0.13%	0.69%	2.83%
Office	2.68%	1.98%	2.59%	4.27%	5.32%	4.58%	4.43%	4.85%	0.05%	0.75%	2.69%
Ind	2.94%	2.43%	3.08%	4.93%	5.71%	4.82%	4.34%	5.15%	0.14%	0.65%	2.95%
Hotel	4.62%	4.21%	4.81%	4.91%	6.36%	5.97%	6.11%	6.64%	0.45%	1.86%	2.57%
Conduit Market											
Conduit Issuance	141,256	175,257	194,894	5,075	32,645	58,483	62,119	11,409			
Cumulative Default	19.14%	23.71%	30.53%	0.07%	0.46%	0.09%					
Cumulative Loss	4.07%	6.25%	6.29%	0.00%	0.00%	0.00%					

CRE Fundamentals and Charts

Year	Multi	Retail	Hotel	Office	Industr	Notes
1999	205,818	25,126,000	-	120,280,000	-	
2000	164,674	27,727,000	-	111,061,000	-	
2001	166,124	33,013,000	-	134,904,000	-	* Multifamily deliveries and supply continued growth
2002	143,957	31,369,000	-	81,422,000	-	
2003	127,591	29,416,000	-	41,016,000	-	* Multifamily vacancies increase slightly
2004	106,144	30,596,000	-	35,475,000	-	
2005	93,227	34,438,000	-	39,792,000	-	* Continued slow growth of retail and office product remains at levels near post crisis levels
2006	95,205	29,627,000	-	49,879,000	-	
2007	100,630	33,254,000	-	59,902,000	-	
2008	119,330	24,545,000	-	65,450,000	-	* Significant deliveries of Industrial and warehouse space
2009	138,775	13,142,000	-	50,548,000	-	
2010	101,691	4,499,000	-	23,375,000	17,234,000	
2011	43,489	7,625,000	-	15,440,000	16,598,000	* Industrial and warehouse report biggest improvements in national occupancy levels
2012	81,399	6,778,000	-	12,443,000	28,002,000	
2013	135,614	6,883,000	-	25,959,000	49,178,000	
2014	179,358	9,776,000	-	28,287,000	80,009,000	
2015	194,459	9,088,000	-	36,642,000	86,962,000	





Securitized Markets 2016

PRICING	SHELF	SERIES	AMOUNT	SPSERV	B-PIECE	#PROP	#LOAN	LCF AAA	BBB
Conduit Market									
01/22/16	CFCRE	2016-C3	703.55	CWCAM	Seer Capital	67	38	162	725
01/26/16	CSAIL	2016-C5	936.42	Rialto Capital	Rialto Capital	241	59	155	-
01/27/16	COMM	2016-CCRE28	1,026.80	Midland	KKR	119	49	155	830
02/03/16	CGCMT	2016-GC36	1,155.94	Wells Fargo	Eightfold	104	58	157	750
02/03/16	WFCMT	2016-C32	959.98	Rialto Capital	Rialto Capital	152	112	151	750
02/12/16	MSBAM	2016-C28	955.65	C-III Asset Mgt	C-III Capital	161	42	165	725
02/18/16	WFCMT	2016-NXS5	875.13	Rialto Capital	Rialto Capital	116	64	165	925
02/19/16	MSCI	2016-UBS9	666.61	CWCAM	Ellington	222	31	165	650
02/23/16	JPMCC	2016-C1	1,021.91	Midland	Eightfold	110	50	166	-
03/03/16	COMM	2016-DC2	806.20	CWCAM	Seer Capital	91	64	173	825
03/18/16	WFCMT	2016-C33	712.20	Rialto Capital / NCB	Rialto Capital	104	79	138	700
03/29/16	CGCMT	2016-P3	770.97	C-III Asset Mgt	Raith	75	37	132	600
03/31/16	DBJPM	2016-C1	818.03	Midland	Eightfold	45	33	129	600
04/13/16	CGCMT	2016-GC37	694.73	Midland	Eightfold	64	54	134	700
04/22/16	MSBAM	2016-C29	809.46	Rialto Capital	Rialto Capital	106	69	125	660
SASB Market									
01/29/16	MSCI	2016-PSQ	220.00	Wells Fargo	-	1	1	185	-
02/04/16	JPMCC	2016-ATRM	585.00	Midland	-	30	1	-	450
02/17/16	225 Liberty	2016-225L	765.00	Trimont	-	1	1	160	390
02/19/16	COMM	2016-787S	640.00	Wells Fargo	-	1	1	160	350
03/04/16	BAML	2016-ASHF	325.00	Wells Fargo	-	17	1	-	500
03/08/16	GSM	2016-RENT	349.75	Wells Fargo	-	61	1	-	390
03/10/16	GSM	2016-ICE2	1,000.00	KeyBank	-	43	1	-	575
03/21/16	CGGS	2016-RNDA	1,115.00	Aegon USA	-	31	1	-	325
03/21/16	CGGS	2016-RNDB	658.00	Aegon USA	-	28	1	-	475
04/19/16	CCRESG	2016-HEAT	160.00	Midland	-	1	1	-	425
04/20/16	Palisades Cntr	2016-PLSD	388.50	Wells Fargo	-	1	1	-	350
Agency									
01/05/16	FREMF	2016-KF13	875.88	CWCAM	Harbor Group	48	48	76	-
01/14/16	FREMF	2016-SB11	109.97	KeyBank	Sutherland	55	55	130	-
01/15/16	FREMF	2016-K504	587.41	CWCAM	Providnc / Benefit	22	22	55	-
01/22/16	FREMF	2016-KBAM	841.00	Wells Fargo	Principal	27	27	70	-
01/27/16	FREMF	2016-K52	1,395.79	CWCAM	Torchlight	96	91	90	650
02/04/16	FREMF	2016-KJ03	316.30	KeyBank	Berkshire Group	38	43	115	-
02/04/16	FREMF	2016-SB12	167.02	Centerline	Axonix Capital	67	67	115	-
02/11/16	FREMF	2016-KLH1	1,493.67	Trimont	Annaly Capital	28	28	70	-
02/25/16	FREMF	2016-SB13	400.89	Arbor	Axonix Capital	160	160	105	-
03/03/16	FREMF	2016-KF14	1,486.41	Wells Fargo	Bridge Invest	83	83	65	-
03/09/16	FREMF	2016-KLH2	1,379.82	Situs	Canada Pension	26	26	70	-
03/17/19	FREMF	2016-SB14	309.78	CBRE / Sabal	CBRE / Sabal	115	115	100	-
03/21/16	FREMF	2016-K53	1,447.25	Wells Fargo	Berkshire Group	88	88	85	-
04/01/16	FREMF	2016-KLH3	1,341.45	Situs	CPPIB	27	27	70	-
04/06/16	FREMF	2016-K54	1,423.01	Midland	Related Cos.	79	79	80	625
04/12/16	FREMF	2016-KP03	974.04	Freddie Mac	Berkeley Point	40	40	45	-
04/13/16	FREMF	2016-SB15	301.63	Arbor	Arbor / Greystone	117	117	90	-
04/19/16	FREMF	2016-KC01	83.22	Wells Fargo	Berkshire Group	27	27	73	-
01/19/16	FNMA	2016-M1	945.68	-	-	157	157	-	-
02/09/16	FNMA	2016-M2	926.58	-	-	180	180	-	-



Sources

The third-party Information set forth herein is derived from the following sources:

Bloomberg

CBRE Capital Markets

Citibank Research

Commercial Mortgage Alert

CRE Direct

FHLMC

Intex Solutions

Maximus Ten-X

Morningstar Research

Olasav Conway Appraisal Study 2012

Real Capital Analytics

REIS

Trepp Information Systems

US Bureau of Labor Statistics

US Federal Reserve

US Treasury

Wells Fargo Research

We do not make any representation regarding the accuracy or completeness of the information contained herein. In addition, the information contained herein may include forward-looking statements. Actual events are difficult to predict, may differ from those assumed herein, and will be beyond our control. Any forward-looking statement included herein is based on information available on the date hereof and we do not assume any duty to update any such statement. Some important factors which could cause actual results to differ materially from those in any forward-looking statements include the actual defaults on the collateral, the timing of any defaults and subsequent recoveries, changes in interest rates and any weakening of the specific credits included in the collateral, among others. The information contained herein is for informational purposes only and does not constitute legal, regulatory, accounting or tax advice. Please consult with legal, tax, accounting, or other necessary professionals prior to entering into any transaction based on the information contained herein. Investment decisions made by you based on this information may not always be profitable.