
Journal of Real Estate Portfolio Management

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Commercial Real Estate Debt Maturities: Shortfall & Implications

Executive Summary. *Global capital markets in 2008 experienced historic illiquidity, with nearly every major country's central banking system having to infuse capital directly into their member banks. These dramatic steps were taken to help keep banks solvent while they continued to absorb massive losses related to business, insurance, and real estate debt. This paper estimates the size of the commercial real estate debt financing needed in 2009 and beyond. The paper also seeks to further expand and update evolving investment possibilities, given the status of the capital markets in the United States in 2009 and the increasing and unprecedented high demand and low supply of debt available for the financing and refinancing of commercial real estate properties. By looking at the ten-year historic trends of existing commercial debt demand and supply, a forecast of future debt demand and supply shortfall through 2018 is developed. Then the potential impact on commercial mortgage pricing is discussed.*

by Edwin Anderson*
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Commercial Mortgage-Backed Securities

Created in 1988, the Commercial Mortgage-Backed Securities (CMBS) investment vehicle grew from issuances of \$10 billion annually in 1988 to over \$255 billion in 2007. According to a Goldman Sachs report ("GSR") released in October 2008, CMBS issuance accounted for approximately 42% of the commercial real estate (CRE) loans issued from 2005 through 2007.¹ While over \$535 billion in CMBS debt was issued from 2005 to 2007, only \$12.1 billion was issued in 2008. Nearly \$1.135 trillion of CMBS has been issued since 1999 (Exhibit 1), and an estimated \$200–\$220 billion in real estate CMBS debt should mature during 2009 to 2011. The total amount of CMBS debt projected to mature over the next ten years is approximately \$800 to \$900 billion.

Loans collateralizing CMBS pools can be either fixed rate or floating rate. As of January 2009, Deutsche Bank analysts found that CMBS floating rate loans were having significantly more problems with refinancing than fixed rate loans. This phenomenon may be because floating rate loans are more likely to have shorter terms and less amortization than fixed rate loans. Conversely, many floating rate loans have loan extension provisions so they may be less vulnerable to refinance risk, assuming that the loan is performing. However,

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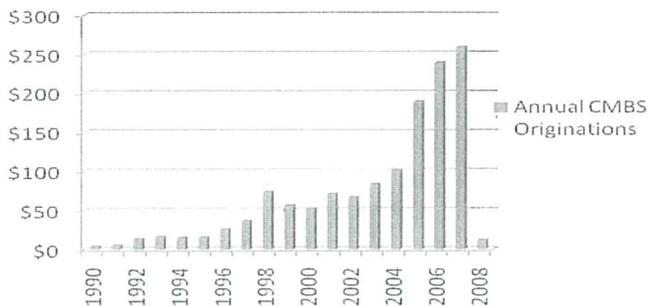
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**Exhibit 1
Historical CMBS Issuances**

Annual CMBS Originations (\$bn)



Source: *Commercial Mortgage Alert*, 2008.

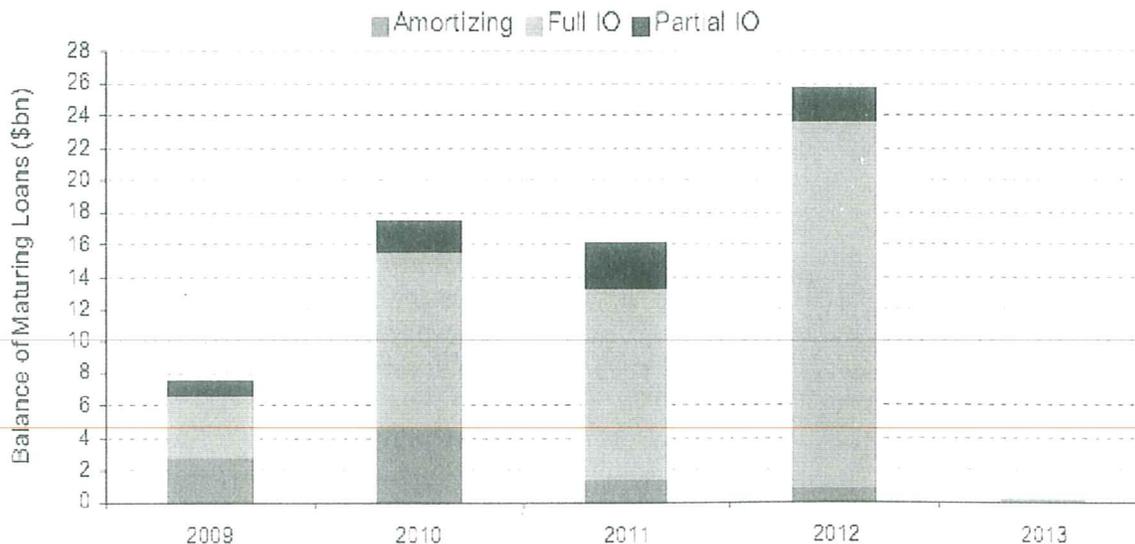
the extension provisions do not preclude floating rate loans from technical defaults based on underlying CRE mortgage loan covenants, such as loan-to-value (LTV), debt service coverage (DSC), and other required coverage ratios. Technical violations are very likely a key contributor to refinancing issues.² Another risk in the CMBS loan product is the significant amount of five-year interest-only “conduit” loans maturing during 2010 to 2012 (Exhibit 2). These conduit loans were originated in the

high leverage environment of 2005–2007 and are at risk of not being refinanced, as lower debt to equity ratios and asset price deterioration combine to lower debt availability. An estimated \$60 billion of these “interest-only” loans mature from 2009 to 2012, with little availability of refinancing in a dysfunctional market.

The MBS marketplace (both residential and commercial) collapsed in 2008 when the public markets lost confidence in origination underwriting, rating agencies, and the long-term performance of real estate as a whole. Many investment banks were caught with commercial loans on their books that had not been securitized and most investment banks converted to regulated commercial banks in order to access federal TARP or TALF funding. The public market fears that credit rating agencies did not properly rate CMBS debt securities and began to question the Triple-A (“AAA”) rating in 2008 but were even more afraid of B-rated bonds. In the commercial real estate securities market, emotional investor panic played a large role in this pricing dislocation, as the severe re-pricing of CMBS bonds has been out of line with these securities’ underlying collateral performance.

**Exhibit 2
Deutsche Bank, December 2008**

Large amount of 5Y IO loans from 2005-2007 maturing in 2010-2012



Source: Intex, Trepp.

Most CMBS loans do not appear to have the same loss potential as residential MBS (RMBS), particularly sub-prime mortgages. The default rate on commercial mortgages was a mere 1.2% in January 2009 while sub-prime defaults had grown to 40%. While the vast majority of underlying real estate loans collateralizing CMBS continues to perform, public market investor confidence in CMBS debt instruments collapsed. As a result, the CMBS loan origination market slowed from a \$220 billion flow in 2007 to a \$12 billion trickle in 2008 and is not a viable source of CRE debt financing in 2009. Morgan Stanley's 2008 dismantling of their CMBS department—despite both the firm's high profile and profitable CMBS business—is evidence of the decline in popularity of this debt vehicle.

The troubles of the overall financial markets in 2008 were also priced into CRE debt. The government's decision to open the central banking system (Federal Reserve Discount Window) to the failed investment banking industry in 2008 illustrates the magnitude of the problem. The question becomes: To what degree bank and CMBS loan availability and pricing will influence CRE prices? The recession in the United States and job losses in 2009 also affect the earnings potential of CRE, along with the credit markets for all businesses.

During the decade of the 2000s, CMBS pricing evolved into a pricing benchmark for CRE debt

(whole-loans), but the 2008 meltdown of the CMBS market meant that CMBS bond prices were no longer an appropriate pricing benchmark for CRE debt, especially with the lack of new CMBS bond issues in 2008. Exhibit 3 illustrates the dramatic re-pricing that occurred in the CMBS market as the credit crisis unfolded. Bank and life insurance company rates have been the only rational CRE debt pricing available in 2009, at very conservative rates.

CMBS loans are expected to represent 25%–30% of the anticipated CRE debt shortfall in 2009 and 2010. Commercial bank loans comprise the majority of 2009 maturities. Based upon originations of 10-year loans from 1999 forward and 5-year loans from 2004 forward, it is estimated that close to \$550 billion in commercial bank loans should mature in 2009 and 2010. By comparison, only \$150 billion of CMBS loans mature in 2009 and 2010. The majority of CMBS conduit loans are projected to mature after an expected economic recovery in 2010 when there are expectations of a return to market normalcy.

Life Insurance Companies

Traditionally, the most conservative CRE lenders have been life insurance companies (LICs). In 2008, LICs held \$554 billion (13%) in outstanding

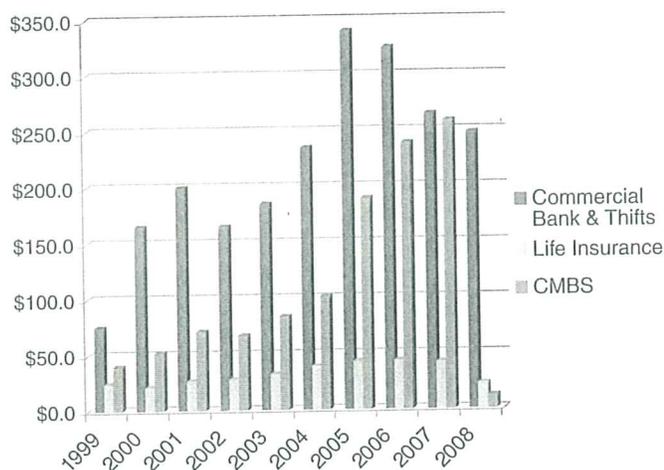
Exhibit 3
Widening CMBS Spreads have Outweighed Falling Rates

AAA CMBS spreads, 5-year swap rates and combined AAA CMBS financing costs



Source: Commercial Mortgage Alert, Datastream, Goldman Sachs Research.

Exhibit 4
CRE Origination by Investor
 CRE Origination by Investor Source (\$bn)



Sources: MBA, ACLI, 2008.

CRE debt according to the GSR. The American Council of Life Insurance (ACLI) reported that life insurance companies accounted for nearly \$23 billion in new debt originations in 2008, down nearly 40% from originations in 2007. In October 2008, the LICs made heavy investments in AAA CMBS securities when those securities were trading at 300 to 400 bps over 10-Treasury rates (a historic high at the time), only to see the spreads increase to over 1,200 bps by December 2008. In March 2009, those AAA tranches were trading at over an 1,150 bp spread premium to treasuries.³

LICs both tightened underwriting standards and scaled back direct lending in 2009. Given their historically low percentage of CRE debt originations relative to CMBS and other sources, it is unlikely that LICs can increase their CRE debt allocation over their historically conservative levels in order to help meet or capitalize on the debt shortfall opportunity. LICs would have to add significant new CRE debt capacity over the next five years to fill the void left by CMBS.

Commercial Banks

According to the GSR, commercial banks held \$1.747 trillion (about 49%) of all U.S. CRE debt outstanding in 2008. Of the total \$1.747 trillion,

\$1.537 trillion was categorized as “direct” loans. The remainder of commercial bank debt was classified as “indirect,” (holdings of securitized CMBS and CDOs). The collapse of the CMBS market in 2008 also resulted in banks holding commercial mortgages that they originated with the intent of placing the loan into a securitized CMBS pool to get them off the bank’s books. Many sources estimate that at the end of first quarter 2008, about \$300 billion of originated but un-securitized loans were on the balance sheets of banks. Many of these loans remain on commercial banks’ books in 2009, thereby restricting their future lending capacity. Cash reserve requirements are much higher for private loans versus public securities held by banks, but fully performing loans do not have to be marked to market like securities do.

Data shows that commercial banks accounted for \$325 billion in CRE loan originations in 2006, \$265 billion in 2007 (18.5% decline), and \$248 billion in 2008 (6.4% decline). This includes apartment mortgage debt outstanding from the Federal Reserve Board of Governors reports. Exhibit 4 illustrates the substantial contribution commercial banks have made to financing commercial real estate over the years, as well as the steadily rising volume of CMBS originations, which peaked in 2007.

In addition, regional banks have experienced recent difficulties. In 2008, U.S. Bancorp’s net profit dropped 47%, Regions Financial Corp’s net profit was down 80%, Key Corp and Fifth Third Bancorp had losses, and National City announced plans to cut 4,000 jobs over three years in an effort to save nearly \$600 million in costs. While these problems cannot be entirely attributed to CRE debt, banks are under pressure to cut costs and reduce their exposure to real estate losses (particularly to real estate construction loans).

Increasing regulatory scrutiny from the Office of Comptroller of the Currency (OCC) has added further complexity to a bank’s ability to provide new loan originations, refinance existing debt, and negotiate workouts. “The OCC is paying closer attention to roughly 100 community banks with large exposure to weak commercial real-estate loans, one in a series of moves by federal regulators to

try to head off the next phase in the credit crisis...based on its concern about concentrations of commercial real estate, the OCC broke its community banks into three groups, with one of those groups perceived to face the most potential risk. OCC officials pressed those banks to come up with more specific plans to manage their exposure and are watching them closely... Bankers are complaining that examiners are being much too harsh and inflexible. "In my 30 years in banking, I've never seen an examination atmosphere so poisoned between examiners and bankers," said Camden Fine, chief executive of the trade group Independent Community Bankers of America."⁴

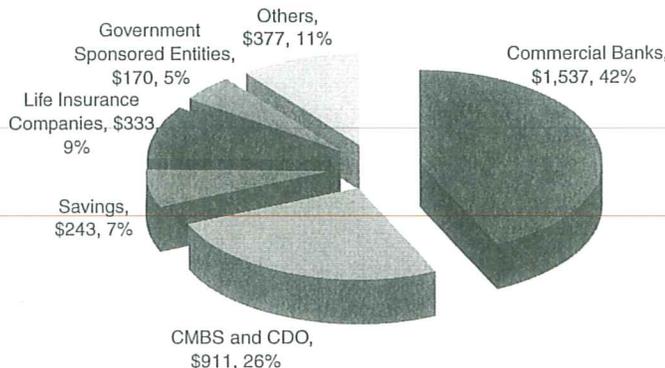
The OCC pressure may contribute to the deleveraging of commercial bank balance sheets. If so, commercial banks could be increasingly willing to sell CRE loans at a discount, due to regulatory tightening and higher ratings that would result from disposing of these assets. Nevertheless, even with these many challenges, commercial banks should remain a significant source of CRE debt going forward, while underwriting future loans more conservatively.

Savings Institutions

According to the GSR, savings institutions held \$613 billion or 17% of the total \$3.571 trillion CRE

Exhibit 5
Proportionate Breakdown of CRE Debt Outstanding

Estimated CRE Debt - Directly Held & Securitized (\$bn)

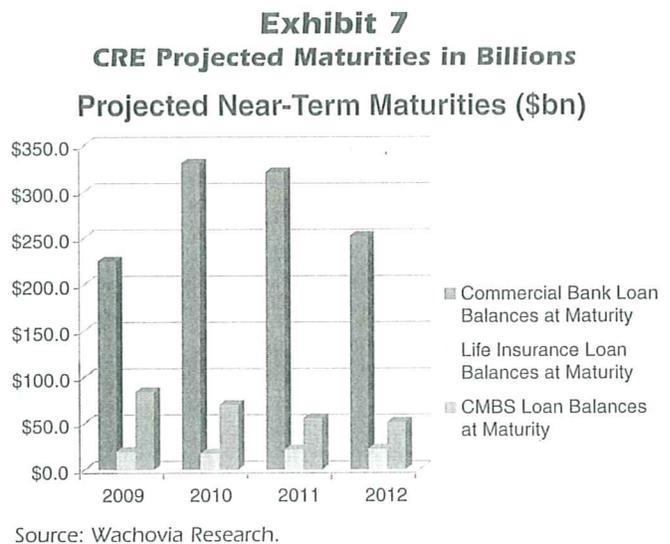


Source: Goldman Sachs, October 2008.

Exhibit 6
CRE Projected Maturities in Billions

	2009	2010	2011	2012
Commercial bank loan balances at maturity	\$225.3	\$330.8	\$321.1	\$252.0
Live insurance loan balances at maturity	\$19.7	\$17.5	\$21.5	\$22.1
CMBS loan balance at maturity	\$83.9	\$70.2	\$55.2	\$50.9
Annual totals	\$329.01	\$418.44	\$397.71	\$324.95

Source: Wachovia Research.



debt in 2008, of which \$243 billion was in the form of direct mortgages, or 9% of total direct CRE debt. Typically prudent in their underwriting, savings institutions should continue participating in new CRE mortgage originations near their historic levels, but should also become even more selective in their choices. Based on analysis of mortgage origination data, savings institutions have originated approximately \$50 billion in total CRE mortgage debt annually between 2005 and 2007, or about 9% of the \$560 billion average annual amount.

On January 23, 2009, the *The Wall Street Journal* reported that banks were failing with greater speed, exposing flaws in the regulatory system designed to identify collapsing institutions. "In 2008, we have seen thrift institutions fail with greater velocity than in prior years," said Scott Polakoff,

senior deputy director at the Office of Thrift Supervision. "That greater velocity is driven by the liquidity crises, not capital crisis."⁵

Pension Funds

Pension funds, in a recent study commissioned by both the National Association of State Retirement Administrators and the National Council on Teacher Retirement, found that "the average public pension has about 5% of its assets in real estate."⁶ During the 2008 financial crisis, pension funds increased their cash positions significantly. While most traditional sources of CRE debt are in a defensive (loss mitigation) posture in 2009, pension funds have held off on further investing. Most funds have cash available to meet capital calls from their real estate advisors. However, most advisors stated that pension funds communicated that they did not wish to fund those commitments and if the advisor were to draw upon those contractual commitments during the recession, the pension funds would not renew the advisor's contracts or use them in the future.

Government-Sponsored Entities

According to the GSR, Government Sponsored Enterprises (GSE) (excluding emergency financial rescue monies) accounted for \$242 billion or 6% of all CRE loans. GSEs only make debt available to the multi-family CRE segment, but this could change in the future. Beginning in mid-2008, the financial markets saw unprecedented financial intervention through both the Department of the Treasury and the Federal Reserve. The Fed has extended more than \$1.5 trillion to institutions by purchasing preferred stock in banks and making loans available. "The largest components of the rescue package include the Commercial Paper Funding Facility (\$1.4 trillion), the Term Auction Facility ((\$0.9 trillion), and the Troubled Asset Relief Program (\$700 billion). Of the funds committed, an estimated \$2.6 trillion were drawn in 2008."⁷

One possibility is that the U.S. Government may develop programs to meet much of the demand for the refinancing of performing CRE loans through

its legislated funding to the commercial banking sector. As of first quarter 2009, federal monies have come with no conditions attached in the hopes that the banks would resume making loans as they have done historically. This was not the case in 2008. However, the real estate industry asked the Fed to *require* banks to extend performing CRE loans presently on the bank's books if the Fed had lent the bank any money. Additionally, there is the possibility that the government (over an intermediate period) might help to re-engineer and support the CMBS marketplace in some form that would allow government financial guarantees to bring liquidity back to CMBS. With defined underwriting criteria in place, the creation of a commercial "agency" for CMBS (a GSE) is theoretically possible.

In support of this possible outcome, the "Real Estate Roundtable Weekly" reported on January 9, 2009: "...a highly significant development for the commercial real estate industry, that House Services Committee Chairman Barney Frank (D-MA) introduced the "TARP Reform and Accountability Act (H.R.384) that includes a provision "to support the availability of commercial real estate loans. This legislation would amend the TARP provisions of the of the Emergency Economic Stabilization Act of 2008 (EESA) and grant authority to the Treasury Secretary to take any action to establish or support facilities to support the availability of commercial real estate loans, including the purchase of asset-backed securities, directly or through the Board of Governors of the Federal Reserve System or any Federal Reserve Bank."⁸ This type of provision may become increasingly necessary as many banks are "rejecting funds from the Treasury Department's \$700 billion bailout partly over concerns that the U.S. may impose tougher restrictions on institutions that take government cash."⁹

Evaluating New Market Impacts

The collapse of the CMBS market in 2008, coupled with a low probability that it will be revived in 2009 and beyond (barring further government intervention), along with restricted lending from commercial bank and life companies has created a shortage of debt capital available for CRE financing. In addition to all of the market impacts related

to specific sources of CRE debt, there is much debate and speculation regarding the Financial Accounting Standards Board's (FASB) "mark-to-market" rule for CRE and non-performing loans given the current financial crisis. Banks also have to mark-to-market any loans classified as "held for sale" and all traded CMBS bonds held on their balance sheets.

Mark-to-market accounting really became significant in the real estate industry after the Savings and Loan debacle of the late 1980s in order to protect investors from accounting fraud. The intent of the rule is to require that assets be valued at their "current true market" value on a firm's balance sheet instead of at cost. This is an especially delicate issue for commercial banks regarding "non-performing loans." While performing loans are held at the outstanding principal balance (book value), banks must estimate the net recovery (salvage value) of any of their non-performing loans and reduce their carrying value. This increases the amount of loss reserves a bank must maintain in order to comply with FAS 157 (a modified mark-to-market rule issued in September 2006) and impairs their ability to lend additional funds.

While all federally-regulated holders of CRE debt are subject to the "mark-to-market" FASB rule, commercial banks are the most affected given their dominance in CRE lending, and potentially the most adversely impacted should CRE prices continue to decline as many analysts expect. This risk is further exacerbated because commercial banks have been caught with about \$300 billion in CRE debt on their books that was slated for securitization by Wall Street investment banks in 2007 and 2008. If it were not for the Treasury Department's capital infusion, many of these banks could be insolvent. The strict enforcement of the mark-to-market rule will likely inhibit the recovery of the capital markets without further government financial support.

On December 8, 2008, the SEC announced that it would not "suspend the mark-to-market accounting rule that banking lobbyists and some conservative Republican lawmakers blame for exacerbating the credit crunch."¹⁰ In late December, FASB formally placed on its agenda a project to study the

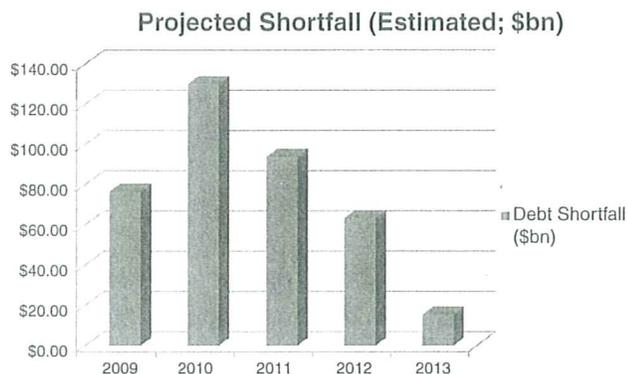
mark-to-market rule given 2008 market conditions in an effort to regain control of the debate, define FASB's role in the crisis, and further stabilize the U.S. financial system. While the "mark-to-market" debate continues, it is likely that the rule may be slightly modified but should remain largely intact and be enforced, thereby putting further pressure on federally-regulated holders of CRE debt to sell non-performing loans.

Loan Maturities & the Demand for CRE Debt

The funding gap between the supply and demand for CRE financing is likely to reach wide levels. This research model suggests that over \$1.4 trillion in maturing CRE debt comes due from 2009 to 2012 in the form of both directly held and securitized loans.¹¹ Wachovia analysis drew similar conclusions.

The issue of greater significance and concern within the CRE industry in 2009 is whether these CRE loans will mature in a market environment characterized by the scarcity of available financing. This paper analyzes the CRE financing situation in detail. The primary CRE property sectors' (office, industrial, retail, apartment, and hotel) rental revenue, operating expenses, and capitalization rates are reviewed. Historical debt originations by the commercial banks and thrifts, life insurance companies, and CMBS conduit lenders are aggregated. Next an estimate of the property value collateralizing all debt origination was developed. Projected rental rates, operating expenses, and cap rates were estimated to determine future loan demand for existing loans maturing. The "credit shortfall" that results is an indication of the potential unfunded loan needs that result from tighter loan underwriting and lower property values. These variables also provided an estimate of the shortfall of collateral value. The aggregate analysis, based on data obtained from Trepp, GSR, ACLI, and the Mortgage Bankers Association (MBA), as well as the financial model developed, leads to a shortfall estimate of over \$380 billion in CRE debt over the next ten years. Over \$370 billion of the ten-year shortfall total is projected to occur from 2009 to 2013, or in the first five years of the analysis (Exhibit 8).

**Exhibit 8
Projected Shortfall**



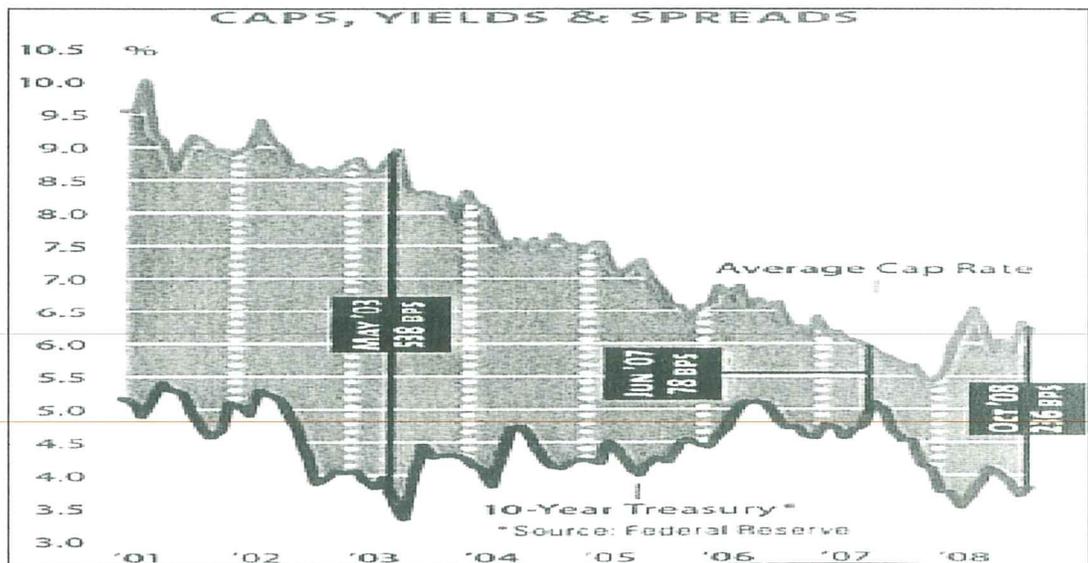
Price Analysis: Cap Rate Trends and the Future Pricing of CRE

CRE capitalization rate (price) projections are an inexact science as it is impossible to predict the cap rates in the future. For the purposes of this analysis, a historic indicator of cap rate trends was analyzed, the cap rate to 10-year Treasury spread (Exhibit 9). As the graph illustrates, this spread reached a peak of 538 bps in May of 2003, coinciding with the tail-end of the recession in the early part of this decade and shrunk to 78 bps in June 2007 at the height of the CMBS market growth.

During the initial part of the current economic recession in 2008, cap rate spreads widened to 236 bps over Treasuries on transactions completed in October 2008, which was up from 78 bps in June 2007. This change was not solely attributable to investors demanding greater risk premiums but the spreads widened because of the combination of falling Treasury rates and moderately rising cap rates. “Caps to Treasuries (spreads) have more than doubled since the credit crunch started, reflecting not only a broad re-pricing of risk in the financial markets but also rising risks associated with real estate and especially the office sector. For example, vacancy and lease expirations were assumed to offer upside and opportunity in 2007 but were viewed as downside risk in 2008.”¹² The 10-year Treasury rate approached a 50-year low in 2008, and if the cap rate spread to Treasury widens towards the May 2003 spread of 538 bps, it would primarily result from rising cap rates. Analysis of historic trends would indicate that further spread widening could occur and cap rates would rise further in 2009.

As property sales volume and prices decline in 2009, sellers have shown signs of bridging the bid-ask gap with prospective buyers by lowering prices (Real Capital Analytics). As sellers bend to market

**Exhibit 9
Historic Cap Rate versus 10-Year Treasury Spreads**



Source: Real Capital Analytics, November 2008.

forces, this is an additional factor leading to the projection of cap rates rising further as CRE goes through the same painful deleveraging and devaluation process that has affected the economy. The roughly \$4.76 billion of property sales of October 2008 was down 75% from the same period in 2007 and cap rates have risen for all sectors, according to Real Capital Analytics.¹³

In the office sector, the average offered cap rate in 2008 rose 25 bps to a 7.25% average, the highest rate since July 2005. In the industrial sector, the average asking cap rate since the 2008:Q2 rose 10 bps to almost 7.5%. Offered cap rates reflect the cash yield on the investment proposed by the selling party in their offering. Not surprisingly, cap rates for all closed transactions in 2008 were up as well, when compared to 2007 (Exhibit 10). Closed cap rate percentages reflect the cash yield on investment required by the purchasing party, and are a more accurate representation of market dynamics.

Deutsche Bank analysts report that CRE prices peaked in 2007 after appreciating 30% from 2005 and 90% from 2001. Additionally, they report that further declines in CRE values may create “major” problems, as loan-to-value (LTV) ratios come under pressure from declining prices and lead to widespread technical loan defaults. Exhibit 11 shows

Exhibit 11
Cap Rate to Value Sensitivity Analysis

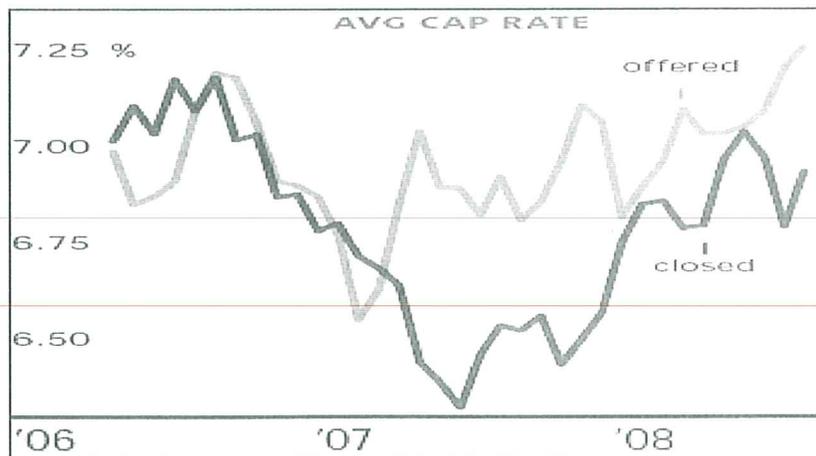
Capitalization Rate	CRE Value (Price)
7.25% (Jan. 2009)	100
7.75%	93.55
8.25%	87.88
8.75%	82.86
9.25%	78.38

the decline in asset values that could occur as cap rates rise.

Projected Stabilized Underwriting Criteria through 2016

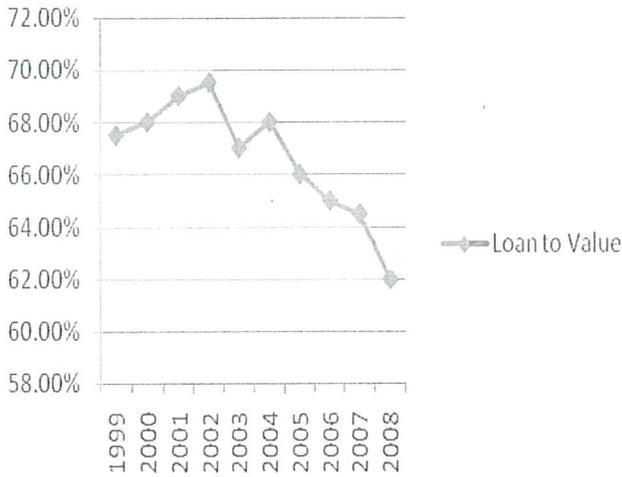
The GSR also notes that “banks are currently tightening standards for CRE lending at the fastest rate on record due to capital shortages, rising funding costs and uncertainty.”¹⁴ Key CRE financial underwriting ratios such as debt service coverage ratio—DSCR and LTV—should return to conservative levels, further constricting CRE debt availability. In addition, the “quality” of CRE income streams should be subject to much greater scrutiny, and this should serve to further constrict CRE debt. Lenders could still make the loans at market interest rates, but will want more protection in the form of higher DSCRs and LTVs. For

Exhibit 10
Office Cap Rates



Source: Real Capital Analytics, December 2008 and 2009.

Exhibit 12
LTV Ratios for Life Insurance Companies
 Loan to Value - Life Insurance Companies



Source: ACLI, 2008.

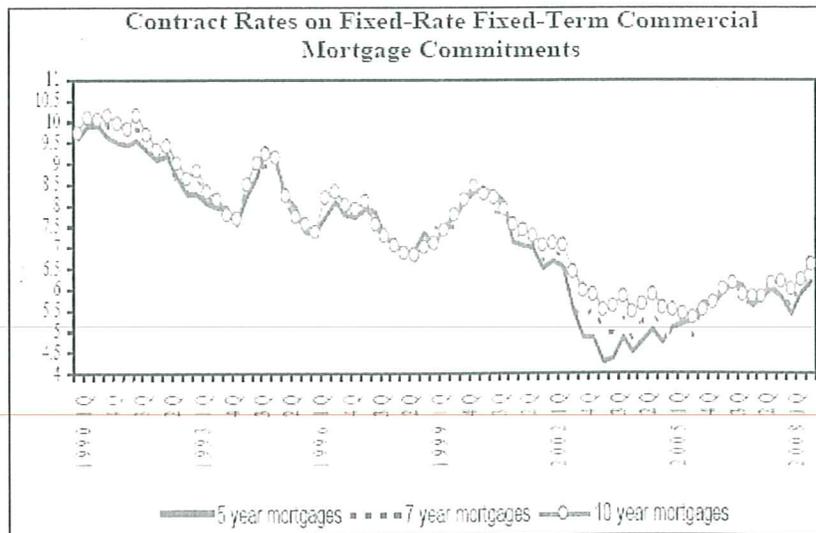
example, consider an investor who bought a CRE mortgage or acquired an office property tenanted by an “A” rated company. Assume that the tenant becomes financially challenged and its corporate bonds have been downgraded. This building’s quality of income has been negatively impacted, given

the tenant’s increased risk of default. Increased risk results in higher borrowing costs, higher cap rates, and lower values.

One key investment criteria going forward will be to distinguish “speculative” cash flows from “in-place” cash flows when pricing CRE acquisitions and debt. Commercial lenders now understand “at risk rents” through the painful process of watching existing loans underperform original proforma projections. The future challenge is to correctly evaluate the “quality” of the underlying CRE asset’s income stream (cash flow underwriting) and price it accordingly. In 2009, economic and financial conditions have moved LTV ratios to a low 50% to 60% level from the high 80% levels in 2007. Exhibits 12 and 13 illustrate historic underwriting trends.

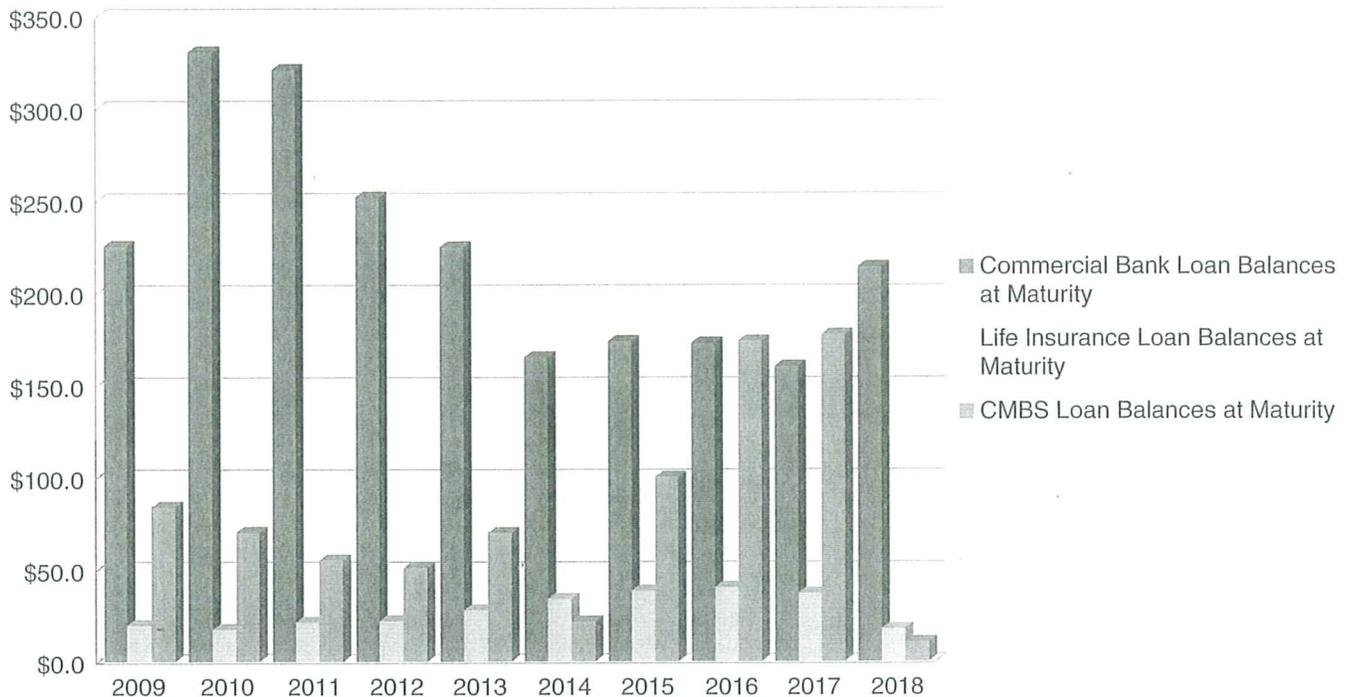
The CMBS Index (CMBX) became a benchmark of CRE mortgage debt pricing in the 2000s through their corresponding trading spreads. However, given the shutdown of the CMBS marketplace, U.S. 10-year Treasuries are probably a more appropriate benchmark for CRE debt pricing in the future, as they were prior to the creation of the CMBX. Historically, the CMBX “Triple-A” rated tranches traded between 40 and 50 bps over Treasuries. However, in 2008 volatility in AAA

Exhibit 13
Interest Rates on CRE Debt



Source: ACLI, 2008.

Exhibit 14
CRE Projected Debt Maturities through 2018
 Projected Schedule of Maturing Debt (\$bn)



CMBS spreads rose to between 100 and 1,400 bps.¹⁵ The capital markets pricing of CRE debt in 2008 became a function of irrational investor perception and fear. This fear spread to commercial banks, and they responded by tightening their underwriting standards. Banks were lending at 300-bp spreads over 10-year Treasuries with very conservative LTV ratios¹⁶ in early 2009.

Aggregate Debt Maturities over the Next Ten Years

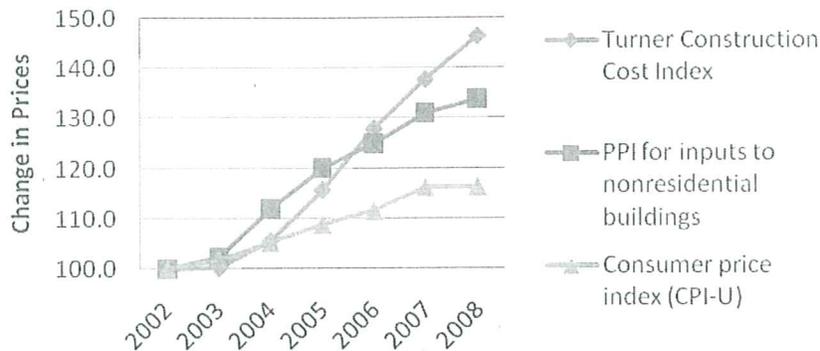
Using historic originations and office property-specific assumptions, a forecast of total CRE debt maturing over the next ten years includes LIC maturities of \$276 billion, commercial bank maturities of \$2.240 trillion, and CMBS maturities of approximately \$815 billion. Exhibit 14 shows an aggregate amortized debt maturing from these three sources of \$3.330 trillion over the next ten years.

Supply and Replacement Cost Analysis

Inflation in the U.S. is most widely reported as the Consumer Price Index (CPI), but construction costs, especially commercial construction costs, have far outpaced the CPI over the over the past six years. The construction producer price exhibit shows cost inflation for the materials (including copper, brass, steel, concrete, and gypsum) that go into the building of commercial properties. Turner's Building Cost Index is determined by labor rates, productivity, material prices, and the competitive condition of the market place (see Exhibit 15). Both of these indicators put upward pressure on the underlying price of CRE. During the next real estate up-cycle when existing properties have been filled and expanding demand requires new properties, the higher costs to construct new buildings should require higher rents to compensate developers and investors. Thus, cost-push rent inflation will be a primary economic factor in CRE's return on investment, when the economy

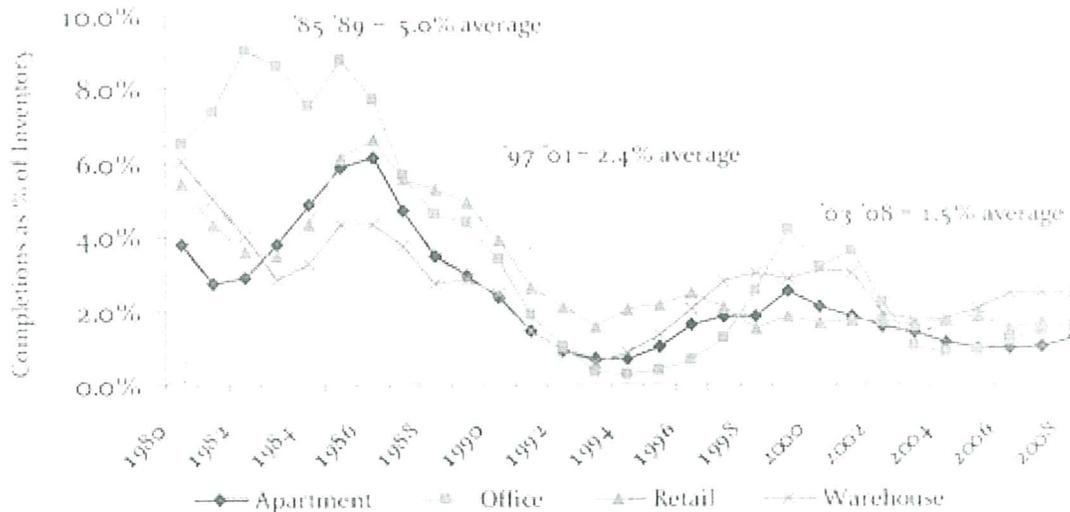
Exhibit 15 Replacement Cost Inflation

Change in Producer Prices for Construction vs. Total Construction Costs vs. Consumer Prices 2003-2008



Source: AGC of American, Turner Construction, Dec. 2008.

Exhibit 16 CRE Supply vs. Inventory



Source: REIS, Inc., Property & Portfolio Research, Wachovia Capital Markets, LLC.

and financial markets stabilize. Higher rents should improve returns for existing property owners.

The current CRE down-cycle has been and will be historically different due to so many unprecedented economic and financial structural changes. It could be that this CRE cycle will ultimately mirror prior CRE down-cycles, and that CRE values recover over an intermediate term of two-to-four years. The 2008/2009 global recession could have

different implications for CRE than prior recessions because it has not been characterized by an oversupply of new construction, which has historically been associated with prior recessions. A key question is whether current risk-based pricing of CRE debt incorporates this lack of construction. Analysis shows that current pricing does not reflect the lack of new construction characterized by this real estate cycle, thereby enhancing future CRE profit potential. "New supply as a percentage of existing inventories in both the 1980s and 1990s

was greater than the supply experienced from 2001 to 2007 (Exhibit 16). With the credit crunch effectively killing new projects slated to begin construction in 2009, finished supply additions should be very light in late 2010 and 2011 for all four major CRE property types on a national basis. Therefore, occupancy recovery may be quicker on the back end of this downturn as the construction boom never materialized to exacerbate the over-supply likely to be created by negative absorption and increasing sublet availability trends.”¹⁷ By year-end 2008, CRE prices had declined 10% to 14% across all CRE property types.

Conclusion

Growing fears about CRE debt securities resulted in a “drastic sell off” in late November 2008 and “may have produced an attractive opportunity for buy-and-hold investors.” CRE securities were offering potential returns matching those of junk bonds, with lower default risk. AAA CMBS were trading at about 68 cents on the dollar in December 2008. “Investors who bought that debt could earn an annual yield of 13% if they held it to maturity in eight years,” according to Richard Parkus, head of CMBS research at Deutsche Bank Securities, Inc.”¹⁸ The prospect for well-capitalized cash real estate investors to take advantage of current market conditions in both 2009 and 2010 looks very positive. However, this assumes that there are no radical governmental supports or default remedies on CRE loans. The market may also turn positive from the creation of a direct government supply of CRE debt or government guarantees on CRE mortgages via the concept of a newly created “Government Commercial Mortgage Agency” similar to FNMA.

Opportunity funds started to pop up in 2008, but have been confused and frustrated by the inconsistency of U.S. Government intervention efforts, as well as by the changing CRE fundamentals and prices. If it were not for the government’s unprecedented involvement, much of the commercial bank whole-loan debt earmarked for securitization may have been sold in 2008 at historic discounts. Traditionally, a recession is a time of cleansing.

The former and current administrations have circumvented the cleansing process, thereby potentially delaying normalization.

Of the nearly \$85 billion of total tracked real estate investment fundraising in 2008, 58.6% was categorized as “opportunistic.” Such funds (in order of market share) included Blackstone Real Estate Partners, Lone Star Funds, MGPA, Carlyle Group, Lehman Brothers Real Estate Private Equity Placement, LaSalle Investment Management, and Merrill Lynch Commercial Real Estate.¹⁹ Even though opportunities abounded, these opportunities might not be as profitable due to the extraordinary effort the government made to stabilize the capital markets. Despite government intervention, analysis suggests that there may be a shortage of capital available to meet CRE debt demand from 2009 to 2014, and that the corresponding shortfall could total \$300–\$400 billion.

“Nationally, the amount of loans placed in special servicing, as indication of a delinquency or failure to pay off a mature loan, increased from about \$100mm in September 2008 to more than \$1.6bn in November 2008,” according to a CoStar Group, Inc. report.²⁰ While commercial banks may be required to extend many of their performing CRE loans and CMBS floating rate loan debt have provisions for extensions, maturing fixed rate CMBS loans may not have the extension flexibility thereby forcing the special servicer to sell that loan at a discount. Saving institutions under “enforcement actions” by the Office of Thrift Supervision, and commercial banks with the highest ratio of short-term construction loan debt on their books may be the most motivated to sell loans at a loss. Construction loans may incur heavy losses in 2009, pressuring those banks holding defaulting construction loans to sell quality CRE loans in an effort to shore up their eroding balance sheets and meet reserve requirements.

While government intervention may help stabilize the CRE financial markets in the long term, and the potential easing of mark-to-market rules could improve the balance sheets of financial institutions, the largest discounts on CRE assets, as well as CRE and CMBS debt may occur in the second

half of 2009 and into 2010. Will it be a catastrophic event or an opportunity?

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