

Deflation Risk in Income-Property Investments and Permanent Loan Portfolios: A 2008 Update

BY MARC THOMPSON, CRE, FRICS

Note: These are the views of the author, and not necessarily the views of Bank of the West.

THIS ARTICLE UPDATES A PREVIOUS ARTICLE I WROTE for the Summer 2003 issue of *Real Estate Issues* (REI) under the same title.

Since then, I've observed that the amount of leverage and collateral value of income properties have inflated largely because of high liquidity stimulated by 40-year low interest rates and the proliferation of Commercial Mortgage-Backed Securities (CMBS). As a consequence, high-loan production among CMBS conduit lenders created a "hustle and flow" loan production process. The rapid growth in the CMBS market was, in part, the result of aggressive underwriting practices that led to a 186 percent increase in loans outstanding over a five-year period. The income-property industry leverage from 2002-2007 was not entirely due to CMBS: 94 percent is attributed to leverage growth in commercial banks.⁴ These banks also participated in this high-debt growth period, and will most likely be faced with the consequences of collateral value deflation in their loan portfolios. It is my contention that the combination of a high demand for investment real estate and favorable lending market conditions for investors created a significant credit bubble. As a result, a higher risk for deflation of income-property collateral values now exists for income-property investors and owners of income-property collateralized debt, including commercial banks.

In addition to observing and lending in income-property capital markets since 2003, I have pursued studies on

adaptive complex systems at the Santa Fe Institute (SFI). The Institute's objective is to find simplicity in adaptive complex systems. Given the complexity and volume of economic data, I believe it has become more difficult for most market participants to determine where the capital and investment markets are heading. Studying complex market systems helps in understanding how markets behave, and in determining when the risk of a market correction is increasing, for the purpose of implementing effective hedging strategies.

PURPOSE

I write this article from the perspective of a career banker who works with income property. I have a vested interest in my bank and my borrowers to identify capital market issues and make recommendations to help both align for prosperous long-term growth. I hope this article will help lenders and borrowers avoid being exposed to a potentially negative capital market environment. I believe that if you understand the risk, you can hedge it. Experience also tells me that lender and investor exposure to problem loans and

About the Author



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subsequent foreclosures can be mitigated by prudent loan underwriting. In addition, I have observed income-property real estate capital markets at both the systemic and process levels, and have made recommendations for process changes. Further research is needed to study ways of curbing “hustle and flow” loan production or capital distribution systems from naturally occurring in complex adaptive markets. But, I believe that implementing these recommendations will help stabilize real estate-collateralized capital markets in the future. The recommendations are attached as addendums for further review.

CHAOTIC REAL ESTATE MARKETS

As indicated in my 2003 REI article, the income-property real estate markets are adaptive complex markets, and susceptible to collapse. They are difficult to predict because they are non-linear, or subject to uncertain or chaotic outcomes. The only difference between chaotic stock markets and income-property markets is time scale. The difference in time scale is significant, with long cycle times for income-property real estate, and daily cycle times for the highly liquid stock market. As an example, I estimate that on average, it takes six minutes to decide to sell a stock and sell it on the stock market during an active trading session. By comparison, the sale of an income property will take an average of six months from the time a decision is made to sell and when cash is received at closing (in a good market). I estimate a six-month time frame since many income properties must be positioned to sell, and may also be subject to closing delays because of market inefficiencies, etc. Based on this six-month time scale, real estate investment cycles can range from 7–12 years. In California, the bottom of the last investment real estate cycle occurred from 1993–1996. I estimate that, nationwide, we are at the end of an 11-year investment real estate cycle collateral-value growth period. In the current income-property cycle, I expect to see U.S. income-property markets—both regional and national—deflate largely at the same time. I believe, based on my research, market observations and lending experience, that the U.S. income-property market is at significant risk of entering into a 2- to 3-year deflation period before collateral-value growth is again realized on an aggregate basis.

OVERSTIMULATION BY THE FEDERAL RESERVE

During the last income property economic cycle I experienced in California, the downward trend began in 1990, and bottomed out from 1993–1996. In 1996, most

product types were beginning to experience positive cash flows and collateral value growth. This trend continued through 2001, until the events of September 11, which devastated the economy. Central Business District office vacancy rates in San Francisco rose from two percent in October 2002 to 19 percent¹ in 18 months. Silicon Valley vacancy rates experienced a similar negative trend. But, a rise in loan default rates did not occur because of the Federal Reserve’s rate cut downward to one percent, which stimulated investment in all real estate. During this time, most income-property investors with loan difficulties were able to sell their holdings without causing lenders to incur losses. I believe this low interest rate environment, in combination with the innovative structured loan products that began to appear in 2002 from CMBS conduit lenders, helped to overstimulate investment demand.

CAPITAL MARKETS ADAPTING

When interest rates began to rise in 2005, conduit lenders and market participants responded by creating more innovative, financially engineered lending products and more effective trading desks to sell their mortgage-backed securities. Collateralized Debt Obligations (CDOs) that bought subordinate debt or B-pieces, proliferated. For example, CDO issuances increased from \$7.8 billion in 2004 to \$21.33 billion in 2005, a 173 percent increase.⁴ In addition, CDO issuances increased another 71 percent from 2006 to \$36.6 billion.⁴ Prior to 2004, B-piece buyers more effectively controlled market risk by holding originators accountable for aggressive loan underwriting by kicking out high risk loans in CMBS pool offerings. In 2005, loss derivatives were developed for CDOs, making securities more attractive for investors to purchase.³ With CDO proliferation, many conduit lenders became complacent since they could sell down the unacceptable B-piece first-loss risk tranches to a CDO. These CDOs were structured to hedge default and repayment risk using complicated financial computer-modeling techniques based on loan default probabilities. Computer-generated risk-modeling to assess loan default and repayment risk was relied upon by the credit rating agencies. The buyers of CDOs relied upon the credit rating agencies’ assessment of risk, using their own credit ratings systems. It is my contention—to be supported by further institutional research—that capitalization rate compression was, in part, stimulated by the high income-property investor demand, armed with low-cost,

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covenant-light and aggressively underwritten debt provided by CMBS conduits. Unfortunately, most bankers competed for loans in this highly competitive marketplace and won their fair share of originations, thereby increasing deflation risk in commercial bank income-property loan portfolios.

As the CMBS markets adapted to changes in the debt market by increasing loan product offerings, production flow volumes further accelerated debt growth and subsequent deflation risk. Of the existing \$723 billion CMBS loans outstanding, 47 percent are fully amortizing, with 53 percent as interest-only loans as of June 30, 2007.⁴ Of the interest-only loans, 25.6 percent have a partial interest-only period, and 27.4 percent are interest-only for the full term of the loan. With interest-only underwriting, conversion to a conforming fully amortizing loan after an initial interest-only period may increase default risk depending on the performance of the property. In my assessment, given the aggressive composition of CMBS loan portfolios, there is increased risk of default because of their resemblance to subprime mortgage-backed securities (MBS) portfolios, if not in credit quality, then certainly in aggressive loan structuring. This is a concern since of the \$723 billion in CMBS loans outstanding as of June 30, 2007, 95.1 percent were rated as investment-grade (BBB- or better). With the recent downgrades on many types of MBS, it appears that the credit rating agencies also were out of alignment in assessing the risk of commercial real estate and multi-family collateralized loans.

I believe one strength of the CMBS industry is the relatively good reporting, which provides transparency for risk assessors. Also, standards for reporting are independently provided by CMSA Investor Reporting Portfolio Review Guidelines. For example, as reported in the *DBRS Global CMBS Newsletter* dated Nov. 26, 2007, all CMBS loans with debt service coverage below 1.10 times, (a violation code 1E) are required to be on the CMBS watch list. This newsletter reported that even though the default rate remains very low—at less than one percent—the watch list continues to grow, with recent years of vintages from 2005–2006 of concern. As reported in this newsletter, \$29.8 billion in CMBS loans, or 4.1 percent of the \$723 billion aggregate CMBS pool, is on the watch list for code violation 1E.¹² The CMBS watch list is expected to grow if the general economy weakens and the credit crunch continues.

Income Property Debt Growth Chart

Intermediary	2003	2004	% Annual Increase
Banks, & Other Bal Outs	868	982	13%
CMBS Balance Outs	361	423	17%
CDO Origination Growth	5.8	7.8	34%

Intermediary	2004	2005	% Annual Increase
Banks, & Other Bal Outs	982	1133	15%
CMBS Balance Outs	423	581	30%
CDO Origination Growth	7.8	21.3	173%

Intermediary	2005	2006	% Annual Increase
Banks, & Other Bal Outs	1133	1297	14.5%
CMBS Balance Outs	581	630	49%
CDO Origination Growth	21.3	36.5	71%

HYPER-CAPITAL MARKETS GROWTH

Since Dec. 31, 2002, CMBS market loans outstanding have grown from \$200 billion to \$723 billion as of June 30, 2007, increasing from eight to 22 percent of all commercial and multi-family mortgages outstanding.⁴ Although commercial banks have a larger amount of commercial and multi-family mortgage debt outstanding, with \$1.339 trillion or 43 percent of the total loans outstanding in the first two quarters of 2007, CMBS, CDO and asset-backed securities (ABS) issues outpaced new loan originations from commercial banks for 12 of the last 14 quarters.⁴ Since 2004, only in the first two quarters of 2005 did commercial banks produce more loan originations than CMBS, CDO and ABS issues on commercial and multi-family properties.⁴ This occurred when U.S. CMBS issuance had a banner year, originating \$168 billion in 2005 compared to \$94 billion in 2004, representing a 79 percent increase.⁴ In 2006, U.S. CMBS annual issuance increased another 21 percent to \$202 billion. Remarkably, as previously mentioned, CDO

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issuance volume increased 173 percent, from \$7.8 billion in 2004 to \$21.3 billion in 2005.⁴ In 2006, CDO issuance increased to \$36.5 billion, representing a 71 percent annual increase, and indicating a symbiotic relationship with the high growth of the U.S. CMBS issuances.⁴

This portfolio growth not only occurred with CMBS, CDO and ABS issuances, but with commercial banks as well. Although portfolio growth rate was not as high as CMBS, commercial bank, commercial real estate and multi-family loans outstanding grew 45 percent, from \$868 billion at the end of 2003 to \$1.297 trillion at the end of 2006.⁴

Where did this leverage growth come from? From other market participants? The answer is no. The growth of all debt issued by all lenders in the commercial and multi-family market increased 42 percent during this period.⁴ The total collateral value of commercial and multi-family property may have increased because of:

1. a building boom;
2. hyper-rent growth with low expense inflation and/or;
3. an already low-leveraged commercial and multi-family property base.

The short answer for number 1 is “no,” since building completions increased less than 5 percent of total inventory during this period.⁴

The answer for number 2 is more inconclusive, but doubtful. In some markets, hyper-rent growth was projected because of limited supply of new commercial and multi-family space. However, to conclude that rent increases occurred in all property types in all markets across the U.S. sufficiently to support a 48 percent increase in average aggregate investment prices per square foot over a three-year period is doubtful. This question requires more study.

The answer for number 3 is “improbable,” given that collateral values were increasing since 2002 because of capitalization rate compression.⁴ The capitalization rate variances would be 80 basis points higher in aggregate if the 2002 data were included in comparison with the 2006 data in this analysis.⁴

If none of the above occurred, the answer is hyper-collateral-value growth, resulting in concurrent hyper-leverage growth.

INVESTOR AND LENDER BEHAVIOR

After many years of observing investor behavior, I believe that most buyers of stabilized properties (some buyers are more risk-averse and will accept a lower yield in return for less risk) want to maximize leverage to increase equity yields. A banker’s leverage hedge is to size the loan so that there is a high probability it will be fully repaid. Given property value inflation from 2003–2006, both investors and lenders had an overall optimistic assumption that selling for much more than the initial purchase price provided the most plausible exit strategy. Given years of collateral value inflation, this investor and lender optimism was well supported. Buyers were willing to take on more leverage risk believing that if cash flow diminished, the property’s sale amount would be enough to repay the debt and all the equity. There were plenty of buyers with optimistic strategies to turn around the non-performing income properties in the market even though the sellers had purchased the same property under the same optimistic purchase assumptions. The combination of the aggressive lending market and the growing presence of CMBS conduits (some sponsored by money center banks) created a lending environment in which leverage underwriting standards gradually loosened. Commercial banks, as a balance-sheet lending group at risk of losing market share to CMBS issuances, became more aggressive at underwriting income property to remain competitive in the market. As a result, market share for commercial banks was not lost from 2003–2006, and remained at approximately 42 percent of total mortgage debt outstanding.⁴

COLLATERALIZED VALUE GROWTH

From late 2003–2006, commercial real estate and multi-family properties in aggregate were at a price-per-square-foot of \$95, with an average capitalization rate of 8.1 percent. These properties grew to a price-per-square-foot of \$141, with an average capitalization rate of 6.8 percent. The table on page 15 compares collateral value increases with loan volume growth over the three-year period from 2003–2006.

SECURITIZATION OF REAL ESTATE ISSUES

From my observation in the direct lending space, the credit markets began shifting from being disciplined by

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Collateral Value Growth Chart

	2003	2003	Bank	CMBS	2006	2006	Bank	CMBS	Var	Var	Growth	Var
Product Type	P/SF	Cap Rate	Outs 2003	Outs 2003	P/SF	Cap Rate	Outs 2006	P/SF	Cap Rate	Bank		
Apartment	58	7.2			99	6.2			70%	1.0		
Industrial	50	8.4			67	7.4			34%	1.0		
Office	154	8.6			234	6.9			52%	1.7		
Retail	117	8.2			168	6.9			43%	1.3		
Totals	95	8.1	868	361	141	6.8	1.297	629	48%	1.3	45%	74%

commercial banks and their regulators to CMBS conduits and their credit rating agencies. As a result, the foundations and principles of extending credit have deteriorated because of a lack of accountability and trust system reinforcements.

Financial intermediaries have evolved into largely “hustle and flow” sales and marketing companies or conduits to the capital markets, pitching all types of financial products to earn fees. This is in contrast to commercial banks, which derive earnings on fees and the interest spread on loans outstanding, and pay the price for aggressive loan underwriting. These “hustle and flow” practices provide incentives for loan production to maximize profits from origination fees and from the sale of collateralized pools of loans. To earn more profits, flow must steadily increase through the conduit. Because of the fierce competition for new borrowers, the lowest rate, best structure or most covenant-light lender wins the deal. CDOs became a buyer of larger amounts of the B-piece tranche market beginning in 2005.⁴ Flow through CMBS conduits grew with their own CDO or strategically aligned CDO, and were more competitive in winning new income-property loans than conduits with more conservative institutional B-piece buyers. To compete, other conduit lenders followed suit and created their own CDOs, or B-piece buyers decided to take on more risk to remain competitive for new income-property loans. Underwriting discipline and accountability slowly deteriorated over time because the system of checks and balances was no longer possible in some conduits with higher loan flow rates.

Because of this “hustle and flow” loan production system and deteriorating underwriting patterns, I contend that the CMBS production vintages from 2004–2007 hold a high number of subprime loans similar to the residential MBS securitization pools, and therefore are at the greatest risk of default.

These “hustle and flow” loan origination systems created the following off-balance-sheet portfolios (estimated current market amounts of total loans) since 1999:

- Mortgage-backed securities (MBS)—\$11.4 trillion, est.
- Commercial mortgage-backed securities (CMBS)—\$760 billion as of Sept. 30, 2007.⁴
- Asset-backed commercial paper markets—\$1.2 trillion, est.
- Consumer and commercial credit card securitizations—\$900 billion, est.
- High-yield bonds (junk bonds)—\$882 billion, Moody’s est 3rd Q 07
- Credit Default Swap market—\$45 trillion est.
- Collateralized Debt Obligations (CDOs) (some have a combination of the above)—\$70 billion, est.⁴
- Financial intermediary markets (banks, savings banks, life companies) \$2.4 trillion as of Sept. 30, 2007.⁴

MARKET RISK CONCERNS

There is significant credit risk exposure in each of these

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credit markets since poor credit quality underwriting occurs in all six separate security markets. I believe that when these securitizations are stress-tested in a recession, the poor credit quality in each capital debt market will result in higher-than-expected default rates. For example, the default rate at the savings and loan I worked for had risen to eight percent on total income-property assets in 1993, when Los Angeles County was in recession. We are still at the beginning of a potential deflation period or tipping point, even though there is a very low CMBS default rate compared to the savings and loan crisis. However, CMBS watch list amounts have increased to \$29.8 billion for failure to meet CMBS servicing code 1E (1.10x debt service coverage).² I expect that default rates will climb as the credit crunch causes a ripple effect on more income-property markets in 2008 and 2009. An example of this already occurring is with the collapse of MBS Cos., an owner of 65 multi-family complexes (17,000 units) in Texas.³ PNC Financial Services Group originated nearly all of the \$900 million in loans off-loaded in the CMBS market. Costar reported on Dec. 12, 2007 that two-thirds of the CMBS loans originated for MBS Cos. from 2000–2007 are more than 30 days delinquent.⁵ Many MBS Cos. loans that are delinquent were originated in 2006, with only one loan originated in 2007 on the watch list for not meeting CMSA violation code 1E (below 1.10x debt service coverage).

CMBS UNDERWRITING WARNINGS IGNORED

In his teachings and articles, **Bowen McCoy, CRE**, warned the capital markets in 2004 about deteriorating CMBS underwriting.⁷ Unfortunately, too few market participants listened to him. Because pundits of both positive and negative issues concerning CMBS markets flood the information channels, they collectively become “noise,” and it becomes difficult to assess risk in the CMBS market, as well as in most other markets. In my view, CMBS market information continues to create confusion for typically prudent investors who are making decisions about buying CMBS issuances. In addition, economic data is slow to be gathered and understood. Much of what I discovered in my studies of adaptive complex systems is how existing patterns of behavior between agents may influence outcomes in the future. In other words, I study how complex systems behave over time, given simple instructions. McCoy, an industry insider who helped create innovations in the capital markets, was accurate in assessing the increased leverage and under-

writing risks. It is my opinion that McCoy should have been taken much more seriously as he was knowledgeable about the real estate-secured capital markets and the potential risks if those patterns continued. McCoy reiterated those concerns in October 2007 at the annual Counselors of Real Estate conference in San Francisco.⁷

MARKET CRASH DYNAMICS

There is much to be learned about how markets crash. My concern regarding a capital markets crash increased on May 4, 2007, when I heard John Geanakoplos, Ph.D, speak at SFI.⁸ Geanakoplos addressed the robustness of capital markets and the dynamics of market crashes. I concluded from his presentation that a negative shift was at a greater risk of occurring. I shared this perspective with my clients and colleagues, and asked them to hedge this risk accordingly, if possible.

Geanakoplos shared three components of a potential market crash:

- **There is some bad news that continues to grow in significance over time.**

My interpretation: The MBS (single-family) market issues were first published as a potential concern at the beginning of 2006.

- **Collateral levels tighten.**

My interpretation: In the spring of 2007, Moody's began to increase MBS subordination levels, reducing collateralized risk exposure to AAA tranches. Since September 2007, commercial banks have tightened collateral levels and loan underwriting standards. This adverse trend is continuing as commercial banks learn increasingly negative investment news.

- **The most optimistic investors lose the most.**

My interpretation: The most optimistic investors, such as hedge funds (Bear Stearns) and investment banks (Merrill Lynch), were first to get hit with losses in the MBS securities market.

It is apparent that the CMBS market is at the tipping point where actual losses may begin to occur. The warning signs follow the same line of logic as observed in the MBS market collapse:

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- CMBS code violations 1E (DSC less than 1.10x) on those loans on the watch list are growing. Currently, the watch list is valued at \$29.8 billion.² Watch lists, consisting of higher-risk loans within commercial banks, are growing within real estate portfolios, but are mainly attributed to single family or condo development construction loans. In addition, CMBS defaults currently are still below one percent.
- Collateral levels are tightening in response to the MBS market collapse. Commercial bank lending has dropped to \$9.2 billion in 3rd Q 2007 from \$37 billion in 2nd Q 2007.⁴ This occurred while CMBS-issued debt was \$50 billion in 3rd Q 2007, up from \$45 billion in the 2nd Q 2007.⁴ This may be explained by commercial banks' sensitivity to initial market conditions, given internal credit administration influences.
- There have been no significant losses to date. However, the most optimistic borrowers and investors will lose the most once losses are realized. Income-property loans originated and leveraged from 2004–2007, I anticipate, will have the highest default rates and losses because of the rapid growth rate of leverage, and poor CMBS underwriting.

CONCERNS ABOUT SECURITIZATION SYSTEMIC SHOCK

Unfortunately, these issues have created a slowing of the commercial securitization market. On Nov. 13, 2007, Bloomberg reported on a pronouncement of Gregory Peters of Morgan Stanley:

“There’s a greater than 50 percent probability that the financial system “will come to a grinding halt” because of losses from mortgages, Gregory Peters, head of credit strategy at Morgan Stanley, said. . . .

“You have the SIVs [structured investment vehicles], you have the conduits, you have the money-market funds, you have future losses still in the dealer’s balance-sheet in the banks,” Peters said in an interview in New York. “That’s all toppling at once. The risk of systemic shock from the current subprime meltdown is quite large in the near term. It’s an overarching concern that we have,” Peters said.

“Losses stemming from the subprime mortgages have caused a seizure of a lot of other markets, especially the securitization market, Peters said. . . .

“While the near-term concern is the systemic shock of the subprime-related losses, the medium- and long-term concern is the impact on the average consumer. The ultimate irony here is that the U.S. consumer now needs readily available capital more easily than ever, but they’re going to have the most difficult time getting it.”⁹

As Peters forecasted last November, the losses from subprime residential loans in the securities markets has become a contagion that is spreading to other markets and other financial intermediaries, including banks.

Further, as reported by Al Yoon of Reuters on Tuesday, Jan. 29, 2008, it was the first month in 20 years where a CMBS market failed to price a single issue.¹⁰

INVESTOR AND LENDER OUTLOOK FOR 2008

Income-property lenders will likely experience an investment outlook shift for the following reasons:

- **Higher spreads and investor yield requirements:** CMBS, MBS and CDO conduit lenders will require higher spreads to attract investors concerned that investment risk has increased because of recent bad credit events. More bad news will beget more securitization risk aversion. This risk aversion may even require higher tranche investment yield spreads, increasing collateral value underwriting capitalization rates. This has already occurred, according to a Dec. 10, 2007, article by Norma Cohen of *The Financial Times*.¹¹ Spreads are reported to be more than 100 basis points on AAA-rated securities, up from 25 basis points earlier in the year.
- **Uncertain demand for mortgage-backed securities:** Many investors of securities will be holding tranche investments that are in default. Those investors with high exposure levels will no longer be able to buy more securities until the market stabilizes.¹⁰ The CMBS and MBS markets are in systemic shock as a result of the repricing of risk on these securities. At some point, this systemic shock should ease. But, another systemic shock could occur in CMBS market if actual loan losses

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are incurred from foreclosures, as is being reported in the MBS markets. I believe there is significant risk that losses could be high in the CMBS market because of its significant subprime component, just as in the MBS market. At this point, watch list loans in 2005–2007 have been increasing above CMSA-expected levels, indicating credit quality weakness, as reported by DBRS on Nov. 26, 2007.²

■ **Commercial banks under a microscope:**

Commercial banks may be negatively influenced in their lending activities by both federal and state examiners after evaluations or in anticipation of future examinations. Commercial banks will need to raise capital reserves for anticipated losses subject to examiners' evaluation of portfolio risk. In November 2007, Rule 157 of the Financial Accounting Standards Board (FASB) became effective. This rule states that all Tier 3 assets (assets with no liquid market) are marked to market on a current basis. This more stringent rule on capital adequacy will have a negative effect on the ability of commercial banks to continue to lend in the market. In addition, some multinational commercial banks will be subject to the adoption of Basel II reserve allocation regulations by 2010. With this change, higher-risk commercial real estate loans may be subject to higher capital costs. In turn, this regulatory change could lead to more stringent underwriting, resulting in lower collateral values and higher debt service coverage requirements. In addition, all collateral underwriting will be more highly scrutinized. Syndication risk issues are rising among commercial banks as single-family track development and condominium construction loans are now incurring increased loss exposure. Commercial banks, as a result, are being more selective about buying, and are not buying from certain commercial banks that have not lived up to syndication agreement expectations. This issue, if it proliferates, may cause larger loans to become more difficult to underwrite and close.

- **Increased litigation risk:** If loan losses in the CMBS securities markets occur, expect a great deal of litigation among all parties of interest in a

securities transaction pool. This is not unprecedented in the CMBS industry. As a consequence of the increased CMBS annual loan production from \$77 billion in 2003 to \$220 billion in 2007, underwriting error rates have possibly increased significantly. Buyers of CMBS securities with "put options" will be requiring originating conduit lenders, sponsored by many money center banks, to buy back the securities at par value. The size of this risk is as yet undetermined. In addition, conduits that had not hedged underwriting error risk will be exposed to claims of misrepresentation and fraud. I observed this problem with income-property loans in the savings and loan crisis. Many loan files that had been originated in the peak years of 1987–1989 were incomplete, including one income-property loan file that had no promissory note. However, I was still able to successfully collect from the borrower for my client through a creative legal strategy.

WILL THIS ISSUE GROW OUTSIDE U.S. MARKETS?

There are reasons for significant concern about a worldwide market correction. The difference in this CRE cycle is that it is only a part of a greater credit bubble. Because the investment world is now flatter and more interdependent, countries may be negatively affected over time since the scale of this credit crisis, in my view, is larger and could have a greater impact on the U.S. economy than the saving and loan crisis in the late '80s and '90s. According to a *Wall Street Journal* article dated Dec. 10, 2007, by Greg Ip, et al., "Over the past decade, Wall Street built a market for more than \$2 trillion in securities sold globally and backed by loans to U.S. homeowners."¹² As we are now witnessing, the United Kingdom, Europe, Australia and Asia have already been affected."

CONCLUSION

There are many reasons to be concerned about the income-property capital markets at the beginning of 2008, given the systemic shock from the securitization markets and its impact on traditional lenders and income-property investors. If an investor can hold onto a long-term income property for 7–10 years without the need to refinance, there is no reason to be concerned. If an income-property investor needs to sell or refinance an investment property for any reason, the risk of potential collateral deflation, poor investment demand

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and capital markets turmoil could create risks of high refinance costs or loan payoff shortfalls. I believe, as a result of deflation risk concerns, that financial intermediaries will be more risk averse in new loan underwriting, causing CRE property investors to face tighter lending standards for lesser loan amounts.

2008 AND 2009 MARKET ASSUMPTIONS

Market condition assumptions for the attached addendums are for a healthy traditional balance sheet lender.

1. **Deteriorating commercial lending market:** If commercial banks tighten underwriting, and with conduit lenders dropping out of the market in the next 12–24 months, deflation risk will likely rise since interest spreads will be increasing, and loan structure and terms will be tightening for investors seeking income property loans.
2. **Limited number of all-cash investors:** All-cash buyers and low-leverage investors, such as private equity funds, offshore investors and REITs, are not expected to be able to pick up enough slack in volume to eliminate deflation in income-property collateral values.
3. **Deteriorating income-property market conditions:** Income property performance fundamentals in areas of the country experiencing large numbers of single-family foreclosures will also be negatively affected. Appraisers relying upon comparable sales and income approaches will be slow to acknowledge the decline in income property or collateral values. Historically, at the tipping point in the deflation period beginning in 1990 in California, both the income and market approaches to value proved unreliable in predicting income-property loan collateral values following foreclosure.

There is significant evidence to support the idea that in early 2008, income-property markets are at the beginning of a deflation period, or a tipping point, as in 1990 and 1991 in California. The default rate at the savings and loan I worked for in 1991 was climbing from two to eight percent in 1993 in a \$4.5 billion income-property loan portfolio. We are still observing relatively low default rates, which will most likely climb as the credit crunch affects more income-property loans going into 2008 and 2009.

ADDENDUM 1: RESEARCH IDEAS

A good way to determine the overall income-property loan default risk exposure for all lenders and CMBS investors would be to separate and quantify all the high-risk income-property debt originated from the end of 2002 through October 2007. These income-property loans benefited from the reduction of capitalization rates that were fueled by hyper-liquidity as a result of 40-year-low interest rates and “hustle and flow” loan production systems. If a researcher were to pursue this task, he or she would need to remove income-property loans with a low risk of default, such as those leveraged below 65 percent, those that have existing high-debt service coverage ratios above 1.35x, or those with long-term leases with tenants with good credit. In addition, the researcher would remove those income-property loans in banks and finance companies that are owner-occupied, guaranteed or have significant secondary credit support from sponsors with a highly liquid net worth. (*Please note:* depending on the severity of the deflation risk, current high-net-worth borrowers may not be as liquid or have a high enough net worth to support all of their income-property investments.) The remaining income-property loan pool of securitized and financial intermediary loans (my estimate at over \$1 trillion) is at risk of loan default (maturity, covenant or debt service payment) in the next two to five years. I believe income-property loans originated since 2004 with aggressive interest-only payment terms are the most likely to default, beginning in 2008 and 2009.

EVALUATING AN EXISTING INCOME-PROPERTY INVESTMENT MODEL

Xudong An, Ph. D., University of Southern California, completed a paper called “Macroeconomic Conditions, Systemic Risk Factors, and Time Series Dynamics of Commercial Mortgage Credit Risk.” He studied the 10-year period from 1993–2003. Although his conclusions were insightful, his time-series dynamic analysis would be more interesting if he would revise his study from 1997–2007, since in my view, December 2006 will be considered the peak of the investment cycle. I am setting this cycle peak date even though in the first three quarters of 2007, momentum continued forward at even higher leverage and underwriting excesses. Unfortunately, the study would need to be conducted in 2010, when actual default rate results can be tabulated and analyzed, to

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determine if Dr. An's predictions of credit risk on commercial loan portfolio are correct.

Dr. An conducted a time-series analysis for the years 1993–2003. His loan composition and risk conclusions are dependent on information about loans that originated during this period. He concludes that loans in southern California (Western/Pacific) have the lowest risk across regions, while those in the south have higher risk compared to his reference group, northeast/mid-Atlantic. I disagree with his conclusion, based on my direct observation of a depression in investment real estate values from 1991–1996 in southern California. The study group was a portfolio of 60,000 CMBS loans originated from 1993–2003. Since southern California had reached the bottom in 1993–1996 in real estate values (at about 50 percent of replacement cost on multi-family, for example), investment real estate values had no where to go but up. In addition, CMBS originations did not take off in significant volume until 1997. I suspect his data pool, through 1997, was a small portion of the data loan pool sample size.

In summary, though, I found Dr. An's modeling results very interesting and think they could be modified and become useful as a credit risk assessment tool. His research shows large variations of credit risk over time in the commercial mortgage market and demonstrates that these variations are explained by two mean-reverting latent risk factors: the macroeconomic factor, and a commercial property market-specific factor. The model and the results he expects will be useful in default-risk prediction, hedging and pricing. Dr. An concludes that there is substantial variation in default hazard rate across geographic regions; maturity and amortization terms are found to be negatively correlated with default hazard rate; and certain property types such as hotels show significantly elevated default risk for the period observed. However, because of current market feedback, the high default rates experienced by lenders will likely lead to changes in future underwriting behavior. Since real estate markets are complex adaptive systems, models or studies that attempt to predict the future behavior of these markets, they must account for changes in the marketplace. I am not sure this model or any model can be helpful in predicting market behavior over a five- to ten-year period. However, there is much to be learned by continuing to try, as was observed in the study conducted by Dr. An.

ADDENDUM 2:

RECOMMENDATIONS ON HOW TO FIX THE SECURITIZATION OF REAL ESTATE

In my opinion, it is prudent to revert to traditional underwriting standards and loan structure that require recourse language, borrower portfolio risk analysis, evaluation of the applicant's character, establishment of trust, and the hedging of income-property loan risk so that both the borrower and the bank will experience a stable and profitable outcome. When a system has a process of inputs with no trail of accountability, such as was created in the securitization lending market, the outcomes become much more uncertain. Quality control in income-property loan origination is benchmarked by the lowest common denominator or the most aggressive competitor (such as a CMBS conduit with a CDO purchase of B-piece tranches) in the marketplace.

Ideas on how to make the CMBS market work better in the future are:

1. **Required B-piece ownership and servicing:** CMBS and MBS servicers, and special servicers should be required to buy a minimum of 10 percent of the first-loss piece of the loan. This policy will: (a) provide incentive for conduit lenders to become servicers and special servicers for all the debt they originate, to help control loan production flow; and, (b) prevent loan underwriting standards from loosening. When CDOs proliferated, the CMBS market grew at an accelerated pace by purchasing more first-loss pieces. CMBS market discipline was diminished when CDOs became a larger participant in the market. The growth of CDOs helped to increase deal flow and reduced the risk of rejection of income-property loans in pools by the B-piece buyers. In addition, the existing income-property loan servicing issues may be mitigated since the servicer will own the first-loss piece and will have incentive to assist existing borrowers with normal servicing issues, including minor changes in loan structure. Presently, CMBS loan servicers are third-party contractors who work under loan servicing agreements for the trustee of the bond issuances. Some B-piece owners also have special servicer agreements to protect their investment in their CMBS issuances—but not all. I am recommending a 100

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percent B-piece purchase and servicing requirement that permits no involvement with CDOs or other special investment vehicles.

2. **Higher credit quality underwriting and transparency:** Higher credit quality underwriting standards should be adopted at an CMSA-industry level, and there should be government oversight. Income-property loans with market speculation risk would be required to be identified separately. All property types that are highly correlated with the performance of the national economy or local economy (hotels, motels and resort properties) are to be allowed access to the market but at more conservative underwriting standards.
3. **Higher accountability of credit rating agencies:** Credit rating agencies should become nominally liable for ratings given on securities that experience actual loan losses. I do not think agencies should be liable for model-to-market or mark-to-market losses, but rather for actual loan losses on the “at inception rating at sale” investment-grade tranches. The liability would be limited to the amount of fees earned plus a negotiated multiple to ensure diligence by the rating agency. Also, credit rating agencies must ensure reliability in the rating given to investors so that this market can again function in a sustainable and robust manner. This change in the rating system will increase scrutiny by rating agencies since there will be an associated cost to them for not assessing credit risk appropriately. This is a concern, given that on the \$723 billion in CMBS loans outstanding as of June 30, 2007, 95.1 percent were rated as investment-grade BBB- or better. Because of the recent downgrades on many types of MBS as of this writing, it appears the credit rating agencies were out of alignment in assessing the risk of commercial real estate and multi-family collateralized loans. The credit rating agencies are not entirely at fault in this debacle, but a contributor since, in my opinion, they did not understand income-property investment cycles. In addition, I contend that during the vintage years of 2004-2007, the outdated computer-risk models used by the credit rating agencies limited their ability to properly assess the risk of default.

ADDENDUM 3: INCOME-PROPERTY INVESTMENT STRATEGIC INITIATIVES

These strategic initiatives for lending by commercial banks can be helpful to income-property investors in understanding why lenders tighten underwriting when credit risk increases. Lending into an income-property investment deflation period is a strategy with a high credit risk. Lending risk can be mitigated through the following recommendations:

- **Limit cash-out:** Refinance loans on income properties where the loans originated prior to 2002. Try to reduce leverage and provide “no cash-out” financing. There is a danger that if current values are used to support “cash-out” financing, the loan-to-value will increase to unsupportable levels as deflation moves forward in time.
- **Focus on the certainty of cash flows:** Lend on income properties with a high certainty of cash flow, even when stressed in a recession. Properties with long-term high credit quality tenants will weather any impending storm. Also, well-located properties tend to be resilient to the negative effects of deflation risk, given that these properties are supported as a first priority over properties that are less well-located. Be cautious about pursuing multi-family lending as a safe haven strategy since multi-family can be affected by the combination of high turnover of units and lower rental rates in a severe regional recession. In my 10 years of loan workouts, about 85 percent of my income-property loan foreclosures were multi-family.
- **Construction financing:** Construction loans might be a good idea if you want to be in construction through the end of a deflation and/or recession period. However, it is risky for an investor to speculate on what future rental rates will be after construction is completed. This uncertainty is based on the difficulty in determining today what purchase price or leverage amount your competitors may have when construction is completed. It is also difficult to predict what the variance in rents will be with competitors, especially if distressed sales or foreclosures reduce the property ownership

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cost and leverage amount of those competitors. In a regional recession, properties of similar quality with the lowest cost basis wins the lessee. This is most problematic when foreclosures are occurring on like-kind good-quality property during the construction period. The new buyers of the foreclosed properties usually have a lower cost and lower leverage basis, and will be able to profitably compete against a new project built at a higher cost. Depending on the severity of income-property deflation and of a possible regional recession, the income-investors with the lowest property ownership basis and/or lowest leverage in their properties have the highest survival rates. Property owners in the income-property markets have always been in a battle for the lowest cost and/or leverage of property basis to compete head-to-head on like-kind property. The hyper-liquidity of capital markets diverted many seasoned income-property investors from this way of thinking, in my opinion, and has exposed many of them to increased investment loss risk.

- **A case for recourse:** Seek secondary financial security for the loan from a guarantor with a demonstrated liquid net worth or by providing an irrevocable letter of credit. Financial institutions such as banks, savings banks and life companies are mandated to lend conservatively and be fully repaid. Market-risk losses are not factored into the yield on loans. If collateral risk increases—which increases loan default and full principal recovery risk—financial institutions must hedge it by reducing leverage and increasing debt service coverage requirements. If default risk cannot be significantly hedged because either leverage is too high or debt service coverage is uncertain, high-quality guarantor support, deposits or an irrevocable letter of credit must be obtained.
- **Evaluate total portfolio-related debt:** Lend to investor groups and investors with existing low-leveraged portfolios with an excellent debt service coverage. Doing otherwise greatly increases the risk of portfolio loan defaults that may negatively affect your income-property loan. The exception would be a portfolio with virtually all the tenants of high-credit quality and in long-term leases with all the

loans in the portfolio maturing beyond seven years. If the portfolio product types are subject to market influences or speculation, the portfolio risk could be severe and may have a negative impact on the investor or investor group. A chain reaction could occur where one or two properties in a portfolio begin a period of low liquidity for the investor. Over time, this leads to the inability of the investor to support all of the projects in the portfolio appropriately, increasing the risk of the weakest properties going into default. Depending on the dynamics of the portfolio and the behavior of the specific co-investors within each property, a lender can better determine and understand portfolio risk characteristics before making a new loan.

ENDNOTES

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