

BACK TO THE FUTURE: A LOOK AT TODAY'S CMBS MARKET FROM THE YEAR 2000

CMBS returns can outperform those of other investment vehicles, as long as investors do not ignore demand and are able to make more accurate future forecasts.

Steven B. Wolgin, MAI, CRE

The year is 2000. A CMBS investor turns on his computer in the morning to survey the Bloomberg listings and pricings of 40 tranches of previously issued AAA securities and 10 tranches of B piece securities offered for sale. Most of these securities were issued from 1991 through 2000 and were rated by Fitch, Duff & Phelps, or Standard & Poor's. Our investor notices that 3 tranches were added overnight and 22 tranches reflect new market pricing, as a result of an overnight change in interest rates. His computer is preset to search and to beep whenever any unrated or rated CMBS pool offered for sale meets his investment parameters. As he scans the three highlighted tranches identified, one deal catches

his eye: a \$20 million piece of an AAA-rated tranche of a \$300 million issue of which \$50 million is rated single B. With the click of the mouse, a truckload of information is instantly downloaded to his computer right into the latest data directory of a new neural network software program called "CMBS Blood Test."

This "smart system test program" takes the downloaded information and performs a full-scale ratio and variance analysis based on sophisticated tests of CMBS relationships. The information is graphically and statistically illustrated and printed out when a significant investment opportunity has been identified. Seconds later, the displayed results indicate that this \$20 million pool meets all of the investor's real estate investment and collateral-reasonability regression tests. The securities appear to be priced at a discount relative to the underlying assets. The investor places his order for the \$20 million pool on his computer. Within seconds, the investor's

Steven B. Wolgin, MAI, CRE is managing director of Odyssey Associates. Based in New York City, the firm provides capital market investment and consulting services to institutional and noninstitutional investors. Mr. Wolgin is also an assistant adjunct professor at New York University's Real Estate Institute.

bid is accepted automatically, since it is above the seller's minimum take price. In sum, the investor has used year-2000-and-beyond technology, an understanding of how to interpret real estate markets, and the ability to time the market and invest with a much higher degree of certainty in cyberspace. His bid depended on the rapid growth of the secondary market for CMBS issues.

Technology

This futuristic scenario is not only plausible, but technology companies, real estate associations, and industry committees are working rapidly toward it. In fact, a consortium of industry groups spearheaded by the Investors Committee of the Commercial Real Estate Secondary Market and Securitization Association (CSSA) are advocating and proposing minimum reporting requirements for CMBS post-issuance information:

- 1 The public issuance of monthly servicing tapes in a standardized format;
- 2 The dissemination of selected credit information regarding collateral property financial performance and rent roll based on a consistent reporting methodology;
- 3 The dissemination of information about the status of specially serviced loans based on a consistent reporting methodology; and
- 4 Provision of full access to the servicer's files.

1996 Paradigm

For the past 10 years, CMBS transactions have been carefully structured, but even when a worst-case scenario for underwriting and investment decisions is used, bond downgrades sometimes occur. In the near future, standardization of documents will help, and stricter criteria will make this a less frequent occurrence.

One important issue must be addressed: What is the real debt service coverage and loan-to-value that is being analyzed? The focus has not been on market demand, net operating income, or the renewal probabilities of the underlying collateral but on the financial engineering of the bonds and mortgage certificates. This has slowed the development of the secondary market, caused downgrades, and generally undermined the credibility of the ratings process.

Rated transactions have, for the most part, worked because, starting in the early 1990s, the real estate markets have been repriced. Many CMBS investors have used conventional approaches to determine that the CMBS pools are somewhat efficient and that spreads over Treasuries will, on balance, reflect a return on the use of their capital, as a return for compensation of risk. Most of the current thinking is based on antiquated rules of thumb or averages. Prior deals were also used as a proxy for current and future deals, and this further compounded the pricing inefficiencies.

In the next 10 years, commercial real estate markets, however, will undoubtedly endure at least one or two cyclical irregularities caused by several factors: the further reduction of the typical workers' office space needs by cost-conscious corporations; the continued acceptance of the "home office" and "on-line retail" shopping; and "hotel-ing," the sharing of office space by more than one employee.

Therefore, the importance of the underlying collateral to a CMBS deal will become a key indicator of risk and performance. A 1996 CMBS investor should recognize that his purchase and sell decisions made using current tools, methodologies, and common wisdom are based on tools that are being improved. The reality is that we are currently in the "Model T" stages of the CMBS market, and now that the RTC sales have ended, we can look back from the year 2000 at both the performance and the critical variables of rated CMBSs as well as the underlying collateral based on models developed for:

- Average life protection;
- Prepayment;
- Price level/quality; and
- Liquidity.

In the transitional (interim) years (1996 - 1999), these variables will become so sophisticated that the rating agencies' outcome will be very predictable. By the year 2000, refinements of the strengths and weaknesses of the *optimal* portfolio mix of these variables will result in efficient and almost automatic execution, as is described in the following text.

Transitional Years: 1996–1999

In early 1996, serious and sophisticated research¹ was instituted on the following four variables that will be in place by the year 2000:

- *Average life* is an integral part of where Treasury rates are at the time of issuance relative to final spreads and is sensitive to the relationship of the following three other variables described.
- *Prepayment protection* will include measuring the number of years of lockout as a percent of number of years to maturity as of the date of securitization and the number of years of prepayment penalty as a percent of the number of years to maturity as of the date of securitization.
- *Price level* will be much more sensitive to new models developed and will focus on the quality of the collateral, which is not easy to quantify and capture in rating a debt issue. Bonds from a lower end of the spectrum of, for example, the BB-rated pool will be more volatile and will experience a greater likelihood of losses. The collateral should be examined as a percent of the subordination below the AAA level and the year of origination.
- *Liquidity* is analyzed in terms of the number of years of lockouts and is related to prepayment penalties from the date of issuance to the date an investor projects that liquidity might be important. Liquidity analysis will be on a standard basis and will be refined to incorporate and measure the pricing for bonds that trade above par, which are at wider spreads for AAA debt. Size will be increasingly important and pricing thresholds for various types of bonds will increase and/or decrease the ultimate price.

1996 Framework of the CMBS Market

In order to understand the present framework of the CMBS market, it is necessary to examine who, why, and how investors make investment decisions. There are several critical components of the CMBS market.

Who Are CMBS Investors? The investors for CMBSs are mostly yield-driven bond funds that

might want a portion of their portfolio in AAA- or AA-rated debt. Investors who do their own underwriting might invest in the first loss position or B piece of a CMBS issue. Sometimes the B piece issuer and/or investor will also be the servicer. For example, a company may create an investment vehicle and then retain the B piece and the servicing to keep the spreads over Treasuries that are generated. There are also some buyers who are wealthy real estate investors (e.g., the Bass Brothers, the Pritskers) who have a controlling or significant interest in the B piece of an issue.

Why Purchase A and B Pieces of Issues?

Although it may make economic sense for investors to consider CMBSs in their asset allocation strategies, each purchase must be weighed in terms of the risk/return tradeoffs provided by other investments within the investor's total portfolio.²

The AAA-rated piece is viewed by investors as a protected investment based on the conservative underwriting standards used by rating agencies, and the yield has been appreciably higher than other AAA investment opportunities. Many typical 1996 investors look purely at the credit rating of the issue and the spread over Treasuries based on their asset allocation strategies and other investment options.

The B investor takes a somewhat different approach. That investor is yield driven and banks on his understanding of the real estate markets in which the underlying assets are located as well as the risk/return relationship of the CMBS issue.

Reasons for Including CMBSs in an Investment Portfolio

There are four important reasons³ for including CMBSs in an investment portfolio:

1. Diversification is required to optimize a multi-asset portfolio. Investors recognize the inherent relationship between risk and return, and the relationships between different asset classes are important in determining return and reducing risk.

2. Real estate had a high risk-adjusted rate of return relative to stocks and bonds from the mid-1970s through the mid-1980s. Given the repricing of real estate in the early 1990s, institutional investors have returned to the marketplace in anticipation of higher returns.
- 3 Anticipated and unanticipated inflation is positively correlated with real estate over the long term.
- 4 The advent of REITs and growth of CMBSs will increasingly provide liquidity to an otherwise illiquid asset.

How Investors Price CMBSs

Investors view the AAA pieces in CMBS debt issues as a fixed-income investment, as most issues offer fixed-rate debt (like AAA Treasury Bills or AAA corporate bonds). Investors are somewhat comforted by rating agencies' application of their underwriting standards to CMBS issues. Typically, a CMBS issue is priced over comparable Treasury bills and is priced higher than comparably rated corporate bonds. In other words, investors attach more risk, and consequently, want a higher return.

One area of potential concern for the 1996 paradigm investor is the increased demand for CMBS A- and B-rated transactions, which has led to decreased yields and tightened spreads. At some point in the not-too-distant future, the risk spreads for individual whole loan transactions and CMBS issues may begin to converge. If this trend toward "razor thin spreads" continues as expected, the investor will definitely need to pay more attention to the underlying collateral as well as market demand and market cycles.

CMBS Industry "Growing Pains"

The inherent limitations in the current CMBS market include:

- Lack of information in prior and subsequent years to validate/support initial purchase;
- Liquidity problems;
- Other competitive investment opportunities;
- Information distrust that makes investors review each pool of mortgage loans; and

- Lack of consistent formats.

The implications of these "growing pains" have two effects on CMBSs. The first is that investors require higher yields as a return on their investments to cover the uncertainty or lack of information they perceive that cannot be quantified. The second is that some current investors have a tendency to shift concerns from individual properties to the portfolio impact, thereby losing their focus and purchasing assets that are easier to quantify on an aggregated risk-adjusted basis.

Both of these implications are short-term. By the year 2000, investors will be purchasing new and secondary market CMBS issues using an entirely different approach, an approach that can and should be adopted today.

Investing as if the Year 2000 Were Already Here

In the year 2000, sophisticated analytical tools that use preset reasonability tests to take advantage of inefficient market pricing will be common throughout the industry. Pricing a CMBS issue will involve qualitative and quantitative weightings assigned by investors, their required returns, and market strategies.

Technological informational advances will enable the investor to make smarter decisions by factoring in uncertainties in the marketplace that were previously difficult to quantify. For example, investors will be able to make predictions regarding demographic shifts, supply and demand, vacancy, and absorption. Investors will also be able to use geographic mapping systems as well as satellite and subterranean soil information.

Risks such as incomplete leasing and marketing or valuation data are inherent in investing and are accepted in the industry today but will not be tolerated in the year 2000 and beyond. Investors in the year 2000 should have a greater market understanding of demand, supply, and absorption within each property type and sub-market.

The Blood Test

The CMBS Blood Test is an expert system built on an initial set of rules and relationships that increasingly refine the computer's judgment in diagnosing a CMBS offering. The test analyzes the independent results from a predefined set of calculations and questions, and presents the

EXHIBIT 1 INVESTMENT DECISION CRITERIA FOR HYPOTHETICAL \$20 MILLION AAA-RATED TRANCHE OF \$300 MILLION CMBS ISSUE, OF WHICH \$250 WAS AAA RATED**Purchase Criteria 1996 Secondary Market Criteria in Year 2000**

1. Rating agency rating: who rated issue; what information uncertainties regarding default, loss severity, and exit strategy in a worst case scenario are consistent with other rated transactions?
Third-party independent analysis service: (1) reviewing actual historic individual property performance; (2) new 10-year cash flow projections; (3) macro-regional and sub-market property type analysis; (4) lease expiration risks; (5) neural network regression analysis and CMBS Blood Tests will set the standards.
2. Compare spreads over 1996 Treasury and similar term corporate bonds based on investor's risk premium differential.
A rating agency's annual or quarterly surveillance debt rating, including a history of who originally underwrote and rated the issue.
3. Debt service coverage and the percentage of credit versus noncredit tenants are reviewed.
Compare risk and return of this transaction with all other CMBS opportunities. Quantification of previously difficult issues with technological advances takes only seconds to calculate.
4. Loan-to-value ratios:
 - (1) Ratios individually analyzed
 - (2) Analyzed on an aggregated basis
 - (3) Concentration to any one borrower is considered.Compare spread over year 2000 Treasury and similar term corporate bond rates based on investor's risk premium differential. Spread, over time, drops due to more sophisticated, real-time information available.
5. Original underwriter and servicing team.
Track record of underwriter, servicer, and team. Pre-qualify the team, and assign a rating to their past performance and potential conflicts of interests that occurred during any trading and any lawsuits outstanding.
6. The data is somewhat distrusted. Files reveal lack of standardized documents, information, and formats.
Creditworthiness of individual tenants, debt service coverage (DSC), loan-to-value (LTV), letters of credit in excess of what is really required on the basis of more accurate information.

output both graphically and numerically for the investor. Most important, it correlates these independent outputs, using technology to diagnose the risk of the underlying collateral.

In addition, the Blood Test is set up to review the following qualitative fundamental questions:

- The importance of the underlying real estate assets for exit strategy for the year of projected sale.
- The importance of property type or mix of properties and asset quality for the year of desired sale.
- How assets will do over time on the basis of real estate location and property type trends.

Blood Test Variables. The calculations and questions within the Blood Test:

- Allow for a test of the CMBS Blood Test to the depth level desired.
- Calculate the net present value (NPV).
- Calculate projected percent of cash flow value, appreciation, and return of capital.

- Calculate projected comparison of initial discount and terminal cap rates.
- Calculate projected percent change in NOI from 1996 to 2000.
- Calculate current LTV and debt service coverage ratios and interest rates in the market today for comparable deals.
- Calculate debt for balloon or amortization scenario and its effect on pricing over the long term.
- More accurately calculate projected future NOI.
- More accurately calculate hold, sell, and buy decisions based on realistic sub-market analysis and projections.
- More accurately determine an appropriate exit strategy and worst case scenario prior to issuance and purchase.

The test also incorporates "neural networks," which have a very different approach from simply observing thousands of numbers or facts on a page. Whereas the expert system starts from the top down

with rules, neurocomputing begins from the bottom up, assembling artificial neurons to create intelligence. It is a computing architecture that mimics the way the brain works. Its goal is to build a machine brain and let a mind emerge.⁴

Using the Tools. Will using such predictive tools today save the investor from CMBS issues that consist of the wrong property types and large dollar exposures in certain regions? These predictive tools, such as the Blood Test, do not allow an investor to ignore demand. These tools give more weight to market conditions and relationships between different market factors. To conduct the Blood Test, for example, the investor must answer questions about the structural, cyclical, and discretionary risks related to the properties in the CMBS issue. The investor then prepares a 10-year cash flow analysis based on market conditions, and the results are compared. This progression forces the investor to derive assumptions for the cash flow analysis from the specific property's market data and thus avoid what is commonly done: creating the cash flow analysis first and then reviewing the general assumptions used.

Lenders and others who lack a strong grasp of cost-feasible rents and what an investor needs to break even will make poor decisions (as they did in the late 1980s), in the wrong areas, on the wrong property types by adhering to conventional wisdom about which property types and which regions are "hot" or "cold."

The use of real-time information in the year 2000 will cause the capital markets to price CMBS issues more accurately to reflect current and future conditions. Instead of consisting of "hunting and gathering" data, information will be relationship oriented. In this way, each change in a variable of the Blood Test has an impact on another factor and ultimately on the value, and on the decision to buy, sell, or hold an investment.

Finally, using predictive tools places the focus of pricing at the property level rather than at the portfolio level. Too often, an investor relies on the rating agency's rating and the risk spread compared to Treasury bonds. This causes investors to believe that the future performance of the CMBS issue will behave accordingly, without any real concerns that the portfolio is weighted too heavily in a single region or property type.

Rating Agencies in the Year 2000

How will the rating agency modify its practices and thereby affect all CMBS issues in the year 2000? What investment factors will they be looking at when re-rating issues annually?

In the future, rating debt of all types will expand as international rating agency affiliations and friendly cooperation continues between the US and Japan, Mexico, Israel, and other countries. In fact, it is possible that one of the rating agencies might someday acquire another as domestic and international products become more homogeneous or so complex that a joint venture will be the norm for some transactions. As demand for information and the ownership of corporations and debt become more integrated, complex, and efficient, the possibilities are endless.

In the year 2000, new hybrid rating products like "volatility ratings" and "private debt rating indicators" (PDRIs) that were just introduced in 1996 will have become passe', and will be replaced by more sophisticated barometers. International multi-conglomerate combinations of debt, equity, asset-backed, and other forms of debt-accessing capital will be in place challenging the rating agencies to establish new criteria that meet their standards for AAA, AA, and other ratings.

In addition, the Financial Asset Securitization Investment Trust (FASIT) was recently approved by Congress in the Small Business Job Protection Act of 1996, becoming effective on Sept. 1, 1997. The new legislation allows companies that operate within the guidelines established by Congress to securitize a variety of assets under one securities issue without being taxed. New criteria and ratings standards must be designed to incorporate all the new product combinations (i.e., asset-backed, mortgage-backed, and others all combined in one securities issue).

Fitch Investor Services has been very active and progressive in this area and is continually exploring new avenues of growth in the national and international investor community. Prior to making purchases of securities, Fitch notifies the potential investors of the call, holds a discussion of relevant issues, and then answers investors' questions. The company also disseminates information to investors by fax at the same time, thereby getting information into the hands of the investor faster than ever before.

Of course, in the year 2000 video teleconferencing ability via personal computer will be universal, and all the data and personal contact will

be immediately conveyed and transmitted electronically and interpreted instantaneously by the participants and investors on the call. This process will require some training and trust that quality control of the information released from a group of experts in debt, equity, corporate ratings, and real estate will be held proprietary to the client until there is a need to know from the secondary market. This approach will, it is hoped, force the markets to act in good faith to create an efficient, honest secondary market that is not flawed or headed for a breakdown or "hiccup," but that will survive and mutate to meet the challenge and vision of massive amounts of information, coordination, skill, and cooperation that is so desperately needed.

Exhibit 1 illustrates how the critical factors will change from 1996 to 2000, altering the way the investor should view both a new issue in 1996 or a secondary CMBS issue when deciding to buy or sell.

Upon review of the \$20 million tranche in 2000, the buyer will have downloaded all information from a third-party service. By the year 2000, it is assumed that investors and industry participants have worked with CSSA and other associations to capture all necessary information on the underlying collateral, historical and current rent rolls, cash flows, satellite images, and competitive sub-market analyses. This information will be made available to the marketplace. It is the interpretation of this information that is all important.

The investor in 2000 will have recognized that the key decision criteria used in 1996 were reacting to the information distrust era (that in some cases added risk resulting in too low a rating) and will have appropriately revised them. In its place, the investor uses one of several third-party "smart" or "expert" software programs available to interpret the marketplace, the assets, the covariances between related and interrelated terms, and regression analysis.

What an Investor Can Do Today

In preparation for dealing in tomorrow's markets, an investor should now be following these suggestions:

- *Recognize that the paradigm shift is occurring.* In the year 2000, standardized loan documents and dozens of new indexes with "Web" pages publicly disseminating data on

credit along with collateral historical information with access to the servicer's files should begin to come together. This information will fuel the primary and secondary markets for CMBSs as investors become more comfortable with the data.

- *Recognize the need to invest in market research, technology, and software when deciding to purchase CMBS issues.* Envisioning the investor's position in the year 2000 and investing as if it has already arrived will help, not only on a portfolio basis, but on an individual property basis as well.
- *Recognize the importance of understanding current and future anticipated real estate cycles vs. structural changes affecting the underlying collateral.* Investors today must understand that cyclical changes repeat themselves, although on a somewhat irregular basis, while structural changes are irreversible movements of technology, demographics, and other basic variables.
- *Recognize the ways in which the CMBS market will increase in size.* By the year 2000, the \$100 billion of CMBS that has been issued (including that of the Resolution Trust Corporation) could double as investment banks and life companies sell off their real estate in exchange for investment-grade bond tranches. There will also be an increasing need for liquidity, both nationally and internationally, and many institutions will sell their real estate because of reserve requirements and the need for liquidity.

The years from 1996 to the turn of the century will mark a transitional period during which the links between technology and information will enable those who possess the skills and the understanding of how to interpret the conversion process described in this article to succeed. Arguably, there will be "hiccups" and technological mistakes and misinterpretations of the data, causing major downgrades and financial disasters for some, no matter how technologically efficient the capital and real estate markets become.

Business is moving with a collective vision to link technology with real-time information and to demonstrate the ways in which this information should be used and interpreted. In the year 2000, the economy and the CMBS market are going to be primarily driven towards a single goal:

a collective vision of how technology and markets should work in the year 2000. In other words, the old rules and old ways of thinking just will not work any more. At some point most investors will have the same, or almost the same, information.

Some investors will forget to look at the property or weigh the qualitative issues and such basics as market supply and demand. Some will lose because they are investing short term in a product that may require a long-term horizon. Finally, some investors will be winners and be able to do

on-line trading using a Blood Test program to make profitable uses of the enormous advances in technology that will be developed as each day passes toward the arrival of the year 2000. ■

Notes

¹ David P. Jacob and Galia Gichon, "Relative Value Model for Commercial Mortgage-Backed Securities," *Capital Sources for Real Estate*, Vol. 3, No. 1 (Aug. 1996).

² Jess E. Lederman and Benjamin Swoyer, *Handbook of Commercial Real Estate Finance*, (1995), p. 274.

³ Lederman and Swoyer, pp. 389-390.

⁴ Stan Davis and Bill Davidson, *2020 Vision*, (1991), p. 184.