Welcome to the Stress Test

BY JAMIE WOODWELL

The current economic downturn is creating a real-life stress test for commercial and multifamily real estate.

Banks, life insurance companies, rating agencies, commercial mortgage-backed securities (CMBS) investors, Fannie Mae, Freddie Mac—and almost every other investor in commercial and multifamily mortgages—has some level of experience with stress testing. The basic idea is to take a portfolio of loans and subject them—mathematically—to a series of market stresses to estimate how they would perform. Stress tests provide investors with an indication of where a portfolio's strengths and weaknesses may lie under different hypothetical situations and scenarios. ● Commercial real estate professionals throughout the industry now find themselves living through a stress test that's shaping up to challenge almost every assumption they have made.

Where we are

The current recession will likely be the longest and may prove the deepest since World War II.

It started out relatively modestly, with real gross domestic product (GDP) falling at a seasonally adjusted annual rate of just 0.2 percent in the fourth quarter of 2007. The next two quarters saw GDP increases of 0.9 percent and 2.8 percent, respectively. The third quarter of 2008 saw a decline of 0.5 percent. In aggregate, the first four quarters of the current recession saw positive growth in real GDP.

It is this period leading up to the fourth quarter of 2008 that will likely contribute to making this recession one of our longest, but it is what began in the fourth quarter that may make this recession one of our deepest.

Consumers

Since the beginning of 2006, the national economy has been hobbled by decline in the single-family housing market, with private residential investment pulling real GDP down from where it otherwise would have been by 0.5 to 1.4 percentage points each quarter.

Despite the housing slowdown, personal consumer expenditures continued to show positive growth through the second quarter of 2008. Given that personal consumer expenditures account for $10 trillion of the U.S. $14 trillion economy, even small changes in this sector can have a profound impact.

That's what happened in the third quarter of 2008. The consumer finally flagged, and the impact dwarfed the previous single-family drags on the economy. The drop in personal consumer expenditures pulled GDP down by 2.7 percentage points, to -0.5 percent. (Had personal consumer expenditures been unchanged in the third quarter, real GDP growth would have been a positive 2.2 percent.)

The data are still coming in, but it is clear that the fourth quarter of 2008 saw the declines deepen further.

Jobs

On a seasonally adjusted basis, the U.S. economy lost more than 1.1 million jobs in November and December 2008. That's on top of job losses of 400,000 in October; 600,000 altogether in the third quarter; and 460,000 in the first half of 2008. All told, more than 2.5 million jobs were lost during 2008.

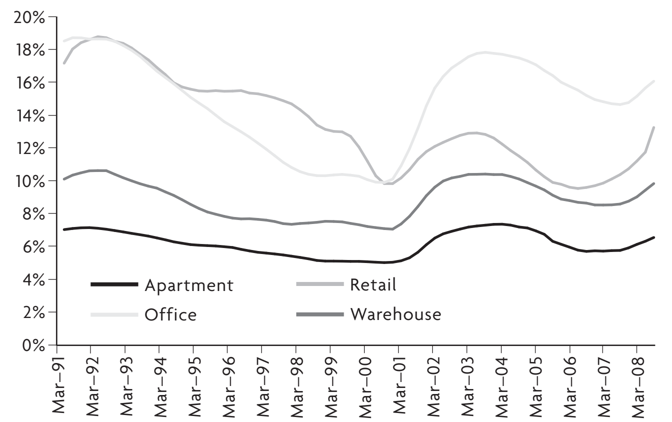
At the beginning of last year, manufacturing and construction jobs were the drivers of the decline. But as the year progressed, services jobs—including those that demand office space and drive demand for other types of commercial real estate—joined in the losses.

It is important to note that different parts of the country are experiencing different conditions. States such as California and Florida, which saw rapid job growth during the building boom of the mid-2000s, have seen severe contractions in construction jobs, with those losses then bleeding into the services sector. Other states, such as Ohio and Michigan, have seen an ongoing malaise associated with long-running declines in their manufacturing bases.

Still other states, such as New York, have seen the credit crisis and the broader economic slowdown hit their financial, business and professional services sectors, but with job losses far below those of places hit most by the construction and manufacturing slowdowns.

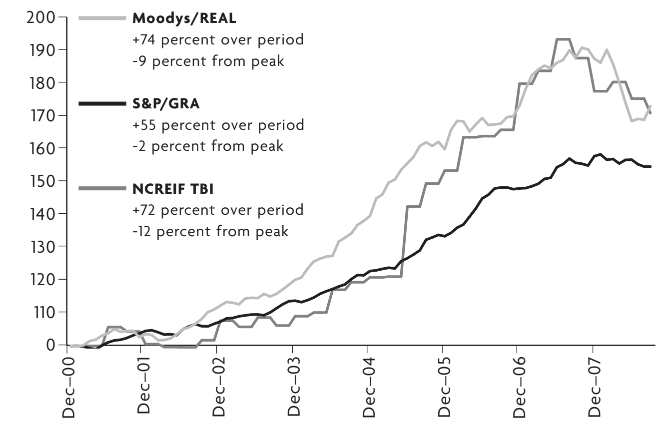
But jobs are not the only measure of the recession. The unemployment rate has begun to climb—hitting 6.7 percent in November and 7.2 percent in December, according to the Department of Labor. And retail sales have fallen, with the Census Bureau reporting retail sales (excluding motor vehicle

Figure **1** **Commercial/Multifamily Vacancy Rates, by Property Type by Quarter**



SOURCES: PROPERTY & PORTFOLIO RESEARCH INC.

Figure **2** **Indexes of Commercial/Multifamily Property Prices (December 2000 = 100)**



SOURCES: MOODY'S INVESTORS SERVICE, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, STANDARD & POOR'S

and parts dealers) down 7.6 percent in December compared with the previous year's level.

Rates

In response to the economic uncertainty and credit crisis, interest rates have gone in two directions. Investors have become so concerned about the safety of their principal that they are willing to lend their money to the federal government on what is essentially a cost-free basis. Conversely, to lend it to private institutions that don't carry a government guarantee, investors are requiring a hefty risk premium.

As a result, rates tied to government-backed debt have fallen to unprecedented lows, while many rates tied to forms of private credit risk have been flirting with record highs.

At its December meeting, the Federal Reserve lowered its Fed Funds Rate to zero, putting it in line with short-term Treasuries, which were also at or near a point of interest-free borrowing for the government. At the same time, corporate bond yields swelled.

The Federal Reserve Board reported that the yield on 10-year Treasury bonds fell from 4.1 percent in June 2008 to 3.5 percent in November. During the same period, 10-year AAA-rated corporate bond yields measured by New York–based Standard and Poor's (S&P) rose from 5.3 percent to 6.1 percent, more than doubling the spread between the two.

Many corporate and other non-government bond yields have tightened from their recent widest points, but at year-end most also remained well wider than their levels at the end of September.

What does all this mean for commercial real estate? In a word, stress—stress across property performance, property values and finance markets; stress that works its way into mortgage performance and bond performance.

Property performance

A key point of stress confronting the commercial real estate markets is property performance, with economic decline directly affecting asking rents, vacancies and concessions.

Job losses are leading to a decline in demand for office space; falling consumer spending is weakening demand for retail space; continued stress in the manufacturing industry is hurting demand for industrial space; and the recession is putting downward pressure on new household formation, thus dampening demand for multifamily apartments.

And the deeper the recession gets, the larger the decline in demand for commercial real estate.

Some of the impact has already been seen. According to Property & Portfolio Research Inc., Boston, vacancy rates climbed for every major property type between the second and third quarters of 2008—from 15.7 percent to 16.2 percent for office properties, 11.8 percent to 13.3 percent for retail space, 9.5 percent to 9.9 percent for industrial space and 6.4 percent to 6.6 percent for apartments (see Figure 1).

Asking rents also have been under pressure from the imbalance produced by falling demand and increasing new and shadow space coming on the market, but are lagging the increase in vacancy rates. From the second to the third quarter of 2008, asking rents for apartments rose slightly from \$18.12 to \$18.19 per square foot, industrial property rents were flat at \$5.23 per square foot, office property rents fell from \$26.90 to \$26.75 per square foot and retail asking rents fell from \$19.86 to \$19.55 per square foot.

The deepening recession, with its continued job losses, retail sales contraction, manufacturing slowdown and compression on household formation, will weaken property performance further in the coming quarters.

Lease structures of commercial properties will mute some of the ups and downs of these economic swings. Long-term leases mean that most leaseholders are obliged to pay a given lease amount for a given period, regardless of the impact of the current downturn. And only a portion of rental space will be priced during this period.

Even more important, the current real-estate-cycle downturn has not been driven by profound overbuilding, as was the case in the late 1980s. As a result, even with a severe recession, it is unlikely property fundamentals will experience the type of shock that was seen then.

That being said, bankruptcies that allow tenants to void some leases, slowdowns in the leasing of new space, competition from subleases and aggressive expectations that vacant space would be leased at higher rents all put downward pressure on commercial properties. That, in turn, makes it harder for borrowers to meet their debt service and increases the likelihood of default.

All of these factors together mean that increasing numbers of properties will face stress in meeting their debt-service obligations.

Property values

Another key point of stress in the current downturn is the value of commercial properties.

According to the most recent statistics that track prices on commercial real estate properties through September 2008, prices are down anywhere from 2 percent to 12 percent from their peaks. The National Council of Real Estate Investment Fiduciaries Transaction-Based Index (NCREIF TBI) records a drop of 12 percent from the peak. The Moody's/REAL index records a drop of 9 percent. The S&P/GRA index records a drop of 2 percent (see Figure 2).

By almost all accounts, these measures reflect only a portion of the price declines being seen on the street. One factor accounting for this is the rapid pace of change in the market and the lag between the period covered by the data and their release—data covering September can be old news by November.

Another is the illiquidity of the market. Unless faced with distress, there is little reason for sellers to consider the discounted prices offered. Likewise, with so many high-yield investment alternatives and continued uncertainty about the economic outlook, potential buyers are often unwilling to raise their price targets.

The result has been a freezing up of the property sales markets. Real Capital Analytics Inc. (RCA), New York, reports that property sales for the four major property types totaled only $31 billion in the third quarter of 2008—less than one-third of its level in the third quarter of 2007.

During the period of rising property prices and liquid property and capital markets, borrowers facing stress in their loans had the ability to sell or refinance to alleviate that stress. Falling prices and an illiquid sales market have removed both of those options for many property owners. In some cases, there also may be covenants tied to the loan, such that if the property value falls below a designated level, the loan will be considered in default and/or additional collateral must be posted by the borrower.

All of these factors can increase the stress on borrowers' ongoing ability to make their mortgage payments and/or on their ability to find alternatives once they find themselves in trouble.

To lenders, however, the greatest stress caused by the downward pressure on property prices is likely the impact on the value of the collateral they hold. While property performance is generally relied on to minimize the probability of default, the property value is usually looked to minimize the loss, given a default. Every percentage drop in property values means an increase in the loss, given default. Likewise, as market illiquidity lengthens the time it takes to dispose of troubled loans or properties, the loss tends to increase.

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Finance markets

A third area of stress facing commercial mortgage lenders and investors is the finance market. Commercial real estate loans generally come due before they are fully amortized, meaning a significant balloon payment is due at the end of the loan term.

In a functioning market, such balloon payments can present a risk if interest rates or property performance have moved dramatically from where they were when the loan was made. In a dysfunctional market such as the current one, balloon payments by their very existence can become a risk.

By most accounts, the commercial real estate market currently has an unusually low volume of maturing mortgages. The extraordinary number of sales transactions in 2006 and 2007, coupled with the large volume of refinancings that took place, means a significant volume of loans ended up being financed early that otherwise would have come due in 2008 and 2009.

According to New York–based Trepp LLC, as of October 2008, out of more than $700 billion active, undefeased loans in CMBS securities, only $22 billion of fixed-rate mortgages (FRMs) were scheduled to come due in 2009. Another $39 billion were set to mature in 2010, and $37 billion of floating-rate CMBS loans were scheduled to come due in 2009. The majority of CMBS loan volume is scheduled to mature in the three-year period of 2015, 2016 and 2017.

(Note: Information on the maturity schedules of commercial mortgages has been limited to the CMBS market. Many estimates have recently been made that were arrived at by extrapolating that and other data to the broader market, with mixed results. In early February, the Mortgage Bankers Association [MBA] will release the results of a new survey of loan maturities across investor groups based on information provided from commercial/multifamily mortgage servicers.)

This lack of maturing loan volume has given the market a bit of breathing room through the current credit crisis. But the longer the crisis lasts, the greater the impact will be.

For many borrowers, the credit crisis may mean an inability to find take-out financing for their existing loan. According to data from the Federal Reserve Board, the third quarter of 2008 saw the first net reduction in commercial/multifamily mortgage debt outstanding since the real estate recession of the late 1980s–early 1990s (see Figure 3). Unless the borrower can extend the loan, has cash on hand or can raise equity from others, loans unable to find a source to refinance at their balloon payments will face default.

Even for borrowers able to find financing at their loan's maturity, there are other stresses. Loans maturing today likely face a financing environment that is very different from when the existing loan was made. Some differences may include:

- lower loan-to-value ratio (LTV) levels;
- higher debt-service requirement levels;
- higher credit spreads on the mortgage rate; and
- "haircuts" on underwriting assumptions, such as lower assumed rents, higher assumed vacancy rates and higher underwritten cap rates.

In many cases, the result will be a loan that is more costly than the existing one. This, too, may push some borrowers—even some who can find financing—into default.

Mortgage performance

The result of these stresses, particularly when they overlap and work in concert, is intensifying pressure on loan performance.

As of the end of the third quarter of 2008, commercial/multifamily loan performance remained relatively strong. While single-family delinquency rates continued to set records and delinquency rates on construction loans exploded, commercial/multifamily delinquency rates grew at a much more muted pace. All indications, however, are that commercial/multifamily delinquencies are on the rise.

After hitting record lows in 2007, delinquency rates for most investor groups notched up over the course of 2008. MBA's third-quarter *Report on Commercial/Multifamily Delinquency Rates* showed the 30-plus-day delinquency rate for CMBS loans had risen from a low of 0.31 percent to 0.63 percent. The report also showed the 60-plus-day delinquency rate for loans held by life insurance companies had risen from 0.01 percent to 0.06 percent, while the 60-plus-day delinquency rate for Fannie Mae had risen from 0.08 percent to 0.16 percent. MBA's report also revealed the 90-plus-day delinquency rate for banks and thrifts had risen from 0.52 percent (in 2006) to 1.38 percent. Conversely, the delinquency rate for multifamily loans held or guaranteed by Freddie Mac had fallen from 0.05 percent to 0.01 percent (see Figure 4).

With the exception of the loans held by banks and thrifts, all of these delinquency levels remain below those reached in the recession of 2001. And all are at just a fraction of the levels seen in the late 1980s and early 1990s.

Even so, the size and complexity of the market today will mean that as delinquency rates rise, they will exert new—and in many cases unexpected—stresses on the commercial real estate market.

Bond performance

Commercial mortgage-backed securities were created to segment the risks and rewards associated with commercial mortgages, and allow investors to take on the risks and rewards that best suit their investment objectives. In times of stress, lower-rated tranches experience losses before higher-rated tranches. In exchange, investors in lower-rated tranches receive a higher yield.

Thus far, the process of tranching of commercial mortgage risks appears to have achieved its ends.

In a December 2008 Standard & Poor's study of ratings transitions across various structured-finance classes, the impact of the tranching of risk is clear. Comparing security default rates by their original ratings of the security, S&P found that no AAA-rated CMBS had defaulted.

The study found, among other classes, 0.08 percent of AA-rated CMBS had defaulted and 0.50 percent of A-rated securities had defaulted, as had 0.78 percent of BBB, 1.87 percent of BB, 6.62 percent of B and 21.62 percent of CCC.

The study also reported that the CMBS market experienced the lowest original-to-current downgrades of any structured-finance vehicle and the highest share of downgrades/defaults among lower-rated securities.

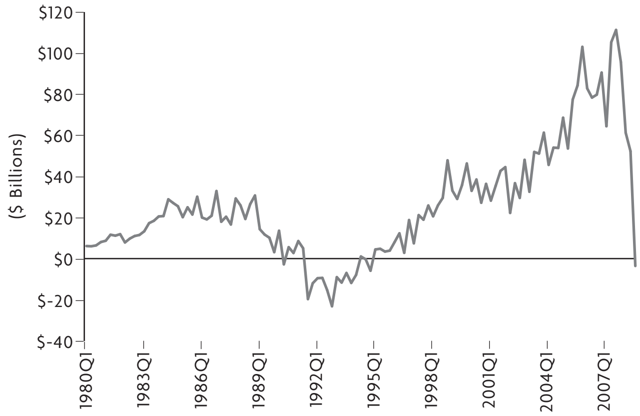
Among all global structured-finance securities initially rated AAA (since 1978), 17 percent were eventually downgraded. This includes 28.31 percent of global collateralized debt obligations (CDOs), 14.32 percent of global residential mortgage-backed securities (RMBS), 10.35 percent of global asset-backed securities (ABS) and just 3.39 percent of CMBS. Looking ahead, most analysts view the AAA-rated CMBS as relatively immune to the current recession; however, as designed, lower-rated tranches are likely to take on the bulk of recession and credit-crisis losses.

Conclusion

The current combination of deteriorating property fundamentals, declining property values and frozen finance markets is creating a real-life stress test for commercial real estate lenders and investors. Yet it is important to keep the current downturn in context, including the facts that:

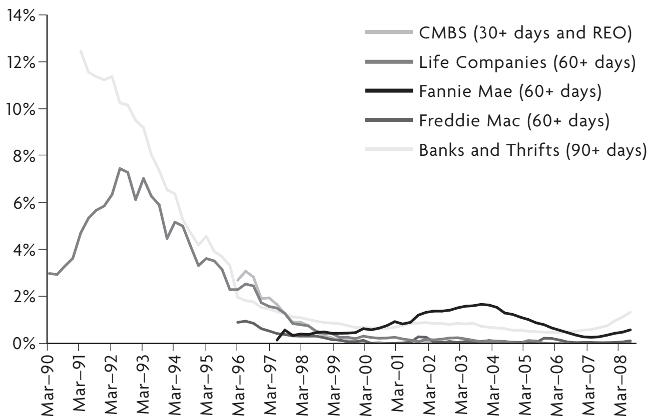
- Every market and submarket is different, and even in the face of national trends, different areas will perform very differently—some better, some worse.
- The commercial real estate market is entering this recession from a position of exceptional strength. This has led performance indicators to hit record levels in recent years. It has also fostered extreme competition in underwriting and other practices that could exacerbate the stress of the current period.
- The commercial real estate market is a cyclical industry. Over the last decade and a half, the down cycles have been

Figure **3** **Net Change in Commercial/Multifamily Mortgage Debt Outstanding**



SOURCE: FEDERAL RESERVE BOARD

Figure **4** **Commercial/Multifamily Mortgage Delinquency Rates Among Major Investor Groups**



Data are available for life companies and FDIC-insured banks and thrifts since 1990 and 1991, for Fannie Mae and Freddie Mac since 1996 and for CMBS since 1997. December figures are not available from Fannie Mae for the years 2000–2004; figures for November are used instead. Prior to 1996, bank and thrift figures are for banks only and also include construction and land loans.

NOTE: Delinquency rates shown are *not* comparable between investor groups. These rates show how performance of loans for each investor group has varied over time, but cannot be used to compare one investor group with another.

SOURCES: MORTGAGE BANKERS ASSOCIATION, WACHOVIA CAPITAL MARKETS LLC, INTEX SOLUTIONS INC., AMERICAN COUNCIL OF LIFE INSURERS, FANNIE MAE, FREDDIE MAC, OFHEO AND FEDERAL DEPOSIT INSURANCE CORPORATION

muted. Most of the stress tests and other models upon which the industry relies were built factoring in the severe downturn of the late 1980s/early 1990s. How well those assumptions translate to the current downturn is yet to be seen.

Commercial real estate firms have long practiced the stress testing of their portfolios. The current downturn will put those tests to the test. **MB**

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