

A Letter From



Jerome Lienhard
Senior Vice President, Global Debt Funding

Dear Freddie Mac Investor,

I would like to highlight some changes we are making to Reference Point. After two years and a tripling of our readership, I have decided to refine our approach as a result of two separate events.

First, competing demands on Lou Crandall's time will prevent him from continuing to contribute to Reference Point. Lou has contributed to nearly every edition so far. We greatly appreciate and will miss the independent insight he has added to our publication.

However, we will continue to showcase the views of well-respected, independent market analysts. And, as we have in the past, we will ask them to address the topics important to you. In this edition, Nancy Vanden Houten of Stone & McCarthy Research Associates discusses the relative risks and rewards of agency and corporate bonds.

Second, in visits with many of you over the past six months, you have told me how much you value the analysis of our Chief Economist, Frank Nothaft. In this edition, we present Frank's summary 2002 economic forecast and its implications for the U.S. housing market. ■

Market Talk

Agencies versus Corporates—
Risk and Reward

By: Nancy Vanden Houten, Government Agency and Policy Analyst, Stone & McCarthy Research Associates in Princeton, NJ.

The landscape for investors has become more uncertain since the demise of Enron. Investors must consider some new factors when evaluating whether bonds are fairly priced. Those factors include the uncertainty about whether accounting problems might surface at other firms, the possibility of more volatility in bond prices as a result of more frequent and larger changes in credit ratings, and the likelihood that ongoing scrutiny by regulators and legislators will lead to new regulations or laws related to corporate governance, financial reporting, and the relationship between corporations and their auditors.

The majority of corporations are not the next Enron—some accounting academics actually argue that there has been a trend toward more conservative accounting by U.S. corporations over the last few decades. In addition, any regulatory and legislative changes that emerge
(continued on next page)

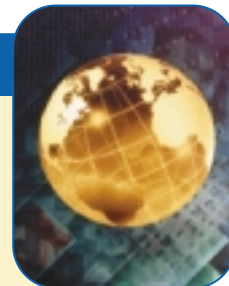
This Issue

*Agencies versus Corporates—
Risk and Reward*

*by Nancy Vanden Houten
of Stone & McCarthy Research Associates*

March 2002 Outlook

*by Frank Nothaft,
Chief Economist, Freddie Mac*



from the current discussion are likely to result in more transparent financial reporting and presumably a reduced risk of future problems at other firms. Some corporations are taking a proactive approach, and are already releasing more information in advance of any formal mandate to do so. Still, Enron isn't a completely isolated case. In the last few weeks, the SEC has launched investigations into the accounting practices at other companies. While the number of future surprises may be small, the fallout from Enron and similar problems at other firms is likely to make the climate for investors more uncertain for awhile.

Do investors in the debt of government-sponsored enterprises (GSEs) like Freddie Mac and Fannie Mae face the same uncertainty confronting corporate bond investors? The developments triggered by Enron have centered around fully private corporations, but there are implications for GSEs and investors in their securities. In fact, it seems like the GSEs are being scrutinized more closely—particularly by some of their critics—because of what happened at Enron.

GSEs are hybrid entities; they share some of the characteristics of other shareholder-owned firms, and they also have some unique characteristics that flow from their government charters. Previous legislative attempts to weaken their charters could not overcome the strong bi-partisan support for the GSEs' housing mission.

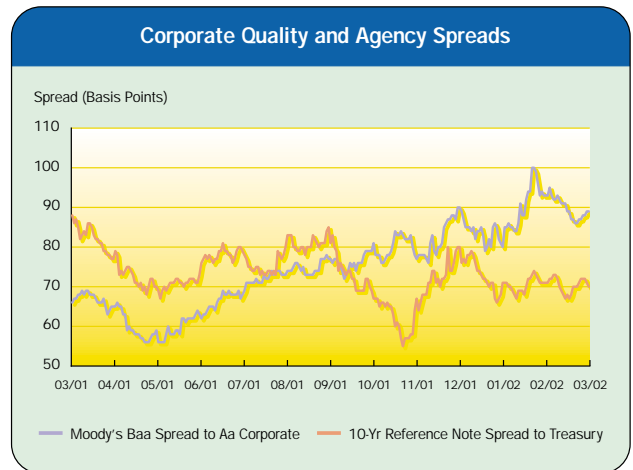
Freddie Mac and Fannie Mae are regulated by the Office of Federal Housing Enterprise Oversight (OFHEO) for

Corporate quality spreads widened dramatically in early February, when developments related to Enron were unfolding rapidly and investors were demanding a greater premium for lower-rated credits.

financial safety and soundness. We've already seen evidence that the GSEs are responding to the call to release more information. In October 2000, Freddie Mac and Fannie Mae voluntarily enhanced their financial disclosures far beyond other financial institutions. Recently, Freddie Mac and Fannie Mae each announced that they will post transactions in company stock by executives and board members on their respective web sites.

Are corporate and agency debt investors being compensated for the uncertainty in their respective markets? Corporate quality spreads widened dramatically in early February, when developments related to Enron were unfolding rapidly and investors were demanding a greater premium for lower-rated credits. Quality spreads are currently several basis points tighter than their widest

levels, but are still wider than at the start of the year. Meanwhile, agency spreads to Treasuries have remained in a relatively narrow range since the beginning of the year.



Spread levels alone, however, don't allow us to compare the relative rewards of investing in different asset classes. The "Sharpe ratio" is a commonly used measure of the return investors receive for taking on risk, and allows for the comparison of returns from different types of investments. More specifically, the Sharpe ratio quantifies the additional return per unit of volatility that an investment provides. When the concept was introduced in the mid 1960s by William F. Sharpe, he proposed calling it a "reward-to-variability ratio." The term didn't catch on, but we think it describes well what's being measured.

One of the most frequent ways to calculate a Sharpe ratio is as follows:

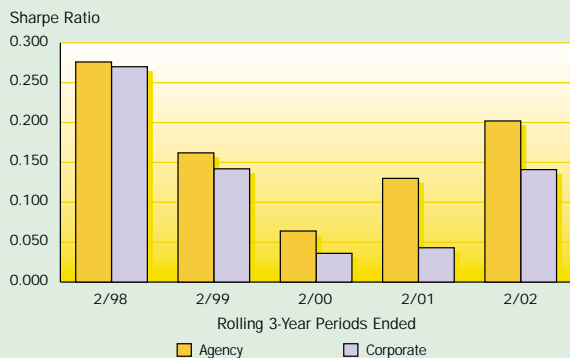
$$\text{Sharpe Ratio} = \frac{\text{Average Monthly Return} - \text{Risk Free Rate of Return}}{\text{Standard Deviation of Monthly Returns}}$$

The 3-month Treasury bill is typically used as the risk-free rate of return.

To compare the returns of agency debt and investment grade corporate debt, we calculated Sharpe ratios for several different periods using a number of Merrill Lynch's bond indices. We used the Merrill Lynch AAA Agency Master Index and the U.S. Corporate Master Index, as well as some of the sub-indices within each of those two broader indices. We used monthly returns to calculate Sharpe ratios over five rolling, three-year periods, with the most recent period ending February 28, 2002.

When comparing the Sharpe ratios of agency and corporate indices, the results varied depending on the index we used. In general, investors in agency debt have been better rewarded for the volatility in the agency market than investors in investment grade corporate debt represented by the indices we evaluated. For instance, the Sharpe ratio for the AAA Agency Master Index in all of the three-year

Sharpe Ratios for Corporate and Agency Bond Indices



Agency: Merrill Lynch U.S. Agency Master Index
Corporate: Merrill Lynch U.S. Corporate Master Index

periods was higher than the ratio for the U.S. Corporate Master Index.

We also compared Sharpe ratios between the AAA Agency Master Index to the Merrill Lynch indices for AAA, AA, and A rated corporate bonds.

As we noted above, the Sharpe ratio is a reward-to-variability ratio that permits the comparison of returns across asset classes, so in some sense, credit ratings shouldn't matter. Since the average credit rating of Merrill's Corporate Master Index can change over time, however, some of the volatility in returns could be a function of any change in the credit rating of the overall index. Since the credit rating of the AAA Agency Master Index does not change, we also wanted to compare the Sharpe ratios for the agency index to other indices with a consistent credit rating. The Sharpe ratios for the agency index were higher in each of the periods than the ratios for all of the corporate sub-indices with one exception—the ratio for AA rated corporates was slightly higher in the 12 months ended February 28, 2002.

Merrill Lynch also has agency and corporate indices for large cap issues. The large cap indices, which were introduced in 2000, include issues totaling at least \$500 million and consist of data going back to December of 1996. These indices reflect the growing inclination of corporations and particularly the GSEs to sell larger, more liquid securities. The average issue size of the securities in the large cap agency index is just under \$3.0 billion, while the average size of issues in the large cap corporate index is just under \$1.0 billion. By our calculations, the GSEs' large debt programs, like Freddie

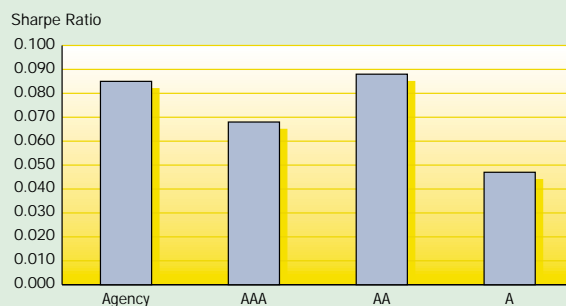
In general, investors in agency debt have been better rewarded for the volatility in the agency market than investors in investment grade corporate debt . . .

Mac's Reference Note® program, account for most of the issues represented by the large cap agency index. The Sharpe ratio for the large cap agency index has been higher than the ratio for the large cap corporate index for each period we reviewed.

The Sharpe ratios we calculated show that, at least by this measure, investors in agency debt over the last several years have been generally better compensated for the volatility in their market than investors in corporate bonds. But what about more recently? While we think the Sharpe ratio is probably most reliable when it is based on data from a relatively long time horizon, we also calculated Sharpe ratios for shorter, more recent time periods to try to capture how well investors have been compensated for taking on risk more recently. In this case we used weekly data.

These calculations showed that the Sharpe ratios for all the corporate indices in our sample were higher than the Sharpe ratios for the agency indices in 2001 after being lower in 2000. We also broke the 12 months ending February 28, 2002 into two, six-month periods ending in August of 2001 and February of 2002. In the latest six-month period, all of the Sharpe ratios fell compared to the six months ending in August of last year, but the corporate ratios fell more. The only corporate index to have a higher Sharpe ratio than an agency index in the six-month period ending February 28, 2002 was the AA rated index. These results suggest that agency investors have for the most part been better rewarded for taking on risk in the last several months when the fallout from Enron has increased the uncertainty in financial markets. We should note again, however, that we think the results produced by calculating Sharpe ratios over relatively short periods of time are less meaningful than those that use data from a longer time horizon.

Sharpe Ratios for 6 Months Ended February, 2002

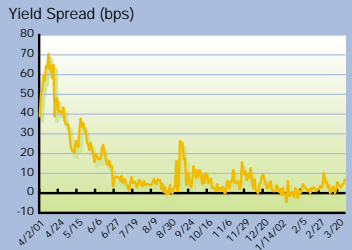


Agency: Merrill Lynch U.S. Agency Master Index
Corporate: Merrill Lynch U.S. Corporate AAA, AA and A Indices

Note: John Canally, C.F.A. also contributed to this article. John writes about the corporate bond market for Stone & McCarthy Research Associates.

Data Bank

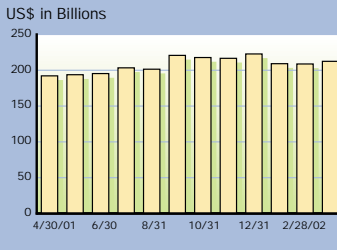
Reference Bills[®] Spread to Treasuries (3-month) 12 Months Ending March 31, 2002



Reference Bills Issuance—Par Amount (billions)

Maturity	3 Months ending March 31, 2002	12 Months ending March 31, 2002
1 Month	35.00	149.50
2 Month	37.00	156.50
3 Month	42.00	178.50
6 Month	7.00	33.00
12 Month	8.00	29.00
TOTAL	\$129.00	\$546.50

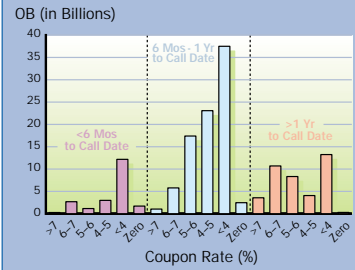
Discount Notes and Reference Bills Outstanding 12 Months Ending March 31, 2002



Par Amount Issued (billions)

Maturity	3 Months ending March 31, 2002	12 Months ending March 31, 2002
< 1 Month (ex. Overnights)	72.68	265.89
1-2 Months	39.15	190.40
2-3 Months	1.78	30.81
3-6 Months	50.78	234.87
6 Months-1 YR	30.47	165.85
TOTAL	\$194.85	\$887.82

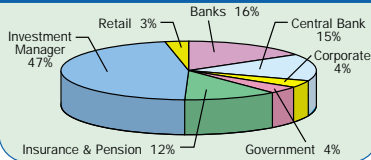
MTNs Outstanding on March 31, 2002



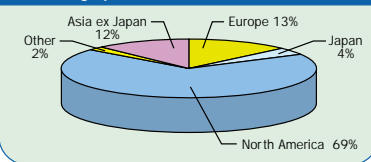
Maturity	Non-Callable MTN O/S (billions)	Callable MTN O/S (billions)
1-3 YRS	3.70	45.30
3-5 YRS	1.50	30.80
5-10 YRS	9.30	22.50
> 10 YRS	5.20	49.90
TOTAL	\$19.70	\$148.50

through March 31, 2002

Reference Notes Issuance Investor Distribution (ex. auctions)



Reference Notes Issuance Geographic Distribution (ex. auctions)



Global Reference Note Calendar—Second Quarter 2002

April					May					June				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F

U.S. Dollar Program:

P2 = Pricing date for 2-Year
P3 = Pricing date for 3-Year
P5 = Pricing date for 5-Year
P10 = Pricing date for 10-Year
P30 = Pricing date for 30-Year

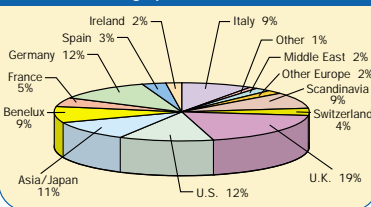
A = Auction announcement
S = Settlement date
O = Internet auction

Euro Program:

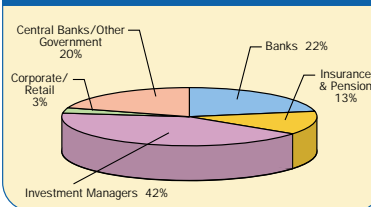
€ = New €Reference Note pricing week, re-opening window of prior issue(s), maturit(ies) to be announced

through March 31, 2002

€Reference NotesSM Geographic Distribution



€Reference Notes Investor Distribution



€Reference Notes Outstanding as of March 31, 2002

Structure	Amount Outstanding	ISIN
3-Year	4.5% of 3/15/2004	€8 billion XS0125902451
5-Year	5.25% of 1/15/2006	€6 billion XS0121336266
5-Year	4.63% of 2/15/2007	€5 billion XS0142391209
10-Year	5.75% of 9/15/2010	€6 billion XS0117858323
10-Year	5.13% of 1/15/2012	€5 billion XS0136341814

For More Information

Freddie Mac Investor Relations
8200 Jones Branch Drive McLean, Virginia 22102 USA

www.freddiemac.com/debt

No offer or solicitation of securities. This document contains information related to, or referenced in the offering documentation for, certain Freddie Mac securities. Freddie Mac securities may not be eligible for offer or sale in certain jurisdictions or to certain persons. This information is provided for your general information only, is current only as of its date and does not constitute an offer to sell or a solicitation of an offer to buy securities. The information does not constitute a sufficient basis for making a decision with respect to purchase and sale of any security. All information regarding or relating to Freddie Mac securities is qualified in its entirety by the relevant offering circular and any related supplements. Investors should review the relevant offering circular and any related supplements before making a decision with respect to the purchase or sale of any security. In addition, before purchasing any security, please consult your legal and financial advisors for information about and analysis of the security, its risks and its suitability as an investment in your particular circumstances.

Freddie Mac obligations. Freddie Mac's securities are obligations of Freddie Mac only. The securities, including any interest or return of discount on the securities, are not guaranteed by and are not debts or obligations of the United States or any federal agency or instrumentality other than Freddie Mac.

No Warranties; Limitation of Liability. Although Freddie Mac attempts to provide reliable, useful information in this document, Freddie Mac does not guarantee that the information is accurate, current or suitable for any particular purpose. Freddie Mac assumes no obligation to update or continue to post the information in this presentation. Opinions and estimates contained in this brochure are those of Freddie Mac currently and are subject to change without notice.

© 2002 by Freddie Mac. Information from this document may be used with proper attribution. Alteration of this document is strictly prohibited.

March 2002 Economic Outlook

Frank Nothaft
Chief Economist
March 15, 2002

The “recessionette” appears to be over. We believe the economic recovery has started. Federal Reserve Chairman Alan Greenspan said as much in his March 7th testimony before the Senate Banking Committee when he “suggested” that “economic expansion is already well under way.” In harmony with his remarks, February’s payroll employment figures showed a surprising 66,000 gain in payroll employment, the latest of several economic indicators to point toward the recession’s end.

Concern has surrounded the ability of consumer spending to contribute to this year’s expansion. However, consumers don’t appear concerned. Personal consumption expenditures for the fourth quarter 2001 were revised upward, contributing to the hefty upward

With mortgage rates averaging one-eighth of a percentage point lower in February, the continued vitality of housing demand is assured.

revision in GDP growth to 1.4% for the final three months. Consumer credit expanded at a 9.3% clip in January, and light vehicle sales were strong in the first two months of this year. Home sales have also remained robust, with home sales (new construction and previously-owned) hitting another record with 6.9

million sales (Seasonally Adjusted at an Annual Rate, “SAAR”) in January. With mortgage rates averaging one-eighth of a percentage point lower in February, the continued vitality of housing demand is assured.

Manufacturing appears poised for a rebound, which will complement growth in other sectors of the

economy. Factory orders were up for a second straight month in January, and the Institute for Supply Management’s manufacturing index jumped in February, the first gain in 19 months. As further confirmation, the Fed announced that industrial production was up for a second straight month in February. Productivity grew at a much faster rate during the fourth quarter than had been anticipated, suggesting productivity rose by 2% for the year as a whole. If strong productivity growth continues, then labor cost pressures will be contained and the inflation outlook will continue to be good. We project inflation, as measured by the Consumer Price Index, to grow only 2.0% over this year.

2002 Economic Forecast

GDP Growth	3.3%
Inflation (CPI)	2.0%
Unemployment Rate	5.5%
Conforming Mortgage Rate	7.0%
Housing Starts	1.6 million
Single-Family Home Sales	6.1 million
House Price Appreciation	3.0%
Single-Family Mortgage Originations	\$1.4 trillion

Details

- We have revised upward our projection of economic growth for 2002 based on the strength in recent economic indicators. Real GDP is forecast to expand 2.5% in the first quarter and 3.3% for the year.
- Inflation will remain low, with price increases of 2.0% this year and a longer-term trend of 2.5% annually.

(continued on side 2)

- The unemployment rate may edge above February's 5.5% before gradually easing lower. For 2002, the rate is forecast to average 5.5%, declining to 5.0% in 2003.
- With low inflation expected, long-term interest rates should also remain low. Thirty-year fixed-rate mortgages have hovered within a narrow 0.5% band centered at 7% since mid-November, and this pattern should continue. The rate on conforming loans is expected to average 7.0% for 2002.
- Housing starts have remained vibrant, hitting 1.68 million (SAAR) in January. We think that level cannot be sustained, however, and February starts should come in lower. For the year, starts are forecast at 1.60 million, the same as 2001.
- Likewise, a sales pace of close to 7 million for single-family houses, as indicated in the January data, cannot be sustained. Sales should slip down toward a 6 million (SAAR) pace and come in about 2% below 2001's record level of 6.2 million sales.
- House price appreciation slowed dramatically in the fourth quarter, but an upward revision in appreciation (as measured by Freddie Mac's Conventional Mortgage Home Price Index¹) is likely. Much of the initial estimate is based on home purchase contracts signed in September

and October, and home values are likely to have firmed subsequently. Look for appreciation of 3% for 2002.

- Single-family mortgage originations will be about 20% lower in 2002 because of an anticipated drop in refinancing, coming in around \$1.4 trillion in new production. Refinancing will slow because mortgage rates are likely to inch a bit higher in the second half of the year (especially for ARMs as the Fed pushes the Federal Funds rate up) and because the bulk of families with a financial incentive to refinance will have done so by mid-year. The ARM share of originations will continue to remain low, averaging 16% in 2002.

¹Freddie Mac's Conventional Mortgage Home Price Index and Frank Nothaft's Housing and Economic Reports are available on Bloomberg at [FRE<GO>](#).

Frank Nothaft is Freddie Mac's Chief Economist. He is responsible for primary and secondary mortgage market analysis and research, macroeconomic analysis and forecasting. Prior to being named chief economist, Nothaft served as deputy chief economist for Freddie Mac since 1988 and as a senior economist from November 1986. Nothaft was an economist with the Board of Governors of the Federal Reserve System from 1983 until 1986, where he served in the mortgage and consumer finance section and as the assistant to Governor Henry C. Wallich.

For More Information

Freddie Mac Investor Relations
8200 Jones Branch Drive McLean, Virginia 22102 USA

www.freddiemac.com/debt

No offer or solicitation of securities. This document contains information related to, or referenced in the offering documentation for, certain Freddie Mac securities. Freddie Mac securities may not be eligible for offer or sale in certain jurisdictions or to certain persons. This information is provided for your general information only, is current only as of its date and does not constitute an offer to sell or a solicitation of an offer to buy securities. The information does not constitute a sufficient basis for making a decision with respect to purchase and sale of any security. All information regarding or relating to Freddie Mac securities is qualified in its entirety by the relevant offering circular and any related supplements. Investors should review the relevant offering circular and any related supplements before making a decision with respect to the purchase or sale of any security. In addition, before purchasing any security, please consult your legal and financial advisors for information about and analysis of the security, its risks and its suitability as an investment in your particular circumstances.

Freddie Mac obligations. Freddie Mac's securities are obligations of Freddie Mac only. The securities, including any interest or return of discount on the securities, are not guaranteed by and are not debts or obligations of the United States or any federal agency or instrumentality other than Freddie Mac.

No Warranties; Limitation of Liability. Although Freddie Mac attempts to provide reliable, useful information in this document, Freddie Mac does not guarantee that the information is accurate, current or suitable for any particular purpose. Freddie Mac assumes no obligation to update or continue to post the information in this presentation. Opinions and estimates contained in this brochure are those of Freddie Mac currently and are subject to change without notice.

© 2002 by Freddie Mac. Information from this document may be used with proper attribution. Alteration of this document is strictly prohibited.