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New Landscape for Multifamily Bonds

A Survey of Major Trends in the Sector

United States

Municipals

Contents

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A New Multifamily Landscape

The multifamily bond market confronts a changed landscape. It features rising new issue volume, new classes of issuers and project types, and heightened credit risk. After years of stagnation, the MF sector is experiencing dynamic growth, in large part due to increased bond volume caps and the success of the Low Income Housing Tax Credit. Meanwhile, Section 8 Restructuring, and overhauls of Section 236 and Public Housing are altering fundamental investment characteristics of subsidized housing.

Moreover, the sector faces its **first major credit test in over a decade** from weakening real estate markets. The greatest impacts should be on unenhanced "affordable housing" issues. In addition, more uninsured Section 8 projects are exhibiting acute distress due to a permanent rent freeze. This report surveys salient developments in this extremely diverse sector.

Favorable Performance Outlook

This is nonetheless an excellent time to consider the performance outlook for the *high grade, credit-enhanced* MF sector. As highlighted in a recent report[1], Single Family Housing bonds outperformed the municipal market by huge margins in years *following* lows in interest rates (1994 and 1999), according to the Merrill Lynch Total Return Index. Furthermore, in years of flat to *moderately* rising rates, their returns are usually superior, due to their higher coupon income. Indeed, they have bested the Market Index in 8 of the 12 years since 1990.[2]

Exhibit 1: Multifamily Bonds vs. Single Family Bonds

- Broadest Selection of Credit Risk
- Strong Growth in Issuance
- Smaller Average Issue Size
- Less Concentration of Issuers
- May Have Greater Disclosure Obstacles
- **Similar Yield Penalty for Embedded Call Options, but with far less exercise of calls.**
- **Similar total return and performance characteristics.**
- No average life pricing/ no yield curve play. Main attraction is long-term yield advantage.

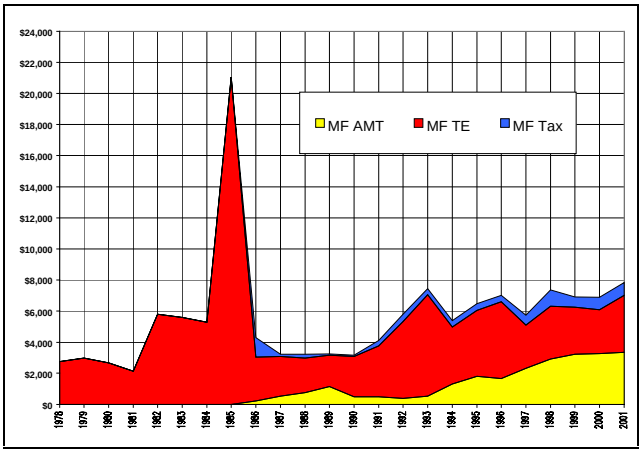
High-grade MF bonds bear many similarities to Single Family bonds (see Exhibit 1). Both offer superior credit strength together with extra yield (near "BBB" municipals) due to a basket of embedded call options. However, **MF bond call options are exercised far less frequently**. The vast majority of MF mortgages may incur no redemptions at all for a decade or more. Thus, they are attractive alternatives to SF bonds for long-term, yield-oriented buyers. Many MF issues offer similarly higher yields without much actual call risk.

In addition, the MF sector offers an abundance of lower medium-grade and speculative credits for sophisticated buyers able to assess and manage credit risk. The outlook for credit-sensitive MF bonds hinges, as usual, on the specific circumstances of the underlying real estate.

Non-AMT Multifamily Surges

MF bonds have become a growth sector. New issues rose 13.8% last year to $7.8 billion, the **second highest ever**. See Chart 1. Through 5/10/02, MF volume was at $2.4 billion, a similar pace. MF bonds were 33% of total Housing volume in 2001. The 2001 total was exceeded only by $21 billion in 1985, when a "rush to market" occurred to beat the effective date of the Tax Reform Act. The TRA severely reduced annual issuance to around $3 billion from 1986-1990, by curtailing real estate tax shelters. It also imposed volume caps and the alternative minimum tax on private activity bonds.

Chart 1: Multifamily Bond Volume by Tax Status 1978-2001
($millions)



Source: Securities Data Corp. Includes short-term and private placements.

The gain last year was almost entirely in non-AMT MF, which leaped 31% to $3.7 billion. AMT and taxable MF were flat at 2.1% and 1.5%, respectively. Non-AMT bonds comprised 47% of all MF bonds, the most since 1997.[3] Non-AMT MF was a disproportionate 47% of all non-AMT Housing bonds – **suggesting that non-AMT buyers can find as much supply in MF bonds as in the SF sector.**

Most individuals who buy municipal bonds face AMT liability in coming years. Unless revised, the AMT may significantly deplete the ranks of retail buyers of Housing

1 See "*Trends in SF Bond Calls, Structures & Pricing*" dated April 15, 2002. **Note that Housing bonds have under-performed in years of major market rallies, due to their inherent negative convexity.**

2 The Merrill Lynch Total Return Index is available on Bloomberg by typing "U0A0 Index GO". The SF HSG Index is "U0AS".

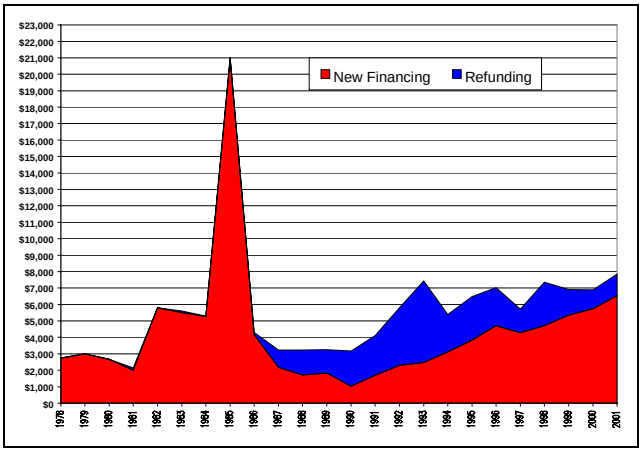
3 New MF financings may have non-AMT status if project owners are 501(c)(3) or governmental entities. New Single Family bonds may attain non-AMT status only by refunding an existing non-AMT bond.

in coming years, and (possibly) of mutual funds. Some modest widening in AMT spreads has been observable this year; gradual further widening is likely. MF is the third largest AMT sector, at 12% of all AMT bonds sold in each of the last two years.

Robust Trend in New Construction

Perhaps the most important sub-current in the new issue data is a **more than fivefold increase in new construction** from its nadir in 1990 to $6.5 billion last year. See Chart 2. According to data from Securities Data Corp. (not validated by Merrill Lynch) new projects account for 83% of volume in both 2000 and 2001, the highest percentage since the mid-1980s.[4] This is in sharp contrast to the low interest rate year of 1993, when refundings were 67% of all issues.

Chart 2: MF Bond New Financings vs. Refundings 1978-2001



Source: Securities Data Corp. Includes short-term and private placements. Merrill Lynch has not validated this data.

Strong Growth Prospects for MF

While 83% sounds surprisingly high, growth in new construction has solid underpinnings (see Exhibit 2). It should benefit from the second leg of the 50% volume cap increase in 2001. MF rose to 21% of volume cap awards in 2000 (excluding 11% to Housing – undefined) from 16% in 1998 (excluding 5% to Housing – undefined).[5] Repeal of the federal Ten Year Rule may also diminish competition from Single Family Bonds for volume cap.[6] Bonds for new construction have also been greatly spurred by the Low Income Housing Tax Credit. **Demographic trends are excellent.** The entry into the rental market of the echo boomers, aging baby boomers, and the influx of immigrants should buoy demand for affordable rentals.

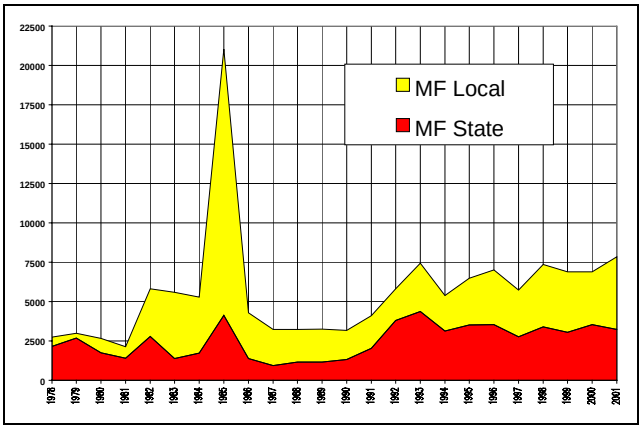
Great Diversity of Issuers

The MF sector has an enormous variety of issuers. This is partly due to the larger share held by local HFAs. Locals produced 30% of MF bonds in 2001, the most since 1991. This is in contrast to the SF sector, where State HFAs have accounted for around 85% of issuance since 1997. Chart 3 illustrates the significance of local HFA issues in the MF sector. Note that the 1985 "rush to market" was mainly a local HFA phenomenon.

Exhibit 2: Multifamily Growth Outlook Strong

- Insatiable Demand for Low Income Housing. Financing is the main constraint.
- Leading beneficiary of bond volume cap increase;
- Availability of the Low Income Housing Tax Credit;
- Aging Population;
- Entry of echo baby boomers into the rental market this decade;
- Surging immigration into the United States;
- Movements to curb sprawl and revitalize urban cores;
- Housing affordability crisis exacerbated by long real estate boom;
- Emergence of Public Housing Authority financings;
- Financings for Preservation and Rehabilitation of existing stock.

Chart 3: State vs. Local HFA MF Volume 1978-2001 ($ Millions)



Source: Securities Data Corp. Includes short-term and private placements.

The largest MF issuers in 2001 are listed in Exhibit 3. About half of the top 15 are local HFAs. (In the SF sector, none of the top 15 are locals.) **The two New York issuers combined for $1.2 billion, 15% of the sector.** This is not surprising, since NY has the highest percentage of households that rent (69.8% in the 2000 Census versus 33.8% nationally). The $291 million sold by Chicago PHA in December was the first of a new breed (described later).

4 Acquisitions of existing projects are not shown separately.

5 From the Survey of Volume Cap Allocations by The Bond Buyer.

6 See "*Impact of Ten Year Rule Repeal*", 22 May 2001.

Exhibit 3: Largest Issuers of MF Bonds, 2001 *($ millions)*

NYS Housing Finance Agency	$565
NYC Housing Dev Corp	$462
California Statewide Comm Dev Au	$385
Chicago Public Housing Authority	$291
California Housing Finance Agcy	$271
Virginia Housing Dev Authority	$232
Florida Housing Finance Corp	$223
Texas Affordable Housing Corp	$196
Michigan State Housing Dev Auth	$182
Bexar Co Housing Finance Corp	$175
Lees Summit-Missouri	$145
New Jersey Hsg & Mtg Fin Agency	$109
Maricopa/Phoenix Co Ind Dev Auth	$106
Montgomery Co Redev Authority	$100
Missouri Housing Dev Commission	$98

Source: **Securities Data Corp. Merrill Lynch has not validated this data.**

A Broad Range of Project Types

An enormous diversity of project types also exists. The main ones are shown in Exhibit 4. They range in tenant profile from market rate developments requiring a minimum "set-aside" of 20% of units for low/moderate income renters ("80/20s"), to Public Housing projects housing the neediest. Even within major categories like Section 8 projects, a wide array of individual project characteristics may be encountered. **Thus, generalizations about MF projects, even by type, may be perilous.**

Exhibit 4: Major Bond-Financed Property Types

- **80/20 Mixed Income Market Rate Developments.** Non-AMT Bonds with pre-1986 tax provisions preserved through refundings. Required to "set aside" at least 20% of units for tenants with incomes not exceeding 80% of area median.
- **501(c)(3) and Governmentally-Owned Projects.** No AMT, volume cap, income limits, 2% cost of issuance, or advance refunding restrictions. Range of incomes.
- **40/60 or 20/50s.** Since 1986, privately-owned properties must set aside 20% of units for tenants with incomes at 50% or less of median, or 40% for those at 60% of median.
- **Low Income Housing Tax Credit Projects ("Affordable Housing").** 40/60 or 20/50 set aside rule; often 100% low income to maximize Credit.
- **Section 236 Projects.** Federal interest rate subsidy. Incomes allowed up to 80% of median, but usually much lower due to presence of other subsidies.
- **Section 8 Projects.** Deep federal rent subsidy usually on 100% of units. Income limits revised down numerous times to very low levels.
- **Public Housing Authority Projects.** Federal government support near total.

The Tax Credit: A Huge Success Story

A primary reason for the rise in construction has been the effectiveness of the Low Income Housing Tax Credit. Since its creation in 1986, it has helped generate over one million new units. **Over half of all new affordable housing in recent years involved the Credit.** Although Tax Credit projects usually receive other subsidies, most share certain characteristics (see Exhibit 5). These include a moderate Loan-to-Value Ratio (due to the substantial equity contributed by the Credit), a lower-income tenant base (frequently all below 60% of area median income), and **owner/investors highly motivated to maintain the project in order to preserve their Credits.**

Owner motivation is predicated upon continued need for tax credits, wherewithal to support a project, and tax laws. It is possible that the Tax Credit market might reach **saturation** some day. Although in scant supply lately, authorization for the 9% Tax Credit was recently increased by 40%. The 4% version available with tax-exempt bonds will also see more use, due to the 50% increase in private activity bond caps. In addition, the American Dream Downpayment Act would introduce a similar credit for single family construction.[7] Dilution might chill MF construction, and weaken any secondary market for credits on existing projects.

Tax Credit deals have had an outstanding track record. A recent study reported the **cumulative foreclosure rate (or deed-in lieu) since inception at an incredibly low 0.14%.** [8]However, a potential weakness is their inability to raise rents over 30% of tenant income to offset surges in operating expense (e.g., insurance costs). Another is the likely loss of interest by tax-motivated investors at the end of the 15-year compliance period. **The earliest Tax Credit deals will soon face higher credit and prepayment risks.** It is conceivable that, in their new post-compliance phase, some may undergo disinvestment, sales to new owners, and management changes. These risks may be compounded in overbuilt areas experiencing increases in vacancies and market rent declines.

Exhibit 5: Low Income Housing Tax Credit Spurs Production

- The Tax Credit (Section 42) is one of the most successful programs for low income housing ever; facilitating the majority of new construction today.
- Often a third or more of a project's total financing is furnished by sales of Tax Credits. Moreover, this comes in the form of **cash equity**.
- New 40% increase in authorization of the 9% Tax Credit. State authority is raised from $1.25 per capita to $1.75 by 2002, indexed for inflation thereafter. Minimum for small states of $2 million also established.
- The 9% Credit is not permitted with tax-exempt bonds – only with taxables. Most developers prefer 9% Credit. **If tax-exempt bonds are used, the maximum Tax Credit is 4%**. There is no cap on the 4% Credit.
- Credits earned over 10 years; compliance period of 15 years. Credit investors have strong incentive to support property to avoid recapture - but prepayments may occur after 15th year.
- Rent increases are restricted: maximum rent is 30% of tenant income. However, credit experience has been positive.

7 The American Dream Downpayment Act (H.R. 4446) is a centerpiece of the Bush Administration's housing agenda. Introduced by Rep. Mike Rogers of MI, it has over 40 co-sponsors. One key provision is the "Renewing the Dream" Tax Credit, modeled after the LIHTC, which would build or rehab 100,000 homes in low-income areas.

8 From "*Understanding the Dynamics: A Comprehensive Look at Affordable Housing Properties*" from. Ernst & Young.

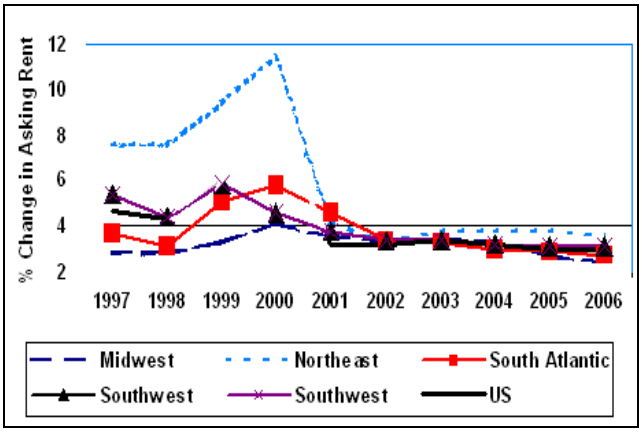
Extent of the Real Estate Market Downturn

Any type of MF projects with marginal finances or competitive weakness may be sorely tested by the first national real estate downturn in a decade. Of course, apartments are considered more durable in downturns than other commercial real estate (e.g., hotels, shopping malls, warehouses). Furthermore, conventional wisdom has it that low-income apartments are less vulnerable than market rate ones. However, this latter notion may be most relevant for rent-subsidized projects. **Tenants in affordable housing and Tax Credit units may prove susceptible** to rising unemployment and reductions in income in some locations.

There is no doubt that **occupancy and rents have come under pressure** around the nation following some salad days. According to Reis, Inc., a leading real estate data firm, rents at market rate properties in the top 50 metro areas had surged a hefty 6.1% in 1999 and 8.5% in 2000. Vacancy rates had fallen to an extremely tight 3% at the end of 2000. Then, rental growth for 2001 slipped to 3.2%, the lowest rate since 1994, while vacancies rebounded to 4.8%. Reis projects only 3% average annual growth through 2006.

For the first quarter of 2002, Reis reports that **vacancies increased from the fourth quarter in 47 of 50 metro areas**. The highest vacancy rates were in Austin (11.6%), Charlotte (11.1%), Atlanta (9.7%), Raleigh-Durham (9.4%), Memphis (9.4%), Denver (9.3%), Phoenix (8.5%), Orlando (8.4%), Nashville (8.4%), and Cincinnati (8.3%). They also report **rent declines in 16 cities**, led by San Jose at -8.2%, Oakland -3.9%, and New York –3.6%.

Chart 4: Multifamily Rent Trends 1997-2006



Source: Reis America Quarterly. Actual data through year-end 2001.

M/PF Research reports that in March 2002, 34.5% of better quality apartments in 24 key markets were offering rent concessions that effectively provide a 7.4% discount below stated rents. In weaker markets, the percentage of apartments offering concessions was much higher: Austin 59%, Seattle 58%, San Francisco 56%, Las Vegas 53%. At the other extreme, Broward County had only 12%.

M/PF also reports that Houston was the only major US apartment market that showed even slight improvement in occupancy rate (up 0.6% to 95%) on an annual basis in 2001 – and even that was weakening by year-end. Their December "same store" survey showed national occupancy rates at 93.9%, and rents down 0.3% for the year.

Merrill Lynch Data on Weak Markets

A Merrill Lynch REIT research reports **that all 31 major markets it tracks are worse off now than they were six months ago**.[9] Fourteen markets are labeled "distressed" (see Exhibit 6). For all 31 markets, same-store asking rents slipped 2.2% in the 1stQ-02, on top of a 3.0% decline in 4thQ-01. The largest declines over the last two quarters were in Austin (-7.8%, -4.6%), Charlotte (-5.5%, -8.0%), San Jose (-5.3%, -10.5%), San Francisco (-3.1%, -9.6%), and Oakland-East Bay (-2.9%, -7.5%). Their survey also reports that **75% of landlords are offering concessions**.

Vacancy rates rose to 7.2% in the 1stQ-02. The highest vacancy rates were reported in Cleveland (11.8%), Charlotte (9.9%), Austin (9.8%), Orlando (9.2%), Dallas (8.6%), Atlanta (8.5%), Denver (8.5%), Phoenix (8.4%), and Indianapolis (8.1%). The report concludes that **the downturn has not yet run its full course.**

Exhibit 6: ML REIT Research Assessments of 31 Apartment Markets in 1Q-02

Healthy	Stable	Weak	Distressed
Philadelphia	Houston	Boston (-)	Oakland/E. Bay
	Miami	Los Angeles	San Francisco
	San Diego (+)	Orange County CA	San Jose
	Washington DC (-)	Portland OR	Austin
	St. Louis	Seattle	Phoenix
		Las Vegas	Dallas
		Cleveland	Denver
		Columbus	Atlanta
		Minn-St. Paul (+)	Charlotte
		San Antonio	Orlando
		Tampa	Nashville
			Chicago
			Detroit
			Indianapolis

Note: Pluses or minuses are used to indicate those situations where market conditions appear to be strengthening (+) or weakening (-).
Source: Merrill Lynch. See "*Rental Apartment Markets in the U.S.*", April 10, 2002, by Steve Sakwa and Leonard Sahling.

Perspective: A Moderate Dip

Although rent declines may surprise some who entered the industry after the last recession, this downturn is still expected to be moderate by historical standards. The mild recession, strong demographic demand, lack of extreme excesses of overbuilding, low interest rates, and new discipline of the securities markets on lending should pull

9 See "*Rental Apartment Markets in the U.S.*", April 10, 2002, by Steve Sakwa and Leonard Sahling. Data is based upon market research from Axiometrics Inc.

MF real estate out of its slump by 2003 in most areas. A rise in mortgage rates, and corresponding decrease in the affordability of single family homes, may also lower rental vacancies. FNMA and FHLMC, who dominate MF lending, are not reducing their commitment to the sector (although underwriting standards are tightening). Thus, a liquidity squeeze is not expected, but rather a credit weakening.

A major wave of MF mortgage defaults, as in the late 1980s, is not expected. Serious delinquencies for apartments in CMBS pools remain very low (less than 1%). However, real estate delinquencies lag economic activity. In addition, certain local markets will feel more pain. In general, markets in Sunbelt states and those most impacted by the technology bust appear weakest**. Supply-constrained markets in the Northeast, southern California, and Chicago appear much stronger.**

Bond Exposure to Real Estate Risk Limited

The impact of the downturn will also be felt unevenly by MF bondholders due to the wide variety of project types and underwriting standards. **The vast majority of MF bonds are credit enhanced.** Indeed, *all* investment grade rated MF bonds required some form of credit enhancement until the advent of S & P's "Affordable Housing" program in 1993. Previously, unenhanced bonds backed solely by real estate were found only in the sizable MF high yield (unrated) market.

Exhibit 7: Multifamily Bond Credit Enhancements

- **FHA Insurance programs (private mortgage insurance is rare)**
- **GNMA, FNMA, FHLMC Collateral**
- **Moral Obligations of States, Cities (legislative appropriation to replenish debt service reserve)**
- **State mortgage insurance (NY, MD), state rent subsidy (MA), guaranty fund (FL)**
- **State HFA GO pledge**
- **Overcollateralization - seen in State HFA deals. In form of investments or mortgages.**
- **Senior/Subordinate Structure - credit tranching**
- **Bank Letters of Credit**
- **Federal Grants: PHA capital subsidy, HOPE VI, HOME, CDBG**
- **Tax Increment funds**
- **REIT or owner guaranty**
- **Multi-line Casualty Insurer Guaranty**
- **Cross-collateralization and cross-default provisions in pools.**

No other municipal sector has seen such creativity in credit enhancements (see Exhibit 7). A chronic shortage of credit support, rather than fundamental demand, has been the foremost obstacle to new issue volume historically. **High-grade MF bond credit analysis still focuses primarily on the enhancement.** The significance of the underlying real estate varies inversely with the strength of the enhancement. Often, its primary relevance is to ascertain redemption risk from a mortgage default.

Mortgage Default vs. Bond Default Risk

Concern over the inherent risk in low-income housing is warranted. Two recent major studies, shown in Exhibit 8, both ranked the **MF sector as having the second highest default rate among municipal bonds.** However, it is critical to distinguish defaults on underlying mortgages from bond default risk.

Half of the MF defaults in the S&P/J.J. Kenny study are attributable to the demise of Executive Life in 1991. These were not true MF bonds at all – virtually all were taxable and backed entirely by guaranteed investment contracts. Their categorization as MF arises from the names of the issues, and *unfulfilled* statements of intent to acquire MF mortgages.

Exhibit 8: Latest Default Studies

- In S&P JJ Kenny's "*Complete Look at Monetary Defaults in the 1990s*", 6/2000, MF was 2nd at 21% of total municipal defaults (behind IDBs and slightly ahead of healthcare). However, over half of the $2.05 billion is due to Executive Life, and $449.6 is Mutual Benefit. Even so, default rate is 1.11%. Average time to default is 63 months.
- Fitch IBCA's "*Municipal Default Risk*", 9/15/99 used the Bond Investors Association database, which excludes technical defaults but includes defaults on underlying credits of enhanced bonds. From 1980-3/99, MF is 2nd at 21% of municipal defaults. The cumulative default rate on bonds issued between 1979-1986 is 4.86%.

The Fitch study was based largely on a database that counts underlying mortgage defaults as bond defaults – even if no monetary default occurs on the bonds. This neglects the fact that most high-grade MF bonds are structured to withstand mortgage defaults.

Most Mortgage Defaults Caused Par Calls

Exhibit 9 lists the largest ***mortgage*** defaults in MF bond history (excluding $1.1 billion Executive Life bonds). The only ***bond*** defaults that occurred among them were on a portion of the Mutual Benefit bonds and Ticor bonds, following the demise of those enhancers. All of the others were FHA-insured mortgage defaults that did not cause bond defaults.

Exhibit 9: Largest MF Mortgage Defaults in Municipal Market

Mutual Benefit Life guaranteed bonds	**$650 million**
New York State HFA, Co-op City	**$390 million**
New York State HFA, Starrett City	**$363 million**
Ticor Mtg Insurance backed bonds	**$264 million**
Battery Park City Authority, 1972 Series	**$200 million**
Chicago, Presidential Towers	**$171 million**
NY City HDC, Roosevelt Island Associates	**$163 million**
Mass HFA, Harbor Point	**$154 million**
NJ HMFA, Presidential Plaza at Newport	**$150 million**
NYC HDC Yorkville Plaza/Normandie Court I	**$133 million**
Illinois HDA, Lakeshore Plaza	**$ 63 million**

Another shortcoming of MF default statistics is that they usually do not account for inequalities in local and proprietary programs. Mortgages of the same type (e.g., 80/20s) vary markedly in experience *between issuers*. In addition, *systematic* differences between portfolios occur due to diverse underwriting standards, HFA oversight, property management, servicing, and feasibility projections. Some private MF programs may not be structured to a zero default tolerance. Industry specialists realize that **real estate risk is often a function of leverage, not project fundamentals**.

Unenhanced Bonds Most Susceptible

Clearly, unenhanced MF bonds are the most exposed to the downturn. As mentioned, unenhanced MF bonds first became eligible for investment grade ratings from S&P's municipal department in 1993. Moody's municipal area only began to rate "Affordable Housing" bonds in 1998. Thus, these programs have not experienced a full market cycle. **The current downturn may pose a challenge to AH credits in the most affected local markets.**

Exhibit 10: Key Points on Affordable Housing Projects

- Maximum rating is A+. Most owners have a non-profit element, or are HFAs. Projects have a **public purpose**.
- ***Loan to Value Ratios: How relevant?*** AHP criteria (up to 100% LTV) contrasts with CMBS group, who require 60% LTV for "A" rated 80/20.
- "***Coverage, Coverage, Coverage***". For best properties, S&P requires 1.25 to 1.50 for an A, 1.15 to 1.40 for BBB. For "good" properties, 1.35 to 1.60 for A, 1.25 to 1.50 for BBB. Moody's requires minimum 1.40 for A3. ***Tight categories increase volatility***.
- **Rent levels are usually below market**. This is supposed to insulate from economic cycles. Tax Credit deals fit well.
- **Construction risk** must be covered by rated third party until rent-up.
- Only **fully amortizing** debt qualifies.
- **AHP ratings are more volatile than those of other investment grade municipals. Default rates are already high. Regular monitoring is strongly recommended.**

S & P's AH criteria are distinctly different from for-profit, market rate projects (including tax-exempt 80/20s) rated by its Commercial Mortgage Ratings Dept. (See Exhibits10 and 11.) Most striking are the equity requirements. Established non-profits are permitted LTVs up to 100% for ratings as high as "A". The CMBS group generally requires around a 60% LTV for a single project financing, as well as slightly higher coverage ratios.

Exhibit 11: S & P's AHP Debt Service Coverage Requirements

Project Ranking	Max LTV Not-for-Profits	Max LTV For-Profits	BBB	A
Excellent	100%	85%	1.15-1.40	1.25-1.50
Good	95%	75%	1.25-1.50	1.35-1.60
Fair	85%	65%	1.45-1.70	1.55-1.80
Poor	70%	55%	1.75-2.00	1.95-2.20

Source: Standard & Poor's Corp.

A rationale for this major differential is that AH deals are at low risk of abandonment, because of their non-profit ownership. In addition, rent levels are customarily below market, providing a cushion against downturns, and aiding marketability. S&P assesses the management and resources of non-profits.

The vast majority of MF properties are appraised via the income approach (see Exhibit 12), whereby a decline in NOI and/or rise in cap rates can lower valuations. Thus**, in the current downturn, some projects from 2000-01 may come to be viewed as even more highly leveraged.** It is comforting that S&P's AH ratings often incorporate very conservative cap rates of 10-11%.

Exhibit 12: Appraisal Methods for MF Properties

Appraisals are crucial to determining LTV, recovery value, credit quality.

- **Income Approach:** $\text{Property Value} = \frac{\text{NOI}}{\text{capitalization rate}}$

  The anticipated future income stream is converted into a lump sum capital value by use of **market cap rates**. Cap rates are analogous to P/E ratios or bond yields.
- **Cost Approach:** estimates replacement cost, less deterioration and obsolescence, plus land value.
- **Market Comparison Approach:** estimates value by analyzing recent sales of comparables, in terms of location, style, size, age, quality, features, and financing.

  Sometimes appraisal is significantly inflated by a bonus for the availability of **tax-exempt bond financing** or **tax abatement** for a 501c3 owner. This may not be accepted by rating agencies.

  Note limitations and qualifications to appraisals (e.g., no environmental review, reliance on representations of owner, etc.).

Affordable Housing is for Sophisticated Only

AH ratings have already proven more volatile than most other investment grade municipals, *prior* to experiencing a complete real estate cycle. A published S&P ratings distribution as of 11/30/01 reports 97 AH ratings, including cases where multiple series exist on the same project, and others for pools. Of these, **15 are "BB" or below**. Most are fallen angels, although a sizable portion were originally non-investment grade (e.g., subordinate tranches). This includes 3 rated "D" (in monetary default), and 2 at "CCC".[10]

In the first 11 months of 2001, S&P downgraded 9 series on 6 properties. No new non-investment grades resulted, but one turned to D. However, it also reported deleting 10 (for 4 projects), of which 6 were non-investment grade, while another was BBB with a negative outlook. Late in December 2001, S&P downgraded an additional 2 under BBB (out of a total of 5 downgrades). Moreover, in the first quarter of 2002, there was at least one more downgrade below BBB. Moreover, 2 speculative ratings fell to D, bringing the total defaults to 5.

At the time of this writing, we also find **13 AH ratings (for 7 projects) on CreditWatch with negative implications.** One is perched at BBB; the rest already lower**. In addition, our survey of *investment grade* AH ratings found 10 (9 projects**

10 S&P representatives maintain that there have been very few AH ratings deleted due to lack of information. Deletions may affect the cumulative record of performance by introducing selection bias. All data is compiled from published S&P reports.

and one pool) with a negative outlook. Half of those were in the BBB category.

These statistics suggest a cumulative default rate around 5%, but rising. In addition**, it implies that 15% or more fell into speculative categories subsequent to sale, with more likely.** Overall, this implies that the AH carries a **higher systematic credit risk** than most other lower investment grade municipal sectors. These bonds are generally appropriate for sophisticated investors only.

Downgrades are caused by a wide range of factors, including changes in physical condition, poor management, weakened local employment or real estate markets, or overly optimistic projections. **In the current environment, even forecasts of flat rents from 2000-01 levels may be unrealistic.** The volatility of AH ratings may be exacerbated by the **tightness of the bands of the coverage ratios expected for each rating category**. Investors should **regularly monitor these projects and ensure that inspections are undertaken**. Unfortunately, active surveillance does not reduce the inherent real estate risk. More comfort may be derived from pooled AH financings.

FHA Insurance: Reliable But No Guaranty

In order to insulate bond investors from the vicissitudes of the real estate business, most MF bonds carry some form of credit enhancement (see Exhibit 7 again). The most common by far is FHA insurance. There are several types of FHA MF insurance used with bonds (see Exhibit 13). All GNMAs have FHA insurance underneath. The traditional FHA-insured MF mortgage revenue bond uses Section 221(d)(4), or its sister program 221(d)(3). The (d)(4) program provides 90% financing, while (d)(3) offers 100%.

Exhibit 13: FHA Mortgage Insurance Programs (Sections of National Housing Act)

- **Section 203(b) or 203(k): Single Family mortgage insurance.**
- **Section 221(d)4 (for profit) , 221(d)3 (non-profit): Main ones used with tax-exempt multifamily bonds. Heavy default redemptions occurred in 1980s.**
- **Minor programs: 223(a)(7), 207, 220**
- **All GNMA projects have FHA insurance, often 223(f).**
- **Healthcare programs: 242 (Hospitals) and 232 (Nursing Homes)**
- **Section 542 Risk Sharing: A much improved program for State HFAs only.**

Section 221(d)(4) experienced very high defaults in the late 1980s, approaching 20% of its portfolio. **Nothing remotely like that is expected during the current downturn.** Some of the largest defaults in the 1980s were accused of being intentional in order to refinance high rate noncallable debt.

Volume may increase for the popular (d)4 program due to a recent 25% hike in the mortgage loan limit, new accelerated processing procedures ("MAP"), as well as a 30% decrease in premium. Most importantly, the program was also deemed self-supporting from premium income, no longer in need of an annual credit subsidy. This removes annual appropriation risk, which had caused significant mid-year uncertainty over financing and timing for many projects in recent years. **The determination of self-sufficiency was made following an updated default study that removed the 1980s history and focused on recent data.**

Exhibit 14: FHA 221(d)3 and 221(d)4 Insurance Pay-outs

- **Two payment options exist**: cash or HUD debentures. FHA multifamily bonds must stipulate payment **in cash** to obtain an investment grade rating. (A rare exception is the "debenture lock" refunding.) FHA pays 99% (deducting a 1% assignment fee), and also does not cover 1 month's interest during default. Cash flow projections must also assume 30 day lag.
- **Claims are paid in two parts**: 90% (or 70% if default is during construction) around 45 days after default, with balance up to 14 months later.

However, this program is no panacea for investors. The complexities of the legal language in these indentures (where much of the analytical focus lies) gave rise to a cottage industry among housing analysts. Moody's has a different approach than S&P, generally limiting ratings to Aa. This is due in large part to the **lack of a binding deadline for insurance payments**. In particular, 10% of the claims payment may be withheld over a year pending a final audit. In the distant past, longer delays than expected led to an increase in reserve requirements and rating revisions.

Exhibit 15: FHA Bond Analysis Focus

- **Divergent Rating Approaches**. Moody's caps FHA bond ratings at "Aa" except for Risk Sharing deals. S&P uses complex structured finance approach. State HFA pools usually AA.
- **No legal deadline exists for claims payments**; timing has shifted in past. Thus, 8 months maximum debt service reserve is required.
- "**Pinhole Risks**": negative arbitrage between bonds and accrued interest on pending insurance, disallowances from final audit, operating deficit accounts, extensions of filing. Debt service reserve investments may lose market value.
- Bankruptcy courts have stayed claims payments. Trustee and servicer error is possible.
- **Weakness in Investment Agreement (GICs) providers are by the far main cause of downgrades, particularly due to S&P's "weak link theory".** This is also true of GNMA and FNMA collateralized bonds.
- **Without special reserve funds and required legal language, FHA bonds are non-investment grade.**

A small amount of actual *bond* defaults have also occurred as a result of shortfalls in matching the mortgage insurance coverage to bonds. (See Exhibit 15.) A few bankruptcy courts have also temporarily stayed insurance payments. FHA (d)(4)s serve as an excellent example of the usefulness of ultimate recovery ratings, since the overwhelming majority of bond defaults were tiny (1-3%) and/or rapidly cured.

As with Single Family Bonds, **the main cause of S&P downgrades has been investment agreement downgrades** (GICs). Virtually all FHA MFs have GICs for reserves and float funds over the life of the issue. However, **risk of downgrades from GICs is much lower than in the past.** Later generations of providers have been less volatile in ratings, although occasional rating actions

occur. New safeguards have been put into GIC contracts to offset ratings risk. **Moreover, in April 2002, S&P brought its "weak link policy" in line with Moody's by allowing the GIC provider to be a full category lower than the bond rating** (for AAA rated housing bonds).

Risk Sharing: Superior to Other FHA

The FHA Risk Sharing program (Section 542) is a major improvement over traditional forms of FHA insurance for investors. By holding HFAs economically liable for a portion of the credit risk on the project, and limiting participation to HFAs with greater resources, underwriting standards are significantly strengthened. (See Exhibit 16.)

Exhibit 16: Risk-Sharing: Superior to Traditional FHA Programs

- Begun in 1994. State HFAs elect to bear 10% to 90% of default risk (most take 50%). HUD allows State HFAs with GO ratings above "A" to post no reserves.
- **Bondholders are not exposed to HFA's credit.** FHA directly covers mortgage defaults. An HFA must notify FHA of a default after 30 days. FHA pays the unpaid principal balance plus interest. The HFA issues a five-year debenture to HUD for amount of the claim. During this term, HFA attempts to workout the project. After five years, HFA and HUD compute their shares in any loss.
- Although bonds may be "special obligations", a State HFA's general obligation is pledged to reimburse HUD. This ensures that the underwriting and oversight is high caliber.
- **FHA pays 100% of the mortgage note** under Risk Sharing rather than 99%. Also, **FHA pays claims in one lump sum within six months, rather than withholding final 10% to 30%** until final audit.
- This results in a lower debt service requirement (6 months maximum). The risk of a shortfall in accrued interest from the default date to the payout date is eliminated by accruing interest at the mortgage note rate, rather than the HUD debenture rate.

Exhibit 17: Leading HFA Originators of FHA Risk Sharing (Initial Endorsements by FY)

	2001	2000	TOTAL
MA HFA	$140,935,000	$103,132,595	$244,067,595
CA HFA	$23,680,562	$86,117,787	$109,798,349
FL HFA	$56,111,000	$25,480,000	$81,591,000
CO HFA	$40,280,500	$30,996,537	$71,277,037
OR HCD	$39,335,926	$13,338,562	$52,674,488
DC HFA	$38,521,800	$799,215	$39,321,015
IL HDA	$16,800,000	$22,118,000	$38,918,000
Montgomery Co. HOC, MD	$11,757,952	$22,375,000	$34,132,952
NJ HMFA	$0	$30,921,323	$30,921,323
NH HFA	$12,580,000	$5,725,000	$18,305,000
MI HDA	$5,960,980	$11,665,839	$17,626,819
MO HFA	$5,400,000	$10,918,900	$16,318,900
CT HFA	$16,058,583	$0	$16,058,583
MN HFA	$0	$14,112,171	$14,112,171

Source: HUD

Mortgage defaults have been extremely rare since the program was created in 1994. In addition, bond structures are superior, **with timelier claim payments made in one lump sum**. Furthermore**, the pinhole risks of 221(d)(4)s are eliminated**. However, bond market pricing does not appear to differentiate the Risk Sharing program from other FHA MFs.

The 2001 HUD Appropriation Act made the Risk Sharing Pilot Program permanent. In fiscal year 2001, the Department endorsed mortgages for 78 projects totaling $430 million. Exhibit 17 lists the HFAs in most active Risk Sharing, by initial endorsements for insurance over the last two fiscal years. There were 19 HFAs in 2000 and 20 in 2001 that originated loans under the Risk Sharing program.

Section 8 Restructurings in High Gear

In contrast with other FHA bonds, the FHA Section 8 sector is decidedly **not stable**. It is in the throes of the "Mark-to-Market" Restructuring. The goal is to bring bloated contract rents down to market levels when FHA Section 8 contracts expire, which is usually after 20 years. The federal government pays most of the rents for tenants who have average incomes similar to public housing residents (see Exhibits 18 and 19).

Exhibit 18: Section 8 Rent Subsidy

- Main federal low income housing construction program from 1976-84. HUD pays difference between 30% of tenant income and contract rents - a **deep subsidy**. Usually 100% of units are subsidized.
- Section 8 properties have a wide range of appearances. **Elderly** projects are reputedly better maintained than **family** projects. Occupancy commonly near 100%. Defaults modest, but rising.
- Contracts on FHA-insured projects generally run 40 years with 20 year renewal option by HUD at midpoint. Uninsured projects usually have 30 year contracts.
- Section 8 acts as a credit enhancement; uninsured ratings largely between BBB to A (A+ for State HFA pools). Coverage usually 1.10x to 1.25x. Subsidy can be reduced for vacancies, revoked for non-habitability, or terminated for bad owners.

Pursuant to the Multifamily Assisted Housing Reform and Affordability Act of 1997 (MAHRA), the Mark-to-Market program was authorized. [11] The Office of Multifamily Housing Assistance Restructuring (OMHAR) was created within HUD to oversee it and select Participating Administrative Entities (PAEs) to undertake the restructurings. After a slow start drafting regulations and negotiating with PAEs, the program began rolling in 2000. **In 2001, OMHAR was extended 3 years to 9/30/04, and Mark-to-Market to 9/30/06.** A total of **33 State** HFAs (including DC and Puerto Rico) **and 9 local HFAs act as PAEs**. There are also 9 private PAEs.

Exhibit 20 lists criteria for eligible Section 8 projects. **Bond-financed projects are included, as long as their financing agreements are not in conflict.**

11 For background, see "*Section 8 Reengineering At Last*" dated January 7, 1998. A series of Merrill Lynch reports were published starting with "*HUD Reinvention and the Multifamily Bond Market*" April 5, 1995.

Exhibit 19: Purpose of FHA Section 8 Mark-to-Market

- **Problem**: FHA Section 8 contracts face expiration after 20 years. Contracts are too costly to be renewed long-term, based upon federal budgetary accounting. Most projects' rents are above market, based upon HUD Fair Market Rents (40th percentile of area median) - a flawed measure. **Rents cannot be cut - only frozen**.
- **Solution**: Reduce rents to market on FHA Section 8s at contract expiration. Restructure mortgage to supportable levels by partial claim on FHA insurance (100% bond call necessary), or convert to vouchers. Renew contracts for only short-term periods (leaving appropriations risk). Also fund rehab, weed out bad owners, extend low income usage commitment long-term.
- In 1997, OMHAR was created to conduct Restructuring through Participating Administrative Entities (PAEs).
- 2002 appropriations bill extends OMHAR to 2004 and Mark-to-Market to 2006, to finish the task.

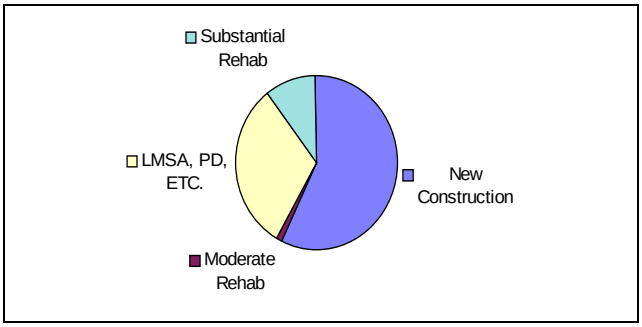
Exhibit 20: Projects Eligible for 8 Restructuring

- **FHA Insured** only.
- In an eligible Section 8 program: (NC, SR, Mod Rehab, LMSA, Property Disposition, etc.). Section 236s may be if they have a rent subsidy.
- **Rents are above market**, as determined by PAE through a **comparability study**. This introduces **uncertainty**. **Results of studies may vary widely from FMR ratios.**
- Owner must voluntarily enter. Owner must properly notify tenants and reach an agreement with the PAE.
- Only "Good" owners accepted. "Bad" ones weeded out for enforcement.
- Financing Agreements not in conflict. **Bond-financed projects eligible.**

→**"Exception projects" receive lesser of budget-based rents or existing rents at expiration.**

The overwhelming majority of Section 8s with above market rents are New Construction or Substantial Rehabilitation (Chart 5). This is the type usually encountered with bonds. The small Moderate Rehab program, active 1985-1989, also has many with above market rate rents. Loan Management Set-Aside and Property Disposition projects typically have low rents.

Chart 5: Main Section 8 Programs, by number of units



Source: HUD

OMHAR has restructured 1237 projects, and has 716 in its pipeline. Exhibit 21 shows that over half are "full mortgage restructurings". Of these, **465 are closed**, 26 ineligible, and 174 discontinued. Of the 572 rent restructurings, 383 were completed "**OMHAR Lites**" – meaning the owner took a cut to market rents without restructuring debt. The rest were found to have rents below market, deemed ineligible, or placed on a Watch List after rent reduction. Only 16 had contracts not renewed, with tenants granted vouchers. Just 11 opted out of Section 8.

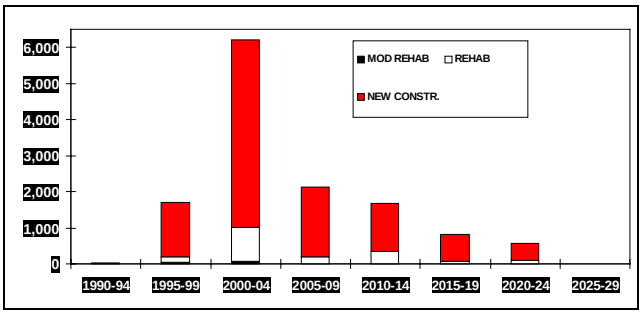
Exhibit 21: Status Report on Mark to Market, as of 5/16/02

	Received	OMHAR Processing Completed	Active Pipeline
Rent Restructurings	667	572	95
Full Mortgage Restructurings	1,364	665	621
TOTAL	2,031	1,237	716

Source: HUD

The pipeline does not include projects with expirations out as far as 2004, whose owners have not yet applied. There were originally an estimated 3,200 to 3,500 Section 8s eligible for M2M.[12] Thus, **over a third** of the inventory may not yet have been addressed. **Expirations beyond 2004 consist primarily of ineligible uninsured Section 8s with 30-year contracts.** (Chart 6.)

Chart 6: Section 8 Contract Expirations by Calendar Year



Source: HUD

Bond Market Impacts of Restructuring

The approach used in M2M debt restructurings is described in Exhibit 22. It usually requires a full redemption of the bonds, in order to recast the underlying mortgage debt. Thus, FHA Section 8 bonds are **at high risk of par call around the time of contact expiration**. This is **near-term risk**, since most expirations are no later than 2004. This call risk may hurt prices of premium bonds or benefit discounts.

Unfortunately, **it is exceedingly difficult to determine if a par call will actually happen on an individual project.** As mentioned above, full debt restructurings have been accomplished on 38% of the projects with completed processing. The rest were OMHAR Lites or ineligible, which usually do not result in bond redemptions. At the outset of the process, **it may be indeterminable how a project will be handled.** The rent comparability study may yield unexpected conclusions. Disclosure of intentions may be lacking.

12 From "*Mark-to-Market: A Fundamental Shift in Affordable Housing Policy*" by David A. Smith, Recapitalization Advisors, Inc., in Housing Policy Debate, Volume 10, Issue 1, 1999.

Exhibit 22: Mark-to-Market Approach

- **At expiration, rents reduced to "market" or 90% of FMRs if market is indeterminable. Future increases set by new Operating Cost Adjustment Factor. Some exceptions allowed for budget-based rents.**
- **Contracts renewed short-term, subject to appropriation risk. This creates mismatch with new 30-year use agreements. However, recent contract terms are lengthening.**
- **Primary mortgage reduced to level supportable by new rents through FHA partial redemption. Soft second mortgage held by HUD for difference. Recasting of new mortgage results in total bond redemption.**
- **Rehab funds contributed by HUD and owner.**
- **Some family units and projects with unwilling owners converted to vouchers.**
- **ALTERNATIVELY, OWNERS CAN REDUCE RENTS TO MARKET WITHOUT DEBT RESTRUCTURING ("OMHAR Lite"). OWNERS CAN ALSO SELL TO NON-PROFITS OR OPT OUT OF SECTION 8.**

In addition, some **prepay ahead of expiration dates** (see Exhibit 23) due to sales to non-profits, opt-outs of Section 8, or non-M2M restructurings that may put the project on sounder footing from a preservation standpoint. HUD adopted mark-**up**-to-market regulations in 1999 to stem a rising tide of opt-outs in high rent areas.

Exhibit 23: Prepayments in Advance of M2M

- **Types of Prepayments in Advance of Expiration Dates**
  - **Early Restructurings prior to expiration**
  - **Sales to Nonprofits to avoid M2M**
  - **Owner Conversions to Co-ops or Market Rate Rentals**
- **In 1999 Mark-*Up*-to-Market was authorized to stem losses of projects with below market rents in high rent districts. HUD claims rate of opt-outs was cut from 4% of expiring contracts to under 2.5%.**
- **In the future, will HUD accept M2M restructurings ahead of expiration dates, if it reduces its backlog?**
- Many desire to prepay "older reg" (pre-81) deals not to lower interest rate, but to extract surplus or achieve independence from a State HFA.

In addition to the pricing impact of redemption risk, M2M has greatly altered analysis of FHA Section 8s, with potential restructuring becoming the focal point. It has also spawned **new breeds of credits**, such as transition projects converting from Section 8 to Affordable Housing. The market will also see more **post-restructured Section 8s** subject to market rate rents, a different rent-setting mechanism, and near-term appropriation risk.

Permanent Rent Freeze on Section 8s

Meanwhile, all Section 8s with rents above 100% of Fair Market Rents remain subject to a rent freeze. This is an acute credit concern for uninsured Section 8s (and a potential cause of default redemption risk on FHA Section 8s prior to Restructuring). **This freeze, now in its 8th year, was made permanent** by the Balanced Budget Act of 1997. Owners may furnish a market comparability study if they wish to contest the freeze. However, few have done so due to costs, meager amounts of permissible increases, difficulties in dealing with HUD, challenges in demonstrating rents are low, and unawareness. [13]

Exhibit 24: FMRs: Flaws in HUD's Rent Benchmark

- **Too broad geographically** to capture the diversity in neighborhood rents**.**
- **Arbitrary Standard**. FMRs are pegged to the 40th percentile of rents at standard quality unsubsidized units. They lack flexibility to recognize unique characteristics and circumstances of individual properties.
- **Purpose**. FMRs were intended as market-wide rent standards for portable vouchers.
- **Disparate Sources**. FMRs are a composite derived from three sources: the Census, the Census's American Housing Survey (AHS) , and random telephone surveys by a contractor.
- **Timeliness**. Most FMRs are updated with a lag of up to a year.
- **Scale Effect:** The"ratio to FMR" approach is a errant methodology because ratios have different denominators. November 1997 ML study shows that **projects in high FMR areas demonstrate a systematic bias towards low ratios**.

FMRs are formulated annually and used to set maximum rents for Section 8 NC/SR projects. They are currently fixed at the 40th percentile of renters in standard unsubsidized units for most local markets. **Their use in determining project rents has serious flaws**, as outlined in Exhibit 24. Perhaps the most obvious shortcoming is their enormous geographic scope, rendering them **insensitive to sub-market and property distinctions**. In addition, comparisons of ratios with different denominators may create major distortions due to a **"scale effect"** [14]. This may partly explain the **systematic presence of high ratios to FMRs in the lowest rent districts**. While HUD staff does not deny all their shortcomings, FMRs remain the prevailing method for rent setting.

Section 8 Rents Improve, But Still High

Eventually market rents may rise enough to match stagnant Section 8 rents. According to our review of latest HUD data based upon 2002 FMRs, **the average ratio of rents to FMRs for publicly financed Section 8s has fallen to 131%.**[15] See Exhibit 25. This is still well above the level for all NCSR Section 8s, 115%. In 1997, we reported ratios of 143% for publicly financed projects, and 133% for all NCSRs. It appears that M2M processing may have had some effect in lowering the ratios. In addition, **strong rental markets in 1999 and 2000 may have reduced the gap.** However, the current real estate downturn may lower prospects for further improvement in the near future.

13 For projects eligible for a rent increase, the adjustment is limited to 1% for units that have experienced no resident turnover since the last adjustment. **A ban on rent reductions (prior to contract expirations) remains intact**, pursuant to Section 142(d) of the Housing and Community Development Act of 1987.

14 See "*Examining HUD's Section 8 Rent Data*" March 12, 1997 and "*Biases in Section 8 Rents for US Cities*" November 25, 1997.

15 Computed by Merrill Lynch from HUD's Multifamily Assistance & Section 8 Contracts Database. Projects with no entries for rent ratios are excluded.

Exhibit 25: Section 8 Rent Levels

- HUD data on NCSRs in 1996: 75% exceed Fair Market Rents; 67% exceed 120%; 23% over 175%. AVERAGE is 143% of FMRs.
- March 1997 ML study of HUD data reported an average 145% to FMRs for publicly-financed projects, 128% for NCs, 132% for SRs. Wide geographic disparity noted, ranging from 103% to 192% between states.
- **2002 ML FINDS AVERAGE HAS FALLEN TO 131% OF FMRs FOR PUBLICLY-FINANCED PROJECTS, 114% for NCs, 116% FOR SRs.**
- No rent adjustment shall result in a **material difference between rents charged for subsidized and comparable non-subsidized units.** An exception may be granted for any **"initial difference".** Since 1987, **HUD has been legally prohibited from lowering rents.**
- **Rent freeze since 1995** (made **permanent** by 1997 law) on all Section 8s with above market rents according to FMRs - unless a market comparability study furnished by the owner can prove otherwise.

Exhibit 26 also reveals a wide range of ratios to FMRs. The standard deviation of 33.2 means that **2/3rds of all publicly financed projects have ratios to FMRs between 98% and 164%.** The longer average expiration date of 2012 indicates **a preponderance of uninsured among publicly financed projects**.

Exhibit 26: Merrill Lynch Analysis of Latest Section 8 Rent Data

Section 8 Type	Number of Projects	Average Expiration Date	Average Ratio Rents to 2002 FMRs	Standard Deviation of FMR Ratio
Publicly Financed	2850	August 2012	131.2	33.2
New Con	4044	March 2006	114.2	25.3
Sub Rehab	943	July 2005	116.4	29.2
LMSA	4604	April 2004	84.3	20.9
Prop Disposition	626	January 2006	85.9	19.4
Preservation	437	November 2002	93.0	21.2

Source: HUD's Multifamily Assistance & Section 8 Contracts Database. Number of projects excludes those with ratio data missing.

It also confirms that other Section 8 types occasionally seen in the bond market, such as LMSA, Property Disposition, and Preservation, generally have below market rents. This is due to budget-based rents. However, t**hese projects are susceptible to underinvestment.**

Credit Crisis for Uninsured Section 8s

The freeze raises the specter of progressive credit deterioration for non-FHA insured Section 8 bonds to marginal high yield status (e.g., BB to BBB), as debt service coverage inexorably declines. Underinvestment is a related problem. Major credit impacts are already discernible. Moody's stated in 1997 that it was seeing declines in "the great majority" of debt service coverage ratios, and downgraded nine to Ba1 or lower at the time.[16]

16 See "Bonds Secured by Two Subsidies - A Tale of Two Outlooks", November, 1997, from Moody's Investors Service.

S&P has seen a dramatic increase in downgrades of uninsured local HFA Section 8s since 1999. It reported in 9/00 that 13% of its ratings were non-investment-grade. In early 1998, only 1% were. So far in 2002, at least 6 more local Section 8s have been downgraded to junk status, including one to CCC.[17] S&P has been making adjustments to its review process for uninsured local HFA bonds. State HFA uninsured bonds have remained stable, but this may also change. State HFA programs often have substantial over-collateralization and oversight, and may be additionally secured by an HFA GO or state moral obligation pledge.

HUD and Congress have shown no consistent willingness to intervene in cases where rent freezes may trigger mortgage defaults. In fact, HUD's stance is to **not** grant systematic hardship increases.

Exhibit 27: Section 8 Internet Resources

- *www.hud.gov/sec8/sec8.cfm* Lists all Section 8s by location and provides a phone number for the project.
- *www.hud.gov/offices/hsg/mfh/exp/mfhdiscl.cfm* The Multifamily Assistance and Section 8 Contracts database, containing contract expiration dates and ratios to FMRs for Section 8s.
- *www.hud.gov/offices/omhar/readingrm/reports.cfm* Status report on all projects in Mark-to-market.
- *www.huduser.org/datasets/fmr/fmr2002F/2002map.html* Latest Fair Market Rents accessible by clicking map.
- *www.recapadvisors.com* Contains an abundance of expert studies and data on subsidized housing.

Since 1995, we have had a negative outlook on uninsured Section 8 bonds of local HFAs. [18] At that time, we opined that the bulk of the sector was *generally* expected to slip into the "BB" to low "BBB" range – consistent with marginal, *break-even* finances. **This process is now accelerating**. That view is actually *optimistic*, incorporating the rational expectation that HUD and Congress would *ultimately* intervene to prevent a **looming wave of defaults** and loss of housing stock.

Outlook Changed for Section 236 Refinancings

Change is also underway for the Section 236 program, the predecessor to Section 8 (see Exhibit 28.) About 65% of 236 projects were bailed out by Section 8 Loan Management Set Aside. LMSA, as confirmed by data in Exhibit 26, has budget-based rents that are usually below market. Thus, most 236s are ineligible for M2M. In addition, the vast majority of bond-financed 236s are uninsured projects in State HFA pools. These bonds have been exceptionally stable.

17 The outcome of bonds with deleted ratings is unknown.

18 This outlook is essentially unchanged from what was discussed in our report at the outbreak of the Section 8 crisis; "HUD Reinvention and the Multifamily Bond Market" published April 5, 1995.

Exhibit 28: Section 236 Interest Rate Subsidy

- Primary low income housing program during 1968-1974. Tenants permitted to have incomes up to 80% of median.
- Subsidy effectively **reduces mortgage interest rate to 1%**, pursuant to 40 year contracts. Payments may be terminated upon foreclosure of property, but are not if another eligible owner assumes under HFA auspices.
- Virtually all bond-financed 236 projects are found in State HFA pools. **FHA mortgage insurance not permitted for State HFA 236 projects.**
- Most also have some rent subsidy, usually Section 8 **Loan Management Set Aside, with below market rents**. Most are ineligible for Mark-to-Market.
- Financing deferred maintenance is foremost problem.
- All lockouts expired after 20 years.

However, the **outlook has changed**. The HUD Appropriations Act of 2000 and related Notices **removed the main constraint on prepayments** by permitting continuation of interest reduction payments (IRPs) after a refinancing or sale to an eligible owner. (Exhibit 29.) **Lockouts had expired 20 years after origination.** However, Section 236s could not be refinanced without losing the IRPs. Only strong projects in high rent areas were able to opt-out and convert. Between 1996 and 1999, 10% are estimated to have prepaid.[19]

The new regulations address both loss of low income housing stock and the substantial rehabilitation needs in a manner that does not require increased federal funding. Refinancings, coupled with rent increases, can fund rehab needs in conjunction with LIHTC and HOME grants. Low income usage is extended another 5 years.

This should stimulate, rather than deter prepayments. Lower rates will also facilitate them. Conversions may also still occur to extract assets, avoid HUD regulation, and seek higher profits.

Exhibit 29: Changes to Section 236 Induce Prepayments

- Major changes to Section 236 wrought by HUD 2000 Appropriations Act and HUD Notices in 2000 should **stimulate prepayments**.
- Main constraint to prepayments is removed by permitting the interest rate subsidy (IRP) to continue at same level through a refinancing or transfer of ownership.
- Purpose is to deter opt-outs and address large rehab needs. Low income usage extended another 5 years. Facilitates use of tax credits and grants with refinancing.
- Rent increases and marking-up-to-market allowed with refinancings.
- **A new bond structure emerges, secured only by "decoupled" IRP.**

19 Estimate from the National Housing Trust. **Bond-financed prepayments are believed to have been much less.** 236 prepayments were restricted from 1987 to 1996 by the Emergency Low Income Housing Preservation Act of 1987 and the Low Income Housing Preservation and Resident Homeownership Act of 1990. In 1996 Congress restored the prepayment right.

The new rules also permit **a new type of financing** backed **solely by IRP**, not total project income. The "**decoupled**" IRP may be paid directly to the bond trustee. As before, IRPs can survive foreclosure. With superior oversight, these new structured financings may attain high ratings.

Another New Breed: Section 202 Bonds

Another new creature may be sighted in the bond market. Section 202 financed over 350,000 independent living projects for seniors since 1959. However, this has been outside of the bond market, through loans and grants from HUD. That may change as a result of a law passed in 2000.

Exhibit 30: Section 202 Projects May Enter Bond Market

- Section 202 financed over 350,000 affordable **independent living** units for seniors since 1959 via HUD direct loans and grants. All owned by non-profits. Rents are subsidized by Section 8 or by similar (separately funded) project rental assistance contract (PRAC).
- In December 2000, Affordable Housing for Seniors and Families Act permits for-profits to partner with non-profits to own 202s, to facilitate use of tax credits, with bonds. **Refinancings now allowed** if debt service is reduced.
- **50% or more of Section 8 savings from refinancing may be used for rehab, increased support services, or new facilities - such as assisted living**. Reserve funds may also be tapped.
- New regs also permit mixed-use projects combining 202 grants with bonds and tax credits.

The new law allows refinancings of Section 202 projects with bonds in order to finance rehab needs as well as addition of assisted living facilities. The refinancings must demonstrate debt service savings. At least 50% of Section 8 savings from such refinancing may be used for expanded services and rehab.

The appeal of this opportunity appears greatest for 202s from 1975 to 1990, which typically had higher rate loans and Section 8. Some others might enter if motivated by rehab needs or to institute assisted living for aging-in-place populations. **The first Section 202 in the bond market was recently financed by MA HFA.**

New Era for Public Housing Authorities

The most sweeping recent legislation for any subsidized housing has arguably been for PHAs. As a result of the landmark Quality Housing and Work Responsibility Act of 1998, **a new class of MF bonds was created**. (See Exhibit 31.) The first bonds secured by HUD capital grants sold last December, when Chicago HA sold $291 million. Several others have since followed. The CHA issue has high coverage with a sinking fund that reduces its term bonds to an **intermediate average life**, assuming federal appropriations are not cut.

Exhibit 31: Types of PHA bonds:

1. The Quality Housing and Work Responsibility Act of 1998 created a Capital Fund and authorized pledge of capital grants to bonds, subject to annual appropriations. Chicago HA sold first in December 2001, rated AA.
2. Since 1993, Hope VI grants transform worst PHA projects into privately-owned mixed-income developments. Bonds may finance construction, backed by escrowed grant funds.
3. Partnerships with private entities in mixed finance projects.
4. New Housing Authority bonds guaranteed by the US - no new long-term ones have been sold since 1974.

Another PHA grant anticipation bond type using Hope VI funds has existed since the mid-90s. In addition, more of the strongest PHAs out of the 3,000 around the nation are accumulating the resources to issue revenue bonds for unsubsidized projects. These emerging PHA structures enrich an already variegated MF bond landscape.

Main Call Risks in MF Bonds

High-grade MF bonds offer a yield premium over other municipals, as do SF Housing bonds. This is not attributable to credit risk, but due primarily to a basket of embedded call options. As can be expected with such an enormous array of MF credits and structures, risk of extraordinary call may vary widely between issues. Overall, though, the frequency of calls is much lower than in SF bonds. The four most frequently exercised call options are shown in Exhibit 32.

Default Redemptions: Par calls from mortgage defaults are associated with a credit enhancement as the source of funds (e.g., FHA, GNMA, Letter of Credit). These are commonly found, but not a universal characteristic. With other enhancements (e.g., State HFA GO pledge, bond insurance), a mortgage default may trigger a par call from a **refunding bond** pursuant to a workout.

Default call risk is a function of underlying real estate risk and the nature of the enhancement. As mentioned, default calls reached epidemic proportions in the late 1980s among FHA and unsubsidized programs. However, **widely divergent experiences occurred due to different underwriting standards, oversight, and local markets.** Pro-active asset managers intervene to pre-empt defaults. VA HDA, for example, has had virtually no default calls in its large MF program in over 20 years.

Unused Proceeds Calls: Unused proceeds calls also spiked during the 1980s. Many projects fell through during periods of high interest rate volatility. **Unused proceeds calls became scarce over the last decade.** If firm commitments are in place, UP calls are a function of construction risk. **MF construction is generally not considered high risk.** Rare, small UP calls are possible if a project is completed **under budget**, or fails to use contingency funds. MF bonds are not subject to the 42-month deadline for expending proceeds that SF bonds are.

Many State HFA MF Official Statements declare the right to substitute projects in event of non-origination. Although this may seem comforting, **substitution is often impractical.** A main obstacle is the "**TEFRA" rules**.[20] These require MF projects financed by private activity bonds to be specifically identified in detail in a public hearing (or else by voter referendum). Many bond counsels will not permit substitutions unless the alternate project was "TEFRA'd" for the same issue. Moreover, large projects are hard to find replacements for. **Negative arbitrage** on bond proceeds may also reduce the issuer's willingness to hold out for a substitute.

Exhibit 32: Main Multifamily Bond Redemptions

- **Mortgage Default.** Credit Enhanced issues may be redeemed by guarantor or refinanced.
- **Unused Proceeds.** This may result from Construction or Acquisition failures, or from coming in *under budget*. TEFRA severely limits substitutions to projects identified at outset.
- **Optional Redemption**. The issuer's option to refinance the bonds is distinct from the owner's right to refinance the mortgage(s). Usually, mortgage rates are not lowered for healthy projects. Issuer uses the extra spread to subsidize other projects ("paired bonding").
  - → Tax-exempt advance refunding bonds are not permitted for private activity bonds, but are allowed for" governmental bonds" and 501(c)(3)s.
- **Owner Prepayment.** Motivation varies by project type and subsidy. Economic refinancing, property sales, recapitalization, releverage, personal or corporate events, extraction of profits, conversions, etc. Recycling prepayments into new loans is often impractical.

Optional Redemption: Like most municipal bonds, MF bonds have optional call provisions starting usually 10 years after issuance. However, the manner they are utilized differs in some respects from other munis. With HFAs that are not conduits, **the prepayment call may be distinct from the optional call**. In most State HFA issues, the optional call may be the exclusive right of the issuer, not the owner. Furthermore, no financial benefit accrues to the HFA from lowering mortgage rates and widening the spread to the bond rate (to the extent it exceeds the maximum allowed under tax code). Indeed, **mortgage rates are usually not lowered** in State HFA economic refundings, unless the project is in distress or danger of conversion.

Instead, the primary technique employed by State HFAs is to do a "paired bonding", which **transfers the economic benefit of the refunding to other projects** in the form of a deeply discounted mortgage rate. The blended mortgage rates are designed to meet allowable spreads.

Tax law also prohibits advance refunding MF private activity bonds with a tax-exempt issue. Forward delivery and forward swaps may achieve similar economic ends. However, advance refundings of 501(c)(3) bonds and governmental bonds are permitted.

20 Under the Tax Equity and Fiscal Responsibility Act of 1982, MF private activity bonds sold after 12/31/82 are subject to the public hearing requirement. The bonds must be sold within **one year** of the public approval.

Prepayments in MF Bonds

The most important factor in analysis of prepayment risk for *unsubsidized, market rate* properties is the **length of the lockout period**, or prohibition on voluntary prepayments. (See Exhibit 33.) A lockout of **10 to 20 years** is common in the municipal market. This is much longer than those seen in taxable Commercial Mortgage Backed securities are. Often, optional call provisions cover prepayments. This effectively provides a ten-year lockout.

Exhibit 33: MF Prepayment Behavior

- Key factor is the "**lockout**" period that prohibits voluntary prepayment. A "**hard lockout**" between an owner and the bondholder cannot be waived by an issuer. **Most State HFA lockouts are soft**.
- Municipal lockouts are often 10 to 20 years from origination. A weakness of refunding bonds is that lockouts may have lapsed.
- **Often owner prepayment is covered by optional call provisions,** particularly for conduit issues. This provides a 10 year lockout.
- Other deterrents are **prepayment penalties** and **yield maintenance premiums**.
- Market rate properties *theoretically* exhibit **ruthless prepayment behavior**. This calls for treating lockout expiration in same manner as an optional call date. In practice, prepayments may not be efficient.
- Some State HFAs (NJ, CA) have continuing restrictions after lockout expiration, such as on maintaining low income use. Preservation programs offer inducements to not prepay.
- In many subsidized projects, owner motivation is not to lower interest rate, but to extract surplus, convert, or achieve independence. Owner tax situation may deter: exit tax on pre-1986 tax shelters avoidable only upon death.

A "**hard lockout**" is a covenant between the owner and the bondholder that cannot be waived by an issuer. Most State HFA lockouts are **soft**, meaning they are between the HFA and the borrower. The State HFA can waive the lockout, resulting in an early call. This has happened, but rarely. Other deterrents are **prepayment penalties** and **yield maintenance premiums**. These are seen less with the municipal projects.

Recycling into new loans may be feasible with small amounts. It may also be problematical for some tax counsels. Recycling is not common, in part due to a lack of prepayments. It may be difficult to find a qualifying project that the prepayment can be utilized for.

Market rate properties *theoretically* exhibit **ruthless prepayment behavior,** meaning owners prepay efficiently at the first opportunity. That implies that **lockout expiration dates should be priced similar to optional call dates are.** Limited evidence from mainly proprietary sources suggests that MFs do not prepay in a perfectly efficient manner. However, **they do prepay faster than SF mortgages**, once lockouts expire and credit stress is not present. [21] MF prepayment models are primitive, due to lack of data and project heterogeneity. No benchmark for MF prepayments exists, such as the PSA index.

21 A good discussion of MF prepayments is found in the chapter by Jesse Abraham and Scott Theobald in Commercial Mortgage-Backed Securities, Frank Fabozzi and David Jacob, 1997. Another is "*Prepayments of Multifamily Mortgage-backed Securities*", by Peter Elmer and Anton Haidorfer, Journal of Fixed Income, March 1997.

Prepayment behavior depends to a large extent on the characteristics of the owner. Owner prepayment behavior is governed by complex tax, financial, and personal considerations. MF **owners are a diverse lot** (see Exhibit 33). A sizable amount of properties of at least 50 units (19.2%) are directly owned by individuals, while at least a third are held by partnerships – many of which, in turn, are owned by individuals. Some real estate companies and REITS seek to flip properties after enhancing values. Other owners may desire to maintain a high degree of leverage for tax purposes, or to finance other activities.

Exhibit 33: Owners of Apartment Buildings

	5-49 Unit Properties	50+ Unit Properties
Individuals	57.4%	19.2%
Partnerships	14.9%	32.7%
REITs	1.1%	3.4%
Real Estate Corporations	4.0%	9.6%
Other Corporations	4.0%	4.6%
Non-Profits/ Co-ops	2.5%	6.0%
Other	4.6%	4.9%
Not Reported	11.5%	19.6%
TOTAL	100%	100%

Source: National Multi Housing Council tabulations of U.S. Census Bureau's 1995-96 Property Owners and Managers Survey.

An open prepayment call at par in less than 10 years constitutes a weaker structure. This may be encountered in refundings of older projects whose lockouts have expired. However, State HFAs may have continuing restrictions on property use. **Preservation programs may offer alternatives to prepayment, such as soft loans.**

Moreover, these are often **subsidized projects that exhibit different behavior than market rate properties**. Their prepayments are dictated by regulations (see Section 236, Section 8 Restructurings). These owners are not motivated to lower mortgage rates, since the subsidy pays debt service. They usually prepay to extract trapped reserves, convert to market rate, or achieve independence from regulators. Exit taxes on pre-1986 tax shelters constitute a powerful deterrent avoidable only upon death.

Other Call Options in MF Bonds

A number of other extraordinary call options may be present in MF bonds. Exhibit 34 lists some common examples. **These are infrequently exercised, but could become major concerns in certain situations**.

The right to crosscall with prepayments is often present in State HFA MF indentures. However, **crosscalling has virtually never been exercised.** The lack of activity is largely due to the paucity of MF prepayments. In addition, some tax counsels may not be comfortable with it. Unlike with SF bonds, it cannot rest on the defense of being long-standing industry practice. The issuer must also reckon on market reaction. Michigan HDA contemplated crosscalling in its Rental Housing program in the mid-90s, but was disabused of the notion.

Surplus calls from other series may be a significant factor in evaluations of bonds in older indentures.

Exhibit 34: MF Redemptions of Concern in Special Situations

- HUD Mandated Redemptions. Many Section 8s and other subsidized projects have a separate call option for a HUD requested call.
- Crosscalling with prepayments. Often permitted, virtually never happens due to tax law obstacles, lack of prepayments.
- Sale of Mortgages. Some indentures permit sale of mortgage collateral and par calls. NY City HDC action in mid-1980s led to lawsuit by investors.
- Casualty Insurance and Condemnation Proceeds. Terrorism exclusions to be expected now. Battery Park City Authority example.
- Surplus Calls. This is important in State HFA open indentures.
- Mandatory Tender for Failure to Renew Letter of Credit.
- Taxability Call. In event of non-compliance with tenant income requirement, or other tax rules. Often handled instead by a gross-up of interest rate.

Casualty insurance redemptions are extremely rare. Damaged property can be restored. Perhaps the premier example of where questions even briefly arose was on three AAA FHA-insured MF bonds for Gateway Plaza totaling $101 million. Part of this valuable 20-year-old property across from Ground Zero was damaged on September 11. This has been repaired.

The ability to sell off of performing MF mortgage collateral in order to collapse a bond issue is a disturbing provision that may be found occasionally. This is a red flag particularly in obscure issues with lesser-known participants. After the outcry and litigation that followed a sale of MF loans by the NYC HDC in the mid-1980s, it is difficult to imagine a responsible HFA attempting this. However, if it is contained in optional call or clean-up call provisions pertaining to the tail end of an issuer, it should not be offensive.

Balloon extension risk**:** MF bonds utilizing structures common in the CMBS market may extend (without default) in event of a failure to remarket by a certain date. Balloons and partially amortizing loans are ubiquitous in the taxable market. Extension may be legally permitted to avoid a major cause of defaults: inability to rollover. The municipal market may be starting to show more tolerance for this risk. Historically, municipal issues required a liquidity support to be marketable.

IRS Random Audits

The risk of a call triggered by an IRS declaration of taxability is remote with *standard* MF bonds. It is most relevant for obscure local issues with unorthodox or aggressive structures, and using little known tax counsels. Similarly, bond tax-exemption may hinge on the non-profit status of a 501(c)(3)s affiliated with a for-profit developer. However, we are aware of no taxability verdicts as a result of owners losing their tax classification. Taxability accelerations may also be economically impossible for the issue to honor.

Exhibit 35: Random IRS Audits of MF Bonds

- Random audits may focus on renter income certification and annual reporting. No widespread transgressions are likely to be uncovered, although *isolated* violations may.
- Projects using the Tax Credit have been subjected to program audits already.
- If discrepancies are found, the owner has a reasonable period to correct them. **Only cases of long-term, intentional breach of covenants are grounds for declarations of taxability.**

A new concern has arisen over announced IRS random audits of MF bonds (Exhibit 35). These may focus on renter income certification and reporting. No widespread transgressions are likely to be uncovered here. Projects using the Tax Credit have fared well in audits of that program. Moreover, if discrepancies are found, the owner has a reasonable period to correct them. **Only cases of long-term, intentional breach of covenants are grounds for declarations of taxability.** We are on the alert, however, for isolated cases, given the diversity of the MF market.

Conclusion and Recommendations

The MF bond market faces its first market test in over a decade. The current downturn should be mild by historic standards, with the most impact concentrated in vulnerable geographic markets. Moreover, most MF bonds are insulated from direct real estate risk by some form of credit enhancement. Unenhanced Affordable Housing are most susceptible to real estate risks, and have shown more ratings volatility already. Tax Credit projects have been strongly supported by their owners, but may face changing dynamics in coming years. **It is therefore important to be selective today about markets, issuers, and projects.** Buyers not in a position to monitor real estate risks should gravitate towards credit enhanced bonds.

Some fundamental characteristics of subsidized projects are changing markedly. FHA Risk Sharing has great advantages over older FHA programs. Redemption risk is far higher for FHA Section 8s eligible for Restructuring, as well as Section 236 projects. Meanwhile, uninsured local Section 8s face a mounting credit crisis due to HUD's unrelenting rent freeze. **Clients should examine portfolios for exposure to these risks.**

The growing MF sector should offer investors an increasing array of credits and structures. A multiplicity of project types renders generalizations perilous. However, an ample amount of MF bonds (especially non-AMT) offer superior yields, often due to inflated perceptions of call risk. Lockouts typically protect against prepayment risk, while most other call options are infrequently used. High-grade MF bonds now offer excellent prospects for out-performance.