Mortgage Market Note

A Primer on the Secondary Mortgage Market

July 21, 2008

MORTGAGE MARKET NOTE 08-3

I. Introduction

A secondary mortgage market consists of financial institutions and individuals that buy and sell residential mortgages and mortgage-backed securities (MBS), which are financial assets whose cash flows are derived from groups of mortgages. The secondary market in the U.S. is highly developed. Today, three-quarters of the dollar volume of single-family loans are funded through the sale of MBS, up from three-fifths in 2001, and most sales of whole loans occur as part of the creation of pools of mortgages that collateralize MBS. This primer on the U.S. secondary mortgage market discusses the three national submarkets for MBS, focusing primarily on single-family mortgages. The primer reviews the types of securities traded, the roles of various types of market participants, the forward or "To-Be-Announced" (TBA) market, and recent market trends.

II. Three Submarkets for MBS

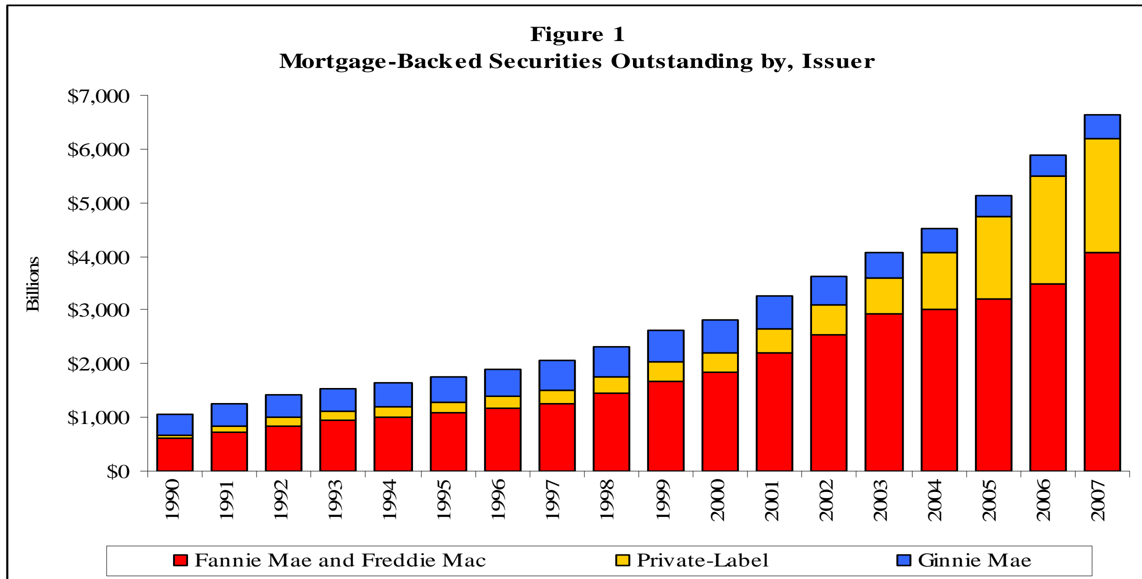
The most important parts of the U.S. secondary mortgage market are the three national submarkets for MBS:

1. **The market for MBS issued or guaranteed by Fannie Mae and Freddie Mac**, two government-sponsored enterprises chartered by the Congress to support the secondary mortgage market. Those Enterprises guarantee MBS backed by nonjumbo single-family mortgages—loans with balances less than a prescribed limit ("the conforming loan limit"), which in 2008 is $417,000 for one-unit properties in areas of the country not designated as high-cost areas—as well as multifamily mortgages. Nearly all the loans backing MBS guaranteed by Fannie Mae and Freddie Mac are conventional mortgages—loans that carry no government insurance or guarantee.

2. **The market for MBS guaranteed by the Government National Mortgage Association (Ginnie Mae),** a Federal government agency that guarantees MBS issued by private firms and backed by pools of single- and multifamily mortgages insured by the Federal Housing Administration (FHA) or guaranteed by the Department of Veterans Affairs (VA) or the Rural Housing Service, each of which is also a Federal agency.

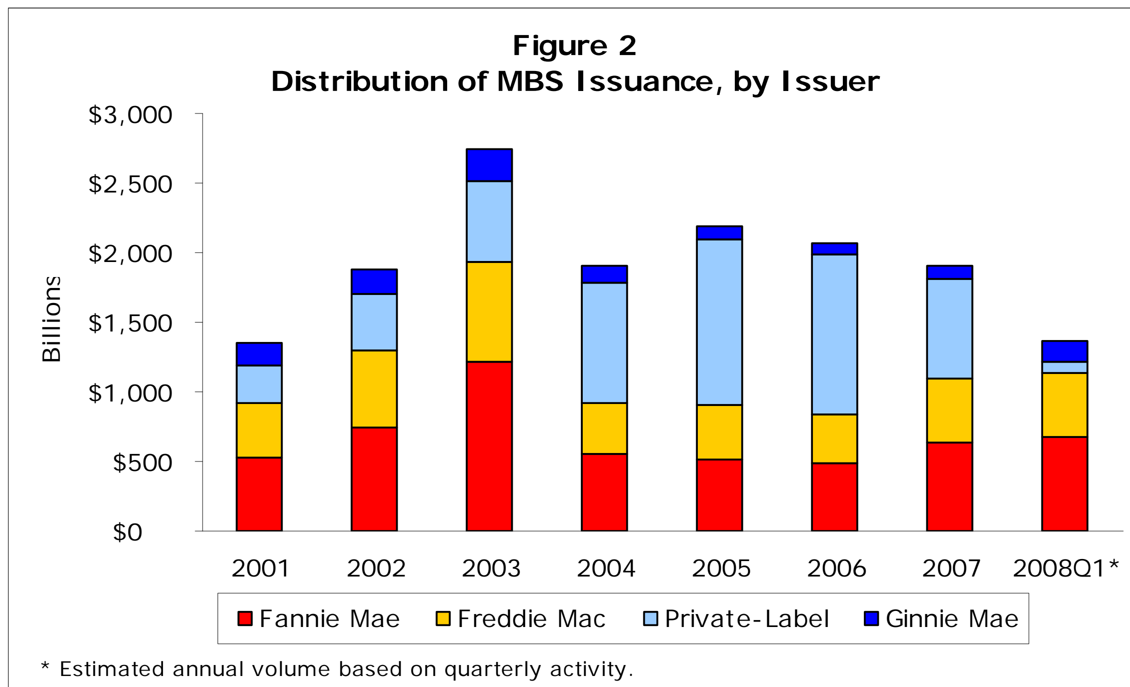
3. **The market for private-label MBS (PLS).** Those securities carry no guarantee by Ginnie Mae, Fannie Mae, or Freddie Mac and are collateralized by pools of conventional single-family mortgages with balances that are too large for the Enterprises to buy (jumbo loans) or are not underwritten to the Enterprises′ standards, including loans to borrowers that have credit problems of varying degrees of severity or provide little documentation, home equity mortgages, and loans that finance investor properties. Multifamily mortgages may be included in pools that contain other types of commercial mortgages and are financed with private-label commercial MBS (CMBS).

At the end of 2007, outstanding MBS backed by single-family mortgages totaled $6.6 trillion. Securities guaranteed by Fannie Mae and Freddie Mac accounted for $4.1 trillion, MBS guaranteed by Ginnie Mae accounted for $0.4 trillion, and PLS accounted for $2.1 trillion of that total (Figure 1). Between 1990 and 2007, single-family MBS outstanding grew at an average annual rate of 11.3 percent. The composition of MBS outstanding changed significantly over that period, however. The private-label share increased from 5.1 percent to 31.9 percent, with most of that growth occurring in this decade, and the Ginnie Mae share fell from 37.5 percent to 6.8 percent. The Enterprise share declined from 42.6 percent to 38.7 percent over the period.



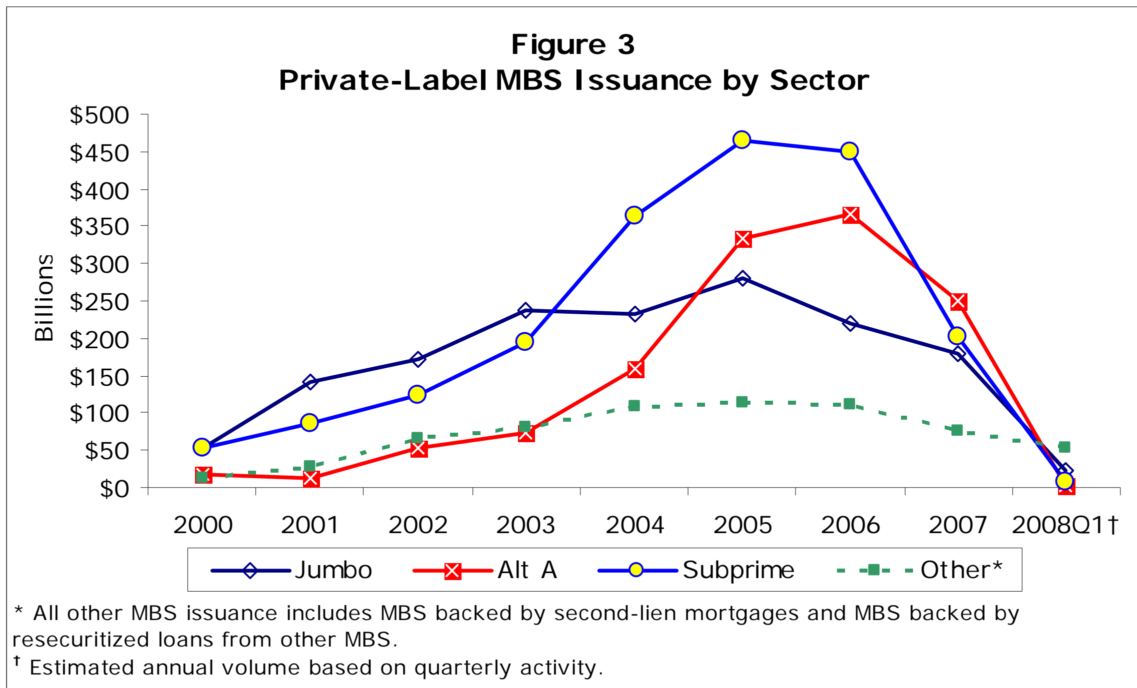
Source: Fannie Mae, Freddie Mac, Inside Mortgage Finance Publications

Issuance of PLS increased dramatically, both in dollars and as a share of total MBS issuance, in the five years between 2001 and 2006. Whereas in 2001 19.7 percent of MBS issued were PLS, by 2006 that share had climbed to 56.0 percent (Figure 2). Ginnie Mae MBS declined from 12.7 percent of total issuance to 4.1 percent. The share of MBS issues guaranteed by Fannie Mae and Freddie Mac declined from 67.5 percent to 39.9 percent, over the period.



Source: Fannie Mae, Freddie Mac, Inside Mortgage Finance Publications

The second half of 2007 and the first quarter of 2008 saw a reversal of those trends. Issuance of PLS fell dramatically in those quarters as high default rates early in the lives of recently-originated subprime mortgages led to a liquidity crisis in the secondary market for PLS and turmoil in financial markets. Issuance of PLS dropped from $1.1 trillion in 2006 to $707 billion in 2007. Drops in issuance of PLS backed by subprime and Alt-A mortgages accounted for most of the decline (Figure 3). Issuance of PLS backed by jumbo loans also declined. If continued at the rate in the first quarter of 2008, PLS issuance will total $86 billion for the year.[1]



Source: Inside Mortgage Finance Publications

The drop in issuance of PLS backed by jumbo mortgages was accompanied by a substantial increase in the spread between the interest rates on fixed-rate jumbo and nonjumbo loans. In an effort to address that issue, the Congress included provisions in the Economic Stimulus Act of 2008 that temporarily raised the conforming loan limit from $417,000 nationwide (for one-unit properties) to as much as $729,750 in high-cost areas. The temporarily higher limits apply to mortgages made between July 2007 and December 2008. The Act also established temporarily higher limits for FHA-

---

[1] Subprime lending involves the provision of credit to borrowers who have past credit problems of varying severity and low credit scores. Alternative-A (Alt-A) mortgages are made to borrowers who generally have limited income or asset verification or are self-employed.

insured mortgages originated in high-cost areas. Those changes will likely increase the Enterprises' and Ginnie Mae's shares of total MBS issuance in 2008. Proposed legislation to reform federal regulation of Fannie Mae and Freddie Mac passed by the House of Representatives in 2007 and currently being considered in the Senate would establish permanently higher conforming limits in high-cost areas. Enactment of that legislation would permanently boost the market shares of the Enterprises and Ginnie Mae, even if the PLS market recovered.

III. Types of MBS

MBS are issued by trusts that hold title to groups (or pools) of mortgages for the benefit of investors. MBS differ in terms of the number of classes of securities issued, the type of collateral backing the securities, the means of credit enhancement, and how risks are allocated among investors.

Single-Class MBS. A single-class MBS represents an undivided beneficial interest in the mortgages underlying the trust. The trust pays each investor in the MBS a pro rata share of the scheduled principal and interest from mortgagors on the loans backing the security. Interest is paid at a specific interest rate. Investors also receive any unscheduled payments of principal. Single-class MBS are often termed "pass-through certificates" because the monthly payments are "passed through" on a pro rata basis to the investors.

Single-class MBS are almost always guaranteed as to timely payment of principal and interest by Ginnie Mae, Fannie Mae, or Freddie Mac and, when backed by 30- and 15-year mortgages, are often first sold through the TBA market. Unlike Ginnie Mae's guarantee, which carries the full faith and credit of the U.S. government, those of Fannie Mae and Freddie Mac are guarantees of private corporations. Indeed, MBS guaranteed by the Enterprises carry an explicit disclaimer of any federal guarantee. Nonetheless, investors perceive an implicit federal guarantee of Enterprise-guaranteed MBS. Private credit rating agencies grant triple-A ratings to MBS guaranteed by Ginnie Mae, Fannie Mae, or Freddie Mac.

The mortgages underlying a single-class MBS, while not identical, generally have broadly similar characteristics. For instance, a pool of thirty-year fixed-rate mortgages backing a Fannie Mae MBS might contain mortgages that were originated in the last year and have a weighted average life of three months and that carry interest rates of between 6 and 6.5 percent and have a weighted-average coupon rate of 6.25 percent.

The coupon rate on a single-class MBS is generally slightly lower than the weighted-average coupon rate on the underlying mortgages. That difference covers servicing fees (paid to the servicer) and guarantee fees (g-fees) paid to Fannie Mae, Freddie Mac, or Ginnie Mae as compensation for the credit guarantee of the securities. Each of those agencies offers several pass-through products (e.g., Ginnie Mae I, Ginnie Mae II, Freddie Mac Gold, Fannie Mae Megas) that vary in terms of the underlying loans, the servicing fees, and the lag between payment on the mortgages and payment to the MBS holders.

Multi-Class Securities and REMICs. A multi-class MBS represents a beneficial interest in a trust that has issued multiple classes (or "tranches") of securities of varying maturities, coupon rates, and payment priorities. The securities of each class entitle investors to cash flows structured differently from the payments on the mortgages or MBS underlying the trust. Most multi-class MBS are structured as Real Estate Mortgage Investment Conduits (REMICs) so that the trust is not taxed separately from the securities. Multiclass MBS guaranteed as to timely payment of principal and interest to investors by Ginnie Mae, Fannie Mae, and Freddie Mac are frequently referred to as Collateralized Mortgage Obligations (CMOs).

Classes of securities issued as part of a multi-class MBS guaranteed by Ginnie Mae, Fannie Mae, or Freddie Mac are distinguished by their sensitivity to the prepayment risk of the underlying collateral. Securities in each class may be more or less sensitive to prepayment risk, bear different interest rates, and have various average lives and final maturities. The collateral for a multi-class MBS of one of these guarantors may include mortgage loans that have been pooled together as single-class MBS; stripped MBS (a security that passes through only principal or interest payments); tranches from other multi-class MBS; and whole loans.

Classes of securities not guaranteed by Ginnie Mae, Fannie Mae, or Freddie Mac—and thus part of a private-label multi-class MBS—are distinguished by their sensitivity to both the credit risk and the prepayment risk of the underlying mortgages. Credit losses are allocated to investors in different classes of securities in reverse order of their seniority as to receipt of principal. Thus, any losses are absorbed first by the holders of the most subordinate tranche before the next highest tranche is affected. Frequently, the most senior tranche is covered by bond insurance and all but the lowest tranches are rated by at least one private credit rating agency. An issuer sets the size of the most subordinate tranche so as to maximize the credit ratings of the more senior tranches.

Issuers of private-label multi-class MBS have employed a variety of methods besides subordination to enhance the credit quality of their securities. One tool is overcollateralization, in which the face value of the multi-class MBS tranches is less than the face value of the underlying collateral. That difference serves as a cushion to absorb losses before they are passed on to investors. Another approach to credit enhancement is excess spread, where the weighted-average interest rate paid to investors is less than the weighted-average interest rate collected on the underlying mortgages, net of servicing fees. Excess spread functions analogously to the guarantee fees charged by the agencies and allows a cushion to develop over time to absorb credit losses. In addition, the terms of a private-label multi-class MBS issue may provide for the reallocation of cash flows from less to more senior securities if specific trigger events occur.

IV. Other Participants in the Secondary Market

In addition to Fannie Mae, Freddie Mac, and Ginnie Mae, numerous private firms and other entities participate in the U.S. secondary mortgage market, including lenders that originate, securitize, and service loans; dealers; bond insurers; and a broad range of investors.

Originators and Servicers. Depository institutions—commercial banks, thrift institutions, and credit unions—or their mortgage bank affiliates originate most mortgage loans. The origination process includes marketing to prospective borrowers, processing applications (ordering credit reports, appraisals or other property valuations, and title reports; and verifying borrower income, employment, and assets), underwriting applications, arranging for approved loans to be closed, and disbursing funds to borrowers. A mortgage broker may perform part of the origination process for the originating lender in whose name the loan is closed. The originator of a loan may service it, or another lender may do so after purchasing the loan or acquiring the right to service it. Servicers collect monthly payments from borrowers, transfer principal and interest payments to investors, manage escrow accounts, and handle delinquencies and foreclosures. If a servicer does not own a loan it services, it retains a portion of the loan interest as a servicing fee before passing the remainder to investors.

Poolers. When a pool of mortgages is financed with single-class MBS guaranteed by Fannie Mae or Freddie Mac, a lender transfers the loans to a trust created by the Enterprise that holds title to and issues securities backed by them. In so-called "swap" transactions, the lender receives Enterprise-guaranteed MBS in exchange for the pool. Mortgages that the

lender has purchased from other originators may also be included in a pool. A lender that finances mortgages with MBS guaranteed by Ginnie Mae creates the trusts that issue the securities. Some poolers, often called conduits, do not originate any mortgages but serve merely as intermediaries, acquiring loans from lenders and arranging for MBS to be issued. Ginnie Mae, Fannie Mae, and Freddie Mac certify the firms that may create pools financed through the issuance of MBS that are backed by their respective guarantees. A small portion of the MBS guaranteed by Fannie Mae and Freddie Mac are collateralized by mortgages previously owned by one Enterprise.

Dealers. Dealers in the secondary mortgage market facilitate the transfer of newly issued MBS from issuers to investors and support trading of previously issued MBS. In the case of single-class MBS guaranteed by Ginnie Mae, Fannie Mae, or Freddie Mac, dealers trade the securities in the To-Be-Announced (TBA) market (discussed in detail below) on behalf of investors. In the case of multi-class MBS, dealers typically define the terms of an issue in order to best tailor the securities to market demand. Dealers are generally investment banks or the investment-bank affiliates of large financial services holding companies.

Bond Insurers. The issuer of a private-label multi-class MBS can pay a premium to a bond insurer. In exchange, the insurer commits to make interest and principal payments on a tranche of the MBS issue, as specified in the covenants, in the event of the failure of the issuer to do so. The purpose of purchasing bond insurance is to raise the credit rating of the tranche to the rating of the insurer. The greater the perceived credit risk of the tranche, the higher the premium required by the insurer.

Investors. Investors in MBS are predominantly institutional and include banks, insurance companies, hedge funds, mutual funds, foreign central banks, and sovereign wealth funds, as well as Fannie Mae and Freddie Mac. Depository institutions that wish to hold mortgage assets have an incentive to invest in MBS guaranteed by the Enterprises or Ginnie Mae or private-label MBS rated double- or triple-A over whole mortgage loans because, under current capital rules, highly-rated securities require lower minimum capital cushions than whole loans.

In recent years, there have been changes in the shares of outstanding MBS that are held by different types of investors. While the share of outstanding MBS held by depositories, life insurance companies, and Fannie Mae and Freddie Mac declined between 2001 and 2007, the shares held by mutual funds and REITs increased. Additionally, foreign ownership of MBS has

increased rapidly. The share of MBS held by foreign investors increased from 5.0 percent in 2001 to 18.4 percent in 2006 (Figure 4).

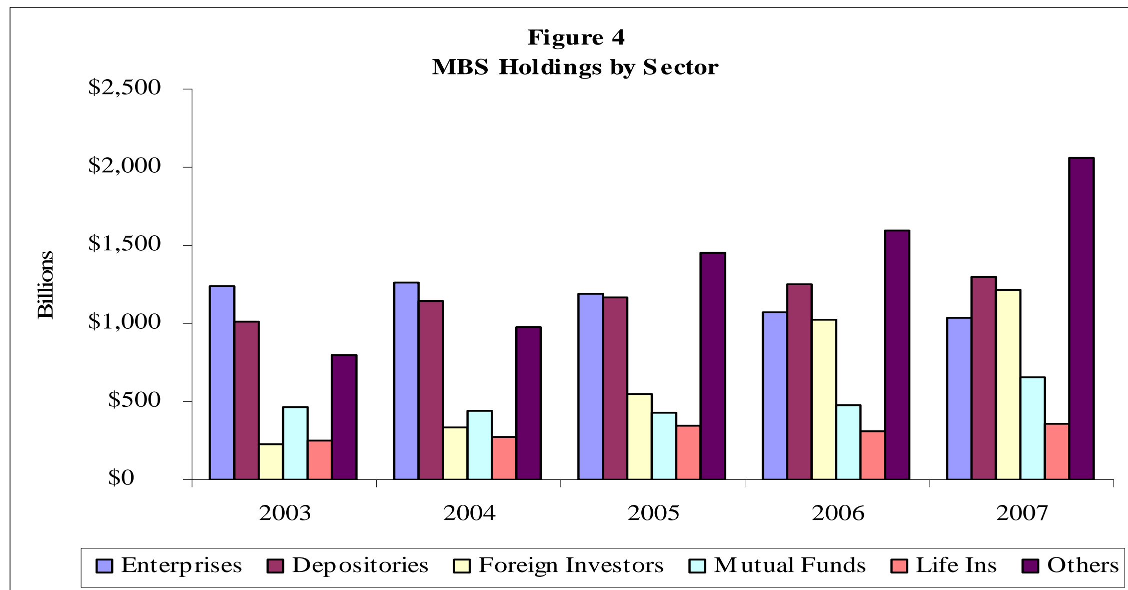


Figure 4
MBS Holdings by Sector

Source: Inside Mortgage Finance Publications

V. The To-Be-Announced (TBA) Market

Single-class MBS are typically traded in the TBA market, which is a forward exchange market that allows investors to purchase that type of MBS before knowing the exact composition of the underlying mortgage pools. In a typical TBA trade, the investor and issuer agree on the type of security to be transacted (e.g., a Fannie Mae MBS backed by 30-year, fixed-rate mortgages), the coupon rate, the face value and price of the security, and the settlement date (when the trade will be completed). Two days before the settlement date, the issuer discloses the exact pool information to the investor. Guidelines developed by the Bond Market Association, a precursor to the Securities and Financial Market Association (SIFMA), ensure that the characteristics of the pool that is delivered do not deviate greatly from the agreed-upon characteristics. Those rules also ensure that notification of the pool characteristics is timely. Investors, if they choose, can stipulate more specific pool characteristics (such as geographic concentration), but sellers charge higher prices for those stipulated trades.

The widespread use of TBA trading has contributed significantly to the liquidity and efficiency of the secondary market for single-class MBS. The

ability to trade pools before they are settled allows an originator to lock-in the coupon rate on a loan for which a prospective borrower has applied without bearing the risk that the market value of the loan will change before it is closed, due to fluctuations in market interest rates. The functioning of the TBA market is due in considerable part to the guidelines imposed by the Securities Industry and Financial Markets Association and to the Federal Reserve's Fedwire clearinghouse service, which efficiently processes the large volume of transactions.

Index to Relevant Documents

Staff Report: Enhancing Disclosure in the Mortgage-Backed Securities Markets, Department of the Treasury, Office of Federal Housing Enterprise Oversight, Securities and Exchange Commission, 2003.

"About MBS/ABS", InvestingInBonds.com, Securities Industry and Financial Markets Association.

An Investor's Guide to Mortgage Securities, Bond Market Association (Now Securities Industry and Financial Markets Association), April 2002.

Mortgage Markets and the Enterprises in 2007, Office of Federal Housing Enterprise Oversight, July 2008.