Statement of Andrew Davidson
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before the
United States Senate Banking Housing and Urban Affairs Committee
Subcommittee on Securities, Insurance, and Investment

"Examining the Housing Finance System: The To-Be-Announced Market"
August 3, 2011

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Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to testify before you today about the TBA or "To-Be-Announced Market." Despite its prosaic name, the TBA market is a crucial component of the housing finance system. I believe it is one of the greatest financial innovations of the last fifty years; another colleague has called it a "national treasure." The TBA market helps lower mortgage rates, facilitates rate locks for borrowers seeking to buy homes and has helped the make mortgages available through the financial crisis. Policy alternatives to the GSEs may enhance or disrupt this market. It is my hope that my testimony today might give you a better understanding of the functioning of this market.

I have been involved with Mortgage-Backed Securities (MBS) since 1985. I was a managing director at Merrill Lynch responsible for MBS research and risk management for their mortgage trading desk. In 1992, I founded Andrew Davidson & Co., a New York based firm, specializing in the development and application of analytical tools for the MBS market that serves over 150 financial institutions. I have a broad view of housing finance as our clients include originators, servicers, mortgage insurers, GSEs, investors, dealers and regulators.

Today's TBA market represents a more than forty-year evolution of a voluntary system of trading mortgage-backed securities that provides for efficient, transparent risk-transfer and funding for most of the fixed-rate mortgages originated in the United States. The market serves two primary purposes: First it allows originators of fixed-rate mortgages to hedge the price risk associated with changing interest rates from the time that the originator makes a commitment to a borrower to lend at certain rate, until the loan is sold to an investor in the form of a mortgage-backed security (MBS). Second, it allows investors to engage in extremely large transactions to buy or sell MBS at very low costs of execution. In addition to its primary purposes, the TBA market also provides a mechanism for investors to efficiently finance their

holdings of MBS and provide liquidity to the market, through a mechanism called “dollar rolls” or “rolls.”

I have divided my testimony into three parts. Part I is a general discussion of the TBA Market. Part II is a discussion of how proposed housing reforms might affect the TBA market. Part III contains some recommendations.

Part I. The TBA Market

To better understand the value of the TBA market, it might be instructive to see how the TBA market is used to reduce risk in the mortgage origination process. This is in Section 1. In Section 2 we discuss features of the TBA market that make it effective. Section 3, is a discussion of why the TBA market is able to achieve these benefits. Section 4 provides estimates of the cost benefit to borrowers associated with the TBA market.

Section 1. The Role of the TBA Market in Origination: Hedging Interest Rate Risk

In this section we examine the role of the TBA market in the origination process via an example that shows how the interest rate risk of originators looks with and without TBA hedging. Before launching into the assumptions and looking at originator profit and loss, we review the links between the origination of loans to borrowers to the TBA market of MBS.

Process Summary

The largest broker-dealers maintain an actively traded TBA market and the prices from this market can be seen by originators and investors in real time on electronic screens. The prices of TBA securities, together with the loan-level pricing adjustments (LLPAs), base guarantee-fees of Fannie Mae (FNMA) and Freddie Mac (FHLMC), and the required servicing fee help originators determine the mortgage rate for any loan which is eligible for securitization through the GSEs. For example if the par security (the one

priced closest to 100) in the TBA market has a 4.5% net coupon. The originator would add on a servicing fee of 25 basis points and a guarantee fee of 20 basis points to produce a mortgage coupon of 4.95%.

Suppose a borrower applies for a loan and locks in their rate in August, and the originator hopes to complete underwriting and close the loan in late September. Then the loan would be delivered into an October TBA security (suppose FNMA for our example). Between August and October, the LLPAs and servicing fee going into the borrower's rate would not change; however, interest rates can change, and any change in the level of prevailing mortgage rates affects the value of TBAs. Because borrower rates are locked, the risk of a mismatch between the rate given to the borrower and prevailing rates at closing is borne by originators.

If the mortgage loan is a product that is eligible for delivery into TBAs however, the originator can estimate how many loans they will be delivering into the October security based on their application pipeline, approval rate, and historical "fall-out" rates (the rate at which approved borrowers fall out of the application process for various reasons). The originator can then short (or sell) the appropriate quantities of Fannie TBA securities to hedge their interest-rate risk. When the settlement of that TBA security occurs, they will deliver loans to FNMA and receive a FNMA pool which they can deliver to cover their short position with the broker-dealer. The originator is fully protected from changes in interest rates because they have already locked in the price for sale of the pool.

A Hedging Example

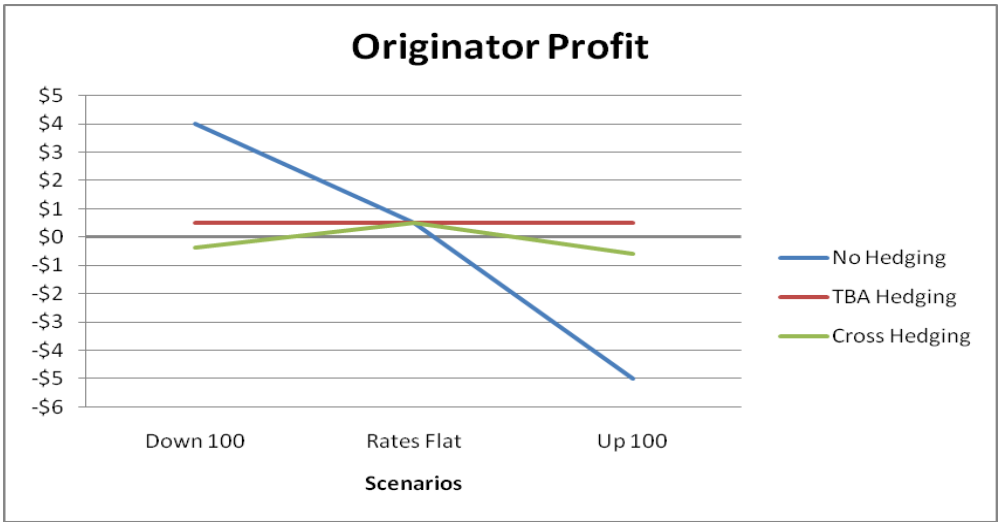
For this example, we make the following assumptions: as above, the net coupon in the TBA market is 4.5% and the coupon to the borrower is 4.95% and originator profits are $0.50 for every $100 of loan balance originated in the absence of any interest rate changes (relative to forward rates). We examine three scenarios: (1) where interest rates do not change from the time that the borrower locks in their rate until the time that the loans are delivered into a security, (2) interest rates fall 100 basis points, and (3)

interest rates rise 100 basis points. Since the time that elapses between a borrower's lock to loan closing can range from 30 to 90 days, this range of interest rate changes often occurs.

If interest rates fall the par net coupon in the TBA market will be 3.5%. The 4.95% loan to the borrower will be more valuable since it carries an above market coupon. However if interest rates rise, the new par net coupon in the TBA market will be 5.5%. The 4.95% loan to the borrower will be at a below market rate and will have fallen in value.

Figure 1 shows originator net profit taking into account the $0.50 in fee income as well as the impact of interest rate changes. The three lines demonstrate originator profit assuming three different actions by originators: no interest rate hedging, hedging using TBA markets in the same loan type as the originated loan, and hedging using a different instrument (labeled "Cross Hedging").

Figure 1: Use of the TBA market to reduce risk



In the middle scenario, where rates are flat, we can see that all three types of behavior result in the same $0.50 net profit; that is, interest rate risk has no role, and originators earn their desired $0.50 of each $100 originated. However, we can see that without any hedging, if interest rates fall, profit swings up to $4. If

interest rates rise, the originator takes a loss of $5. (The asymmetry results from a characteristic of mortgages called negative convexity, caused by the right of borrowers to prepay when rates fall.)

The red line, with TBA hedging, shows that these swings in originator profit are completely flattened with the use of a TBA hedge in the same category as the originated loan. The TBA market allowed the originator to lock in a sales price.

The green line shows that using a different instrument to hedge could result in losses of $0.40 and $0.60 in the changed rate scenarios. An example of a cross-hedge would be originating 7/1 hybrid ARMs and hedging them using 15-year fixed-rate TBA markets (because ARMs do not have TBA markets). When it is time to sell the pool of ARMs, the originator will not be able to deliver the pool to satisfy the short position. Instead the originator will need to buy back the short position in the TBA market and enter into a separate transaction to sell the ARM pool. There is no assurance that the price change on the TBA and the price change on the ARM pool will match. The difference between these price changes is called "basis risk." The losses in this third case stem from having an imperfect hedge, and the numbers we show reflect potential errors occurring in both directions. The amount of gain or loss is uncertain because the hedge does not lock in the sale price.

Cross hedging cannot reduce risk as effectively as a direct hedge in the market of the product. The effectiveness of cross hedging depends on the similarity between the product and the hedge and the cost of execution in the hedge market. Because of its liquidity and close relationship to other mortgage markets, the TBA market is widely used to hedge many non-TBA eligible mortgage products including hybrid ARMs and non-agency mortgages.

Alternatives

Originators prefer to focus on the underwriting and credit decision-making process and would like predictable profits. If the TBA market did not exist, some alternatives might be:

(a)*Originators take the interest rate risk or use other, more imperfect hedges.* This would most likely result in an increase in mortgage rates to compensate the originator for taking this risk.

(b)*Offer mortgages that do not have a rate-lock feature, leaving the interest rate risk with borrowers.* This makes the mortgage qualification process somewhat difficult, especially for borrowers that are near qualification limits. For example if their debt-to-income ratio is near a lending limit and rates rise, the borrower would no longer afford the subject property, and the purchase could not go through. This option would raise the overall volatility of the real estate transaction process.

It is possible that both would occur, with rate-lock loans offered at higher rates, giving borrowers the option to take the risk in exchange for a lower rate (which could end up higher or lower at closing). Borrowers with economic flexibility might prefer to take their chances, whereas first-time buyers who are near their purchase price limits would likely be forced to pay the higher rates.

Section 2. Benefits of the TBA Market

The TBA market delivers benefits to its participants due to several important features.

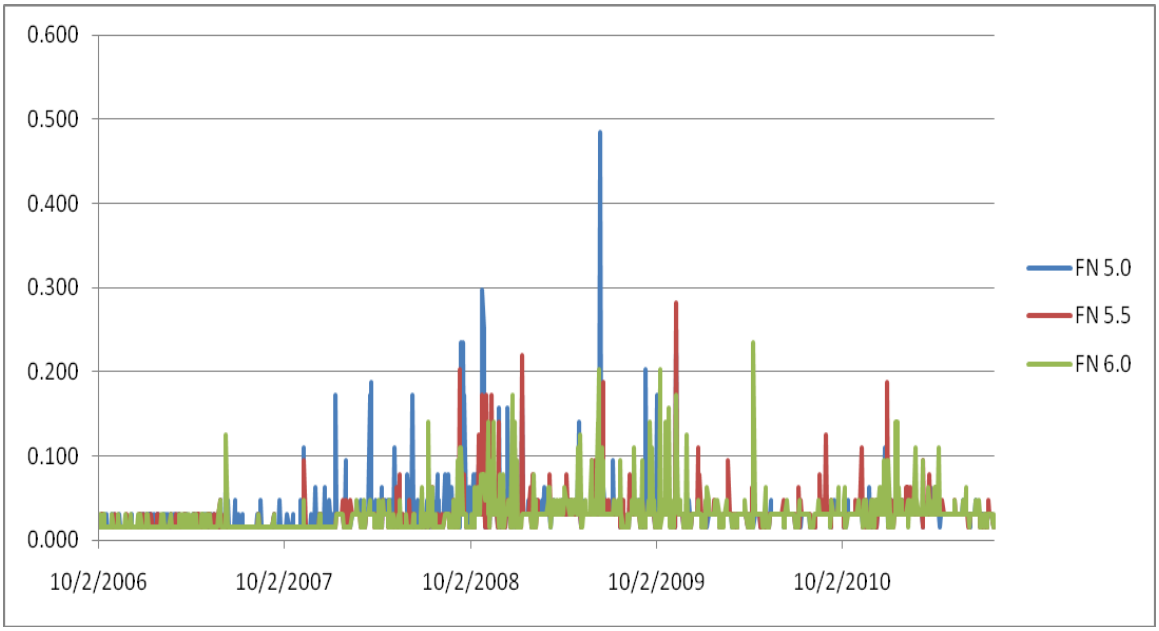
Physical Delivery. The TBA market allows mortgage originators to complete the sale of newly originated mortgages directly into the TBA market. As described above, the TBA market establishes the pricing for mortgages, and originators are assured of achieving their expected profitability if they successfully close and deliver the loan. Other forms of hedging are generally cash settled or do not allow the delivery of the mortgage loan. In these cases, the originating firm must separate the hedging process from the ultimate sale of the mortgage loan. This creates basis risk, as described above.

Limited Delivery Option. The TBA market operates with sufficient clarity as to the nature of the loans that will be delivered to the TBA market. This means that investors are confident of the value of the securities they will receive, and therefore do not substantially discount their purchase price to accommodate adverse delivery by the sellers. (These markets operate under a principle called "cheapest to deliver," which means that the seller will find the lowest value instruments to sell to the buyers.) Some loans do have greater value than average, primarily due to desirable prepayment characteristics. The TBA market has found a way to accommodate loans which might have greater value through the use of pool specific and stipulated trades, without overly degrading the value of the vanilla TBA trades.

Low bid-ask spread. The size and scope of the TBA market means that it can deliver extremely low transaction costs to buyers and sellers with typical bid-ask spreads in the range of 1/64 of a percent to 1/32 of a percent. This is comparable to the bid-ask spread on the most liquid Treasury securities. The TBA market allows investors to make very large commitments of capital in very short periods of time, with little or no impact on pricing in the market, making it one of the key markets used by investors to express interest rate exposure objectives.

Even during the financial crisis bid ask spreads in the TBA market remained in check. As shown in Figure 2, bid-ask spreads at the worst of the crisis may have approached ½ point, but during this period many other markets were not trading at all. Even today, non-TBA trades in the mortgage market might have a 1 point or greater bid-ask spread while the TBA market has returned to a 1/32 of a point or less bid-ask spread.

Figure 2: Bid-ask spread of the TBA market (Source: Bloomberg)



Built in financing market/liquidity provision. Another important component of the TBA market is that it provides a mechanism for financing ownership of mortgage-backed securities, much like a repo (repurchase) market. Owners of MBS can sell their positions into the TBA market in a near delivery month (say August) and re-purchase that position in the next month (say September). Since they receive cash for their sale in August and then pay cash to reacquire the position in September, the investors have effectively borrowed money from the TBA market. The sale of mortgages for one period and purchase in a later period is called a "roll," as investors have "rolled" their position to a later month.

This mechanism also provides a way for investors to get compensation for providing liquidity to the market. If there is a great demand for MBS in the current month relative to a future month the price paid for current delivery rises relative to the forward price. This serves to effectively lower the financing cost for holders of mortgages. MBS holders can take advantage of this financing benefit and provide additional liquidity to the market while maintaining their investment in MBS.

Transparency. Participants in the TBA market have access to current pricing information from a variety of sources. For example, Bloomberg and Tradeweb post current prices.

Analytical Tools. Investors and Originators using the TBA market have access to a wide range of historical data and analytical tools that help them assess value and risk in this market. While there is substantial volatility in MBS prices, there is no shortage of information and tools to help market participants assess the risks of TBA eligible MBS.

Cross hedging. The TBA market also serves as a primary hedging tool for non-TBA eligible agency loans and for non-agency mortgages. That is, even loan products that are not eligible for physical delivery into the TBA market make use of the TBA market for price risk reduction, but with greater risk to the originator. Without the TBA market it would be more difficult to hedge and manage the risk of non-agency fixed-rate mortgages as much of the hedging for non-agency fixed-rate mortgages, as well as many hybrid ARM products, utilizes the TBA market. Much of the efficiency of these products is derived from the TBA market for fixed-rate mortgages.

Section 3. Sources of Value of the TBA Market

As policy options for the GSEs are considered, policy makers may want to consider what structural features allow the TBA market to be so successful and consider whether proposed changes might impact the functioning of the TBA market. The functioning of the TBA market is the result of a combination of features. The success of a market is largely determined by the confidence of the market participants. That confidence creates liquidity, which is further self reinforcing. A loss of confidence can lead to a rapid decline in liquidity and the collapse of a market. I believe that participant confidence in the TBA market arises from four key features. Changes to these four features might not destroy the TBA market, but would likely reduce investor confidence.

The government guarantee is a central feature of the TBA market. GNMA securities have traded with the explicit guarantee of the US government, and GSE securities traded with an implicit guarantee until the conservatorship of the GSEs and now are backed by funding from Treasury. The government guarantee serves to eliminate the need for credit analysis when evaluating TBA transactions. Investors do not need to consider the credit worthiness of the borrowers, the adequacy of credit enhancement, or the financial strength of the issuer when investing in TBA eligible mortgages. Furthermore, due to the federal guarantee, GSE mortgages are exempt from SEC registration. This exemption facilitates the TBA market because firms can sell securities prior to issuance. For registered securities there is a prohibition on sale prior to registration so originators are not able to sell pools of loans that have not yet closed.

The underwriting requirements of the GSEs and the limitations on the type, nature, and documentation of mortgages allowed in various types of mortgage pools provides investors with confidence that the mortgages in the pools that they buy will be sufficiently similar so as to make forecasts of cash flows reasonably certain. The GSEs have served to standardize the entire mortgage origination and servicing process. Without such standardization, investors would be less willing to engage in TBA trades or would demand a greater premium for the risk that they would receive non-standard loans and pools in TBA delivery.

The Securities Industry and Financial Markets Association (SIFMA) also serves an important function by setting the rules on good delivery for TBA trades. SIFMA standardizes delivery dates and notification rules and limits which agency pools qualify for delivery into TBA pools. This role protects investors from sellers including pools which might have adverse performance characteristics in TBA pools.

While these structural features and the roles played by the GSEs and SIFMA have been crucial to the success of the TBA, another significant, but more elusive feature of the market is also important. As this market has developed over the past forty years, it has adapted to changing market conditions. The ability

of this market to adapt enhances participant confidence. Examples of adaptations are: the growth of the dollar roll market (described above), the on-going evolution of settlement and clearing operations through DTCC and its predecessor organizations, updated and evolving good delivery guidelines from SIFMA and its predecessor organizations, the evolution of the stipulated trade market as the GSEs produced enhanced data disclosures, and the development of electronic trading platforms such as Tradeweb.

These features enabled the MBS TBA market to withstand the recent financial crisis with virtually no disruption. For example, the DTCC risk management and clearing operations were able to shield key market participants (its clearing members) from the failure of Lehman Brothers.

The success of this market is a reflection of the confidence of the participants to engage in tens of trillions of dollars of transactions each year. Market participants estimate monthly trading volumes of about $5 trillion split between dealer-to-dealer and dealer-to-customer business. Average daily volumes are estimated at $300 billion and are substantially higher around settlement days.

Section 4. Impact on Mortgage Rates

The TBA market has a significant effect on the availability and cost of fixed-rate mortgages. It contributes in three important ways.

First, the extremely low bid-ask spread and high liquidity lower the transaction costs for originators to sell mortgages. During normal markets, the TBA market has a bid-ask spread that is ¼ to ½ points lower in price (5-10 basis points in mortgage rate) than alternatives. During the crisis period there were times when it was nearly impossible to execute in non-TBA markets. Even several years after the crisis, the bid-ask spread for many senior non-agency mortgages is more than one point.

Second, the ability to hedge origination risk with an instrument that allows physical delivery of the loans lowers the cost of hedging. During normal time periods this probably lowers the cost of mortgages by about ½ point in price (about 10 basis points in mortgage rate). It is important to note that the TBA market also lowers the cost of non-TBA mortgages as it provides a good vehicle for cross hedging. Due to the unique characteristics of mortgages, particularly prepayment risk, other instruments are generally not close substitutes.

Third, the liquidity of the TBA market, combined with the government guarantee on the MBS serves to lower the rate on agency MBS by about 25-50 basis points in rate relative to non-agency alternatives during normal markets. As shown in Figures 3 and 4, during the financial crisis that spread rose to more than 400 basis points and still remain at much higher levels.

Figure 3: History of Secondary Market Mortgage Rates (source: Bloomberg)

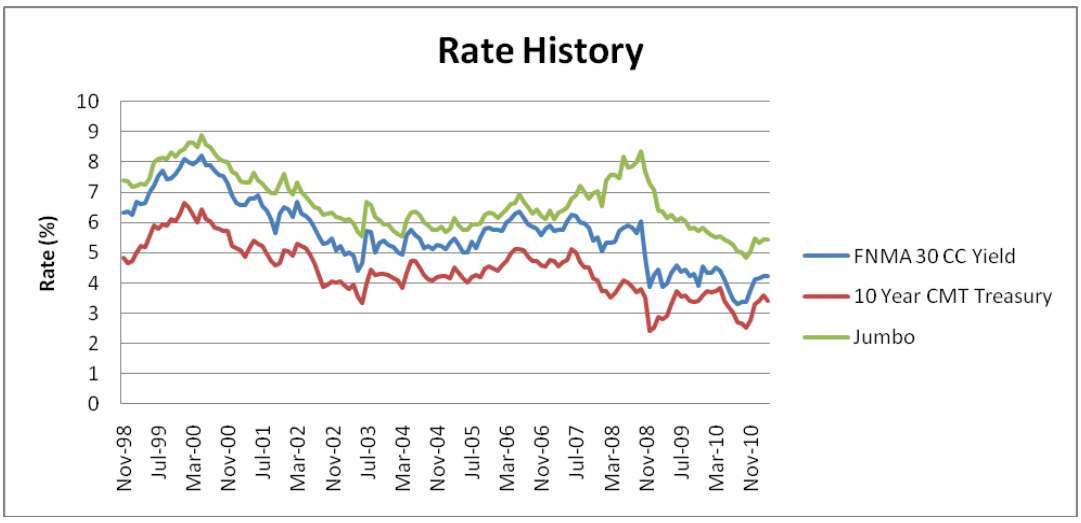
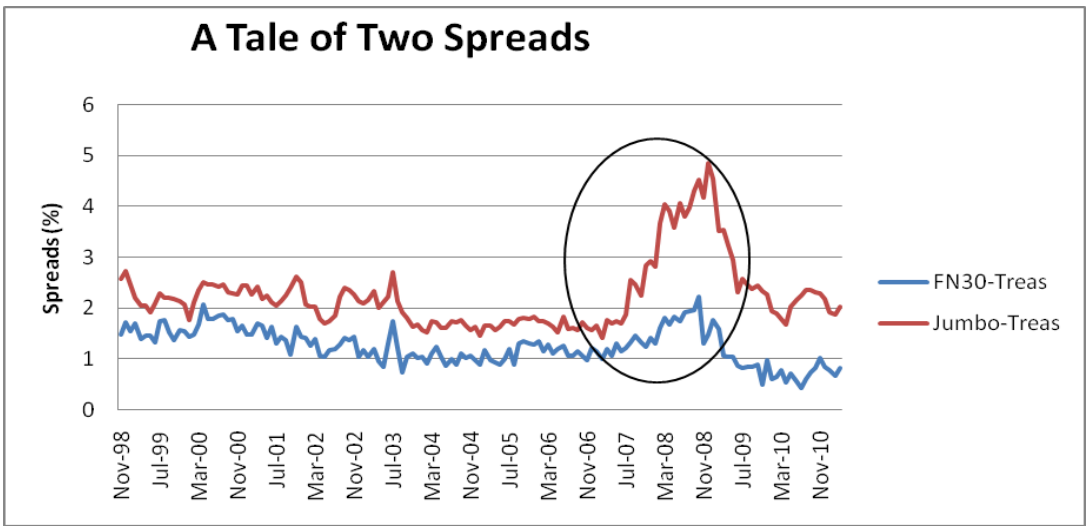


Figure 4: Comparison of Agency and non-Agency MBS spreads



Overall the TBA market lowers mortgage rates for both TBA eligible and non-eligible mortgages by about 30-70 basis points in normal markets and facilitates lending that might otherwise be prohibitively expensive during crisis periods.

Part II. Housing Finance Reform and the TBA Market

The process of reforming the housing finance system following the financial crisis is not yet complete. The GSEs, Fannie Mae and Freddie Mac still operate under federal conservatorship and the private label securitization market has not yet recovered. Over the past three years, there have been many proposals to reform the housing finance system. Due to the importance of the TBA market to the functioning of the housing finance system, it is important to assess the impact of these proposals on this market. Rather than assess each individual proposal for the GSEs and their possible successors, for the purpose of this analysis common features of those proposals will be addressed.

1. Retain or eliminate a federal guarantee on the MBS.
2. Reduce or increase the number of entities that can issue guaranteed MBS
3. Guarantee MBS, not GSE obligations
4. Provide only a catastrophic guarantee
5. Utilize covered bonds

Analysis of these points is difficult in that there are no objective criteria to say what is required to maintain a successful market. The success or failure of a market is largely a result of investor need and investor confidence. The TBA market has proven itself to be resilient to many changes in the mortgage market over the past forty years. This resilience derives at least in part from the efforts of the participants in the market to address problems as they arise. The fundamental (unanswerable) question about a proposed change in the structure of the GSEs is whether the market can adapt to the change.

Eliminate the Federal Guarantee

Eliminating the federal guarantee on conventional MBS would be a major blow to the TBA market. The federal guarantee serves to insulate investors from credit risk. As a result, investors do not need to consider the credit worthiness of the borrowers or the issuers. If the underlying MBS had a wide range of credit risk exposure, only the riskiest, least valuable mortgages would be delivered into the TBA

forwards. This would rapidly degrade the value and liquidity of the market. Issuers producing high quality loans would be unable to use the market as a hedging and delivery vehicle. Tradeweb, the electronic trading platform which handles about 65% of all dealer-to-customer trading in TBAs and is involved in many other markets, does not currently handle any markets that do not have government guarantees. This provides a strong indication of the importance of a sovereign guarantee in promoting liquidity.

Eliminating the federal guarantee would also, presumably, eliminate the SEC exemption for conventional MBS. Without this exemption, firms would be unable to sell MBS prior to issuance, thus would lose the ability to hedge as they do currently. All hedges would need to be "paired off" and would result in additional basis risk and cost.

Finally, eliminating the federal guarantee would also remove a substantial portion of the investor base from the TBA market. Many large investors utilize the mortgage-backed securities market to execute trades driven by macroeconomic views and would not utilize a market which combines credit risk with interest rate risk. With a smaller investor base, liquidity would be dramatically reduced. It is likely that the proportion of fixed-rate loans would be substantially and permanently reduced and mortgage rates would be higher without the twin benefits of the government guarantee and the TBA market.

While it is unlikely that the TBA market, in its current form, could survive the loss of the guarantee, it is likely that other mechanisms to hedge and trade mortgage-backed securities would be created by market participants. Such mechanisms, including futures contracts on treasuries, interest-rate swaps, and credit-default swaps, already exist. These vehicles as well as new vehicles would likely pick up market share if the TBA market was not viable. The GNMA TBA market could also continue to function separately if the FHA continues to guarantee loans. There would likely be a long adjustment period before any of these could match the liquidity, cost effectiveness, operational efficiency, and stability of the TBA

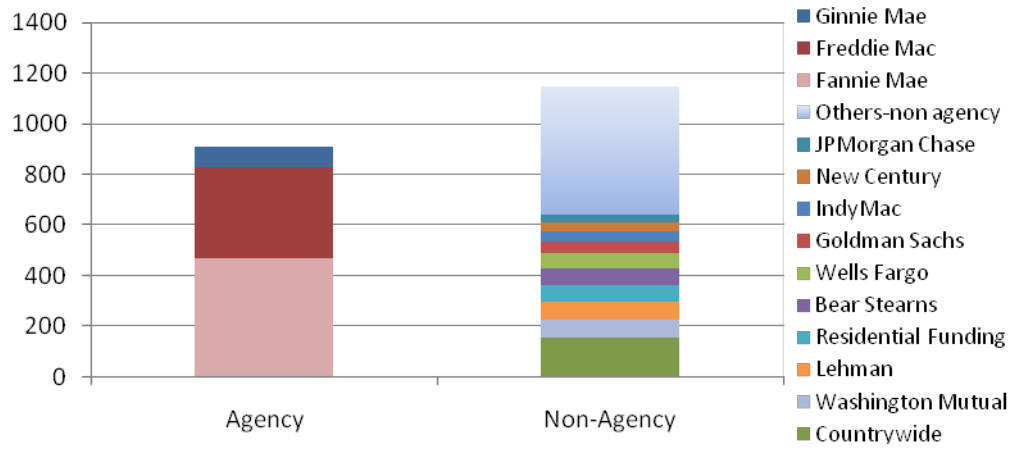
market. The loss of the TBA market would likely lead to further disruptions in the housing finance as the market shifts away from fixed-rate mortgages and markets slowly develop.

Increasing the number of GSEs

Many proposals require the creation of numerous GSEs to decrease concentration risk and increase competition. My view is that this is a slippery slope for the TBA market. The TBA market has benefited from the close cooperation between SIFMA and the GSEs. While they do not always agree, they recognize the importance of maintaining the TBA market. With more issuers such cooperation would be more difficult. In addition, it is unlikely that securities issued by different issuers would all be accepted as good delivery for a single TBA by market participants. Even now Ginnie Mae, Fannie Mae, and Freddie Mac securities all trade in separate markets. Even with additional issuers, market participants would likely concentrate their trading in one or two issuers. These issuers would then have a competitive advantage over the other issuers leading once again to a concentrated market.

A large number of competitive issuers is not necessarily a good thing for the market. The non-agency mortgage market had a large number of issuers. (See Figure 5.) This led to a race to the bottom and ever more complex securitization structures as issuers initiated changes to their securitization programs to boost profits through product differentiation or to subtly shift value from investors to issuers. Note that most of the top ten issuers of non-agency mortgage-backed securities are gone and the non-agency mortgage market has not recovered from the crisis. In addition, a substantial difficulty in resolving the housing crisis is a result of the wide range of contractual features created by numerous issuers.

Figure 5: MBS by Issuer in 2006 (Source: Mortgage Statistical Annual)



Some proposals attempt to address the problem of multiple issuers by having all MBS issued by a single government entity, essentially like GNMA. This proposal would help the TBA market provided that the loans from the different originators had substantially similar risk characteristics. If each originator had different underwriting, documentation, or servicing standards, the market would fragment even if they shared a common issuer and guarantor. Maintaining sufficiently similar programs across multiple issuers may not be possible.

A single government issuer, enforcing strict guidelines, might also be detrimental to the TBA market as one of the hallmarks of the TBA market is that it has been able to balance the needs of many conflicting parties. A government-run guarantor might not have the flexibility to adjust to changing conditions. The long, difficult road to eliminate seller-financed down-payments for FHA loans is an example. SIFMA has been successful because it has been able to recognize and address investor concerns as they arose. If a problem that arose in the government securitization program was not addressed expeditiously, it could lead to a loss of confidence in the market.

Only Guarantee MBS

Many proposals would only allow a government guarantee on mortgage-backed securities, and not on debt issued by the GSEs. Such proposals would likely have a positive effect on the TBA market. Investors would retain confidence in the guaranteed MBS, and without a guarantee on their debt, the GSEs would be less willing to grow large portfolios of mortgages and mortgage-backed securities. In fact, many proposals explicitly prohibit the GSEs from retaining a mortgage portfolio. These proposals would likely have a positive impact on the TBA market, because they would remove a conflict within the GSEs. The large portfolios at times might have motivated the GSEs to encourage higher spreads and less liquidity in the market. In addition they were competing with investors to purchase the best loans. That competition at times led to lower values and less confidence in the TBA market. If the competing portfolio incentive is reduced or eliminated, the GSEs would focus more directly on enhancing the value of TBA eligible pools.

Reducing the GSE portfolios could have the effect of increasing mortgage rates as a large investor is taken out of the market. It would be important for this process to be gradual and transparent, so the market had time to adjust to the change in investor base.

Catastrophic Guarantee

Some proposals have suggested that the government only provide a catastrophic guarantee to mortgage-backed securities. If structured appropriately, such an approach could allow the TBA market to continue substantially unchanged, while protecting tax payers from significant risk. The important component of such a guarantee is that the investors in the TBA-eligible MBS do not need to assess whether or not the government guarantee will protect them. That is, the investors want to know that they have the full assurance of the government that they will be paid regardless of the credit performance of the borrowers, issuers, or guarantors. Approaches where the investors retain risk for the failure of the issuer or guarantor are less likely to be consistent with the continuation of the TBA market.

A catastrophic guarantee can be created at the issuer level or at the MBS level. At the issuer level the guarantee would require that the issuer maintain sufficient capital to cover potential losses. The government guarantee would cover losses once the issuer failed. Provided that the government guarantee covered the full obligation of the issuer whether or not the issuer was properly capitalized, much like deposit insurance, investors would not need to focus on the credit worthiness of the issuer. The government would need to actively regulate the issuers and guarantors to assure that they had sufficient capital.

A catastrophic guarantee could also be provided at the MBS level. In this case a portion of the MBS would be guaranteed by the government; the remainder would be subject to credit risk. In this solution, the senior guaranteed bonds could trade in the TBA market, while the non-guaranteed portion would trade in a separate market. I favor such an approach as it can minimize taxpayer exposure while maintaining the liquidity of the market. Freddie Mac has issued securities with a guarantee only on senior bonds in the multi-family market, demonstrating the viability of this approach.

Covered Bonds

Covered bonds generally are not a solution for fixed-rate mortgages as they do not transfer interest rate risk and prepayment risk to investors and would not be consistent with the TBA market. The Danish covered bond market is an exception in that Danish Covered Bonds are essentially mortgage pass-throughs with a guarantee from the originator/issuer. A similar system in the US could provide alternative methods for hedging and funding of fixed-rate mortgage loans but would probably take some time to develop sufficient liquidity and institutional support to be a viable substitute to the TBA market.

Part III. Recommendation

Given the importance of the TBA market, the best strategy for reforming the housing finance system may be to make a series of transformational changes to the current structure of the GSEs rather than scrapping

the existing system and starting anew. By building off the current structure of the GSEs, it may be possible to preserve or even enhance the TBA market while addressing flaws in the existing structure that contributed to the financial crisis. Given the weak state of the housing market and the economy, completely eliminating the GSEs or completely replacing them with an alternative structure would likely be severely disruptive. Gradual transformation of the GSEs would also allow the private MBS market and other alternatives to develop.

One such step that is possible without a complete dissolution of the GSEs is to increase the amount of private capital ahead of the GSE guarantee, thereby decreasing risk to the taxpayers. It is unlikely that the GSEs could raise additional equity capital until their future role and structure is determined. Moreover it will probably be better not to reconstitute the GSEs as shareholder-owned companies which can deliver a federal guarantee. Thus capital would need to be provided in a different form.

I believe that private capital can be put in front of the GSE guarantee through the use of commonly used credit enhancement structures. Mortgage insurance, either at the loan level or the pool level, could be used to reduce risk to the GSEs. As some proposals favor the use of this type of structure for the future of the housing finance system, this would be a good opportunity to test these ideas. Greater use of mortgage insurance would require that the insurers had adequate capital to back up their obligations.

An even better approach, in my opinion, would be to encourage, or require the GSEs to utilize a senior subordinated structure to attract capital that would stand in the first lost position, either side by side with the GSEs or ahead of the GSEs for some of their MBS issuance. Such an approach would reduce risk to the taxpayers and help the GSEs and regulators determine the cost and availability of private capital. If properly executed, senior securities created under this structure and guaranteed by the GSEs would remain eligible for TBA delivery, while the junior classes, which would not have a GSE guarantee, would

trade separately. If such a program were successful, it could be expanded, and if not, policy makers would better understand the obstacles to replacing the GSEs.

Utilizing the current capabilities and infrastructure of the GSE to implement housing finance reform offers the best chance to improve our economy without the risk of severe disruptions.

Summary:

The TBA market is an important component of the housing finance system. It is currently central to the pricing and hedging of fixed-rate mortgages. The TBA market helps lower mortgage rates, facilitates rate locks for borrowers seeking to buy homes and has helped the make mortgages available through the financial crisis. The TBA market has evolved over a forty-year period and has proven to be resilient. It functioned extremely well during the financial crisis.

The continued success of the TBA market depends upon the confidence in traders, and confidence is difficult to measure or forecast. Therefore, it is difficult to determine in advance what changes to the market would be detrimental. It is likely that elimination of the government guarantee would severely disrupt the TBA market and permanently reduce the availability of fixed-rate mortgages. Other changes to the structure of the housing finance system may have positive or detrimental impact on the TBA market, but those effects are harder to predict. While it is likely that other mechanisms could replace the TBA market over time, it is unlikely that new market mechanisms would have the same efficiency as the TBA market.

While it is tempting to start from scratch, it is probably better to preserve those aspects of the existing housing finance system that have worked well and correct the flaws that contributed to the crisis. Step by step transformation of the GSEs may be a less disruptive path to reform. Adding private capital in front of the government guarantee through the use of subordinate bonds would be a good first step.