



Practice Guidelines for When Issued Trading in GSE Auctioned Securities

A. Introduction

Set forth below are The Bond Market Association's recommended trading practice guidelines ("Guidelines") for so-called "when issued" ("WI") trading in securities issued by Federal agencies and government sponsored enterprises¹ that are priced and awarded by a competitive bid auction. The Association believes that these Guidelines will help establish standard trading, clearance and settlement practices for WI trades in GSE Auctioned Securities that are consistent with current market practices and needs, while preserving flexibility where needed. The Association further believes that these guidelines will improve market efficiencies for post-announcement/ pre-auction trading in WI securities.

The Guidelines are recommendations only and are intended for use by Association member firms in order to promote the smooth functioning of the market for these securities. The recommendations do not and should not restrict the flexibility of counterparties to negotiate the specific terms of any particular transaction.

As with other Association trading practice guidelines, these Guidelines are recommended, voluntary standards that are intended to apply to transactions between and among Association members. The Association recognizes, however, that many of its guidelines are widely observed, also on a voluntary basis, by a variety of other market participants. It is anticipated that these Guidelines would also be used by such other market participants for the same reasons that motivate the Association's members: namely, the greater market efficiency that results from the broad application and common adherence to uniform standards governing the trading, clearance and settlement of GSE Auctioned Securities. Market participants interested in adopting these Guidelines should consult with their own attorneys regarding how to make these voluntary Guidelines legally enforceable with their counterparties and customers.

B. Definitions

1. **Actual Settlement Date.** The term "Actual Settlement Date" means the date on which the relevant GSE Auctioned Securities were actually issued and settled on the Fedwire book-entry system of the Federal Reserve or any similar domestic system.

¹ The following entities are government sponsored enterprises for the purpose of these Guidelines: the Federal Home Loan Mortgage Corporation ("Freddie Mac"), the Federal National Mortgage Association ("Fannie Mae"), the Government National Mortgage Association ("Ginnie Mae"), the Federal Home Loan Bank System ("FHLBanks"), and the Student Loan Marketing Association ("Sallie Mae")(each hereinafter a "GSE" and collectively "GSEs").

2. **Auction Date.** The term “Auction Date” means the date on which the GSE Auctioned Securities were originally scheduled to be priced and awarded through a competitive bid auction as specified in the relevant Offering Announcement.
3. **GSE Auctioned Securities.** The term “GSE Auctioned Securities” means a scheduled issue by a GSE of coupon debt securities having a maturity of two (2) years or longer and that has been the subject of an Offering Announcement by the issuer.
4. **Mandatory Substitution Event.** The term “Mandatory Substitution Event” is defined in Section C of these Guidelines.
5. **Maturity Date.** The term “Maturity Date” means the date on which the principal amount of a debt security becomes due and payable, and ceases to earn interest in accordance with its terms.
6. **Offering Announcement.** The term “Offering Announcement” means the written materials publicly distributed by a GSE one or more business days prior to an auction specifying the Original Offering Amount and type of debt securities that will be sold through an auction. An Offering Announcement may, but need not, identify or restate the Auction Date, Original Settlement Date, Original Maturity Date and CUSIP number for the new GSE Auctioned Securities.
7. **Original Offering Amount.** The term “Original Offering Amount” means the total par amount of GSE Auctioned Securities originally offered for sale by a GSE in an auction as specified in the relevant Offering Announcement.
8. **Original Maturity Date.** The term “Original Maturity Date” means the date on which the GSE Auctioned Securities were originally scheduled to become due and payable as specified in the relevant Offering Announcement.
9. **Original Settlement Date.** The term “Original Settlement Date” means the date specified in the Offering Announcement on which the GSE Auctioned Securities were scheduled to be issued and settled on the Fedwire book-entry system of the Federal Reserve or any similar domestic system. The Original Settlement Date is also the settlement date on which a WI Seller must deliver Substitute Securities to a WI Buyer if a Mandatory Substitution Event has occurred.
10. **Purchase Price.** The term “Purchase Price” is defined in subsection 1.2 of Section C of the Guidelines.
11. **Public Information.** The term “Public Information” means any information first made publicly available by the relevant GSE issuer during the WI Trading Period that reasonably confirms that an event triggering a Mandatory Substitution Event (as defined in Section C) has occurred or will occur.

12. **Substitute Securities.** The term “Substitute Securities” means the most recently issued (i.e. “off-the-run”) debt security of the same GSE issuer that was issued under the same issuance program as the relevant GSE Auctioned Securities (e.g. only the previously issued non-callable Freddie Mac 2 Year Reference Note can serve as a substitute security for another non-callable Freddie Mac 2 Year Reference Note); provided, however that if a Mandatory Substitution Event arises in connection with a reopening of a previously issued GSE Auctioned Security, the term “Substitute Securities” means such previously issued GSE Auctioned Security.
13. **Substitute Securities Purchase Price.** The term “Substitute Securities Purchase Price” is defined in subsection 4.2 of Section C of the Guidelines.
14. **WI Buyer.** The term “WI Buyer” means any entity or person (other than the issuer of the relevant GSE Auctioned Securities) that has entered into a transaction during the WI Trading Period under which it has agreed to pay the Purchase Price to a WI Seller in exchange for delivery by the WI Seller of the relevant GSE Auctioned Securities on the Original Settlement Date.
15. **WI Seller.** The term “WI Seller” means any entity or person (other than the issuer of the relevant GSE Auctioned Securities) that has entered into a transaction during the WI Trading Period under which it has agreed to deliver GSE Auctioned Securities to a WI Buyer on the Original Settlement Date in exchange for payment by the WI Buyer of the agreed Purchase Price.
16. **WI Trading Period.** The term “WI Trading Period” means the period of time between (a) the distribution by the issuer of an Offering Announcement specifying the Original Offering Amount and (b) the Actual Settlement Date for such GSE Auctioned Securities.

C. Guidelines

1. Quotes, Yield to Price Conversions & Purchase Price

- 1.1. During the WI Trading Period, a GSE Auctioned Security should be quoted and traded on either a spread to U.S. Treasuries or a yield-to-maturity basis (with such yield-to-maturity specified to the third digit after the decimal point).
- 1.2. For any WI trade, a WI Buyer should make full payment to a WI Seller at the price implied by the yield-to-maturity agreed upon by the WI Seller and the WI Buyer for the WI securities that are the subject of the trade (the “Purchase Price”). Such Purchase Price should be calculated in accordance with standard market practice and the formula specified in Appendix A.
- 1.3. Yield to price conversions used to calculate the price for a WI trade should be calculated in accordance with market conventions to the seventh digit after

the decimal point and then rounded to six decimal points (e.g. 99.943210). If the seventh digit to the right of the decimal point is five or greater, the sixth digit should be rounded up by one.

2. Changes to Auction Terms Not Requiring Mandatory Substitution

2.1. Modification of the Auction Date. Except as otherwise provided in subparagraph 3 below, Public Information indicating a modification by the relevant GSE issuer of the relevant Auction Date for a GSE Auctioned Security should not, in itself, constitute a Mandatory Substitution Event, or otherwise provide a WI Buyer or a WI Seller with a justification for changing the terms of a previously agreed WI Trade.

3. Changes to Auction Terms Requiring Mandatory Substitution

3.1. If during the WI Trading Period, the occurrence or planned occurrence of any of the following events is confirmed through Public Information (hereinafter a “Mandatory Substitution Event”), it shall create an obligation for (i) a WI Seller to deliver Substitute Securities to a WI Buyer on the Original Settlement Date and (ii) such WI Buyer to accept such Substitute Securities as full and adequate performance by such WI Seller of such WI trade:

3.1.1. Cancellation of an Auction. A cancellation or indefinite postponement of the Auction Date by the relevant GSE issuer of the relevant GSE Auctioned Securities;

3.1.2. Modification of the Original Settlement Date. A modification of the Original Settlement Date for the relevant GSE Auctioned Securities by eight (8) or more calendar days;

3.1.3. Modification of the Original Maturity Date. A modification of the Original Maturity Date for the relevant GSE Auctioned Securities by more than twenty-nine (29) calendar days; or

3.1.4. Modification of the Original Issuance Amount. A modification of the Original Issuance Amount of the relevant GSE Auctioned Securities that would result in a fifty (50) percent or greater reduction in the Original Issuance Amount.

4. Obligations Arising From A Mandatory Substitution Event

4.1. Upon the occurrence of a Mandatory Substitution Event, a WI Seller should deliver Substitute Securities to a WI Buyer on the Original Settlement Date in an amount equal to the principal amount of GSE Auctioned Securities originally agreed for the WI trade.

- 4.2. Upon the occurrence of a Mandatory Substitution Event, a WI Buyer should accept such Substitute Securities and make full payment to a WI Seller on the Original Settlement Date at the price implied by the yield to maturity originally agreed upon by the WI Seller and the WI Buyer for the WI trade, including accrued interest to, but excluding, the Original Settlement Date (the “Substitute Securities Purchase Price”). Such Substitute Securities Purchase Price should be calculated in accordance with standard market practice and the formula specified in Appendix B.

5. Mutual Satisfaction

- 5.1. A WI Seller’s delivery of Substitute Securities to a WI Buyer pursuant to these Guidelines shall constitute full and adequate performance by a WI Seller of a WI trade to sell GSE Auctioned Securities. Likewise, payment by a WI Buyer of the Substitute Securities Purchase Price to a WI Seller pursuant to these Guidelines shall constitute full and adequate performance by a WI Buyer to buy GSE Auctioned Securities.

6. Documentation Recommendations

- 6.1. Each party to a WI transaction in a GSE Auctioned Security should mail or otherwise send a confirmation, in writing, or as otherwise agreed and in accordance with market practice and applicable law, rules or regulations, to the other party consistent with Rule 10b-10 of the Securities Exchange Act. Such confirmation should include a reference to the security’s assigned CUSIP number.
- 6.2. The WI Seller in a WI transaction should deliver to the WI Buyer any applicable offering documentation on or before the Actual Settlement Date and in accordance with the Association’s “Guidelines on Delivery of Offering Materials Relating to GSE Securities.”

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Appendix A

Formula for Calculating the Purchase Price for a When-Issued Trade in a GSE Auctioned Security

Capitalized terms used herein have the meaning set forth in the Guidelines.

$$P = \left[\frac{100}{\left(1 + \frac{Y}{2}\right)^{N-1 + \frac{DSC}{180}}} \right] + \left[\frac{100 \times \frac{C}{2} \times \frac{DFC}{180}}{\left(1 + \frac{Y}{2}\right)^{\frac{DSC}{180}}} \right] + \left[\sum_{K=2}^N \frac{100 \times \frac{C}{2}}{\left(1 + \frac{Y}{2}\right)^{K-1 + \frac{DSC}{180}}} \right] - \left[100 \times \frac{C}{2} \times \frac{A}{180} \right]$$

A = Number of days from beginning of coupon period to the Original Settlement Date (accrued days) for the when-issued security.

C = Coupon rate on the auctioned security in decimal form

DSC = Number of days from the Original Settlement Date to first coupon date for the auctioned security (can be short or regular first payment period)

DFC = Number of days from the Actual Settlement Date to the first coupon date.

K = Summation counter

N = Number of coupon payments between the Original Settlement Date and the Maturity Date for the auctioned security (If this number contains a fractional part, raise it to the next whole number, i.e., $2\frac{1}{2}=3$.)

P = Dollar price per \$100.00 par value due to the WI Seller

Y = Annual yield on when-issued trade in decimal form

Note: The first term calculates the present value of the redemption amount not including interest. The second term calculates the present value of the first coupon, which requires separate calculation to allow for cases when there is a short first coupon. The third term calculates the present value for all other future coupon payments. The fourth term calculates the accrued interest agreed to be paid to the seller, which is zero for when-issued trades except those occurring on the last day before the auction. This formula assumes:

- The auctioned security has no call or put features, i.e., it is redeemable only at face value and only on the maturity date.
- The auctioned security pays two coupon payments per year, one every six months.
- The day count convention is 30/360 and the half-year day count is 180 days.

Example 1: GSE Auctioned Securities having a Regular First Coupon

A GSE issues an Offering Announcement indicating that an auction of non-callable two-year notes will take place in three days. After the Offering Announcement has been made, a dealer agrees to sell the GSE Auctioned Security to a customer at a yield of 5.60 percent to be settled on the Original Settlement Date for the auction. The auction occurs as planned. On the scheduled settlement date for the auction (i.e. the Original Settlement Date), the auction coupon rate becomes known and in this example, is 5.5 percent. Since the when-issued trade occurs three days in advance of the auction, there is no accrued interest in this example. Using the above formula, the dollar Purchase Price for the when-issued trade in the GSE Auctioned Security per \$100.00 of face value is calculated as follows:

$$P = \left[\frac{100}{\left(1 + \frac{.056}{2}\right)^{4 - 1 + \frac{180}{180}}} \right] + \left[\frac{100 \times \frac{.055}{2} \times \frac{180}{180}}{\left(1 + \frac{.056}{2}\right)^{\frac{180}{180}}} \right] + \left[\sum_{K=2}^4 \frac{100 \times \frac{.055}{2}}{\left(1 + \frac{.056}{2}\right)^{K - 1 + \frac{180}{180}}} \right] - 0$$

$$P = 89.5421566 + 2.6750973 + 7.59600 - 0$$

$$P = 99.813255$$

Example 2: GSE Auctioned Securities having a Short First Coupon

A GSE issues an Offering Announcement indicating that an auction of non-callable two-year notes will take place in three days. After the Offering Announcement has been made, a dealer agrees to sell the GSE Auctioned Security to a customer at a yield of 5.60 percent to be settled on the Original Settlement Date for the auction. The auction occurs as planned. On the scheduled settlement date for the auction (i.e. the Original Settlement Date), the auction coupon rate becomes known and in this example, is 5.5 percent. Also, the first payment date is short and occurs in 177 days. Since the when-issued trade occurs three days in advance of the auction, there is no accrued interest. Using the above formula, the dollar Purchase Price for the when-issued trade in the GSE Auctioned Security per \$100.00 of face value is calculated as follows:

$$P = \left[\frac{100}{\left(1 + \frac{.056}{2}\right)^{4 - 1 + \frac{177}{180}}} \right] + \left[\frac{100 \times \frac{.055}{2} \times \frac{177}{180}}{\left(1 + \frac{.056}{2}\right)^{\frac{177}{180}}} \right] + \left[\sum_{K=2}^4 \frac{100 \times \frac{.055}{2}}{\left(1 + \frac{.056}{2}\right)^{K - 1 + \frac{177}{180}}} \right] - 0$$

$$P = 89.5833791 + 2.6317233 + 7.5994976 - 0$$

$$P = 99.814600$$

Appendix B

Formula for Calculating the Substitute Securities Purchase Price For a When-Issued Trade in a GSE Auctioned Security Where Delivery of a Substitute Security is Required

Capitalized terms used herein have the respective meanings set forth in the Guidelines.

$$P = \left[\frac{100}{\left(1 + \frac{Y}{2}\right)^{N-1 + \frac{DSC}{180}}} \right] + \left[\frac{100 \times \frac{C}{2} \times \frac{DFC}{180}}{\left(1 + \frac{Y}{2}\right)^{\frac{DSC}{180}}} \right] + \left[\sum_{K=2}^N \frac{100 \times \frac{C}{2}}{\left(1 + \frac{Y}{2}\right)^{K-1 + \frac{DSC}{180}}} \right] - \left[100 \times \frac{C}{2} \times \frac{A}{180} \right]$$

A = Number of days from beginning of coupon period to the Original Settlement Date (accrued days) for the Substitute Security.

C = Coupon rate on the Substitute Security in decimal form.

DSC = Number of days from the Original Settlement Date to next coupon date for the Substitute Security.

DFC = Number of days from Actual Settlement Date to the first coupon date for the Substitute Security.

K = Summation counter.

N = Number of coupon payments between the Original Settlement Date and the Maturity Date for the Substitute Security (If this number contains a fractional part, raise it to the next whole number, i.e., $2\frac{1}{2}=3$).

P = Dollar price per \$100.00 par value not including accrued interest due to the WI Seller.

Y = Annual yield on when-issued trade in decimal form.

Note: The first term calculates the present value of the redemption amount not including interest. The second term calculates the present value of the first coupon, which requires separate calculation to allow for cases when there is a short first coupon. The third term calculates the present value for all other future coupon payments. The fourth term calculates the accrued interest agreed to be paid to the WI Seller. This formula assumes:

- The Substitute Security has no call or put features, i.e., it is redeemable only at face value and only on the Maturity Date.
- The Substitute Security pays two coupon payments per year, one every six months.
- The day count convention is 30/360 and the half-year day count is 180 days.

Example:

A GSE issues an Offering Announcement indicating that an auction of non-callable five-year notes will take place in three days. After the Offering Announcement has been issued, a WI Seller agrees to sell the GSE Auctioned Security to a WI Buyer at a yield of 5.60 percent to be settled on the Original Settlement Date for the auction. On the morning of the scheduled date of the auction, the GSE announces that the auction has been cancelled.

The most recently issued and outstanding 5-year note of the same GSE has a 5½-percent coupon and such security otherwise meets the Guideline's definition of a "Substitute Security." This note becomes the Substitute Security. On the scheduled settlement date for the cancelled auction (i.e. the Original Settlement Date), the Substitute Security will have been outstanding and accruing interest for 60 days. There will be 124 days until the first coupon payment. Using the above formula, the dollar Substitute Securities Purchase Price for the trade in the Substitute Security per \$100.00 of face value is calculated as follows:

$$P = \left[\frac{100}{\left(1 + \frac{.056}{2}\right)^{10 - 1 + \frac{124}{180}}} \right] + \left[\frac{100 \times \frac{.055}{2} \times \frac{120}{180}}{\left(1 + \frac{.056}{2}\right)^{\frac{124}{180}}} \right] + \left[\sum_{K=2}^{10} \frac{100 \times \frac{.055}{2}}{\left(1 + \frac{.056}{2}\right)^{K - 1 + \frac{124}{180}}} \right] - \left[100 \times \frac{.055}{2} \times \frac{60}{180} \right]$$

$$P = 76.524420 + 1.7987861 + 21.2056263 - .9166667$$

$$P = 98.612166$$