BVAL's Pricing Methodologies

Frequently Asked Questions

From what sources does BVAL receive market data?

BVAL receives data from a variety of sources: contracted data suppliers such as exchanges; publicly available trade reporting sources, such as MSRB, TRACE and MiFID data; market quotes from global and regional banks, broker-dealers; and other Bloomberg Terminal subscribers; as well as data provided by BVAL subscribers (e.g., through the price challenge process).[1] Any of these types of data sources may be incorporated into our models and used to generate a BVAL price.

How does the BVAL system generate a price?

All BVAL prices are generated using a weighted combination of two proprietary BVAL algorithms:

- Direct Observations: BVAL first assesses available market data with respect to the target bond, referred to as "direct observations," which may consist of trades (including, based on asset class, exchange reported and/or non-exchange reported trades), executable levels or indicative quotes. If trade data received meets certain thresholds or criteria, the Direct Observations price will be heavily weighted by trades. In order for an executable level or an indicative quote to be included in the Direct Observations algorithm, it must be corroborated by at least one other executable level or an indicative quote obtained from a different dealer. In other words, for an executable level or indicative quote to be included in the Direct Observations algorithm, there must be at least two data points from at least two different dealers and those data points must be at sufficiently proximate levels.

- Observed Comparables: When direct observations are not available or are insufficient (i.e., when there are not at least two quotes or a single trade on the target bond or there are two or more quotes but they are too far apart from one another to provide the corroboration required by the Direct Observations algorithm), BVAL assesses data regarding bonds that, in BVAL's determination, are comparable to the target bond to derive a price on the target bond. Note that a single broker quote on the target bond would be incorporated into the BVAL price through this Observed Comparables algorithm (including where the incorporation of the quote is as a result of action by an evaluator). Further note that for certain asset classes, non-exchange reported trades would also be incorporated through the Observed Comparables algorithm.

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[1] The BVAL price is available to Terminal customers for no additional fee. BVAL is also available for additional cost to subscribers of Bloomberg's Data License product, based on the number of securities for which the subscriber wishes to receive BVAL prices.

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The Final BVAL Price is determined by aggregating the weighted average of Direct Observations and Observed Comparables and is based on the relative strength of the output of each model's algorithm. In the situation where only a single broker quote is available on a target bond, Direct Observations will not generate a price. Instead, the BVAL price will be generated through the Observed Comparables algorithm. In this situation, the Observed Comparables algorithm uses the single broker quote to establish a relative valuation of the target bond and comparable bonds at the time of this single broker quote. The final price is derived by applying this relative valuation on the comparable bonds, as part of the Observed Comparables process.

As a result, where only a single broker quote is available on the target bond, in certain instances, the BVAL price generated in the Observed Comparables algorithm may match that single broker quote, at least in the first or first few snapshots following the incorporation of that quote into BVAL. This is more likely to happen where the data is incorporated into BVAL close in time to the next snapshot and/or when market conditions have not materially moved on the comparable bonds (e.g., in static or slowly moving markets).

What does a BVAL evaluator do?

BVAL evaluators monitor BVAL's algorithmically generated prices. At times, a BVAL evaluator may use discretion to adjust the data inputs incorporated by BVAL to generate a BVAL price by adjusting, omitting, or adding certain inputs. Such evaluator intervention (including with respect to changes to pricing data) may occur where, among other instances:

- There was a pricing error due to technology failures or system malfunction in moments of market volatility or stress
- A price was automatically flagged by BVAL as having deviated from the prior BVAL price by a certain amount, and the evaluator determines that the price is or is not reflective of the market
- The BVAL evaluator believes a data input relied upon by the model is off-market or, conversely, that the model has omitted a relevant data input

BVAL evaluators are also responsible for reviewing subscriber-submitted data to determine whether that data should be incorporated into BVAL.

Evaluators review inquiries and price challenges from BVAL subscribers.

When reviewing a price, a BVAL evaluator may choose to incorporate data that BVAL's algorithms had previously excluded from the pricing of the target bond. This could mean, for instance, that an evaluator approves for incorporation into BVAL a single quote that the algorithms did not previously incorporate, to allow the Observed Comparables algorithm to use this data for relative valuation with respect to the comparable bonds or the target bond.

For Municipal bonds, BVAL credit evaluators may conduct a credit review on any outstanding municipal security or credit, for the purpose of determining a BVAL valuation. Credit reviews are performed using sector and/or borrower specific analysis and are used to corroborate or supplement pricing when little or no comparable market data is available. The purpose of the credit review process is to arrive at a price for the security that is used as an input to the BVAL valuation for the security ("Credit Review Input Price"). For municipal securities and credits for which the Final BVAL price incorporates a Credit Review Input Price, that Credit Review Input Price is reviewed on an annual basis (and may sometimes be reviewed more frequently to the extent additional financial statements become available).

How is data approved by a BVAL evaluator incorporated into a BVAL price?

If an evaluator determines that it is appropriate to approve the incorporation of additional data on a target bond into BVAL, that data is incorporated by the pricing models. This data is then used not only to generate a price on the target bond, but to price comparable securities as well.

Where an evaluator approves the incorporation of additional data on a target bond into BVAL immediately prior to a snapshot, or where there is little to no additional market activity between the incorporation of the market data and the following snapshot, the data approved for incorporation by the evaluator is more likely to match the BVAL price at the next snapshot and/or the next few snapshots.

How is subscriber-submitted data incorporated into a BVAL price?

Subscriber-submitted data is not automatically incorporated into BVAL's pricing models but if a BVAL evaluator reviews the data and deems it appropriate for the data to be incorporated into BVAL, the evaluator may do so.

What is the BVAL score? How is the BVAL score calculated?

The BVAL score is a unique numerical rating (on a 1 to 10 scale) that shows the relative strength of the recency, quantity and quality of market data inputs used in calculating the BVAL price for a particular security at a particular snapshot. While the score does not assess the accuracy of a BVAL price, it does provide a window into the underlying data inputs used by BVAL in arriving at that price. In other words, the higher the BVAL score the more robust the quantity and/or quality of the inputs underlying the score.

A BVAL score between 6 and 10 reflects that the BVAL price was generated by the Direct Observations model, using recent direct observations on the target bond such as trades, and/or with high corroboration across multiple executable or indicative data.

A BVAL score of 5 or lower means the BVAL price was generated by the Observed Comparables model and/or by the Direct Observation model but with aged data. This would mean that the BVAL price was generated more heavily weighting the Observed Comparables model, by using data on comparable securities and/or data on the target bond that is aged and/or weakly corroborated.

How will I know if a BVAL price includes data that was approved for incorporation by an evaluator?

BVAL subscribers can submit inquiries related to prices, data, and the methodology used directly to the evaluation team via the Bloomberg Customer Service Center at service.bloomberg.com. Bloomberg's multi-lingual Global Customer Support teams provide 24/7 assistance via chat or over the telephone anywhere in the world.

If I think a BVAL price is wrong, what can I do?

If a BVAL subscriber disagrees with a BVAL price at a given snapshot, the subscriber may submit a price challenge directly to the evaluation team via the Bloomberg Customer Service Center at service.bloomberg.com.

If the BVAL evaluators decide to accept the challenged price, the updated price will be reflected as an input into the Observed Comparables algorithms and, if corroborated, Direct Observations algorithms for generating the target bond's price at subsequent published snapshots. The price of the target bond will not be updated retroactively.

What is the difference, if any, between IBVAL and BVAL?

Intraday BVAL (IBVAL) Front Office is Bloomberg's newest fixed income pricing solution that delivers pricing every 15 seconds for approximately 30,000 TRACE-eligible US investment grade and high-yield corporate securities.

IBVAL Front Office is distinct from but complementary to BVAL.

For additional information on IBVAL, please visit BVLI <GO>.

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