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How the bond pricing agency values bond portfolios

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KUALA LUMPUR: Malaysia is the third largest bond market in Asia, with more than 2,700 bonds outstanding with a face value of about RM600 billion as at July 31, 2008.

In general, the Malaysian bond market is made up of:

- **Issuers** — Government of Malaysia, Bank Negara Malaysia, quasi government institutions, corporations and multilateral development banks (MDBs);
- **Intermediaries/agencies** — Commercial banks, investment banks, rating agencies, bond pricing agencies, money brokers; and
- **Investors** — Employees Provident Fund (EPF), pension funds, unit trusts, insurance companies, asset management companies and commercial banks.

Given that the investors' funds are made up of public money, it then becomes important for their interests to be protected via an independent and systematic valuation of their bond portfolios. In line with this, the Securities Commission of Malaysia introduced Bond Pricing Agency (BPA) regulations in 2006.

The BPA is an independent entity that conducts daily mark-to-market pricing on all rated bonds, including rating exempted government and quasi government bonds.

Mark-to-market is an act of providing a price that is market relevant and may be done via fair valuation or taking the market price. This is important, given that many bonds are not traded and, therefore, the determination of their value on a daily basis is difficult. The BPA solves this problem by providing prices for all bonds in the market.

Conceptually, daily mark-to-market can be done via two methods:

1. **Using the last traded price**: Market price is reliable only in an efficient market where information infrastructures are established and liquidity is sufficient. In the bond market, less than 1% of bonds outstanding are traded on a daily basis. Furthermore, bonds that were traded may encounter its next trade only after several weeks or months. Hence, the last traded price may no longer reflect the bond's true value as certain pricing factors have lapsed such as interest rate and credit environment.
2. **Using fair valuation**: A methodology is used to provide a rational and unbiased estimate of the potential market price. Fair valuation methodologies include using recent arm's length market transactions and relative comparison with peers and benchmarks in deriving an instrument's estimated current price. It must demonstrate that the estimated prices are reliably close to actual market transactions.

Bondweb uses the fair valuation approach to generate fair values for almost 2,000 bonds on a daily basis.

Generally, the entire pricing process is a daily yield adjustment exercise, whereby all bonds are studied and adjusted based on both pre- and post-trade data. Other inputs which also affect price calculations include credit rating changes, micro and macro economic factors and changes in the bond's terms and conditions. The BPA is required by regulations to use data only from official sources.

In the event when there are sudden changes to these parameters, such as a downgrade, impacts of the changes will be immediately reflected in the price of the bond once public announcements are made. The BPA cannot make price changes based on non-public "inside" information and rumours, unless this information is reflected in pre- or post-trade data.

Broadly, there are three pillars in Bondweb's pricing methodology (refer to figure for process flow):

1. **Data preparation**: Data are obtained from public and official sources, filtered and validated. This involves removing erroneous data and updating new changes to the data
2. **Valuation process**: The prepared data will be used by pricing specialists to conduct analysis and valuation. Continuous market interaction and observation is also done to remain market relevant. The final price output is approved by a manager
3. **Market feedback**: An open feedback channel is provided for users on any pricing matters. Any disputes will be investigated immediately and a response will be given on the next business day

It should be noted that the prices generated by Bondweb are not the definitive market price of a bond, but rather an accounting device to capture market value and a preliminary reference for potential transactions.

The BPA responds to market trades, and does not set a definitive trading price. This distinction is important when understanding the function and nature of the BPA in relation to the valuation of portfolios.

As a BPA, Bondweb's pricing methodology must be in compliance with regulatory policies such as those stipulated in the "Guidelines on the Registration of Bond Pricing Agencies" as set out by the SC. Bondweb achieved BPA status in April 2006, and currently serves more than 70 institutional clients in the Malaysian market.

The methodology was evaluated by market players from diverse backgrounds such as regulators, unit trusts, asset managers, banking groups and insurers, and it has become a de-facto standard for ringgit bond valuation.

More information on the process of bond fair valuation can be obtained at our website (www.bondweb.com.my).

Pricing methodology process flow