ICRA COMPLEXITY INDICATOR

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Overview

ICRA's credit ratings are a symbolic representation of its opinion on the relative credit risk associated with timely payment of the rated instrument. This opinion is arrived at following a detailed evaluation of the rated entity's industry, business, and financial risks. The financial risk analysis, which involves evaluating the likely cash flows and the adequacy of such cash flows vis-à-vis the debt-servicing obligations and the other funding requirements, also takes into consideration the risks associated with the various instruments, depending upon their characteristics and transaction structure.

Over the years, a variety of innovative financial instruments have been introduced in the Indian financial markets, such as perpetual bonds, debentures with yield linked to the equity or commodity indices, Additional Tier-1 bonds (AT1), among others. While such instruments serve the requirements of both issuers and investors, it is important that the stakeholders concerned fully understand and appreciate the intricacies involved. Ignorance or misconception about the nature of these instruments may expose the various counterparties involved to significant financial loss. For instance, consider a Residential Mortgage-backed Securitisation (RMBS) transaction wherein the yield on the underlying mortgage loan pool is linked to the Originator's own "benchmark lending rate", whereas the yield on the instrument issued to the investor is defined as a "spread" over an external benchmark rate with the "spread" reset at periodic intervals. Further, prepayment in the underlying pool is passed on to the investor. Thus, for such an instrument, to estimate the yield, the investor will have to take a view on the future interest rates; to estimate the tenure, the investor will have to predict the likely level and pattern of prepayment in the underlying pool. The Basel-III hybrid instruments issued by banks are another example of complex instruments. Besides the traditional default triggers[1], these debt instruments have an additional trigger: capital adequacy. Banks and the NBFCs cannot service these instruments once their capital adequacy declines below the regulatory threshold. In case of Basel-III hybrid instruments issued by banks, the coupon on AT1 instruments is also subject to the reporting of profits, apart from meeting the threshold capital ratios; and both AT1 and Tier-2 instruments can be written-down or converted into equity if the appropriate regulatory authority decides to do so. Further, the AT1 instruments are issued as perpetual bonds and the interest is non-cumulative and could imply a permanent loss to investors in an event of a non-payment. Therefore, the investors would need to consider additional factors to estimate the yield. Additionally, plain vanilla instruments as well as hybrid instruments come with call and coupon step-up options, which only add to the complexity.

Assessing Complexity of Financial Instruments

ICRA Complexity Indicator classifies various financial instruments into the following five categories based on their degree of complexity from the perspective of various market participants, especially the investors.

- Very Simple
- Simple
- Moderately Complex
- Complex
- Highly Complex

What the Complexity Indicator indicates: The Complexity Indicator refers to the ease with which the returns associated with the rated instrument could be estimated. The unpredictability in estimating the returns may arise because of factors such as variable rate pay-outs, uncertain tenor and presence of equity-like features in the instruments (i.e. hybrid instruments).

Through the Complexity Indicator, market participants have access to a heuristic that indicates the ease with which the returns associated with the various financial instruments could be assessed. An instrument classified as Highly Complex would require

[1] *Such as, loss on account of asset quality impairment or mark-to-market losses, inability to refinance or asset-liability mismatch*

far more sophisticated analysis by a market participant seeking to estimate the likely returns, compared with an instrument classified as Very Simple. The parameters that ICRA uses to assess the complexity of an instrument include:

- Ease of determining the amount of pay-outs
- Ease of determining the timing of pay-outs

These parameters enable the assessment of the degree of variability in the returns, both in terms of interest as well as principal pay-outs, that will accrue to the investors.

What the Complexity Indicator doesn't indicate: The Complexity Indicator does not indicate the risk related to the timely payments on the instrument, which is rather indicated by the instrument's credit rating. The Complexity Indicator does not indicate the complexity associated with analysing an entity's financial, business, industry risks or complexity related to the structural, transactional, or legal aspects. The Complexity Indicator also doesn't capture event risks such as the broader pre-payment risk (for the investors) relating to the rated instruments, even as it does capture the pre-payment risk arising from contractual terms—say, by way of a call option. Further, the Complexity Indicator does not factor-in the possible variability in returns because of contractual terms such as put options or rating-linked debt acceleration triggers, which are exercised at the discretion of the investors.

Matrix for determining the ICRA Complexity Indicator

	Ease of determining the volume of payouts			Ease of determining the timing of payouts			
Complexity Indicator	**Fixed rate Payouts**	**Payouts linked to benchmark lending rate**	**Payouts linked to stock index etc.**	**Variability in tenor** *(say, because of a call option in the instrument)*	**Variability in payouts** *(say, because of the hybrid nature of instruments)*	**Variability in principal payouts because of write-off risk**	**Examples of Instruments**
Very Simple							**Fixed rate instruments without call options:** NCDs, Commercial Papers, Short-Term Loans, Certificates of Deposit, Fixed Deposits, Letters of Credit, Bank Guarantees, Explicit third-party support-backed instruments etc.
Simple							**Fixed rate instruments with call options:** NCDs, Lower Tier-II instruments, Explicit third-party support-backed instruments, Covered bonds etc. **Securitisation transaction ratings:** Securitised instruments with fixed yield (Timely Interest Timely Principal Structure) etc.
Simple							**Fixed rate hybrid instruments without call options:** Preference shares etc. **Fixed rate convertible hybrid instruments**: Fully convertible instruments etc.
Simple							**Floating rate instruments:** NCDs, Term loans, Cash credit, Explicit third-party support-backed instruments etc.
Moderately Complex							**Fixed rate hybrid instruments with call options**: Perpetual bonds, Subordinate bonds, Covered bonds etc. **Fixed rate convertible hybrid instruments:** Optionally convertible debt (implying a variable tenor) etc. **Other fixed rate hybrid instruments**: Upper Tier II bonds, Basel II Tier I bonds etc. **Securitisation transaction ratings**: Securitised instruments with fixed yield (Timely Interest Ultimate Principal Structure or Ultimate Interest Ultimate Principal Structure) etc.

Moderately Complex							**Floating rate hybrid instruments without call options:** Perpetual bonds, Subordinate bonds etc. **Floating rate convertible hybrid instruments**: Fully convertible instruments etc.
Moderately Complex							**Floating rate instruments with call options:** NCDs, Explicit third-party support-backed instruments, Covered bonds etc. **Securitisation transaction ratings:** Securitised instruments with variable yield (Timely Interest Timely Principal Structure) etc.
Moderately Complex							**Without call option**: Principal Protected Market-Linked Debentures etc.
Complex							**With call option**: Principal Protected Market-Linked Debentures
Complex							**Floating rate hybrid instruments with call options:** Perpetual bond, Subordinate bond, Covered bonds etc. **Floating rate hybrid instruments**: Optionally convertible debt etc. **Securitisation transaction ratings:** Securitised instruments with variable yield (Timely Interest Ultimate Principal Structure or Ultimate Interest Ultimate Principal Structure) etc.
Highly Complex							Basel-III AT1 bonds, Basel-III Tier-2 bonds etc.

Note: The Complexity Indicator applicable to the various instrument would depend upon the attributes of the specific instrument being rated. For example, a Non-Convertible Debenture (NCD) would be classified as Very Simple if it has a fixed-rate of payout and tenor, but another NCD with a fixed-rate of payout but with a call option (resulting in a variable tenor) would be classified as Simple. Similarly, a Subordinate debt or Perpetual debt with fixed-rate payout, tenor and without any cash flow subordination to the senior debt would be classified as "Very Simple", but another such instrument with fixed-rate payout, variable tenure (due to presence of call option) and cash flow subordination would be classified as "Moderately Complex".

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About ICRA Limited:

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Today, ICRA and its subsidiaries together form the ICRA Group of Companies (Group ICRA). ICRA is a Public Limited Company, with its shares listed on the Bombay Stock Exchange and the National Stock Exchange. The international Credit Rating Agency Moody's Investors Service is ICRA's largest shareholder.

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