LM01 · FIXED INCOME · CFA LEVEL I

Fixed-Income Instrument Features

The basic features that define every bond, the bond indenture, and the two types of covenants.

What This Reading Covers

A **fixed-income security** — debt such as loans and bonds — involves periodic interest payments plus principal. This module defines the basic features that are specified in a fixed-income security, the contents of a bond indenture, and the two types of covenants that restrict or require issuer conduct.

Learning Outcomes

LOS a Describe the features of a fixed-income security

LOS b Describe the contents of a bond indenture and contrast affirmative and negative covenants

Exam Tip: Expect plain-English questions on issuer types, the three-way price/par relationship (premium, discount, par), the distinction between affirmative and negative covenants, and common examples (pari passu, cross-default, negative pledge, limits on liens/sales-leasebacks/incremental debt).

LOS A · BASIC FEATURES — ISSUER

Issuer

Bonds can be issued by many types of borrowers. The distinction matters for credit analysis, taxation, and benchmark selection.

Five main issuer categories

1. **Supranational organizations** — e.g., IMF, World Bank; typically provide financing to emerging economies. Members provide funds as backup finance; the organization issues bonds and lends to EM borrowers.
2. **Sovereign governments** — national governments (repaid from taxes and, in some cases, creation of new currency).
3. **Non-sovereign governments** — state, municipal, regional governments (repaid from taxes or revenue from operational infrastructure).
4. **Quasi-government entities** — agencies, e.g., the Airport Authority of Hong Kong.
5. **Corporate issuers** — financial and non-financial corporations; **SPEs** (Special Purpose Entities) issue ABS/MBS.

Private vs. public: fixed-income arrangements span private agreements (borrower–lender, e.g. individual – bank loan) to public securities (many lenders, one borrower, e.g. investors – corporation or government).

LOS A · MATURITY, TENOR, AND PAR VALUE

Maturity, Tenor, and Principal

Maturity (tenor = time remaining to maturity)

- **Original maturity ≤ 1 year → money market security**
- **Original maturity > 1 year → capital market security**
- **Perpetual bonds** have no stated maturity (not very common)

Par value (face value / maturity value / redemption value)

The principal amount that is repaid to bondholders at maturity.

$$\begin{aligned} &\text{Market price} > \text{par} \;\rightarrow\; \text{premium} \\ &\text{Market price} < \text{par} \;\rightarrow\; \text{discount} \\ &\text{Market price} = \text{par} \;\rightarrow\; \text{par} \end{aligned}$$

*An **amortizing bond** repays some principal with each periodic payment (e.g., mortgage, MBS). A **bullet bond** repays all principal with the final coupon.*

LOS A · COUPON RATE, FREQUENCY, AND YIELD RELATIONSHIPS

Coupon Rate and Frequency

- **Fixed** — constant coupon; frequency may be monthly, quarterly, semi-annual, or annual.
- **Floating (FRN)** — coupon = **MRR (market reference rate)** + **spread**. The spread is issuer-specific (credit spread), constant over the life of the bond (higher quality → lower spread).
- **Zero-coupon (ZCB)** — pure discount bond: bought at a discount, matures at par.

$$\text{Coupon rate} \times \text{FV} = \text{coupon payment (nominal)}$$

Current yield vs. price ↔ yield relationship

BOND TYPE	PRICE VS. PAR	YIELD VS. COUPON
Premium bond	Price > par	Yield < coupon
Discount bond	Price < par	Yield > coupon
Par bond	Price = par	Yield = coupon

$$\text{Current yield} = \frac{\text{Annual coupon}}{\text{Price}}$$

Yield to maturity (YTM) — the bond's IRR

YTM is the single rate that equates the PV of all future cash flows to the bond's price. The realized return will equal YTM only if:

1. No default occurs,
2. The bond is held to maturity, and
3. All coupons are reinvested at the YTM rate.

$$\left(\frac{BP_T}{BP_0}\right)^{1/T} - 1 = \text{YTM} \quad \text{(for a zero-coupon bond)}$$

LOS A · SENIORITY AND EMBEDDED OPTIONS

Seniority Ranking

Seniority determines who gets paid first on the issuer's cash flows in the event of default, bankruptcy, or restructuring.

1. **Senior secured** — top of capital structure; specific collateral pledged.
2. **Senior unsecured** — **pari passu**: all senior unsecured bonds rank equally among themselves.
3. **Junior (subordinated) debt** — paid after senior obligations.

Contingency Provisions (Embedded Options)

Clauses that allow for an action if a certain event or circumstance occurs. The most common are:

Call option
Issuer may redeem the bond early (advantage to issuer).

Put option
Bondholder may sell back early (advantage to bondholder).

Convertible
Bondholder may convert into the issuer's equity.

CHECKPOINT 1

Quiz 1: Basic Features

Answer all questions to test your understanding. Your score updates on the final step.

Q1. A bond with an original maturity of 9 months is most accurately classified as:

Q2. A bond is trading at 102% of par. This bond is *most likely*:

Q3. Which embedded option benefits the bondholder?

Q4. Which of the following issuers is *best* described as a supranational organization?

Q5. A pari passu clause states that:

LOS B · THE BOND INDENTURE (TRUST DEED)

Bond Indenture — the Legal Contract

The **bond indenture** (or **trust deed**) is a legal contract between the bond issuer and the bondholders. It defines the obligations of the issuer, the rights of the bondholders, and the sources of repayment.

Contents of the indenture

- **Form of the bond** and its features (type, face value, maturity, coupon rate and frequency).
- **Obligations of the issuer** and **rights of bondholders**.
- **Source of funds for repayment**:

Sovereign gov't	Taxation; ability to print currency
Local/regional gov't	Taxes; project cash flows
Corporate	Operating cash flows for interest & principal (unsecured); OCF + pledge of specific assets (secured)
ABS/MBS	Cash flows from pooled assets (loans, mortgages) waterfalling through tranches (senior → junior)

- **Assets pledged as collateral** (for secured bonds).
- **Credit enhancements**.
- **Covenants** with which the issuer must comply.

Secured vs. unsecured: secured bonds have a claim on specific assets; unsecured bonds have a claim on the overall assets and cash flows of the issuer. Credit analysis of corporates evaluates OCF plus, for secured issues, the value of collateral.

LOS B · AFFIRMATIVE VS. NEGATIVE COVENANTS

Bond Covenants

Legally enforceable rules that borrowers and lenders agree upon at issuance.

Affirmative covenants

Specify **what the issuer is required to do**. Typically administrative — impose no cost or restriction on operating the business.

- Make interest and principal payments on time.
- **Pari passu clause** — equal footing with other senior debt.
- **Cross-default clause** — a default on one obligation is a default on all.

Negative covenants

Specify **what the issuer is prohibited from doing**.

- Not sell assets pledged as collateral.
- **Limitations on liens** (pledged assets).
- **Limitations on sales/leasebacks** (can't sell the collateral).
- **Restrictions on issuance of debt more senior** (**negative pledge clause**).
- Restriction on share buybacks / dividends / dividend increases unless certain ratios are met (**incurrence tests**).
- Limitations on additional debt.

Exam Tip: Memorize the examples. Pari passu and cross-default = affirmative. Negative pledge, limits on liens / sale-leasebacks / additional debt = negative.

LOS A · YIELD CURVES

Yield Curves

A **yield curve** plots yields on all bonds with the same features by the same issuer against their maturities. Government yield curves are typically **upward sloping** under normal conditions — investors demand higher returns for longer time frames.

- **Inverted (downward-sloping)** curve is less common.
- A government yield curve serves as a **benchmark** to assess the extra returns (**spreads**) offered by riskier issuers.
- **G-spread** — a measure of credit risk, the yield spread over the government par curve.

CHECKPOINT 2

Quiz 2: Indenture & Covenants

Answer all questions to test your understanding. Your score updates on the final step.

Q6. Which of the following is *most accurately* described as an affirmative covenant?

Q7. A negative pledge clause *most accurately*:

Q8. For sovereign-government bonds, the *primary* source of repayment described in the indenture is:

Q9. An unsecured corporate bond relies *most directly* on:

Q10. A bond indenture *must* specify:

EXAM STRATEGY · HIGH-FREQUENCY TESTABLES

What to Remember for the Exam

High-yield testables from this module

1. The five issuer categories (supranational, sovereign, non-sovereign, quasi-gov't, corporate / SPE for ABS/MBS).
2. Money market vs. capital market (≤1yr vs. >1yr original maturity).
3. Bullet vs. amortizing bonds.
4. Fixed / Floating (MRR + spread) / Zero-coupon coupon types.
5. Seniority order: senior secured → senior unsecured (pari passu) → junior/subordinated.
6. Three embedded options: call, put, convertibility.
7. Price/par trio: premium (price > par, yield < coupon), discount (price < par, yield > coupon), par (equal).
8. YTM = realized return only if no default, held to maturity, coupons reinvested at YTM.
9. Indenture contents and the source-of-repayment table.
10. Affirmative vs. negative covenants: memorize the examples in each bucket.

Exam Tip: If a question asks whether a specific clause is affirmative or negative: pari passu and cross-default are **affirmative**; negative pledge, limits on liens, sale-leasebacks, additional debt, incurrence tests are **negative**.

CHECKPOINT 3 · SYNTHESIS

Quiz 3: Integration

Answer all questions to test your understanding. Your score updates on the final step.

Q11. A callable bond's call provision *most likely*:

Q12. In a securitization, the entity that issues the ABS is *most accurately* called:

Q13. Which yield measure equals the coupon rate when a bond is priced at par?

Q14. A floating-rate note (FRN) has a coupon rate that:

Q15. An incurrence test included in a bond indenture is *most accurately* classified as:

Q16. A zero-coupon bond (ZCB) is *best* described as:

MODULE COMPLETE

Your Scorecard

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LM01 Key Takeaways — Exam-Ready Cheat Sheet

Basic Features Checklist

1. **Issuer** — supranational / sovereign / non-sovereign / quasi-gov't / corporate (incl. SPE)
2. **Maturity** — ≤1yr money market; >1yr capital market; perpetual (rare)
3. **Par value** — premium (>par), discount (<par), par
4. **Coupon** — fixed / floating (MRR + spread) / zero
5. **Seniority** — senior secured > senior unsecured (pari passu) > junior/sub
6. **Contingency** — call, put, convertibility

Indenture & Covenants

Indenture contents: features, obligations, rights of bondholders, source of repayment, collateral, credit enhancements, covenants.

Affirmative — required acts (pay on time, pari passu, cross-default).

Negative — prohibited acts (negative pledge, limits on liens / sale-leasebacks / additional debt; incurrence tests).

Final Exam Checklist

Premium: price > par → yield < coupon

Discount: price < par → yield > coupon

Par: price = par → yield = coupon

YTM = realized return only if: no default · held to maturity · coupons reinvested at YTM

Call = issuer right · **Put** = bondholder right · **Convert** = debt → equity

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