

## **Learning Module 3: Fixed Income Issuance and Trading**

### **LOS 3a: describe fixed-income market segments and their issuer and investor Participants**

The fixed-income market is a multifaceted arena where various instruments are traded based on distinct classifications. These instruments can be broadly categorized based on three primary dimensions: time to maturity, issuer type, and credit quality. Additionally, classifications can be extended to encompass issuers' geography, currency, and ESG (Environmental, Social, and Governance) characteristics.

#### **Time to Maturity**

Instruments in the fixed-income market can be segmented by their maturity duration:

- i. **Short-Term (< 1 year)**: Instruments in this category, such as Treasury bills, Repo, and commercial paper, cater to near-term obligations. Investors seeking liquid cash alternatives often turn to these money market securities.
- ii. **Intermediate-Term (1-10 years)**: Instruments like Treasury notes, Asset-Backed securities (ABS), and unsecured corporate bonds fall under this segment. Investors looking to match the cash flows of known future obligations might consider these instruments.
- iii. **Long-Term (> 10 years)**: This segment comprises Treasury bonds and mortgage-backed securities. Pension funds and insurance companies with long investment time horizons favor these fixed-income instruments due to their fixed periodic coupon cash flows and maturity profile that matches their long-term liabilities.

Across these maturity spectrums, investors might also take on varying degrees of credit risk to augment returns.

#### **Issuer Type**

The market sees a diverse range of issuers, each with its unique financial instruments:

- i. Sovereign Governments: These issuers, especially from developed markets, are often perceived as having the lowest credit risk. Their bonds, such as Treasury bills, notes, and bonds, are widely held by foreign investors and central banks.
- ii. Corporations: Companies, exemplified by entities like Apple Inc., issue a variety of fixed-income instruments, ranging from short-term commercial paper to long-term bonds, to finance their operations.

## **Credit Quality**

Credit quality is assessed through credit ratings, which gauge an issuer's ability to meet debt obligations based on default likelihood and potential loss. Key agencies like Standard & Poor's (S&P) and Moody's provide these ratings.

## **S&P Credit Ratings**

### **Investment Grade**

- i. AAA: Highest credit quality.
- ii. AA: Very strong capacity.
- iii. A: Strong but with some vulnerability.
- iv. BBB: Adequate capacity with susceptibility to economic shifts.

### **Speculative Grade or High Yield:**

**BB to D:** Ranges from less vulnerable in the short term to payment default or bankruptcy.

Developed market sovereign issuers, often with AAA ratings, are viewed as highly creditworthy. Their bonds are favored by foreign investors and central banks. Sovereign bonds also play a key role in domestic monetary policy.

Issuers rated BBB- (or Baa3 by Moody's) and above are termed investment grade. Those rated BB+ (or Ba1 by Moody's) and below are high-yield or junk. High-yield issuers, distinct from investment-grade ones, often represent new entities. Investors tend to demand collateral from them due to their inconsistent operating cash flows. Investment-grade issuers that have seen a

decline in their credit quality after their initial issuance are referred to as fallen angels.

## Question #1

Which of the following fixed-income instruments is *most likely* to be favored by pension funds and insurance companies due to its long-term maturity profile and fixed periodic coupon cash flows?

- A. Treasury bills
- B. Asset-Backed securities (ABS)
- C. Treasury bonds

## Solution

**The correct answer is C:**

Treasury bonds fall under the long-term (>10 years) segment of the fixed-income market. Pension funds and insurance companies with long investment time horizons favor these fixed-income instruments due to their fixed periodic coupon cash flows and maturity profile that matches their long-term liabilities.

**A is incorrect:** Treasury bills are short-term instruments with a maturity of less than one year.

**B is incorrect:** Asset Backed securities (ABS) typically have an intermediate-term maturity of 1-10 years.

## Question #2

Which of the following credit ratings from Standard & Poor's (S&P) is *most likely* considered to be in the speculative grade or high yield category?

- A. A
- B. BBB
- C. BB

## Solution

**The correct answer is C:**

BB is a rating that falls under the speculative grade or high yield category according to S&P's credit ratings.

**A is incorrect:** "A" is considered to be investment grade and indicates a strong capacity with some vulnerability.

**B is incorrect:** "BBB" is the lowest investment grade rating, indicating adequate capacity with susceptibility to economic shifts.

## Question #3

Which term refers to investment-grade issuers that experience a decline in their credit quality after their initial issuance?

- A. Fallen angels
- B. Junk bonds
- C. High-yield issuers

## Solution

**The correct answer is A.**

Fallen angels refer to investment-grade issuers that have seen a decline in their credit quality after their initial issuance.

**B is incorrect:** Junk bonds refer to bonds that are rated below investment grade, but it doesn't necessarily mean they were initially rated as investment grade.

**C is incorrect:** High-yield issuers are those that issue bonds rated as high yield or junk, but this term doesn't specify the issuer's initial rating.

## **LOS 3b: describe types of fixed-income indexes**

### **Purpose of fixed income Indexes**

Fixed-income indexes are pivotal in tracking the broad risk and return of bond markets. They serve to evaluate market performance, benchmark the performance of investments and investment managers, and lay the foundation for indexed investment strategies.

### **Equity vs. Fixed-Income Indexes**

While they share similarities in function with equity indexes in stock markets, fixed-income indexes have distinct characteristics that set them apart.

### **Distinguishing Features of Fixed-Income Indexes**

#### **a. Multiplicity of Securities**

A unique aspect of the fixed-income market is that a single issuer can have multiple securities. This leads to fixed-income indexes having a larger number of constituents compared to equity indexes. In fact, certain indexes can have over 10,000 constituents.

#### **b. High Turnover**

The inherent nature of bonds, with their finite maturity and the frequent introduction of new issuances, results in a higher turnover for fixed-income indexes. A common practice is the monthly rebalancing of these indexes to accommodate new issues and phase out those nearing maturity.

#### **c. Weighting Mechanism**

In a manner similar to equity indexes, which are weighted by issuers' market capitalization, bond indexes typically weigh constituents based on the market value of outstanding debt. This means that broad bond indexes can undergo changes over time, reflecting shifts in the bond market landscape, such as the balance between public and private issuer debt, changes in maturity lengths, and shifts in credit quality. A notable

observation is the significant weightage of government debt in many broad bond indexes attributed to the substantial issuance volume by government entities.

## Classifying Fixed-Income Indexes

- i. **Aggregate Indexes:** Characterized by a vast array of constituents.
- ii. **Narrower indexes:** These are more refined, drawing criteria such as sector, credit quality, maturity duration, geographical focus, and ESG considerations.

It is imperative that the chosen index resonates with the investment strategy of the fund or manager in question.

## Illustrative Examples

### a. *Bloomberg Barclays Global Aggregate Index*

The inclusion criteria is summarized below:

- i. Issuers: Fixed-rate bonds from various entities, including sovereign, government, corporate, and securitized issuers from both developed (DM) and emerging (EM) markets.
- ii. Currencies: Encompasses 28 currencies from the Americas, EMEA, and Asia Pacific.
- iii. Credit quality: Must have an investment-grade rating or its equivalent.
- iv. Maturity: Bonds should have at least a year to final maturity or an average weighted maturity.
- v. Rebalancing: Done monthly, adjusting for new issues and removing bonds that no longer meet criteria.

### b. *J.P. Morgan Emerging Markets Bond Index Plus (EMBI+)*

The inclusion criteria is summarized below:

- i. Issuers: Focuses on emerging market sovereign entities issuing US dollar debt.
- ii. Currencies: Only includes US dollar-denominated bonds.

- iii. Credit quality: Bonds rated Baa1/BBB+/BBB+ or below by major rating agencies.
- iv. Maturity: Considers bonds with at least 2.5 years to maturity, excluding those falling below a 12-month maturity in the upcoming month.
- v. Rebalancing: Done on the last US business day of each month.
- vi. Characteristics: This index zeroes in on US dollar-denominated debt from sovereign governments with a specific credit quality, targeting higher returns than developed market sovereign bonds.

c. ***Bloomberg Barclays MSCI Euro Corporate Sustainable SRI Index***

The inclusion criteria is summarized below:

- i. Issuers: Corporate entities like industrial, utility, and financial institutions.
- ii. Currencies: Only includes euro-denominated bonds.
- iii. Credit quality: Bonds rated Baa3/BBB-/BBB- or above by major rating agencies.
- iv. Maturity: Bonds with at least a year to final maturity are considered.
- v. Rebalancing: Done on the last US business day of each month.
- vi. ESG rules: Bonds must have an MSCI ESG rating of BBB or higher and exclude issuers involved in certain business activities or controversies.

## **Incorporating ESG in Fixed-Income Indexes**

ESG-focused bond indexes adopt a rigorous screening process to exclude issuers that don't meet certain ESG benchmarks. This can involve filtering out issuers engaged in specific business activities or those that don't achieve the required ESG ratings.



## Question 1

Which feature best distinguishes fixed-income indexes from equity indexes?

- A. Fixed-income indexes are weighted by issuers' market capitalization.
- B. A single issuer in the fixed-income market can have multiple securities.
- C. Fixed-income indexes have fewer constituents than equity indexes.

### Solution:

**The correct answer is B:** One unique aspect of the fixed-income market is that a single issuer can have multiple securities, leading to fixed-income indexes having potentially many constituents.

**A is incorrect:** Both equity and fixed-income indexes can be weighted by market capitalization or the market value of outstanding securities.

**C is incorrect:** Fixed-income indexes can have a larger number of constituents compared to equity indexes, with some having over 10,000 constituents

## Question 2

Which index would *most likely* exclude issuers involved in the alcohol and tobacco industries due to ESG considerations?

- A. Bloomberg Barclays Global Aggregate Index
- B. J.P. Morgan Emerging Markets Bond Index Plus (EMBI+)
- C. Bloomberg Barclays MSCI Euro Corporate Sustainable SRI Index

### Solution:

**The correct answer is C:** The Bloomberg Barclays MSCI Euro Corporate Sustainable SRI Index has ESG rules that exclude issuers involved in certain business activities, including alcohol and tobacco.

**A is incorrect:** The Bloomberg Barclays Global Aggregate Index does not specifically mention excluding issuers based on ESG considerations related to alcohol and tobacco.

**B is incorrect:** The J.P. Morgan EMBI+ does not specifically mention ESG considerations in its criteria.

## LOS 3c: compare primary and secondary fixed-income markets to equity Markets

### Primary Fixed-Income Markets

Primary bond markets are where issuers sell new bonds to investors to raise capital. This contrasts with secondary bond markets, where existing bonds are traded among investors.

**Debut issuers** are those who approach the bond market for the first time. They often replace private debt, like bank loans, with bonds. Examples include:

- i. New corporate entities formed post-merger or acquisition.
- ii. Mature companies with predictable cash flows.
- iii. Sovereign governments raising external foreign currency debt for the first time.

### Issuance Process

- i. **Underwritten Bond Offering:** Financial intermediaries guarantee the sale of the bond issue at an agreed price with the issuer. This process is usually quick for frequent issuers.
- ii. **Best-Efforts Offering:** The intermediary tries to sell the bond issue on a commission basis at the negotiated price only if possible.
- iii. **Private Placement:** Bonds are sold to a select group of investors, often when the bond size is small or the issuer is less known.
- iv. **Sovereign Debt Issuance:** Typically takes the form of a public auction led by the national treasury or finance ministry.

### Secondary Fixed-Income Markets

Secondary Fixed-Income Markets are predominantly over-the-counter (OTC) in nature, although there are some electronic marketplace platforms available. The main participants in these markets are institutional investors, financial intermediaries, and central banks.

Liquidity in these markets can vary significantly across different fixed-income market segments. The bid-offer spread serves as a crucial measure of liquidity. The most liquid securities in this space are typically the on-the-run developed market sovereign bonds. Additionally, corporate bonds that have been recently issued by frequent issuers tend to have higher liquidity. In contrast, bonds from less frequent issuers or those that are seasoned from frequent issuers are traded less often.

There is also a category known as Distressed Debt, which comprises bonds from issuers that are nearing or have declared bankruptcy. These bonds are traded at prices significantly below their par value because bondholders are expected to not receive all the promised payments. Such distressed debts are particularly attractive to opportunistic investors who are in pursuit of returns similar to equities. On the other hand, a significant number of bond issues are illiquid, meaning they don't see regular trading. For these illiquid bonds, price quotes are often based on estimates, which are derived from bonds that are more liquid in nature.

## Comparison to Equity Markets

- i. **Equity IPOs vs. Bond Debut Issuers:** Just as companies can have an initial public offering (IPO) in the equity market, issuers can approach the bond market for the first time.
- ii. **Trading platforms:** While equity markets often operate on centralized exchanges, fixed-income markets are mostly OTC.
- iii. **Liquidity:** Equity markets generally have higher liquidity than many segments of the fixed-income market.
- iv. **Distressed securities:** When a company's debt becomes distressed, its equity securities might already be delisted from exchanges.

## Question #1

Which of the following best describes the primary bond market?

- A. A market where existing bonds are traded among investors.
- B. A market where issuers sell new bonds to investors to raise capital.
- C. A market predominantly for trading distressed debts.

### Solution

The correct answer is **B**.

In the primary bond market, issuers sell new bonds to investors to raise capital. This is distinct from the secondary bond market where existing bonds are traded among investors.

**A is incorrect:** This describes the secondary bond market.

**C is incorrect:** Distressed debts are a specific category of bonds and not the primary focus of the primary bond market.

## Question #2

Which type of bond offering involves a financial intermediary trying to sell the bond issue on a commission basis at the negotiated price only if it can do so?

- A. Underwritten Bond Offering
- B. Best-Efforts Offering
- C. Private Placement

### Solution

The correct answer is **B**.

In a Best-Efforts Offering, the financial intermediary tries to sell the bond issue on a commission basis at the negotiated price only if possible.

**A is incorrect:** In an Underwritten Bond Offering, financial intermediaries guarantee the sale of the bond issue at an agreed price with the issuer.

**C is incorrect:** Private Placement involves selling bonds to a select group of investors, often when the bond size is small or the issuer is less known.