

LIQUID SECURITIES - may be bought/sold quickly

transaction should have little impact on price

BOND MARKET
LIQUIDITY

EQUITY MARKET
LIQUIDITY

Reasons:

Also, fixed-income markets are predominantly

Issues: • Search costs

• Need to obtain quotes from multiple dealers

• Less transparency than in equity markets

These issues are typically LESS SEVERE in case of:

Time after issuance

ISSUANCE

ON-THE-FLY ISSUES

MOST LIQUID

Previously issued bond now becomes

if bond is **ILLIQUID** → investors require

↓

compensation for costs which may be encountered if investor tries to sell the bond before its maturity

Additional yield

Typically:

GOVERNMENT
BOND LIQUIDITY

- large issue sizes
- used as benchmark bonds
- used as COLLATERAL in REPO agreements

Non-government
bond liquidity

- smaller issue sizes → below threshold of major bond indexes
- if issuer is low quality → dealer hesitant to hold inventory
- infrequent issuers → less well-known in the market

Effects of LIQUIDITY on BOND PORTFOLIO MGMT

PRICING: recent bond transactions

But regulatory efforts to ↑ transparency in corporate bond markets

INFREQUENT TRADING $\Rightarrow$ TRANSACTION PRICES $\neq$ CURRENT VALUE

↑
underlying factors change frequently

Possible solutions: MATRIX PRICING (using observable yields from liquid Benchmark bond with similar maturity & duration)

+ BENCHMARK SPREADS (from bonds with comparable parameters and credit quality)

PORTFOLIO CONSTRUCTION $\leftarrow$ influenced by investor's LIQUIDITY PREFERENCES

ILLIQUID BONDS

SOME investors impose MATURITY RANGE restrictions $\rightarrow$ avoiding h-T bonds



BOND dealers - service clients who want to BUY & SELL

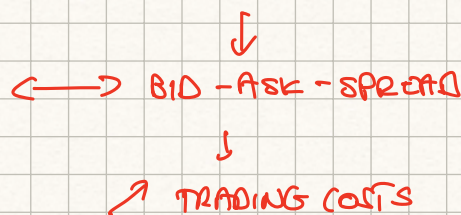
BID-ASK QUOTES from dealers - SOME ILLIQUID bonds may not be quoted by any dealer!

BID-ASK SPREAD will be
for ILLIQUID BONDS

BID-ASK SPREAD also depends on

- Government bonds / vanilla corporate bonds from LARGE ISSUERS
- versus - Corporate bonds with embedded options from SMALL ISSUERS
ABSs

IMPACT ON PORTFOLIO MGMT: ILLIQUIDITY



ALTERNATIVES to DIRECT BOND INVESTING

(to overcome illiquidity costs / constraints)

• ETFs and Mutual funds

Mutual Funds - Direct bond trading often involves MINIMUM LOT sizes = \$1 million

↑
impossible for smaller investors to follow replication strategies & fully diversify

- Mutual funds ← investors buy and redeem units at NAV (no need to directly grapple with bond illiquidity)

Fund costs: UPFRONT LOAD + Mgmt Fee may be justified given ↑

- Mutual bond funds have NO MATURITY DATE

→ fund manager must continuously replace maturing bonds

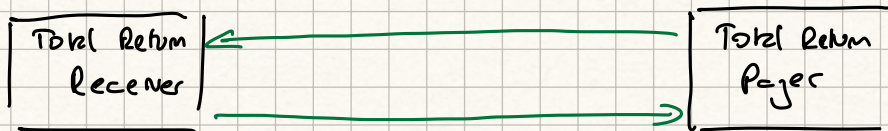
ETFs: like Mutual Funds but tradable

- Exchange-traded derivatives: bond futures, options → exposure to underlying bonds
+ interest-rate contracts

- OTC derivatives

- IRSs — often liquid (multiple dealers, competitive pricing)
- TOTAL RETURN SWAPS $\Rightarrow$ combines

UNDERLYING: equity, commodity or BOND index



OTC contract based on ISDA master agreement

Benefit: Total Return Payer = DEALER $\Leftarrow$ has more favourable access to Bond Index constituents

Total Return Receiver = Investor gains access to subset of fixed-income market which is ILLIQUID, administratively complex to maintain a portfolio

Important considerations: Investor gains EXPOSURE

$\Rightarrow$ increased regulatory oversight, capital requirements for dealers