Introduction to Assets and Markets

BKM Chapter 1

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Introduction

What is an investment?

- A commitment of resources with the expectation of a future payoff.
- Financial investments: stocks, bonds, options, futures.
- Other investments: education, physical fitness, relationships.

Decisions faced by investors:

- Risk-return trade-off.
- Efficient pricing of financial assets.

Real vs. Financial Assets

Real assets are goods (generally tangible) that are used to produce other goods or services: buildings, machines, land, knowledge.

- Productivity of economy determined by real assets.

Financial assets are claims to income generated by real assets.

- Firms use the money raised through financial assets to invest in plants, equipment, labor, etc.
- Holder of financial asset receives a portion of the resulting returns from real assets.

While real assets determine wealth, financial assets determine distribution of wealth.

Financial Assets - Fixed Income

Fixed income securities are assets with payments determined by a formula (e.g. bonds).

- Money market: short-term fixed income securities (U.S. Treasury bills, CDs, etc.).
- Capital market: longer-term fixed income securities (Treasury bonds, commercial paper, etc.).
- Although fixed income security payments are determined mathematically there is still risk (interest rate risk, default risk).
- Longer maturity fixed income assets tend to be more risky.

Financial Assets - Equity

Equity (stock) is an ownership claim in a particular firm.

- Equity holder owns a prorated share of the real assets of a firm and is entitled to a portion of the profits that is not reinvested (dividends).
- Equity is more risky than fixed income because its return is not guaranteed: it is tied directly to the well-being of the firm.

Financial Assets - Derivatives

Derivatives are assets whose payoffs are determined by another (underlying) asset.

- Options are assets which allow the holder the option to buy or sell an asset at a pre-specified price at a future date.
- Futures are contracts to buy and sell assets (real or financial) for a pre-specified price at a future date.
- These assets are called derivatives because their value derives from the value of the underlying asset.
- Derivatives are commonly used for hedging (insurance) but are sometimes used for speculation, too.

Role of Financial Markets

Financial markets serve a number of vital purposes.

- Information source - financial markets impart information about financial well-being of firms through prices.
- Consumption timing - markets coordinate borrowing and lending, thereby allowing people to smooth consumption over time (at different stages of life you will be both a borrower and a lender).
- Allocation of risk - markets allow individuals with similar risk characteristics to invest in similar assets. They also mitigate the potential downside of risky investments (they spread loss among many small investors).
- Separation of ownership and management.
- Corporate governance.

The Investment Process

Investors typically hold portfolios of assets in order to diversify risk. Portfolios are built by:

- Broad Allocation: dividing resources among broad classes of assets.
- Valuation: Using mathematical techniques and models to determine relative values of assets, given the state of the economy.
- Optimization: choosing which assets to buy and (if already held in a portfolio) sell.

Competitive Markets - Risk-Return Trade-Off

Risk-return trade-off - although we observe a wide variation in returns, there is an implicit price for higher returns: higher risk.

- Given two assets with similar risk characteristics, if one has a higher return, there will be a rush in the market to buy that asset. As a result, the price will move up (return will fall) until it is commensurate with it's risk (in this case, until the return is equal to that of the other asset).
- Exploring the risk-return trade-off will be an important topic of this course.

Competitive Markets - Efficiency

The Efficient Markets Hypothesis (EMH): the idea that financial markets process all new information immediately and incorporate it into prices.

- According to the EMH, an asset's price reflects the market consensus of it's value, and hence no security is overpriced or under-priced.
- EMH would suggests passive management (buying and holding a market portfolio) instead of active management (attempting to find assets that are mispriced).
- If there were no active management, opportunities for profit would crop up and be exploited.
- Markets are likely to be nearly efficient - leaving small arbitrage opportunities open for the diligent.

The Players

The financial market is broadly comprised of the following entities.

- Firms (borrowers) - raise money for real assets through stock and bond issues.
- Households (generally considered to be lenders) - invest in firms by purchasing assets.
- Government (lender or borrower) - raises money through taxes and debt (bond) issues.

Financial Intermediaries

Financial intermediaries are a subset of firms (borrowers) that specialize in acting as market makers: banks, investment companies, insurance companies and credit unions.

- These firms utilize economies of scale to coordinate borrowing and lending and monitoring credit risk.
- They generally pool assets of many small investors in order to lend to large borrowers.
- Consider a bank which takes deposits from small entities and lends to large entities - they earn money on interest spread.
- Consider a mutual fund that can reduce brokerage fees per capita by pooling assets of individuals and investing in large quantities of a given asset.