

DRW New-Hire Learning Program

Module: FX, Commodities, and Equities

Session B.3: Equities

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Summer 2022

Stocks as residual claims

Stocks are equity claims on the net income and assets of a corporation.

- ▶ Stockholders have a junior claim on the assets and income of the firm.
- ▶ Namely, they receive whatever is left over after all other claimants (suppliers, tax collectors, creditors, etc.) have been paid.
- ▶ The firm can pay out the residual as dividends or reinvest it in the firm which increases the value of the shares.

Limited liability

Limited liability means that shareholders are not accountable for a firm's obligations.

- ▶ Losses are limited to the original investment.
- ▶ Equity claim is similar to a call option on a firm's overall value.
- ▶ Compare this to unincorporated businesses where owners are personally liable.

Market size and ownership

Of all types of capital market securities, stocks have the most market value.

- ▶ However, annual new issues are much smaller than that of corporate bonds.
- ▶ Annual new issues are less than 1% of the market value of equities.
- ▶ About half of stocks are held by individuals. The other half are held by institutional investors such as pension funds, mutual funds, and insurance companies.

Types of stock

There are two types of stock.

- ▶ **Common stock** is a simple equity claim. It may or may not have voting rights.
- ▶ **Preferred stock** is a hybrid of equity and debt. Like debt, it has no voting rights. The next slide discusses some specifics.

If no specification is made, “stock” typically refers to common stock, a pure equity claim.

Preferred stock - cash flows

Consider some ways preferred is like debt and also equity.

- ▶ It has a stated dividend rate, which is similar to a coupon rate on a bond.
- ▶ Unlike a bond, the dividend does not have to be paid.
- ▶ However, common stockholders cannot be paid dividends until preferred dividends are paid.
- ▶ In fact, usually the *cumulative* preferred dividend must be paid first.

Preferred stock - tax treatment

Though preferred dividends are similar to debt interest, they are not tax-deductible to the firm.

- ▶ However, corporations may deduct 70% of dividends received from domestic corporations.
- ▶ Thus, *other* firms have relatively higher demand for investing in preferred shares.

International stocks

American Depositary Receipts (**ADR's**) are certificates traded in U.S. markets which represent foreign stocks.

- ▶ ADR's are used to make it easier for foreign firms to register securities in the U.S.
- ▶ Most foreign stocks traded in U.S. markets use ADRs.
- ▶ Sometimes, these are called American Depositary Shares, or ADS.

DJIA

Stock indexes are widely quoted as a measure of overall market performance. The Dow Jones Industrial Average (**DJIA**) is the most oft-cited in the news.

- ▶ The DJIA is an average of 30 large, high quality U.S. stocks. It has been computed since 1896.
- ▶ The stocks in the index change over time, to maintain a reflection of the overall market.
- ▶ The DJIA used to be computed simply as the average price of the 30 stocks. However, the formula keeps the DJIA constant anytime one of the stocks splits, pays a large dividend, or is switched.

On Aug 28, 2017, the DJIA was at 21,808.40.

Data: DJIA



Figure: Source: [St. Louis Fed.](#)

Stock indexes

Other stock indices are also widely quoted.

- ▶ S&P 500 goes beyond the DJIA in that it includes 500 firms, (often even a few more.) Also, it uses a market-weighted average. That is, each of the 500 firms receives weighting in the index proportional to its market value of outstanding equity.
- ▶ NYSE. A market-value-weighted composite index of all NYSE-listed stocks. NYSE also produce subindexes for specific industries.
- ▶ NASDAQ. An index of more than 3,000 firms traded on the NASDAQ market.

S&P 500: Composition

- ▶ 16 firms have entered/exited the index from Jan-Sep of 2015.
- ▶ In 1958, average tenure of a member was 61 years. In 2012, average tenure down to 18 years. (Innosight, 2012, Foster.)

	weight (%)		weight (%)
Apple	3.68	Amazon.com	1.15
Microsoft	2.02	Pfizer	1.14
Exxon Mobil	1.75	Facebook Class A	1.11
Johnson & Johnson	1.49	Procter & Gamble	1.08
General Electric	1.44	Verizon	1.08
Wells Fargo	1.42	Google Class A	1.07
Berkshire Hathaway Class B	1.38	Google Class C	1.02
JP Morgan Chase	1.34	Bank of America	0.97
AT&T	1.17	Walt Disney	0.92

Table: Morningstar. Sep 2015.

S&P 500: Sector Weighting

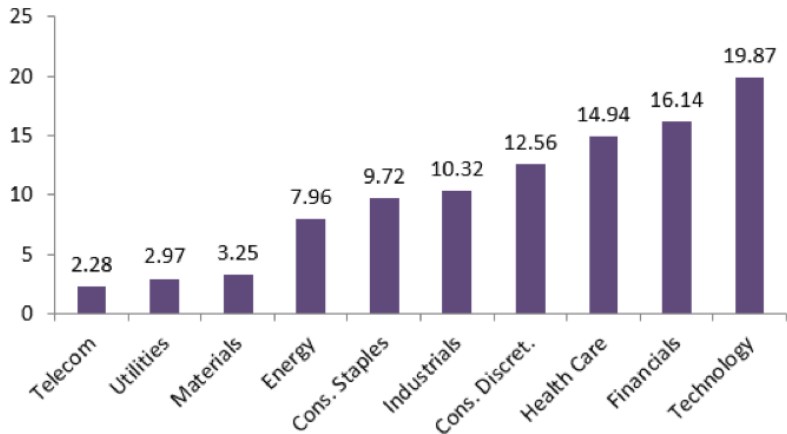


Figure: Bespoke Investment Group. March, 2015.

International indexes

In recent years, international equity markets have grown larger and more globally accessible.

Some of the most oft-quoted international indexes are

- ▶ Nikkei (Japan)
- ▶ FTSE (United Kingdom)
- ▶ DAX (Germany)

Morgan Stanley Capital International (MSCI) publishes a variety of international indexes for different countries and regions of the world.

Index funds

Many mutual funds are designed to track large, broad portfolios.

- ▶ Popular funds track indexes like the S&P 500, international stocks, ABS, etc.
- ▶ They allow exposure to the target portfolio without the impractical costs of trying to individually hold the many securities in the portfolio.
- ▶ Similarly, investors can buy exchange-traded funds (**ETF's**).
- ▶ A share in an ETF can be bought and sold like a share in a stock, but it represents a portfolio of stocks held by the fund.

Exchange-Traded Funds

An **exchange-traded-fund**

- ▶ Trades on a stock exchange
- ▶ Shares of the fund which may hold a variety of assets
- ▶ Can be traded intra-day

Questions

- ▶ What is an ETF?
- ▶ How does an ETF compare to Mutual Funds?
- ▶ Why trade ETF's?
- ▶ Are there ETF derivatives?

History

- ▶ Began trading in the U.S. in 1993.
- ▶ Active-ETF's approved in 2008.
- ▶ Almost 2,000 ETF's trade in U.S. markets.

ETF of Mutual Fund?

- ▶ ETF's directly trade unit blocks of the assets, for authorized participants.
- ▶ Allows intra-day trading.
- ▶ No cash-management for redemption, load, fee, etc.
- ▶ No direct redemption means favorable capital-gains treatment.

Range of funds

- ▶ Most ETF's track an index. ie. S&P 500, U.S. Treasury rate, BBB-AAA credit spread, etc.
- ▶ Target wide variety of equity sectors and geographies.
- ▶ Funds for a variety of asset classes: equities, oil, grains, credit instruments, etc.
- ▶ Active ETF's tracking a strategy.

Why trade ETF's

- ▶ Liquidity
- ▶ Reduce idiosyncratic risk.
- ▶ Exchange-traded (U.S.)
- ▶ Allow for wide variety of trading strategies.