

Understanding Risk To Help You Invest Soundly



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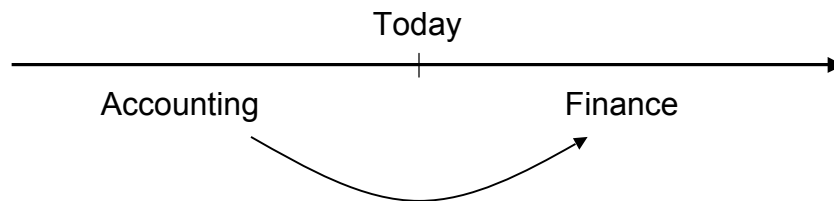
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“I would not give a fig for the simplicity on this side of complexity, but I would give my right arm for the simplicity on the far side of complexity.”

Oliver Wendell Holmes Jr.

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Accounting Versus Finance



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Goals

- ❖ Develop practical understanding of some of the more common investment vehicles and concepts in today's financial world.
- ❖ Develop a practical understanding of the risks associated with each of these investment vehicles.
- ❖ Learn a few techniques to manage investment risk.
- ❖ Discuss active versus passive management.

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Schedule

- ❖ Section 1 - Understanding Global Capital Markets
- ❖ Section 2 - Risks With Investing in Capital Markets
- ❖ Section 3 - Measuring Investment Risk
- ❖ Section 4 - Managing Investment Risk
- ❖ Section 5 - Active versus Passive Management

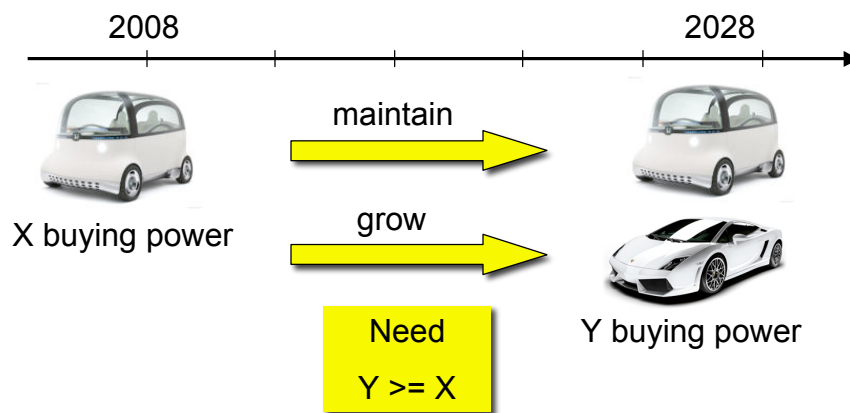
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Section 1 - Global Capital Markets

- ❖ Capital Markets
- ❖ Bonds (domestic, international, TIPS)
- ❖ Stocks (domestic, international)
- ❖ Currencies
- ❖ Economic Sectors
- ❖ Indexes
- ❖ ETFs
- ❖ Investment Companies
- ❖ REITs

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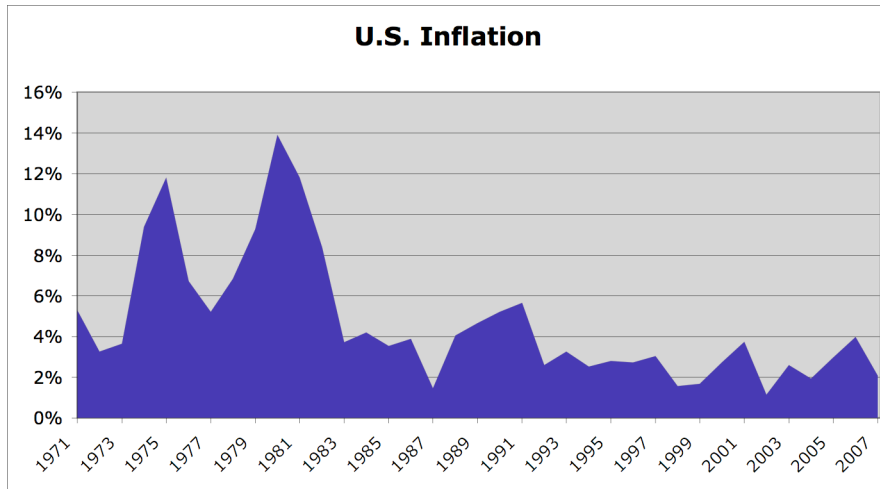
Household Needs



Global Capital Markets provide a vehicle for households to shift their spending to some point in the future and to potentially increase their spending power.

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Inflation



1971 to 2007 Average - 4.68%

1983 to 2007 Average - 3.11%

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Household Needs

Since inflation is at play capital appreciation is required to grow our assets to maintain spending power.

- I. If we only want to maintain spending power then we just need to keep pace with inflation. This can be done very safely for example, through U.S. government backed instruments called TIPS.
- II. However, if we would like to increase our spending power then we need to grow our capital at a higher rate than inflation. The only investments that provide a probability of outpacing inflation are risky.

= nobody gets a free lunch

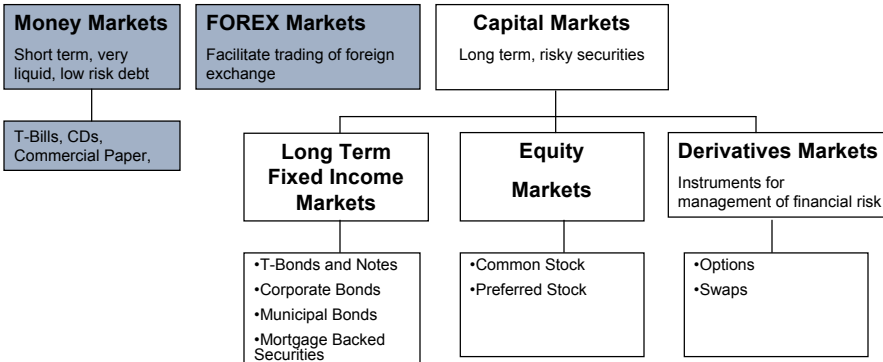
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Financial Cycle

- ❖ **Business Sector**
Primary Need: Raise funds
- ❖ **Government Sector**
Primary Need: Raise funds
- ❖ **Household Sector**
Primary Need: Invest funds

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Financial Markets



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Bonds - First instrument in Capital Markets

Why cover bonds?

- ❖ Bonds are used extensively in engineering retirement plans.
- ❖ They can provide a risk buffer in portfolios.
- ❖ Play bigger role when portfolio morphs to an income generator from a growth model.
- ❖ Sovereign debt provides safety!

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Bonds - low correlation to stocks

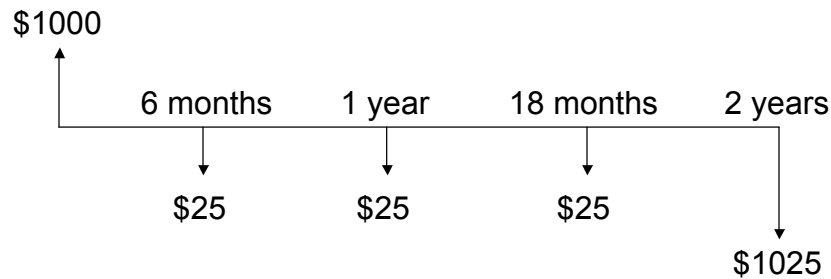
Market Insight Series

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Bonds = How They Work

Investor acts as a bank to the government, municipality, or corporation.



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Bonds - Main Attributes

- ❖ Face Value (par value): amount repaid when the bond matures.
- ❖ Maturity Date: date when the final coupon payment is made and the face value is returned to lender.
- ❖ Coupon Rate: annual interest rate paid by the bond issuer to the investor.
- ❖ Coupon: = (Coupon Rate * Face Value)

**Example

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Bonds - Issuers

- ❖ Government Treasuries
 - T-Notes: 2 to 10 year maturity.
 - T-Bonds: 10+ years maturity.
 - Tax exempt: State & Local
 - **NOTE**: T-Bills not included because they are short term and not subject to interest rate risks.
- ❖ Municipal
 - Tax exempt: Federal & *State
- ❖ Corporate
 - Tax exempt: None

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Bonds - From Corporations

- ❖ You are a creditor to the bond issuer.
- ❖ You are not an equity owner so you do not have any voting rights.
- ❖ You stand in front of share holders in bankruptcy.

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Common Stock - Purpose

Why issue stock to the public?

- ❖ Corporations issue to raise capital.
- ❖ Owners take their companies public to diversify their holdings.

Advantages over Bonds (from corp perspective)

- ❖ No interest payments like bonds.
- ❖ Doesn't have to pay a dividend.

Disadvantages over Bonds (from corp perspective)

- ❖ Need to compound share value at a higher rate than bonds
- ❖ Disclosure and accountability to public

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Common Stock

Investor becomes equity owner in company.

- Entitles owner of stock to one vote per share in voting matters*.
- Entitles owner of stock to share in financial benefits. (dividends)

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Preferred Stock

- ❖ Pays a dividend into perpetuity. (bond like)
- ❖ No voting rights. (bond like)
- ❖ Not contractually obligated to pay dividend (stock like)
- ❖ Investors stand in front of common stock holders and behind bond holders in bankruptcy.
- ❖ Corporations that buy preferreds of other companies only pay taxes on 30% of dividend income. (nice advantage for corporate investors. Not for individuals!)

**Example

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International Stock - Overview

- ❖ ADRs - American Depositary Receipts
- ❖ Give U.S. investors vehicle for owning equity in foreign companies.
- ❖ Big bank e.g. JP Morgan, holds actual stock in custody account in the home market. Bank issues ADRs in U.S. against custody account.
- ❖ Dividends are subject to exchange rate risk.
- ❖ www.adr.com

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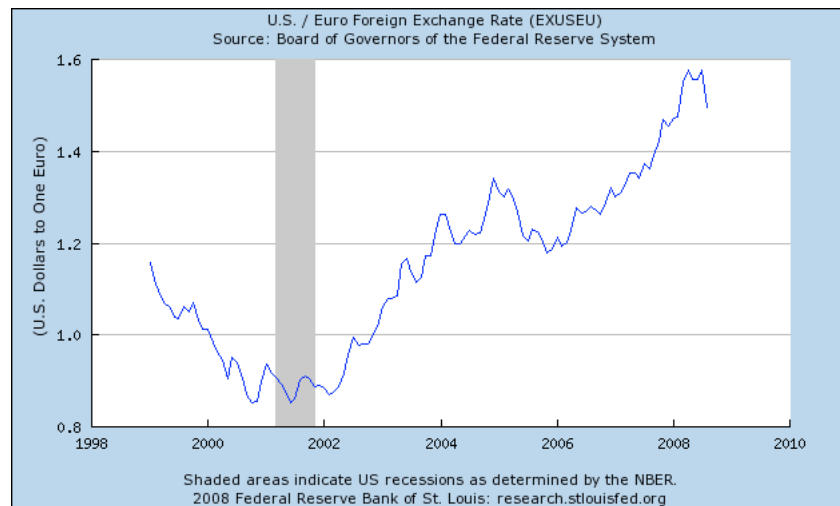
Currencies

- ❖ Kind of like stock ownership in a country.
- ❖ If economy is running well then investors move capital to country and demand drives up exchange rate.
- ❖ On the flip side - if inflation is rising fast investors are running for the exits and supply drives down exchange rate.
- ❖ Long protracted cycles.

<http://markets.ft.com/ft/markets/currencies.asp>

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Currencies - \$ vs. €



<http://research.stlouisfed.org/fred2/series/EXUSEU?cid=95>

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Terminology - Economic Sectors

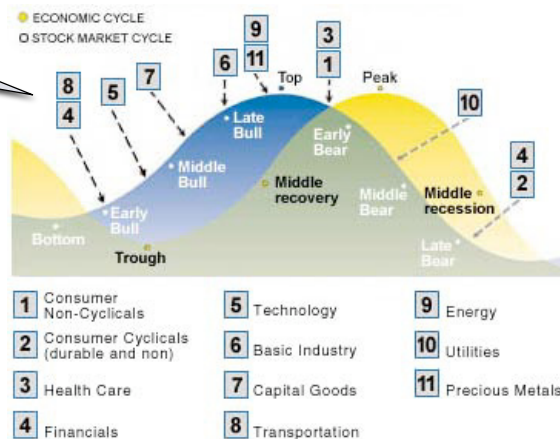
- ❖ Consumer Discretionary - automotive, household durables
- ❖ Consumer Staples - food, beverages, tobacco
- ❖ Utilities - electric, gas, water, independents
- ❖ Telecommunication Services - fixed line, cellular, wireless
- ❖ Materials - commodity related manufacturing
- ❖ Information Technology - software & services
- ❖ Industrials - heavy machinery, aerospace
- ❖ Health Care - manufacture healthcare equip, services
- ❖ Financials - banks, insurance
- ❖ Energy - exploration, production, energy services

<http://www.msccibarra.com/resources/pdfs/GICSSectorDefinitions.pdf>

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Economic Sectors

Tend to outperform
the broad market



Source: Fidelity. Based on a study by Standard & Poors in 2000.

<http://personal.fidelity.com/products/funds/content/sector/cycle.shtml>

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Terminology - Asset Classes

- ❖ Stocks
- ❖ Bonds
- ❖ Real Estate
- ❖ Private Equity
- ❖ Hedge Funds
- ❖ Commodities
- ❖ Currencies

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Indexes

Composites created to track a subject matter.

U.S. Broad

DOW Industrials - 30 blue chip stocks, price weighted, since 1928.

S&P 500 - 500 U.S. large cap companies, since 1957.

NASDAQ - Composite of 3000+ U.S. and Intl. companies listed on Nasdaq.

International

U.K. - FTSE 250 - between 101st and 350th largest companies on LSE.

Germany - DAX - 30 largest German companies traded on Deutsche Boerse.

France - CACI - 40 most significant values among 100 largest on Euronext.

Russia - RTS - 50 most liquid Russian stocks traded on RTS.

<http://markets.ft.com/markets/overview.asp>

<http://www.quintec.de/index.php?id=103>

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Indexes

MSCI (Morgan Stanley Capital International)

- ❖ Producing indices since 1969.
- ❖ Most widely used global benchmarks.

MSCI EAFE - Europe, Australasia, Far East - 21 Developed Markets - Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, ...

MSCI EM - 25 Emerging Markets - Argentina, Brazil, Chile, China, Egypt, India, Jordan, Korea, Morocco, Pakistan, Poland, Russia....

MSCI Austria	MSCI Belgium	MSCI Germany	MSCI Japan
MSCI Singapore	MSCI Switzerland	MSCI Spain	MSCI Italy

<http://www.msibarra.com/products/indices/equity/performance.jsp>

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Exchange Traded Funds

ETFs - Market traded index tracking portfolios.

- ❖ Available in U.S. since 1993
- ❖ Stated objective - e.g. track energy sector
- ❖ Passively managed - employ no selection skill
- ❖ Trade just like stocks - daily bid/ask spread
- ❖ Very different from open end mutual funds
- ❖ Tax efficient
- ❖ Low management fees - range .1% to .8%

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Exchange Traded Funds

Created by...

- ❖ Standard & Poors - StateStreet Global Advisors
- ❖ Barclays - iShares
- ❖ PowerShares
- ❖ Vanguard
- ❖ WisdomTree
- ❖ Rydex
- ❖ ProFunds

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Exchange Traded Funds

Use of ETFs

- ❖ Used to participate in growth of a country, sector, broad asset class e.g. commodities, real estate.
 - ❖ You believe consumer discretionary sector in general will continue to grow but consumers might get tired of McDonalds in favor of Panera Bread.
- ❖ Reduce exposure to risks of single shares.
- ❖ Asset allocation construction.

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Exchange Traded Funds

Broad U.S. Equity Mrkts

SPY StateStreet	S&P 500
DIA	Dow Jones Industrials
QQQQ PowerShares	Nasdaq 100
IVW iShares	S&P 500 Growth
IVE iShares	S&P 500 Value

Countries Equity Mrkts

EWG iShares	Germany Tracks MSCI Germany Index
EWQ iShares	France Tracks MSCI France Index
EWI iShares	Italy Tracks MSCI Italy Index

Commodities

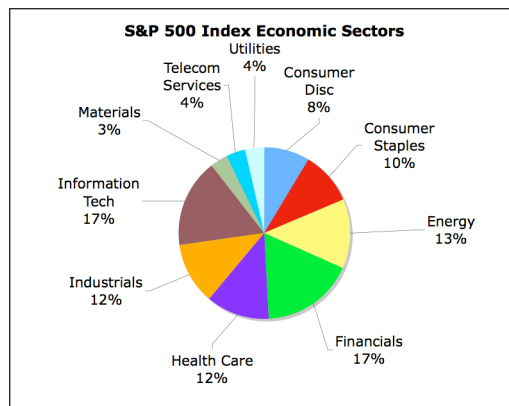
DBC PowerShares	Tracks Deutsche Bank Commodities index
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International

EFA iShares	Tracks MSCI EAFE - Australia, Austria, ...
EEM iShares	Tracks MSCI EM - Argentina, Brazil, Chile, Russia, ...

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Exchange Traded Funds



Consumer Disc	XLY
Consumer Staples	XLP
Energy	XLE
Financials	XLF
Health Care	XLV
Indrials	XLI
Info Tech	XLK
Materials	XLB
Telecom Services	VOX
Utilities	VPU

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Registered Investment Companies

Offer open-end mutual funds, closed-end funds, and unit investment trusts (UITs) that are regulated by the Investment Company Act of 1940.

- ❖ Act mainly requires disclosure of financial health to the public.
- ❖ Act also regulates conflicts of interest between investment companies and exchanges as well as brokers.
- ❖ Monitored by SEC.

www.ici.org

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Mutual Funds

- ❖ Managed by investment advisor or committee.
- ❖ Have investment policy defined in prospectus.
- ❖ Not traded on exchanges.
- ❖ Shares are purchased and redeemed with investment company at the close of each day at NAV.
- ❖ Investors own a share of fund not the underlying securities.
- ❖ NAV - Net Asset Value

$$NAV = \frac{(total\ value\ of\ securities) - (liabilities)}{number\ of\ fund\ shares\ outstanding}$$

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Mutual Funds

- ❖ Money Market Funds
- ❖ Equity Funds
- ❖ Bond Funds
- ❖ International Funds
- ❖ Balanced Funds
- ❖ Income Funds
- ❖ Index Funds

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Closed End Funds

- ❖ Have IPOs.
- ❖ Trade on exchanges.
- ❖ No expense associated with creating or redeeming shares.
- ❖ No loads.
- ❖ Must hold stockholder meetings.
- ❖ File quarterly with SEC.

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Real Estate Investment Trusts

- ❖ REITS - similar to closed-end funds. Tax status for a company that invests in real estate that can eliminate corporate taxation.
- ❖ Must distribute 90% or more of income to investors.
- ❖ Income passes through entity to investors.
- ❖ Public and Private. More private than public.
- ❖ 2005 - 200 public, 800 private.
- ❖ International REITs - Available in Germany, Bulgaria, Japan, U.K., Singapore, ...
- ❖ Exchange traded - available through mutual funds, closed-end, ETFs

www.nareit.com

www.ncreif.com

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