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Mutual Funds

Classifications, fees, quotations

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Interesting facts about mutual funds

- Mutual funds are diversified clusters of financial assets – stocks, bonds, money market, and hybrid – in which you can invest easily and at low cost.
- Mutual funds control about $11.8 trillion in US financial assets (2010) [ETFs: $992 billion]
- Equity mutual funds control almost $5.7 trillion.
- 90 million individuals (52 million households – 44%) own mutual funds, and make up about 85% of total fund ownership.
- Mutual funds are sold by big fund families like Vanguard, Fidelity, TRowerPrice, etc.
- There are 8,545 mutual funds in the U.S. (2011)
- There were 564 mutual funds in 1980.

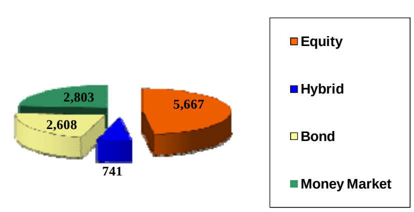
Source: Investment Company Institute, *2011 Investment Company Factbook.*

General Funds Families

- **Equity** (stocks)
- **Yield-bearing Financial Assets (YBFA)**
  - U.S. Treasury
  - Corporate and other bond and note
- **Money Market**
  - YBFAs with maturities of less than one year
- **Hybrid**
  - A mix of the above
- **Target Retirement** (i.e. Target Retirement 2050)
  - I don't like these, high churn rate

General Equity Mutual Fund Categories

- Income
  - conservative; stresses dividends and established companies
- Growth
  - riskier; target high cap gains, fast growth companies
- Index
  - pegged to an index like the S&P 500
- Specialty
  - small cap, sector, industry, etc.
- **Mixed/Hybrid**



Total: $11.82 trillions

Source: Investment Company Institute, *2011 Investment Company Factbook, Table 3.*

Primary Benefits of Mutual Funds

- Very low fees
- Easy entry ($2,500 or lower typical, $250 mo. with autodeposit)
- Diversification
- Huge choice (8,545 funds in 2010)
- Online and telephone transferable within fund families
- No need to watch them closely

Mutual Fund Fees

Fee	For What?	Acceptable Level
Expense ratio	Summary of all expenses except loads	Below 1% (see handout)
Loads	Sales commission charge	0 - none
CDSC and other deferred	To rip you off	0 - none
Management fee	To manage the fund	Same as expense ratio
12b-1	Advertising fee	0 - none

Read the handout for more detail.

Hidden churn fees

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Wall Street Journal article "*The Hidden Costs of Mutual Funds*" March 1. 2010, points out that high-churn (high turnover) managed funds, some with 100% turnover, generate excessive hidden fees not shown in expenses because of trading costs:

1. Brokerage commissions
2. Bid/Ask spreads
3. Market-impact costs

The latter reflect that large-scale transactions (such as large purchases) which, as we know, potentially involves dark pools and ISOs, sometimes impact the market adverse to the purchase.

Some analysts estimate this hidden cost to be as high as 3% for some funds.

That's why I don't like high turnover funds and why I specifically don't like Target Retirement Funds!

Tax features of mutual funds

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- Taxes on mutual funds are complicated
  - although usually the fund does the taxable income calculation for you.
- "Internal gains" 1099-DIV
  - Distributions of dividends made to your account
  - Capital gains realized *within the fund* by virtue of the fund manager's purchases and sales of stock (you play no role in this)
- Gains from direct sales 1099B and Schedule D
  - The *net* capital gain realized when you sell out of the fund (prior already-taxed cap gains are not included)MFs can be used for IRAs and 401Ks
- **401K, IRA etc. funds are tax-exempt !!**

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Tax features (cont)

Do you pay the capital gains tax rate (typically 20% of cap gain, but maybe higher after Dec 31) or the income tax rate (typically much higher)?

The general rule states that if the holder of the stock holds it for more than one year, the lower capital gains tax rate is paid. However, the holder of the stock is the fund manager, not the investor. Therefore if that manager is churning stocks within the fund, gains realized for holdings of less than one year are taxed at ordinary income rates for investors, even when those investors make no transactions at all!

Unless your fund is tax-exempt, you should look at the funds **Turnover Rate**. Your teacher generally does not like funds with turnover rates above 20%, especially if they are taxable.

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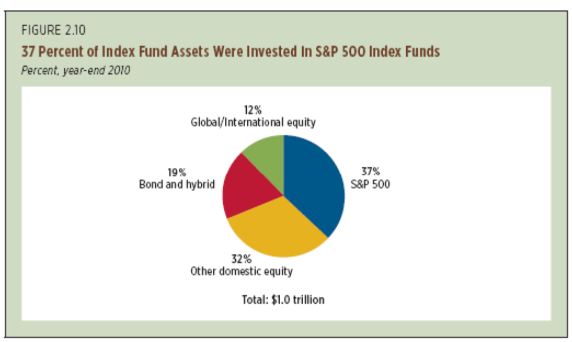
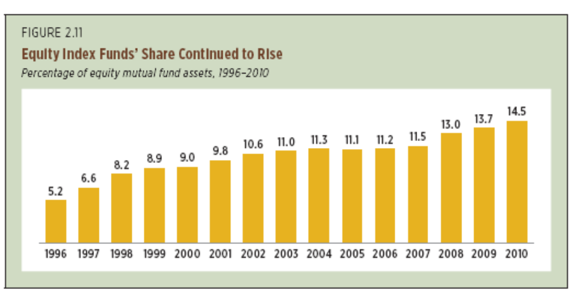
The General Popularity of the S&P500 Index Funds





Source: Investment Company Institute, *2011 Investment Company Factbook.*

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Why your teacher strongly favors S&P500 Index Funds and other index funds

- Extremely diversified – as goes the market, so goes your fund.
- Typically outperforms 85% to 90% of all other mutual funds.
- Extremely low fees and expense ratios – typically around 0.5%
- Absolutely no churning – and therefore no interim tax liability! Low turnover rate.
- Available from all reputable low-fee funds families and often available in 401-K plans.

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401-Ks and Mutual Funds

- See the assigned reading an all types of retirement accounts - the general categories will be on the exam (after exam)
- When you go to work you will be typically be given the option of investing in a 401-K
- Your employer will typically make part of the contribution, which is why you want to MAX it.
- You typically will be offered a limited selection of mutual funds
  - look for index funds in the mix
- The fees may be fairly high for these funds
  - employers don't always do a good job of getting these down
- When you change jobs, you have the right to transfer these funds into a **Rollover IRA** into a fund family of your choice. I recommend this.

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The physical gold collateral inventory held by SPDR for the GLD ETF: 1,252.21 tonnes worth $72,165,716,420.70 as of 7:42 PM PST, September 21, 2011.

See http://www.spdrgoldshares.com USA

ETFs: Exchange Traded Funds

The hottest game in town

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Exchange Traded Funds (ETFs)

Exchange traded funds (ETFs) are baskets of securities (stocks or bonds) that track highly recognized indexes, commodities, interest rates, and other financial variables. They are similar to mutual funds, except they trade the same way that a stock trades, on a stock exchange. In fact, anything you can do with a stock, you can basically do with an ETF.

ETFs are designed to track the holdings of a stated index, such as the S&P 500 (SPY) or the NASDAQ 100 (QQQQ). So buying an ETF can be a simple way to hold a diversified portfolio of securities. An investor who buys an ETF that tracks the S&P 500 basically purchases stocks in the S&P 500 with one simple transaction. For the most part, ETFs fully replicate their underlying index. However, some ETFs invest in only a representative sampling of the securities in their stated index. Either way, the holdings of an ETF are disclosed each trading day.

Source: Ameritrade

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ETFs instead of mutual funds

- You can build a "mutual fund" portfolio with ETFs that match these funds
- Can be bought and sold just like stocks, **and you can trade in and out of them quickly without penalty.**
- **Taxed like stocks … big advantage!! Some exceptions!**
- Price tracks throughout the day
- Fees may be slightly higher, but also can be lower.
- Many **contras** available, designed to move in opposite direction of stocks, indexes, or commodity prices.
- You can invest in the prices of some commidities as well, like oil, gold, and silver.
- Fees are simply collected from collateral inventory (which can have a slight long-term impact on the tracking price).

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The Net Asset Value (NAV) issue

- The NAV of any mutual fund or ETF is the total value of the collateral assets owned by the fund (weighted price times quantity divided by total shares outstanding.
- **Mutual Fund**: The NAV of is calculated each day at 4:00 PM (market close) and all buy and sell trades are executed in the evening ***at that NAV price***.
- **ETF**: The price of an ETF is determined by supply and demand, ***not the NAV***, even though for most the NAV is calculated and published frequently throughout the day, and ***some funds do not track the NAV*** all that well and some have a consistent bias at premium or discount!
- **Implication:** When researching an ETF thorough its prospectus, ***always evaluate*** the **premium/discount to NAV!!**

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A REPRESENTATIVE SELECTION OF EXCHANGE TRADED FUNDS

Domestic Index	
DJIA	DIA
S&P500	SPY
RUSSELL 2000	IWM
NASDAQ 100	QQQQ
RUSSELL MIDCAP	IWR
Global Index	
AUSTRALIA	EWA
BELGIUM	EWK
BRAZIL	EWZ
CANADA	EWC
DOW JONES EURO	FEZ
FRANCE	EWQ
GERMANY	EWG
HONG KONG	EWH
ITALY	EWI
JAPAN	EWJ
MEXICO	EWW
SINGAPORE	EWS
SOUTH AFRICA	EZA
SOUTH KOREA	EWI
SPAIN	EWP
TAIWAN	EWT
UNITED KINGDOM	EWU

Commodities and Metals	
GOLD	GLD
SILVER	SLV
U.S. OIL	USO
Financial Assets	
UST 20-YR BOND	TLT
UST 7-10 YR NOTE	IEF
UST 1-3 YR NOTE	SHY
UST TIPS	TIP
US CORP BOND	IQD
Technology Specialty	
BROADBAND	BDH
INTERNET	BHH
NANOTECH	PXN
NASDAQ 100 TECH	QTEC
SEMICONDUCTOR	IGW
SOFTWARE	IGV
Other Specialty	
ENERGY	XLE
HEALTHCARE	XLV
US OIL & GAS	IEO
FINANCIAL	XLF
US REAL ESTATE	IYR
UTILITIES	IDU

Funds that track indexes
Funds that track the actual prices of commodities (not companies)
Funds that track the prices of these financial assets (not companies)
Market baskets of stock in these industries (typically with an index)

... and this is just a tiny sample. Online ETF screeners are everywhere now, so it is easy to find a dedicated ETF for your investment needs.

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Index Long and Short ETFs

Index Long & Short ETFs

Index	Long	Short
DJIA	DIA	DOG
		DXD
S&P500	SPY	SH
	IVV	RSW
SPDR Small Cap	DSC	SBB
		SDD
S&P Mid Cap 400	MDY	MYY
		RMS
NASDAQ 100	QQQQ	PSQ
		QID
Russell 2000	IWM	RWM
		TWM

The Ultra-shorts are shown in yellow. These are 2X short ETFs.

There are also short ETFs in Treasuries and other YBFAs, currencies, many commodities, and nearly all classes and sectors of equities.

Increasingly, 401-K and other retirement accounts are letting you trade ETFs in addition to mutual funds.

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Index ETF Price Ratios

(September 21, 2011)

Index/Commodity	ETF	Ratio	Same-time quotes Index	ETF
DJIA	DIA	1/10	11,124.84	110.95
S&P500	SPY	1/10	1,166.75	116.63
RUSSELL 2000	IWM	1/10	644.64	66.59
NASDAQ 100	QQQ	1/40	2,258.30	55.38
GOLD	GLD	1/10	1,782.90	173.59
U.S. OIL	USO	N/A		32.81

To make their prices attractive, ETFs are typically priced at some even fraction of their indexes, as shown above. As can be seen by the prices, the ETFs don't track the indexes perfectly; there is usually an error of around 1%. Also over time as fees are deducted the ratio can decay (but not much).

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The S. Korean ETF (EWJ) in recent years

… and warning ... the Mysterious Orient!

Collateralizing ETFs

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All exchange traded funds collateralize their value by holding securities or commodities (depending of course upon the type of fund) in an amount roughly equal to the market value of the shares of the ETF in circulation. For example, the title slide showed a picture (and stated the value) of the physical gold that is held by StreetTrackers for their popular GLD ETF.

The collateral is typically held in the form of (1) a **market basket of securities** (such as those that would make up a global index fund), (2) a **futures or forward contract** or portfolio of futures contracts, including some for physical commodities (like USO), and (3) **inventories of physical commodities** (like GLD).

The method of securing collateral is always described in the ETF prospectus and is something you must review.

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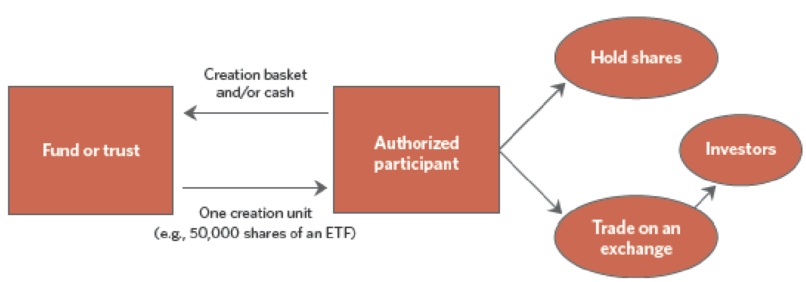
Releasing ETF shares through units

FIGURE 3.3

Creation of an ETF



Source: *Investment Company Institute,* **2010 Investment Company Factbook, 50th ed.**

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How the ETF enters the market

Problem: As general demand grows for the ETF, popularity has the potential to pull the price above the tracking price that the ETF is supposed to follow (and if the fund becomes less popular, the sell-off could push the price the tracking price below).

Usually the fund sells blocks of the ETF, often called units, to distributors who are essentially specialized market makers (often the same companies) at a price that is slightly advantageous to the markets. The distributors then sell off their inventory to the markets as demand grows. For liquid ETFs (not all are) arbitrage tends to keep the prices more or less in line.

The proceeds from these unit sales are invested in collateral. For the GLD ETF, StreetTraks requests payment in gold!

The collateralization of these ETFs is known to be responsible for surging demand in commodities like gold!

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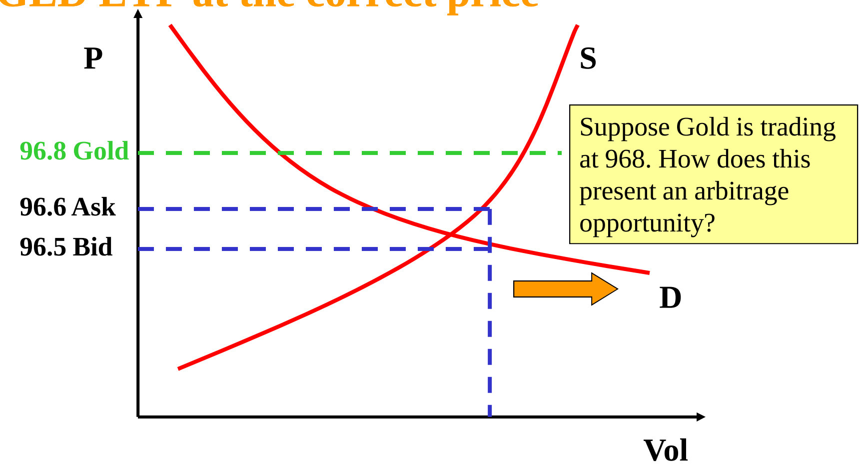
How arbitrage is supposed to keep the GLD ETF at the correct price



Important to understand: In this context, the demand curve represents investors who might buy this ETF at various prices. The supply curve *represents those who already own it* and are considering selling it.

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My nagging concern

Since all of these ETFs are collateralized with physical inventories, or more typically, ***near-term leveraged futures contracts***, I have to wonder if problems would arise if they had the quickly de-collateralize (de-leverage) if the market for the index or fund in question turned explosively negative.

So far, though, in one of the most volatile markets in history (late 2008 and 2009) no problems have arisen.

Some of the less popular funds have disappeared, but quietly and with order.

Occasional problems have arisen with rolling from the near-term futures contract to the next upon expiration (like USO).

Source: Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, Preliminary Finds Regarding the Market Events of May 6, 2010.

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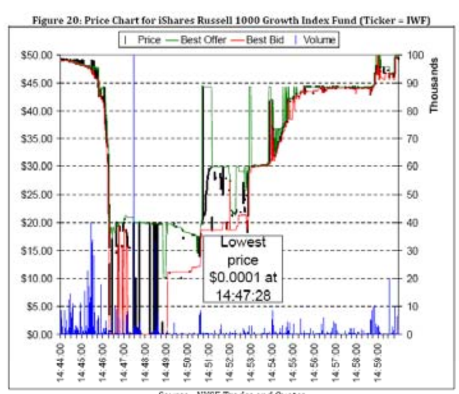
ETFs during the Flash Crash



… many stocks, like Accenture, went down to the stub quotes …

… but so did many of the ETFs, like IWM. They recovered, but if you had stops, you were royally @%$&*%@!

Shopping for ETFs

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- Because of flash crash, some advisors are warning against using these instead of mutual funds for sizeable long-term investments, *so*, if you are going to use them, do your research with data sheets (online) and prospectus!! Bottom line may be that these are not perfect replacements for mutual funds.

To check:

- The stated investment objective (of *exactly* what they claim to track).
- How the fund is collateralized
  - direct market basket of asset or asset
  - direct portfolio that matches an index
  - futures or other derivatives (**beware for LT investments**)
- Does the NAV track the investment objective? And
- Is the fund tracking the NAV, or is it at premium or discount, and how much?
- Compare the fund for ***daily volume*** to competing or similar popular funds – volume at a small fraction of a popular fund is typically a **red flag** especially for larger Long-Term investments.

Do homework 4 – it is important!!

Acceptable Mutual Fund Fees

Fee	What it is for	Acceptable Level
Expense ratio	This is the bottom-line fee, and is a summary of all fees *except loads* expressed as a percentage of the fund NAV. This is what you look for first.	For ***index funds***, 0.75% or below. For ***conventional equity funds***, like growth or value funds, 1% or below. For ***specialized sector funds***, 1.5% or below. For bond funds like ***treasury funds, investment grade bonds,*** 0.5% or below or even 0.25% or below.
Front-end Load	A sales charge for selling you the fund, taken from the balance when the fund is initiated.	0 - none
Back-end Load	Same as front-end load, except taken from the fund value at liquidation.	0 - none
Management fee	The fee assessed for the costs of managing the fund, a legitimate expense if reasonable. For funds with low fees, this fee will constitute the entire expense ratio, or nearly all of it.	Same as expense ratio.
12b-1 fee	An advertising fee (you pay for their advertising), typically 0.25%,	0 - none
CDSC, deferred sales charge, or any form of trailing commission.	Contingent Deferred Sales Charge, deferred sales charge, or anything that sounds like a trailing commission. These rip-off charges should be avoided at all costs. If in doubt, look for them in the prospectus.	0 - none

If you want to avoid high fees, you should shop online for funds offered by reputable fund families like Vanguard, Fidelity, and TRowePrice.

If you walk in the door of a bank or other financial institution that sells mutual funds, because you are dealing with a salesman that must be paid, you will almost always pays loads or CDSC charges of some kind, which will considerably reduce the value of your returns over time.

Because loads and CDSC are sales charges, funds with such charges do not have better lifetime performance than funds that do not make such charges. In fact, the fund that you pay a load for may be available online without the load.

The law requires full disclosure of fees and loads, so they are easy to find in the fund prospectus or online.

401-K mutual funds sometimes have high fees and loads, which is why if you leave a company you should consider an IRA rollover of your investment account into a fund with low fees.

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