Mutual Funds

Diversification
Professional management
More free time

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Consider investing in mutual funds

□Easy way to get started investing

□Only takes a small initial amount

☐You get professional management without spending lots of time investigating stocks

☐You get diversification you could never achieve on your own — lowers risk

Across industries and within industries

□Funds provide good historical returns

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What's a mutual fund?

☐ Mutual fund is an investment company (usually a corporation) that

- pools the funds of many like-minded investors
- invests their money in a diversified portfolio of stocks and bonds

Well-known mutual funds

□Vanguard Vanguard Vanguard

- Started by Jack Bogle as a thesis at Princeton
- Created the concept of index funds

□ Dreyfus **Dreyfus**

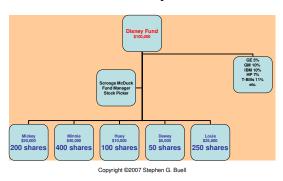
Started by Jack Dreyfus, Lehigh '35

□GlobalFunds LP **Grant**

Started by AJ Klatch, Lehigh IBE '06

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Where the \$money comes from



How the \$money is spent

- ☐Fund has \$100,000 (less fees earned by the fund managers) to invest in securities
- □Investment decisions are made by the fund's professional management team
- □5% in GE, 10% in GM bonds, 10% in IBM, 7% in HP, 5% in Coke, 11% in t-Bills, etc.
- ☐Interest and dividends are reinvested to buy more stocks and bonds or paid out
- □Value of the fund (hopefully) increases

\$money comes and goes

□Enter Goofy with his \$15,000 – he can buy 150 shares worth \$100 each (NAV)

- Some goes to buy additional securities
- Some goes to pay the fund managers' fees
- Some goes to pay off Minnie who is redeeming (selling) 50 of her shares

□No need to liquidate part of the fund's portfolio to pay off Minnie's redeemed shares

 Would not want to have to sell when the market is temporarily depressed

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Bigger than banks

□Over 8,300 mutual funds available, more than all the stocks listed on the NYSE and AMEX combined

☐Biggest financial intermediary (connects borrowers to lenders) – bigger even than commercial banks in terms of assets

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Management team

- ☐ Security analysts who decide what securities to buy and sell
 - Under-valued and over-valued securities
- ☐ Money managers who decide the composition of the portfolio
 - How much in low-grade bonds? In Asian stocks? In T-Bills? In blue-chip stocks?

☐ Traders who do the actual buying and selling
☐ Separation of duties is a safe-guard against

☐ Separation of duties is a safe-guard against fraud

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Three kinds of funds

□Open-end funds

- Load funds
- No-load funds

□Closed-end funds

□REIT's

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Open-end funds

□Vast majority of mutual funds are openend funds

- Can issue an unlimited number of shares
- Investors buy from the fund and sell back to the fund at Net Asset Value (NAV) = total assets/number of shares outstanding
- For the Disney Fund NAV = 100,000/1,000 = \$100 per share
- Need to hold some cash in case redemptions exceed new purchases

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Load or no-load

☐Most open-end funds are load funds

- They charge you a front-end fee (2-3% of purchase price) when you buy into the fund
- Normally no redemption-fee

□30% of all mutual funds are no-load

- No fee or load when buying or selling
- □All funds also charge a management fee (.5% to 3%) off the top eats into profits
- □Funds are required to disclose their fees

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Do some research

☐ Each fund is required to publish a 2 to 6 page "fund profile" in plain English detailing

- Its objectives
- Its risks
- Its fees and expenses

☐ If a load fund

Buy from a stock broker or directly from fund's sales force

☐ If a no-load fund

 Buy from a commercial bank or just mail a check to the fund

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Closed-end funds

- □Only about 25% of all mutual funds
- ☐ Have a **fixed** maximum number of shares
- ☐ You buy and sell on exchange or OTC with other investors and not with the fund itself you pay a commission to a broker just like with any other stock trade
 - No redemption of shares sell shares on exchange
 □No need for fund to keep idle cash
 □Fund can stay fully invested
 - Tend to be more aggressive in their investing don't have to sell at inopportune times
- ☐ Share price determined by supply and demand

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REIT's

- □Real Estate Investment Trusts
- ☐Mutual funds that own portfolios of mortgages and real estate investments
- ☐You can enjoy the benefits of real estate ownership without the headaches of property management
- □REIT's provide attractive dividend yields

More on REIT's

☐Three types of REIT's

- Property REIT's invest in shopping centers, hotels, office buildings
 - □Capital gains-oriented
- Equity REIT's invest in mortgages
 Income-oriented
- Hybrids invest in both properties and equities
- ☐ Income earned by REIT's is not taxed but income distributed by REIT's to investors is taxed as ordinary income
 - Unattractive at tax time

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Mutual fund philosophies

□Whatever you want, it's out there

- Specialize in stocks
- Specialize in bonds
- Strive for max capital gains
- Strive for max current income
- Appeal to speculators
- Appeal to tree huggers
- The big companies have a whole family of funds
- Allow you to move among their funds at little cost

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Types of funds

- $\, \, \square \, \text{Growth} \,$
- □ Aggressive growth
- □Value
- □Income
- □Balanced
- □Bonds
- ■Money market
- □International
- \square Index

Growth funds

□Objective: capital appreciation

Long-term growth and capital gains

☐ Invest mostly in common stocks with good long-term growth potential

□Tend to be aggressive and risky

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Aggressive growth funds

□Very speculative

□Invest in high-flying, small companies □Invest in very volatile companies

■ Big swings in stock prices

☐Sometimes buy stocks on margin (pay for a portion with debt)

■ Very risky – see next three slides

☐ Become more popular as market rises

May be too late to capture the upturn?

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Buying stocks with your money

□If P_0 = \$50 and you have \$5,000, you can buy 100 shares (5,000/50)

□Later, if $P_1 = 75 , your holdings are worth $$7,500 \ (100x75)$

 \square Your gain is 7,500 - 5,000 = 2,500

☐Your rate of return is 50%

■ 2,500/5,000 = 50% return

□Congratulations!

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Buying stock on margin

- ■You buy "on margin" by borrowing an additional \$5,000 at i = 5%, and if $P_0 = 50 , you can buy 200 shares (10,000/50)
- □Later if $P_1 = 75 , your holdings are worth \$15,000 (200x75)
- ☐Your gain is 15,000-5,000-5,000-interest (say \$125) = \$4,875
- ☐ Your rate of return is 4875 / 5000 = 97.5%
 - Example of leverage to magnify the gain

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Doesn't always work

- ☐But what if P₁'=\$25, your 200 shares are worth only 5,000 (200x25)
- ☐ Your loss is 5,000-5,000-5,000-125 = \$5,125 and 5,125/5,000=102.5% loss
 - Lose original \$5,000 and \$125 in interest
 - Example of **leverage** to magnify the loss
 - Lender (broker) won't lose you lose

 □Lender will give you a "margin call" as the market is dropping
 to ensure that the lender won't lose

 □Either pay more money or else lender will sell your securities
- □No matter who does it, buying on margin (leverage) is dangerous

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Value funds

- ☐ Seek to buy undervalued stocks that are fundamentally sound
- □Low price to earnings (P/E) ratios, high dividend yields, moderate debt
- ☐ Historically are very competitive with growth and aggressive growth funds
 - But are safer since their underlying holdings are safer – good, solid companies
- □Good mutual fund choice

Equity-income funds

□ Emphasis on high current income

• Capital gains are nice but not primary objective

☐ Buy high-yielding common stocks

- Stock's yield = dividend / current price
- DPS = \$4.00 and P₁ = \$50; yield = 4/50 = 8%

□ Capital preservation is a goal

- Don't want to lose the investors' money
- Invest in high-grade companies

□Low risk way of investing in common stock

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Balanced funds

- ☐ Maintain balanced portfolio of stocks and bonds
- □Stocks provide long-term capital gains
- □Bonds provide high current income
- ☐Relatively low risk mutual funds seek high quality investments

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Bond funds

□Invest in fixed income securities - bonds

- ☐ Mainly interested in high current income
- ☐Three advantages of investing in a bond fund rather than buying bonds directly
 - Fund provides diversification hard to do on your own since P_{bond} typically is \$1,000 or even \$5,000
 - Fund automatically reinvests bond coupons
 - Fund provides better liquidity

You want bonds? We got bonds!

□ Available bond funds specializing in:

- Government bonds
- High-grade corporate bonds
- High-yield corporate bonds (aka "junk bonds")
- Municipal bonds

□Provide tax-free income

□Could be high-grade or high-yield

☐ If interest rates rise, value of fund drops

Value of the fund's bonds decline as rates rise

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Money market funds

□Buy money market securities

 Short-term with maturities < 1 year, often only a few months

□Look for attractive short-term rates

- US Gov't T-bills
- Commercial paper (short-term IOU's of top companies in \$100,000 denominations)

☐Some seek tax-exempt munies of 30 to 90 days maturity

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International and global funds

□Invest your money in foreign securities

■ Some specialize by region □Mexico, Europe, Pacific Rim

□International funds – just foreign securities

□Global funds – foreign and US companies

Greater diversification

☐Stock funds, bond funds, aggressive funds, balanced funds, etc.

□Considered high risk - so do your research

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Index funds - different animal

☐ Mutual funds that buy and hold portfolios identical to those held in market indexes

- For example, a fund might hold the exact same 500 stocks as the S&P 500 in the same
- ☐ Index funds try to match the market rather than beat the market - sounds like underachievers?
- □Why an index fund? sobering statistic
 - In a given year, only about 20% of managed funds beat the market, but they all still charge high fees
 - Index funds beat the other 80% of managed funds and have very low cost structures

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Advantages of index funds

■Buy and hold strategy

- Only change portfolio when index drops a company and replaces it with a new one
- · Essentially the fund is run by a computer that matches fund's holdings to the target index: □S&P 500, S&P Mid Cap 400, Russell 2000, Wilshire 5000 or growth indexes or even bond indexes
- Very low cost investment management □Not paying high fees to incompetent managers

☐ Another advantage is their stability

• Little *realized* capital gains so produce little taxable income each year - only at share redemption

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Picking 1 to 3 out of 8000

- ☐ What are your investment objectives?
 - How well do you want to eat vs. how well do you want to sleep? ☐ Can you tolerate high risk as you go for aggressive growth? ☐ Are you a tree-hugger who wants predictable, steady income with
 - ☐ Would you be comfortable with volatile returns?
- ☐ Look at a potential fund's profile for its objectives
- □ WSJ, Barron's, Money, Fortune, Forbe's provide data and info on mutual funds
- ☐ Value Line Mutual Fund Survey and Morningstar's Mutual Funds provide tons of stats on the big funds

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Still picking

■Whittle decision down to 2 to 3 types of funds

□Specify constraints

- No-load funds
- Tax-free income
- No overseas investments
- Research the past performance of the funds you're interested in

□Funds required to report their performance in Summary of Income and Capital Changes

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Measuring fund performance

☐Three potential sources of income:

□ Dividend distributions

 Fund may choose to pay out dividends and interest it has received – taxed as ordinary income

□ Capital gains distributions

 Fund may choose to pay out some of its net capital gains – taxed as capital gains

☐ Mutual fund price appreciation

NAV rises – unrealized capital gains – no taxes until sold

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Yield or return on a fund

 $\begin{aligned} & \textit{dividends} = .55, \textit{capital gains} = 1.75, \textit{NAV}_1 = 24.47, \textit{NAV}_2 = 29.14 \\ & \textit{Yield} = \frac{\textit{dividends} + \textit{capital gains} + \textit{change in NAV}}{\textit{average NAV}} \\ & \textit{Yield} = \frac{.55 + 1.75 + (29.14 - 24.47)}{\underbrace{(24.47 + 29.14)}_{2}} = 26.02\% \quad \textit{approximate} \\ & \textit{Yield} : \quad 24.47 = \frac{(.55 + 1.75 + 29.14)}{(1 + r)^1} \quad r = 28.48\% \quad \textit{true yield} \\ & .55 + 1.75 + 29.14 = 31.44 \Rightarrow FV, -24.47 \Rightarrow PV, 1 \Rightarrow n, i = 28.48\% \end{aligned}$

Summary

- ☐ Historically load funds have NOT outperformed no-load funds
 - Better off going with a no-load fund
- □ Even great funds have bad years you're in it for the long haul
- ☐ Most stock & bond funds fail to beat the market
- $\hfill \Box$ You do not need a broker to buy a mutual fund
- ☐Mutual fund names are often misleading

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Recommendations

- ☐ Over the long-run, returns on stock funds should exceed returns on bond funds
- ☐ Invest in mutual funds that buy common stocks and not fixed income bonds
 - Index funds are a possibility
 - As you get closer to retirement, move into safer, bond funds
- ☐ While you're still young, go for as much risk as you can tolerate on money you don't need
 - Don't invest house and car down payments in risky funds
 - Might end up driving your used Yugo and living in an apartment for a few more years
 - Might end up living in your used Yugo
