Personal Finance: Another Perspective

Investing 8: Selecting Financial Assets

Updated 2018-10-30
Objectives

• A. Understand why you should wait to pick stocks (until your assets have grown substantially)
• B. Understand where to find important information on mutual funds and stocks
• C. Understand what makes a good mutual fund
• D. Understand the big deal about index funds
• E. Understand taxes on financial assets
• F. Understand how to pick the mutual/index funds for your portfolio
• G. Understand plans and strategies for picking financial asset
A. Understand why you shouldn’t be picking stocks until later

• Why have we not yet talked about picking stocks?
  • There are five major reasons why we have not talked about picking stocks. Picking single stocks initially violates the following investing principles:
    • 1. Principle 3: Stay Diversified
      • Picking single stocks violates the principle of diversification, especially when you are just beginning to build your portfolio
        • With a small portfolio, it is difficult to achieve acceptable diversification with limited numbers of stocks
Stock Selection Strategies (continued)

• 2. Principle 4: Invest Low-cost and tax-efficiently
  • Investing in stocks when you have a small portfolio (less than $500,000) is very expensive.
    • Transactions costs for purchasing stocks are among the highest of any major asset class

• 3. Principle 6: Know What You Invest In
  • Picking stocks when you have not developed the knowledge and skill base necessary to evaluate stocks is very risky, bordering on speculation or gambling
    • Most (and this includes Finance students) have not yet developed the skills needed to make good stock selection decisions for a portfolio
Stock Selection Strategies (continued)

4. Principle 8: Don’t spend too much time trying to “Beat the Market”
   - Picking stocks is very difficult and challenging task
     - There is so much more to be learned about valuation that can’t be taught in a single class.
     - I have given only the very basics in this course

5. Stock selection is not required to have a successful investment portfolio
   - While it is intellectually challenging to select stocks, you can generally improve returns and reduce risk more by properly selecting asset classes.
     - You may never need to buy an individual stock
Stock Selection Strategies (continued)

• Remember, since analyzing companies is not likely going to be many of your daytime jobs, it will be in most of your best interests to develop a “sleep-well portfolio” plan and follow it. This is done by:
  • Writing and following your Investment Plan
  • Maintaining a generally passive strategy for stock selection and active strategy for asset allocation
  • Enjoying your family and friends
  • Doing well in your day job
  • Making a difference in your families, your church, and in the communities where you live
Questions

• Any questions on why you shouldn't be picking stocks until later?
B. Understand where to find Information on Mutual Funds

• Where do you find mutual fund and stock information?
  • Stockbrokers
  • Mutual Fund Supermarkets
    • Schwab, Fidelity, TD Waterhouse
  • Mutual Fund Monitoring companies
    • Morningstar, Lipper
  • Financial Websites and the Financial Press
    • Yahoo, MSN Money, CNN Money
    • Kiplinger’s, Smart Money, AOL Finance
  • BYU Libraries
    • HBLL has great information – See TT10
Mutual Fund Information (continued)

• What is the best format for the information?
  • In a database of consistent, pertinent information that is updated on a regular basis
  • The database must be directly searchable with a consistent framework and structure

• One example:
  • Morningstar
    • Note that this is just one of the many available databases. By choosing this database, I am neither implying or endorsing Morningstar (although I think they are pretty good). It is just that it is available free in the library
C. Understand How to Pick a Good Mutual Fund

• What is the process to pick mutual funds?
  1. Determine the asset classes needed for your Plan and choose the appropriate benchmarks
  2. Determine the key parameters for that asset class, i.e., principles, such as costs, fees, diversification, etc. to identify potential funds
  3. Using a database such as Morningstar, set those parameters, and evaluate potential candidates using Using Morningstar to Select Funds (LT07)
  4. Evaluate each candidate and select the funds. Mutual Fund Worksheet (LT7B) maybe helpful
  5. Purchase the funds and monitor performance carefully
What Makes A Good Mutual Fund?

• What are the criteria for a good mutual fund?
  1. Good diversification
  2. Low cost
  3. Tax efficiency
  4. Low turnover
  5. Low un-invested Cash
  6. No manager style drift
  7. Small (or positive) tracking error

Please note that these slides refer to Morningstar Pages for specific funds. The first title is the Morningstar Button. The second is the tab (separated by a colon if available), and the third is the heading (separated by a dash). For example, Portfolio: Portfolio – Market Capitalization, refers to the Market Capitalization heading from the Portfolio tab of the Portfolio button.
## Mutual Fund Selection Worksheet (TT07B)
### What Makes a Good Mutual Fund?
#### Fall 2017

<table>
<thead>
<tr>
<th>Fund Ticker:</th>
<th>Morningstar Tab:</th>
</tr>
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<tbody>
<tr>
<td>Category:</td>
<td>Quote:</td>
</tr>
<tr>
<td>Asset Size:</td>
<td>Quote:</td>
</tr>
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<td>Index Fund:</td>
<td>Quote:</td>
</tr>
<tr>
<td>Minimum Purchase:</td>
<td>Quote:</td>
</tr>
</tbody>
</table>

### 1. Low Un-invested Cash
- Cash Percentage: Quote:

### 2. No Manager Style Drift
- Style Drift: Portfolio: Summary

### 3. Diversification
- Total Holdings: Portfolio: Holdings
- Assets in top 10%: Portfolio: Holdings

### 4. Low Turnover
- Turnover: Portfolio: Holdings
- Category Avg.: Portfolio: Holdings

### 5. Low Cost
- No-load Fund: Expense
- Initial (front) Load: Expense
- Deferred Load: Expense
- Management Fee: Expense
- MF Category Avg.: Expense
- 12-b1 Fee: Expense

### 6. Tax Efficiency
- Tax-adj Return: Tax
- Avg. rank in Category: Tax

### 7. Small (or positive) Tracking Error
- Avg. Tracking Error: Performance: +/- Cat.

### 8. Performance
- Rank in Cat.: Performance: R in Cat.

### 9. Other Factors
- Starting Year: Management
- Manager Tenure: Management
1. Good Diversification

• Diversification is your key defense against market risk
  • Stay diversified at all times. Pick a fund with many companies in their portfolios within each asset class
    • Diversification your primary defense against things that might go wrong in investing
  • Remember where you are in the hourglass
    • Avoid sector (industry) funds, individual stocks or concentrated portfolios of any kind until you have sufficient education, experience, and assets
  • And even then, keep that percentage of these assets small in relation to your overall assets
Where do you find Diversification?

- Diversification by:
  - Numbers (Portfolio: Holdings)
    - Total: Number of Stock, Bond, and Other Holdings
    - Concentration: Assets in top 10 holdings
  - Type (Portfolio: Summary)
    - Type of holdings (stocks, bonds, cash)
  - Location (Portfolio: Summary)
    - World Regions: Location of companies invested in by geographic area
  - Sector Weightings (Portfolio: Summary)
    - Sector (or industry) weightings
Good Diversification

Source: All Morningstar charts are from Morningstar Library Edition, 2017-06-26
2. Low Cost

• Invest low cost
  • In a world where investment returns are limited, investment costs of any kind reduce your returns
  • Invest in no-load mutual funds
    • You should rarely (if ever) pay a sales load of any kind (front end, level load, 12-b1, etc.).
    • Rear-end loads are OK, since you are long-term investor, as long as the loads are less than 180 days
  • Keep management fees to the lowest possible within the sector
• Remember: A dollar saved is a dollar you can earn more money with (and that has already been taxed)
Where do you find costs?

• Costs (Expense)
  • Expense Relative to Category
    • This is a key ratio: Total Expense Ratio
      • Compare that to your category average
  • Maximum Sales Fees (or Loads)
    • Initial
    • Deferred
    • Redemption
  • Other Fees/Expenses
    • Administrative costs
    • Management fees
    • 12b-1 Fees
Low Cost (Fees and Expenses)

Vanguard 500 Index Investor — VFINX

### Fee Level Comparison Group
- Large Cap No Load
- Low

### Expense Relative to Category — VFINX

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<thead>
<tr>
<th></th>
<th>Fund</th>
<th>Category (Large Blend)</th>
<th>Fee Level Comparison Group Median</th>
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#### History

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### Maximum Sales Fees — VFINX

- Initial
- Deferred
- Redemption

### Total Cost Projections — VFINX

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<th>Per 10K</th>
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<td>3 Years</td>
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<td>5 Years</td>
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<tr>
<td>10 Years</td>
<td>179</td>
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</tbody>
</table>

### Other Fees/Expenses — VFINX

- Net Expense Ratio: Annual Report — 12/31/2016: 0.14%
- Net Expense Ratio: Prospectus — 04/27/2017: 0.14%
- Management Actual: 0.12%
- Management Maximum: 0.12%
- 12b-1 Actual: —
- Administrative Maximum: —

Source: Morningstar 2017
3. Tax Efficiency

• Invest in taxable funds with an eye to obtaining high returns while keeping taxes low
  • Taxes reduce the amount of money you can use for your personal and family goals
  • Watch the historical impact of taxes, for it will likely continue

• Remember: It is not what you earn, but what you keep after taxes that makes you wealthy
Where do you find Tax Efficiency?

• Tax analysis
  
  • Pretax Return: Return before taxes
  • Tax-adjusted Return: Return after taxes
  • Tax Cost Ratio: The percent of nominal Fund return attributable to taxes, assuming the fund is taxed at the highest rate. If a fund had an 8.0% return, and the tax cost ratio was 2.0%, the fund took home \((1 + \text{return}) \times (1 - \text{tax cost ratio}) - 1\) or \((1.08 \times .98) - 1\) or 5.84%
  
  • Potential Cap Gains Exposure: An estimate of the percent of a funds asset’s that represent gains. If this is high, the probability is high that these may come to the investor as capital gains
## Tax Efficiency

### Vanguard 500 Index Investor VFINX | ★★★

<table>
<thead>
<tr>
<th>Tax Analysis</th>
<th>Since 1-Mo</th>
<th>3-Mo</th>
<th>6-Mo</th>
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<th>1-Yr</th>
<th>3-Yr</th>
<th>5-Yr</th>
<th>10-Yr</th>
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<td><strong>% Rank in Category</strong></td>
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<td><strong>Tax Cost Ratio</strong></td>
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<td>VFINX</td>
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</tbody>
</table>

(05/31/2017)

Currency is displayed in USD.
* Post tax returns are load adjusted.

6b is the average of 1 yr -15 yr rank in category

Source: Morningstar 2017
4. Low Turnover

- Keep turnover low, as it’s a proxy for fund expenses and taxes
  - The costs associated with turnover are hard to quantify and may not be disclosed in the prospectus. These costs include commissions, bid-ask spreads, and market impact
  - Each transaction generates a taxable event for you, and these cumulative costs can be very expensive.
    - Stick to funds with the low turnover (and low management fees), as they generally have lower costs and are more tax efficient as well
Where do you find Turnover?

• Turnover
  • Annual Turnover (Portfolio: Holdings, Quote)
    • This is the Fund turnover
  • Category Average Turnover (Portfolio: Holdings)
    • This is the turnover of Fund’s in the same asset class or category
Low Turnover
5. Low Un-invested Cash

- High cash levels are drags on performance. Keep un-invested cash low
  - Many funds hold cash to fund potential redemptions, or as part of their investment policy, which are drags on performance
  - Choose funds that are fully invested (95%-99% depending on the asset class and fund size) in the market segment that you are targeting
    - Do not pay others to manage cash
    - Please note that some frictional cash is OK though for open-end mutual funds
Where do you find Un-invested Cash?

• Un-invested Cash (or cash drag)
  • Percent of cash in the fund (Snapshot - Asset Allocation)
Un-invested Cash

Source: Morningstar 2017

Vanguard 500 Index Investor VFINX

Asset Allocation

<table>
<thead>
<tr>
<th>Type</th>
<th>% Net</th>
<th>% Short</th>
<th>% Long</th>
<th>Benchmark</th>
<th>Cat Avg</th>
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</thead>
<tbody>
<tr>
<td>Cash</td>
<td>0.45</td>
<td>—</td>
<td>0.45</td>
<td>0.00</td>
<td>1.79</td>
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<tr>
<td>US Stock</td>
<td>98.64</td>
<td>98.64</td>
<td>99.08</td>
<td>94.60</td>
<td>3.15</td>
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<tr>
<td>Non US Stock</td>
<td>0.81</td>
<td>—</td>
<td>0.82</td>
<td>—</td>
<td>0.24</td>
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<tr>
<td>Bond</td>
<td>0.01</td>
<td>—</td>
<td>0.01</td>
<td>0.00</td>
<td>0.16</td>
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<tr>
<td>Other</td>
<td>0.00</td>
<td>—</td>
<td>0.00</td>
<td>0.00</td>
<td>—</td>
</tr>
</tbody>
</table>

As of 05/31/2017
6. No Manager Style Drift

• Make sure the managers investment style remains constant
  • Investment fund managers have no authority to change the asset class
    • If you purchase a small cap fund, the manager should purchase small cap shares
  • The fund's prospectus should clearly define the market, size company, and portfolio style tilt
    • If you are looking for a domestic small value fund, screen for funds with the all of their assets invested in the U.S., the smallest average company size, and the highest book-to-market (or lowest price-book) ratios
Where do you find Manager Style drift?

- Managers Style
  - Managers Style Box (Portfolio: Summary)

- The style box should not change over time

Source: Morningstar 2012
No Style Drift

Source: Morningstar 2017
7. Low (or positive) Tracking Error

- Tracking error should be small
  - Tracking error is the historical difference between the return of a fund (i.e. a mutual fund) and its specific market/sector benchmark or index.
  - The smaller the tracking error, the better the performance of the Index fund relative to the benchmark
    - However, you won’t complain if the tracking error is positive (i.e., your fund had higher returns than the index or benchmark)
Where do you find Tracking Error?

- **Tracking Error (Performance: Growth of $10k)**
  - Returns. Fund annual returns
  - +/- S&P 500 TR. This is tracking error versus the S&P 500 Index (+/- Index). Note that Morningstar’s choice of index is sometimes very poor, i.e., using MSCI EAFE for emerging markets
  - +/- Category. Tracking Error versus the Category. In this case it is large cap blend. This is a better check on performance—versus all funds in a similar category
  - % Rank in Category (Number is in top %--the lower the number the better)
Tracking Error

Source: Morningstar 2014
Mutual Fund Information (continued)

• Lets look up some information

• www.byu.edu

• See Using Morningstar to Select Mutual Funds (LT7) using the HBL Library or the Internet
Questions:

• Any questions on what makes a good mutual fund?
  • Websites to review:
    • www.morningstar.com
    • www.Indexfunds.com
    • www.cnnmoney.com
    • http://finance.yahoo.com
    • www.fool.com
D. Understand the Big Deal of Index Funds

• What are index funds?
  • Mutual funds or ETFs which hold specific shares in proportion to those held by an index
    • Their goal is to match the benchmark performance
  • Why have they come about?
    • Investors are concerned that most actively managed funds have not been able to beat their benchmarks after all fees, taxes and costs.
      • So instead of trying to beat an index, investors accept the index return and risk
    • Interestingly, index funds have tended to outperform most actively managed funds
Index Funds (continued)

• Why have index funds and ETFs grown so quickly?
  • There is no correlation between last year’s winners and this year’s winners for actively managed funds
  • Actively managed funds tend to reduce performance through excessive trading, which also generates taxes for the investor
  • Actively managed funds generally have higher management fees which must be overcome through higher returns (18 basis points for an index fund versus 80-250 basis points for an actively fund)
  • It is very difficult to beat these funds on a consistent basis after all fees and taxes
Index Funds (continued)

How have most actively managed funds done?

Index Funds (continued)

• Jason Zweig, a senior writer for *Money Magazine* commented:
  • With an index fund, you're on permanent auto-pilot: you will always get what the market is willing to give, no more and no less. By enabling me to say "I don't know, and I don't care," my index fund has liberated me from the feeling that I need to forecast what the market is about to do. That gives me more time and mental energy for the important things in life, like playing with my kids and working in my garden (Jason Zweig, “Indexing Let’s You Say Those Magic Words,” *CNN Money*, August 29, 2001).
Index Funds (continued)

• Warren Buffet commented:
  • By periodically investing in an index fund, the know-nothing investor can actually outperform most investment professionals. Paradoxically, when 'dumb' money acknowledges its limitations, it ceases to be dumb (Warren Buffett, *Letter to Berkshire Hathaway Shareholders*, 1993).
  
  • Doing reasonably well investing in stocks is very, very easy. Buy an index fund, preferably over time, so you end up owing good businesses at a reasonable average price. If you own a cross-section of American businesses, you are going to do well (“Warren Buffet: Top 3 Investment mistakes to avoid,” USA Today, October 26, 2013).
Insights on Indexing?

1. Most actively managed funds and brokerage accounts will under-perform index funds in the long run after all taxes, costs and fees (according to research)

2. The competition in stock-market research is intense and will get more competitive going forward, making markets more efficient and indexing more attractive

3. Market indexing or “passive investing” is a free-ride on the competition

4. Indexing is a time-efficient way to invest due to eliminating the need to evaluate individual securities

Suggestion: For broader diversification, choose an index fund that has more members or a “total market” index fund
Indexing and Mutual Funds?

• Reasons to not index
  • Passive investing is boring
  • Picking stocks can be intellectually challenging
  • Investment war stories are fun to share with friends
  • Doing nothing about your investments is unnerving

• Reasons to index
  • Immediate diversification
  • Superior long-run performance
  • Tax efficient
  • Takes very little time
Questions?

Any questions on indexing and why it is important?
E. Understand Taxes on Financial Assets

• All investment earnings are not created equal. There are different taxes and tax rates on different types of financial assets. Some have preferential federal, and others preferential state tax rates.

• Taxes fall under three main headings: a. Stocks, b. Bonds and savings vehicles, and c. Mutual funds (which include index funds and exchange traded funds).
  • Note that each of these assets are taxed at the federal level and may be taxed at the state and local level as well, depending on your state of residence.
  • Many are taxed at your marginal tax rate (MTR), which is your highest tax rate, the tax on each additional dollar of income.
Taxes on Financial Assets (continued)

• A. Stocks (or Equities)
  • There are two main types of taxes on stocks: capital gains taxes and taxes on dividends
  • 1. Capital gains are realized earnings from selling a stock. They are divided into short-term and long-term
    • Short-term capital gains are from the sale of a stock where the stock was held for 366 days or less. It is taxed at your marginal rate
    • Long-term capital gains are from the sale of stock where the stock is held 366 days or more. It is taxed at a preferential federal tax rate
Taxes on Financial Assets (continued)

2. Stock dividends
   - Stock dividends are of two types, qualified or ordinary/not qualified
     - A qualified dividend is a dividend paid by a U.S. corporation where the investor held the stock for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date (see Taxes on Securities Earning Including Qualified Dividends (LT32))
     - An ordinary dividend is a dividend that is not qualified, i.e., you have not held the stock for a long enough time period to get the Federal preferential tax rate
Taxes on Financial Assets (continued)

• B. Bonds and Savings Vehicles
  • Bond taxes are mainly two types: capital gains taxes and taxes on interest/coupon payments
    • 1. Capital gains include both short-term and long-term capital gains, and are the gains received from the realized sale of the bonds that are related to price appreciation
    • 2. Interest/coupon payments are payments received as part of the contractual agreement to receive interest payments
      • Bonds which have preferential interest tax treatment, i.e., muni’s and Treasuries, must still pay capital gains taxes
Taxes on Financial Assets (continued)

• C. Mutual Funds
  • Mutual funds are pass through vehicles, which means that taxes are not paid at the Fund level but are passed through to the individual shareholders who must pay the taxes.
  • Mutual fund taxes are mainly capital gains, stock dividends and interest/coupon payments. They are handled the exact same way as the taxes for stocks and bonds discussed earlier.
Types of Investment Earnings:

**Stocks:**

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<th>Federal Tax Rate</th>
<th>State Tax Rate **</th>
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<tr>
<td>Short-term capital gains</td>
<td>Marginal Tax Rate</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Long-term capital gains *</td>
<td>15% or 0%</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Long-term capital gains (TI&gt;$450MFJ) *</td>
<td>20% +</td>
<td>Marginal Tax Rate</td>
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<td><strong>Dividends</strong></td>
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<td>Stock Dividends: Qualified ***</td>
<td>15% or 0%</td>
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<td>Stock Dividends: Ordinary/Not Qualified</td>
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**Bonds and Savings Vehicles:**

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<tr>
<td>Long-term capital gains *</td>
<td>15% or 0%</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Long-term capital gains (TI&gt;$450MFJ) *</td>
<td>20% +</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td><strong>Interest/Coupon Payments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Payments</td>
<td>Marginal Tax Rate</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Treasury-bills/bond Interest</td>
<td>Marginal Tax Rate</td>
<td>0%</td>
</tr>
<tr>
<td>Muni-bond Interest (bonds from your state)</td>
<td>0%</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Muni-bond Interest (bonds from another state)</td>
<td>0%</td>
<td>Marginal Tax Rate</td>
</tr>
</tbody>
</table>

**Mutual Funds (Pass Through Vehicles):**

<table>
<thead>
<tr>
<th></th>
<th>Federal Tax Rate</th>
<th>State Tax Rate **</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distributions:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Gains for Stocks/Bonds/Municipals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term capital gains</td>
<td>Marginal Tax Rate</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Long-term capital gains *</td>
<td>15% or 0%</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Long-term capital gains (TI&gt;$450MFJ) *</td>
<td>20% +</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td><strong>Stock Dividends</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock: Dividends: Qualified ***</td>
<td>15% or 0%</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Stock Dividends: Not Qualified/Ordinary</td>
<td>Marginal Tax Rate</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td><strong>Interest/Coupon Payments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bond: Interest</td>
<td>Marginal Tax Rate</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Treasury-bills/bond Interest</td>
<td>Marginal Tax Rate</td>
<td>0%</td>
</tr>
<tr>
<td>Muni-bond Interest (bonds from your state)</td>
<td>0%</td>
<td>Marginal Tax Rate</td>
</tr>
<tr>
<td>Muni-bond Interest (bonds from another state)</td>
<td>0%</td>
<td>Marginal Tax Rate</td>
</tr>
</tbody>
</table>

---

Chart 1. 2018 Tax Brackets, Capital Gains and Dividends, and Medicare Tax Rates

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tr>
<td>Beginning</td>
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<td>Jointly</td>
<td>Household</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>10%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td>12%</td>
<td>9.5</td>
<td>19.1</td>
<td>13.6</td>
<td>0%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td>22%</td>
<td>38.6</td>
<td>77.2</td>
<td>38.7</td>
<td>15%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>17.9%</td>
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<tr>
<td>24%</td>
<td>82.5</td>
<td>165.0</td>
<td>82.5</td>
<td>15%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>17.9%</td>
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<tr>
<td>32%</td>
<td>157.5</td>
<td>315.0</td>
<td>157.5</td>
<td>15%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>17.9%</td>
</tr>
<tr>
<td>AGI</td>
<td>200.0</td>
<td>250.0</td>
<td>200.0</td>
<td>15%</td>
<td>3.8%</td>
<td>3.8%</td>
<td>22.6%</td>
</tr>
<tr>
<td>35%</td>
<td>400.0</td>
<td>450.0</td>
<td>400.0</td>
<td>200.0</td>
<td>15%</td>
<td>3.8%</td>
<td>3.8%</td>
</tr>
<tr>
<td>AGI</td>
<td>425.8</td>
<td>479.0</td>
<td>452.4</td>
<td>20%</td>
<td>3.8%</td>
<td>3.8%</td>
<td>27.6%</td>
</tr>
<tr>
<td>37%</td>
<td>500.0</td>
<td>600.0</td>
<td>500.0</td>
<td>20%</td>
<td>3.8%</td>
<td>3.8%</td>
<td>27.6%</td>
</tr>
</tbody>
</table>

---

Types of Investment Earnings:

**Stocks:**

- **Capital Gains**
  - Short-term capital gains: Marginal Tax Rate
  - Long-term capital gains *: 15% or 0%
  - Long-term capital gains (TI>$450MFJ) *: 20% +

**Dividends**

- Stock Dividends: Qualified ***: 15% or 0%
- Stock Dividends: Ordinary/Not Qualified: Marginal Tax Rate

**Bonds and Savings Vehicles:**

- **Capital Gains**
  - Short-term capital gains: Marginal Tax Rate
  - Long-term capital gains *: 15% or 0%
  - Long-term capital gains (TI>$450MFJ) *: 20% +

- **Interest/Coupon Payments**
  - Interest Payments: Marginal Tax Rate
  - Treasury-bills/bond Interest: Marginal Tax Rate
  - Muni-bond Interest (bonds from your state): 0%
  - Muni-bond Interest (bonds from another state): 0%

**Mutual Funds (Pass Through Vehicles):**

- **Distributions:**
  - **Capital Gains for Stocks/Bonds/Municipals**
    - Short-term capital gains: Marginal Tax Rate
    - Long-term capital gains *: 15% or 0%
    - Long-term capital gains (TI>$450MFJ) *: 20% +
  - **Stock Dividends**
    - Stock: Dividends: Qualified ***: 15% or 0%
    - Stock Dividends: Not Qualified/Ordinary: Marginal Tax Rate
  - **Interest/Coupon Payments**
    - Bond: Interest: Marginal Tax Rate
    - Treasury-bills/bond Interest: Marginal Tax Rate
    - Muni-bond Interest (bonds from your state): 0%
    - Muni-bond Interest (bonds from another state): 0%
Taxes on Financial Assets (continued)

• **Summary Definitions and Notes on Taxes**

• 1. Short-term capital gains are gains where shares/bonds that were sold were held for one year or less

• 2. Long-term capital gains are gains where shares/bonds that were sold were held more than one year

• 3. Capital gains and dividend taxes are determined by your taxable income and adjust gross income rates. If your AGI is above a specific rate, your Medicare taxes increase.

• 4. State tax rates vary state to state, while some states do not have a state income tax

• 5. Qualified dividends are dividends which are paid by a U.S. corporation and you held the stock for more than 60 days during the 121-day period that begins 60 days before the ex-dividend date (see the Qualified Dividends tab on TT32 to see if your dividends qualify for the lower rate)
Questions

• Any questions on taxes on financial assets?
F. Understand How to Pick Your Mutual Funds

• The process to pick YOUR mutual funds is:
  1. Determine the asset classes needed for your Plan and choose the appropriate benchmarks - Done
  2. Determine what makes a good mutual fund and which asset classes you need exposure - Done
  3. Using a database program, set those principles and evaluate each of the potential mutual funds - Done
  4. Select the best mutual funds using Using Morningstar to Select Funds (LT07) and Mutual Fund Selection Worksheet (LT7B) (with hints on the “Filled in” tab)
  5. Now put your Investment Plan together
Picking Your Mutual Funds (continued)

• Assume your asset class was Large Cap, and you choose SWPPX for your fund. What next?
  • 1. Go to Morningstar, and type the ticker “SWPPX” in upper right box
    • Where it says PDF Report (if available), print off this report. If there is no PDF Report, just print off the entire “Quote” Page. Include these in your Investment Plan as Exhibit III. Fund Support

• If you need help, see Mutual Fund Selection Worksheet (LT7B),Filled In for possible fund ideas and tickers
Picking Your Mutual Funds (continued)

2. Download the Investment Process Spreadsheet (LT13)
   - For most, the first 4-10 asset tab will be sufficient.
   - Put in your Salary and emergency fund goal and percentage.
     - It will automatically determine your target portfolio fund size (your emergency fund amount divided by your bonds/cash percentage).
     - Assuming a salary of $60,000 and a 25% allocation to bonds and cash. Your target portfolio size would be $100,000.

<table>
<thead>
<tr>
<th>Annual Salary</th>
<th>60,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Fund (3-6 months of annual salary)</td>
<td>15,000</td>
</tr>
<tr>
<td>Emergency Fund Goal</td>
<td>25,000</td>
</tr>
<tr>
<td>Initial Target Portfolio $ Goal</td>
<td>100,000</td>
</tr>
<tr>
<td>Current Portfolio Value</td>
<td>9,000</td>
</tr>
</tbody>
</table>
Picking Your Mutual Funds (continued)

3. Add data to the Investment Process Spreadsheet (LT13)
   - Put in your asset classes and benchmarks, and percentages in Panel I. Use the dropdown boxes for asset classes and benchmarks
   - Then put in the tickers and Fund names

Panel I. Asset Allocation Targets

<table>
<thead>
<tr>
<th>Phase</th>
<th>Asset Class / Ticker</th>
<th>Investment Benchmark / Financial Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Emergency Fund</td>
<td>Bonds/Cash</td>
<td>Barclay's Aggregate</td>
</tr>
<tr>
<td></td>
<td>THIOPX</td>
<td>Thompson ST Bond fund</td>
</tr>
<tr>
<td>II. Core:</td>
<td>Large Cap</td>
<td>S&amp;P 500 Index</td>
</tr>
<tr>
<td></td>
<td>SWPPX</td>
<td>Schwab 500 Index Fund</td>
</tr>
<tr>
<td>III. Diversify 1:</td>
<td>Small Cap</td>
<td>Russell 2000 Index</td>
</tr>
<tr>
<td></td>
<td>NAESX</td>
<td>Vanguard Small Cap</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>III. Diversify 2:</td>
<td>International</td>
<td>MSCI EAFE Index</td>
</tr>
<tr>
<td></td>
<td>NOINX</td>
<td>Northern International</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>III. Diversify 3: (opt)</td>
<td>REIT</td>
<td>S&amp;P REIT Index</td>
</tr>
<tr>
<td></td>
<td>VGSIX</td>
<td>Vanguard Real Estate Index</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>IV. Opportunistic (Optional)</td>
<td>1.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
</tr>
</tbody>
</table>

1. Target Allocations From your PFP (Note 1)

<table>
<thead>
<tr>
<th>In Percent</th>
<th>In Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxable</td>
<td>Retirement</td>
</tr>
<tr>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Target Allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td>63%</td>
</tr>
</tbody>
</table>

55
Picking Your Mutual Funds (continued)

• 4. Print off all your Exhibits
  • Print off your filled in Exhibit I. Expected Return Simulation (LT27)
  • Print off your filled in Exhibit II. Investment Process Spreadsheet (LT13)
  • Print off Exhibit III. Mutual Fund Pages from Morningstar. There should be a minimum of 4 funds from 4 different asset classes
    • Include these with your completed and filled in Investment Plan and you should be good
G. Understand Plans and Strategies for Selecting Financial Assets (continued)

- Following are a few ideas for plans and strategies for picking financial assets

  - Decide whether to use mutual funds or individual stocks and bonds to invest
    - I recommend mutual funds as they give immediate diversification and low cost
    - With a broadly diversified fund, you will get the performance of the asset class and do not need to know much about each stock individually
    - Note that you have not learned the critical aspects of how to select individual stocks/bonds
    - Most students, including business students, have not yet developed the skills necessary to purchase individual stocks and bonds
Selecting Financial Assets (continued)

- Decide whether to invest passively (using index funds), actively or both
  - I recommend index funds for diversification, low cost, tax efficiency and consistent returns versus the index
  - Broadly diversified index funds eliminate most of the required work to understand the individual stocks and bonds in the portfolio
  - If you choose to invest actively, monitor performance versus benchmarks over 24 and 36 months
- Determine your target asset allocation and follow it
  - Ensure your chosen assets give exposure to the asset classes you need
Selecting Financial Assets (continued)

• Follow the principles of successful investing
  • Know yourself, your vision and goals
  • Seek, receive and act on the Spirit’s guidance
  • Invest low cost and tax efficiently
  • Minimize turnover and invest long-term

• Know and follow what makes a good mutual fund
  • Minimize cash drag
  • Be diversified in all you do
  • Ensure no style drift
  • Monitor performance
Review of Objectives

- A. Do you understand why you shouldn’t be picking stocks until the “deepen” phase when your assets and experience have grown?
- B. Do you understand where to find important information on mutual funds?
- C. Do you understand what makes a good mutual fund?
- D. Do you understand index funds and why they are attractive investment assets?
- E. Do you understand taxes on financial assets?
- F. Do you understand how to pick the mutual/index funds for your portfolio?
- F. Do you understand plans and strategies for picking financial assets?
Case Study #1

Data

- Bill can only invest $50 per month and he already has his Emergency Fund. He would like to find an index fund that follows the large capitalization stocks, with his chosen benchmark being the S&P 500 Index. He has determined his criteria as large capitalization stocks, index funds, minimum purchase of $2,500, asset size > $750 million, a no load fund, with fees and expenses <=.10% available to a retail investor.

Application

- Using Morningstar library and Learning Tool 7, how many funds meet Bill’s criteria, and which would you choose?
Case Study #1 Answers

Go to Morningstar Library Edition Online, and go to the Fund Screeners (see LT07). Set up the problem with the following criteria:

• Fund Category = U.S. Equity and your category is Large Blend
• Special Fund Types, and Index Fund = Yes
• Minimum Purchase, MIP <= a Value, $50
• Fund Size (Total Assets), FS >= Value, $750
• Fees and Expenses, No-Load Funds = Yes
• Fees and Expenses, Expense Ratio <= Value, .15
• Minimum Purchase, Institutional Inv. = No
• Minimum Purchase, Qualified Access = No
Case Study #1 Answers

As of 10/30/2018, there were 3 funds that passed.

- You find this information under the purchase tab.
  - Schwab Total Stock Market (swtsx)
    - .03%, 2% turnover, $0 minimum
  - Schwab 1000 Index (snxfx)
    - .05%, 5% turnover, $0 minimum
  - Schwab S&P 500 Index (swppx)
    - .03%, 5% turnover, $0 minimum
Case Study #2

Most index funds are low cost. This was not one of the chosen index funds. Why? What fees and loads does it have?

**Deutsche S&P 500 Index A**

- **Minimum Investments**
  - USD: Initial 1,000, Additional 50, Initial IRA 500, Additional IRA 50, Initial AIP 500, Additional AIP 50

- **Contact Information**
  - Telephone: 800-728-3337
  - Website: [www.dws-investments.com](http://www.dws-investments.com)

---

**Review Other Classes**

<table>
<thead>
<tr>
<th>Fund Name</th>
<th>Front Load</th>
<th>Rearred Load</th>
<th>expense Ratio</th>
<th>Min. Initial Purchase</th>
<th>Min. Initial Actual</th>
<th>12b-1 Purchase Shareclass Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deutsche S&amp;P 500 Index A</td>
<td>4.50</td>
<td>0.65</td>
<td>1,000</td>
<td>0.24</td>
<td>C/L</td>
<td></td>
</tr>
<tr>
<td>Deutsche S&amp;P 500 Index B</td>
<td>4.00</td>
<td>1.39</td>
<td>1,000</td>
<td>0.99</td>
<td>C/L</td>
<td></td>
</tr>
<tr>
<td>Deutsche S&amp;P 500 Index C</td>
<td>1.00</td>
<td>1.33</td>
<td>1,000</td>
<td>1.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Deutsche S&amp;P 500 Index S</td>
<td>0.34</td>
<td>2,500</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

Purchase Constraints: Institutional - A, Qualified Access - A, Closed to New/All Investments - C/L
Shareclass Attributes: Available for S29 Only - N, Indirect Use Only - U.
Case Study #2 Answers

- This fund, depending on your class of share, has a 4.5% front end load, 1.0-4.0% deferred load, expense ratios between .34 and 1.39%, and 12b-1 fees from 0-1.0%. This index fund will cost you a lot in expenses.
Case Study #3

• Given the Morningstar report for VFINX following, highlight the areas where you find the critical information below (with the colors listed):  (report is from Morningstar, 9/30/18)

  • 1. Diversification (orange)
  • 2. Costs and Fees (orange)
  • 3. Taxes (light green)
  • 4. Turnover (red)
  • 5. Un-invested cash (blue)
  • 6. Style and style drift (green)
  • 7. Tracking error and performance (blue)
**Morningstar's Take** by Adam McCullough  03-09-18

Vanguard S&P 500 is a compelling option for exposure to U.S. large-cap stocks. This fund gains a leg up over most of its category peers by efficiently tracking a broadly diversified and representative benchmark at a low cost. It earns a Morningstar Analyst Rating of Gold.

The fund tracks the S&P 500, a market-cap-weighted index that includes large-cap stocks representing about 80% of the U.S. stock market. A committee selects the index’s holdings, which offers more flexibility than indexes that adhere to rigid rules but also reduces transparency. But the S&P 500’s performance has been, and should continue to be, highly correlated with large-cap indexes that follow mechanical rules.

Market-cap-weighting pulls the portfolio toward the largest U.S. stocks and accurately reflects the composition of the market. The fund’s average market capitalization of just under $100 billion is nearly double the market capitalization of the average fund in the category. Its top 10 holdings make up about 20% of its portfolio and include household names like Apple (AAPL), Microsoft (MSFT), and Amazon.com (AMZN).

Low turnover is a key advantage of the fund’s broad market-cap-weighted approach. Lower turnover equates to lower transaction costs and a smaller likelihood of taxable capital gains distributions. The fund’s average turnover over the past decade was 5% compared with an average figure of over 60% for its category peers. Tax efficiency adds to the fund’s appeal. It has not distributed any capital gains since its inception.

The durable cost advantage has translated into strong category-relative performance. During the past decade through February 2018, its Admiral share class outpaced the large-blend Morningstar Category by 1.6% annually. Its risk-adjusted returns, as measured by its Sharpe ratio, landed in the category’s top quintile over the same period. Because this index fund remains fully invested, it suffered a larger drawdown than the category average during the financial crisis. But its smaller cash drag pays off during bull markets. Its performance during the market recovery more than made up for its larger drawdown.

---

**Current Investment Style**

- **Value Blend Growth**
  - Giant: 56.7%
  - Large: 34.3%
  - Mid: 9.0%
  - Small: 0.0%
  - Micro: 0.0%

**Avg Sz/Mkt:** 109,481

**Sector Weights**

<table>
<thead>
<tr>
<th>Sector</th>
<th>% of</th>
<th>Rel</th>
<th>Benchmark 1</th>
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<tbody>
<tr>
<td>Cyclical</td>
<td>32.81</td>
<td>0.91</td>
<td></td>
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<tr>
<td>CnsrCyc</td>
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<td>Sensitive</td>
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</tbody>
</table>

**Value Measures**

- Price/Earnings: 18.05 (1.06)
- Price/Book: 3.15 (1.06)
- Price/Sales: 2.33 (1.14)
- Price/Cash Flow: 13.61 (1.10)
- Dividend Yield %: 1.85 (0.98)

**Growth Measures**

- Long-Term Earnings: 12.28 (0.99)
- Book Value: 4.83 (1.18)
- Sales: 3.75 (1.07)
- Cash Flow: 3.36 (1.11)
- Historical Earnings: 8.39 (0.79)

**Profitability**

- Return on Equity: 23.03
- Return on Assets: 7.97
- Net Margin: 14.95

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Cast Study #3 Answers

• Morningstar Report Coding
  • To help you in finding the information, we have color coded a report in the following slides to show you where the criteria discussed can be found
  1. Diversification (orange)
  2. Costs and Fees (orange)
  3. Taxes (light green)
  4. Turnover (red)
  5. Un-invested cash (blue)
  6. Style and style drift (green)
  7. Tracking error and performance (blue)
Vanguard 500 Index Investor

**Historical Profile**

<table>
<thead>
<tr>
<th>Year</th>
<th>Return</th>
<th>Above Avg</th>
<th>Risk</th>
<th>Average</th>
<th>Rating</th>
<th>Above Avg</th>
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<tbody>
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<tr>
<td>2011</td>
<td>115.80</td>
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<td></td>
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<td>2012</td>
<td>121.37</td>
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<td>2013</td>
<td>170.36</td>
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<td>2014</td>
<td>189.89</td>
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<tr>
<td>2015</td>
<td>188.48</td>
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<td>2016</td>
<td>205.57</td>
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<td>2017</td>
<td>245.82</td>
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<tr>
<td>2018</td>
<td>289.90</td>
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**Performance**

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<tr>
<th>Year</th>
<th>1st Qtr</th>
<th>2nd Qtr</th>
<th>3rd Qtr</th>
<th>4th Qtr</th>
<th>Total</th>
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<tr>
<td>2014</td>
<td>1.76</td>
<td>5.19</td>
<td>1.09</td>
<td>4.89</td>
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<td>2015</td>
<td>0.91</td>
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<td>2016</td>
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<td>2.42</td>
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<td>2017</td>
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<td>3.05</td>
<td>4.45</td>
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<td>-0.79</td>
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**Rating and Risk**

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<tr>
<th>Time Period</th>
<th>Load Adj Return %</th>
<th>Morningstar Risk vs Cat</th>
<th>Morningstar Risk Adj Rating</th>
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<tbody>
<tr>
<td>1 Yr</td>
<td>17.74</td>
<td>+ Avg</td>
<td>Avg</td>
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<tr>
<td>3 Yr</td>
<td>17.15</td>
<td>+ Avg</td>
<td>Avg</td>
</tr>
<tr>
<td>5 Yr</td>
<td>13.79</td>
<td>+ Avg</td>
<td>Avg</td>
</tr>
<tr>
<td>10 Yr</td>
<td>11.83</td>
<td>+ Avg</td>
<td>Avg</td>
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<tr>
<td>Inception</td>
<td>11.17</td>
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**Other Measures**

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<tr>
<th>Measure</th>
<th>Standard Index</th>
<th>Best Fit Index</th>
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<tr>
<td>Alpha</td>
<td>-0.1</td>
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<tr>
<td>Beta</td>
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<td>1.00</td>
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<tr>
<td>R-Squared</td>
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<td>100</td>
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<tr>
<td>Mean</td>
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<tr>
<td>Sharpe Ratio</td>
<td>1.68</td>
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**Portfolio Analysis**

<table>
<thead>
<tr>
<th>Total Stocks: 510</th>
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<tbody>
<tr>
<td>Sector</td>
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<tr>
<td>Apple Inc</td>
</tr>
<tr>
<td>Microsoft Corp</td>
</tr>
<tr>
<td>Amazon.com Inc</td>
</tr>
<tr>
<td>Facebook Inc A</td>
</tr>
<tr>
<td>JPMorgan Chase &amp; Co</td>
</tr>
<tr>
<td>Berkshire Hathaway Inc B</td>
</tr>
<tr>
<td>Alphabet Inc Class C</td>
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<tr>
<td>Alphabet Inc A</td>
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<tr>
<td>Johnson &amp; Johnson</td>
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<tr>
<td>Exxon Mobil Corp</td>
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<tr>
<td>Bank of America Corp</td>
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<tr>
<td>Visa Inc Class A</td>
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<tr>
<td>UnitedHealth Group Inc</td>
</tr>
<tr>
<td>Wells Fargo &amp; Co</td>
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</tbody>
</table>
Morningstar's Take by Adam McCullough 03-09-18

Vanguard S&P 500 is a compelling option for exposure to U.S. large-cap stocks. This fund gains a leg up over most of its category peers by efficiently tracking a broadly diversified and representative benchmark at a low cost. It earns a Morningstar Analyst Rating of Gold.

The fund tracks the S&P 500, a market-cap-weighted index that includes large-cap stocks representing about 80% of the U.S. stock market. A committee selects the index’s holdings, which offers more flexibility than indexes that adhere to rigid rules but also reduces transparency. But the S&P 500’s performance has been, and should continue to be, highly correlated with large-cap indexes that follow mechanical rules.

Market-cap-weighting pulls the portfolio toward the largest U.S. stocks and accurately reflects the composition of the market. The fund’s average market capitalization of just under $100 billion is nearly double the market capitalization of the average fund in the category. Its top 10 holdings make up about 20% of its portfolio and include household names like Apple AAPL, Microsoft MSFT, and Amazon.com AMZN.

Low turnover is a key advantage of the fund’s broad market-cap-weighted approach. Lower turnover equates to lower transaction costs and a smaller likelihood of taxable capital gains distributions. The fund’s average turnover over the past decade was 5% compared with an average figure of over 60% for its category peers. Tax efficiency adds to the fund’s appeal. It has not distributed any capital gains since its inception.

The durable cost advantage has translated into strong category-relative performance. During the past decade through February 2018, its Admiral share class outpaced the large-blend Morningstar Category by 1.6% annually. Its risk-adjusted returns, as measured by its Sharpe ratio, landed in the category’s top quintile over the same period. Because this index fund remains fully invested, it suffered a larger drawdown than the category average during the financial crisis. But its smaller cash drag pays off during bull markets. Its performance during the market recovery more than made up for its larger drawdown.

Composition - Net

<table>
<thead>
<tr>
<th>Cash</th>
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<tbody>
<tr>
<td>Stocks</td>
<td>99.6</td>
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<tr>
<td>Bonds</td>
<td>0.0</td>
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<tr>
<td>Other</td>
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<tr>
<td>Foreign</td>
<td>0.5</td>
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