Personal Finance: Another Perspective

Investments 8: Picking Financial Assets

Updated 2017-06-09
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
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 program, set those parameters, and evaluate each of the potential candidates
  4. Evaluate each candidate and select the best funds
  5. Purchase the funds (but not in December before distributions are made) 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.
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):
- Fund
- Category (Large Blend)
- Fee Level Comparison Group Median

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tr>
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<td>0.16</td>
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<td>Morningstar Category Average</td>
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<tr>
<td>Fee Level Comparison Group Median</td>
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<td>0.92</td>
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</table>

Maximum Sales Fees (VFINX):
- Initial
- Deferred
- Redemption

Total Cost Projections (VFINX):

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<th>Per 10K</th>
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<tbody>
<tr>
<td>3 Years</td>
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<td>5 Years</td>
<td>79</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: 0.12%
- Administrative Maximum: 0.12%

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

<table>
<thead>
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<th>Tax Analysis</th>
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<td>1-Mo</td>
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<td>3-Mo</td>
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<td>6-Mo</td>
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<tr>
<td>YTD</td>
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<td>Inception</td>
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<td>Tax-adjusted Return</td>
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<td>VFINX</td>
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<td>% Rank in Category</td>
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<td>VFINX</td>
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<td>3-Mo</td>
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<td>6-Mo</td>
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<td>YTD</td>
<td>26</td>
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<td>1-Yr</td>
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<td>3-Yr</td>
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<tr>
<td>5-Yr</td>
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<td>Number of Names</td>
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<td>VFINX</td>
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<tr>
<td>1-Mo</td>
<td>—</td>
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<tr>
<td>3-Mo</td>
<td>—</td>
</tr>
<tr>
<td>6-Mo</td>
<td>—</td>
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<td>YTD</td>
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<td>1-Yr</td>
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<td>5-Yr</td>
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<td>15-Yr</td>
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<td>Potential Cap Gains</td>
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<td>Exposure</td>
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<tr>
<td>VFINX</td>
<td>40.41</td>
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</tbody>
</table>

Source: Morningstar 2017

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

Source: Morningstar 2017
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
6. 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

**Style Details VFINX**

<table>
<thead>
<tr>
<th>Market Capitalization</th>
<th>% of Portfolio</th>
<th>Benchmark</th>
<th>Category Avg</th>
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</thead>
<tbody>
<tr>
<td>Giant</td>
<td>49.44</td>
<td>44.73</td>
<td>68.35</td>
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<tr>
<td>Large</td>
<td>37.10</td>
<td>33.61</td>
<td>12.40</td>
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<tr>
<td>Medium</td>
<td>13.30</td>
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<td>16.55</td>
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<tr>
<td>Small</td>
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<tr>
<td>Micro</td>
<td>0.00</td>
<td>0.04</td>
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**Value & Growth Measures**

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<tr>
<th>Stock Portfolio</th>
<th>Benchmark</th>
<th>Category Avg</th>
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<tbody>
<tr>
<td>Price/Prospective Earnings*</td>
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<td>19.63</td>
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<tr>
<td>Price/Book*</td>
<td>2.80</td>
<td>2.69</td>
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<tr>
<td>Price/Sales*</td>
<td>2.09</td>
<td>1.99</td>
</tr>
<tr>
<td>Price/Cash Flow*</td>
<td>11.46</td>
<td>10.97</td>
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<tr>
<td>Dividend Yield %*</td>
<td>2.09</td>
<td>2.09</td>
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<tr>
<td>Long-Term Earnings %</td>
<td>9.58</td>
<td>9.40</td>
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<tr>
<td>Historical Earnings %</td>
<td>4.21</td>
<td>4.02</td>
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<tr>
<td>Sales Growth %</td>
<td>0.55</td>
<td>0.40</td>
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<tr>
<td>Cash-Flow Growth %</td>
<td>0.33</td>
<td>0.59</td>
</tr>
<tr>
<td>Book-Value Growth %</td>
<td>3.89</td>
<td>3.59</td>
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</table>

**Investment Style History**

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<tr>
<th>Year</th>
<th>Style</th>
<th>% Equity</th>
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<td></td>
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<tr>
<td>2016</td>
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<td>99.56</td>
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<td>2015</td>
<td></td>
<td>99.68</td>
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<td>2014</td>
<td></td>
<td>99.52</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td>99.37</td>
</tr>
</tbody>
</table>

*As of 05/31/2017

Style Box Detail calculations do not include the fund's short positions (if any).

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 Teaching Tool 7 Using Morningstar to Select Mutual Funds (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 the big deal about index funds?
  • Index funds have become the standard against which other mutual funds are judged
    • If an actively managed mutual fund cannot perform better (after taxes and fees) than an index fund (index funds are very tax efficient), then investors should invest in index funds
  • There are nearly 1,014 different index funds and 1,758 exchange traded funds (ETFs) which follow different geographical, maturity, capitalization, and style indices (Morningstar as of 10/29/2013)
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 equity investors done?
  • Each year, DALBAR puts out an annual book on *Quantitative Analysis of Investor Behavior*. It discusses how average equity fund investors have done versus benchmarks over the past 20 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Period</th>
<th>Investor Returns*</th>
<th>Index Returns</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1990-2009</td>
<td>3.2%</td>
<td>8.2%</td>
<td>-5.0%</td>
</tr>
<tr>
<td>2011</td>
<td>1991-2010</td>
<td>3.8%</td>
<td>9.1%</td>
<td>-5.3%</td>
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<tr>
<td>2012</td>
<td>1992-2011</td>
<td>3.5%</td>
<td>7.8%</td>
<td>-4.3%</td>
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<tr>
<td>2013</td>
<td>1993-2012</td>
<td>4.3%</td>
<td>8.2%</td>
<td>-3.9%</td>
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<tr>
<td>2014</td>
<td>1994-2013</td>
<td>3.7%</td>
<td>11.1%</td>
<td>-7.4%</td>
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<tr>
<td>2015</td>
<td>1995-2014</td>
<td>5.2%</td>
<td>9.9%</td>
<td>-4.7%</td>
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<tr>
<td>2016</td>
<td>1996-2015</td>
<td>4.7%</td>
<td>8.2%</td>
<td>-3.5%</td>
</tr>
</tbody>
</table>

* Dalbar 2010-2016
Index Funds (continued)

• How have most bond investors done?
  • According to DALBAR, bond investors have done equally poorly versus the bond benchmark over the past 20 years.
  
<table>
<thead>
<tr>
<th>Year</th>
<th>Period</th>
<th>Investor Returns*</th>
<th>Index Returns</th>
<th>Difference</th>
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<td>-4.8%</td>
</tr>
</tbody>
</table>

* Dalbar QAIB 2010-2016, [www.dalbar.com](http://www.dalbar.com), ** Estimate
Index Funds (continued)

How have most actively managed funds done?

Percentage of Actively Managed Funds Which Underperformed their Benchmarks 2002-2016

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)

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  • 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).
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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 gains from the sale of a stock where the stock was held for one year or less. It is taxed at your marginal tax rate
      • Long-term capital gains are gains on the sale of stock where the stock is held for more than one year. It is taxed at a preferential federal 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 that begins 60 days before the ex-dividend date (see Teaching Tool 32)
    - 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
# Taxes on Different Types of Earnings

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<thead>
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<th>Stocks:</th>
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<tr>
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<tr>
<td>Long-term capital gains *</td>
<td>Marginal Tax Rate</td>
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<td>Dividends</td>
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<tr>
<td>Stock Dividends: Qualified ***</td>
<td>15% or 0%</td>
<td>Marginal Tax Rate</td>
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<td>Stock Dividends: Ordinary/Not Qualified</td>
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<td>Long-term capital gains *</td>
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<td>Marginal Tax Rate</td>
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<tr>
<td>Interest/Coupon Payments</td>
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<tr>
<td>Interest Payments</td>
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<td>Muni-bond Interest (bonds from another state)</td>
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<tr>
<td>Short-term capital gains</td>
<td>Federal Tax Rate</td>
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<td>Marginal Tax Rate</td>
<td>Marginal Tax Rate</td>
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<tr>
<td>Dividends and Interest</td>
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<tr>
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<td>15% or 0%</td>
<td>Marginal Tax Rate</td>
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<td>Stock Dividends: Not Qualified/Ordinary</td>
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<tr>
<td>Bond: Interest</td>
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</tr>
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</table>
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. If your marginal tax rate (MTR) is 15% or lower, long-term capital gains and qualified stock dividends are taxed at 0%. If your MTR is between 25 and 35%, long-term capital gains and qualified stock dividends are taxed at 15% for 2013. If your MTP is higher than 35%, long-term capital gains and qualified stock dividends are taxed at 20% for 2013. Also note, if your Adjusted Gross Income (AGI) is larger than $250,000 (MFJ), there is an additional 3.8% tax under Medicare.

- 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?
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?
Case Study #1

Data

• Bill is concerned that he can only invest $50 per month to invest 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%.

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 Learning Tool 7). 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, $2,500
- Fund Size (Total Assets), FS >= Value, $750
- Fees and Expenses, No-Load Funds = Yes
- Fees and Expenses, Expense Ratio <= Value, .10
Case Study #1 Answers

As of 3/9/2017, there were 13 funds that passed.

- Next, look at each fund. Of the 13 funds listed, 7 were for institutional investors only. You find this information under the purchase tab. We could purchase the first 6 though.
  - 2. Fidelity 500 Index Investor (fusex) ($2,500 min) - Individual
  - 6. Fidelity Total Market Index Investor (fstmx) ($2,500 min) – Individual
  - 8. Northern Stock Index (nosix) – Individual
  - 10. Schwab S&P 500 Index (swppx) - Individual
  - 11. State Street Equity 500 Index II (SSEYX) ($0 minimum) – Individual
  - 1. DFA U.S. Large Company I (dfusx) – Institutional
  - 3. Fidelity SAI US Large Cap Index (flcpx) ($2,500 min) Institutional
  - 4. Fidelity Series 100 Index (fohix) - Institutional
  - 5. Fidelity Series 100 Index Fund (fohjx) - Institutional
  - 7. Fidelity Total Market Index Fund (ffsmx) – Institutional
  - 12. TIAA-CREF Equity Index Advisor (TEIHS) – Institutional
  - 13. TIAA-CREF S&P 500 Index Advisor (TISAX) – Institutional
Go to the Purchase tab. Note some funds have front- and back-end loads, different expense ratios, different initial purchase amounts, different 12-b1 fees, and different purchase constraints. Make sure you know what you buy!
Case Study #1 Answers

• Which fund you choose will be determined by the factors you consider are most important.
  • Please note that after you do the analysis in Morningstar, you need to call each of the fund families to make sure the information was correct.
  • Toll-free numbers are available under the tab “Purchase” and you should call them before investing.
  • Only 6 of 11 funds on the list were available for retail investors—the rest were only for institutional investors. Be aware of this when you invest and ask questions.
Case Study #2

- 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, 10/27/15)
  - 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

Benchmark 1: Russell 1000 TR USD
Benchmark 2: S&P 500 TR USD

Morningstar Analyst Rating 11-23-16

Gold

Morningstar Pillars
- Process
- Performance
- People
- Parent
- Price

Morningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Performance 05-31-17

Trailing Total +/- Bmark +/- Bmark Growth of Returns
3 Mo 2.53 0.12 -0.04 37 10,253
6 Mo 10.73 0.18 -0.08 28 11,073
1 Yr 17.32 0.16 -0.15 35 11,732
3 Yr Avg 9.98 0.15 -0.15 12 13,394
5 Yr Avg 15.25 0.12 -0.17 19 20,530
10 Yr Avg 5.62 -0.19 0.12 23 19,335
15 Yr Avg 7.65 -0.38 -0.12 26 30,193

Rating and Risk

Time Period Total Return
1 Yr 17.32
3 Yr 9.98
5 Yr 15.25
10 Yr 6.82
Incept 10.98

Percentage

Performance (within Category)

Portfolio Analysis 04-30-17

Total Stocks: 510
Share change since 03-31-17
Sector YTD Ret % & Assets

Apple Inc Technology 32.93 3.66
Microsoft Corp Technology 13.65 2.57
Amazon.com Inc CRM 32.64 1.78
Facebook Inc A Social Media 31.76 1.72
Cisco Systems Energy 9.13 1.65
Exxon Mobil Corp Hlth Care 12.74 1.63
JP Morgan Chase & Co Finan Svcs 3.66 1.51
Berkshire Hathaway Inc B Finan Svcs 1.41 1.45
Alphabet Inc A Technology 24.56 1.34
Alphabet Inc C Technology — 1.30
General Electric Co Industri 12.59 1.23
AT&T Inc Comm Svcs -7.10 1.18
Wells Fargo & Co Finan Svcs -5.82 1.18
Bank of America Corporati Finan Svcs 2.08 1.14

Potential Capital Gain Exposure: 40% of assets
Morningstar's Take by Adam McCullough 11-23-16

Vanguard 500 Index offers investors diversified exposure to U.S. large-cap stocks. A low fee and soundly constructed and reasonably representative portfolio leave the fund well-positioned to continue its long streak of producing superior risk-adjusted returns relative to its peers over the long haul and underpin its Morningstar Analyst Rating of Gold.

Broad diversification is an intrinsic advantage of the fund's replication of the market-cap-weighted S&P 500, which covers approximately 80% of the investable market capitalization of the U.S. equity market. While most indexes follow mechanical, rules-based approaches, the S&P 500 is managed by committee. Yet, this index has performed similarly to other popular large-cap indexes, such as the Russell 1000. Its market-cap-weighting approach can be beneficial in bull markets that are characterized by large-cap leadership, such as the post-financial-crisis charge in U.S. stocks. That said, it can also lead to significant sector- and single-security concentration, as witnessed at the height of the technology bubble. So market-cap-weighted indexes' greatest strength is arguably also their Achilles' heel.

Low turnover is another key advantage of the fund's broad market-cap-weighted approach. Lower turnover equates to lower costs and a lesser likelihood of taxable capital gains distributions. The average annual turnover of the fund was 6% during the past five years. This compares with a median figure of 55% for its category peers.

The fund's sector weights are similar to its large-cap blend peers. But its holdings' average market capitalization is usually greater than the category average, partially because of its weighting approach, which pulls the portfolio toward giant- and large-cap stocks.

During the 15-year period ended October 2016, the fund returned 6.86% per year, outstripping the U.S. large-blend Morningstar Category average by 0.39 percentage points per year. Much of this relative outperformance can be attributed to the fund's sizable fee advantage. At 0.05%, the fund's annual levy is a tiny fraction of the 0.79% median fee charged by its category peers.
Cast Study #2 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)
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Morningstar Analyst Rating: 11-23-16

Gold

Morningstar Pillars
- Positive
- Positive
- Positive
- Positive

Process
Performance
People
Parent
Price

Morningstar Analyst Rating

Performance 05-31-17

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<th>Year</th>
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<td>2017</td>
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Portfolio Analysis 04-30-17

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<th>Sector</th>
<th>YTD Ret. %</th>
<th>% Assets</th>
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<td>Technology</td>
<td>32.93</td>
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<tr>
<td>Microsoft Corp</td>
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<tr>
<td>Amazon.com Inc</td>
<td>Technology</td>
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<td>Facebook Inc A</td>
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Address: Vanguard Index Funds
Valley Forge, PA 19482
800-662-7447

Web Address: www.vanguard.com
Inception: 08-31-76
Advisor: Vanguard Group Inc
Subadvisor: None

Minimum Purchase: $3000
Add: $1
IRA: —
Sales Fees: No-load
Management Fee: 0.12%
Actual Fees: Mgt.0.12% Dist.—
Expense Projections: 3Yr:$45 5Yr:$79 10Yr:$179
Income Distribution: Quarterly

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