Personal Finance: Another Perspective

Investing 8: Selecting Financial Assets

Updated 2020-03-03
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 and taxes on financial assets
• C. Understand what makes a good mutual fund and the big deal about index funds
• D. Understand how to pick the mutual/index funds for your portfolio
• E. Understand plans and strategies for picking 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
Questions

• Any questions on why you shouldn't be picking stocks until later?
  • (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.)
B. Understand where to find Information on Financial Assets and Taxes

- Where do you find mutual fund, bond 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
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
  • 1. Capital gains are earnings from selling a stock.
    • Short-term are from stocks held < 366 days
    • Long-term are from stocks held >= 366 days
  • 2. Stock dividends are qualified or ordinary
    • Qualified dividends are held > 60 days during the 121-day period beginning 60 days before the ex-dividend date (see Taxes on Securities Earning Including Qualified Dividends (LT32)
    • Ordinary dividends are dividends that are not qualified
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:

<table>
<thead>
<tr>
<th>Stocks: Capital Gains</th>
<th>Federal Tax Rate</th>
<th>State Tax Rate **</th>
</tr>
</thead>
<tbody>
<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;$488MFJ) *</td>
<td>20% +</td>
<td>Marginal Tax Rate</td>
</tr>
</tbody>
</table>

| Dividends Stock Dividends: Qualified *** | Marginal Tax Rate |
| Stock Dividends: Ordinary/Not Qualified | Marginal Tax Rate |

| Bonds and Savings Vehicles: Capital Gains | Federal Tax Rate | State Tax Rate ** |
| Short-term capital gains | Marginal Tax Rate | Marginal Tax Rate |
| Long-term capital gains * | 15% or 0% | Marginal Tax Rate |
| Long-term capital gains (TI>$488MFJ) * | 20% + | Marginal Tax Rate |

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

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

**Distributions:**

| Capital Gains for Stocks/Bonds/Municipals | Federal Tax Rate | State Tax Rate ** |
| Short-term capital gains | Marginal Tax Rate | Marginal Tax Rate |
| Long-term capital gains * | 15% or 0% | Marginal Tax Rate |
| Long-term capital gains (TI>$488MFJ) * | 20% + | Marginal Tax Rate |

**Stock Dividends Stock: Dividends: Qualified *** | Marginal Tax Rate |
| Stock Dividends: Not Qualified/Ordinary | Marginal Tax Rate |

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

### 2020 Tax Brackets, Capital Gains, Dividends, and Medicare Tax Rates (000s)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10%</td>
<td>0%</td>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>9,876</td>
<td>19,751</td>
<td>14,101</td>
<td>12%</td>
<td>0%</td>
<td>2.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>40,126</td>
<td>80,251</td>
<td>53,701</td>
<td>22%</td>
<td>0%</td>
<td>2.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>40,001</td>
<td>80,001</td>
<td>53,601</td>
<td>15%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>17.9%</td>
</tr>
<tr>
<td>85,526</td>
<td>171,051</td>
<td>85,501</td>
<td>24%</td>
<td>15%</td>
<td>2.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>163,301</td>
<td>326,601</td>
<td>163,301</td>
<td>32%</td>
<td>15%</td>
<td>2.9%</td>
<td>3.8%</td>
</tr>
<tr>
<td>207,350</td>
<td>414,701</td>
<td>207,351</td>
<td>35%</td>
<td>15%</td>
<td>2.9%</td>
<td>3.8%</td>
</tr>
<tr>
<td>441,451</td>
<td>496,601</td>
<td>469,051</td>
<td>20%</td>
<td>17.9%</td>
<td>3.8%</td>
<td>3.8%</td>
</tr>
<tr>
<td>518,401</td>
<td>622,051</td>
<td>518,401</td>
<td>37%</td>
<td>20%</td>
<td>3.8%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

^ The beginning of the tax bracket. * Combined rate = 1.45% employer contribution.

Net Investment Income Tax is calculated on your MAGI and Investment Income being above the Threshold. MAGI is AGI + foreign income + a few other areas. Your tax is on the excess above that threshold amount.

### Definitions
- **Short-term capital gains**: Gains where shares/bonds that were sold were held for one year or less.
- **Long-term capital gains**: Gains where shares/bonds that were sold were held more than one year.

### Tax Notes
- * Capital gains taxes are taxed differently based on your taxable income and AGI (see Chart 1).
- ** State tax rates vary state to state, while some states do not have a state income tax.
- *** 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 this worksheet to see if your dividends qualify for the lower rate).
Questions

• Any questions on taxes on where to find information on financial assets and taxes on financial assets?
C. 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: Holdings)
    - Type of holdings (stocks, bonds, cash)
  - Location (Portfolio: Exposure: Region)
    - World Regions: Location of companies invested in by geographic area
  - Sector Weightings (Portfolio: Exposure: Sector)
    - Sector (or industry) weightings
Good Diversification

<table>
<thead>
<tr>
<th>Current Portfolio Date</th>
<th>Equity Holdings</th>
<th>Bond Holdings</th>
<th>Other Holdings</th>
<th>% Assets in Top 10 Holdings</th>
<th>Reported Turnover %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 31, 2020</td>
<td>505</td>
<td>0</td>
<td>4</td>
<td>24</td>
<td>3</td>
</tr>
</tbody>
</table>

**Top 10 Holdings**

<table>
<thead>
<tr>
<th>Top 10 Holdings</th>
<th>% Portfolio Weight</th>
<th>First Bought</th>
<th>Previous 4 Periods</th>
<th>as of Jan 31, 2020</th>
<th>Share Change %</th>
<th>1-Year Return</th>
<th>P/E</th>
<th>Equity Star Rating</th>
<th>Economic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Corp</td>
<td>4.82</td>
<td>Sep 30, 1996</td>
<td>1</td>
<td>2,112,325,170</td>
<td>↑ 0.53</td>
<td>55.27</td>
<td>27.62</td>
<td>★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>Apple Inc</td>
<td>4.80</td>
<td>Sep 30, 1996</td>
<td></td>
<td>2,102,745,943</td>
<td>↑ 0.54</td>
<td>72.54</td>
<td>22.57</td>
<td>★</td>
<td>Narrow</td>
</tr>
<tr>
<td>Amazon.com Inc</td>
<td>3.11</td>
<td>Jan 31, 2006</td>
<td></td>
<td>1,360,759,155</td>
<td>↑ 0.54</td>
<td>16.88</td>
<td>66.23</td>
<td>★★★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>Facebook Inc A</td>
<td>1.81</td>
<td>Jan 31, 2014</td>
<td></td>
<td>790,346,812</td>
<td>↑ 0.54</td>
<td>21.05</td>
<td>21.51</td>
<td>★★★★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>Berkshire Hathaway Inc B</td>
<td>1.63</td>
<td>Apr 30, 2014</td>
<td></td>
<td>714,074,317</td>
<td>↑ 0.54</td>
<td>7.14</td>
<td>16.42</td>
<td>★★★★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>Alphabet Inc A</td>
<td>1.59</td>
<td>Apr 30, 2006</td>
<td></td>
<td>698,288,257</td>
<td>↑ 0.53</td>
<td>20.70</td>
<td>25.38</td>
<td>★★★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>Alphabet Inc Class C</td>
<td>1.59</td>
<td>Apr 30, 2014</td>
<td></td>
<td>697,270,994</td>
<td>↑ 0.53</td>
<td>21.75</td>
<td>25.38</td>
<td>★★★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>JPMorgan Chase &amp; Co</td>
<td>1.54</td>
<td>Sep 30, 1996</td>
<td></td>
<td>675,289,072</td>
<td>↑ 0.54</td>
<td>19.62</td>
<td>11.29</td>
<td>★★★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>1.46</td>
<td>Sep 30, 1996</td>
<td></td>
<td>637,314,703</td>
<td>↑ 0.54</td>
<td>3.95</td>
<td>15.58</td>
<td>★★★★★</td>
<td>Wide</td>
</tr>
<tr>
<td>Visa Inc Class A</td>
<td>1.27</td>
<td>Jan 31, 2010</td>
<td></td>
<td>554,040,919</td>
<td>↑ 0.55</td>
<td>29.41</td>
<td>31.25</td>
<td>★★</td>
<td>Wide</td>
</tr>
</tbody>
</table>

Source: All Morningstar charts are from Morningstar Library Edition, 2020-03-03
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 (Price)
  - Expense Relative to Category
    - This is a key ratio: Total Expense Ratio
      - Compare that to your category average
  - Maximum Sales Fees (or Loads)
    - Front Load
    - Deferred
    - Redemption
  - Other Fees/Expenses
    - Administrative
    - Management fees
    - 12b-1 Fees
Low Cost (Fees and Expenses)

Price

Maximum Sales Fees

<table>
<thead>
<tr>
<th>Front Load</th>
<th>Deferred Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Redemption Load</td>
<td>Min. Initial Investment</td>
</tr>
<tr>
<td>—</td>
<td>0.00 USD</td>
</tr>
</tbody>
</table>

Ongoing Fee Level

<table>
<thead>
<tr>
<th>Fund</th>
<th>Large Cap No Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Expense Ratio</td>
<td>0.020</td>
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</table>

Aggregate Cost USD

<table>
<thead>
<tr>
<th>1-Year</th>
<th>5-Year</th>
<th>10-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cost Illustration (10k; 5% Return; USD)

<table>
<thead>
<tr>
<th>Fees</th>
<th>1-Yr</th>
<th>5-Yr</th>
<th>10-Yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ongoing</td>
<td>2</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>Redemption</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>11</td>
<td>26</td>
</tr>
</tbody>
</table>

Historical Expense Ratio %

<table>
<thead>
<tr>
<th>2b</th>
<th>2c</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Management Actual

<table>
<thead>
<tr>
<th>2b-1 Maximum</th>
<th>0.02%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Maximum</td>
<td>0.02%</td>
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</tbody>
</table>

Expense Waivers

<table>
<thead>
<tr>
<th>Fund</th>
<th>Category</th>
<th>Comparison Group</th>
</tr>
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<tbody>
<tr>
<td>0.900</td>
<td>0.900</td>
<td>0.900</td>
</tr>
<tr>
<td>0.050</td>
<td>0.981</td>
<td>0.981</td>
</tr>
<tr>
<td>0.981</td>
<td>0.945</td>
<td>0.945</td>
</tr>
<tr>
<td>0.945</td>
<td>0.974</td>
<td>0.974</td>
</tr>
</tbody>
</table>

Expense Ratio: Annual Report | Fee Level Comparison Group: Large Cap No Load

Source: Morningstar 2020
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 (Price: Taxes)
  • 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

Source: Morningstar 2020

0.6% of the annual return goes to taxes each year—this pretty tax efficient, especially compared to the category.
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 (Quote)
    • This is the Fund turnover
    • This is a proxy for taxes. The higher the turnover, the higher the taxes in a taxable account
Low Turnover

Source: Morningstar 2020
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 (Portfolio)
## Un-invested Cash

### Portfolio

#### Asset Allocation

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Fund %</th>
<th>Category</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Equity</td>
<td>98.81</td>
<td>94.98</td>
<td>98.80</td>
</tr>
<tr>
<td>Non-U.S. Equity</td>
<td>0.91</td>
<td>2.95</td>
<td>1.20</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>0.00</td>
<td>0.69</td>
<td>0.00</td>
</tr>
<tr>
<td>Other</td>
<td>0.00</td>
<td>1.47</td>
<td>0.00</td>
</tr>
<tr>
<td>Cash</td>
<td>0.27</td>
<td>1.82</td>
<td>0.00</td>
</tr>
<tr>
<td>Not Classified</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Morningstar 2020

#### Exposure

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Fund %</th>
<th>Cat %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Materials</td>
<td>2.10</td>
<td>2.17</td>
</tr>
<tr>
<td>Consumer Cyclicl</td>
<td>9.67</td>
<td>9.79</td>
</tr>
<tr>
<td>Financial Services</td>
<td>15.79</td>
<td>16.99</td>
</tr>
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</table>

#### Financial Metrics

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Fund</th>
<th>Category</th>
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</tr>
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<tbody>
<tr>
<td>Wide Moat Coverage %</td>
<td>51.47</td>
<td>50.78</td>
<td>47.13</td>
</tr>
<tr>
<td>Narrow Moat Coverage %</td>
<td>37.08</td>
<td>36.31</td>
<td>35.86</td>
</tr>
<tr>
<td>No Moat Coverage %</td>
<td>7.91</td>
<td>6.12</td>
<td>8.87</td>
</tr>
</tbody>
</table>

Source: Morningstar 2020
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?

Portfolio

Asset Allocation

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Fund %</th>
<th>Category</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Equity</td>
<td>98.81</td>
<td>94.98</td>
<td>98.80</td>
</tr>
<tr>
<td>Non-U.S. Equity</td>
<td>0.91</td>
<td>2.95</td>
<td>1.20</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>0.00</td>
<td>0.69</td>
<td>0.00</td>
</tr>
<tr>
<td>Other</td>
<td>0.00</td>
<td>1.47</td>
<td>0.00</td>
</tr>
<tr>
<td>Cash</td>
<td>0.27</td>
<td>1.82</td>
<td>0.00</td>
</tr>
<tr>
<td>Not Classified</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Exposure

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Fund %</th>
<th>Cat %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Materials</td>
<td>2.10</td>
<td>2.17</td>
</tr>
<tr>
<td>Consumer Cyclical</td>
<td>9.67</td>
<td>9.79</td>
</tr>
<tr>
<td>Financial Services</td>
<td>15.79</td>
<td>16.99</td>
</tr>
</tbody>
</table>

Stock Style

Financial Metrics

Source: Morningstar 2020
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)
  • 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)
Mutual Fund Information (continued)

- For help with how to select funds, see [Using Morningstar to Select Mutual Funds](LT07) using the HBL Library or the Internet. Record what you have found with each candidate and select the funds using [Mutual Fund Worksheet](LT07B) (note: the “Filled In” tab gives some work previous students have done on specific funds)
What is the Big Deal About 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)

• 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 owning 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).
Index Funds (continued)

Insights on Indexing

• Most actively managed funds will under-perform index funds in the long run after all taxes, costs and fees (according to research)
• Competition in stock-market research is intense and will get more competitive going forward, making markets more efficient and indexing more attractive
• Indexing or “passive investing” is a free-ride on the competition
• Indexing is a time-efficient and cost-effective way to invest due to eliminating the need to evaluate individual securities and low turnover and distributions
Questions:

• Any questions on what makes a good mutual fund and the big deal of index funds?
D. Understand How to Pick 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
  3. Using a database program, set those principles and evaluate each of the potential mutual funds
  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
    • You will print off from the Quote to the Trailing Returns.
  • If you need help, see Mutual Fund Selection Worksheet (LT7B), Filled In for possible fund ideas and tickers
Picking Your Mutual Funds (continued)

For your PFP:

- Print off from the top of the page to the end of the “Trailing Returns”
- This will give me sufficient information to ensure this will give you exposure to your chosen asset class
Picking Your Mutual Funds (continued)

• 2. Download the Investment Process Spreadsheet (LT13)
  • For most, the first tab (4-10 assets) 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

<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 (based on EF and AA Targets or actual holdings)</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

<table>
<thead>
<tr>
<th>Panel I. Asset Allocation Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are from Section IV.C. of your Investment Plan</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>1. Target Allocations From your PFP (Note 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Percent</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>25%</td>
</tr>
<tr>
<td>20%</td>
</tr>
<tr>
<td>7%</td>
</tr>
<tr>
<td>6%</td>
</tr>
<tr>
<td>5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Target Allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td>63%</td>
</tr>
<tr>
<td>63,000</td>
</tr>
</tbody>
</table>
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
Plans and Strategies for Selecting Financial Assets

• Following are a few ideas for plans and strategies for picking financial assets
  • Plans and Strategies

  General
  • I will use mutual/ETF/index funds as they give immediate diversification and low cost
  • With my broadly diversified funds, I will get the performance of the asset class and do not need to know much about each individual stock
  • I have, like most business students, not developed the skills necessary to effectively analyze individual stocks and bonds
Selecting Financial Assets (continued)

General (continued)

• If you choose to invest passively:
  • I recommend index funds for diversification, low cost, tax efficiency and returns
  • 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
  • If you do both passive and active, that is also OK
  • Determine your target asset allocation and follow it
  • Ensure your chosen assets give exposure to the asset classes you need
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, .10
- Minimum Purchase, Institutional Funds = No
Case Study #1 Answers

As of 3/3/2020, there were 10 funds that passed.

• Fidelity ZERO Large Cap Index
• Fidelity ZERO Total Market Index
• Fidelity SAI US Large Cap Index
• Schwab 1000 Index
• Schwab Total Stock Market Index
• Schwab S&P 500 Index
• State Street Equity 500 Index
• TIA-CREF Equity Index W
• TIA-CREF S&P 500 Index W
Case Study #1 Answers

• Which fund you choose will depend on which factors you consider most important, such as tenure of managers, expense costs, asset size, and tax position.

• Please note that after doing the analysis in Morningstar, you need to call each fund family to make sure the information is correct. Toll-free numbers are available under the Purchase Info tab.
Most index funds are low cost. This was not one of the chosen index funds. Why? What fees and loads does it have for each class of share?

- You pay a sales charge of 4.5% of every dollar invested.
- You pay a Net Expense fee of .57% annually. Note this is huge compared to the mgmt. fee.
- You pay a 12-b1 and administration fee, this so the company can market it to others.

1.73% of the annual return goes to taxes—this is not tax efficient.
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 old 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.
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)
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---

Minimum Purchase: $3000     Add: $1     IRA: —
Min Auto Inv Plan: —       Add: —
Sales Fees: Non-load
Management Fee: 0.12%
Actual Fees: Mgt:0.12% Dist:—
Expense Projections: 3Yr: $45 5Yr: $79 10Yr: $179
Income Distribution: Quarterly

Return on Equity: 23.05%
Return on Assets: 7.97%
Net Margin: 14.95%

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## Mutual Fund Selection Worksheet (TT07B)
### What Makes a Good Mutual Fund?

**2019**

<table>
<thead>
<tr>
<th>Fund Ticker:</th>
<th>Morningstar Tab:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund Family:</td>
<td>Quote:</td>
</tr>
<tr>
<td>Category:</td>
<td>Quote:</td>
</tr>
<tr>
<td>Asset Size:</td>
<td>Quote:</td>
</tr>
<tr>
<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. Broad Diversification
- Total Holdings: Portfolio: Holdings
- % Assets top 10 holdings: 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
- Redemption (back): Expense
- Management Fee: Expense
- MF Category Avg.: Expense
- 12-b1 Fee: Expense

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

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

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

#### 9. Other Factors
- Closed to New Inv. Purchase
- Starting Year: Management
- Manager Tenure: Management
- Date Added: