Psychology and Personal Finance

Investment Mistakes
Overview

Investment Mistakes

- Active management
- Excessive extrapolation
- Trading too much
- Disposition effect
- Naïve diversification
- Familiarity bias

- Myopic loss aversion
- Regret aversion
- Money illusion
- Neglecting Fees
- Taxes
- Housing
- Human capital
Active Management
Investing In Mutual Funds

- $4 trillion in domestic equity mutual funds

- 90% of funds actively managed

- Only 8% of funds managed to outperform the S&P 500 over a 10 year period

Beat The Market

With an audience of 1,000 portfolio managers, the likelihood of at least one manager “accidently” outperforming the market eight years in a row is ...

98%
What We’ve Learned (So Far)

Investment Mistakes

– Active management
Excessive Extrapolation
Mr. R’s Wild Ride

Value of Portfolio

Personal Wealth

Borrowed $50,000,000
To Purchase CSCO

MSFT IPO: $12,736

CSCO IPO: $595,007

100% CSCO: $100,000,000

Neither Past Performance Nor the Back Mirror Will Predict The Future
What We’ve Learned (So Far)

Investment Mistakes

– Active management
– Excessive extrapolation
Trading Too Much
Investors Seem To Trade A Lot

• Individual investors have an annual turnover of 75% in their brokerage accounts.

• Similar turnover data are observed for mutual funds and the total NYSE.

• Are investors informed or just overconfident?

Sources: Barber and Odean (2002); Cahart (1997)
Trading Can Be Hazardous To Your Wealth

Source: Barber and Odean (2000)
Men Trade (And Lose) More Than Women

Source: Barber and Odean (2001)
Those Who Speed Also Trade More

Source: Grinblatt and Keloharju (2007)
What We’ve Learned (So Far)

Investment Mistakes

– Active management
– Excessive extrapolation
– Trading too much
Disposition Effect
Question:

You bought 1,000 shares of stock A ($50/share) and 1,000 shares of stock B ($100 /share)

After a few periods, your stocks are now worth:

Stock A: $50k → $75k
Stock B: $100k → $75k

You now need $75k to buy a house – what would you sell?
Disposition Effect

For most of the year, on average, a stock that is up in value is 60% more likely to be sold than one that is down in value

Source: Odean (1998)
What We’ve Learned (So Far)

Investment Mistakes

– Active management
– Excessive extrapolation
– Trading too much
– Disposition effect
Naïve Diversification
Diversification Experiment With Halloween Trick-Or-Treaters

Case 1: Pick 1 Candy From Each of 2 Houses

Case 2: Pick 2 Candies From 1 House

48% Diversified

100% Diversified

Diversification

TWA Pilots offered:
- 5 stock funds
- 1 fixed income fund

UC Employees offered:
- 1 stock fund
- 4 fixed income funds

Source: Benartzi and Thaler (2001)
What We’ve Learned (So Far)

Investment Mistakes

- Active management
- Excessive extrapolation
- Trading too much
- Disposition effect
- Naïve diversification
Familiarity / Home Bias
A typical money manager’s portfolio consists of firms that are located 100 miles closer to the manager’s office than the average US firm.

Home Investment Percentages From Around The World

Let’s Go To The Races!

- Conquistador Cielo, winner of the 1982 Belmont Stakes, raced most of his career on the East Coast.

- East Coast racing fans knew him well, but West Coast fans didn’t.
Cross Track Betting

• Consider cross-track betting: Bettors can place a wager at their local track on a race run elsewhere.

• If you could place a bet on Conquistador Cielo before the Belmont, would you pick an East Coast track or a West Coast track?
And The Winner Is...

Los Alamitos Race Track
Payout $15.40

Commodore Downs Race Track
Payout $5.80

West Coast bettors earned more on Conquistador Cielo’s win just because fewer people in the area knew him!

Source: Hausch and Ziemba (1990)
What We’ve Learned (So Far)

Investment Mistakes

– Active management
– Excessive extrapolation
– Trading too much
– Disposition effect
– Naïve diversification
– Familiarity bias
Myopic Loss Aversion
Question:

Consider the following bet:

I flip a coin – either you win $200 or you lose $100. Are you willing to play it for real money right now?

Source: Samuelson (1969)
Why Do People Reject The Bet?

• Samuelson’s bet is a great investment, since you “invest” $100 and you either lose it or get $300 back

• And, there is really no “risk” in losing $100 (other than explaining to your spouse)

• Yet, most people reject the bet - Why?
The Bet Is Unattractive To Loss Averse Investors

- Losses loom larger than gains
- The pain of a loss is twice the pleasure of a gain
- We simply hate to lose, even small amounts

Source: Kahneman and Tversky (1979)
Question:

Now, what if we play 2 rounds of the Samuelson bet?
### Playing & Watching Short-Term Losses

<table>
<thead>
<tr>
<th>First Round</th>
<th>Second Round</th>
<th>Hedonic Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>+200</td>
<td>+200</td>
<td>😄</td>
</tr>
<tr>
<td>+200</td>
<td>-100</td>
<td>😞</td>
</tr>
<tr>
<td>-100</td>
<td>+200</td>
<td>😞</td>
</tr>
<tr>
<td>-100</td>
<td>-100</td>
<td>😞</td>
</tr>
</tbody>
</table>

Source: Benartzi and Thaler (1995)
## Playing & Watching The Aggregate Outcome

<table>
<thead>
<tr>
<th>First Round</th>
<th>Second Round</th>
<th>Total</th>
<th>Hedonic Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>?</td>
<td>+400</td>
<td>😃😃</td>
</tr>
<tr>
<td>?</td>
<td>?</td>
<td>+100</td>
<td>😃😃</td>
</tr>
<tr>
<td>?</td>
<td>?</td>
<td>+100</td>
<td>😃😃</td>
</tr>
<tr>
<td>?</td>
<td>?</td>
<td>+100</td>
<td>😃😃</td>
</tr>
<tr>
<td>?</td>
<td>?</td>
<td>-200</td>
<td>😞😞</td>
</tr>
</tbody>
</table>

Source: Benartzi and Thaler (1995)
Why Do Long Term Investors Hold Bonds?

Source: Benartzi and Thaler (1995)
Answer:

Because investors are loss averse and myopic

They tend to pay too much attention to short-term losses, even when they invest for the long-run

Source: Benartzi and Thaler (1995)
What We’ve Learned (So Far)

Investment Mistakes

- Active management
- Excessive extrapolation
- Trading too much
- Disposition effect
- Naïve diversification
- Familiarity bias

- Myopic loss aversion
Regret Aversion
Harry Markowitz

“I should have computed the historical co- variances of the asset classes and drawn an efficient frontier.”

Instead ... “I split my contributions fifty-fifty between bonds and equities...”

My intention was to minimize my future regret.”

Source: Money (1998)
Money Illusion
Question:

Would you rather purchase a 10 year TIPS (Treasury Inflation-Protected Security) or a 10 year nominal treasury bond?
What We’ve Learned (So Far)

Investment Mistakes

- Active management
- Excessive extrapolation
- Trading too much
- Disposition effect
- Naïve diversification
- Familiarity bias

- Myopic loss aversion
- Regret aversion
- Money illusion
Neglecting Fees
Question:

If you to pay an additional 1% annual fee on your account, how much less would it be worth 30 years down the road?

~ 30%!
Front-End Loads & The Percentage Of Assets In Funds With Loads

Source: Barber et al (2005)
Fund Flows – Expense Ratio & New Money

Source: Barber et al (2005)
Research On Fees

- Less than 20 percent of mutual fund holders could give an estimate of their fees

- Only one in five state employees realized the effect of fees

- However, investors are sensitive to obvious expenses

What Do Investors Understand About Fees?

- Investors are sensitive to front-end load fees from mutual funds...

- ...but less so to operating expenses

- Expenses that remain out of sight are likely to remain out of mind

What We’ve Learned (So Far)

Investment Mistakes

- Active management
- Excessive extrapolation
- Trading too much
- Disposition effect
- Naïve diversification
- Familiarity bias

- Myopic loss aversion
- Regret aversion
- Money illusion
- Neglecting Fees
Taxes
What’s Weird With This Portfolio?

- Tax-exempt Bond Funds: 3
- Taxable Bond Funds: 4
- Money-market Funds: 6
- Int’l/Global Funds: 8
- U.S. Stock Funds: 16

What We’ve Learned (So Far)

Investment Mistakes

– Active management
– Excessive extrapolation
– Trading too much
– Disposition effect
– Naïve diversification
– Familiarity bias

– Myopic loss aversion
– Regret aversion
– Money illusion
– Neglecting Fees
– Taxes
Housing
Class Discussion

What factors are there when deciding whether to buy or rent a house?

What are the possible behavioral blind-spots?
Buy Vs. Rent

Buy a $500,000 condo:  
+$35,000 interest  
+$6,000 property tax  
+$5,000 own maintenance  
+$3,000 home association  
+$1,000 insurance  
-$15,000 tax deductions

Rent for $2,000/mo:  
+$24,000 rent

$35,000 per year  >  $24,000 per year

To Run the Housing Calculator - Click Here
In 2001, Median Homeowners Had (In $k):

- **Other Wealth**: 49
- **Mortgage**: 70
- **Net Housing**: 53

**2001 Median**

- Other Wealth: 49
- Mortgage: 70
- Net Housing: 53

**After 20% Housing Loss**

- Other Wealth: 28
- Mortgage: 70
- Net Housing: 49

Median Wealth For Households Age 35 – 44 (In 2008 Dollars)

Housing & Emotion
What We’ve Learned

Investment Mistakes

– Active management
– Excessive extrapolation
– Trading too much
– Disposition effect
– Naïve diversification
– Familiarity bias

– Myopic loss aversion
– Regret aversion
– Money illusion
– Neglecting Fees
– Taxes
– Housing
Human Capital
Human Influence

When choosing a college major:

1. Students are more likely to choose a major when peers have made the same choice

2. Following peers diverts students from majors where they have an ability advantage

3. Over time, these students were found to have had lower grades, lower starting salaries, and lower job satisfaction

The Dog Walker
And ...
What We’ve Learned

Investment Mistakes
– Active management
– Excessive extrapolation
– Trading too much
– Disposition effect
– Naïve diversification
– Familiarity bias

– Myopic loss aversion
– Regret aversion
– Money illusion
– Neglecting Fees
– Taxes
– Housing
– Human capital