WEALTH LOGIC, LLC

Using ETFs and Other Simple Products to Guarantee Top Performance

Allan S. Roth, MBA, CPA, CFP®

March 13, 2007
Agenda

• MONEY – How we think about it.
• ETF’s
  – How to guarantee you will beat most investors.
  – How to do even better.
• Low Hanging Fruit – a case study.
  – Portfolio design to increase return without increasing risk.
MONEY

- FREEDOM
- SECURITY
- SURVIVAL
- ENJOYMENT

Money is Emotional!
Behavioral Finance

Why good smart people Make such bad investments
Who is about to buy something big?
A rational analysis

Value = Benefits - Costs
FEAR AND GREED
When was more money pouring into stock mutual funds?
When was more money pouring out of stock mutual funds?

Since 1996, the average investor earned 1.5% less than the average stock fund.

Source: MONEY Dec 06
FEAR AND GREED
If only retailers had it as easy as Wall Street

We’ve Doubled our Price Sale
Customers rush in to buy all they can.

50% Off Sale
Customers rush to return all they bought at the first sale – returning at the lower price.
HINDSIGHT BIAS

• If a small fraction of the investors now saying it was obvious actually knew it was obvious back in 1999, the bubble would never have occurred.
**Hindsight Bias** – Who wouldn’t want to go back to 1990 and revisit a decision to invest in a product that hadn’t changed in 50 years versus the leader in a technology that would ultimately change the way we all communicate?
Hindsight Bias – Who wouldn’t want to go back 15 years and revisit a decision to invest in a product that hadn’t changed in 50 years versus the leader in a technology that would ultimately change the way we all communicate?

Even Hindsight isn’t 20/20
Don’t confuse a good company with a good stock
Optimism

- Are you an above average driver?
- Roughly 95% of us (including me) think we are above average.

It’s also impossible for the average investor to be above average…and the average investor is a professional.
Behavioral Finance

• In college basketball, what percent of the time do you think the team behind at halftime wins the game?
OPTIMISM

• Q - In college basketball, what percent of the time do you think the team behind at halftime wins the game?
  • A: Just under 20%
    – What makes the news?
    – Hollywood
    – This is America – optimism is good but can hurt us in investing.

• Any 1 star mutual funds being advertised?
• Any TV shows celebrating bad stock picks?
DATA MINING

1. Which coin toss pattern has a higher likelihood of occurring

a. 

b. 

![Image of coin toss patterns]
The Highest Correlation Ever Found: Butter Production in Bangladesh!

+ = S&P 500 Performance
DATA MINING?

• Dogs of the Dow
• August & September market slump
• Presidential election cycle
• Skirt length
• Other examples?

*It’s human nature to find patterns out of randomness.*
FRAMING

• Sue is very quiet and has little interest in other people. She rarely goes out. She is, however, very helpful and knowledgeable. She has a degree in English literature.

• Sue is a:

Librarian? Sales rep?
FRAMING

• It is more likely that Sue is a Sales Rep because there are far more sales reps than librarians in the world.

• For some reason, we prefer a 10% return with 12% inflation to a 4% return with 3% inflation.

• Remember the days when you could get 10% return on a CD (1981)?

• We are happier with our investment advisor if he gets a 10% return when the market increases by 15% than when he loses 5% when the market loses 10%.
FRAMING

• I would prefer to pay a money manager:
  a) 1% of my assets managed
  b) 10% of earnings from the portfolio managed
  c) 12% of my real (after inflation) earnings
Mental Accounting

- Las Vegas – 2 out of every 3 people who come back from Las Vegas tell me they won money.
- The average individual thinks they beat the market by 3%.
Investors barely beat inflation but think they are trouncing the market

Real (after inflation) Return

Perceived Real Return

Actual Real Return

Less Taxes

Less Fees

Real Return

4.5%  1.4%  2.0%  1.1%  7.5%

REALITY DISCONNECT

Investors give up nearly all of their real return and don’t know it
Why do Fund Families on the Right Hand Side Exist? Logic or Behavioral Finance?

Do costs really matter?
A comparison of expense ratios to performance ratings of the

20 Largest Mutual Fund Families
Expense Ratio Explains 59% of Morningstar Performance Ratings (US Stocks)
As the expense ratio goes up, performance goes down.

Two Visualization Exercises
1. Throw money away.
2. Donate money to a Wall Street Billionaire.
What is the Role of the Investment Advisor?

Picking Mutual Funds
(Morningstar – “The Study of the Decade!”)
• Performance worse
• Emotional mistakes equal

“The Costs and Benefits of Brokers in the Mutual Fund Industry”
Daniel Bergstresser and Peter Tufano of the Harvard Business School, and John Chalmers of the University of Oregon.
The Value of Expert Advice
Picking Stocks

**Buy the Sells**

Stocks with the most “sell” ratings from analysts often perform better than those with only “buy” or “hold” ratings—especially in recent years.

Year-on-year performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Stocks with the most “sell” ratings</th>
<th>Stocks with “buy” or “hold” ratings only</th>
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<tbody>
<tr>
<td>1994-'95</td>
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<td>2001-'02</td>
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<td>2002-'03</td>
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<td></td>
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<tr>
<td>2003-'04</td>
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</tbody>
</table>

Note: Based on stocks in the S&P 500 followed by at least five analysts. Performance measured over one year; rebalanced monthly.

Source: Zacks Investment Research

The Wall Street Journal 4/11/05
Behavioral Finance in Action
True Lies that will Steal Your Nest Egg

You can trust me!
“Honest Al”

1. If you had invested in this strategy…(hindsight)
2. Last year, our mutual funds significantly beat the S&P 500 index. (framing)
3. It’s not about decreasing costs, it’s about increasing one’s returns. (optimism)
4. Smart money is invested in India and China. (overconfidence)
Behavioral Finance in Action

5. You insure your home, so you should insure your stock portfolio. You get the upside of the market without the downside risk. (fear and greed)

6. Index investing is conservative and guaranteed to underperform the market. (framing)

7. To reach your financial goals, you must be proactive in your investing. (personal favorite – uses them all)
Behavioral Finance in Action

**Homework**
Go to another Free Investment Seminar. This time, pick the one with:
- The fanciest invitation
- Offering the best food and booze
- At the nicest location

Observe behavioral finance in action. How do they play on your emotions?
Take Aways

1. Understand that our worst enemy is ourselves. Our instincts will lead us to do the wrong thing at the wrong time.

2. Harness the two most powerful forces in the universe:
   A. **Compounding (Albert Einstein).** Buy the entire market at dirt low costs (Broad US and International Index Funds and ETFs).
   B. **Inertia (Sir Isaac Newton).** After building an efficient portfolio, resist the urge to change it.

3. Simple is usually better and never buy a product or implement a strategy you don’t fully understand – no matter how badly you want to believe it.
WARNING!!!
What I’m about to show you will be boring!
It will just work!

Financial planner built career on being boring

Allan Roth dares you to be dull — with your investment portfolio. Roth is a certified financial planner with Wealth Logic LLC in Colorado Springs (www.daretobedull.com) and is an advocate for low-cost index investing that spreads portfolio money over global markets instead of confining it to individual stock picks.

Roth has been quoted by national media on the subject, including Money magazine and The Wall Street Journal. Recently he won a 1½-year battle with a professional financial association that agreed to retract its research stating that actively managed funds outperformed passively managed index funds.

**QUESTION:** Why aren’t investors better off with a professional managing their money instead of a passive index?

**ANSWER:** It’s easy to assume that a professional manager has some sort of edge over “Joe Investor,” and should be able to beat the market by more than their fee. Unfortunately, the market is comprised of 90 percent professionals, so it comes down to banking on whether your professional is better than the multitude of other professionals.
ETFs and Top Performing Investors

William Sharpe – Arithmetic of Investing

• (1) before costs, the return on the average actively managed dollar will equal the return on the average passively managed dollar and

• (2) after costs, the return on the average actively managed dollar will be less than the return on the average passively managed dollar
The US Stock Market

- Current Market Cap: ~$16 Trillion
- Wall Street Take: ~$320 Billion
- House take: ~2.0%
The US Stock Market

- Current Market Cap: ~$16 Trillion
- Wall Street Take: ~$320 Billion
- House take: 2.0%

Audience Returns:

<table>
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<th>Audience Returns</th>
<th>Optimistic</th>
<th>Most Likely</th>
<th>Pessimistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 YEAR RETURN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOUSE TAKE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET RETURN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total US Index Fund (.1%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDEX FUND VS AVG</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
The US Stock Market

• Current Market Cap: ~$16 Trillion
• Wall Street Take: ~$320 Billion
• House take: ~2.0%

Does the same point hold for any definition of the Market?
How Lucky do you feel?

Probability of Active Management beating Passive
How lucky do you feel?

<table>
<thead>
<tr>
<th>Number of Managers or Funds</th>
<th>1</th>
<th>5</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>42%</td>
<td>32%</td>
<td>25%</td>
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</tr>
<tr>
<td>30%</td>
<td>18%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>23%</td>
<td>11%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>12%</td>
<td>3%</td>
<td>1%</td>
<td></td>
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<tr>
<td>15</td>
<td>34</td>
<td>22</td>
<td></td>
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<tr>
<td>20</td>
<td>17</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>15</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>
Albert Einstein

"Things should be made as simple as possible -- but no simpler"
Ways to own the whole Stock Market

**VANGUARD**
- US – EQUITY 67%
- VTI – TOTAL US STOCK MARKET INDEX
- INTL EQUITY 33%
  - VEU - FTSE All-World Ex-US Index Fund (new!)

**iSHARES**
- US EQUITY 67%
  - IVW – Russell 3000
- INTL EQUITY 33%
  - EFA – 80%
  - EEM – 14%
  - EWC – 6%
Ways to own the whole Bond Market

**VANGUARD**

**VBMFX** – Vanguard total bond market index fund

**iSHARES**

**AGG** – Lehman Aggregate Bond Index
A recently featured Winning Portfolio
The second grader portfolio

1. Total US Stock
2. Total Int’l Stock
3. Total Bond

Youth movement
How an 8-year-old crafted a simple, winning, 'lazy' portfolio

• Don’t put all of your eggs in one basket
• Don’t play a loser’s game

• Don’t confuse owning lots of funds with being diversified; three's enough.
• Kevin has other advantages over adults: He doesn't go to cocktail parties where people brag about their investments.
• No financial planners (a.k.a. salespeople) call on him to exploit emotions.
• He doesn't watch the financial shows on TV -- doesn't even know who Jim Cramer is.
Imagine you live in a simple world where a year is either sunny or rainy and there is a 50% probability of either. You review two stocks. How would you construct your portfolio?

**Golden Tan, INC (GTI)**
- Expected return – (+10%)
- Return on sunny years – (+30%)
- Return on rainy years – (-10%)

**Rainy Day Umbrellas (RDU)**
- Expected return – (+10%)
- Return on sunny years – (-10%)
- Return on rainy years – (+30%)
What about alternative asset classes?

REITS (10% or LESS)
• VNQ Vanguard REIT
• IYR iShares Dow Jones U.S. Real Estate

PRECIOUS METALS (5% or LESS)
• VGPMX – Closed Vanguard Mutual Fund
• GDX – Van Eck (2.5% or less)

HEDGE FUNDS AND PRIVATE EQUITY FUNDS
• Too expensive for the average investor
What about Specialized and Enhanced ETFs?

- Do they offer the same guarantee?

- Morningstar – Indexing has gone Hollywood which has increased volatility and costs.
ETFs I Don’t Like

• SPY & IVV – S&P 500
• GLD – Gold & other commodities
• Individual Countries – including China & India
• WisdomTree – especially in taxable accounts.
• Soon to come Colorado ETFs – they just keep getting narrower.
LOW HANGING FRUIT
A case study

Improved performance with essentially no additional risk
Help me improve my portfolio
I’m in the 28% marginal Tax Rate

Allan Roth - Balance Sheet

<table>
<thead>
<tr>
<th>Money required to be liquid</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking account - Local Bank</td>
<td>$ 100,000</td>
</tr>
<tr>
<td>Portfolio</td>
<td></td>
</tr>
<tr>
<td>Taxable</td>
<td></td>
</tr>
<tr>
<td>VBMFX - Vanguard Total bond</td>
<td>$ 500,000</td>
</tr>
<tr>
<td>IRA</td>
<td></td>
</tr>
<tr>
<td>Morgan Stanley Total Market Index</td>
<td>$ 366,667</td>
</tr>
<tr>
<td>J P Morgan International Index Fund</td>
<td>$ 133,333</td>
</tr>
<tr>
<td>Total Tax Deferred</td>
<td>$ 500,000</td>
</tr>
<tr>
<td>Total Portfolio</td>
<td>$1,000,000</td>
</tr>
</tbody>
</table>
I. Money Market Accounts

Allan Roth - Balance Sheet

Money required to be liquid

Checking account - Local Bank $100,000

Portfolio

Taxable

VBMFX - Vanguard Total bond $500,000

IRA

Morgan Stanley Total Market Index $366,667

J P Morgan International Index Fund $133,333

Total Tax Deferred $500,000

Total Portfolio $1,000,000

$2 K in checking - $98K in money market account (3% x $98K = $2,940.)

Firms make $billions from your cash!  WSJ
II. Beyond bonds

Allan Roth - Balance Sheet

Money required to be liquid

Checking account - Local Bank $100,000

Portfolio

Taxable

VBMFX - Vanguard Total bond $500,000

IRA

Morgan Stanley Total Market Index $366,667

J P Morgan International Index Fund $133,333

Total Tax Deferred $500,000

Total Portfolio $1,000,000

CDs backed by US Agency yielding 6.25% rather than 5.15% (1.10% x 500K = $5,500)
• Justice Federal CU 6.25% / 6.35% 2 year – Join NSA.
• Alliance Bank 6.98% variable IRA CD (3 mo. early withdrawal)
III. Expensive Index Funds

Allan Roth - Balance Sheet

Money required to be liquid

Checking account - Local Bank $ 100,000

Portfolio

Taxable

VBMFX - Vanguard Total bond $ 500,000

IRA

Morgan Stanley Total Market Index $ 366,667

J P Morgan International Index Fund $ 133,333

Total Tax Deferred $ 500,000

Total Portfolio $1,000,000

These are guaranteed to under-perform the same index with lower costs. 1.2% x $500K = $6,000. Why do high cost index funds exist?
Updated balance sheet before the “mother of all low hanging fruit”

Allan Roth - Updated Balance Sheet

Money required to be liquid

<table>
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<th>Account</th>
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<th>Tax</th>
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<td>Checking account - Local Bank</td>
<td>$2,000</td>
<td>$2,940</td>
</tr>
<tr>
<td>Capital One Money Market</td>
<td>$98,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL CASH</td>
<td>$100,000</td>
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Portfolio

Taxable

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<tr>
<td>CDs - Credit Unions and Banks (insured)</td>
<td>$500,000</td>
<td>$5,500</td>
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IRA

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<td>$6,000</td>
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<td>$133,333</td>
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Total Tax Deferred                                      $500,000

Total Portfolio                                         $1,000,000 $14,440
Oh yea - taxes

Allan Roth - Updated Balance Sheet

Money required to be liquid

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**Total Portfolio** $1,000,000

$500,000 x 6.25% = 31,250

$31,250 x 28% rate = $8,750

What can be done to decrease the taxes?
Reverse the holdings - Asset Location is as important as Asset Allocation

Allan Roth - Finished Balance Sheet

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Total Portfolio $1,000,000

$500K x 2% Dividend = $10,000

$10,000 x 18% div rate = $1,800

Original tax of $8,750
Less new tax of $1,800

Savings of $6,950 (some deferred and some eliminated)
Annual Value of Low Hanging Fruit

$2,940 High yielding money market

$5,500 CDs versus Bond fund

$6,000 Lower cost index funds

$6,950 Tax savings.

$21,390
Parting Words

**Emotions:**
We are feeling beings who happen to think, not thinking beings who happen to feel. We are programmed to buy high and sell low and Wall Street and the Media are more than willing to help.

**Top Performance:**
Own the entire market with ultra low costs ETFs and Index Funds. Remember the KISS principle. Capitalism works – don’t try to outsmart it.

**Low Hanging Fruit**
We all have some to pick but we have to fight the power of inertia to get it done.
THANK YOU!

I will post the presentation at:

www.DareToBeDull.com

Under “Links and Resources”

Free Subscription for more
(CDs next month?)
Appendices

A 6: Bibliography – suggested Reading

John Allen Paulos – A Mathematician Plays the Stock Market, Basic Books 2003
Peter Bernstein – Against the Gods, Wiley & Sons 1996
Charles Ellis – Winning the Losers Game, McGraw Hill 2002
Burton Malkiel – Random Walk Down Wall Street, Norton 2004
David Margolis – Costly Errors, David P Margolis, Inc 2002
Larry Swedroe – Rational Investing in Irrational Times, St Martin Press 2002
R. H. Thaler – Advances in Behavioral Finance, Russell Sage Foundation 1993