Tashkent State University of Economics

Household finance

Lecture 12: Impact of innovations on household behavior.

Lecturer: professor Otabek Karshiev

The Seer-Sucker Theory: The Value of Experts in Forecasting

“No matter how much evidence exists that seers do not exist, suckers will pay for the existence of seers.”

—J. Scott Armstrong
The Wharton School, University of Pennsylvania

Why Is Persistent Outperformance So Hard to Find?

The Value of Security Analysis

- In May 1998, Intel had accumulated over $10 billion of cash.
- The board was trying to determine if it should repurchase stock.
- The stock was trading at about $120 per share.
- Based on publicly available forecasts of future cash flows:
  - If the ERP were 3 percent, Intel's stock would be worth $204;
  - If the ERP were 5 percent it would be worth $130;
  - If the ERP were 7.2 percent, the stock would be worth just $82.

What Should Intel's Board Do?

- If the stock was worth \$204, they should repurchase shares.
- If it was worth \$82, they should issue more shares.

The problem:

- Valuations assumed that the cash flow projections were *known*.
- Not even the board (let alone a security analyst) has such clarity.
- Can the board predict the ERP better than the market?

What Should Intel's Board Do?

If corporate insiders have such difficulty in determining a correct valuation, it is easy to understand why the results of active management are so poor and inconsistent.

“The Efficient Market Theory Thrives on Criticism”

Dwight Lee and James Verbrugge

The Tyrannical Nature of an Efficient Market

- “The efficient market theory is practically alone among theories in that it becomes more powerful when people discover inconsistencies between it and the real world.”
- “If a clear efficient market anomaly is discovered, the behavior (or lack of behavior) that gives rise to it will tend to be eliminated by competition for higher returns.”
- “The more empirical flaws that are discovered in the efficient market theory, the more robust the theory becomes.”

“The Efficient Market Theory Thrives on Criticism”

Dwight Lee and James Verbrugge

The Tyrannical Nature of an Efficient Market

“Those who do the most to ensure that the efficient market theory remains fundamental to our understanding of financial economics are not its intellectual defenders, but those mounting the most serious empirical assault against it.”

Prudent Investor Rule Restatement

- Modern Portfolio Theory is adopted as the standard by which fiduciaries invest.
- May of 1992 American Law Institute Third Restatement of the Prudent Investor Rule recognizes:
  - Little or negative payoff when fiduciaries and other investors try to apply expertise, investigation and diligence in efforts to “beat the market.”
  - Little correlation between fund managers’ earlier successes and their ability to produce above-market returns in subsequent periods.

Whose Interests Do They Have at Heart?

- Wall Street knows that the odds of outperforming appropriate benchmarks are so low that it is not in your interest to play.
- They need you to play so that *they* make the most money.
- They charge high fees, but deliver persistently poor performance.
- The financial media also want and need you to play so that you tune in. That is how *they* make money.

Steve Forbes

"You make more money selling the advice than following it."

—Steve Forbes,
quoting his grandfather who founded *Forbes* magazine

Whose Interests Do They Have at Heart?

Only sure way to win the active management game is not to play

Summary

- You don't have to play the game of active management.
- Instead, you can earn market (above average) rates of return with high tax efficiency by investing in passively managed funds.
- By doing so, you are virtually guaranteed to outperform the majority of both professional and individual investors.

The Arithmetic of Active Management

Total Market	=	Active Investors	+	Passive Investors
(10%)	=	(70% x ?)	+	(30% x 10%)
(10%)	=	(70% x 10%)	+	(30% x 10%)

Subtract expenses (higher for active management)

- Operating expenses
- Cost of cash
- Commissions
- Bid/offer spreads
- Market impact
- Taxes

Summary

- If you invest in actively managed funds, you have the hope of outperformance.
- However, the evidence demonstrates that it is the triumph of hype, hope and marketing over wisdom and experience.

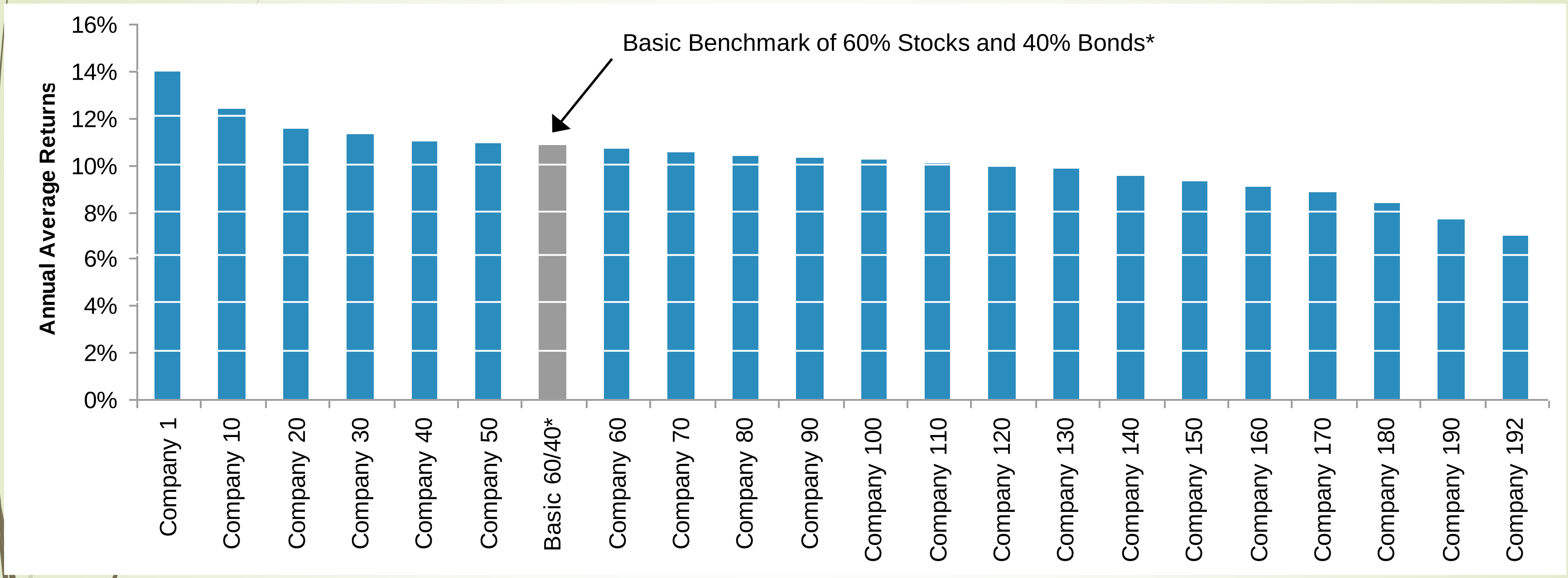
Peter Lynch

"[Investors] think of the so-called professionals … as having all the advantages. That is total crap. … They'd be better off in an index fund."

Warren Buffett

"Most investors, both institutional and individual, will find that the best way to own common stocks is through an index fund that charges minimal fees. Those following this path are sure to beat the net results (after fees and expenses) delivered by the great majority of investment professionals."

How Many Corporate Pension Plans Outperformed a Passive Benchmark?



Consulting firm Futuremetrics' most recent analysis of U.S. corporate pension plans covered the period 1988–2005. Of the 192 firms in the analysis, 137 plans (71 percent) failed to outperform a simple benchmark.

The Power of Diversification

Including Commodities

Portfolios Rebalanced Quarterly:
January 1973–December 2008

	Portfolio					
	1	**2**	**3**	**4**	**5**	**6**
Barclays Capital Gov't Credit Bond Index	40%					
S&P 500 Index	60%	60%	30%	15%	7.5%	7%
One-Year US Treasury Note Index		40%	40%	40%	40%	40%
CRSP 9-10 Index			30%	15%	7.5%	7%
Fama-French US Small-Cap Value Index				15%	7.5%	7%
Fama-French US Large-Cap Value Index				15%	7.5%	7%
Fama-French International Value Index					15%	14%
DFA International Small-Cap Index					15%	14%
S&P Goldman Sachs Commodities Index (S&P GSCI™)						4%
Performance						
Annualized Return	9.17%	8.67%	9.60%	10.08%	10.61%	10.59%
Annualized Standard Deviation	12.72%	11.70%	13.35%	13.69%	12.93%	12.05%
Growth of $1	$23.52	$19.94	$27.10	$31.75	$37.75	$37.54
Sharpe Ratio*	0.311	0.286	0.334	0.365	0.421	0.442

A diversified portfolio can provide higher expected returns with reduced risk.

Simulated Strategy Evolution

Similar Profiles, Varied Allocations

Value-3

	1997	2008
Equity	**100.0%**	**100.0%**
Domestic Market	**70.0%**	**60.0%**
U.S. Large-Cap	15.0	13.0
U.S. Large-Cap Value	20.0	17.0
U.S. Small-Cap	10.0	8.5
U.S. Small-Cap Value	25.0	21.5
International Developed Markets	**26.0%**	**35.0%**
International Large-Cap		
International Large-Cap Value	14.0	18.7
International Small-Cap	4.0	5.3
International Small-Cap Value	8.0	11.0
Emerging Markets	**4.0%**	**5.0%**
Emerging Markets	2.0	2.5
Emerging Markets Small-Cap	0.0	0.0
Emerging Markets Value	2.0	2.5

Simulated Portfolio Construction

Simulated Strategy* — Value-3 2008

	Portfolio (%)			
	Conservative	Moderate	Aggressive	All-Stock
Equity	**40.0**	**60.0**	**80.0**	**100.0**
Domestic	**24.0**	**36.0**	**48.0**	**60.0**
Large-Cap				
DFA US Large Company Institutional Index Portfolio	5.0	7.7	10.3	13.0
Large-Cap Value				
DFA US Large Cap Value Portfolio III	7.0	10.3	13.7	17.0
Small-Cap				
DFA US Small Cap Portfolio	3.5	5.0	7.0	8.5
Small-Cap Value				
DFA US Targeted Value Portfolio	8.5	13.0	17.0	21.5
International	**16.0**	**24.0**	**32.0**	**40.0**
Large-Cap Value				
DFA International Value Portfolio III	7.5	11.3	15.0	18.7
Small-Cap				
DFA International Small Company Portfolio	2.0	3.2	4.5	5.3
Small-Cap Value				
DFA International Small Cap Value Portfolio	4.5	6.5	8.5	11.0
Emerging Markets Large				
DFA Emerging Markets Portfolio	1.0	1.5	2.0	2.5
Emerging Markets Value				
DFA Emerging Markets Value Portfolio	1.0	1.5	2.0	2.5
Fixed Income	**60.0**	**40.0**	**20.0**	**0.0**
DFA Two-Year Global Fixed Income Portfolio	30.0	20.0	10.0	0.0
DFA Inflation-Protected Securities	30.0	20.0	10.0	0.0

Simulated Portfolio Performance

Simulated Strategy* — Value-3 2008

Annualized Returns for Periods Ending 12/31/08

Gross Returns

	Conservative (40/60)	Moderate (60/40)	Aggressive (80/20)	All-Stock (100/0)	S&P 500/ MSCI EAFE Index**
One Year	–15.27%	–23.57%	–31.88%	–40.16%	–39.55%
Three Years	–0.69%	–3.27%	–6.19%	–9.49%	–7.88%
Standard Deviation	7.90%	11.59%	15.57%	19.81%	17.82%
Five Years	2.61%	2.17%	1.41%	0.31%	–0.58%
Standard Deviation	6.85%	10.18%	13.71%	17.43%	15.23%
Ten Years	4.99%	5.31%	5.42%	5.30%	–0.44%
Standard Deviation	9.28%	14.02%	18.85%	23.74%	22.70%

Growth of $1,000 Invested for Periods Ending 12/31/08

Gross Returns

	Conservative (40/60)	Moderate (60/40)	Aggressive (80/20)	All-Stock (100/0)	S&P 500/ MSCI EAFE Index**
One Year	$847	$764	$681	$598	$605
Three Years	$980	$905	$825	$742	$782
Five Years	$1,138	$1,113	$1,073	$1,016	$971
Ten Years	$1,627	$1,678	$1,696	$1,675	$957

Simulated Portfolio Performance

Simulated Strategy* — Value-3 2008

Annualized Returns for Periods Ending 12/31/08
With 1.25% Advisory Fee

	Conservative (40/60)	Moderate (60/40)	Aggressive (80/20)	All-Stock (100/0)
One Year	–16.33%	–24.52%	–32.72%	–40.90%
Three Years	–1.92%	–4.48%	–7.36%	–10.61%
Standard Deviation	7.88%	11.56%	15.52%	19.75%
Five Years	1.33%	0.89%	0.15%	–0.93%
Standard Deviation	6.83%	10.15%	13.67%	17.38%
Ten Years	3.68%	4.00%	4.11%	3.99%
Standard Deviation	9.17%	13.85%	18.62%	23.44%

Growth of $1,000 Invested for Periods Ending 12/31/08
With 1.25% Advisory Fee

	Conservative (40/60)	Moderate (60/40)	Aggressive (80/20)	All-Stock (100/0)
One Year	$837	$755	$673	$591
Three Years	$943	$872	$795	$714
Five Years	$1,068	$1,046	$1,008	$954
Ten Years	$1,436	$1,481	$1,496	$1,478