Principle 7: Keep Costs Low

[Applause]

Alan Roth: Remember Jack Bogle. You get what you don't pay for. It's true. So I want to convince you of two things. Get real and arithmetic still works. Okay, now forget real. Which is better, earning 10% when inflation is 12% or earning 3%t when inflation is 2%. Which do you think makes people happier? We like to see the balance go up even if the spending power is going down.

So stocks--this is all speculative--but stocks may have a real inflation-adjusted return of let's say 5% annually. High quality bonds maybe I%. So that means a 50/50 portfolio might, in the long run, beat inflation by 3%.

So how much of it do you want to give away? Now I ran something by Mike Piper on a spreadsheet last night but I should have run this by three minus two does equal one, right. Yep Mike agrees, he's nodding. So the most brilliant paper you'll ever read is three pages and incredibly simple by Nobel Laureate William Sharpe, *Arithmetic of Active Management*, and what it says is that if the stock market, let's just define it as the US stock market earns 10 percent the average dollar invested is going to earn 10 percent less the fees-- and by the way that's over any period of time, year to date, 20 years etc.

And Rick is right. Over the long period of time the total stock funds do better and better and better. So the doctor analogy. The first time I met Gus Sauter who was the Chief Investment Officer of Vanguard and was launched the Vanguard Total Stock Index Fund, he gave me this analogy. If you needed heart surgery would you find the cheapest heart surgeon or the best.

What's wrong with this analogy? And by the way he gave me this analogy as what other active managers were using. Okay, yeah my doctor wouldn't have to make somebody else die in order to make me live. The stock market is a zero-sum game. We do not live in Lake Wobegon where 90% of us are above average. So how much do you want to give up between fees, the expense ratio, hidden fees, bid/ask, market impact, hedging, etc. Advisor fees---my hourly rate is a drag on returns. Emotions, taxes, and remember tax or chart taxes are charged on nominal basis, not inflation based.

So I showed you this slide earlier, and again, it's incredibly important, the costs of emotions. Those are very, very large 1.7%. So if you think about it, if a 50/50 portfolio might earn 3% above inflation. If we pay 1% in fees to the fund managers, our financial planner, investment advisor etc. We give up another 1.7% in emotions, and the government taxes us-- that tax number is much lower because the active fund is going to have lower returns and be a little bit more tax efficient from that standpoint-- which is not a good thing.

So you know maybe the average investor loses seven percent of 0.7 percent of spending power. This is illustrative. So the Vanguard Total Stock Index Fund--Christine showed this slide--boy I'm really glad that we both came out with 4,052 holdings, an expense ratio of 0.03 percent, plus Vanguard returns all the profits from security lending so the net cost is even less than that. The total capital gain distributions over the last 10 years is zero. And by the way, a lot of active fund holders are going to get 1099s this year when their value has gone down because they've sold stocks within the portfolio.

So mathematically, the average dollar invested in U.S stocks over any period of time must be higher for Vanguard Total Stock than active funds right.

This next slide from a research company, I shouldn't have used their name-- it was very very stressful to me because what it shows is that the Vanguard Total Stock Index Fund underperformed its peers by 1.7 percent and 73 percent year-to-date of mutual funds bested the Total Stock Index Fund.

I can't tell you how stressful that was for me and how much research I spent to get to the bottom of it. And how I got to the bottom of it is what Rick showed, is that the S&P 500 Index Fund year to date beat most of its peers. And then there's another fund out there called the Extended Market Index Fund which are every company based in the United States that's not in the S&P 500, and both of those beat their peers. So how could the sum of the two beat their peers.

Okay, and John Reckenthaler helped me get to the bottom of this. Morningstar has changed the way it looks at the Total Market. It used to be a third growth, a third value, and a third core. Now growth is much larger. So it doesn't--look I argue the market is the market, it's neither growth nor value if you own everything, you own everything---so John Reckenthaler is just absolutely brilliant and you really know somebody who's good when you disagree with them and they get to the bottom of things.

So as he puts it, owning a low-cost market cap weighted index fund is both psychologically and mathematically superior. So we hate to lose money. I've lost money this year, but I know that I've lost less money in the US market than most other people.

Okay so the most important sentence I've ever written on investing is minimize expenses and emotions, maximize diversification and discipline. It's that simple.
So conclusion, you can have a bad low-cost portfolio but you can't have a good high cost portfolio. I could have had everything in a low-cost Russian index fund and that wouldn't have worked out all that well, not very diversified.

So John Bogle gave us access to low-cost and high diversification. It's up to us to manage discipline and emotions.Smart beta was the rage about 10 years ago. Let's put everything in value, equal weighted, small cap momentum and that's active investing. I embrace dumb beta which Christine was nice enough to interview me on *The Long View* and appropriately titled *Why I Embraced Dumb Beta*.

So understand what Jack Bogle meant by the tyranny of compounding of costs on our financial freedom. Costs must be low, diversification high.