CHAPTER 33

Says Who?

Truth stands, even if there be no public support. It is self-sustained.
—Mohandas Gandhi

There's an anomaly when it comes to investing. The way most individuals invest is supported by precious little data. "Data" are rarely mentioned by a majority of brokers. How often has your broker supported his or her advice by sending you a peer-reviewed study that appeared in a financial journal, or given you long-term risk and return data?

Would you trust a doctor who prescribed medication that was not supported by published, reliable research? Of course not. Yet most investors base their investment decisions on casual statements made by self-proclaimed investment professionals, or pundits appearing on television, with nothing more than their opinions to back up the advice they so freely (and confidently) dispense.

The Smartest Portfolios are supported by reams of data. You need the comfort of knowing there is a sound basis for investing the right way. When sources are available online, the URL is provided to the source. To make it easier for you to access these websites, you can find hyperlinks to all of the sources at www.smartestinvestmentbook.com.

Introduction: A Lesson from Einstein

I highly recommend the following books:

Bernstein, William, *The Intelligent Asset Allocator*, McGraw-Hill Professional: New York, 2000.

Bogle, John C., *The Little Book of Common Sense Investing*, Wiley: Hoboken, NJ, 2007.

Malkiel, Burton G., *A Random Walk Down Wall Street*, Norton: New York, 1973.

Hebner, Mark T., *Index Funds: The 12-Step Program for Active Investors*, Index Funds Advisors: Irvine, CA, 2006, p. 392.

Larimore, Taylor, Mel Lindauer, and Michael LeBoeuf, *The Bogle-head's Guide to Investing*, Wiley: Hoboken, NJ, 2007.

You can read a very informative and entertaining piece on the merits of active versus passive management by Rex Sinquefield, cofounder of Dimensional Fund Advisors. His "opening statement in a debate with Donald Yacktman at the Schwab Institutional conference in San Francisco, October 12, 1995" can be found on this website: www.dfaus.com/2009/05/active-vs-passive-management.html.

A video of an interview with Singquefiled can be viewed on the Index Fund Advisors' website: www.ifa.com/advisorcam.

1. A Battle for Your Brain

Jason Zweig is the author of *Your Money and Your Brain: How the New Science of Neuroeconomics Can Help Make You Rich* (Simon & Schuster: New York, 2007). He is also a personal finance columnist for the *Wall Street Journal*. The quote is from Jason Zweig, "Brain Tour: It's a Pleasure," CNN Money, September 27, 2002. Available at http://money.cnn.com/2002/09/16/pf/investing/agenda_brain5/index.htm.

View brain images showing the flareup of "nucleus accumbens" of investors and addicts on the Index Fund Advisors' website: www.ifa.com/12steps/step1/step1page2.asp#brain.

Zweig explained the effect of the dopamine rush in his article "Brain Tour: It's a Pleasure," CNN Money, September 27, 2002. Available at www.money.cnn.com/2002/09/16/pf/investing/agenda_brain5/index.htm.

Find more information about the study involving two videos of the same lecturer here on *The Psy-Fi Blog*, "The Halo Effect: What's in a Company Name?," July 9, 2009. Available at www.psyfitec.com/2009/07/halo-effect-whats-in-company-name.html.

The study about effect of changing the name of a mutual fund is Michael J. Cooper, Huseyin Gulen, and Raghavendra Rau, "Changing Names with Style: Mutual Fund Name Changes and Their Effects on Fund Flows," paper no. 293, presented at the EFA 2003 Annual Conference, Glasgow, Scotland, August 2003. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=423989.

2. In Bizarro World, These Traits Would Be Valued

For further details about the junk bond scandal, see the article "Michael Milken" on Wikipedia: www.en.wikipedia.org/wiki/Michael_Milken#Scandal.

For a discussion of the emails sent by analysts, see David Teather, "The Whores of Wall Street," *Guardian*, October 2, 2002. Available at www.guardian.co.uk/business/2002/oct/02/usnews.internationalnews.

For details of the settlement of the analyst fraud scandal and the names of the settling defendants, see "Regulators Announce $1.4 Billion Settlement with Wall Street," *USA Today*, December 20, 2002 (updated March 27, 2003). Available at www.usatoday.com/money/companies/regulation/2002-12-19-settlement-usat_x.htm.

For a discussion of the Janus excessive trading settlement, see Christine Dugas and John Waggoner, "Janus to Pay $225M to Settle

Charges," *USA Today*, April 27, 2004. Available at www.usatoday.com/money/perfi/funds/2004-04-27-janus-settlement_x.htm.

The press release announcing the Bear Stearns late trading settlement can be found at the SEC's website: "SEC Settles Fraud Charges with Bear Stearns for Late Trading and Market Timing Violations," March 16, 2006. Available at www.sec.gov/news/press/2006-38.htm.

For details of the Bank of America settlement, see Otis Bilodeau, "Bank of America Fined $26 Million for Research Abuse," Bloomberg.com, March 14, 2007. Available at www.bloomberg.com/apps/news?pid=newsarchive&sid=agWFohbjP_6U&refer=home.

For an insightful article on the subprime mortgage crisis, see John Cassidy, "Scandals," *New Yorker*, May 3, 2010. Available at www.newyorker.com/talk/comment/2010/05/03/100503taco_talk_cassidy.

The machinations of Merrill Lynch relating to subprime mortgages are described in Jake Bernstein and Jesse Eisinger, "The 'Subsidy': How a Handful of Merrill Lynch Bankers Helped Blow Up Their Own Firm," *ProPublica*, December 22, 2010. Available at www.propublica.org/article/the-subsidy-how-merrill-lynch-traders-helped-blow-up-their-own-firm.

Senator Levin's report alleges that Goldman Sachs misled Congress when it testified about profiting from collaterized debt obligations. He recommended that federal prosecutors determine whether perjury charges should be brought against officers of the firm who gave this testimony. See "Goldman Sachs Misled Congress, Duped Clients, Levin Says," *Bloomberg Businessweek*, April 14, 2011. Available at www.businessweek.com/news/2011-04-14/goldman-sachs-misled-congress-duped-clients-levin-says.html. Goldman Sachs has denied these charges. You can find a complete copy of the report at www.ft.com/cms/fc7d55c8-661a-11e0-9d40-00144feab49a.pdf.

Lehman's fall from grace and the desperate efforts of Merrill Lynch to survive, are set forth in Andrew Ross Sorkin, "Lehman files for

Bankruptcy; Merrill Is Sold," *New York Times*, September 14, 2008. Available at www.nytimes.com/2008/09/15/business/15lehman.html.

The restructuring of the major players in the financial services industry is described in Stephen Labaton, "Agency's '04 Rule Let Banks Pile Up New Debt," *New York Times*, October 2, 2008. Available at www.nytimes.com/2008/10/03/business/03sec.html?_r=1.

The SEC press release concerning credit rating agencies can be found on their website: "SEC Approves Measures to Strengthen Oversight of Credit Rating Agencies," December 3, 2008. Available at www.sec.gov/news/press/2008/2008-284.htm.

In a study done by the Federal Reserve Board in December 2003, the authors correctly noted: "Bond rating agencies have an obvious conflict of interest. They have a financial incentive to accommodate the preferences of bond issuers because they are selected and paid by the issuers." Inexplicably, the study concluded that this conflict did not affect the integrity of the ratings. See Daniel M. Covitz and Paul Harrison, "Testing Conflicts of Interest at Bond Ratings Agencies with Market Anticipation: Evidence that Reputation Incentives Dominate," Federal Reserve Board, Washington, DC, 2003. Available at www.federalreserve.gov/pubs/feds/2003/200368/200368pap.pdf.

Details of Bank of America's recent settlement relating to buyers of municipal bond derivatives can be found at "BofA Pays $137 Million to Settle Fraud Charges," CNBC.com, December 7, 2010. Available at www.cnbc.com/id/40551830.

3. Investing Without Eddie O'Neal

For details of the internal report, which should have placed Banco Santandar on notice about Madoff, see James Quinn, "Santander Suspicious of Bernard Madoff in 2006," *Telegraph*, May 19, 2010. Available at www.telegraph.co.uk/finance/financetopics/bernard-madoff/7741884/Santander-suspicious-of-Bernard-Madoff-in-2006.html.

For a chilling account of the obvious red flags in Madoff's operation and the failure of the SEC to act even when it had compelling information about his Ponzi scheme, I highly recommend Harry Markopolos, *No One Would Listen: A True Financial Thriller* (Wiley: Hoboken, NJ, 2011).

The thin credentials of Madoff's auditors are described in Alyssa Abkowitz, "Madoff's Auditor . . . Doesn't Audit?" CNN Money, December 19, 2008. Available at www.money.cnn.com/2008/12/17/news/companies/madoff.auditor.fortune/index.htm.

For a list of feeder funds for Madoff, see "UK: SFO Investigating Madoff Feeder Funds," Securities Docket, March 30, 2009. Available at www.securitiesdocket.com/2009/03/30/uk-sfo-investigating-madoff-feeder-funds.

See also Simon Bowers, "Securities Fraud Office Broadens Investigation to Madoff Feeders," *Guardian*, March 27, 2009. Available at www.guardian.co.uk/business/2009/mar/27/serious-fraud-office-bernard-madoff-feeder-funds.

For details of the Madoff-related fees generated by the feeder funds, see Tom Lauricella, "Feeder Fees Topped $790 Million," *Wall Street Journal.* April 11, 2009. Available at http://online.wsj.com/article/SB123940737747310069.html.

For a discussion of how Fairfield Sentry failed to spot the Madoff red flags, see Alex Berenson and Eric Konigsberg, "Firm Built on Madoff Ties Faces Tough Questions," *New York Times*, December 21, 2008. Available at www.nytimes.com/2008/12/22/business/22fairfield.html?pagewanted=1&_r=1.

4. Join a Wise Crowd

The referenced study on the performance of investment clubs is Brad M. Barber and Terrance Odean, "Too Many Cooks Spoil the Profits: The Performance of Investment Clubs." Available at http://faculty.haas.berkeley.edu/odean/papers/clubs/Clubs_4-99.pdf.

The wisdom of crowds is not universally accepted. Daniel Tammet, *Embracing the Wide Sky* (Free Press: New York, 2009) cites the example of an online chess match between chess master Gary Kasparov and tens of thousands of online chess players. Kasparov prevailed. However, this crowd would not be deemed “wise” based on the criteria set forth by Surowiecki.

5. Trading Against Goldman Sachs

For a discussion of the contribution of trading for their own account on the profits of major Wall Street firms, see John Cassidy, “What Good Is Wall Street?” *New Yorker*, November 29, 2010. Available at www.newyorker.com/reporting/2010/11/29/101129fa_fact_cassidy?currentPage=all.

So-called proprietary trading will be forbidden by financial reform legislation passed by Congress.

For a discussion of the profits generated by Goldman Sachs from its trading activities, see the company’s press release dated October 19, 2010, at www.goldmansachs.com/our-firm/press/press-releases/archived/2010/pdfs/2010-q3-earnings.pdf.

6. What You Can *Really* Learn from Dr. Doom

The website for Roubini Global Economics is www.roubini.com.

Roubini was extolled as a market visionary. See Katie Benner and Christopher Tkaczyk, “8 Who Saw the Crisis Coming,” *Fortune*, August 2008. Available at www.money.cnn.com/galleries/2008/fortune/0808/gallery.whosawitcoming.fortune/index.html.

The evolution of Roubini from an obscure professor of economics to Dr. Doom is set forth in this article Stephen Mihm, “Dr. Doom,” *New York Times*, September 7, 2006. Available at www.nytimes.com/2008/08/17/magazine/17pessimist-t.html. The article notes that, as a result of his accurate prediction of the housing crisis, “Roubini, a respected but formerly obscure academic, has become a major figure in the public debate about the economy: the seer who saw it coming. He has been summoned to speak before Congress, the Council on Foreign Relations and the World Economic Forum at Davos. He is now a sought-after advisor, spending much of his time shuttling between meetings with central bank governors and finance ministers in Europe and Asia."

Roubini seemed to believe in his predictive powers. See Beth Kowitt, Jon Birger, and Brian O'Keefe, "8 Really, *Really* Scary Predictions," *Fortune*, December 2008. Available at www.money.cnn.com/galleries/2008/fortune/0812/gallery.market_gurus.fortune/index.html.

David Lereah's prediction about housing prices got him on a top 10 list no one wanted to make. See Morgan Housel, "The Top 10 Worst Predictions of the Financial Crisis," *The Motley Fool*, November 30, 2010. Available at www.fool.com/investing/general/2010/11/30/the-top-10-worst-predictions-of-the-financial-cris.aspx.

Bernard Bernanke's rosy prediction for the U.S. economy is set forth in Ben S. Bernanke, *The Economic Outlook*, testimony given before the Joint Economic Committee, U.S. Congress, March 28, 2007. Available at www.federalreserve.gov/newsevents/testimony/bernanke 2007 0328a.htm.

Bernanke tried to defuse his poor prediction with humor. See topeditor, "Bernanke: About That Housing Crisis Being Contained . . . ," *Wall Street Journal*, July 15, 2008. Available at http://blogs.wsj.com/economics/2008/07/15/bernanke-about-that-housing-crisis-being-contained.

Laderman study on market timing newsletters is at Jeffrey M. Laderman, "Market Timing: A Perilous Ploy," *Business Week*, March 9, 1998. Available at www.businessweek.com/1998/10/b3568136.htm.

Kiyosaki's reference to the "dead cat bounce" can be found here in Robert Kiyosaki, "2010: The Best of Times or the Worst?," *Yahoo! Finance*, December 29, 2009. Available at www.finance.yahoo.com/expert/article/richricher/211091.

For my calculation concerning the probability of a forecast being correct, I relied on Figure 4-2i on the Index Funds Advisors' website (with whom I am affiliated): www.ifa.com/12steps/step4/step4page2.asp#ForecastCorrect.

An article in *Business Week* noted that "[E]conomists mostly failed to predict the worst economic crisis since the 1930s." Peter Coy, "What Good Are Economists Anyway?," *Bloomberg Businessweek*, April 16, 2009. Available at www.businessweek.com/magazine/content/09_17/b4128026997269.htm?chan=top+news_economics+subindex+page_economics.

7. The Myth of the Lost Decade

Here are two sources in the financial media that discussed the lost decade:

Farzad, Roben, "A Decade of Decay," *Bloomberg Businessweek*, January 10, 2008. Available at www.businessweek.com/magazine/content/08_03/b4067071413745.htm.

Gongloff, Mark, "Lost Decade," *Wall Street Journal*, July 3, 2008. Available at http://blogs.wsj.com/marketbeat/2008/07/03/lost-decade.

The video of my (Dan Solin's) confrontation with Jim Cramer can be seen on the *Huffington Post* website at www.huffingtonpost.com/2009/04/17/jim-cramer-flips-out-at-h_n_188443.html.

For an excellent summary of why it wasn't a lost decade, see Allan Roth, "Why It Wasn't a Lost Decade for Investors," MoneyWatch, December 18, 2009. Available at www.moneywatch.bnet.com/economic-news/article/why-it-wasnt-a-lost-decade-for-investors/375568/?tag=content;col1.

For a responsible and balanced article debunking the myth of the lost decade, see Ron Lieber, "For Savers, It Was Hardly a Lost Decade," *New York Times*, January 1, 2010. Available at www.nytimes.com/2010/01/02/your-money/stocks-and-bonds/02money.html?_r=1.

One study by *Barron's* found that "Cramer's recommendations underperform the market by most measures." Bill Alpert, "Cramer's Star Outshines His Stock Picks," *Barron's*, February 9, 2009. Available at http://online.barrons.com/article/SB123397107399659271.html#articleTabs_panel_article%3D1.

Another erroneous, common refrain during this period was that "buy and hold is dead," which filled the financial media. See Tom Lydon, "Why Buy-and-Hold Is Dead," ETF Trends, February 10, 2009. Available at www.etftrends.com/2009/02/why-buy-and-hold-is-dead. Lydon noted: "As many know by now, the S&P 500 has done nothing for the last 10 years. It's done less than nothing, in fact."

Lakshman Achuthan, managing director of the Economic Cycle Research Institute, is reported to have declared the classic "buy and hold" strategy for stocks "officially dead." Lakshman Achuthan, "Why 'Buy and Hold' Investing Is Dead and Recessions Are the New Normal," *Huffington Post*, March 29, 2010. Available at www.huffingtonpost.com/2010/03/29/buy-hold-investing-is-dea_n_517788.html.

Retrieve historical prices for the Dow Jones Industrial Average at Yahoo! Finance: www.finance.yahoo.com/q/hp?s=^DJI&a=09&b=9&c=2007&d=09&e=9&f=2007&g=d.

The source for the portfolio returns from January 1, 2001, through December 31, 2010, is a calculator from Index Funds Advisors (with whom I am affiliated), available at www.ifa.com/portfolios/PortReturnCalc/index.aspx. Pay attention to the footnotes to the calculator and the sources and disclosures at the Index Funds Advisors' site.

8. The Myth of the Excellent Company

The investment strategy of one investment advisory firm reflects typical advice: "We want to buy excellent companies and hold them for the long run." Available at www.bushodonnell.com/investment advisors/analysis.htm.

Find information about *Fortune*'s selection process and the stock returns of the companies who make its list in Matthew Boyle, "Are Good Companies Bad Investments?" *Fortune*, February 26, 2007. Available at www.money.cnn.com/magazines/fortune/fortune_archive/2007/03/05/8401291/index.htm. See also "How We Pick Them," *Fortune* (available at www.money.cnn.com/magazines/fortune/mostadmired/2009/faq) and "World's Most Admired Companies," *Fortune*, March 22, 2010 (available at www.money.cnn.com/magazines/fortune/mostadmired/2010/full_list).

The referenced study on the performance of *Fortune*'s "admired" companies is Meir Statman and Deniz Anginer, "Stocks of Admired Companies and Spurned Ones," SCU Leavey School of Business Research Paper No. 10-02, January 24, 2010. Available at www.ssrn.com/abstract=1540757.

9. The Myth of Holding Individual Stocks

For an excellent discussion on the risk of holding individual stocks, see Craig McCann and Dengpan Luo, "Concentrated Investments, Uncompensated Risk and Hedging Strategies," October 19, 2004. Available at www.slcg.com/documents/Hedging.pdf.

See also Ben McClure, "Modern Portfolio Theory: Why It's Still Hip," Investopedia. Available at www.investopedia.com/articles/06/MPT.asp. McClure correctly notes that "[T]he risk in a portfolio of diverse individual stocks will be less than the risk inherent in holding any one of the individual stocks (provided the risks of the various stocks are not directly related)."

10. The Myth of Holding Individual Bonds

For a discussion of broker markups on bonds, see Alex Anderson, "Broker Markups: A Bond Investor's Worst Enemy," Forbes.com, February 26, 2009. Available at www.forbes.com/2009/02/26/munis-spreads-markups-personal-finance_investing_ideas_bond_brokers.html.

For a discussion of the impact of bid-ask spreads on bonds and how they affect your costs, see Larry Swedroe, "Ask the Expert," *Moolanomy*, December 3, 2008. Available at www.moolanomy.com/1019/ask-the-expert-with-larry-swedroe-december-2008-issue. Swedroe believes investors with more than $500,000 to invest should consider individual bonds. Other experts strongly disagree. See Scott J. Donaldson, "Taxable Bond Investing: Bond funds or Individual Bonds," Vanguard Group, March 2005. Available at www.vanguard.com/pdf/taxable bonds.pdf.

11. The Myth of Skill

I published the creation of the Solin Random Stock Index (SRSI) in a blog post dated January 18, 2010: "Can New Index Beat a Chimp's Stock Picks?" Available at www.dailyfinance.com/story/investing/can-new-index-beat-a-chimps-stock-picks/19319532.

I published the results from January 2010 through November 2010 in a blog post dated December 7, 2010: "New Index Returns Astound Wall Street." Available at www.huffingtonpost.com/dan-solin/new-index-returns-astound_b_792002.html.

This study attributes outperformance by mutual fund managers to luck and not skill: Laurent Barras, O. Scaillet, and Russ R. Wermers, "False Discoveries in Mutual Fund Performance: Measuring Luck in Estimated Alphas," Swiss Finance Institute Research Paper No. 08-18, Robert H. Smith School Research Paper No. RHS 06-043, *Journal of Finance*, April 20, 2009. Available at http://ssrn.com/abstract=869748.

This article discussed the study authored by Laurent Barras, O. Scaillet, and Russ R. Wermers: Mark Hulbert, "The Prescient Are Few," *New York Times*. July 13, 2008. Available at www.nytimes.com/2008/07/13/business/13stra.html.

Eugene F. Fama and Kenneth R. French, "Luck Versus Skill in the Cross Section of Mutual Fund Returns," Tuck School of Business Working Paper No. 2009-56, Chicago Booth School of Business Research Paper, *Journal of Finance*, December 14, 2009. Available at www.ssrn.com/abstract=1356021.

12. A Potpourri of Other Myths

Conservative political commentator Glenn Beck was criticized for endorsing Goldline International, a precious metals vendor. See Brett Michael Dykes, "Glenn Beck's Gold-Gate Problem," Yahoo! News, December 8, 2010. Available at www.news.yahoo.com/s/ynews/ynews_ts1022.

Gold prices for 200 years can be found at www.onlygold.com.

The lack of predictability about gold prices does not stop pundits from making predictions. In one peer-reviewed study, the authors used a log-periodic oscillation analysis to forecast the burst of the gold bubble in April–June 2011. Askar Akaev, Alexey Formin, Sergey V. Tsirel, and Andrewy V. Korotayev, "Log-Periodic Oscillation Analysis Forecasts the Burst of the 'Gold Bubble' in April–June 2011," *Structure and Dynamics* 4 (3) (2010). Available at www.escholarship.org/uc/item/7qk9z9kz.

Information comparing the risk of owning gold to the risk of U.S. Treasury bills can be found at www.ifa.com/emailcampaign/QOW/All_that_Glitters_is_Not_Gold_qow.aspx.

The hedge fund study warning about the risk and returns of hedge funds is Burton G. Malkiel and Atanu Saha, "Hedge Funds: Risk and Return," *Financial Analysts Journal* 61 (6) (November/December 2005), pp. 80–88. Available at http://ssrn.com/abstract=872868.

Proponents of hedge funds took issue with this study: George P. Van and Zhiyi Song, "Malkiel-Saha Hedge Fund Paper Flawed," Van HF Advisors International, December 2004. Available at www.intelligenthedgefundinvesting.com/pubs/rb-gvzs.pdf.

This helpful website tracks hedge fund implosions: www.hf-implode.com.

In 2008, despite the market crash, the 25 top hedge fund managers earned an aggregate of $11.6 billion. Louise Story, "Top Hedge Fund Managers Do Well in a Down Year," *New York Times*, March 24, 2009. Available at www.nytimes.com/2009/03/25/business/25hedge.html?_r=1&ref=business.

Former House Speaker Newt Gingrich is the author of *To Save America: Stopping Obama's Secular-Socialist Machine* (Regnery Press: Washington, DC, 2011).

The cover of *Newsweek* for February 16, 2009, stated: "We Are All Socialists Now." See also Ron Scherer, "Is Obama a Socialist? What Does the Evidence Say?," *Christian Science Monitor*, July 1, 2010. Available at www.csmonitor.com/USA/Politics/2010/0701/Is-Obama-a-socialist-What-does-the-evidence-say.

Typical of the dire prediction for investors as a consequence of the perceived trend toward socialism were these observations by Howard Ruff, of the *Ruff Times*: "It is clear that (President Barack) Obama is an out-of-the-closet socialist, and socialism always leads to inflation. . . . They are creating money by the trillions. As long as they continue to do that, we are going to have inflation." Ruff predicted a multiyear bear market for stocks starting in 2010. He was very wrong. His views were reported in this article: Michael Brush, "10 Pros' Stock Picks for 2010," MSNMoney, December 29, 2009. Available at http://articles.moneycentral.msn.com/Investing/CompanyFocus/10-pros-stock-picks-for-2010.aspx.

The stock returns for socialist countries, compared to the United States, can be found here: "Stock Returns and Socialism," *Trovena*, April 29, 2009. Available at http://blog.trovena.com/2009/04/stock-returns-and-socialism.html?cid=6a00e54fabc18f883401156f695342970c.

The financial media could not report enough on the "new normal." See the following:

Goldstein, Jacob, "An Investment Guru Explains the 'New Normal,'" *Planet Money* (National Public Radio), June 3, 2010. Available at www.npr.org/blogs/money/2010/06/mohamed_elerian_explains_the_n.html.

Hough, Jack, "The New Normal—4% Stock Returns?," SmartMoney, November 20, 2009. Available at www.smartmoney.com/Investing/Stocks/The-New-Normal-4-Percent-Stock-Returns.

Kimes, Mina, "Investing in the 'New Normal,'" *Fortune*, September 2, 2009. Available at www.money.cnn.com/2009/09/02/pf/funds/ron_muhlenkap_interview.fortune/index.htm.

Nazareth, Rita, and Whitney Kisling, "Old Normal S&P 500 Rally Shows Birinyi Beating Pimco New Normal," Bloomberg.com, November 2, 2010. Available at www.bloomberg.com/news/2010-10-31/old-normal-u-s-stock-rally-shows-birinyi-beating-pimco-new-normal-market.html.

Schurenberg, Eric, "Investing in the 'New Normal,'" MoneyWatch, May 29, 2009. Available at www.moneywatch.bnet.com/retirement-planning/blog/financial-independence/investing-in-the-new-normal/103.

Data showing market returns after a recession is based on a study by Ned Davis Research, available at www.feuchtfinancial.com/2008-content/Investing_through_recessions%5B1%5D.pdf.

The lack of correlation between gross domestic product growth and average returns is referenced and discussed *IndexUniverse* blog: Larry Swedroe, "Economic Growth and Equity Returns," *IndexUniverse*, December 5, 2007. Available at www.indexuniverse.com/sections/research/3429-economic-growth-and-equity-returns.html.

The comparison of stock market returns to investors in China and the UK is set forth in the following article: Buttonwood, "The Growth

Illusion," *Economist*, August 28, 2009. The article also references work done by Elroy Dimson, Paul Marsh, and Mike Staunton at the London Business School, who looked at the returns of 17 countries going back to 1900 and found a *negative* correlation between investment returns and growth in GDP per capita. Available at www.economist.com/blogs/buttonwood/2009/08/the_growth_illusion.

For details on the sad saga of holders of Lehman Brothers' Principal Protected Notes, see Zeke Faux and Joshua Gallu, "SEC Said to Review Principal-Protected Note Sales," by *Bloomberg Businessweek*, July 2, 2010. Available at www.businessweek.com/news/2010-07-02/sec-said-to - review-principal-protected-note-sales.html.

Gretchen Morgenson, " '100% Protected' Isn't as Safe as It Sounds," *New York Times*, May 22, 2010. Available at www.nytimes.com/2010/05/23/business/23gret.html?_r=1.

For a discussion of issues with principal-protected notes, see Duncan Hood, "Protection Racket: Principal-Protected Notes," *MoneySense*, February, 2006. Available at www.canadianbusiness.com/my_money/columnists/duncan_hood/article.jsp?content=20060227_115806_4808.

Kenneth R. French (the Care E. and Catherine M. Heidt, Professor of Finance at the Tuck School of Business at Dartmouth College) notes the liquidity risk and unnecessary complexity of principal-protected notes in an informative video. Available at www.dimensional.com/famafrench/2010/12/principal-guaranteed-products.html.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+famafrench+(Fama%2FFrench+Forum).

The studies of the returns from an investment in private equity deals are:

Kaplan, Steven N., and Antoinette Schoar, "Private Equity Performance: Returns, Persistence and Capital Flows," MIT Sloan Working Paper No. 4446-03, AFA 2004 San Diego Meetings (November 2003). Available at http://ssrn.com/abstract=473341.

Phalippou, Ludovic, and Oliver Gottschalg, "Performance of Private Equity Funds," paper presented at the EFA 2005 Moscow Meetings. Available at www.ssrn.com/abstract=473221.

The estimate of total investments in private equity deals can be found at "Private Equity," Wikipedia. Available at www.en.wikipedia.org/wiki/Private_equity#Investments_in_private_equity.

13. The Cost of Believing Investing Myths

The following studies discuss the cost of active management:

French, Kenneth R., "The Cost of Active Investing," working paper, April 9, 2008. Available at www.ssrn.com/abstract=1105775.

Miller, Ross M., "Measuring the True Cost of Active Management by Mutual Funds," working paper, June 2005. Available at www.ssrn.com/abstract=746926.

Swedroe, Larry, "The Costs of Active Management," MoneyWatch, September 7, 2009. Available at www.moneywatch.bnet.com/investing/blog/wise-investing/the-costs-of-active-management/826.

An excellent article describing closet index funds is Lewis Braham, "How to Spot a Closet Index Fund," *Bloomberg Businessweek*, September 6, 2004. Available at www.businessweek.com/magazine/content/04_36/b3898134_mz070.htm.

The *Wall Street Journal* identified some closet index funds in this article: Sam Mamudi, "What Are You Paying For?," *Wall Street Journal*, December 8, 2009. Available at http://online.wsj.com/article/SB10001424052748704402404574529550789419572.html.

The staggering amount of investments in closet index funds is set forth in this study: Martijn Cremers and Antti Petajisto, "How Active

Is Your Fund Manager? A New Measure That Predicts Performance," AFA 2007 Chicago Meetings Paper, EFA 2007 Ljubljana Meetings Paper, Yale ICF Working Paper No. 06-14, March 31, 2009. Available at www.ssrn.com/abstract=891719.

14. Superior Returns Are Within Your Grasp

The study that set forth the returns of the average stock investor is the Dalbar QAIB study. It is available only for purchase at www.dalbar.com. However, it is extensively cited and discussed: Dalbar summarized the findings of its 2010 study in a press release issued March 31, 2010, as follows: "For the 20-year period, equity fund investors averaged 3.17% compared to 8.20% for buy-and-hold stock investors (S&P 500)." Available at www.dalbarinc.com/Portals/dalbar/cache/News/PressReleases/pressrelease20100331.pdf. See also "Dalbar Update: Investors Still Lagging the Market," InvestorsInsight.com. Available at http://investorsinsight.com/blogs/forecasts_trends/archive/2009/11/03/dalbar-update-investors-still-lagging-the-market.aspx.

Helpful charts summarizing the Dalbar study can be found at www.ifa.com/12steps/step1/Dalbar.asp.

15. The Right Focus

The Brinson, Hood, and Beebower study is available at www.ifa.com/pdf/Determinants_of_Portfolio_Performance.pdf.

You can find an asset allocation questionnaire at www.smartestinvestmentbook.com. Click on "Asset Allocation Questionnaire." You can take either the short (5-question) or the complete (25-question) Risk Capacity Survey. The results of either one will assist you in determining the right division between stocks and bonds for your portfolio.

Treasury bills are issued by the U.S. Department of the Treasury. They are backed by the full faith and credit of the U.S. government and mature in one year or less.

You can confirm if a bank is FDIC insured by using the "Bank Find" tool on the FDIC's website: www2.fdic.gov/idasp/main_bankfind.asp.

The interview with Tavis Smiley, on November 13, 2009, is available from PBS at www.pbs.org/wnet/tavissmiley/archive/200911/20091113_zweig.html.

A respected colleague prefers a supplemental term, when discussing the possibility of black swans. He refers to "green swans" to convey the fact that the possibility of an extraordinarily *positive* event is every bit as likely as a negative one.

16. Taxes and Costs: Stealth Enemies

John Bogle's analysis of the after-tax returns of active and passive investors is set forth in his excellent book *The Little Book of Common Sense Investing* (Wiley: Hoboken, NJ, 2007).

The Dickson and Shoven study is Joel M. Dickson and John B. Shoven, "Taxation and Mutual Funds: An Investor Perspective." Available at www.nber.org/chapters/c10894.pdf.

For a good introduction to ETFs, see Ken Hawkins, "Exchange-Trade Funds: Introduction," Investopedia. Available at www.investopedia.com/university/exchange-traded-fund. See also Dan Culloton, "Are ETFs Really More Tax-Efficient Than Mutual Funds?," *Morningstar Advisor*, February 14, 2006. Available at www.advisor.morningstar.com/articles/fcarticle.asp?s=&docId=4338&pgNo=0.

The benefits of Vanguard's ETFs are set forth in a brochure titled "Making the Case for Vanguard ETFs." Available at www.advisors.vanguard.com/iwe/pdf/FASETFB.pdf.

For an in-depth discussion of the tax efficiency of ETFs in general, and specifically Vanguard ETFs, see Sigma Investing's "ETF Tax Efficiency." The article discusses both sides of the issue of whether Vanguard's ETFs are more efficient than are its competitors due to their different structure. Available at www.sigmainvesting.com/tax-management/etf-tax-efficiency.

A chart showing the estimated capital gains for all Vanguard ETFs as of November 30, 2009, is available at www.advisors.vanguard.com/VGApp/iip/site/advisor/researchcommentary/news/article?File=IWE_NewsAllCapGainsUpdate122009.

17. Rebalancing: Sense and Nonsense

There are a dizzying number of recommendations for rebalancing. Here's a sampling:

Arnott, Robert D., and Robert M. Lovell Jr., "Rebalancing: Why? When? How Often?," *Journal of Investing*, spring 1993. Available at http://classic-web.archive.org/web/20050213200611/http://www.firstquadrant.com/PDFs/Monographs/9203mono.pdf.

"The Art of Rebalancing: How to Tell When Your Portfolio Needs a Tune-up," SmithBarney Group, 2005. Available at www.asaecenter.org/files/ArtofRebalancing.pdf.

Daryanai, Gobind, "Opportunistic Rebalancing: A New Paradigm for Wealth Managers," *Journal of Financial Planning*, January 2008. Available at www.tdainstitutional.com/pdf/Opportunistic_Rebalancing_JFP2007_Daryanani.pdf.

Leland, Hayne E., "Optimal Asset Rebalancing in the Presence of Transactions," working paper series, RPF-261, August 1996. Available at www.ssrn.com/abstract=1060.

Masters, Seth J., "Rules for Rebalancing, Financial Planning," December 2002. Available at http://web.archive.org/web/20071027 064945/http://www.financial-planning.com/pubs/fp/20021201018.html.

The views of Vanguard on rebalancing can be found in this paper: Yesim Tokat, "Portfolio Rebalancing in Theory and Practice," Vanguard

Investment Counseling & Research, 2006. Available at https://institutional.vanguard.com/iip/pdf/ICRRebalancing.pdf.

19. Fama and French Are SuperSmart

You can access Eugene Fama's website at http://faculty.chicagobooth.edu/eugene.fama.

Fama's thesis, titled "Random Walks in Stock Market Price," is available at www.ifa.com/Media/Images/PDF%20files/FamaRandomWalk.pdf.

For a succinct definition of the efficient market hypothesis, see "Efficient Market Hypothesis," Investopedia. Available at www.investopedia.com/terms/e/efficientmarkethypothesis.asp.

The earliest version of the random walk theory is generally attributed to Louis Bachelier, who set forth the following observation in his doctoral thesis in 1900: "The influences that determine the movements of the exchange are innumerable; past, current and even anticipated events that often have no obvious connection with its changes . . . it is thus impossible to hope for mathematical predictability." Louis Bachelier, "*Théorie de la Spéculation,*" *Annales Scientifique de l'École Normale Supérieure*, 3rd series, 17 (1900): 21–86.

Ken French's curriculum vitae lists his publications. Available at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/curriculum_vitae.html.

For speculation about Fama and French winning the Nobel Prize, see the following:

Fletcher, Emily, "Prof. Named As Likely Nobel Prize Contender," *Dartmouth*, October 9, 2009. Available at http://thedartmouth.com/2009/10/09/news/nobel.

Hall of Citation Laureates, Economics, Thompson Reuters. Available at www.science.thomsonreuters.com/nobel/categories/economics.

Morgan, Sarah, "Who Will Win the Nobel Prize in Economics?," SmartMoney, October 9, 2009. Available at www.smartmoney.com/investing/economy/who-will-win-the-nobel-prize-in-economics.

For a detailed explanation of the Fama-French three-factor model, see www.ifa.com/12steps/step8/step8page4.asp. See also "Fama and French Three Factor Model," Moneychimp.com (www.moneychimp.com/articles/risk/multifactor.htm) and Kent L. Womack and Ying Zhang, "Understanding Risk and Return, the CAPM, and the Fama-French Three-Factor Model," Tuck Case No. 03-111, December 19, 2003 (www.ssrn.com/abstract=481881).

There is a wealth of data supporting the acceptance of the Fama-French three-factor model. Here is a representative sampling of the studies endorsing this model:

Armstrong, Frank, "Fama-French Three Factor Model, Part 1," Investor Solutions Incorporated, 2003. Available at www.dethomasfinancial.com/newsletters/FamaFrench_ThreeFactorReview1.pdf.

- "The Three Factor Model has replaced Capital Asset Pricing Model (CAPM) as the most widely accepted explanation of stock prices in the aggregate and investor returns."

Bickford, Joel D., "Fama/French Three Factor Model," Bickford Investment Management Services. Available at www.bickfordinvest.com/fctr0401.pdf.

- "At this point in time, the Fama/French Three Factor Model is generally accepted and is taught in all of the top U.S. business schools."

Chou, Pin-Huang, Robin K. Chou, and Jane-Sue Wang, "On the Cross-section of Expected Stock Returns: Fama-French Ten Years Later," *Finance Letter* 2 (1) (2004): 18–22. Available at www.mgt.ncu.edu.tw/~chou/ff10years.pdf.

- "The seminal work of Fama and French (1992), however, identified market value (size) and the ratio of book to market equity (BM) as the two major determinants of the cross-sectional expected returns, and sentenced the 'death' of beta."

"Multi-Period Asset Allocation," Modern Investment Technologies. Available at http://smartfolio.fileburst.com/download/Theory%20Help.pdf.

- "The asset pricing model, developed by Eugene Fama and Kenneth French, is widely accepted as one of the most successful Factor-based Asset-Pricing Models ever created."

Ruzita Abdul Rahim and Abu Hassan Shaari Mohd Nor, "A Comparison Between Fama-French Model and Liquidity-Based Three Factor Models in Predicting the Portfolio Returns," *Asian Academy of Management Journal of Accounting and Finance* 2 (2) (2006).

- "Since its introduction in 1993, Fama-French model has been extensively attended to the extent that it is currently considered the workhorse for risk adjustment in academic circles."

"Three Factor Model for Portfolio Management," Buzzle.com. Available at www.buzzle.com/articles/three-factor-model-for-portfolio-management.html.

- "Three Factor Model, popularly known as Fama and French three-factor model, is one of the most followed portfolio management models. . . . Three-factor model is widely followed by investors and fund managers to analyze risk and return associated with instruments/markets and to make highest return for risk taken."

Womack, Kent L., and Zhang, Ying, "Understanding Risk and Return, the CAPM, and the Fama-French Three-Factor Model," Tuck Case No. 03-111, December 19, 2003. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=481881.

- "The three factors in concert explain most of the returns due to risk exposure."

The following is a representative list of papers criticizing the Fama-French three-factor model:

Black, Fischer, "Beta and Return," *Journal of Portfolio Management* 20 (1) (fall 1993). Available at www.docstoc.com/docs/7752493/Beta-and-Return.

Foster, F. Douglas, Tom M. Smith, and Robert E. Whaley, "Assessing Goodness-of-Fit of Asset Pricing Models: The Distribution of the Maximal R2," *Journal of Finance* 52 (2) (June 1997). Available at http://ssrn.com/abstract=3782.

Knez, Peter J., and Mark J. Ready, "On the Robustness of Size and Book-to-Market in Cross-Sectional Regressions," *Journal of Finance* 52 (4) (September 1997). Available at www.jstor.org/pss/2329439.

Lakonishok, Josef, Andrei Shleifer, and Robert W. Vishny, "Contrarian Investment, Extrapolation, and Risk," NBER Working Paper No. W4360 (May 1993). Available at http://ssrn.com/abstract=227016.

Loughran, Tim, "Book-to-Market Across Firm Size, Exchange, and Seasonality: Is There an Effect?," *Journal of Financial and Quantitative Analysis* 32 (3) (September 1997). Available at www.jstor.org/pss/2331199.

Mackinlay, Craig, "Multifactor Models Do Not Explain Deviations from the CAPM," *Journal of Financial Economics* 69 (5) (1995): 1541–1578. Available at www.nber.org/papers/w4360.pdf.

Fama responds to critics in Eugene Fama Jr., "Professor Fama Answers the Critics," Index Funds Advisors, December 1, 1999. Available at www.ifa.com/articles/Professor_Fama_Answers_the_Critics.aspx.

A strong proponent of EMH, Burton Malkiel (author of the investment classic *A Random Walk Down Wall Street*), dealt with critics of the Fama-French three-factor model in this paper: Burton G. Malkiel, "The Efficient Market Hypothesis and Its Critics," CEPS Working Paper No. 91, April, 2003. Available at www.princeton.edu/~ceps/workingpapers/91malkiel.pdf.

Videos of interviews with Eugene Fama and Kenneth French can be viewed at www.indexfunds.com/flash/FrenchKenhifi.flv, www.ifa.com/advisorcam and www.ifa.com/Media/Video/FullVideos/Eugene Fama/dimensional_thinkers_fama_250k.flv.

For a discussion of the relative risk of value and growth stocks, see Lu Zhang, "The Value Premium," Simon School of Business Working Paper No. FR 02-19 (November 13, 2002). Available at http://ssrn.com/abstract=351060. Zhang notes that "assets-in-place or value is riskier than growth option in bad times and growth option is as risky as or slightly riskier than assets-in-place in good times."

20. The SuperSmart Portfolio: Designed to Produce Higher Returns

Constructing this portfolio required sophisticated expertise in financial engineering. The financial engineering was done by Edward S. O'Neal, PhD, with assistance from Sean Kelly. The methodology used to construct the SuperSmart Portfolio is set forth in Appendix A.

The appropriate allocation between domestic and international stocks is discussed in Christopher B. Philips, "International Equity: Considerations and Recommendations," Vanguard Investment Counseling & Research, 2006. Available at www.institutional.vanguard.com/iip/pdf/ICRIECR.pdf. The author of this study concluded: "Although no absolute answer exists for all investors, it should be clear that an allocation range of 20% to 40% is reasonable given the historical benefits of diversification."

You can learn more about the Sharpe ratio in a three-part bog-post series: Dr. Kris, "Spotlight on the Sharpe Ratio," *Seeking Alpha*, November 5, 2009. Available at http://seekingalpha.com/article/171438-spotlight-on-the-sharpe-ratio-part-i.

Here follows an example of how the Sharpe ratio can be helpful to investors. This example is based on one given in "Understanding the Sharpe Ratio," Investopedia. Available at www.investopedia.com/articles/07/sharpe_ratio.asp.

> Let's assume you are considering two mutual funds. One is managed by Bill Picker. It has a return of 12%. The other is managed by Sally Passive. Hers had a return of only 8%. Should you assume Picker is a better fund manager than is Passive?
>
> What if Picker is taking more risk than Passive? Don't you want to know how much the two funds returned in relation to the amount of risk they took?
>
> The amount of risk should be a critical factor in your decision because an investment with a higher return but with significantly higher risk will have a higher risk of loss. You need to determine if the possibility of additional return is worth the additional risk. You want to avoid the possibility of a *low* return with a *high* risk.
>
> The Sharpe ratio will give you the answer. To compute it, you need to know two facts: (1) What's the risk-free rate of return of a short term Treasury bill? Remember, the Sharpe ratio measures the *excess* return you are getting over the risk free rate of return. If you are going to take more risk, you want to be sure you are compensated for it. Let's assume the risk free rate of return is 2%.(2) What is the risk of the two funds? This is critical because you need to understand how much risk you are taking. If a gold fund has five times the risk of value fund, but both have the same historical returns, your investing decision is simple. You won't "go for the gold."
>
> Standard deviation is expressed as a percentage. The higher the percentage, the riskier the asset. Let's assume the standard deviation of the Picker fund is 20% and the standard deviation of the Passive fund is 8%. Clearly, the Passive fund has less risk.
>
> Now let's compute the Sharpe ratio of the funds managed by Picker and Passive.

The Sharpe ratio can be computed by taking the average return, deducting the risk free rate of return and dividing by the standard deviation.

For Picker, take his 12% return, deduct the 2% risk free rate of return, and divide by the risk of his fund as measured by standard deviation, which is 20%. The Sharpe ratio for his fund is 0.50.

For Passive, take her 8% return, deduct the 2% risk free rate of return, and divide by the risk of her fund as measured by standard deviation, which is 8%. The Sharpe ratio for her fund is 0.75.

Passive generated more returns on a risk adjusted basis, meaning that, for the amount of risk investors assumed in Passive's fund, they got better returns than did investors in Picker's fund. Picker's investors got better absolute returns, but they took excess risk to get them.

It may, or may not, be in your best interest to take on additional risk to have the possibility of achieving the 4% higher returns Picker has produced. It would make a lot of sense to compute the Sharpe ratio for other comparable funds, with returns similar to Picker's and select the one with the highest Sharpe ratio. More risk means more volatility and the greater possibility of loss.

Optimization programs, such as the one customized for use in the constructing the SuperSmart Portfolio, are notoriously apt to produce strange and nonintuitive allocations unless they are constrained by specified maximum and minimum allocations to each asset class. This factor was taken into account in the construction of the SuperSmart Portfolio.

23. The Smartest Target Date Portfolio

For a discussion of the growth of target date funds, see Josh Charlson, David Falkof, Michael Herbst, Laura Pavlenko Lutton, and John Rekenthaler, "Target-Date Series Research Paper: 2010 Industry Survey," Morningstar, 2010. Available at www.corporate.morningstar

.com/US/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSurvey_2010.pdf.

For some additional tips about picking the right target date fund, see Tara Siegel Bernard, "Target Date Funds: Seven Questions to Ask Before Jumping In," *New York Times*, June 28, 2009. Available at www.nytimes.com/2009/06/29/your-money/mutual-funds-and-etfs/29target.html.

Detailed information about Vanguard's target date funds can be found on its website (vanguard.com) and in their brochure Scott J. Donaldson, C. William Cole, Francis M. Kinniry Jr., John Ameriks, Roger Aliaga-Díaz, and Anatoly Shtekhman, "Vanguard's Approach to Target-Date Funds." Available at https://personal.vanguard.com/us/LiteratureRequest?FW_Activity=ViewOnlineActivity&litID=2210051169&FW_Event=start&view_mode=web&usage_cat2=&viewLitID=2210051169&formName=Investments-+Vanguards+approach+to+target-date+funds&vendorID=S167&cbdForceDomain=false.

Returns before and after taxes for the Vanguard Target Retirement 2015 Fund can be found on Vanguard's website https://personal.vanguard.com/us/funds/snapshot?FundId=0303&FundIntExt=INT#hist=tab%3A1.

Information about Fidelity's Freedom Index Funds is available on their website at http://personal.fidelity.com/products/funds/content/DesignYourPortfolio/target_timelinefunds_freedom.shtml.cvsr?refpr=mfrt16.

Information about TIAA-CREF's Lifecycle Index Funds is available in its 2010 Annual Report. Available at http://tiaa-cref.org/ucm/groups/content/@ap_ucm_p_tcp_inco/documents/document/tiaa01011326.pdf.

The Fidelity Freedom 2020 Fund (FFDC) has an expense ratio of 0.74%; see http://fundresearch.fidelity.com/mutual-funds/summary/31617R605.

The expense ratio of TIAA-CREF's Lifecycle Funds can be found in "2010 Annual Report: TIAA CREF Lifecycle Funds," September 30, 2010, p. 6. Available at http://tiaa-cref.org/ucm/groups/content/@ap_ucm_p_tcp_inco/documents/document/tiaa01007810.pdf.

John Bogle's quip about investors paying for the excessive costs of active management, can be found in John C. Bogle, "In Investing, You Get What You *Don't* Pay For," The World Money Show, February 2, 2005. Available at www.vanguard.com/bogle_site/sp20050202.htm.

24. The Smartest ETF Portfolio

For an explanation of the FTSE All Word Index, see their website at www.ftse.com/Indices/FTSE_All_World_Index_Series/index.jsp.

Information about the Vanguard Total World Stock ETF can be found on Vanguard's website at http://personal.vanguard.com/us/funds/snapshot?FundId=3141&FundIntExt=INT#hist=tab%3A0.

For information about the iShares MSCI ACWI All Country World Index, see their website at www.mscibarra.com/products/indices/global_equity_indices/definitions.html.

For a view that an allocation as high as 50% to international stocks is optimal, see Larry Swedroe, "Low Cost Diversification with Vanguard Total World Stock ETF (VT)?," *Moolanomy*, February 9, 2009. Available at www.moolanomy.com/1242/low-cost-diversification-with-vanguard-total-world-stock-etf-vt.

Details of the allocation of the iShares MSCI ACWI Index Fund can be found in a fact sheet for the fund which is available at their website at http://us.ishares.com/content/stream.jsp?url=/content/en_us/repository/resource/fact_sheet/acwi.pdf&mimeType=application/pdf.

For a discussion of the merits of a globally diversified bond portfolio, see Yvette Klevan and Jared Daniels, "Fixed Income: The Benefits of Global Diversification and Active Investing," Lazard, 2008, p. 2. Available at www.lazardnet.com/lam/us/tpd/pdfs/FixedIncome_Benefits.pdf.

The total value of the world bond market in 2009 was $82 trillion. The U.S. share of that market was $31 trillion or 37.9%. Albert

J. Brenner, "World Stock and Bond Markets and Portfolio Diversity," Asset Allocation Advisor. November 15, 2009. Available at www.aametrics.com/pdfs/world_stock_and_bond_markets_nov2009.pdf.

There is a helpful chart comparing U.S. and foreign government bond returns in this article: "The Bond Market: A Look Back," Investopedia. Available at www.investopedia.com/articles/06/centuryofbonds.asp.

In a document titled Yvette Klevan and Jared Daniels, "Fixed Income: The Benefits of Global Diversification and Active Investing," Lazard Asset Management, 2008, the authors conclude: "We believe that active global fixed-income investing offers the potential for a more attractive risk/return profile than domestic fixed income, because of the expanded opportunity set, the possibility to invest in low-correlated markets, and the ability to add value through currency management." Available at www.lazardnet.com/lam/us/tpd/pdfs/FixedIncome_Benefits.pdf.

Another study found that "global bond funds provide higher total returns and comparable risk-adjusted returns to U.S.-based bond funds that invest only in U.S. bond markets (i.e., domestic bond funds)" and "for U.S. investors whose portfolios are concentrated in domestic bond funds, adding global bond funds to the portfolios can enhance the return by 0.5% to 1% per year without increasing risk." Sirapat Polwitoon and Oranee Tawatnuntachai, "Diversification Benefits and Persistence of U.S.-Based Global Bond Funds," May 2005. Available at www.efmaefm.org/efma2005/papers/202-polwitoon_paper.pdf.

27. Asking the Wrong Question

Many investors understand the data supporting index investing of the stock portion of their portfolio but persist in an active strategy for bonds. An article in the *Wall Street Journal* noted that, in 2008, the average intermediate-bond fund lost 4.7% while the Barclays Capital Aggregate Index (tracked by many bond index funds) gained 5.2%. The article also noted that, since 1999, there has been only one year when the average bond fund topped the index. Tom Lauricella, "No Diversification: How Bond Funds Let Investors Down," *Wall Street Journal*, July 8, 2009. Available at http://online.wsj.com/article/SB10001424052970203334304574163793909392038.html.

For a discussion of the relationship between low fees and higher returns, see "Today's Research Question: Why do Investors Choose High-Fee Mutual Funds Despite the Lower Returns," Knowledge at Wharton, May 31, 2006. Available at http://knowledge.wharton.upenn.edu/article.cfm?articleid=1491. "[C]learly, investors have embraced the core belief that minimizing annual fees boosts long-term gains." And the authors noted the anomaly that "investors persist in holding trillions of dollars in high-fee funds despite the well-publicized evidence that low-fee alternatives offer higher returns over the long run."

I obtained data about the number of households owning stocks or bonds from "Equity and Bond Ownership in America, 2008," Investment Company Institute and the Securities Industry and Financial Markets Association, 2008, p. 2. Available at www.ici.org/pdf/rpt_08_equity_owners.pdf.

The text of the Uniform Prudent Investor Act can be found at www.law.upenn.edu/bll/archives/ulc/fnact99/1990s/upia94.pdf.

A map of the states that have adopted the Prudent Investor Act can be found at www.nccusl.org/Act.aspx?title=Prudent Investor Act.

For an informative discussion of the differences between ERISA fiduciaries, see W. Scott Simon, "The Different Flavors of ERISA Fiduciaries," *Morningstar Advisor*, December 3, 2009. Available at www.advisor.morningstar.com/articles/fcarticle.asp?docId=17902.

29. An Unlikely Source of Returns

Data and sources setting forth returns captured by investors with and without advisers is summarized at the Index Funds Advisors website: www.ifa.com/Section/Passive_Investing_and_Good_Advice.asp.

30. Don't Confuse Knowledge with Success

Data on bond flows can be found at "Bond-Fund Flows at an All-Time Peak," Morgan Stanley, slide no. 5, data as of December 10, 2009. Available at www.authorstream.com/Presentation/slidea-373897-Morgan-Stanley-Entertainment-ppt-powerpoint.

For a good primer on tax loss harvesting, with examples of how it works, see James Lange, "Tax Loss Harvesting," PayTaxesLater.com. Available at www.paytaxeslater.com/tax_loss_harvesting.htm.

31. The Dimensional Difference

The Dimensional Fund Advisors' website is www.dfaus.com.

A list of academics affiliated with DFA is available at www.dfaus.com/firm/academics.html.

Find a partial list of DFA's clients at www.dfaus.com/firm/clients.html.

For a discussion of the differences between a portfolio of DFA funds and ETFs see "Dimensionals vs. ETFs," Dimensional, July 2004. Available at www.abacuswealth.com/resources/dfavsetfs.pdf.

The study comparing returns of DFA with those of Vanguard is Edward Tower and Cheng-Ying Yang, "Enhanced Versus Passive Mutual Fund Indexing: Has DFA Outperformed Vanguard by Enough to Justify Its Advisor and Transaction Fees?," *The Journal of Investing*, Winter 2008. A working draft of this paper is available at www.econ.duke.edu/Papers/PDF/Vanguard_Versus_DFA_30 july_2007.pdf.

Professor Tower kindly provided me with a copy of his subsequent study. It appears as part of a chapter in *Mutual Funds: Portfolio Structures, Analysis, Management, and Stewardship*, ed. by John A. Haslem (Wiley: Hoboken, NJ, 2009).