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CONTENTS

List of Illustrations xiii

INTRODUCTION That Was Then, This Is Now 1

CHAPTER 1 Does the Universe Move in Waves? 23

CHAPTER 2 Not All Financial Advisors Are Created Equal 43

CHAPTER 3 Access to Alternative Investments and Competitive Advantages 51

CHAPTER 4 The Changing Financial Landscape 65

CHAPTER 5 I Hate To Say It, But I Told You So 79

CHAPTER 6 The "Smart Money" Is Global 93

CHAPTER 7 Hedge Funds: Evil or Angels in Disguise? 113

CHAPTER 8 The Fools' Gold or the Real Deal? 147

CHAPTER 9 Venture Capital 159

CHAPTER 10 Asset Allocation and Alternative Investments 201

CHAPTER 11 Modern Portfolio Allocation 223

CHAPTER 12 Devising Portfolios with Alternative Investments (Active vs. Passive) 245

CHAPTER 13 The Asset Allocation Process and Sample Portfolios 265

Notes 281

Index 307

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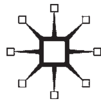

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INTRODUCTION: THAT WAS THEN, THIS IS NOW

Alternative investments can be defined as any asset class or investment other than equities, bonds, or cash. Diversification can lead to alternative investments as obscure as coins, diamonds, comic books, rare earth, art, or even wine. One of my goals in writing my first book, *Wave Theory for Alternative Investments: Riding the Wave with Hedge Funds, Commodities, and Venture Capital*, was to help educate anyone interested in alternative investments, whether they are institutional investors, high net worth clients, wealth managers, financial advisors, financial planners, consultants, professors, trainees, or students. I would like investors to simply know more about the exciting world of alternative investments. Besides this professional or institutional audience, many others have expressed an avid interest in learning more about alternative investments. The world of financial products for alternative investments is rapidly expanding and the number of choices is substantial. In the past, the vast majority of research concerning investments has been focused primarily on equities and fixed income. However, times have changed and so has the investment process, which has evolved to include alternative investments. It is my firm belief that virtually any asset allocation model should include alternative investments. As authors Bodie, Kane, and Marcus explain in *The Investment Process in Investments*, "Investment assets can be categorized into broad asset classes, such as stocks, bonds, real estate, commodities, and so on."[1] *Understanding Alternative Investments* covers how alternatives work and why it might be wise for an investor to consider adding them to their portfolio. Essentially, alternative investments can be utilized to build better investment portfolios with less risk and higher returns if done in a prudent fashion.

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Institutional money, otherwise known as "smart money," as well as ultra high net worth individuals, have utilized alternative investments for years and invested even more in alternative investments after the Great Recession. The *Dow Jones Newswire* reports that "A McKinsey & Co. study from this year on the mainstreaming of alternative investments found that year-round assets in global alternatives reached a record $6.5 trillion in 2011, growing at a five-year rate of more than seven times that of traditional asset classes. By 2015, retail alternatives are expected to account for one-quarter of retail revenues, according to McKinsey & Co."[2] Institutions are currently adding more alternative investments than in the past. According to KPMG, "The majority of institutional investors intend to increase their allocations to alternative investments in the next 3 years."[3] Institutional investors can drive the market. Billions of dollars are flowing into alternative investments. In 2012 the New Jersey Division of Investment, Trenton, committed up to $1.745 billion to new and existing alternatives investments.[4] Retail investors are adding alternative investments and mutual funds are creating vehicles for easier access. The rate at which investors are putting money into alternative mutual funds is making them mainstream. "According to data released by Cerulli Associates and Strategic Insight/SIMFUND, alternative mutual funds account for 2.8 percent of overall mutual fund assets today. But Cerulli projects they will account for 9.7 percent of all mutual fund assets in five years, and 15.8 percent of assets a decade from now."[5] Poor returns with equities during the tech bubble and the Great Recession, as well as numerous complications with bonds, have created curiosity amongst investors regarding alternative investments.

The market has grown and developed vehicles to enable many types of investors to further diversify. In 2012, the mutual fund behemoth Fidelity Investments offered investors access to hedge funds. "Fidelity Investments is offering retail clients access to hedge-fund firms through a mutual fund launched in partnership with Arden Asset Management."[6] Private-equity firms also set up new vehicles. Blackstone Group LP and Carlyle launched their first mutual funds in 2013. On the one hand, it is good news that alternative investments can be accessed for far less money than in the past. On the other hand, it has created a new set of problems. Not all vehicles being introduced today for alternative investments are worthwhile. "The

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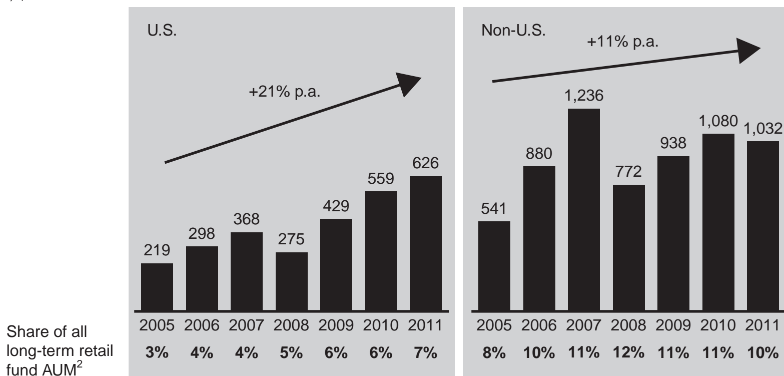
Alternatives Are Experiencing Strong Growth in the Retail Market, Particularly in U.S. Mutual Funds

Retail alternative funds asset growth[1]
AUM, $ billion



[1] Alternatives includes absolute return, commodities, currency trading dedicated short bias, equity energy, leveraged strategies (both long and inverse), managed futures, market neutral, multi-strategy alternatives, natural resources, options arbitrage, precious metals, real estate and volatility strategies; excludes distressed debt.

[2] Includes mutual funds, closed-end funds, ETFs and UCITs structures, and excludes limited partnerships and separately managed accounts

Figure 0.1 The Growing Interest in Alternative Investment Mutual Funds.
Source: The Mainstreaming of Alternatives: The Next Wave of Growth in Asset Management, McKinsey & Company, June 2012.

vast majority of the other 254 hedged mutual funds in the US—which pursue market-neutral, long-short, managed-futures and multi-alternative strategies—have proven to be even more lackluster."[7] Alternative investments continue to gain momentum with retail investors (Figure 0.1).

Risk has increased into areas that are both transparent and hidden. Hidden risk with alternative investments can be very troublesome, as seen by the real estate problems that caused the Great Recession. "In the years running up to the financial crisis, there was a much-discussed breakdown between what investors actually bought and what they understood they were buying…At its heart, the subprime debacle was a fundamental misunderstanding of real estate risk, and the perils of applying historical models (about potential default rates, for example) to the current environment. But it also represented a form of concentration risk, to the extent that so many investors relied on a handful of ratings agencies and their models."[8] Many new financial products have shown up on the market since the Great Recession, claiming to be "alternatives" or "alternative investments." These so called alternative products are entering the market at a rapid rate and causing much confusion. I met with a well-known mutual fund

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company that has historically specialized in fixed income and equities. The fund company (like many others) are now self-proclaimed experts with alternative investments. Essentially, all fund companies offer alternative mutual funds today. However, the majority of these fund companies are merely renaming or dressing up old funds to make them appear to be alternative investments. Another fund company even described one of their fixed income funds as a "hedge fund" because the mutual fund manager has the ability to short or sell bonds. Yet this is nothing new or earth-shattering.

Hedge funds and mutual funds are not the same. Just because a mutual fund can do something a hedge fund can do, does not necessarily mean it can suddenly transform into a hedge fund. Another mutual fund company that I know had a natural resources fund that morphed into a "commodities" fund. That is, representatives from the company are telling advisors or investors they are commodities experts. However, investing in a gold miner or exchange-traded fund (ETF) does not qualify them to be commodity experts. Essentially, mutual fund companies are new to the world of alternative investments. Investors should be careful about such products and perform proper due diligence. Historically, the biggest blowups often result from investors not asking enough intelligent questions. For example, many investors were duped by Bernie Madoff. They thought they were investing in a reputable hedge fund with good performance. Bernie Madoff deliberately made it awkward to ask detailed questions about his strategy and would make investors feel intimidated as though they were being disrespectful. Amaranth Advisors LLC was another blowup that could have been avoided by investors asking astute questions. Amaranth was an American hedge fund that collapsed in 2006 after losing billions in natural gas futures. The collapse was not about unpredictable market events but rather an oversight issue. Neither of these investments provided a clear or concise explanation as to what they were investing in and investors lost billions of dollars as a result. They were two of the worst investments anyone could ever make.

Investors should learn about how alternative investments function as well as all their hazards and whether or not it makes sense to add them to a diversified portfolio. Do they help or hinder the goals and objectives of an investment portfolio? Depending on the alternative investment, they can play a role in a prudent investor's portfolio because of their intrinsic

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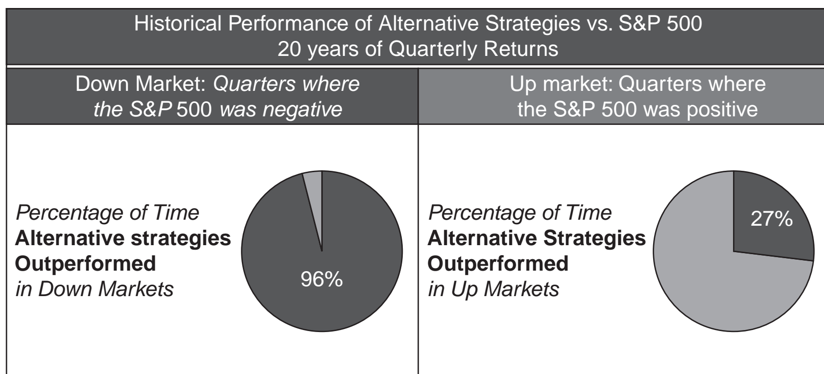

Source Zephyr StyleADVISOR (April 1, 1993–June 30, 2012). Alternative Strategies are represented by the Hedge Fund Research, Inc. (HFRI) Fund-of-Funds Composite, an equal-weighted index consisting of over 800 consultant hedge funds, including both domestic and offshore funds; U.S. Stocks are represented by the S&P 500, a market capitalization-weighted index of 500 widely held stocks often listed as proxy for the stock market. **Past performance does not guarantee future results. Illustration does not reflect performance of Principal Fund and does not take into account cost associated with investment. The Principal Global Multi-Strategy Fund is new and therefore does not have investment performance. Index performance information reflects no deduction for fees, expensed, or taxes. Indices are managed and individuals cannot invest directly in an index. Asset allocation/diversification does not guarantee a profit or protect against a loss.**

Figure 0.2 Historical Performance of Alternative Investments in Both Down and Up Markets.

Source: Dave Reichart, Senior Vice President, Principal Funds.

risk/reward characteristics. However, alternative investments are not a get-rich-quick or riskless investment. No investment is risk free. Investing in alternatives without clear and precise knowledge, just like the purchase of any other investment or product, seldom has beneficial results. Invariable the results are poor.

Wall Street typically offers guidance but created long-term skepticism among investors due to the subprime crisis and has since provided little solace. Over the past two decades, alternative investments have performed reasonably well in both down as well as up markets (Figure 0.2).

Understanding the magnitude of the problems and what led to them as well as the global domino effect that followed are crucial to seeing the role that alternative investments might play in a well-diversified portfolio. "The robustness check for the financial crisis reveals that the importance of alternative investments for risk diversification in defensive portfolios was underestimated. In spite of the financial crisis the results for alternative investments are even stronger."[9] The world witnessed a rogue (sometimes referred to as freak) financial wave that helped form the Great Recession, not too different from a rogue wave at sea. "An unusually high single wave event observed offshore is commonly called a freak wave. This definition is somewhat obscure since neither the cause of the occurrence nor criteria to define freak waves have been clarified. Freak waves have

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been observed only rarely and these observations occurred under unexpected condition[s]: hence, only few measured data are available."[10] It is also important to review this time period, otherwise known as the Great Recession, because it highlights risks found with alternative investments that can be either transparent or hidden.

The losses suffered by Wall Street were evidenced by the significant write-downs by banks and investment firms. They were heavily involved with subprime real estate. Years after, the Great Recession led to many financial institutions being downgraded, especially large banks in the United States: "S&P downgraded 15 big banks to reflect new rating methods the firm has been putting in place over the past year. The new guidelines sharpen the focus on how banks would hold up under market and economic stress, and on the likelihood of governments providing extraordinary support to troubled institutions."[11] When purchasing alternative investments, the firm used to make the purchase was not so much a concern as it is today. Historically, it was unheard of for a firm to go bankrupt. However, Lehman Brothers sold alternative investments and went bankrupt, which caused numerous problems for those who bought them. Moreover, alternative investments can be illiquid or not easily moved from one firm to another. Once the firm shut its doors, the former Lehman employees that sold the alternative investments were all gone and investors had no one to turn to for information. Certain proprietary products were completely wiped out. In other words, the "seller" risk became an issue. New risks emerged that had never been seen before. The Great Recession showed Wall Street and investors unforeseen risk that no one had considered let alone incorporated in any risk model, whether they were an institution or a retail investor.

Risk used to be somewhat simple to comprehend. "Each investment—each stock, bond, or physical asset—is associated with two types of risk: diversifiable risk and nondiversifiable risk. The sum of these two components is the investment's total risk."[12] But risk can change and new risk can emerge such as evidenced by the Great Recession. Throughout this book, transparent as well as hidden risks with alternative investments are covered. Figure 0.3 is a risk chart I devised to show both kinds of risk that one might consider along with other variables before acquiring an alternative investment.

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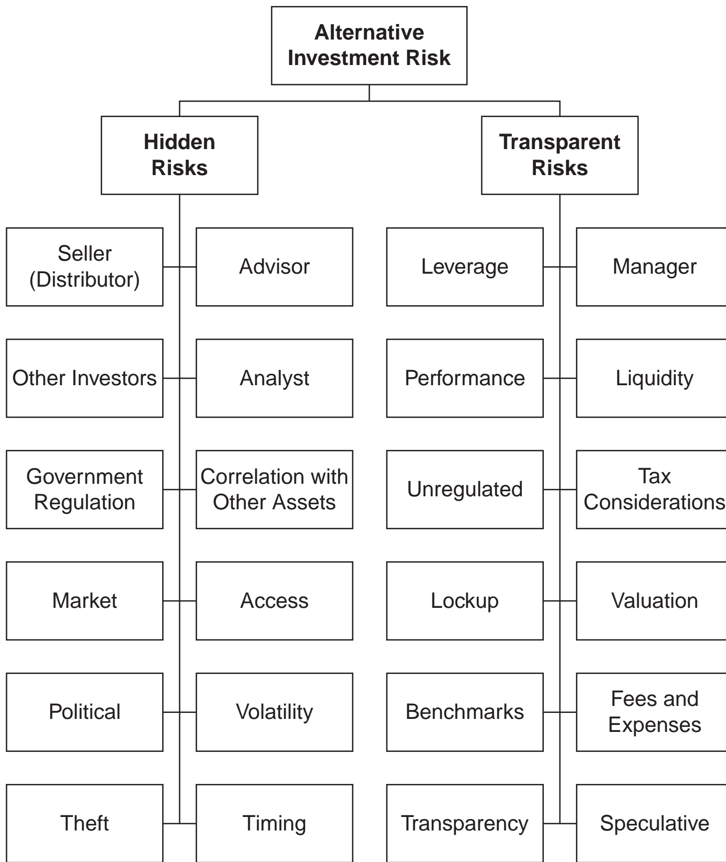

Figure 0.3 Transparent and Hidden Risks with Alternative Investments.
Source: Author.

How did banks become a risk to investors interested in alternative investments? One way was through real estate. Real estate is an alternative investment. Real estate is both commercial and residential:

> Real Estate for the vast majority of the public means a home or a condominium. And, that residential market is completely different, with a different set of dynamics, from the commercial market. The purchase of a home or condo is probably the last bastion of individual decision making, where the wrong decision has an immediate adverse impact on the purchaser. The commercial real estate market is no longer dominated by individual purchasers. Rather it

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> is dominated by REITs, institutional investors, investment bankers and pension funds. The individual investor participates indirectly as a shareholder, pensioner, or investor in a pool.[13]

Like other alternative investments, real estate moves in waves. That is, commercial real estate tends to be correlated with the business cycle. As an investment, real estate can be quite compelling and provide a steady income stream. There are a lot of ways to invest in real estate. One can buy real estate outright, such as a house or apartment building. Investors can lend money privately to those wanting to buy houses. Real estate investment trusts (REITs) can be private or publicly traded. Yet real estate is not without risk. Wall Street took a segment of the real estate market and created a security that ultimately led to the Great Recession. The riskiest part of real estate, subprime real estate, involves loans being made to borrowers with bad credit ratings.

In *Wave Theory for Alternative Investments*, three primary alternative investments were covered—hedge funds, commodities, and venture capital. These are just a few of the many types of alternative investments. However, there are many other alternative investments such as real estate, managed futures, and LBO funds (private equity). Alternative investments, just like any other security, can be found to move in waves that I call "Wave Theory."

> Wave Theory is simply the belief that all securities move in waves (patterns, cycles, or trends). History sometimes repeats itself, but with alternatives an investor can typically see similar waves repeating themselves. Equities move in waves. Fixed income moves in waves. Cash moves in waves. There is now enough data to support the notion that alternatives move in waves.[14]

Many years ago, I devised the hypothesis that alternative investments move in waves. Waves never stop as we know. "The seas off the eastern and western coasts of Australia provide constant waves, rolling in as they do from half way across the world, in the Pacific Ocean on Australia's western coast, and really as far in the Indian Ocean that washes Western Australia's shores. A storm almost anywhere across two thirds of the world builds waves that

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eventually crash onto Australia's two main coastlines."[15] However, there was no reliable data that I could utilize to test this hypothesis so I had to collect it myself. Over the years, I gathered large amounts of data to prove my theory. I examined many alternative investments and found that they move in waves. For example, there are LBO waves. "The leveraged buyout (LBO) wave of the 1980s was an important phenomenon well studied by academics and practitioners. The recession of the early 1990s, however, brought most of that activity to an end, as many deals from later in that period defaulted. Nearly 15 years later, however, the pace of LBO activity reached new record levels, renewing questions about whether and how these deals create value."[16]

While data with alternative investments can sometimes be conflicting, LBO funds have been shown to outperform the S&P 500. Robert Harris of the University of Virginia's Darden School, Tim Jenkinson of Oxford University's Saïd Business School, and Steven Kaplan of the University of Chicago's Booth School of Business examined private-equity performance and found that it is "very likely" that private equity outperforms the S&P 500.[17] Similarly, Dr. Rüdiger Stucke, a research fellow in Finance and Economics at the Saïd Business School and the Oxford-Man Institute of Quantitative Finance, University of Oxford, states, "In particular, the claim that private equity has not outperformed public equity is unlikely to hold with true numbers."[18] LBOs are part of the alternative investments area known as private equity. Private equity also moves in waves. As David T. Robinson and Berk A. Sensoy explain in an abstract "Cyclicality, Performance Measurement, and Cash Flow Liquidity in Private Equity," "Public and private equity waves move together."[19] Another area that I researched was real estate. Like private equity, real estate moves in waves. "Real estate is not a highly liquid asset and the key to successful investing is one of timing…One thing is certain; whatever has happened in the past will be repeated in the future, although probably in a different form."[20] Figure 0.4 is a chart of real estate equity assets showing the market recovering and forming a new wave for real estate despite the fact that the Great Recession was caused by the real estate market collapse.

Real estate has moved in waves for centuries and there have been many housing booms long forgotten. "A truly healthy housing market boom

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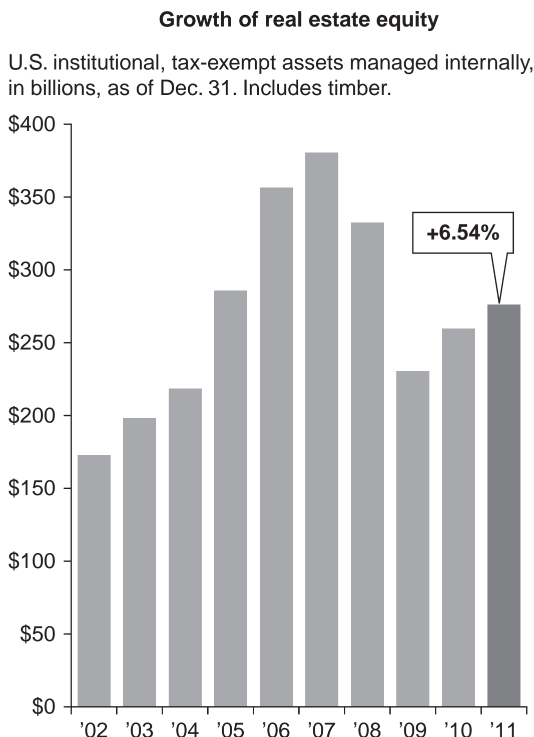

Figure 0.4 Real Estate Waves.

Source: "Graphic: Growth of real estate equity assets," *Pensions and Investments*, http://www.pionline.com, May 28, 2012.

occurred between 1940 and 1960. Supported by Fannie Mae as a quiet, behind-the-scenes government corporation, the home ownership rate grew from 40 percent to 60 percent. The company provided liquidity for FHA mortgages and for U.S. Veterans Affairs' zero-down payment mortgages for returning World War II soldiers, which helped fuel the growth of the American middle class."[21] A plethora of information was put together in *Wave Theory for Alternative Investments*, in order to show waves that each alternative investment (hedge funds, commodities, and venture capital) exhibits over time. Real estate, which caused the Great Recession, is recovering. "Sales of previously owned homes were stronger than expected in October 2012, putting them on track to hit their highest annual level since 2007."[22] The residential real estate market is showing signs of recovery. (Figure 0.5).

New constructions is a way to gauge the real estate market. ETFs such as the Dow Jones U.S. Home Construction ETF are now available. "Over the past 20 years, home-related stocks have roughly tracked new construction,

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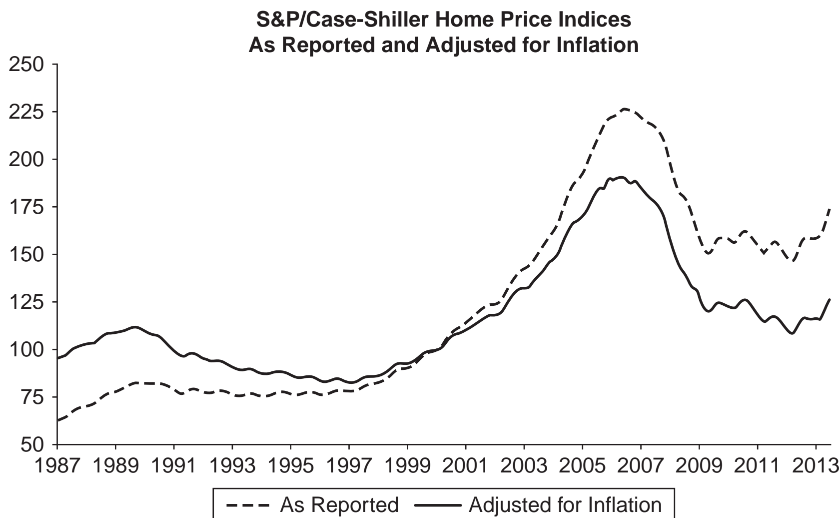

Figure 0.5 United States Residential Real Estate Recovering and Forming a New Wave.
Source: Rent vs. buy and inflation adjustments – S&P Dow Jones Indices – housing views.

itself perhaps the best indicator of the housing market's health. Plus, growth over a cycle can justify the high price/earnings ratios that housing stocks might have initially; future earnings and price appreciation can make those formerly costly-looking stocks seem cheap in hindsight."[23] The lumber industry, home-improvement stores, and homebuilders were some of the best performing industries in 2012.

Reminiscent of ocean waves, securities move in waves. Equities, for instance, move in waves. "Bull and bear markets are a common way of describing cycles in equity prices."[24] Patterns, trends, and cycles can be seen over time, again and again with alternative investments. Behavioral finance helps explain this phenomenon. "The forecasted change in price level is higher following a series of previous price increases than following price decreases, suggesting that investors indeed chase trends once they think they see them."[25] Fixed income moves in waves, as evidenced by the European debt crisis where there was a wave of selling. Many have accepted the fact that alternative investments move in waves and presently more research is being done. Waves exist and they exist with alternative investments.

Prudent investors can use this knowledge regarding Wave Theory to possibly help them make intelligent investment decisions as well as to build better portfolios. "Several recent studies have attributed this forecast ability to what has come to be known as the 'stock market

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overreaction' hypothesis, the notion that investors are subject to waves of optimism and pessimism and therefore create a kind of momentum which causes prices to temporarily swing away from their fundamental values."[26] Successfully investing money for institutions and high net worth individuals for more than two decades, I found this information to be quite useful. Based on the trends, patterns, or cycles that one observes, alternative investments can be used to further diversify a portfolio. Waves with different asset classes can also be found at the web site, http://www.InvestingWave.com. For instance, managed futures might be used to take advantage of these trends. "An initial under-reaction to a shift in fundamental value can potentially allow a managed futures strategy to invest before the information is fully reflected in prices. The trend then over extends due to herding effects."[27] "Managed Futures" refers to the Barclays CTA Index, an index that seeks to replicate the overall composition of the managed futures industry. Managed futures did well starting in 1990 when the equity market was bad, as well as in 2000, 2001, 2002, and 2008 (Figure 0.6).

A number of savvy investment pros have seen the value of investing when times are bad. "The secret is having the capital and courage when things look pretty gloomy to say, 'This will work,'" says George Siguler, whose New York-based Siguler Guff & Co. manages about $10 billion in private equity and distressed debt, including investments in Oaktree.[28] Many of these successful pros are experts in alternative investments. Carlyle Group frequently enters new areas before others, such as raising a sub-Saharan Africa private-equity fund, giving the firm a first-mover advantage. The largest hedge fund in the world, Bridgewater Associates, follows a strategy somewhat similar in nature to Wave Theory. The founder of Bridgewater Associates is Ray Dalio. Dalio, 62, built Bridgewater into the world's largest macro hedge-fund firm, with $110 billion in total assets, by tacking against consensus. He's created a distinct workplace culture and a research-driven investing process that spreads risk across scores of markets. "Making money is a zero-sum game, so to be successful you have to be willing to stand apart from the crowd," Dalio says, "And you have to be right."[29] These investments pros know when to buy or sell, unlike the typical investor that sells precisely at the wrong time (the bottom of the market) and buys at the wrong time (at the top).

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Comparative Performance of Asset Classes Ranked by Annual Return (January 1990–June 2013)

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Managed Futures 15.3%	NASDAQ 56.9%	Hedge Funds 21.2%	Hedge Funds 30.9%	MSCI World 5.6%	NASDAQ 39.9%	Real Estate 35.8%	S&P 500 33.4%	NASDAQ 39.6%	NASDAQ 85.6%	Real Estate 25.9%	Real Estate 15.5%
Global Bonds 12.0%	Real Estate 35.7%	NASDAQ 15.5%	MSCI World 23.1%	T-Bills 4.4%	S&P 500 37.6%	S&P 500 23.0%	NASDAQ 21.6%	S&P 500 28.6%	Hedge Funds 31.3%	Managed Futures 6.6%	Hedge Funds 4.6%
T-Bills 6.4%	Hedge Funds 32.2%	Real Estate 12.2%	Real Estate 18.5%	Hedge Funds 4.1%	Hedge Funds 21.5%	NASDAQ 22.7%	Real Estate 18.9%	MSCI World 24.8%	MSCI World 25.3%	T-Bills 6.0%	Managed Futures 3.8%
Hedge Funds 5.8%	S&P 500 30.5%	S&P 500 7.6%	NASDAQ 14.7%	Global Bonds 2.3%	MSCI World 21.3%	Hedge Funds 21.1%	Hedge Funds 16.8%	Global Bonds 15.3%	S&P 500 21.0%	Hedge Funds 5.0%	T-Bills 3.3%
S&P 500 -3.1%	MSCI World 19.0%	Global Bonds 5.5%	Managed Futures 13.4%	S&P 500 1.3%	Global Bonds 19.0%	MSCI World 14.0%	MSCI World 16.2%	Managed Futures 12.4%	T-Bills 4.8%	Global Bonds 1.6%	Global Bonds -1.0%
MSCI World -16.5%	Global Bonds 15.8%	T-Bills 3.4%	Global Bonds 13.3%	Real Estate 0.8%	Real Estate 18.3%	Managed Futures 12.8%	Managed Futures 12.0%	T-Bills 4.9%	Managed Futures 1.6%	S&P 500 -9.1%	S&P 500 -11.9%
Real Estate -17.3%	Managed Futures 14.7%	Managed Futures 2.5%	S&P 500 10.1%	Managed Futures -0.2%	Managed Futures 14.0%	T-Bills 5.1%	T-Bills 5.2%	Hedge Funds 2.6%	Global Bonds -4.3%	MSCI World -12.9%	MSCI World -16.5%
NASDAQ -17.8%	T-Bills 4.6%	MSCI World -4.7%	T-Bills 3.0%	NASDAQ -3.2%	T-Bills 5.6%	Global Bonds 3.6%	Global Bonds 0.2%	Real Estate -18.8%	Real Estate -6.5%	NASDAQ -39.3%	NASDAQ -21.1%

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Global Bonds 19.5%	NASDAQ 50.0%	Real Estate 30.4%	MSCI World 10.0%	Real Estate 34.4%	Global Bonds 11.0%	Managed Futures 13.5%	NASDAQ 43.9%	Real Estate 27.6%	Real Estate 7.3%	Real Estate 20.2%	S&P 500 13.8%
Managed Futures 13.7%	Real Estate 38.5%	MSCI World 15.2%	Hedge Funds 9.3%	MSCI World 20.7%	Hedge Funds 10.0%	Global Bonds 10.9%	MSCI World 30.8%	NASDAQ 16.9%	Global Bonds 6.4%	MSCI World 16.5%	NASDAQ 12.7%
Real Estate 5.2%	MSCI World 33.8%	S&P 500 10.9%	Real Estate 8.3%	S&P 500 15.8%	NASDAQ 9.8%	T-Bills 1.3%	Real Estate 27.4%	S&P 500 15.1%	S&P 500 2.1%	S&P 500 16.0%	MSCI World 8.8%
T-Bills 1.6%	S&P 500 28.7%	Global Bonds 10.4%	S&P 500 4.9%	Hedge Funds 12.9%	MSCI World 9.6%	Hedge Funds -19.0%	S&P 500 26.5%	MSCI World 12.3%	T-Bills 0.1%	NASDAQ 15.9%	Real Estate 5.4%
Hedge Funds -1.5%	Hedge Funds 19.5%	Hedge Funds 9.0%	T-Bills 3.3%	NASDAQ 9.5%	Managed Futures 7.5%	S&P 500 -37.0%	Hedge Funds 20.0%	Hedge Funds 10.3%	NASDAQ -1.8%	Hedge Funds 6.4%	Hedge Funds 3.6%
MSCI World -19.5%	Managed Futures 15.5%	NASDAQ 8.6%	Managed Futures 2.4%	Global Bonds 6.1%	S&P 500 5.5%	Real Estate -37.3%	Global Bonds 2.6%	Managed Futures 6.4%	Managed Futures -4.3%	Global Bonds 1.7%	Managed Futures 0.5%
S&P 500 -22.1%	Global Bonds 14.9%	T-Bills 1.4%	NASDAQ 1.4%	Managed Futures 6.0%	T-Bills 4.5%	MSCI World -40.3%	T-Bills 0.2%	Global Bonds 5.2%	Hedge Funds -5.3%	T-Bills 0.1%	T-Bills 0.0%
NASDAQ -31.5%	T-Bills 1.0%	Managed Futures 0.9%	Global Bonds -6.9%	T-Bills 5.0%	Real Estate -17.8%	NASDAQ -40.5%	Managed Futures -4.8%	T-Bills 0.1%	MSCI World -5.0%	Managed Futures -1.8%	Global Bonds -5.7%

	S&P 500	NASDAQ	MSCI World	Global Bonds	T-Bills	Real Estate	Hedge Funds	Managed Futures
Compound Annual Return Jan 1990 – Jun 2013	9.0%	8.9%	6.4%	6.5%	3.2%	10.3%	10.9%	6.7%
Correlation of Monthly Returns to Managed Futures	(0.12)	(0.19)	(0.08)	0.29	0.08	(0.05)	(0.01)	1.00

Figure 0.6 Managed Futures Performance Compared to Other Asset Classes.

Source: Millburn Ridgefield Corporation; S&P 500 Index; NASDAQ Composite Index; MSCI World Index; World Government Bond Index; 90-day U.S. Treasury Bills; FTSE NAREIT US Real Estate Index Series; HFRI Fund Weighted Composite Index; Managed Futures Index refers to the Barclay BTOP50 Index; Managed Futures is a Managed Futures Index. Past Performance is not necessarily indicative of future performance. Unless noted otherwise, index returns do not reflect fees or transaction costs and reflect reinvestment of net dividends.

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Diversification with companies is not too dissimilar from an investor making investment decisions. After all, both would like to increase rates of return while ideally lowering risk to build a better, more solid investment portfolio. "In today's business world, institutional investors are looking to outperform the foreseeable long period of low returns of the public and fixed income security markets caused by the economic turmoil of the last few years. They are looking to invest in alternative vehicles such as venture capital and private equity firms that benefit from demonstrable competitive advantages in territories where they invest, which, in turn, provide real advantages to their portfolio companies vis-à-vis their competitors from around the globe."[30] In other words, there appears to be many types of financial waves. Opportunities to invest exist in any environment but one needs to develop fundamental valuation principles, whether it is in a corporate setting or an individual building a sound investment portfolio. Finding intrinsic value is difficult with publicly traded securities but can be even more cumbersome with alternative investments. Alternative investments can be difficult to value since there might be no market for them nor a lot of information to make a rational decision. Liquidity is also not a benefit of most alternative investments.

Wall Street has been and still remains mainly devoted to stocks, bonds, and cash. For instance, many recommendations revolve around these three asset classes and in some cases do not mention or include real estate, private equity, managed futures, venture capital, commodities, or hedge funds as additional options. Bloomberg reporter Inyoung Hwang has made several tables for strategists recommending allocations for stocks, bonds, and cash.[30]

The American Association of Individual Investors (AAII) presents three different asset allocation models for investors called AAII Asset Allocation Models, which do not include alternative investments. That is, the aggressive, moderate, and conservative models have no alternative investments (Table 0.1).

By focusing on just stocks and bonds without alternative investments, investors are not considering an important part of the overall picture, which might possibly increase returns while at the same time lower risk, provided careful selection and appropriate timing are used.

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Table 0.1 AAII Asset Allocation Models

Aggressive	Moderate	Conservative
20% large-cap stocks	20% large-cap stocks	25% large-cap stocks
20% mid-cap stocks	20% mid-cap stocks	10% mid-cap stocks
20% small-cap stocks	10% small-cap stocks	10% small-cap stocks
20% international stocks	15% international stocks	5% international stocks
10% emerging markets stocks	5% emerging markets stocks	0% emerging markets stocks
10% intermediate bonds	30% intermediate bonds	40% intermediate bonds
0% short-term bonds	0% short-term bonds	10% short-term bonds

Source: "Suggested Allocation Breakdowns," The American Association of Individual Investors, www.aaii.com/asset-allocation, April 2, 2013.

Historically, asset allocation was considered the Holy Grail for investing by Wall Street. In the infamous study "In Determinants of Portfolio Performance," authors Brinson, Hood, and Beebower examined 91 large pension plans over 1974–1983 and expressed the view that asset allocation is far more important than security selection or market timing. They found that asset allocation is responsible for around 93.6 percent of the variation in total plan return. While this study might have had some validity almost four decades ago, times have changed, especially with alternative investments. In *Trends in State Pension Asset Allocation and Performance* for 2012, Cliffwater states: "In fact, over the last 10 years, just the opposite has transpired. We find that asset allocation explained a mere 8% of the variation among state fund returns while manager/fund selection accounted for 92% of the variation among state fund returns."[32] Oddly, decades after this study, there are still investors who believe security selection and market timing do not play a significant role. An interesting but little-known fact is that Brinson, Hood, and Beebower did not incorporate alternative investments at the time partially since these investments were not nearly as developed as they are today. Brinson, Hood, and Beebower appeared to have been undecided as to how to incorporate alternative investments. Recognizing alternative investments was one thing, but including them in their study was another. Data was unavailable for them to use. Essentially, alternative investments were not well known back then as they are almost 40 years later.

Investing during the 1960s and 1970s was very different from today. The 1960s led investors to believe one should buy and hold but this did not

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last for long. Investors liked buying the 50 most popular stocks and then holding them for the long haul: "The Nifty Fifty were often called one-decision stocks: buy and never sell. Because their prospects were so bright, many analysts claimed that the only direction they could go was up."[33] The stock market declined in 1973–1974 and these stocks plummeted. By 1976, they were considered undervalued.

Most of the 1990s revolved around large cap growth names that investors bought and held like Cisco or Microsoft. A decade later, the financial landscape has changed once again. That is, investors have found a buy and hold strategy to be a troublesome strategy and bad for a portfolio. "The buy-and-hold strategy finds a theoretical basis in the Efficient Market Hypothesis (EMH), according to which stock prices always include all available information and are priced correctly. As a result, short term stock price movements are completely random and it is not possible to predict them."[34] While it is debatable whether or not the stock market is truly efficient or not, alternative investments are often private and not traded on an exchange, and it is difficult to obtain information about them.

Regarding when and how an investor deploys funds to buy or sell any security, timing is much more relevant today. Timing is not completely irrelevant and might not be summarily dismissed. Investors frequently have bad timing such as the tendency to sell winners too early or hold losing investments too long. "Prospect theory predicts a disposition to sell winners and ride losers when the proceeds realized are held, as opposed to being rolled over into another gamble."[35] Buying and simply holding without considering the market can lead to large losses:

> The main problem with the buy-and-hold strategy is the total lack of risk control that can result in huge losses. Market volatility is higher during drawdowns. Prices usually decrease quicker than they increase, and thus the absence of risk management techniques exposes a passive unmanaged portfolio, to large fluctuations that in a few days can completely wipe out positive returns that took years to achieve. A buy-and-hold strategy may be extremely risky in declining markets.[36]

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Looking at the market is a prudent decision. Are we in an uptrend or a downtrend? What is the condition of the market?

Even though alternative investments have been found and shown to be useful for asset allocation purposes, Wall Street has been too timid to stray from their traditional investments mainly around stocks, bonds, and cash. That is, current asset allocation models frequently fail to include alternative investments despite the known benefits and merits of adding them to a portfolio. Countless investment professionals and many big banks to this day brandish pie charts showing asset allocation to be the biggest determinant for how returns are generated. Selecting which security to buy is important, as evidenced with the U.S. State Pension System. "Overall 10 year state fund returns were more influenced by manager/fund selection than by asset allocation; putting in question the conventional wisdom that 90% of performance is asset allocation. Private equity and real estate allocations were the primary driver behind the better performing state funds."[37] As investors, we typically frame securities; cognitive abilities of investors are somewhat narrow and confined. As a result, investors tend to box securities. In "Behavioral Portfolio Theory," Hersch Shefrin and Meir Statman explain:

> Labels, such as "stock" or "bond" provide help in processing information as they frame complex information into simple boxes. Behavioral investors begin the process of security screening by eliminating from consideration securities whose labels indicate that they are not likely to be suitable for a given layer. For example, investors might eliminate securities that carry the "stock" label from consideration for the downside protection layer because they know that, in general, stocks lack the desired properties for downside protection securities. Labels always simplify information. Unfortunately, labels also distort information.[38]

Like the research done by Brinson, Hood, and Beebower decades ago, Modern Portfolio Theory (MPT) is outdated and no longer modern. A new method for investing, which I call Modern Portfolio Allocation (MPA), might be more relevant in today's world of finance. MPA includes

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adding alternative investments to a stock and bond portfolio in order to create a well-diversified portfolio, with the goal of lowering risk and increasing returns. Alternative investments typically have a low correlation with stocks and bonds. As we saw with managed futures, they have a negative correlation with equities and a low correlation with global bonds. As part of our human nature, we tend to get caught up in the moment and our vision becomes myopic. Investors frequently fail to look ahead or even at what has happened in the past. While one could argue there is no guarantee of past performance continuing into the future, panicking and selling based on pure emotions tends to end in dire results. Once an investor loses money, they walk away and invariably miss the recovery. "Investors seem to attach disproportionate importance to short-run economic developments."[39]

Today, there is finally enough data to show alternative investments move in waves. Equities, on the other hand, have a longer and more measurable track record, as Professor Richard Sylla found (Figure 0.7).

An astute investor can devise strategies around the ebb and flow of the stock market. "A wide variety of trading strategies call for buying stocks

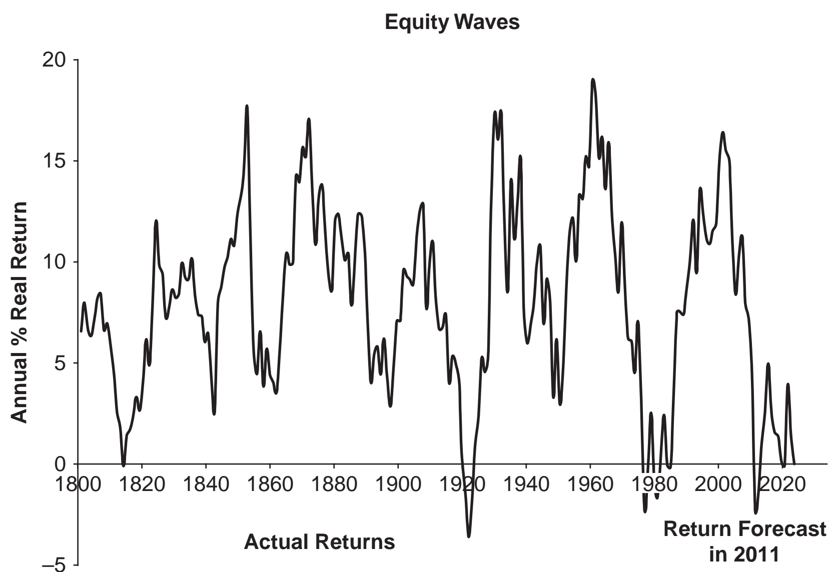

Figure 0.7 Equity Waves.

Source: Richard Sylla—Henry Kaufman Professor of the History of Financial Institutions and Markets; Professor of Economics, Stern School of Business—New York University.

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when their prices rise and selling stocks when their prices fall."[40] Waves with equities are nothing new; waves have been observed quite some time ago. "Early in the history of stock market indexes developed by Charles Dow, editor of the Wall Street Journal from 1900–1902 and part-owner, commentators viewed their evolution as a series of nested irregular '*waves*.'"[41]

Equity and bond information can be traced for centuries but data regarding alternative investments has been difficult to obtain because of its private nature. It is difficult to track. For example, Gjergji Cici, the former associate director of research for Wharton Research Data Service (WRDS) at the Wharton School of Business (presently an assistant professor of economics and finance at William & Mary's Mason School of Business), developed the "WRDS Guide to IPO Databases and Research" and warns that "the most widely used database in IPO research" must be used with "caution" because "it has missing information and documented errors."[42] While data can differ from one organization to the next, it is becoming more accurate. In the past, this was not the case. It is very difficult to obtain information from a private transaction. More information is available with publicly traded companies. An increasing number of organizations are gathering data on LBO funds as well as on venture capital. Each organization might record data differently, which one needs to be cognizant about before making an investment decision. For instance, are we looking at apples to apples? Is the number of dollars raised or number of private-equity deals the same between the organizations collecting the data? One might record domestic data while the other records global data, which might be drastically different, leading the investor to a false conclusion about which way the private-equity market is moving. Private equity moves in waves and appears to be different from country to country. The venture capital/LBO market in Canada is different from that in the United States. For one, venture capital is much more mature in the United States as opposed to the venture capital market in Canada, which is more in its infancy; the U.S. venture capital market has been around for decades while the Canadian market has not been around as long. Therefore, waves associated with both might differ.

While the criteria are not the same, I believe that Thomson Reuters and DeaLogic are two helpful services to use for analyzing initial public

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Table 0.2 Initial Public Offerings (2011–2012)

Year	# of IPOs	Aggregate proceeds
2001	79	$34.24 billion
2002	66	$22.03 billion
2003	62	$9.53 billion
2004	174	$31.31 billion
2005	160	$28.27 billion
2006	157	$30.48 billion
2007	160	$35.69 billion
2008	21	$22.76 billion
2009	41	$13.17 billion
2010	92	$29.85 billion
2011	81	$26.97 billion
2012	94	$31.12 billion

Source: Jay R. Ritter, Cordell Professor of Finance, University of Florida, "Initial Public Offerings: Updated Statistics," March 29, 2013

offerings (IPOs). Likewise, Jay Ritter and Professor Alexander Ljungqvist provide excellent research with IPO data (Table 0.2).

Data can be viewed differently, depending on the source, as well as the search criteria used. Some databases are also hard to access or are extremely expensive to use especially if one is not anticipating investing on a regular basis in venture capital or IPOs. Finally, there are other databases that are new and do not track data back to any meaningful length of time.

As anyone who understands anything about alternative investments knows, they are not easy to monitor or track. Hedge funds, for example, do not have the reporting requirements that mutual funds have and are also unregulated. Hedge fund data historically is conflicting. Even indexes that were created in recent years do not match up with one another despite the fact that they were attempting to create the same reliable index. One index might include hedge funds that went out of business while the other one did not. I have found HFRI (Hedge Fund Research Inc.) to be quite helpful. Like hedge funds, information for investors regarding commodities still differs mid 2011. For example, consider commodity indexes. Commodity indexes greatly vary in composition. Major commodity indexes dropped sharply in the first week of May 2011, but some fell more steeply than others, creating a significant performance gap among indexes and investment products linked to them.[43] Considering over 2,000 hedge funds vanished in 2009, the impact was large and the numbers are very different depending on whether or not one included the 2,000 hedge funds.

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Whether one is running a $20 billion dollar pension or investing $10,000 in an individual retirement account (IRA), there is a lot to learn about alternative investments. To an extent, institutions and high net worth investors have similar needs. "Institutional investors also face complex decisions. Some institutions invest on behalf of their clients, but others, such as foundations and university endowments, are more similar to individuals in that they seek to finance a long-term stream of discretionary spending. The investment options for these institutions have also expanded enormously since the days when a portfolio of government bonds was the norm."[44]

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INDEX

3D printers, 166
22nd Annual Broker Report Card Survey, 59–60
401(k), 82, 99
"2011 Advisor Brandscape" (Cogent Research), 43

A123 Systems, 171
AAA, 31, 148–9
AAII. *See* American Association of Individual Investors
AAII Asset Allocation Models, 14–15
absolute-return, 3, 80, 104, 269, 274
Abu Dhabi Investment Authority (ADIA), 103
ABX. *See* Barrick Gold
ACAT transfer papers, 70
Accel Partners, 134–5
Acerbi, Carlo, 233
acronyms, 224
active management, 245–51
Adams, Craig P., 62
ADIA. *See* Abu Dhabi Investment Authority
Adknowledge, 190
advisors, 61–3, 72
"the Agg." *See* Barclays U.S. Aggregate Bond Index
Alex. Brown, 55–6, 172
AliveCor, 180–1
all asset, 104
AlphaClone, 261
Alt-A mortgages, 29
Alternative Investment Markets stocks, 96
Alternative Investment Survey of U.S. Institutions and Financial Advisors, 106
alternative investments
  access to, 51–63
  and advisors, 61–3, 72
  and diversification. *See* diversification
  and ETFs, 83–5
  and exchange traded products, 85
  and fees, 53–4
  as global, 93–111
  and institutional assets, 90–2
  and the market, 81–3
  and mutual funds, 83–5, 126–7
  and performance, 94
  and public and private investments, 85–7
  and research, 52–3
  and risk, 7
  and size, 55–61
  understanding, 79–92
  and volatility, 79–81
alternative mutual funds, 2, 4, 105–6, 126–7, 242, 247–9
Amaranth Advisors LLC, 4
Amazon, 56, 168, 193
America Online Inc. (AOL), 56–7
American Association of Individual Investors (AAII), 14
American Capital (ACAS), 260
Amex, 96
analysts, 7, 16, 52, 58, 72–7, 104, 116, 140–1, 143, 176, 189, 211, 215–16, 260
Andreessen Horowitz, 197
Andreessen, Marc, 190
angel investing, 39
Angry Birds, 192–3
annualized returns, 80, 93–5, 129, 229, 238
AOL. *See* America Online Inc.
Apollo Investment (AINV), 53, 260
Apple, 159, 168–9, 193
arbitrage strategies, 121
Arch Coal Inc., 153–4
Arden Asset Management, 2, 126
Ares Capital (ARCC), 260
Argentina, 45
Asia, 71, 92, 96–7, 194–6, 203, 260
asset allocation, 1, 14, 15, 17, 32, 42, 44–5, 52, 68, 72, 81, 88, 91, 99, 109, 157, 201–2, 227–8, 232, 239, 241–3, 246, 248, 251, 255, 265–79
  and manager selection, 205–11

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asset allocation—*Continued*
and "other assets" category, 214–16
and portfolio construction, 44
process. *See* asset allocation process
and security selection, 220–2
strategic. *See* strategic asset allocation
tactical. *See* tactical asset allocation
truth about, 216–20
and understanding the REIT market, 203–5
versus security selection or market timing, 211–14
with or without alternative investments (figures), 232, 276, 278
asset allocation process, 265–79
and financial analysis, 265–7
and implementation, 275–6
and investment policy statement, 267–8
and modern portfolio allocation, 268–74
and periodic review, 276
asset classes, 1–2, 12–14, 30, 32, 35–9, 41, 44–5, 88, 100, 103–4, 106, 115, 117, 154, 186–7, 201–3, 213–19, 224–8, 231–3, 239, 243, 251, 255–6, 259, 261, 267, 271–2
assets under management (AUM), 3, 63, 69, 86, 92, 218
AUM. *See* assets under management
Australia, 8–9, 95, 194

BAIF. *See* Bloomberg Active Indices for Funds
"Big Bang," 25–6
Bain Capital, 53
Bair, Sheila, 25
Baird, Robert W., 62
See Robert W. Baird & Co.
Balboa, Michael, 128
Bank of America, 14, 44–5, 51, 57, 60–1, 65–7, 70, 75
Bank Secrecy Act ("BSA"), 167
Bank Wave, 25
Banker's Trust, 55
bankruptcy, 6, 33–4, 66, 128–9, 156, 166, 175–6, 184, 189
banks today, 46–7
See big banks
Barclays Capital U.S. Aggregate Bond Index ("the Agg"), 35, 37–8, 231, 238, 240, 251
Barclays CTA Index, 12, 39, 41, 238, 240, 251, 254, 262
Barclays PLC, 45–6, 53, 66, 71, 75, 150, 202
"barrel," 23
Barrick Gold (ABX), 249
Barron's, 72, 106
Battery Ventures, 169
Baum, Lauris, 26
BDC. *See* Business Development Corporation
bear markets, 11, 32–3, 89, 249, 251, 258
Bear Stearns, 59, 69, 75
Beebower, Gilbert, 15, 17, 211–17
behavioral finance, 78, 107–10, 123, 169–70
"Behavioral Portfolio Theory" (Shefrin and Statman), 17, 224
Beierlein, Steve, 62
Benchmark Capital Partners, 192
Bezos, Jeff, 258
big banks, 6, 17, 25, 43–9, 52, 55, 58–9, 61–3, 65–74, 76, 133, 142, 236
Big Data, 166
billionaire investments, and smart money, 258
Bitcoin, 166
Black, Leon, 110–11
Black Family Visual Arts Center, 111
Black Swan events, 145
BlackRock, 104–5
Blackstone Group LP, 2, 35, 53, 260
Blitz, David, 242
blogging, 189–91
Bloomberg, 46
Bloomberg Active Indices for Funds (BAIF), 35
Bloomberg BusinessWeek, 167
BMO Capital, 74
BMW, 198
Bodie, Zvi, 1
Bogel, Jack, 105
"bond" label, 224
Bonus Agreements, 48
Booth School of Business (University of Chicago), 9, 256
Borgman, L. E., 28
Boston Beer Company, 56
Bourgeois, Louise, 111
boutique firms, 55–9, 62, 70–1, 76, 124
"The Brave New World of Sovereign Wealth Funds," 103
Brazil, 97
Bridgewater Associates, 12, 115, 121, 218
BrightSource Energy, Inc., 190
Brinson, Gary, 15, 17, 211–17
Britton, Diane, 51
Broadband Capital, 71
Broca's Brain (Sagan), 26
Brookside Capital, 131
"BSA." *See* Bank Secrecy Act
BT Alex. Brown, 55
bubbles, 2, 34–5, 39, 73, 147, 153–5, 182, 183–6, 189, 190–1, 193, 213–14, 227, 237, 271
and gold, 154–5
and housing, 34–5
and technology. *See* tech bubble
and venture capital, 184–6

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Buchanan, James, 31
"bulge bracket" firm, 24–5, 47, 52, 61–2, 70
bull markets, 11, 87, 89, 150, 249, 251
Burkle, Ron, 258
Business Development Corporation (BDC), 52
business schools, 107–11

CAIA. *See* Chartered Alternative Investment Analyst
California Institute of Technology, 27
California Public Employees' Retirement Systems, 208
CalPERS, 53–4, 80–1, 210
Cambridge US private equity, 38, 102, 238, 240, 251–3, 257, 262–3, 278
Cambridge US Venture Capital, 37–8, 102–3, 187, 238, 240, 251–3, 257, 262–3, 278
Canada, 19, 95, 97
Canatu Ltd., 181
Capital Markets Advisory Partners, 196
Carbonite, 130
cardio companies, 166, 177–81
CardioMEMS, 180
CardioVax LLC, 179
Carina CDO, 30–1
Carlyle Group (CG), 2, 53, 130, 260
Case, Stephen M., 56, 258
Case III, Daniel H., 55–7
cash, 1, 8–9, 14, 17, 28, 36–41, 44–5, 57, 61, 79, 85, 91, 95, 97, 99–105, 115, 131, 135–7, 159–62, 172, 187, 192–3, 197, 203, 206–11, 214–15, 220, 223, 228, 232–3, 242, 255–7, 269–78
CCTA. *See* coronary computed tomographic angiography
CDs, 203
CDOs. *See* collateralized debt obligations
CDX.NA.IG.9, 67
Cellular Dynamics, 180
Central Bank of the Republic of Turkey, 259
Central Intelligence Agency (CIA), 168
CEO. *See* chief executive officer
Cerulli Associates, 2, 46–7, 58–9
CFA. *See* chartered financial analyst
changing financial landscape, 65–78
  and alternative investments, 72–3
  and big bank woes, 65–7
  and financial nomads, 69–70
  and investment banks, 70–2
  and knowledge as power, 72–3
  and new financial products, 67–8
  and regulation, 74–6
  and research quality, 76–8
  and trends, 75
The Changing Role of Hedge Funds in the Global Economy (Ehrlich), 90, 113–14
Charles Schwab, 46–7
Chartered Alternative Investment Analyst (CAIA), 104
chartered financial analyst (CFA), 104
Chase, 55–6
China, 94, 96–8, 150–2, 175–6, 194–6
CIA. *See* Central Intelligence Agency
Cici, Gjergji, 19
Cincor, 180
CircuLite, 180
Cisco, 16
Citi, 66–7, 71
Citic Securities Co., 196
Citicorp, 25
Citigroup, 25, 30–1, 45–6, 55, 59, 61, 66, 75–7, 175
Class V Funding III, 30
classes in alternative investments, 107–11
Classic Coke versus Diet Coke, 85–7
cleantech, 171–5, 181, 186, 189, 193
Cliffwater LLC, 113, 205
Clinch River Breeder Reactor, 175
closed-end funds, 3, 100, 105, 108, 145, 205
cloud computing, 166–9
CNBC, 138
coal, 77, 154
Coates, Jack, 99
Cogent Research, 43
Cohen, Steve A., 128
Coleman, Charles "Chase," 131, 133–4, 136–7
collateralized debt obligations (CDOs), 29–31, 85
Collins, Sean, 28
Colony Capital, 35
Columbia Business School, 110
Comex gold contract, 148
Commercial and Financial Chronicle, 96
commodities, 1, 3–4, 8, 10, 14, 20, 24, 29, 39, 41, 53, 58, 73, 76, 79, 82–6, 89, 91–2, 95, 98–101, 104–5, 119, 130, 147–8, 151–3, 154–7, 159, 174, 195, 228, 242, 246, 249, 254, 256, 269, 272–5
  commodity indexes, 20, 242
  commodity pools, 174
  commodity waves, 29
computed tomographic (CT) angiography, 178
Conditional Value-at-Risk (CVaR), 237–41
conflicts of interest, 140–3
conservatism, 77
Controlled Substance Act (1970), 167
coronary computed tomographic angiography (CCTA), 178
corporate bonds, 87
correlation, 224
Corventis, 179

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Countrywide, 59
covariance, 223
Credit Default Swaps, 28–9, 67
Credit Suisse Group AG, 45–6, 71, 75, 95, 127, 202
Crosslink, 130
crowdfunding, 172–4
CTA Global, 88
Cuban, Mark, 258
CVaR. *See* Conditional Value-at-Risk
"Cyclicality, Performance Measurement, and Cash Flow Liquidity in Private Equity" (Robinson and Sensoy), 9

Dahlquist, Magnus, 243
Dalio, Ray, 12, 121
Darden School (University of Virginia), 9
Dartmouth College, 111
David Polk Regulatory Tracker, 40–50
Davis Polk, 49, 124–5
de Laplace, Pierre Simon, 226
"Dead Presidents," 31
DeaLogic, 19
Dean Witter, 55
debt, 3, 11, 29–31, 35, 40, 50, 85, 87, 97, 100–1, 110–11, 119, 148–50, 173, 196, 205, 242, 245, 255, 258
  and education, 110–11
  See debt crises; distressed debt
debt crises, 11, 50, 119, 258
desalination, 193–4
Deutsche Bank, 46, 55, 71, 75, 127
devising portfolios, 245–63
  and active management, 245–51
  and comparisons between portfolios, 246–7
  and LBO funds, 256
  and managed futures, 254–61
  and passive management, 251–4
  and private equity ETFs, 261
  and real estate, 261–3
  and venture capital, 256
Digital Sky Technologies Global Ltd., 136
Dilberto, Roy, 59
distressed debt, 3, 12, 85, 104, 242
Distressed Hedge Fund Event Driven, 121
diversification, 1–2, 4–6, 12, 14, 18, 29, 36, 41–2, 44, 47, 51, 54, 68, 72, 79, 87–90, 94–104, 108, 127, 129, 156, 201–5, 208, 211, 221–2, 223–4, 227–8, 230–2, 245–63, 268, 272–7
  as not limited, 87–90
Dodd-Frank, 48–50, 58, 123, 155, 172
DOE. *See* U.S. Department of Energy
Doerr, John, 171
DOJ. *See* U.S. Department of Justice
Don't Count On It! (Bogel), 105
Dow, Charles, 19
Dow Jones, 10, 87
Dow Jones Newswire, 2
Dow Jones VentureSource, 161–2, 176
"drivers," 32, 149
Dropbox, 164, 190, 198
DST Global, 136–7
due diligence, 4, 51, 127, 129, 133–4, 143
Dynasty Financial Partners LLC, 53

EarlyBird Capital, Inc., 71
economic cycles (figure), 89
Economist magazine, 195
Edward Jones, 51, 57, 60, 63
Efficient Market Hypothesis (EMH), 16
Ehrlich, Everett M., 90, 113
Einstein, Albert, 25
El Dorado Ventures, 168
election-year politics, 77
emerging markets, 15, 87, 92, 94, 100–1, 108, 120, 248, 269
EMH. *See* Efficient Market Hypothesis
energy policy, and the market, 77–8
Energy Recovery Inc., 193
enStratus Networks Inc., 168
entrepreneurship, 57, 97, 106–7, 109, 111, 135, 160, 167, 170, 190, 193, 195–8, 201–2
Equinox, 249
equities, 1–2, 4, 8, 11, 18–19, 33, 35, 37–8, 41, 44–5, 69, 79–81, 87–90, 94–6, 99–105, 117, 120, 147–8, 156–7, 187, 202–3, 206, 214, 216, 217, 222, 223, 225, 228, 233, 238–58, 262, 267–77
  equity hedge, 108, 118–19, 121, 125, 202, 231
  equity mutual funds, 126, 256
  equity-risk premium, 76–7
  equity trusts, 203
  equity waves, 9, 18, 28
Equity Office properties, 259
Ernst and Young, 96
ETF. *See* exchange-traded fund
European debt crises, 119
Event Driven, 108, 118–19, 121, 125, 157
Evergreen Solar Inc., 175–6
exchange-traded funds (ETFs), 3–4, 10, 83–5, 90, 94–5, 101, 105, 125–6, 147–8, 150, 156, 210, 233, 242, 261, 266, 273
exchange-traded products, 85
Executive Summary of "Exotic to Mainstream," 103–4
Exencial, 24

Facebook, 36, 58, 73, 86, 131, 134–43, 166, 168, 191–3
  fiasco, 134–40
  IPO, 58, 73
Falcone, Philip, 128–30

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Falklands Islands, 45
Fannie Mae, 10, 48
"FarmVille" (game), 164
"fat tails," 234, 237, 239
FBR Capital Markets, 71
FCC. *See* Federal Communications Commission
fear, 68, 109, 123–5, 143, 148
Federal Communications Commission (FCC), 129–30
Federal Deposit Insurance Corporation, 25
federal housing administration mortgages, 10
Federal Reserve, 50, 68–9, 197
Federal Reserve Bank of Dallas, 65, 69
Fidelity Investments, 2, 126, 164, 274
Fifth Amendment of U.S. Constitution, 175
Financial Advisor magazine, 216
financial advisors, 43–50
  and banks today, 46–7
  and Dodd-Frank, 48–9
  and government regulation, 49–50
The Financial Crimes Network ("FinCEN"), 167
Financial Industry Regulatory Authority, 139–40
financial nomads, 69–70
Financial Stability Oversight Council, 48
financial waves, 24, 28–33
"FinCEN," "The Financial Crimes Network," 167
Fire & Police Pension Association of Colorado, 115
Firm by Firm: Tally of Awards Won by 86 Research Firms (*The Wall Street Journal*), 74
First Eagle, 250
Firstenberg, Paul B., 145
Firsthand Technology Value, 141
Fisher, Richard, 70
Fisker Automotive, 171
Fitch, 30
fixed income, 3, 8, 10–11, 28, 38, 86–7, 94, 99, 103–4, 108, 120, 187, 202, 206, 210, 228, 231, 242, 248, 251–2, 269–70, 273–4
Florida, living in, 79–80
Flowers, Michael, 156
"Foolish Money," 129
Forbes 400 list, 81
foreign bond waves, 28
Form S-1, 138–9, 164, 192
Fortress Investment (FIG), 260
"Four Horsemen," 56
Frampton, Paul, 26
Franklin, Benjamin, 105
fraud, 128–9, 143, 173
freak waves, 5–6, 28
Freddie Mac, 48
FREE-D. *See* Free-Range Resonant Electrical Energy Delivery System
Free-Range Resonant Electrical Energy Delivery System (FREE-D), 178
FTSE NAREIT, 203
Fusion-io, 168–9
FusionStorm Global Inc., 168
futures, 89, 254–61
  See managed futures

Galleon Group (Raj Rajaratnam), 128
Galvin, William, 74, 140
Gauss, Carl Friedrich, 226
Gazzang, 168
GDP. *See* gross domestic product
General Motors Co., 171
George, Esther, 70
Germany, 68, 95, 148, 152, 165–6, 236
Glass-Steagall, 25, 49, 55, 174–6
Glencore International PLC, 153–4
Global (Norway's Government Pension Fund), 103
global financial crisis, 68, 102
  See Great Recession
Global Macro, 119–21
global nature of alternative investments, 93–111
Global Private Equity Port. (PSP), 260
global venture capital and IPOs, 165–6
Global X, 261
Goedhart, Marc, 225
gold, 4, 34, 36–7, 73, 85–6, 89, 101, 147–57, 213, 221, 228–30, 247–50, 254, 262, 271–2
  and bubble trouble, 154–5
  and calamities, 148, 151
  and global gold, 150–1
  and gold bugs, 150
  and gold correlations, 156–7
  and government, 155–6
  and reversion to the mean, 147–8
  and supply and demand, 148–50
  and waves, 152–4
Gold Wave VI, 147–8, 152, 155
Goldman Sachs, 44–4, 71, 74, 75, 80, 127–8, 135–7, 164, 191
Goldman Sachs Asset Management, 44–5, 80
Gompers, Paul, 169
Google, 159, 164, 193
Gorman, Jim, 138
government regulations, 49–50
Great Depression, 29, 49, 88
Great Recession, 2–10, 25, 28–9, 34–5, 39, 43, 48, 51, 55, 59, 65–8, 77–9, 87–8, 90, 113–14, 126–9, 143, 145, 148, 160, 170, 184–8, 194–7, 213, 230, 237, 256, 261
Greece, 29, 148–9, 258
Greentown labs, 174
Grell, Kevin Berg, 172–3

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Gresham Investment Management LLC, 105
Greylock, 136–7
gross domestic product (GDP), 87
Groupon, 131–2, 163–5
growth waves, 28
GSV Capital, 141
Guidewire Software, 169
Gultejin, Nihat Bulent, 259

H&Q. *See* Hambrecht and Quist
Hadoop, 167
Hambrecht and Quist (H&Q) (San Francisco), 55–6
Hanlon Financial Group, 24
Harbinger Capital (Philip Falcone), 128
Harris, Robert, 9
Harvard Business School United States Competitiveness Project, 50
Harvard University, 50, 126
Harvey, Campbell R., 243
HCA. *See* Hospital Corporation of America
Hedge Fund Research (HFR), 114
Hedge Fund Research Inc. *See* HFRI
hedge funds, 20, 24, 35, 82, 91, 113–45
  and alternative mutual funds, 126–7
  and behavioral finance, 123
  and buying research or trouble, 127–30
  and competition, 132–4
  and conflicts of interest, 140–3
  and Facebook, 134–40
  and the future, 143–5
  and government intervention, 128
  and growth of assets (figure), 114
  and hybrid hedge model, 130–2
  and increased regulation, 123–5
  and indices, 122
  and inflows and outflows (figure), 115
  and strategy, 119–21, 125–6
  and top ten, 218
  and waves, 29, 116–22
HFR. *See* Hedge Fund Research
HFRI (Hedge Fund Research Inc.), 20, 37–8, 88, 120–1, 187, 202, 231, 238, 251–3, 257, 262–3, 278
  HFRI Equity Hedge, 202, 231
  HFRI Fund Weighted Composite, 37–8, 88, 120, 187, 238, 251–3, 257, 262–3, 278
  HFRI Indices, 120
  HFRI Indices Annual Investment Returns, 120–1
  HFRI Macro, 88
Hibernia Atlantic, Inc., 190
high net worth investors, 1–2, 12, 21, 39, 44, 52–3, 57, 65–6, 72, 83, 86, 91–2, 102, 107, 132–3, 183, 198–9, 208, 210–11, 224, 268, 277
high yields, 40, 87, 101, 117, 203, 238
HighTower Advisors, 53
Hoernemann, Jeffrey, 219
HOF Composite, 120
Home Depot, 159
Hong Kong, 98
Hood, Randolph, 15, 17, 211–17
Hospital Corporation of America (HCA), 259
HSBC, 45
Hurricane Andrew (1992), 80
Hurricane Charley (2004), 80
"The Hybrid Hedge," 101, 106–8, 126–7, 130–2
Hype, 134–5

Ibbotson, Roger, 207, 212, 217, 239
IBM, 167, 209
Icahn, Carl, 110
iCloud, 168
Ikaria Inc., 180
Iksil, Bruno Michel, 49
illiquidity, 6, 70, 83–4, 99, 102, 107, 126, 130, 233, 266–8
"In Determinants of Portfolio Performance" (Brinson, Hood, and Beebower), 15, 17–18, 211–17
Index IQ, 127
index tracking corporate credit, 67
indexes, 12, 19, 20–1, 32–7, 41, 49, 67, 84, 88–90, 94, 105–6, 114, 120, 124–7, 201, 220–1, 229, 231, 238–41, 245–7, 254, 266, 268
India, 85, 97, 150–1, 195–6
individual retirement account (IRA), 21
inflation, 148
Infosphere BigInsights, 167–8
Infraredx, 179
infrastructure, 85, 92
initial public offerings (IPOs), 19–20, 48, 56–8, 58, 71, 73, 82, 96–7, 101, 109, 133–43, 153–4, 159–65, 170–1, 175–7, 181–8, 194–6, 199–200, 242
  and Facebook, 58, 134–43
  and global venture capital, 165–6
  and IPO Databases, 19, 20
  and IPO waves, 28, 56
  and pre-IPO research, 73–4
InMobl, 190
In-Q-Tel, 172
"insider trading," 127–8
institutional assets, 90–2
institutional investors, 1–2, 7–8, 14, 28–9, 35, 54, 83, 91–2, 107, 113–15, 129, 132–3, 138, 140, 147, 149, 170, 222
interest rates, 41, 45, 61, 79, 87, 89, 149, 254, 259, 261–2

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International Stock, 15, 38–9
Internet, 44, 73, 131, 164–6, 181–2, 189–92, 217
InterValve, 179
investment banks, 7–8, 46, 57, 65, 70–1, 142–3, 175–6
Investment Company Institute, 84, 90
investment policy statement (IPS), 267–8
The Investment Process in Investments (Bodie, Kane, and Marcus), 1
Iowa land, and investment, 261–2
iPad, 217
iPhone, 180, 192
IPOs. *See* initial public offerings
IPS. *See* investment policy statement
IQ Hedge Multi-Strategy Tracker, 126
IRA. *See* individual retirement account
iShares Diversified Alternative Trust (ALT), 104–5
Israel, 97, 194
Issa, Darrell, 142

J.C. Flowers & Co., 156
Janney Montgomery Scott LLC, 53, 57, 62–3
Jefferies & Co./Deutsche Bank Securities, 71, 75
Jenkinson, Tim, 9
jewelry, 150–1, 230, 248
JOBS Act (Jumpstart Our Business Startups), 172–4
Johnson, Andrew, 31
Johnson Rice & Co., 71
JP Morgan, 14, 45, 49, 53, 66–70, 75, 80, 135, 229, 235, 274–5
Jumpstart Our Business Startups. *See* JOBS Act
junior advisors, 43–4
junk bonds, 31, 117
Junkans, Dean, 219

Kane, Alex, 1
Kaplan, Steven, 9, 256–7
Karp, David, 190
Kasten, Gregory, 227
Kauffman Foundation, 160
"Kauffman Index of Entrepreneurial Activity," 160
Kerns, Jerry, 100
Ketchum, Rick, 139–40
Khosla, Vinod, 171
Khosla Ventures, 171
KIA. *See* Kuwait Investment Authority
Kickstarter, 173, 197–8
Kirk, Randal, 258
KKR, 260
Kleiners Perkins Caufield & Byers, 179
Kojima, Christopher, 80
Koller, Tim, 225
Kovner, Anna, 169
KPMG, 2, 50
Kravis, Henry Robert, 110
Krawcheck, Sallie, 66
Kroll, 129
Krongard, Buzzy, 172
kurtosis, 234–9
Kuwait Investment Authority *(*KIA*)*, 103

labels, 17
Lacker, Jeffrey, 70
Ladenburg Thalmann & Co., 63
Laser, Ross, 128
layoffs, boom in (2011–2012), 45
LBO. *See* leveraged buyout
LCD. *See* liquid-crystal display
Lefkofsky, Eric, 163–4
Lehman Brothers, 6, 59, 65–6, 75
Lerner, Josh, 169
leveraged buyout (LBO), 8–9, 19, 24, 29, 34, 41, 53, 97–8, 101, 104, 130, 182, 195, 224, 238, 242, 245–6, 256–61
  funds, 8–9, 19, 34, 101, 130, 256–61
  waves, 9, 29
Libor, 61
"light" waves, 26
LightSquared, 128–30, 190
LinkedIn, 131–4, 164–5, 191
liquid-crystal display (LCD), 181
liquidity, 7, 9–10, 14, 99, 102, 117, 126, 176, 233, 248, 256, 265–6
Litowitz, Alec, 128
LivingSocial Inc., 131–2, 190
Ljungqvist, Alexander, 20
load waived (LW), 247
lobbying, 47
London Stock Exchange, 96
London Whale, 68, 80–1
Lone Pine Capital, 131
longitudinal waves, 25
long-term investing, 44, 70, 101, 104, 136, 152, 154, 159, 224–5, 227, 242–3, 268
  See strategic asset allocation
lower partial standard deviation (LPSD), 235
LPL Financial, 24
LPSD. *See* lower partial standard deviation
Luminous Capital Holdings LLC, 24
Lunar New Year, 151
LW. *See* load waived

M&A. *See* mergers and acquisitions
Macquaire Group LTD, 45
Macro, 118
Madoff, Bernie, 4, 129, 143, 262
Mail.ru group, 136–7, 165

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Malkiel, Burton Gordon, 145
managed futures, 3, 8, 12–14, 18, 24, 29, 36, 38–41, 80, 88–90, 101, 106, 108, 174, 228–9, 243, 254–61, 269, 274
  and devising portfolios, 254–61
  and funds, 89, 174, 254
  and portfolio protection, 258
  and waves, 29
Marcus, Alan, 1
Marcus, Bernie, 159
market and alternative investments, 81–3
market crash, 90
market neutral, 3, 88, 104–5, 108, 116–17, 202, 247–9
market timing, 15, 207, 211–15, 219–20, 228
Markowitz, Harry, 226
Markowitz mean-variance optimization, 226, 231
Mason School of Business (William & Mary), 19
Massachusetts Institute of Technology (MIT), 256
Massolution, 172
Maxim Group LLC, 71
MBS index, 88
MCG Capital (MCGC), 260
McGraw-Hill, 106
McKinsey & Co., 2–3, 92, 128, 225
M-CVaR. *See* Modified-Conditional Value-at-Risk
mean return, 225
mean variance optimization (MVO), 225–6, 231, 237
Medical Marijuana, 166–7
megabanks, 25
Mendoza, Jose Miguel, 133
merger-arbitrage, 104
mergers and acquisitions (M&A), 24, 28, 48, 65, 69, 107, 109, 143, 153, 159–62, 182–3
The Merion Cricket Club, 106
Merrill Lynch (Bank of America), 31, 44, 51, 57, 59–61, 66–7, 75
MF Global Holdings Ltd., 155–6
Microsoft, 16, 56, 154–5, 168, 193
MICEX. *See* Moscow Interbank Currency Exchange
microwaves, 26
middle class (U.S.), 10
middle market firms, 59
Millburn Corporation, 258
Millennium Global Emerging Credit Fund, 128
Milner, Yuri, 136
mining companies, 94–5, 98, 153–4, 221, 230, 249–50
Mizuho Financial Group Inc., 30
Modern Portfolio Allocation (MPA), 17–18, 42, 223–43, 268, 271–2
  defined, 227–30
  figure, 228
  and risk and return ratios, 230–5
  and risk measurements, 235–43
  and theory, 226–7
  and waves, 225–6
Modern Portfolio Theory (MPT), 17–18, 100, 224–7, 232
Modified-Conditional Value-at-Risk (M-CVaR), 239–43
Modified Value at Risk (MVAR), 236–7, 239–41
Moisand, Dan, 213
money-market funds, 48, 90
MoneyTree™ Report, 186
Montgomery Securities, 55–6
Moody's, 30
Morgan Stanley (MS), 25, 31, 39–40, 45, 48–9, 51, 55, 57–8, 60–2, 66, 71, 74–6, 135–6, 138–43, 164–5, 191, 248
Morningstar, 75, 79, 83, 100, 106, 207, 229, 239, 247–9
Morningstar Alternative Mutual Funds, 249
mortgage trusts, 203
Moscow Interbank Currency Exchange (MICEX), 196
MPA. *See* Modern Portfolio Allocation
MPT. *See* Modern Portfolio Theory
MS. *See* Morgan Stanley
MSCI EAFE Index, 87
MSCI World Index, 116
Mt. Eden Investment Advisors LLC, 24
Mt. Gox, 166
municipal bonds, 30, 70, 87, 90, 130, 202–3, 269
mutual funds, 2–4, 20, 44, 48, 83–5, 87–90, 94, 100–1, 104–8, 120, 123, 125–7, 130, 132, 134, 140–1, 145, 149–50, 156, 164, 183, 203, 207, 210, 212, 220–1, 230, 233, 242, 245–51, 256, 259–62, 266, 268, 273
MVAR. *See* Modified Value at Risk
MVO. *See* mean variance optimization
MyCityWay, 198
MySQL, 191

nanotechnology, 181
NAREIT. *See* National Association of Real Estate Investment Trusts
Nasdaq, 33, 96, 141, 164–5, 189, 192, 241
National Association of College and University Business Officers, 223
National Association of Real Estate Investment Trusts (NAREIT), 37–8, 40, 102, 187, 203–4, 238, 240–1, 251–3, 257, 262–3, 278

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National Heart, Lung, and Blood Institute, 178
National Venture Capital Association (NVCA), 162, 184, 186
NationsBank, 55
Natixis, 127
natural gas, 4, 77, 86
NEA, 169
"net operating losses" (NOLs), 184
Netscape Communications, 190
new financial products, 67–8
New Jersey Division of Investment, 2, 115
New York Stock Exchange (NYSE), 96
New York University, 225
Nietzsche, Friedrich, ix
Nike, 160
NOLs. *See* "net operating losses"
normal curve, 226, 231–41
nuclear, 77, 148
Nuveen Investments, 105
Nuveen Long/Short Commodity Total Return Fund, 105
NVCA. *See* National Venture Capital Association
Nyppex, 183
NYSE. *See* New York Stock Exchange

Oaktree, 12
Obama, Barack, 176
Occupy Wall Street, 24
Ocean Power Technologies Inc., 27
ocean waves, 11, 23, 26–33, 37, 185
Ohio Public Employees Retirement System (PERS), 115
oil, 34, 45, 73, 77, 86, 98, 155–6, 172, 250
Olukotun, Oye, 179
Oppenheimer & Co., 57, 62–3, 71, 75, 139, 248
Osprey Medical, 180
OTC. *See* over-the-counter
"other assets" category, 214–16
over-the-counter (OTC) derivatives, 67
"Own More 'Alternatives'" (*Smart Money*), 79
Oxford-Man Institute of Quantitative Finance, 9

Pandora, 131, 164–5
panicking, 18, 24, 55, 102, 126
ParkatmyHouse, 198
Parker, Sean, 258
Parsons, Richard, 25
partial circulatory support (PCS), 180
passive management, 251–4
Paul Tudor Jones, 113
Paulson, John, 262
Paulson & Co., 262
PayPal, 136
PCS. *See* partial circulatory support
peaks, 34, 36, 89, 147, 153, 160, 177, 234–7
pension funds, 7–8, 35, 54, 80, 93, 115–16, 149, 208, 230, 273
pension plans, 15, 21, 35, 90–1, 93–4, 98–103, 113–16, 205, 211–15, 219–20, 223, 255, 267
Pension Reserves Investment Trust, 115
pension systems, 17
Pensions and Investments (*P&I*), 10, 83, 91, 99–100, 103, 114, 116, 169, 209
"Pensions Leap Back to Hedge Funds" (*The Wall Street Journal*), 93
Pentagon, 168
Peregrine, 155
Perelman, Ronald, 110
Perkins, Tom, 172
PERS. *See* Ohio Public Employees Retirement System
pharmaceuticals, 190, 258
physical asset, 6
Picard, Irving, 143
PIMCO, 104
Plastic Logic Ltd., 190
Plosser, Charles, 70
PNC bank, 44
Pocket Micro-Pump, 180
politics, 77
Ponzi scheme, 129
PortalAlliance, 183
Porter, Michael, 50
portfolio protection, and managed futures, 258
PowerBuoy, 27
Powershares DB Commodity Index, 246–7
Powershares Global Listed Private Equity Portfolio, 261
Pramod Bonde, 178
Preqin, 40, 98, 113, 121, 189, 256
Priceline, 193
PricewaterhouseCoopers LLP (PwC), 177, 182, 186, 189
Private Capital Research Institute, 238
private equity, 8–9, 12, 14, 17, 19, 33–5, 40, 48, 50, 52–3, 69, 71, 77, 82–4, 91–4, 97, 102–4, 107, 124, 130, 132, 156, 162, 165, 167, 200, 206, 208, 210, 217–18, 223, 228, 238, 240, 242, 245, 251–63, 269–75, 278
See leveraged buyout; venture capital
private exchanges, 86, 183–4, 193
privately placed limited partnerships, 174
PrivCo, 138
process of asset allocation. *See* asset allocation process
Project Nina, 171

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Promissory Notes, 48
prospect theory, 16
"Protest Wave," 24
public and private alternative investments, 85–7
publicly traded private equity firms, 260
Purcell, Philip, 25, 55, 142
PwC. *See* PricewaterhouseCoopers LLP

quant funds, 116–17
quarterly data, 5, 53, 114–16, 121, 127, 186, 217, 239–41, 258

radio waves, 26
railroads, 94
Rajaratnam, Raj, 128
Ramius, LLC, 72
Raymond James and Associates, 51, 57, 60, 62–3, 71, 74
Raymond James Financial, Inc. (RJF), 53, 75
RBC Wealth Management, 44, 57, 62–3, 71, 75
real estate, 1, 3, 7–11, 14, 17, 24, 29, 34–41, 45, 48, 53, 73, 76, 82–6, 91–2, 93–4, 100–4, 108–9, 130, 147–8, 153, 195, 202–6, 210, 214–15, 223, 227–30, 241–2, 246–51, 256, 261–3, 269, 271–5
  waves, 29
  See real estate investment trusts
real estate investment trusts (REITs), 7–8, 40, 73, 85, 100–1, 202–5, 228, 240–2, 246–7, 269
Reata Pharmaceuticals, Inc., 190
Red Rocks Listed Private Equity Index, 261
Reed, John, 25
registered investment advisors (RIAs), 24, 46–7, 62, 123
Registered Rep, 51
"regression to the mean" (RTM), 36–7
regulation, 7, 46, 48–50, 72, 74–6, 92, 108, 123–6, 142, 156, 165–6, 173, 196–7
"regulatory arbitrage," 132
REITs. *See* real estate investment trusts (REITs)
relative value, 108, 118–19, 121, 125, 157
replicator funds, 127
request for proposal (RFP), 221
research, 73–7
Research Magazine, 84
research to alternative investments, 52–3
Reserve Primary Fund, 148
retirement, 21, 59, 82, 115, 208–9, 213, 245, 273, 275
  and 20 largest retirement funds, 209
The Retirement Advisor, 213
"Retirement Ready" (2011) (*Worth*), 82
Reuters, 140
reward-to-volatility ratio. *See* Sharpe ratio
RIAs. *See* registered investment advisors
risk management, 16
risk measurements, 235–43
  and return ratios, 233–5
  and Sharpe ratio, 234
  and Sortino ratio, 235
  and Treynor ratio, 233
  understanding, 230–3
  See Conditional Value-at-Risk; Modified-Conditional Value-at-Risk; Modified Value at Risk; value-at-risk
Ritter, Jay R., 20
Rivkin, Jan, 50
RJF. *See* Raymond James Financial, Inc.
Robert W. Baird & Co., 62–3, 74–5
Robertson Stephens, 56
Robinson, David T., 9
Rodman & Renshaw, 71
rogue waves, 5, 23–4, 28, 31, 117, 145, 225–7, 236
"The Role of the Private Equity Sector Promoting Economic Recovery" (Shapiro), 33–4
Rosa, Dave, 179
Roth Capital, 71
Rothstein, Scott, 129
Royal Bank of Scotland Group PLC, 45
RTD Financial Advisors, 59
RTM. *See* "regression to the mean"
Rubin Jr., Louis J., 26
Russell 1000 Growth, 33
Russell 2000, 203
Russia, 136, 152, 165–6, 196, 258
Russian Trading System (RTS), 196
Russian Venture Company, 166
Rydex/SGI, 127

S&P 500, 5, 9, 33, 36–9, 40–1, 81, 87, 116, 119–20, 187, 202–4, 207, 229, 231, 238, 240, 251–4, 257–8, 262–3, 271
S&P500 Composite, 238, 251, 257
S&P GSCI, 38–9, 187, 238, 240, 251–3, 257, 262–3
SAC Capital, 128
Sagan, Carl, 26
Saïd Business School (Oxford University), 9
Salesforce.com, 168
Salomon Brothers, 72
Sam Adams (Boston Beer Company), 56
sample portfolios, 265–79
Sandler O'Neill + Partners, 65
Sarbanes-Oxley, 48, 132, 165, 176, 183
Saudi Arabia, 194
Saverin, Eduardo, 258
SBA. *See* U.S. Small Business Administration

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Scandolo, Giacomo, 233
Scharfstein, David, 169
Schmidt, Eric, 258
Schoar, Antoinette, 256–7
Schwab, 65
Schwab Advisor Services, 24
Schwartzman, Stephen, 110
SEC. *See* Securities and Exchange Commission
SecondMarket, 183
Securities and Exchange Commission (SEC), 30, 48, 74, 123–4, 127, 129, 134, 136, 139, 165, 172, 174, 186–8
security selection, 15, 203, 205, 211, 213–22, 228, 274–5
SEI, 103, 105
Sellers of Alternative Investments (figure), 51–2
selling blindly, 102
Sempra Energy, 174
Sensoy, Berk A., 9
separately managed accounts (SMAs), 205
SharesPost, 183
Sharpe, William F., 234
Sharpe ratio, 201, 234–5, 238, 246–8
Shefrin, Hersch, 17, 224
Shenzhou-8 spacecraft, 176
short selling, 88, 104
short-term investing, 15, 90, 132, 224–5, 241–3, 261
See tactical asset allocation
Shrem, Charlie, 166
"side pockets," 130
Siegel, Jeremy, 207
Siemens, 194
SIFIs. *See* systemically important financial institutions
Siguler, George, 12
Siguler Guff & Co., 12
Silicon Valley, 141, 160, 171, 182, 190
Silver Lane Advisors LLC, 24
single-strategy hedge funds, 275
skepticism, 5, 79, 215
Sloan School of Management (MIT), 256
SMAs. *See* separately managed accounts
smart batteries, 171
Smart Money, 79
smart money, 2, 35, 54, 80, 88, 93–111, 113–15, 129, 133, 136–8, 147, 149, 208, 256, 258, 268
Smith, Joshua, 178
Snapchat, 193
social media, 36, 131, 181, 190–2, 258
solar energy, 77, 172–6
SolarPower Inc., 174
SolarReserve, 174
Solyndra, 172, 174–6
Sortino ratio, 235, 238
South Korea, 97
sovereign wealth fund (SWFs), 80, 102–3
Spain, 95, 165–6, 194
Spark Capital, 192
"Special Review of placement agent activity" (CalPERS), 53–4
SpectraWatt, 176
Spitzer, Eliot, 73, 127, 176–7
Standard Chartered Bank, 45
standard deviation, 80, 88, 201–2, 217, 223, 225, 230–2, 234–5, 237–9, 241, 255, 276–8
Standard & Poor's, 30–1, 75, 202
See S&P 500
Stanford, Allen, 129
Stanford University, 107–8
Starbuck's, 56
Statement of Financial Accounting Standards No. 157 (SFAS 157), 126–7
Statman, Meir, 17, 224
Stausboll, Anne, 53
Steinhardt, Paul, 26
Stern School of Business (New York University), 225
Sterne Agee Financial Services, 63, 75
Stifel Financial Corp., 55, 57, 63
"stock" label, 224
"stock market overreaction," 11–12
strategic asset allocation, 42, 60, 216–19, 224, 227–8, 241–2, 251, 268, 272, 279
Strategic Insight, 2, 103, 105–6
Stratos Wealth Partners, 62
Strauss, Thomas, 72
Stucke, Rüdigger, 9
student debt, 110–11
"style drifter," 131, 213–14, 249
subprime mortgages, 3, 5, 6, 8, 29–31, 262
Summit Partners, 169
Sunshine Heart Inc., 179
surfers, 23, 28, 83, 163
sustainability, 166
SWFs. *See* sovereign wealth fund
Swisher, Peter, 227
Sylla, Richard, 18–19, 225
systemically important financial institutions (SIFIs), 48

T. Rowe Price Group Inc., 164, 203, 207
tactical asset allocation, 42, 91, 213, 216–24, 241–3
"tail risks," 225
TARP. *See* Troubled Asset Relief Program
Tass, Lipper, 117
TBTF. *See* Too Big To Fail

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TCW, 130
tech bubble (2000), 2, 39, 73, 147, 153, 181, 189, 190–1, 193, 213–14, 227, 237, 271
Terahertz waves, 26–7
Tesla Motors, 171
"Testing Time Sovereign Wealth Funds in The Middle East & North Africa and The Global Financial Crises" (2009) (Monitor), 102
Texas Teachers, 208
Thiel, Peter, 136–7
Thomas Weisel Partners, 55
Thomson Reuters, 19, 184
"three legs to a stool," 206–7
Tiangong-1 laboratory, 176
"Tiger 21," 272
Tiger Global Management LLC, 131, 133–4, 136–8
timber, 10, 84–5, 101, 242
TIPS. *See* Treasury Inflation-Protected Securities
Tōhoku earthquake and tsunami (2011), 148
Tonopah Solar Energy, 174
Too Big To Fail (TBTF), 48, 68, 142
TPG, 53
transparency, 7, 47, 124–6
transverse waves, 25, 27
Travelers Group Inc., 25
Treasury Inflation Protected Securities (TIPS), 88, 104
Trends in State Pension Asset Allocation and Performance for 2012 (Cliffwater), 15
Treynor ratio, 233, 238
Troubled Asset Relief Program (TARP), 160
True Car, Inc., 190
Trump, Donald, 110
Tumblr, 189–91, 198
Turkey, 97, 165–6, 259
Turner, Ted, 258
Turok, Neil, 26
Twitter, 169, 190–2
TXU, 259

U.S. Bills, return on (1900–2000), 96
U.S. Commodity Futures Trading Commission *(*CFTC*)*, 155
U.S. Department of Energy (DOE), 171
U.S. Department of Justice (DOJ), 167
U.S. dollar, rising, 152
U.S. endowments, 114
U.S. government, 25, 76, 172, 174–5
U.S. Home Construction ETF, 10–11
U.S. home prices, fluctuations in, 29
U.S. Pension Plans, 220
U.S. share of world exports, 94–5
U.S. Small Business Administration (SBA), 160
U.S. State Pension System, 17, 205–6
U.S. Treasury Department, 69, 80, 104, 119, 149–50, 167, 234, 271
  and bonds, 80, 234, 271
  and inflation protected securities, 104
  and treasury debt, 150
U.S. Troubled Asset Relief Program (2008), 97
U.S. Veterans Affairs, 10
UBS, 14, 45–6, 51, 55, 57, 60–1, 66, 71, 75
UBS Investment Bank, 71
UCITS. *See* undertakings for collective investment in transferable securities
UITs. *See* unit investment trusts
uncertainty, and the market, 77, 148
unconstrained investments, 104
Understanding Alternative Investments, 1, 23, 41–2, 224
undertakings for collective investment in transferable securities (UCITS), 105
underwriters, 58, 71, 132–3, 135, 137–41, 164, 191, 199
  rankings (2011–2012) (table), 71
Union Square Ventures, 160, 169, 192
unit investment trusts (UITs), 90
United Arab Emirates, 194
United Capital, 24
university education, cost of, 110–11
university endowments, 21, 114
University of Chicago, 9, 256
University of Minnesota, 198
University of North Carolina, 26
University of Oxford, 9, 133
University of Pennsylvania, 259
University of Virginia (UVA), 9, 107
UVA. *See* University of Virginia

valuation and venture capital, 189–93
Valuation Measuring and Managing the Value of Companies (Koller, Goedhart, Wessels), 225
value waves, 28
value-at-risk (VaR), 229, 235–41
Vanguard, 41, 105–6, 246–8
  Vanguard 500 Index, 247
  Vanguard 500 Index Admiral, 246
  Vanguard Long-Term Bond Index, 246–8
  Vanguard REIT Index, 246
  Vanguard S&P 500 index, 41
VaR. *See* value-at-risk
variability, 88, 102, 211–12, 216, 219, 231, 234, 241
variance, 88, 202, 217, 223, 225–6, 230–1, 237, 239
Vascular Magnetics Inc., 181

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venture capital (VCs), 1, 8, 10, 14, 19–20, 24, 29, 36–41, 53, 56–8, 71–2, 82, 85–6, 94, 97–9, 101, 104, 109, 129–36, 142, 159–200, 203, 213–14, 224, 228, 238, 240–2, 251, 255–9, 262
and behavioral finance, 169–70
and bubbles, 184–6
and fundraising, 162
and funds, 86
as global, 165–6, 194–6
and indexes, 41
and new areas, 166–71
and new wave of, 181–4
and riding the right wave, 176–81
sectors of, 186–9
and surfing alone, 193–4
and surfing anywhere, 196–8
and surfing as competitive, 198–200
and surfing in a hurricane, 162–4
and surfing with the government, 172–6
and timing, 164–5
and valuation, 189–93
waves of, 29, 160–2
VIX, 88
Vliet, Van, 242–3
volatility, 7, 16, 41, 44, 77, 79–81, 88, 90, 99, 101, 108, 120, 142, 149, 201, 205–6, 215–16, 224, 227, 230, 235, 242, 251, 255, 261
Volcker, Paul, 50
Volcker Rule, 50, 124–5, 144

Wachovia, 55, 59, 66
Walker, Jay, 258
Walker, Stephen Todd, 139
Wall Street, 5–6, 8, 14–15, 17, 23–4, 26, 28, 31, 45–7, 49, 56, 58, 61, 67, 71–3, 76, 116–17, 127–8, 138–9, 141, 176, 210, 213, 224, 273
wire houses, 46–7
Wall Street Journal, 19, 37, 46, 74–5, 93, 171, 178
Washington Mutual, 59, 69
Wave Categorization chart, 27
the Wave Chart, 37–8, 41, 182, 187, 256–7
"Wave Theory," 8, 11–12, 56, 89, 145, 147, 163, 184, 186, 208, 225, 277
Wave Theory for Alternative Investments: Riding the Wave with Hedge Funds, Commodities, and Venture Capital (Walker), 1–21, 24, 28, 96, 99, 106, 108, 121, 129, 190, 193, 215, 223, 225, 239
waves, 1–21, 23–42, 56, 77, 83, 106, 116–22, 142, 145, 147, 152–4, 160–2, 167, 170, 174, 182, 185, 215, 217, 225–7, 236, 259, 262
and alternative investments, 225–6
and farmland, 262
and gold, 147, 152
and hedge funds, 116–22, 217
and informed decisions, 33–42
"IPO waves," 56, 182
and LBO, 259
and oceanic waves, 27–33
and peak signals, 153–4
and reversal, 151–3
in science, 25–7
types of, 27
understanding, 33–42
and venture capital, 160–2, 174
See rogue waves
wealthiest individuals in the United States, 81–2
Weill, Sanford, 59
Weisel, Thomas, 55
Wells Fargo, 44, 51, 57, 60, 66, 71, 75, 219–20, 248
Wessels, David, 225
whales, 68, 80–1
Wharton Research Data Service (WRDS), 19
Wharton School of Business, 19, 103, 107, 123, 259
WhatsApp, 193
William & Mary Mason School of Business, 19
William Blair, 71, 74–5
Wilshire Associates, 93–4, 223
Winklevoss, Cameron, 166
Winklevoss, Tyler, 166
"Words with Friends," 164
World Bank, 98
World Gold Council, 149–52
World War I, 29
World War II, 10, 29, 225
WRDS. *See* Wharton Research Data Service

Yahoo, 37
Yale University, 107
Yandex, 165
Yelp, 165
young advisors, 43–4
Yuan, Yu, 107, 123

Zagat guides, 177
Zarate, 219
zero-sum game, 12
Zuckerberg, Mark, 137, 193
Zynga, 164–5, 190, 192

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