The concept of an alternative investment is one of the most intractable notions in modern investment practice. A common though broad definition of “alternative investment” is an investment other than “standard” equity and fixed income investments. Indeed, not so long ago foreign equities or bonds were alternative investments to some investors. Other narrower definitions pivot on whether the general public (for example, those who are not “accredited investors,” “qualified purchasers,” or “qualified clients” under U.S. regulations) can gain easy access to or even understand their investment characteristics. Others may focus on the high fees charged by some alternative investments to some investors. Other narrower definitions pivot on whether the general public (for example, those who are not “accredited investors,” “qualified purchasers,” or “qualified clients” under U.S. regulations) can gain easy access to or even understand their investment characteristics. Others may focus on the high fees charged by some alternative investments. In this article, I discuss many types of alternative investments. Unfortunately, so many investments fall outside the standard domestic, foreign stock, and fixed income classes it would be impossible to discuss them all here. So I briefly describe the following more widely used alternative classes that are available to the clients of financial advisers from the perspective of their risk or benchmark exposures.

- Hedge funds and managed futures funds (some might call these absolute return strategies, but I beg to differ)
- Private equity
- Venture capital
- Real assets including real estate, timber, oil, and gas
- Collectibles, notably art
- Commodities

**Hedge Funds**

Hedge funds have existed in one form or another in the United States for about 50 years. These typically are limited partnerships that find legal safe harbor from security or contract regulations. An investor’s ownership is evidenced by interests via private placements to high-net-worth or institutional investors, which quite often have a dual-component compensation scheme that pays advisers a base fee and rewards fund performance with a portion of the profits. These funds often go long and short-sell securities or contracts and frequently use leverage; they sometimes invest in illiquid instruments.

Though they’re called “hedge” funds, the data show that the average hedge fund doesn’t fully hedge. For instance, the average hedge fund of funds and the average hedge fund have positive exposure to U.S. equities. Hedge fund strategies, like a number of alternatives strategies, are characterized by heterogeneity of activities, styles, and risk profiles. Sources such as the Center for International Securities and Derivatives Markets (CISDM), Lipper TASS, and Hedge Fund Research (HFR) databases record dozens of manager self-reported styles while statistical analysis has identified at least eight unique sub-strategies. The hedge fund industry has organized itself according to the following categories (Asness et al. 2001):

**Convertible Arbitrage**

This strategy is identified by hedge investing in the convertible securities of a company. A typical investment is to be long the convertible bond and short the common stock of the same company.

**Event-Driven**

This is equity-oriented investing designed to capture price movement generated by an anticipated corporate event. There are four popular subcategories in event-driven strategies:

- **Risk Arbitrage.** Specialists invest simultaneously in long and short positions in both companies involved in a merger or acquisition.
- **Distressed Securities.** Fund managers invest in the debt, equity, or trade claims of companies in financial distress and general bankruptcy.
- **Regulation D (Reg D).** These are investments in micro and small-capitalization public companies that are raising money in capital markets.
- **High-Yield.** Often called junk bonds, these are investments in low-grade fixed-income securities of companies that show significant upside potential.

**Equity Market Neutral**

This strategy is designed to exploit equity market inefficiencies and usually involves being simultaneously long and short matched-equity portfolios of the same size within a country.

**Fixed-Income Arbitrage**

The fixed-income arbitrageur aims to profit from price anomalies between related interest rate securities and includes interest rate swap, U.S.
Private Equity and Venture Capital

Lerner (2000) gives the following definitions:

Private Equity
Organizations devoted to venture capital, leveraged buyouts, consolidation, mezzanine and distressed debt financing, as well as a variety of hybrids such as venture leasing and venture factoring.

Venture Capital
Independently managed, dedicated pools of capital that focus on equity or equity-linked investment in privately held, high-growth companies. Many venture capital funds, however, occasionally make other types of private equity investments. Outside the United States, this phrase often is used as a synonym for private equity.

Emerging Markets
This strategy involves equity or fixed-income investing in emerging markets around the world.

Global Macro
Global macro managers carry long and short positions in any of the world’s major capital or derivative markets. These positions reflect their views on overall market direction as influenced by major economic trends and/or events.

Managed Futures
This strategy invests in listed financial and commodity futures markets and currency markets around the world. The managers usually are referred to as commodity trading advisers, or CTAs.

Dedicated Short Bias/Short-Sellers
Dedicated short-sellers once were a robust category of hedge funds before the bull market rendered the strategy difficult to implement. A new category, short-biased, has emerged. The strategy is to maintain net short as opposed to 100-percent short exposure.

Real Assets
Real—as opposed to financial—assets are those that by definition are characterized by ownership of a physical asset and often by significant yield. However, since exposure to the underlying potentially may (but not necessarily) be had via futures contracts in some situations, we might include futures contracts as well.

Real Estate
This broad area generally involves investing to obtain exposure in commercial real estate or subsectors of the market including residential, office, or other retail and business properties. Income from rents and other sources have tended to increase with other prices.

Oil, Gas, and Other Commodities and Natural Resources
Strategies in this area include investing in primary commodities such as gold, oil, or various components of the extraction process of natural resources, including packaging or re-packaging of natural resource rights.

Timber
Timber investing has emerged as its own subclass in the alternatives space and involves investing in timber forests directly or via timber investment management companies (TIMOs). Timber investing is justified by the idea that timber demand has been robust over many years and that trees produce increased value over time.

Commodity Futures
CTAs and managed futures hedge funds have a long history of trading commodity futures. Recent research, however, has shown that alternative exposures attendant to long positions in commodity futures have earned approximately the same as U.S. equity markets. This finding has spurred interest in commodity futures as alternatives. The idea is that investors can take advantage of normal backwardation in commodity futures by taking long positions in diversified baskets of commodity futures contracts, providing insurance to hedgers and capturing a risk premium.

TIPS
Some analysts include Treasury Inflation Protected Securities (TIPS) in the real asset class due to their correlation with and thus ability to hedge inflation. These bonds, which have payments that vary with observed inflation, are available to most investors via standard channels.

Investing in Alternatives
Toward an Exposure-based Definition
Even if you don’t believe that alternative managers or strategies can deliver alpha net of fees, taxes, and other costs, portfolio theory suggests that alternatives can play constructive roles in portfolios if they offer exposures to otherwise undiversifiable systematic risks. For example, consider a U.S. domestic market indexer who discovers the “alternative investment” of emerging market equity mutual funds, which he believes has and will outperform his proxy for the riskless rate, say, U.S.

Art, Coins, and Other Collectibles
Antiques, art, coins, and other collectibles represent another long-standing but recently re-emergent growth area. These collectibles offer investors ownership in tangible assets with the hope of long-term appreciation and low correlation with standard asset classes.

>> “ALTERNATIVE INVESTMENTS” CONTINUED and non-U.S. government bond, forward yield curve, and mortgage-backed securities arbitrages.

Long/Short Equity
This directional strategy involves equity-oriented investing on both the long and short sides of the market. The objective is not necessarily to be market neutral.
Treasury Bills. This investor, who has no exposure to foreign equities, may find that he can’t find managers who dependably deliver alpha net of fees, expenses, and taxes. However, allocating to foreign equities can nevertheless benefit his portfolio by diversifying his exposure to domestic markets and possibly increasing his portfolio’s expected return. Adding leverage may improve this better-diversified portfolio by increasing its volatility to desired levels.

One great conundrum of alternative investing is deciding whence a source of returns comes: Is it alpha or beta to a new source of risk or beta to an old already-included source of risk. The analytics are incredibly important, especially if asset allocation is based on systematic risks (e.g., low vs. high interest rates), because these analytics determine optimal diversification. In fact, to the investor above, foreign equities may look like they add alpha if they simply have low correlations to U.S. equities.

One answer arises during portfolio construction by identifying optimal exposures to asset classes or benchmarks that should appear in a portfolio as part of strategic, tactical, core-satellite, or other asset allocation designs. For instance, if an asset allocation plan calls for a hedge against inflation, then real assets, commodity futures, and managed futures traders may play roles, even if they do not produce pure alpha. In other words, it is a natural outgrowth of such strategies that they are correlated with inflation or changes in inflation. Such organically arising exposures vary across alternative investments, offering a menu of choices to investors. For example, in the hedge fund space, convertible bond strategies often are known as long volatility strategies because they can have nonzero exposures to volatility while other strategies might be hedged or have opposing sensitivity to volatility.

Table 1 summarizes such exposures. Of course, these exposures can vary across time and across particular managers and substrategies and are likely to measure only a limited set of important effects that depend on whether other factors are considered jointly. However, the fact that alternatives are correlated with factors such as the spread between value and growth or liquidity, which might represent priced systematic risk or at least be desirable characteristics of portfolios, makes viewing alternatives from the perspective of such exposures canonically important. It also raises the possibility that return profiles of some alternative investments may be replicable by investing in other investments, possibly liquidly traded on exchanges, which combine to have desired exposures. Of course, if a given strategy or manager generates true alpha, then it may be difficult to replicate even if we could exactly replicate returns arising from such exposures.

As indicated in table 1, hedge funds and therefore funds of hedge funds can have equity market and other exposures, or betas and “exotic betas,” especially when returns are adjusted for the fact that some strategies invest in illiquid securities that artificially lower their market correlations and volatilities. These exposures generally are positive and, of course, are expensive in the context of most hedge fund fees when cheap sources of market exposure such as exchange-traded funds, index funds, or futures contracts perhaps are a more economical option.
more, on average. \(^9\) From about 0.5 to as high as 2.0 or greater, venture capital funds generally have higher returns unadjusted for their illiquidity. For instance, some research finds that private equity and venture capital funds have an alpha of zero or worse and average alpha estimates for both private equity and venture capital that range from approximately –3 percent to about 4 percent per year. In addition, this research suggests that private equity funds have substantial exposures to credit spreads and to equity volatility. However, the opportunity for managers to apply skill to generate returns appears available with the existence of strong, manager-specific performance persistence, both positive and negative, according to Kaplan and Schoar (2005). Thus, the sector may provide opportunity for alpha-based benefits in portfolios, but it seems clear that systematic exposures must necessarily weigh in the allocation decision.

Real assets often are thought of as potential inflation hedges, although, like other alternative classes, they are not always pure hedges and opportunity exists for alpha production. And again, measuring returns can present a challenge due to over-smooth reported returns. Research on publicly or privately traded real estate investment entity returns over long time samples suggests that real estate can have substantial positive equity market exposure (betas above 0.5 are not uncommon) and positive exposure to other factors such as the value-growth spread, the term structure of interest rates, and alphas that vary from about –6 percent per year to slightly positive, adjusting for those exposures. \(^11\)

Since most real estate is not publicly traded, aggregate analyses may not represent all or even most real estate opportunities from an allocation or alpha perspective. However, it still is reasonable to believe that private real estate investments are correlated with available measures (like REIT indexes).

Collectibles investing, especially artwork, has become a popular diversifier as prices of works of notable artists have skyrocketed. The rigorous evidence on characteristics of artwork—other than its potentially extreme illiquidity—suggests that, yet again, artwork indeed does display exposures to the type of effects listed above. Using data from the late 1800s to the present, Mei and Moses (2002) found that the U.S. equity market beta of a diversified art index is reliably positive; however, they also found that its correlation with U.S. equities since the 1950s recently has been relatively low. In addition, they found that a custom-made art index has performed in line with U.S. equity markets on average, albeit with significantly larger volatility. Moreover, they show that paintings deemed as masterpieces underperform the artwork of lesser known artists, adjusting for risk exposure.

Long positions in commodity futures contracts in a potential state of normal backwardation are natural candidates for diversifying other asset class exposures; they provide a striking example of investments that appear to be naturally uncorrelated (or even negatively correlated) with U.S. equity markets. Using data from the 1950s to the present, Gorton and Rouwenhorst (2006) demonstrated that risk premiums on a strategy of investing in a diversified basket of commodity futures produced a premium approximately equal to the premium of the S&P 500 with approximately the same standard deviation. In addition, correlations of returns on this investment with U.S. equities have been largely negative over various horizons extending to five years (~45 percent over five-year horizons). Moreover, they show that such an investment has showed positive correlation with inflation over the same horizons (45 percent over five-year horizons), offering a potential hedge.

Conclusions
Interest in the alternative exposures discussed above has expanded rapidly in the past decade. And access has broadened with the advent of private funds that have low minimums and are distributed through wire houses, registered funds and funds of funds, and long/short mutual funds. However, due to risk or benchmark exposures of the type discussed here, informed adviser input for both style and manager selection has become ever more critical for all but the most sophisticated investors. If advisers and their clients are interested in investing in alternatives with the sole purpose of finding alpha, they may be missing a key part of the big picture. Certain managers or traders may deliver alpha. But they also may have systematic exposures that need to be considered.

Christopher C. Geczy, Ph.D., is an assistant professor of finance at The Wharton School. He is a faculty member for the IMCA Alternative Investments, Investment Strategist, and Endowments and Foundations certificate programs. He earned a B.A. at the University of Pennsylvania and a Ph.D. at The University of Chicago. Contact him at geczy@wharton.upenn.edu.

Endnotes
1. Offshore hedge funds often are foreign corporations in which investors hold stakes.
2. See Chan, et al. (2005), among many others, and table 1.
4. Examples might be rent payments for real estate, production from reserves in the case of oil extraction, or ongoing harvesting from timberlands.
6. The theory says that futures prices will tend to rise over the life of a contract. Therefore the near-term contracts trade at a higher price than the longer-term contracts.
7. These exposures are based on the writer’s experience and research and on the research of others including Fung and Hsieh, Chan, et al. (2005), French and Liew (2005).
8. For example, see Asness et al. (2001).
9. See, for example, Kaplans and Schoar (2005), Jones and Knoptf (2004), Woodward and Hall (2003), and Woodward (2004).
11. See, for example, Peterson and Hsieh (1997).

References