

## Chapter 11:

### INTRODUCTON TO MAJOR INVESTMENT VEHICLES AND CONCEPTS

[A Primer on Securities with Risk and Return Analysis)

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Any medical professional who wants to save money for retirement or plan for a child's education needs to understand the basic tenets of investing. It allows them to improve the prospects of meeting future financial goals.

#### **Introduction**

This chapter offers an introduction to a wide range of investment categories and alternative ideas. The diverse types of investments, including fixed income, equities, ETFs, mutual funds, etc. will be defined at the of each section. Various security selection strategies will also be reviewed.

#### **FIXED INCOME SECURITIES**

An investment can take the form of "real" asset, such as art, real estate, baseball cards, etc., or "liquid" asset such as a bond. The first and one of the most basic liquid assets are fixed income securities.

As a vital part of a well-balanced portfolio, fixed income securities afford opportunities for safety and predictable cash flow. Fixed income instruments also provide for capital preservation of assets and limit the volatility of an investor's diversified portfolio. A fixed income investment is a debt security, similar to an I.O.U. When you purchase a fixed income investment, you are simply lending money to an entity. This entity could be a government, municipality, or corporation. In return for the funds lendted to the entity, the issuer provides you with a promise to pay a specified rate of interest during the life of the fixed income security and to ultimately repay the face value (also known as the principal) when it matures, or comes due. Among the most popular types of fixed income investments are U.S. government securities (bills, notes, Treasuries), mortgage- and asset-backed securities, municipal bonds, corporate bonds, and foreign government bonds.

Here is a list of the major fixed income securities;

##### **1. Treasury Securities**

The U.S. Treasury owns the printing press for the dollars it borrows, Treasury securities are considered the most creditworthy or, in other words, the most likely to be paid back. In fact,

the yield on a Treasury security is often referred to as the “risk-free” rate of return, since the probability of default is practically non-existent. Treasury bills have a maturity of less than one year and, like zero coupon bonds, are sold at a discount to par value in lieu of paying interest payments. Treasury notes have a maturity of 1-10 years and Treasury bonds have a stated maturity in excess of 10 years.

## **2. Agency Bonds**

In contrast to Treasury bonds, agency bonds tend to be backed by loans or other revenue generating activities of that specific governmental agency. While agency bonds are typically backed by the “full faith and credit of the U.S. government”, there is slightly less certainty regarding the coupon and principal payments. Examples of agencies issuing fixed income securities include GNMA (Government National Mortgage Association), FNMA (Federal National Mortgage Association) and FHLMC (Federal Home Loan Mortgage Corporation).

## **3. Municipal Bonds**

A municipal bond is a fixed income security issued by a state or local governmental institution, and may represent a general obligation backed by the taxation powers of the municipality or a revenue bond backed by the revenue generated from a specific project. Examples of projects used to back revenue bonds include water and sewer, hospitals, housing, and airports. Since revenue bonds are typically backed only by one source of the municipality’s total revenue sources, general obligation bonds tend to have stronger creditworthiness than revenue bonds. One characteristic of most municipal bonds is that their coupon payments are often exempt from federal income taxes, as well as state taxation for taxpayers in the state of issue, which is why these securities are also generally referred to as tax-exempt securities.

## **4. Corporate Bonds**

Corporate bonds are a debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. Corporate bonds are considered higher risk than government bonds. As a result, interest rates are almost always higher, even for top-flight credit quality companies. Corporate bonds are issued in blocks of \$1,000 (also known as par value). Corporate bonds may also have call provisions to allow for early prepayment if prevailing rates change. Most corporate bonds provide taxable interest to investors. Fixed income corporate securities with a maturity of less than one year are generally referred to as short-term debt securities which include commercial paper and corporate certificates of deposit (CD).

## **5. Foreign Bonds**

A foreign bond is a debt security issued by a borrower from outside the country, whose currency the bond is denominated, and in which the bond is sold. For example, a bond

denominated in U.S. dollars that is issued in the United States by the government of Canada is a foreign bond. A foreign bond allows an investor a measure of international diversification without subsection to the risk of changes in relative currency values.

## FIXED INCOME RETURNS AND HISTORY

**Table 1: Compound Annualized Total Returns (%) Ending March 2012**

	IA Term Bond	SBBI Government	Inter- Government	IIA Term Bond	SBBI Government	Long- Government
<b>1 year</b>	2.24			4.32		
<b>5 year</b>	5.17			7.79		
<b>10 year</b>	6.31			8.20		
<b>20 year</b>	7.39			9.61		
<b>30 year</b>	8.57			9.93		
<b>Jan 1926 - March 2012</b>	5.40			5.60		

Source: Ibbotson

The average U.S. government bond return since 1926 is 5.40%. However the returns are highly unstable. Bond returns are most dependent on the starting interest rate and the changes in general interest rates over time; that is, when interest rates increase, the value of bonds decrease, or vice versa. This fact may have a dramatic impact on future expected returns. Throughout the Great Depression of 1929-1933, bond yields declined as economic growth and inflation turned negative. Under the New Deal in the 1930's, the U.S. Treasury issued new bonds at low interest rates to fund public works and America's preparation for and entry into World War II. This kept yields in check for the decade.

The 10-year U.S. Treasury bond yielded 3.29% at the start of 1930, but declined to 2.21% by the end of the decade. Interest plus gains in price appreciation resulted in a total return of 4.48%. Over the decade of the 1940's, inflation picked up averaging 6.1% while 10-year Treasury yields averaged only 2.33%. The total return during the 1940s was a mere 1.82%, a quote below the average rate of inflation. During the 1950s, economic growth was strong and interest rates began the slowly climb higher. By the end of the decade, 10-year U.S. Treasuries were yielding 4.72%. In fact, the 40 year period from 1940-1979 provides an example of an extended stage of rising bond yields. Again, changes in yields have a hefty impact on bond prices.

As bond yields first rise in a low interest rate environment, capital losses are more pronounced as lower interest payments only partially offset the capital losses. As yields increase to greater amounts, higher annual interest payments are more successful in offsetting the price declines. This latter concept was demonstrated in the 1970s. In the 1970's, bond yields and inflation both increased dramatically. Yields on 10-year Treasury Bonds increased from 7.79% in 1970 to 10.8% by 1980. The annualized return for the

decade was an above average 6.97%. However, much of the return earned from interest was offset by price loss due to increasing inflation. Inflation averaged 7.8% during the ten year period. Again the return is comprised of a capital loss of 4.5% offset by interest earned of 10.5%.

The 1970s marked the end of rising interest rates and led to one of the great bull markets in history. Federal Reserve Chairman Paul Volcker raised interest rates to as high as 20 percent to tame inflation during 1981. In the years that followed, inflation and interest rates declined rapidly, pushing up bond prices. The 10-year Treasury yield, which reached a high of 15.8 percent in September 1981, fell to as low as 2.05 percent on December 30th, 2008. Investors reaped the rewards, getting both interest alongside capital appreciation from declining bond yields. The average annual gain for 10-year Treasury bonds was 10.36% through the 1980s. For the 1990s, the annualized return was 7.53%. The return over the previous decade matched the long-term average, at 5.7%. In 2014, the 10-year Treasury bond yields slightly-under 2%. Thus, after five decades, we have returned to a similar interest rate period as in the late 1940s. This does not augur well for the future.

Most of the longer-term returns from bonds over the preceding 80 years have come from the four decade period from 1960 to 2000. It is during this time phase that bonds provided a higher than average yield component. Combined with the capital appreciation factor from declining yields during the 1980s, bonds produced outsized returns for investors for nearly half a century.

### **Gazing into the future**

Given that government bond yields today are at historical lows, the opportunity for price appreciation is minimal. More likely, the collection of interest payments will provide most, if not all, of market returns. Additionally, interest rates could also trend up over the ensuing decade. This would result in capital losses as bond prices decline, reducing total return further. Much like the decade of the 1940s, total returns from bonds will most likely be subdued as either market interest rates remain constant or interest rates trend upwards. Most certainly investors cannot expect an average long term return of 5.40%. A 3% total return over the ensuing decade is most probable. The problem with this examination is that most individual investors have a substantial portion of their assets in bonds, especially of the government sort. As the average total portfolio return target for most investors is 6-8% on an annualized basis, investors must expect either a substantial decline in interest rates from the current historic lows, or that stocks will make up the difference.

Although bonds do present moderate investments returns for today's investor, without bonds as part of a portfolio, investment losses could be a much higher percentage if invested in stocks alone. Although stocks do generate a higher rate of return over a long period, in short or immediate term, they may well be outperformed by bonds, especially at critical periods in the economic cycle. Bonds in general are known for the stability and predictability of returns. Bonds, especially those of the government kind, have a low standard deviation (volatility). In fact, bonds are one of the least risky asset classes an investor can own. When

combining bonds in a diversified portfolio, you will lower your overall risk. The tradeoff, of course, is the return will be lower than an all stock portfolio. Most investors have money parked in bonds of the government type, i.e. notes, bills, or bonds. The reason for this has to do with risk and diversification. Government bonds have one of the lowest risk profiles of any asset class, and have generally produced consistent returns. Government bonds are also thought to maintain a very low correlation (a statistical measure of how two securities move in relation to each other) with equities. The long-term average correlation is about 0.09.

However, this verity has to be examined on a long-term framework. In fact, correlations between U.S. stocks and treasury bonds have swung widely over the past eighty years. The correlation was positive for most of the late 1930s and throughout the 1940s. In the 1950s, the correlation was actually negative as stocks advanced strongly and bonds suffered from declining prices (due to increasing interest rates). From the mid-1960s until 2000 there was a positive correlation, averaging about 0.50. The correlation turned negative once gain during the past decade. This was primarily due to the fact that stocks struggled mightily with two large bear market declines (2002, 2008), while bonds rallied strongly as interest rates declined. So much of the supposed low or negative correlation depends upon what time period you examine. The principal problem with owning government bonds is the negative correlation an investor is looking for only appears sporadically throughout history.

There are a number of risk variables to consider when investing in bonds as they may affect the value of the bond investment over time. These variables include changes in interest rates, income payments, bond maturity, redemption features, credit quality, priority in capital structure, price, yield, tax status and other provisions.

Here are some of the most common risks associated with fixed income securities.

### **Interest Rate Risk**

The market value of the securities will be inversely affected by movements in interest rates. When rates rise, market prices of existing debt securities fall as these securities become less attractive to investors when compared to higher coupon new issues. As prices decline, bonds become cheaper so the overall return, when taking into account the discount, can compete with newly issued bonds at higher yields. When interest rates fall, market prices on existing fixed income securities tend to rise because these bonds become more attractive when compared to the newly issued bonds priced at lower rates.

### **Price Risk**

Investors who need access to their principal prior to maturity have to rely on the secondary market to sell their securities. The price received may be more or less than the original purchase price and may depend, in general, on the level of interest rates, time to term, credit quality of the issuer and liquidity. Among other reasons, prices may also be affected by current market conditions, or by the size of the trade (prices may be different for 10 bonds versus 1,000 bonds), etc. It is important to note that selling a security prior to maturity may affect actual yield received, which may be different than the yield at which the bond was

originally purchased. This is because the initially quoted yield assumed holding the bond to term. As mentioned above, there is an inverse relationship between interest rates and bond prices. Therefore, when interest rates decline, bond prices increase, and when interest rates increase, bond prices decline. Generally, longer maturity bonds will be more sensitive to interest rate changes. Dollar for dollar, a long-term bond should go up or down in value more than a short-term bond for the same change in yield. Price risk can be determined through a statistic called duration, which is featured at the end of the fixed income section.

### **Liquidity Risk**

Liquidity risk is the risk that an investor will be unable to sell securities due to a lack of demand from potential buyers, sell them at a substantial loss and/or incur substantial transaction costs in the sale process. Broker/dealers, although not obligated to do so, may provide secondary markets.

### **Reinvestment Risk**

Downward trends in interest rates also create reinvestment risk, or the risk that the income and/or principal repayments will have to be invested at lower rates. Reinvestment risk is an important consideration for investors in callable securities. Some bonds may be issued with a call feature that allows the issuer to call, or repay, bonds prior to maturity. This generally happens if the market rates fall low enough for the issuer to save money by repaying existing higher coupon bonds and issuing new ones at lower rates. Investors will stop receiving the coupon payments if the bonds are called. Generally, callable fixed income securities will not appreciate in value as much as comparable non-callable securities.

### **Prepayment Risk**

Similar to call risk, prepayment risk is the risk that the issuer may repay bonds prior to maturity. This type of risk is generally associated with mortgage-backed securities. Homeowners tend to prepay their mortgages at times that are advantageous to their needs, which may be in conflict with the holders of the mortgage-backed securities. If the bonds are repaid early, investors face the risk of reinvesting at lower rates.

### **Purchasing Power Risk**

Fixed income investors often focus on the real rate of return, or the actual return minus the rate of inflation. Rising inflation has a negative impact on real rates of return because inflation reduces the purchasing power of the investment income and principal.

### **Corporate Bond Advantages**

One higher yielding security to consider is corporate bonds. Corporate bonds are debts issued by a wide type of U.S. and foreign corporations. Surprisingly, in terms of total face value of bonds outstanding, the corporate bond market is bigger than each of the markets for

municipal bonds, U.S. treasury securities, and government agencies securities. Unlike government bonds, corporate bonds are subject to credit risk, which refers to the probability of, and potential loss arising from, a credit event such as defaulting on scheduled payments, filing for bankruptcy, or restructuring. Physician-investors in corporate bonds have an extensive range of selections when it comes to bond maturity, interest rates, credit quality, and provisions. The corporate bond market is generally divided into two markets, those that are investment grade and those marked as junk. An investment grade rating that indicates that a corporate bond issuer has a relatively low risk of default. Bond rating firms, such as Standard & Poor's or Moody's, use different designations consisting of upper- and lower-case letters 'A' and 'B' to identify a bond's credit quality rating. For example, S&P utilizes AAA and AA as its high credit quality rating and, A and BBB for its medium credit quality rating. These ratings are all considered investment grade. Credit ratings for bonds below these designations (BB, B, CCC, etc.) are considered low credit quality, and are commonly referred to as speculative (junk) bonds.

**Table 2: Standard & Poor's, Moody's and Fitch's have the following credit ratings scale:**

	Standard & Poor's	Moody's	Fitch's
Investment Grade	AAA	Aaa	AAA
	AA	Aa	AA
	A	A	A
	BBB	Baa	BBB
Speculative (junk) Grade	BB	Ba	BB
	B	B	B
	CCC	Caa	CCC
	CC	Ca	CC
	C	C	C

**Here are some features of corporate bonds:**

- 1. Corporate bonds are hybrids, i.e. maintaining a dual nature: equity and bond. As debt, its value is closely linked to the quality of the issuer, its earnings and revenue, and the reasonability of default. This risk is indicated through the interest rate paid by the issuer.*
- 2. Corporate bonds are generally less sensitive to a rise in interest rates.*
- 3. Corporate bonds have less liquidity in the capital markets. The lack of liquidity gives rise to market distortions between the value of the bond and its market price. The more uncertain in the markets or economy, the greater is the potential distortion in corporate bond pricing.*

Historically, the promised yield on U.S. corporate bonds rated by S&P as AAA (the highest quality bonds issued only by blue chip companies) has been 0.7% higher (also known as

yield spread) than on similar maturity U.S. Treasuries. BBB bonds, the lowest grade bonds deemed by S&P still to be considered investment grade, have a historical yield spread of 1.9% above Treasuries. Credit Suisse Company publishes a yearbook that examines the long term returns of various asset classes, including corporate bonds. As the U.S. has consistent corporate bond data going back to 1900, the return subset is quite large. Credit Suisse has found that the long term return of corporate bonds over 111 years, from 1900 to 2010, was 2.52% per year. This was 0.68% per year more than on U.S. Treasuries. The firm finds these returns very close to the generalized promised yields of AAA bonds, which has averaged 0.70% above Treasury Bonds. Published academic research in the past five years also reports the advantage of favoring corporate bonds over Treasury Bonds.

Alexander Kozhemiakin (2007)<sup>i</sup> demonstrated in his study published in *The Journal of Portfolio Management* that the excess return of corporate bonds over treasuries is consistent over time. Furthermore, he found that as investors move to lower quality bonds, the return differentials become more pronounced. This is especially true in the BB category, where the excess returns is the highest of any grade. The lower tier of the investment-grade spectrum (A/BBB) accounts for two thirds of the investment-grade market capitalization and trading activity in market is active. The excess returns over U.S. Treasuries are listed in this table.

**TABLE 3: Corporate Bonds Historical Returns and Risk %**  
January 1985 to December 2005

<b>Annualized Return over Treasuries</b>	<b>Excess over U.S. Return</b>	<b>Return</b>
AAA/AA Rating	8.9%	1.4%
A Rating	9.2%	1.7%
BBB Rating	9.3%	1.8%
BB Rating	11.0%	3.3%
B Rating	9.7%	2.0%
CCC Rating	2.8%	-2.7%

Source: Kozhemiakin, A. (2007). The Risk Premium of Corporate Bonds; in *The Journal of Portfolio Management*, 101-109.

**TABLE 4: Performance of BB High-Yield Bonds vs. Index**

<b>Historical Returns and BB Rated Bonds</b>	<b>5 Year</b>	<b>10 Years</b>	<b>20 Years</b>
	9.29%	8.78%	9.63%

<b>Barclays Aggregate Bond Index</b>	6.52%	5.74%	6.80%
<b>Barclays Govt. Bond Index</b>	5.62%	4.87%	5.76%

An investor should expect corporate bonds to trade at higher yields than Treasury bonds over extended periods of time. The primary difference between the two yields is known as the credit spread. However, credit risk is not the only factor in determining the excess returns of corporate bonds over government bonds. Other key factors include tax treatment, illiquidity, and the unique provisions that are included in the contracts of corporate bonds. These are characteristics that government bonds do not share. Although most investors will look at the excess returns as coming from pure credit risk, academic research has concluded otherwise.

Credit risk is in fact not the primary factor in explaining excess returns. Jing-zhi Huang of Penn State University and Ming Huang of Stanford found that within the investment grade bond arena, less than one-third of the excess return was associated with default risk<sup>ii</sup>. Additional studies confirm these findings. Professors Gordon Delianedis and Robert Geske of The Anderson School at UCLA found that for AAA rated firms, only a small fraction (5%) could be attributed to actual default risk. For BBB rated firms, which are those rated just above junk, only 22% of the credit spread can be attributed to default risk. The team further concluded that credit risk and credit spreads above government bonds are not primarily explained by default, leverage, or a firm's specific risk - but are primarily attributable to taxes, jumps, liquidity, and market risk factors<sup>iii</sup>.

It is interesting to view whether these studies are consistent with actual default rates. According to the aforementioned Credit Suisse yearbook, default rates for all rated corporate bond issuers since 1900 has averaged 1.14% per year, while for riskier high-yield bonds, the average was 2.8%. Of course over certain chaotic economic periods the default rate has reached much higher extremes. Default rates were at the highest levels following the Great Depression, at 8.4% in 1933 for high grade bonds, while high-yield bonds had a default rate that year of 15.4%. The default rate for all corporate bonds reached 3.7% in the recession of 2001. The second worst episode for default rates followed the recent credit crisis and, in 2009, the default rate on all rated bonds was 5.4%, while that on high-yield bonds was just over 13%. Given the low default rates over history, a long-run return premium of 0.68% per year for the highest grade, AAA, seems puzzlingly high. For the riskier element of the corporate bond market, a 3% plus premium for BB bonds seems downright generous, given the fact that the annual default rate for these bonds is less than 3%.

Furthermore, many researchers have found the 3% default rate on the edge of junk status, BB, are overstated. Stephen Kealhofer, Sherry Kwok, Wenlong Weng found that true default rates for AAA bonds were only 0.13% while even the riskier BB rating category only showed a default rate of 1.42%.<sup>iv</sup>. Part of this credit premium is undoubtedly a risk of

default premium, but given that the actual risk of non-payment has been quite low, it seems likely that other factors are at work.

One primary theory for why the wide yield spread for corporate bonds persists is the typical illiquidity of these bonds. The foundation for excess returns is that the illiquidity of corporate bonds has a larger than customary effect. While corporate bonds are traded widely on markets such as the New York Stock Exchange, the volume of transactions is far less than for government bonds. Since increased liquidity is an attractive quality of any investment, investors will thus demand extra remuneration for holding securities that are less liquid and thus more expensive to sell. For corporate bonds, this illiquidity premium shows up in higher interest rate spreads over otherwise comparable government securities.

That is the theory of several prominent researchers. Patrick Houweling, Albert Mentink, and Ton Vorst (2005) analyzed the effect of liquidity risk on corporate bond credit spreads based on a sample of 999 investment-grade corporate bonds<sup>v</sup>. In their paper, they controlled two common factors 1) the excess return from the stock market and 2) the excess return of long-term corporate bonds over long-term Treasury bonds in addition to the rating and maturity of each bond. They found that liquidity risk is priced into credit spreads and does explain a significant portion of observed credit risk spreads.

In addition to liquidity risk, corporate bonds also have a substantial amount of volatility risk. This is due to the fact that although actual default risk is below expectations, default is most likely to take place in recessions. While relatively protected for most economic periods, corporate bonds thus become a far riskier asset in severe recessions. This has been demonstrated emphatically in the deep recession of 2008/2009. Corporate bonds returned a negative 21% in 2008, while the Barclays U.S. 5-10 Year Treasury Index returned 16.77%.

Many financial advisors argue the corporate bond asset class is less appropriate for long term investors who holds a substantial portion of equity in their portfolio because other fixed income asset classes (namely government bonds) do a better job reducing the risk of the overall portfolio. In 2008, holding treasury bonds over corporate bonds would have resulted in a substantial reduction in portfolio volatility. However, in 2009, corporate bonds excelled and rebounded strongly alongside stocks. If an investor can withstand the extra volatility, especially during recessions, then corporate bonds will ultimately be the best asset class to own. It is especially rewarding if investors concentrate their corporate bond holdings within the BBB and BB ratings universe. These bonds typically will reward a bond investor with a 3% annualized premium over the same duration government bond.

### **International Bond Advantages**

International bonds now account for more than 35% of the world's investable assets, and yet many investors have little or no exposure to these types of securities. International fixed income securities make up a noteworthy portion of the global investable market.

While investors in international bonds are exposed to the hazard of interest rate movements and political risks, the principal factors driving international bond prices are actually uncorrelated to the most common U.S. risk factors. This indicates a true diversification benefit for any investor. International bonds have become more prominent and attractive due to the increase in globalization and the pervasive expansion of debt issuance overseas, primarily by governments. There has been a near doubling of the relative weight of the non-U.S. bond market from approximately 19% in 2000 to approximately 37% in 2011. Thus, there is more selection of international bonds than ever for U.S. investors.

Investing in international bonds involves contact to the movements of global currencies. This is the primary component of determining international bond returns. Alternations in currencies create an extra layer of volatility in these types of securities. However, that volatility actually enhances diversification benefits. One of the key considerations of any purchase of international bonds is whether or not to hedge the currency impact. These deviations create return volatility above the level inherent to the underlying investment. An allocation to an unhedged international bond does reflect an investor's bearish view of the U.S. dollar. This is because as the dollar depreciates against a foreign currency, an international bond will gain in value. The last 25-plus years have witnessed a long-term decline in the U.S. dollar, actually providing a tail wind for international bond investors. In fact, according to data from Vanguard, unhedged international bonds outperformed hedged bonds by 2.2 percentage points a year since 1987. The diversification benefit from international bonds is also attractive. From January 1, 1992 to March 31, 2012, the correlation between the Citigroup World Government Bond Index ex-US 1-3 Years index and five-year U.S. Treasury notes was a mere 0.35. An allocation to international bonds can amplify portfolio diversification across economies, currencies, and yield curves.

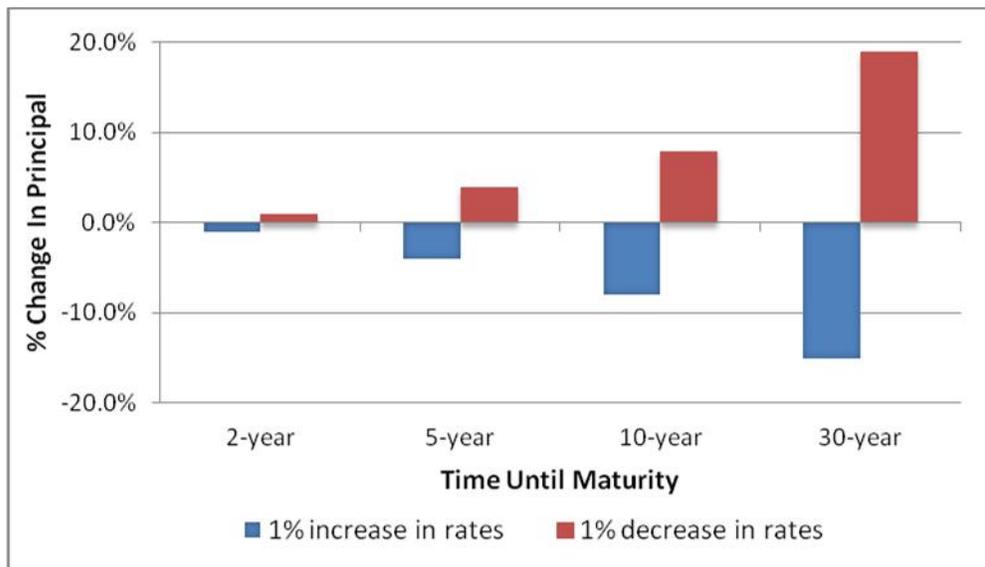
### **Purchasing Bonds**

Trading individual bonds is not like trading stocks. Stocks can be bought at uniform prices and are traded through exchanges. Most bonds trade over the counter, and individual brokers price them. Price transparency has gotten better in the last decade. In 1999, the bond markets gained clearness from the House of Representatives' Bond Price Competition Improvement Act of 1999. Responding to this pioneering law, the site [www.investinginbonds.com](http://www.investinginbonds.com) was established. This site provides current prices on bonds that have traded more than four times the previous day. With the advent of [Investinginbonds.com](http://Investinginbonds.com) and real-time reporting of many trades, investors are much better off today. Many well regarded brokers including Schwab, Ameritrade, and Fidelity Investments now have dedicated websites devoted to bond trading and pricing. Fidelity Investments chose to disclose its fee structure for all bonds, making it clear what it will cost you per trade. Fidelity charges \$1 per bond trade. Some on-line brokers charge a flat fee as well, ranging from \$10.95 at Zions Direct to \$45 at TD Ameritrade. Depending on the number of bonds trading, one may be more complimentary than another. The trading fee disclosures, however, do not divulge the spreads between the buy and sell price embedded in the transaction that some dealer is making in the channel. Keep in mind that only by comparison shopping can assist

you in finding the best transaction price, after all fees are taken into account. Other sites may not charge any fee, but rather embed the profit in the spread.

Despite the difficulty in pricing and transparency, investing in individual bonds offers several rewards over purchasing bond mutual funds. First, you know exactly what you will be receiving in interest each year. You will also know the exact maturity date. Furthermore, your individual investment is protected against interest rate risk, at least over the full term to maturity. Both individual bonds and bond funds share interest-rate risk—mentioned above (the risk of locking up an investment at a given rate, only to see rates rise). This pushes bond prices down. At least with an individual bond, you can re-invest it at the higher, market rate once the bond matures. But, the lack of a fixed maturity date on a bond mutual fund causes an open ended problem; there is no promise of the original investment back. Short of default, an individual bond will return all principal and pay all interest assuming you hold it to maturity. Bond funds are not likely to default as most funds maintain positions in hundreds of individual bonds. The force of interest rate risk to individual bond or bond mutual fund prices depends on the maturity of a bond investment: the longer the maturity of a bond or bond fund (average), the more the price will drop due to rising rates. This is known as duration.

*Duration* is a statistical term that measures the price sensitivity to yield, is the primary measurement of a bond or bond fund’s sensitivity to interest rate changes. Duration indicates approximately how much the price of a bond or bond fund will adjust in the reverse direction given a rise in interest rates. For instance, an individual bond with an average duration of five years will fall in value approximately 5% if rates rise by 1% and the opposite is accurate as well.



Source: Ibbotson, 2012

Although stated in years, duration is not simply a gauge of time. Instead, duration signals how much the price of your bond investment is likely to oscillate when there is an up or

down movement in interest rates. The higher the duration number, the more susceptible your bond investment will be to changes in interest rates. If you have money in a bond or bond fund that holds primarily long-term bonds, expect the value of that fund to decline, perhaps significantly, when interest rates rise. The higher a bond's duration, the greater its sensitivity to interest rates alterations. This means fluctuations in price, whether positive or negative, will be more prominent. For example, a bond fund with 10-year duration will diminish in value by 10 percent if interest rates increase by one percent. On the other hand, the bond fund will rise in value by 10 percent if interest rates descend by one percent. The important concept to remember is once you recognize a bond's or bond fund's duration, you can forecast how it will react to a change in interest rates.

#### **Duration Primer**

1. To locate your bond fund's duration, look for it in the mutual fund's fact sheet or the statistics section
2. There are also online calculators (located at Appendix 1) available that compute an individual bond's duration.
3. Duration measured the general movement of interest rates and the impact on the prices of bonds. Corporate, municipal, and agency bonds are also impacted by various other factors such as credit risk, economic growth, state and city financing.

#### **Fixed Income Summary**

In summary, fixed income securities are promises from an issuer to pay a combination of periodic coupon payments and/or par value at maturity. In the simplest sense, the issuer of a fixed income security is borrowing money from the holder of the fixed income security. Assuming that an issuer does not default on the coupon or principal payments and that the security is held to maturity, then a bondholder will receive a total return over the life of the investment equal to the market yield when the security was purchased. In the interim, however, the total return will fluctuate depending upon such factors as changes in the perceived credit quality of the issuer and changes in market interest rates.

#### **EQUITY SECURITIES**

If a security represents legal title to a future stream of cash flows, then an equity of a company designates ownership of earnings or profits after accounting for normal operating expenses, interest payments (e.g., coupon payments to bond holders), and taxes. In contrast to bondholders, holders of equity securities (i.e., shareholders) are considered owners of the company as opposed to creditors of the company. Typically, the primary benefit of being a shareholder in a company is that the investor benefits from the company's ability to generate profits. Thus, one way of analyzing the decision to acquire equity in company is to ask:

“How much can the company earn above its fixed obligations?” If instead an equity investment is considered on a termination value basis, then equity represents title to corporate assets after payment of all debts. The latter viewpoint offers almost a “worst case” evaluative question: If the company was to shut its doors and discontinue operations, what is the value of the assets less liabilities?

When physician-investors talk about equities, most of the time they are referring to common stocks, which represent title to income after all other obligations of the corporation have been satisfied (including interest payments to bondholders). Common stock is the least senior of all securities issued by a corporation in that the obligations represented by all other securities and debts are expected to be paid before the common stock owner has a right to the assets or earnings. From a different perspective, a common stock holder has the ownership of all earnings after payment of expenses and taxes. Thus, if the company is extremely profitable, the common stockholder’s upside is not limited by a fixed rate of return.

### **[A] Location of the Issuer**

Key differentiating features of equity securities include the issuer’s location, size and industrial classification. Domestic stocks are simply equity securities issued by corporations based in the United States, while foreign stocks are equities issued by companies headquartered outside of the United States. Foreign stocks are typically further divided into developed and emerging markets, with developing markets generally representing countries with relatively well-developed economies, financial markets and property rights. In contrast, emerging market countries are typically characterized by smaller economies and relatively underdeveloped financial markets.

U.S.-based investors can acquire foreign stocks in several ways. First, certain foreign stocks are traded directly on U.S. stock exchanges or traded as American Depositary Receipts (ADRs). An ADR is a security issued by a domestic financial institution, is traded on a U.S. exchange, and represents a specified number of shares of a foreign stock held in trust at an affiliated financial institution abroad. Second, with accelerating globalization of financial markets and improved transactional efficiency of foreign stock exchanges, investors can often make direct foreign investment by actually investing in shares of companies that are traded on exchanges outside of the United States. While the separation between domestic and foreign stocks is generally thought of as a way to identify greater or lesser sensitivity to the U.S. economy, this mindset fails to recognize that most corporations operate in an increasingly global economy. Many foreign and domestic multinational companies have as much exposure to foreign economies as the companies have to their home economy. On the other hand, the earnings of foreign corporations must be translated to U.S. dollars for a U.S. investor, so sensitivity to the currency of the foreign stock’s home country remains. Thus, investors must consider the risk of unfavorable currency fluctuations (i.e., currency risk) when investing in foreign stocks.

## **[B] Size of the Issuer**

Another differentiating feature among common stocks is the size of the company issuing the equity. Size is often measured by a stock's market capitalization, which is defined as the aggregate market value of the corporation's outstanding stock and calculated by multiplying outstanding shares by the current price per share. In general, companies are considered to be large capitalization stocks if their market capitalization exceeds \$5.0 billion, while companies with a market capitalization of less than \$1.5 billion are referred to as small cap stocks. Companies whose market capitalization falls between \$1.5 billion and \$5.0 billion are commonly referred to as mid-cap stocks, although these thresholds should only be used as rough guides since there are no universally accepted breakpoints used in the investment industry today.

Another classification that is related to size of a company is its seasoning, which is a concept related to the length of time over which a company has an operating history. The spectrum of seasoning runs from blue chip stocks to IPOs. Blue chip stocks are the equities of high quality, large, established companies. Many of the stocks included in the Dow Jones Industrial Average are considered to be blue chip stocks. In contrast to large, well-established companies, Initial Public Offerings or IPOs are stocks of relatively new companies that generally lack a long-term corporate earnings track record. While blue chip stocks have historically been considered safe stocks due to their large size and strong positions in their respective industries, it is important to remember that all investment decisions should be based on future expected returns. Just because a company is large and well established does not guarantee that the company's stock will make a good investment. For example, not too long ago Bethlehem Steel was considered a high quality blue chip stock that investors could not go wrong; owning. However, as the 1980's showed, even a once dominant stock like Bethlehem Steel can fall on extremely hard times. Likewise, while the medical professional will often hear anecdotes of IPOs that turned out to be exceptional investments, many of these stocks may be considered speculative at best with significant risk of losing all of its value. Thus, it is important for investors to remember that there may be changes in a stock's fundamentals, as well as the market and economic environment. This means that any equity investment, even in blue chip stocks, need to be consistently evaluated and monitored. As an example, the strong stock market rally of the late 1990's was driven by a handful of large, well-established, blue chip and technology companies. Like the Nifty Fifty period of the mid-1970's; these stocks were hardest hit in the ensuing correction.

## **[C] Industrial Classification**

The final classification of common stocks discussed here is the separation of companies by the industry or economic sector in which their primary business operates. In fact, there are 11 economic sector classifications and 115 industry sub-classifications according to Standard & Poor's. Stocks in the same industry tend to move together, because the companies' revenue and earnings tend to be influenced by common industry-wide factors. Just as the overall economy experiences periods of expansion and contraction (i.e., recession), specific industries experience periods of growth and decline that generally affect

all companies in that industry. Likewise, some industries are more affected by economy-wide business cycles.

The distinction between cyclical stocks and defensive stocks lies in how closely related the stock's performance is to industry and economic cycles. Thus, stocks that operate in industries that are highly correlated to the strength of the domestic economy are considered to be cyclical stocks. For example, the construction and automobile industries are generally considered cyclical industries given that demand for their products is highly related to the current economic environment. In periods of weak or declining economic growth, demand for automobiles and new construction products decline, thus resulting in a decline in earnings for companies operating within those industries. Defensive stocks are viewed as being less susceptible to fluctuations in the overall economy. For example, since demand for food products is generally considered to be less dependent on the strength or weakness of the overall economy, food stocks are generally considered defensive stocks.

### **[D] Dividends**

If the definition of a security is title to a stream of cash flows, then the dividends a company is expected to pay to equity shareholders on a periodic basis (e.g., quarterly) are a clear source of return for an investor. A dividend is simply a distribution of (some portion of) the company's earnings to equity shareholders. Like a bond yield, a stock's dividend yield can be used to measure the income return on the stock. To determine a stock's dividend yield, the trailing year's dividends per share paid are divided by the current stock price. However, a key difference between a dividend yield and a bond yield is the level of certainty that can be assumed regarding future payments, since a bond's coupon is generally predetermined and its payment is expected to be senior to the payment of dividends.

After a company has determined that it has earned a profit, management has to decide what to do with those profits. One choice is to distribute the earnings to shareholders in the form of dividends, while another option is to reinvest the profits in the company. A company's management may determine that the shareholders interest is best served by using the earnings to pursue growth opportunities (e.g., capital expansion, research & development, etc.) at the corporate level. Thus, when management believes that its investment opportunities are likely to produce a higher return than what investors' could generate with their dividends or that reinvestment is needed to maintain its financial strength, the company will retain the earnings.

One of the biggest myths in investing is capital appreciation accounts for the largest part of investors' gains. Dividends, or cash payments to shareholders, actually account for a substantial part of an equity investor's total return. In fact since 1926, dividends have accounted for more than 40% of the total return of the S&P 500 stock index. In the last decade (2000-2009), the S&P 500's total return of -9% would have been a heftier loss of -24% had it not been for the 15% contribution from dividends.

History has shown that dividends have been a powerful source of total return in a diversified investment portfolio, especially during periods of market turbulence. In examining the prior eight decades of stock market performance (table 1.1), dividends often account for more than 2/3 of the total return (1930s, 1940s, 1970s, & 2000s). If an investor avoided dividend paying stocks during these elongated time periods, most of the total gains would be lost.

**TABLE 5: DIVIDEND CONTRIBUTION OF S&P 500 RETURN BY DECADE**

Years	S&P 500		Cumulative Total Return	Dividends % of Total Return	Average Payout Ratio**
	Price % Change	Dividend Contribution*			
1930s	-41.9%	56.0%	14.1%	>100%	90.1%
1940s	34.8%	100.3%	135.0%	74.3%	59.4%
1950s	256.7%	180.0%	436.7%	41.2%	54.6%
1960s	53.7%	54.2%	107.9%	50.2%	56.0%
1970s	17.2%	59.1%	76.4%	77.4%	45.5%
1980s	227.4%	143.1%	370.5%	38.6%	48.6%
1990s	315.7%	117.1%	432.8%	27.0%	47.6%
2000s	-24.1%	15.0%	-9.1%	>100%	35.3%
2010s	27.9%	8.4%	36.3%	23.1%	28.4%
as of 12/31/12					

Source: Strategas

During those decades such as the 2000s where the stock market struggled to advance, dividends were a significant element for investor survival. This is not only due to the dividends alone, but also the risk element of stocks that pay dividends. Dividend stocks have historically provided lower overall volatility and stronger downside protection when markets decline. Since 1927, dividend stocks have consistently held up better than the broader market during downturns. You can measure downside risk through a statistic known as downside capture ratio. Downside capture ratio is a statistical measure of overall performance in a down stock market. An investment category, or investment manager, who has a down-market ratio less than 100 has outperformed the index during a falling stock market. For example, a down-market capture ratio of 80 indicates that the portfolio measure declined only 80% as much as the index during the period. The downside capture ratio of high-dividend-yielding stocks, since 1927, has been 81% or lower over various long-term periods (table 1.2). Put a better way, during months that the S&P 500 stock index fell, dividend stocks declined by nearly 19% less than the broader market.

**TABLE 6: DOWNSIDE AND UPSIDE CAPTURE RATIOS OF HIGH DIVIDEND STOCKS – 1927 TO 2011**

	<i>The lower the number, the better</i>	<b>Downside Capture Ratio</b>
<b>Since 1927</b>		<b>81.53</b>
<b>50-year</b>		<b>67.45</b>
<b>30-year</b>		<b>65.86</b>
<b>20-year</b>		<b>65.83</b>
<b>10-year</b>		<b>81.61</b>

*Source: Kenneth French as of 12/31/11.*

### [E] Stock Valuation

If investments are the reallocation of today’s dollars for expected dollars in the future, why would an investor buy a common stock that does not pay a dividend? The simple answer is that the investor expects to be able to sell the stock later at a higher price as a result of some combination of higher valuations on the company’s existing earnings power and/or growth in future earnings. While the safety of knowing that a company has been paying a dividend is comforting, the lack of dividend does not necessarily mean that investors will not be rewarded for owning stocks with either low dividend yields, or no dividend at all. An investor purchasing stocks is usually attempting to buy stocks that not only may pay dividends, but that will also increase in value over time.

The table below contains various statistics for a handful of stocks to illustrate that there can be dramatic differences in these statistics across different stocks. The primary statistic used by investment professionals to measure a corporation’s earnings power is known as EPS or earnings per share, which are simply the company’s per-share profits distributable to the common stockholders (i.e., what is left over after accounting for expenses, including interest payments on debt obligations, taxes, and preferred stock dividends).

**TABLE 7: Sample Stock Statistics**

<b>Stock</b>	<b>Price-to-Earnings Ratio</b>	<b>Price-to-Book Ratio</b>	<b>Price-to-Sales Ratio</b>	<b>Dividend Yield</b>	<b>Consensus Earnings Growth Rate</b>	<b>Market Cap (\$MM)</b>	<b>Price-to-Earnings Growth Ratio</b>

<b>Dominion</b>	56.2	3.3	2.8	3.5%	6.0%	\$36.9	2.5
<b>Boeing</b>	23.7	11.2	1.2	1.5%	11.4%	\$100.5	2.3
<b>Ford</b>	11.8	3.1	0.5	2.4%	12.3%	\$64.3	0.6
<b>Cisco</b>	11.1	1.8	2.2	3.2%	9.9%	\$108.2	2.8
<b>McDonalds</b>	17.1	6.2	3.4	3.3%	9.1%	\$93.9	1.9
<b>Microsoft</b>	13.7	3.8	3.9	2.6%	8.5%	\$306.3	1.2

Source: Morningstar as 9/30/2013

The three most common measures used to quantify a stock's valuation are the price-to-book ratio, price-to-earnings ratio, and price-to-sales ratio. A stock's book value is generally defined as the accounting value of the firm's assets less its liabilities. Thus the price-to-book ratio identifies how much investors are willing to pay per dollar of net assets. Similarly, the price-to-earnings ratio indicates how much investors are willing to pay for a dollar of earnings. Unfortunately, a corporation's earnings are very easily manipulated by adjusting certain accounting "assumptions." Therefore, some investors prefer to use price-to-sales as a measure of a firm's value since revenues or sales are generally subject to fewer accounting assumptions. However, it is important for medical professionals or those who advise them to remember that, just because one stock may have a higher growth rate (or any other statistic) than another stock, it does not necessarily mean that the stock will produce a higher return.

Another key element for evaluating a firm is known as the PEG ratio. The PEG ratio (also known as the price/earnings to growth ratio) is a valuation metric for determining the trade-off between the earnings per share (EPS) and the company's expected future growth rate. In general, the P/E ratio is higher for a company with a higher growth rate. Thus using just the P/E ratio would make high-growth companies appear overrated in relation to competitive firms. It is assumed that by dividing the P/E ratio by the earnings growth rate, the resulting ratio is better for contrasting firms with different growth rates. PEG is an extensively employed indicator of a stock's feasible stock value. The PEG ratio of 1 is sometimes said to represent a good trade-off between the growth value and earnings. In general, the lower the PEG value, the more the firm is considered a good potential investment.

## **[F] Valuation Approaches**

There are basically two different approaches for common stock valuation; top-down and bottom-up. Under either of the two fundamental approaches, an investor will have to work with individual company data. In reality, each of these approaches is used by investors and security analysts when doing fundamental analysis. With the bottom-up approach, investors focus directly on a company's prospects. Analysis of such information as the company's products, its competitive position, and its financial status leads to an estimate of the company's earnings potential, and, ultimately, its value in the market. Considerable time and effort are required to produce the type of detailed financial analysis needed to understand a firm's standing. The emphasis in this approach is on finding companies with good long-term growth prospects, and making accurate earnings estimates. The top-down

approach is the opposite of the bottom-up approach. Investors begin with the economy and the overall market, considering such important factors as interest rates and inflation. They next consider likely industry prospects, or sectors of the economy that are likely to do particularly well (or particularly poorly). Finally, having decided that factors are favorable for investing, and having determined which parts of the overall economy are likely to perform well, individual companies are analyzed.

### **Growth Stocks – Catching the Momentum**

The growth style of investing focuses on companies with strong earnings and accelerating capital growth. A growth investor will make investment decisions based on forecasts of continuing growth in earnings. Growth investing emphasizes qualitative criteria, including value judgments about the company, its markets, its management, and its ability to extract future earnings growth from the particular industry. Quantitative indicators of interest to the growth investor include high Price/Earnings ratios, Price/Sales ratios, and low dividend yields. A high P/E ratio suggests that the market is prepared to pay more per share in anticipation of future earnings. A low dividend yield suggests that the company is reinvesting rather than distributing profits. These indicators are considered in relation to the company's immediate competitors. The companies with the highest P/E ratios relative to their industry will often be dominant within their market segment and have strong growth prospects. Growth investors will generally focus on premium and leading-edge companies.

Some industry sectors by their nature have stronger growth characteristics, particularly more innovative and speculative industries. For example, during the bull market run on the U.S. stock markets during the late 1990s, the technology sector was a major area of growth investment. On observing strong earnings growth, a growth investor will decide whether to buy shares based on whether the company's growth is going to continue at its present rate, to increase, or to decrease. If it is expected to increase, the growth investor will consider it a candidate for purchase. The key research question is: at what point will the company's growth flatten out, or fall? If a company's growth rate slows or reverses, it is no longer attractive to a growth investor. Growth investors are normally prepared to pay a premium for what they believe to be high quality shares. The potential downside in growth investing is that if a company goes into sudden decline and the share price falls, you can lose capital value rapidly.

Growth stocks carry high expectations of above-average future growth in earnings and above-average valuations. Investors expect these stocks to perform well in the future and are willing to pay high P/E multiples for this expected growth. The danger is that the price may become too high. Generally, once a company sports a P/E ratio above 50, the risk significantly escalates. Many technology growth stocks traded at a P/E ratio of above 100 during 1999. This is unsustainable. No company in the history of the stock market has been able to maintain such a high P/E level for a sustained period of time.

### **Value Stocks – Looking for Bargains**

The bargain-hunting value style is looking for shares that are underpriced in relation to the company's future potential. A value investor will invest in a company in the expectation that its shares will increase in value over time. Value investing is based essentially on quantitative criteria; asset values, cash flow, and discounted future earnings. The key properties of value shares are low Price/Earnings, Price/Sales ratios, and normally higher dividend yields.

On observing a company's earnings growth, a value manager will decide whether to buy shares based on the company's consistency or recovery prospects. The key research questions are: 1) Does the current P/E ratio warrant an investment in a slow growth company or, 2) Is the company a higher growth candidate that has dropped in price due to a temporary problem. If this is the case, will the company's earnings growth recover, and if so, when? The key to value investing is to find bargain shares (priced low historically or for temporary and/or irrational reasons), avoiding shares that are merely cheap (priced low because the company is failing).

The buying opportunity is identified when a company undergoing some immediate problems is perceived to have good chances of recovery in the medium to long term. If there is a loss in market confidence in the company, the share price may fall, and the value investor can step in. Once the share price has achieved a suitable value, reflecting the predicted turnaround in company performance, the shareholding is sold, realizing a capital gain. A potential risk in value investing is that the company may not turn around, in which case the share price may stay static or fall.

### **Performance of Growth & Value Stocks**

Although many academics argue that value stocks outperform growth stocks, the returns for individuals investing through mutual funds demonstrate a near match. A 2005 study *Do Investors Capture the Value Premium?* written by Todd Houge at The University of Iowa and Tim Loughran at The University of Notre Dame found that large company mutual funds in both the value and growth styles returned just over 11 percent for the period of 1975 to 2002. This paper contradicted many studies that demonstrated owning value stocks offers better long-term performance than growth stocks. These studies, led by Eugene Fama PhD and Kenneth French PhD, established the current consensus that the value style of investing does indeed offer a return premium. There are several theories as to why this has been the case, among the most persuasive being a series of behavioral arguments put forth by leading researchers. These studies suggest that the outperformance of value stocks may result from investors' tendency toward common behavioral traits, including the belief that the future will be similar to the past, overreaction to unexpected events, "herding" behavior which leads at times to overemphasis of a particular style or sector, overconfidence, and aversion to regret. All of these behaviors can cause price anomalies which create buying opportunities for value investors. Another key ingredient argued for value outperformance is lower business appraisals. Value stocks are plainly confined to a P/E range, whereas growth stocks have an upper limit that is infinite. When growth stocks reach a high plateau in regard to P/E ratios, the ensuing returns are generally much lower than the category average over time.

In addition, growth stocks tend to lose more in bear markets. In the last two major bear markets, growth stocks fared far worse than value. From January 1973 until late 1974, large growth stocks lost 45 percent of their value, while large value stocks lost 26 percent. Similarly, from April 2000 to September 2002, large growth stocks lost 46 percent versus only 27 percent for large value stocks. These losses, academics insist, dramatically reduce the long-term investment returns of growth stocks.

However, the study by Hough and Loughran reasoned that although a premium may exist, investors have not been able to capture the excess return through mutual funds. The study also maintained that any potential value premium is generated outside the securities held by most mutual funds. Simply put, being growth or value had no material impact on a mutual fund's performance. Listed below in Table are the annualized returns and standard deviations for return data from January 1975 through December 2002.

<b>Index</b>	<b>Return</b>	<b>SD</b>
S&P 500	11.53%	14.88%
Large Growth Funds	11.30%	16.65%
Large Value Funds	11.41%	15.39%

*Source: Hough/Loughran Study*

The Hough/Loughran study also found that the returns by style also varied over time. From 1965-1983, a period widely known to favor the value style, large value funds averaged a 9.92 percent annual return, compared to 8.73 percent for large growth funds. This performance differential reverses over 1984-2001, as large growth funds generated a 14.1 percent average return compared to 12.9 percent for large value funds. Thus, one style can outperform in any time period. However, although the long-term returns are nearly identical, large differences between value and growth returns happen over time. This is especially the case over the last ten years as growth and value have had extraordinary return differences - sometimes over *30 percentage points* of underperformance. Table 10.2 indicates the return differential between the value and growth styles since 1992.

TABLE 8: YEARLY RETURNS OF GROWTH/VALUE STOCKS

<b>Year</b>	<b>Growth</b>	<b>Value</b>
1992	5.1%	<b>10.5%</b>
1993	1.7%	<b>18.6%</b>
1994	<b>3.1%</b>	-0.6%
1995	<b>38.1%</b>	37.1%
1996	<b>24.0%</b>	22.0%
1997	<b>36.5%</b>	30.6%
1998	<b>42.2%</b>	14.7%
1999	<b>28.2%</b>	3.2%
2000	-22.1%	<b>6.1%</b>

2001	-26.7%	<b>7.1%</b>
2002	-25.2%	<b>-20.5%</b>
2003	<b>28.2%</b>	27.7%
2004	6.3%	<b>16.5%</b>
2005	3.6%	<b>6.1%</b>
2006	10.8%	<b>20.6%</b>
2007	<b>8.8%</b>	1.5%
2008	<b>-38.43%</b>	<b>-36.84%</b>
2009	<b>37.2%</b>	19.69%
2010	<b>16.71%</b>	15.5%
2011	<b>2.64%</b>	0.39%
2012	<b>15.25%</b>	<b>17.50%</b>

*Source: Ibbotson.*

Between the third quarter of 1994 and the second quarter of 2000, the S&P Growth Index produced annualized total returns of 30 percent, versus only about 18 percent for the S&P Value Index. Since 2000, value has turned the tables and dramatically outperformed growth. Growth has only outperformed value in two of the past eight years. Since the two styles are successful at different times, *combining them in one portfolio* can create a buffer against dramatic swings, reducing volatility and the subsequent drag on returns. In our analysis, the surest way to maximize the benefits of style investing is to combine growth and value in a single portfolio, and maintain the proportions evenly in a 50/50 split through regular rebalancing. Research from Standard & Poor's showed that since 1980, a 50/50 portfolio of value and growth stocks beats the market 75 percent of the time. Due to the fact that both styles have near equal performance and either style can outperform for a significant time period, a medical professional might consider a blending of styles. Rather than attempt to second-guess the market by switching in and out of styles as they roll with the cycle, it might be prudent to maintain an equal balance your investment between the two.

### **[G] Stock Splits**

One final equity concept that medical professionals should be aware of is the idea of stock splits. In a stock split, a corporation issues a set number of shares in exchange for each share held by shareholders. Typically, a stock split increases the number of shares owned by a shareholder. For example, XYZ Corp. may declare a 2-for-1 split, which means that shareholders will receive two shares for each share that they own. However, corporations can also declare a reverse stock split, such as a 1-for-2 split where shareholders would receive 1 share for every two shares that they own.

While stock splits can either increase or decrease the number of shares that a shareholder owns, the most important thing to understand about stock splits is that they have no impact on the aggregate value of the shareholder's position in the company. Using the XYZ Corp. example above, if the stock is trading at \$10 per share, an investor owning 100 shares has a

total position of \$1,000. After the 2-for-1 split occurs the investor will now own 200 shares, but the value of the stock will adjust downward from \$10 per share to \$5 per share. Thus, the investor still owns \$1,000 of XYZ stock. While stock splits are often interpreted as signals from management that conditions in the company are strong, there is no intrinsic reason that a stock split will result in subsequent stock appreciation.

### **[H] Common versus Preferred Stock**

A common stock is the least senior of securities issued by a company. A preferred stock, in contrast, is slightly more senior to common stock, since dividends owed to the preferred stockholders should be paid before distributions are made to common stockholders. However, distributions to preferred stockholders are limited to the level outlined in the preferred stock agreement (i.e., the stated dividend payments). Like a fixed income security, preferred stocks have a specific periodic payment that is either a fixed dollar amount or an amount adjusted based upon short-term market interest rates. However, unlike fixed income securities, preferred stocks typically do not have a specific maturity date and preferred stock dividend payments are made from the corporation's after tax income rather than its pre-tax income. Likewise, dividends paid to preferred stockholders are considered income distributions to the company's equity owners rather than creditors, so the issuing corporation does not have the same requirement to make dividend distributions to preferred stockholders. Thus, preferred stock is generally referred to as a "hybrid" security, since it has elements similar to both fixed income securities (i.e., a stated periodic payments) and equity securities (i.e., shareholders are considered owners of the issuing company rather than creditors).

Convertible preferred stocks (and convertible corporate bonds) are also considered hybrid securities since they have both equity and fixed income characteristics. A convertible security whether a preferred stock or a corporate bond, generally includes a provision that allow the security to be exchanged for a given number of common stock shares in the issuing corporation. The holder of a convertible security essentially owns both the preferred stock (or the corporate bond) and an option to exchange the preferred stock (or corporate bond) for shares of common stock in the company. Thus, at times the convertible security may behave more like the issuing company's common stock than it does the issuing company's preferred stock (or corporate bonds), depending upon how close the common stock's market price is to the designated conversion price of the convertible security.

### **[I] Foreign Stock**

Investing in companies located anywhere outside of its investors' country of residence is known as foreign investing. In theory, foreign stocks offer considerable diversification benefits because they tend to be affected by dissimilar economic factors than the U.S. markets. Thus, the zigs and zags in return of foreign stocks do not always correspond with those of U.S. stocks. This occurs despite the reality that the world's economies are becoming more interdependent. The fact is the U.S. no longer makes up even half of the world market capitalization of all equities. According to Professor Jeremy J. Siegel (*CFA*

*Institute Conference Proceedings Quarterly (09/07)*), by 2050 the United States will account for only 17% of the world's market capitalization. The year-by-year returns of foreign markets and the U.S. vary widely as seen in the table below.

**TABLE 9: Randomness of Returns**

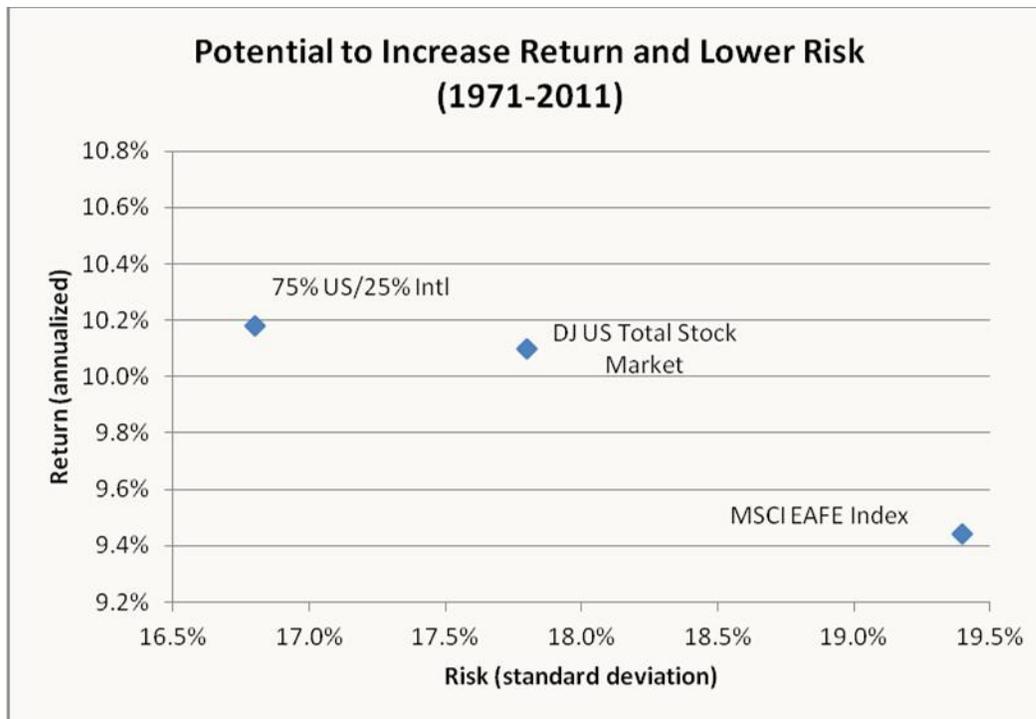
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Highest Return	56%	26%	35%	33%	40%	-37%	79%	19%	2%	18%
	39%	21%	14%	27%	12%	-43%	32%	15%	-12%	17%
Lowest Return	29%	11%	5%	16%	5%	-53%	26%	8%	-18%	16%

	S&P 500 Index
	MSCI Emerging Markets Index (gross dividends)
	MSCI EAFE Index (gross dividends)

Source: Center of Research in Security Prices (CRSP)

Indexes are unmanaged baskets of securities that investors cannot directly invest in.  
Past performance is no guarantee of future results

Diversification between international markets not only reduces many risks but also offers potential to augment returns as one country's economy may grow faster than the other. Many pundits have argued that international diversification did not assist investors during the global financial crisis of 2008-09. This is true as international markets followed U.S. markets down. However, the longer term benefits of foreign stock diversification are evident. Based on the data since 1972, investing outside of the U.S. has resulted in higher returns, though coupled with a small increase in volatility. The graph below demonstrates that an allocation of a hypothetical portfolio of 75% domestic stocks and 25% international stocks delivered a higher return with lower risk than an investment in either market alone.



Source: Vanguard

However, many U.S. investors still tend to have substantial U.S. exposure, with an average allocation according to Morningstar a mere 11% in foreign stocks. One area of foreign investing that a medical professional should consider is emerging markets. Emerging markets are economies or markets that are just entering the global arena. For example, the World Bank classifies emerging markets as economies beneath the upper-middle-income threshold. Because of highly focused political, economic, and financial risks, investing in individual emerging market countries can be particularly risky. However, because individual emerging markets are comparatively uncorrelated, the hazard of investing across all countries is much reduced. In addition, the distinctive development patterns of emerging markets add to diversification. The correlations between developed foreign markets (such as Germany and Japan) and emerging markets have averaged 0.65 since 1985. Emerging markets have also delivered higher average returns. According to Vanguard, from 1985 through 2011 emerging markets offered an average annual return of 13.1% with an standard volatility (measured by standard deviation) of 24.4%, versus average annual returns for developed foreign markets over the same period of 9.2% with an standard volatility of 17.8%. For a medical professional, adding emerging market stocks can potentially increase return over extended time periods.

### Summing Up Equities

Equity investments represent actual ownership in the issuing company. While being an owner in a company allows investors to participate in its upside, equity owners' interests are generally secondary to the interests of the corporation's creditors. In other words,

shareholders only have a stake in the corporation's profits after accounting for expenses (including interest paid to bondholders) and taxes. Likewise, under a bankruptcy or liquidation scenario, shareholders generally only have rights to any assets remaining after all of the corporation's liabilities have been met. Although stocks come in many different flavors, the important thing for medical professionals to keep in mind when investing in equity securities is that stock prices generally reflect investors' expectations regarding the stock's future prospects. Medical professionals should understand that dividends account for a large part of an investor's total return and should not be discounted. Foreign stocks, including emerging markets, add substantial diversification effects to a portfolio. Foreign stocks can also add to return while potentially reducing total portfolio risk.

## **ALTERNATIVE INVESTMENT CLASSES**

Beyond stocks and bonds, there are several distinct types of investments that may be referred to as alternative investments. Alternative investments [AIs] to stocks and bonds include real estate, private equity/venture capital, derivative securities, commodities, arts/collectibles, etc. While such investments often have features that differentiate them from the equity and fixed income securities that are central to most modern portfolio construction approaches, alternative investments can also be boiled down to their basic expected cash flows. As a result, the evaluation of alternative investments involves fundamentally similar concepts to the basics discussed for stocks and bonds earlier.

### **[A] Real Estate**

The most common alternative investment and often single largest investment made by most individuals is real estate, since the family home is considered a key portion of wealth. Whether considering the family home, an office building, or a rental property, the evaluation of a real estate investment involves an assessment of the rents that may be received from those occupying the property. Likewise, the value of real estate may be measured by the value of the property's assets less its liabilities. Many real estate investors consider their real estate holdings to be similar to a fixed income security in that the income from the investment tends to be relatively stable over time. However, the true nature of a real estate investment is more akin to equities. First, the income earned on a real estate investment must be considered on an after-expense basis, since the property owner is responsible for maintenance, property management, taxes, debt servicing, etc. Secondly; while long-term leases may dampen the uncertainty of the rents received by the property owner, both rental amounts and occupancy rates may be variable for a particular real estate investment. Occupancy rate can be thought of as either the number of units rented in a multiple unit property such as an apartment or office building, or as the number of days/weeks of rental income achieved in a year for such property as vacation homes or hotels. Thus, like an equity security, the income from real estate is a net of expense number that may be quite variable, depending upon factors related to the demand for the property.

When considering real estate from an asset value basis, the similarity between real estate and equity investments becomes even more apparent. Specifically, there is no preset par value

or maturity date for a real estate investment anchoring its market value. Instead, the value of the real estate holding is driven by the supply and demand for land at a particular location, the building and other fixed property on the land and the potential future cash flows achievable from the property less all liabilities, including any potential environmental concerns. Thus, the value of a real estate holding may fluctuate with economic cycles, demographics, inflation/deflation cycles, local business conditions, etc.

### **[B] Real Estate Investment Trusts**

In general, two characteristics of real estate as an alternative asset class are a deficiency in liquidity and a lack of direct comparability across properties. The lack of liquidity comes from the fact that the real estate market is a negotiated market with individual transactions that typically occur infrequently. Real Estate Investment Trusts or REITs were developed in part, to help offer greater liquidity to real estate investors. REITs are generally traded on organized stock exchanges, thus providing investors a mechanism for buying and selling real estate related investments in an efficient manner. Likewise, REITs generally allow investors to acquire diversified exposure to real estate securities, since REITs generally invest in multiple underlying properties.

REITs essentially are a hybrid investment. The investment category maintains aspects of both fixed income investments (with their reliable interest) and equities (ability to appreciate in value). REITs produce a regular stream of cash, primarily by collecting rents from the numerous tenants occupying the properties they manage. By law, REITs must pay out at least 90% of their taxable income annually as dividends to shareholders. This high dividend payout requirement means a majority share of REIT investment returns come from dividends. This amalgamation of characteristics has historically provided REIT investors with greater higher total returns than many other investments. According to NAREIT (National Association of Real Estate Investment Trusts), REIT total return performance over the past twenty years has outstripped the performance of the S&P 500 Index, the Barclays U.S. Aggregate Bond Index, and even the rate of inflation. REITs thus provide significant return benefits for medical professionals. Additionally, the correlation of REITs over the 20-year period from the end of 1991 to year-end 2011 demonstrated REITs maintained a low to moderate correlation with large-cap, small-cap, international stocks, as well as U.S. and international bonds. For example large-cap equities and equity REITs were only 56% correlated in the same period. This indicates REITs also provide solid diversification benefits. A key portfolio advantage of REIT diversification is the potential to increase long-term returns without taking on additional risk. NAREIT has found that reallocating 10% of a diversified 60/40 portfolio to equity REITs would have improved annual returns by 0.5% per year on average from 1991 to 2011. That could add up to thousands of dollars of additional gains for a medical professional over 20 years without any additional risk.

### **[C] Private Equity/Venture Capital**

Similar to the equity securities discussed earlier, private equity and venture capital investments typically involve ownership of shares in a company and represent title to a

portion of the company's future earnings. However, private equity is an equity interest in a company or venture whose stock is not yet traded on a stock exchange. Venture capital is typically a special case of private equity in which the investment is in a company or venture that has little financial history or is embarking on a high risk/high potential reward business strategy.

Like real estate, private equity and venture capital investments generally share a general lack of liquidity and a lack of comparability across different individual investments. The lack of liquidity comes from the fact that private equity and venture capital investments are typically not tradable on a stock exchange until the company has an IPO. The lack of comparability is due to the fact that most private equity and venture capital investments are the result of direct negotiation between the investor/venture capitalist and the existing owners of the company/venture. With widely divergent terms and provisions across different investments, it is difficult to make general claims regarding the characteristics of private equity and venture capital investments.

## **[D] Derivatives**

A derivative security is a security whose value is derived from one or more underlying securities. Derivatives can range from securities as simple as a stripped bond or pooled mortgage security to extremely complex securities customized for a particular investor's risk management needs. Even though derivative securities in some contexts can be a key source of volatility in the financial markets, these securities may be useful tools in the portfolio management process. Likewise, just as the basic asset classes discussed previously may be separated into a series of expected cash flows, any given derivative security may be understood as a series of date or event contingent cash flows.

Two basic derivative securities created from more traditional fixed income securities are pooled mortgage securities and strips. A stripped security represents either principal or interest payments from some underlying fixed income security. As an example, a principal-only Treasury strip represents the face value payment of an U.S. Treasury bond, while an income-only Treasury strip represents the right to the coupon payments of a particular U.S. Treasury bond. A pooled mortgage security is a derivative security that represents ownership in a collection of mortgages. An interesting feature of a pooled mortgage security is the principal paydown, with shares of the pooled mortgage security returned at face value as mortgages are refinanced and/or repaid. Refinancing and prepayment of mortgages tend to happen when the original mortgage rate is above currently available mortgage rates, so pooled mortgages with higher coupon rates will tend to have the greatest prepayment risk.

### **[1] Puts and Calls**

Two equity-related derivative securities are puts and calls. Puts and calls fall under the general category of options, because each offers the holder the right to sell or purchase a security at a predefined price over a predetermined period. A put represents the right to sell a security at a particular price within a specific period of time, while a call represents the

right to buy at a particular price over a given time period. An option is exercised when an investor invokes his/her right to buy or sell as provided for with the option. A European option is an option that is only exercisable at its maturity date, while an American option may be exercised at or before its maturity date. If the price of a stock falls below (rises above) the put (call) price within the term of the option, then the option is said to be in the money and the holder is likely to exercise the option and sell (buy) the stock from the writer of the option at its strike price.

- **Example:** A party writes (i.e., sells) a six-month American put on Microsoft at a strike price of \$35, which gives the buyer of the put the right to sell the put writer a certain number of shares of Microsoft stock at \$35 anytime over the next six months. If the buyer of the put already owns shares of Microsoft stock, then the put effectively limits the put buyer's downside in Microsoft to the put's strike price in exchange for the premium paid on the put. This transaction is known as a protective put or portfolio insurance, since the buyer of the put may sell the shares of Microsoft at \$35 in the event that the stock's price falls below that level. If, on the other hand, Microsoft's stock price remains above \$35 for the full six months, then it is likely that the buyer of the put would let the option expire worthless, since the buyer could sell Microsoft for more in the open market than by exercising the option.
- **Example:** A party that writes a six-month American call on Microsoft at \$50 gives the buyer of the call the right to buy a specific number of shares of Microsoft stock for \$50 anytime over the next six months. If the seller of the call already owns shares of Microsoft stock, then the call effectively limits the call seller's upside in Microsoft to the call's strike price in exchange for the premium received from the buyer of the call. This transaction is considered a covered call, since the seller of the call already owns the shares of Microsoft that may be purchased at \$50 if Microsoft's price rises above that level. If, on the other hand, Microsoft remains below \$50 for the full period, then the buyer of the option is better off buying Microsoft directly in the equity markets rather than exercising the option and it (the option) is likely to expire worthless.

## [2] Futures

A future represents the purchase of a particular investment at a predetermined date. Futures are traded on a wide range of investments (e.g., baskets of stocks, interest rates, currencies and commodities) and are useful tools for controlling the risk of cash flow timing for those that wish to lock in a particular price for a security. Likewise, they also provide some insight as to the expected future price in the market of the security. The key difference between futures and options is that futures obligate both parties to make the agreed upon transaction, whereas options give the option holder the right, but not the requirement, to make the transaction.

Futures are typically traded on an organized exchange, such as the Chicago Board of Trade (e.g., interest rate and stock index futures) or the Chicago Mercantile Exchange (e.g., foreign exchange and stock futures). The design of the contract traded on an exchange typically

includes a pre-defined contract size and delivery month. Also, futures transactions generally require maintaining a margin deposit (i.e., a fraction of the trade value held in reserve to help ensure the final settlement at the contract settlement date) and the recognition of gains and losses on a daily basis with movements in contract prices. The pricing of a futures contract is based upon the price of the underlying security (e.g., the S&P 500 Index price), the opportunity cost of cash (e.g., current borrowing rates) and any distributions expected from the security over the period (e.g., dividends). A “no arbitrage” pricing formula, in which an investor could not earn a risk-free profit from selling the security and buying the future or vice-a-versa, is as follows:

$$F = S \left[ 1 + \frac{rt}{360} \right] - D_t$$

In this formula,  $F$  is the futures price,  $S$  is the current security price,  $r$  is the current interest rate for the period of the futures contract,  $t$  is the period of the contract and  $D_t$  is the distributions over the period.

One of the key uses of futures contracts is to hedge an underlying exposure in a portfolio that may be a source of unwanted risk. As an example, an investor may wish to own a particular foreign company’s stock (e.g., a European stock), but avoid the risk of an adverse movement in the local currency of the stock (e.g., the Euro) versus the dollar. By using a futures contract, the investor may be able to lock in a future exchange rate of the currency and limit the risk of a fall in the spot price of the currency adversely affecting the value of the investment. In our example, any gain in the futures transaction will offset the unrealized loss in the stock that relates to a drop in the Euro exchange rate. The price of a foreign exchange futures contract may be defined as follows:

$$F = \frac{S \left[ 1 + \frac{r_1 t}{360} \right]}{\left[ 1 + \frac{r_2 t}{360} \right]}$$

In this case,  $r_1$  represents the domestic interest rate and  $r_2$  represents the foreign interest rate, while  $S$  is the spot price for the currency.

While the formula above represents the price expected under a “no arbitrage” condition in which there is “parity” between the spot price and the futures price, it is important to remember that futures are traded on exchanges. Therefore, futures are influenced by supply and demand factors that may impact their price over any period. That is, if there are not enough buyers to offset the supply created by sellers of a futures contract, then deviations from the “no arbitrage” price may be sustained. It is such dislocations caused by periods of low liquidity that can cause futures contract mispricing and imperfect hedges.

Therefore, most derivative securities may be best understood as a series of cash flows contingent upon the price of underlying assets at specific dates and/or events. While derivatives may be useful to satisfy a particular investor's needs, these securities often have clear risks that should be considered and understood by a prudent investor. Thus, derivatives may be an important tool to manage the risk of failing to achieve a specific goal for an investor, but are not typically considered a separate asset class having a central place in most modern portfolio construction approaches.

### **[E] Commodities**

A commodity is a standardized asset that is typically used as an input for production of one or more products. Almost any raw material or product that has very consistent characteristics irrespective of the producer (i.e., little to no differentiation between producers) may be considered a commodity. Examples of commodities that are traded broadly in the financial markets include food products, such as wheat and pork bellies, and metals, such as gold and aluminum. In most cases, the trading of commodities is done through futures.

Commodities do not have ongoing cash payments associated with them. Instead, a commodity's value is a result of supply and demand for the asset as a consumable or as an input for other goods. Thus, while some investors use commodity futures as a hedge to offset changes in the value of the commodity between now and the date the commodity is needed by the investor, others will make commodity investments based upon a belief that the supply/demand relationship will change in their favor. In the latter case, commodities represent a knowledge-based market in which an investor must believe that he/she has a better perspective on the future price of the commodity than other speculators. Consequently, if an investor does not have superior information regarding the future supply and demand for the commodity, then commodity investments become generally less attractive as compared to investments providing ongoing cash payments.

### **[F] Collectibles**

So far, the focus of the discussion on investments has been on securities representing legal title to an underlying stream of cash payments. However, many medical professionals have a broad range of investments that are typically not securities and rarely provide entitlement to specific cash flows. One example is *collectibles*, which are durable real property expected to store value for the owner. The term collectible may represent such items as artwork, jewelry, sports memorabilia, stamps, and wine.

While a detailed discussion of the wide variety of collectibles markets is outside the scope of this chapter, there are common characteristics of collectibles as an investment. First, the value of a collectible generally rests entirely in the eye of the beholder. Since there is typically no cash flows associated with a collectible, unless the collector charges at the door for a look at their collection, the value of the collectible is only what another collector is willing to pay for that particular item. Also, while there are some collectibles that may be

considered standardized across individual pieces in terms of quality and other defining characteristics, collectible investments are generally unique. As a result, there is typically not an active market with prices established on a regular basis for most collectibles in a manner similar to the stock and bond markets.

In total, the lack of ongoing cash payments from a collectible and the general non-comparability of items result in the collectibles market being more of a knowledge-based market than most of the investments discussed previously. Since the value of a collectible is limited to the amount that another collector is willing to pay for the item, a knowledgeable investor may be able to benefit from the lack of information of another investor. By the same token, if an investor does not have superior information regarding the value of a collectible, then the basic lack of economic fundamentals behind a return assumption for such investments makes collectibles generally less attractive as compared to investments providing ongoing cash payments.

### **[G] Currencies & Crypto-Currencies**

Medical professionals might not know rupees from ringgits, but any investor should consider the benefits of currency investing. Buying currencies allow for a hedge against the U.S. dollar and also permit for an investor to take advantage of major movements of foreign currencies for profit. Today it is easier than ever to invest in currencies through mutual funds or exchange traded funds. U.S. investors are impacted by foreign currency fluctuations through international stock and bond exposure. The advantage of investing in currencies is the investment generally has limited correlation with other real or liquid assets. Medical professionals can initiate the process of currency investing by starting a forex account. In many instances, an account can be opened with minimal investment. One caveat is the tax consequences, as currency-based profits are taxed as ordinary income rather than the more favorable capital gains rate.

*Litecoin* and *Bitcoin*, is an open source, peer-to-peer payment network and digital currency. The later was pioneered in 2009 by pseudonymous developer "Satoshi Nakamoto". Bitcoin has been called a cryptocurrency because it utilizes public-key cryptography for protection. Users send payments by broadcasting digitally signed messages that reassign ownership of bitcoins. A decentralized network of specialized computers verifies and timestamps all transactions using a proof-of-work system. The operators of these computers, known as "miners", are satisfied with transaction fees and newly minted bitcoins. Commercial use of Bitcoin, illicit or otherwise, is currently diminutive compared to its use by speculators, which has led to extreme price volatility. Companies and merchants have an enticement to recognize the currency because transaction fees are lower than the 2 to 3% classically imposed by the major credit card companies like Visa®. Given the fact that Bitcoin is a new currency with extreme volatility, medical professionals should be very cautious with any potential investment; especially after Autumn Radtke, the CEO, died under mysterious circumstances at her home in Singapore last year.

Nevertheless, as virtual currency bitcoin gradually becomes a mainstream phenomenon, the firm *Coinbase* is trying to make it easy to use. Founded by a former Goldman Sachs currency trader named Fred Ehrsam, the company is attempting to build "the PayPal for Bitcoin." Coinbase is trying to make the cryptocurrency accessible to the everyday consumer and merchant, and has raised \$30 million from high profile venture capitalists like Andreessen Horowitz, making it the top-funded bitcoin startup. And, physicians like San Francisco's Paul Abramson MD, of *My Doctor Medical Group*, accept bitcoins, finding that doing so is simple [<http://mydoctorsf.com>].

A related start-up named *Clinkle* is a mobile payment firm. Founded by Lucas Duplan in 2011, the company began as a small group of students. In 2013 it raised \$25 million in what became Silicon Valley's largest seed funding round. Clinkle released an app for download on Google Play and the iTunes Store. The current versions have very limited functionality and only allow users to join a waitlist. Future products include a mobile app that serves as an online wallet linked to existing credit cards or bank accounts, and an app used high-frequency sound to send payments between devices. This product will also provide merchants with information about their customers for the purpose of targeted sales promotion.

And most recently, in an attempt to jumpstart the country's flagging economy with an Iceland-specific variant of bitcoin called Auroracoin, every Icelandic citizen received an allotment of them to an unknown future.

## **[H] Crowd-Funding**

Start-ups and small businesses may soon be able to sell ownership stakes in their companies by soliciting investors over the Internet under a proposal advanced by the Securities and Exchange Commission [SEC]. The plan would set rules for equity Crowd-Funding which would spur growth by easing financing for companies when mandated in the 2012 Jumpstart Our Business Startups Act. [JOBSA] The rules may boost the nascent Crowd-Funding movement that demonstrates progress in advancing a backlog of regulations required by the JOBS Act and Dodd-Frank law. Firms include: KickStarter, RockHub, CrowdFunder, PeerBackers, AngelList, and others.

For example, businesses using Crowd-Funding could raise no more than \$5,000 a year from someone whose income or net worth is less than \$100,000. Investors with income or net worth greater than \$100,000 could contribute as much as 10 percent of their annual income or net worth, to a maximum of \$100,000 in one year. Crowd-Funding wouldn't be open to public companies, non-U.S. companies, or those that have no specific business plan. A company using equity Crowd-Funding would be limited to raising a maximum of \$1 million per year. Companies raising less than \$100,000 would have to disclose financial statements and income-tax returns for the most recent fiscal year. A company seeking to raise more than \$500,000 would have to provide audited financial statements. Companies raising more than \$100,000 but less than \$500,000 would need to provide financial statements reviewed by an independent public accountant.

## [I] Peer to Peer Lending (P2PL)

Similar to private equity or venture capital, peer-to-peer lending [aka person-to-person lending, peer-to-peer investing, and social lending] is the practice of lending money to unrelated individuals without the benefit of a traditional financial intermediary like a bank or financial institution. P2P lending takes place online using various platforms and credit checking tools. It has been in existence for about a decade. Here are some important characteristics:

- P2PL offers a chance to get a lower interest rate than a bank, and gives investors a chance to receive higher returns. Of course, more rewards means more risk
- The two largest P2PL companies are Prosper.com and LendingClub.com. Prosper is older, Lending Club is bigger. Prosper allows bidding on the interest rates you're willing to provide a loan. Lending Club sets the rates.
- Initial returns on Prosper were disappointing because default rates were high; today it is better. For loans originating in the last six months of 2009, both Lending Club and Prosper have a default rate (including currently late loans) of about 13.5%. Using loans from that same time period, Prosper had overall returns of 8.3% and Lending Club had returns of 4.3%.
- Since avoiding defaults is an important part of P2PL, investors should buy many lots of notes - for as little as \$25 each - which make it relatively easy to achieve broad diversification.
- Compared to buying index funds and rebalancing once a year, P2PL is more time-consuming as you must pick the loans to invest in individually. Filtering through the offered loans is time-consuming, but can be rewarding. Some investors sell off their notes at a discount once the borrower goes late on a payment for instance, or just because they need their money out of the investment before the term is up.
- No matter how closely watched there will be a drag on returns from the cash in your portfolio. It takes time to choose loans acceptable and then for them to be approved. Just as with a mutual fund, this will lower your returns, perhaps as much as 1%.
- One of the real benefits of P2PL is a low correlation with other investments, as it is different than other asset classes and ought to perform differently from equity and fixed income investments.

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## OVER HEARD IN THE ADVISOR'S LOUNGE

[Are there Too Many Asset Classes?]

Some financial analysts believe that the focus on asset classes may have gone too far as physicians and other investors have sought to “over optimize” their portfolios. In fact, our colleague David Loeper, CEO of Wealthcare Capital Management, explained this concept as follows:

*“Where things have really got off track has been the insistence on breaking asset classes into sub-classes by style, market capitalization, etc. The unpredictability of all the inputs into our optimizers, even over long periods of time, has been ignored. We have attempted to take efficient portfolios of stocks, bonds and cash and make them even more efficient by breaking the unpredictable asset classes into even less predictable sub-classes. This has all been done into the pursuit of “efficiency” as the proposal was validated by the Brinson & Beebower study, which purports to find that over 90% of the investment return variance is explained by asset allocation. The risk that you produce inefficient portfolios INCREASES if you increase the number of “asset classes” for which you must forecast not only the risk and returns but also each asset class’ correlation to the others.”*

The creation of "new" asset classes and sub-classes by wholesalers (product purveyors) seems to be driven not by solid research, as this article suggests, but rather by other motivations.

Wholesalers have always existed to convince financial analysts and advisors that they have the one negatively correlated asset class that is missing in our portfolios that we must have to achieve maximum Alpha (excess risk-adjusted return). The "asset classes" of alternative investments and packaged real estate products come to mind.

Recent studies by credible market academics such as Roger Ibbotson cast doubt on the Brinson, Hood and Beebower article from 1986 that as much as 90% of the variation in returns is caused by the specific asset allocation mix. Nonetheless, in my experience there is no doubt that MOST of the variation in return is caused by the simple allocation mix of stocks vs. bonds/cash in the portfolio.

So if true; the results of optimizer and portfolio efficiency are based on the accuracy of the inputs and NOT THE NUMBER OF THE INPUTS.

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## INVESTMENT VEHICLES

To this point, the chapter has covered fundamentally distinct asset classes or broad security types. In general, medical professionals are able to access these securities either directly

with a brokerage account or through a separate account manager buying securities for them on a discretionary basis. However, many physician investors who are building their own investment portfolio [ME, Inc], or are working with a financial advisor, will have a host of different investment vehicles (e.g., mutual funds or variable annuities) available which provide indirect exposure to the basic security types discussed above. When one of these investment vehicles is considered for investment, it is important for the medical professional to understand the characteristics of that vehicle, its cost structure, and the cash flows and valuations represented by the underlying investments of the vehicle.

### **[A] Separate Account Management**

Separate account management offers medical professionals customized personal money management services. In the typical separate account structure, a money manager invests the individual's assets in stocks and bonds (as opposed to mutual funds providing exposure to specific asset classes) on a discretionary basis. For healthcare providers with significant investment assets (e.g., \$100,000), a separately managed portfolio can be customized to reflect their tax situation, social investment guidelines, and cash flow needs. An additional benefit of the separate account management structure is that a client's portfolio may be positioned over time as opportunities arise, rather than forcing stocks into the portfolio without regard to current conditions. Although separate account management generally offers a higher degree of customization than mutual funds, fees for separate account management are generally consistent with mutual funds fees, especially given that separate account managers may discount their fees for larger portfolios.

### **[B] Mutual Funds**

Mutual funds are one of the most common investment vehicles available. A mutual fund is an investment company registered with the Securities and Exchange Commission (SEC) under the Investment Company Act of 1940 investing in securities in a manner consistent with the fund's prospectus on behalf of its shareholders. In other words, a mutual fund represents (equity) ownership of a company that is regulated by the SEC and makes investments based upon the terms outlined in its prospectus. Mutual funds generally provide investors diversified exposure to the securities markets at lower investment amounts than separate account management. In fact, the minimum investment in many mutual funds is as low as \$2,000. Thus, by pooling assets from multiple investors in an investment vehicle managed toward a broad goal such as capital growth (as opposed to a customized goal unique to each investor), mutual funds are able to offer investors access to areas of the financial markets that they would not otherwise be able to gain due to minimum investment restrictions.

The prospectus is a legal document describing the objectives, guidelines, restrictions and disclosures of the investment company. A key reason why mutual fund advertisements end with a statement similar to "read the prospectus carefully before you invest" is that this document governs the management decisions made for shareholders. Typically, the prospectus will provide the investment manager of the mutual fund wide latitude in the types

of securities that may be purchased in the mutual fund. A fund that focuses on domestic equity investments may have flexibility to allocate significant portions of assets to foreign stocks, bonds, derivatives, etc. Thus, while mutual funds are often separated in databases and by the media into categories reflecting the basic type of investments their managers may focus on, these broad categories may fail to capture the broad flexibility and wide array of investments in any one of the funds within a category.

## **Mutual Fund Types**

There are currently more than 10,000 mutual funds, as reported by CDA/Wisenberger, the leading provider of mutual fund information services to financial professionals. Two basic types of mutual funds are open-end and closed-end.

### **Closed Funds**

A closed-end mutual fund that is traded in the stock market like as any other equity security, with buy and sell prices established by supply and demand for the security. Thus, in contrast to an open-end fund, a closed-end fund may possibly trade at a substantial discount, which means at a price below its NAV, or even at a premium, which means a price above its NAV.

### **Open Funds**

An open-end mutual fund is a mutual fund that accepts new investors and allows investors to sell the fund at a specific price determined by the investor's prorated share of the market value of the fund. That price, known as net asset value or NAV, represents the market value of the mutual fund's portfolio less any accrued liabilities (e.g., management fees). The NAV is calculated once a day and governs all transactions until the next closing price.

. The following general criteria may be used to help select a domestic open-end fund:

1. Review the fund's track record back since inception, especially reviewing results in the bear stock market of 2008.
2. Examine the total fees charged by reading the prospectus.
3. Examine risk-adjusted performance relative to the appropriate index benchmark.

The debate about fund fees is often perplexing to the medical profession. Load (commission based) funds are not necessarily bad, and no-load (non-commission based) funds are not necessarily good. In fact, one might even argue that there is no such thing as a no-load (expense) fund, since all have fees associated with them, disguised under various terms. These include management fees, advisory fees, 12b-1 fees, redemption fees, low load fees, diminishing (vanishing) loads, operating expenses, marketing, sales and advertising fees, etc. As a general rule, the aggregate fee for a mutual fund should probably not exceed about half percent for a domestic bond fund, 1 percent for a domestic stock fund, 1.5 percent for an international fund, and about 2 percent for an emerging market fund. The lower the fees, the

more money a medical professional will keep in his or her pocket. There are generally three types of open-ended mutual fund class shares;

1. Class A is a front loaded fund which offers break points for volume discounts. The more money invested, the lower the load. It is not wise to invest in a front load fund if you plan to cash out within a couple of years. For a true long-term investor however, it might be smarter to use Class A funds, since your costs are spread out over the number of year you hold the fund. These funds are sold with a commission (load) by brokers. A medical professional can also buy these funds without the upfront commission through discount brokerage firms like Schwab, Fidelity, and TD Ameritrade.
2. Class B fund, or back end load, shares have an exit fee associated with them that usually diminishes after five or seven years. They typically have higher annual yearly operating fees than Class A shares, but are reduced after the seventh year surrender penalty has elapsed. A medical professional can also buy these funds without the upfront commission through discount brokerage firms like Schwab, Fidelity, and TD Ameritrade.
3. Class C fund, or level load, shares do not have an initial sales charge, but may have higher 12b-1 or operating expense fees, on a deferred basis, as well as a deferred sales charge depending on the date of redemption. A medical professional can also buy these funds without the upfront commission through discount brokerage firms like Schwab, Fidelity, and TD Ameritrade.

Closed-end funds trade on the stock exchanges, much like a stock. One item of note for a medical professional is the annual fees charged by closed-end funds. For closed-end funds, the average expense ratio is 1.39 percent for a domestic stock fund, 1.95 percent for a foreign stock fund and 1.19 percent for a bond fund according to the December 2000 Morningstar Closed End Fund database. While sales charges do not apply to closed-end funds, there are transactions costs such as brokerage commissions that apply to the purchase/sale of a closed-end fund.

Other sources of mutual fund information and evaluation:

**No-Load Mutual Fund Investor**

Sheldon Jacobs

[www.noloadfundinvestor.com](http://www.noloadfundinvestor.com)

**Morningstar Mutual Funds**

225 West Wacker Drive

Chicago, Illinois 60608

800-735-0700

[www.morningstar.com](http://www.morningstar.com)

## **Value Line Mutual Fund Survey**

220 E. 42nd. Street  
New York, NY 10017  
800-535-8760  
[www.valueline.com](http://www.valueline.com)

## **Free Edgar**

Corporate 10-K reports, filed annually with the SEC, are available at:  
[www.freeEdgar.com](http://www.freeEdgar.com), as well as from: [www.edgar-online.com](http://www.edgar-online.com) and: [www.sec.gov.com](http://www.sec.gov.com).

These databases will tell you fascinating tidbits about company financial statements, investments, executive perks and other corporate shenanigans, before you invest money in them. For example, Apple Computer nearly halved its finished goods inventory to \$16 million, from \$30 million, in the last quarter of Y 2000, while it took a charge of \$90 million or so it could buy the late CEO, Steve Jobs, an airplane.

## **[C] Exchange Traded Funds**

Exchange Traded Funds (ETFs) or tracking stocks are essentially index funds that are traded on an organized stock exchange. ETFs provide investors with broad exposure to economic sectors, market indices, including foreign stock markets. Examples of common ETFs include Spiders (SPY - tracking the S&P 500), Diamonds (DIA - tracking the Dow Jones Industrial Average), and Cubes (QQQ - tracking the NASDAQ 100). Beyond their diversification benefits, ETFs also allow investors the opportunity to take advantage of intra-day price fluctuation in various indices since the shares are traded just like individual stocks on the major exchange markets. In contrast, an open-end index mutual fund can only be traded at one price (i.e., NAV) determined at the end of the day. Furthermore, the fact that ETFs are traded on an organized exchange means that investors can short the shares (i.e., bet that the relevant index will go down), buy the securities on margin, and enter market, limit, and/or stop orders. ETFs typically have low expense ratios given the passive investment approach used in managing the underlying securities. A passive investment approach is the same as indexing. There are currently 1,439 ETFs on the three primary stock exchanges as of 3/31/2013. Assets have now reached a record level of \$1.47 trillion in assets. The primary advantages to ETFs are;

- **Cost effectiveness:** the average total expense ratio for ETFs globally is a mere 0.31 percent on an annualized basis.
- **Diversification:** total exposure to an entire index or benchmark.
- **Flexibility:** trade and settle like stocks, with intraday pricing and trading, place stop and limit orders, increments of one share and go long or short like a stock.
- **Transparency:** typically the full list of holdings is published daily.

ETFs also provide a primary method for an investor to practice passive investing, through index funds. "Indexing" is a passive form of management that has been triumphant in outperforming many actively managed mutual funds over the preceding 30 years. While the

most popular index funds track the S&P 500 stock index, a number of other index funds focus on less popular benchmarks. This includes the Russell 2000 Index (small companies), the Dow Jones Wilshire 5000 Index (total stock market), the MSCI EAFE Index (foreign stocks in Europe, Australasia, Far East) and the Barclays Capital Aggregate Bond Index (total bond market). The principal advantage to such an approach is the lower management expense ratio on an index fund. Also, a majority of mutual funds fail to beat broad indexes, such as the S&P 500. The thinking behind index funds has much academic essence to it. A theory known as Efficient Market Hypothesis (EMH) also follows what is known as the “random walk” thesis. The random price action of the stock markets was first discovered by a French broker Jules Regnault in 1863. It was further highlighted in a 1900 PhD thesis, "The Theory of Speculation" by Louis Bachelier. What is today known as the formal “efficient-market hypothesis” was developed by Professor Eugene Fama at the University of Chicago Booth School of Business. Professor Fama published his Ph.D. thesis in the early 1960s that examined in detail this random walk process. In 1975, John Bogle of Vanguard took the position that "if you can't beat 'em, join 'em" and created the first low-cost mutual fund that mirrored the S&P 500 index. This was the first true “index” fund.

It has been a successful launch for Mr. Bogle. Since he started the first index fund in 1975, anywhere from 50%-80% of active mutual funds get beat by the market in any given year. The chief *raison d'être* for this fact is the higher costs that mutual funds charge on an annual basis. A fund's total return each year is the total return of the portfolio minus the fees an investor pays for management and fund expenses. If an active mutual fund charges 2%, then an investor must outperform the market by that amount just to be even. The advantage of index funds, especially through the ETF vehicle, is the low absolute costs. An average non-index fund has an expense ratio of around 1.5%, whereas many ETF index funds have an expense ratio of around 0.2%. The explanation the costs are lower in an index fund occurs because the fund is not actively managed. A medical professional should always realize that investing in an index fund doesn't guarantee no loss of money. You will in fact lose money in a poor stock market. But given the fact that index funds do outperform most actively managed mutual funds, any investor should give consideration for at least part of their portfolio residing in a low cost option.

### **[D] DRIP Programs**

For those with either smaller accounts or wish to avoid the costs associated with mutual funds or ETFs, a medical professional might consider various dividend reinvestment plans (DRIPs) to purchase shares cheaply and easily. You may find a list of all companies that offer DRIP programs at [www.dripdatabase.com](http://www.dripdatabase.com) or you may also consider on-line brokerage companies that funnel your funds at [www.sharebuilder.com](http://www.sharebuilder.com) or [www.buyandhold.com](http://www.buyandhold.com). These companies will allow you to invest as little as \$20 per month in stocks. If you invest \$20, and select a stock that sells for \$10, you'll get about 2 shares, minus a tiny commission. If you select a company that sells for \$ 60, you'll receive a third of a share. In this manner, virtually any health care professional can afford to automatically invest, and re-invest, \$25-50 per month in the stock market without annual operating or trading fees. Since not all companies offer dividends, or DRIP programs, another potential advantage of these two

companies is the fact that they also allow the purchase of non-DRIP companies, such as Visa, Microsoft, and Yahoo!

### **[E] Variable Annuities**

Another common investment vehicle representing a commingled interest in an underlying portfolio of securities is the variable annuity. A variable annuity is an insurance company investment product representing ownership in both the net asset value of an investment portfolio and certain insurance provisions, such as a guarantee of original investment in the event of death. Variable annuities are one of several different types of insurance company-based commingled investment products, including variable life, variable universal life, etc.

One key feature of insurance products is that taxation on the capital gains and income generated in the underlying investment portfolio typically does not pass through to the investor until liquidation of the investor's shares in the insurance product. Thus, while a mutual fund must pass on capital gains and income to its investors through a periodic dividend, the growth from income and capital gains may occur in a tax-deferred manner for a variable annuity investor. On the other hand, variable annuities have insurance costs that tend to increase their expense ratio significantly versus a similar mutual fund. Typically, there is a crossover point where the benefits of tax-deferral overcome the added insurance costs of a variable annuity versus a similar mutual fund. However, this needs to be assessed on a case-by-case basis given an investor's tax rate as well as a fund's expected turnover rate, expense ratio differential, and range of potential future returns. Also, like some mutual funds, many variable annuities will have significant front-end or back-end sales charges, which add to the cost of the investment vehicle.

### **[E] Banks**

A third provider of investment vehicles is a bank. While many banks have mutual funds registered with the SEC, a bank may also develop commingled funds under the banking regulations. The two most prevalent types of bank-maintained funds are the collective fund, which is a commingled fund for IRS qualified retirement plans, and the common fund, which is a pooled fund for non-qualified plans or individual investors.

In essence, bank-maintained commingled funds are trusts over which the sponsoring bank has discretionary management responsibility. Non-mutual fund pools sponsored by banks are generally pass-through entities in which the investor owns a prorated share of the underlying securities in the portfolio of the fund. In the case of collective funds, this pass-through feature has the added benefit of making the banking institution a fiduciary under the Employee Retirement Securities Act (ERISA 1974) for the investment decisions being made on behalf of each individual plan. While a common or collective fund may have a standardized fee schedule deducted from the portfolio like an expense ratio, these funds often have individually negotiated fees on a client-by-client basis and should be evaluated on a case-by-case basis accordingly.

## **[F] Investment Trusts and Limited Partnerships**

A final category of investment vehicles includes limited partnerships and investment trusts. These commingled funds are not considered mutual funds, insurance funds or bank-maintained funds from a regulatory oversight point-of-view. Instead, these vehicles represent a specific contractual relationship between the investor and the management company. A unit investment trust or UIT represents proportional ownership of a generally static portfolio of securities. The securities underlying the UIT are typically fixed income securities, with maturity of the securities resulting in liquidation of the trust and a return of principal to the investor. Generally, there is a management fee deducted from the UIT on an annual basis.

In a limited partnership, the investor is a partner providing financial backing and having a liability equal to their original investment. In contrast, a general partner has responsibility for management of the entity and broader personal liability for the endeavor. Examples of limited partnerships as investment vehicles providing access to a pool of securities or property include oil and gas partnerships, real estate partnerships and hedge funds.

## **[G] Hedge Funds**

A hedge fund in the United States is generally a limited partnership providing a limited number of qualified investors with access to general partner investment decisions with little restriction in the type of investments or use of leverage. While the flexibility available to a hedge fund from a regulatory standpoint implies a high degree of potential risk, there is a wide range of investment philosophies, strategies, security types and objectives captured under the broad title of hedge fund. Thus, generalizations regarding the characteristics of hedge funds are even less appropriate than with mutual funds, and evaluation of the investment characteristics and merits of a hedge fund strategy must be on a case-by-case basis. Likewise, the cost structure of a hedge fund often includes a base management fee to the general partner plus a performance-based fee or percentage of the profits, and must be evaluated on a case-by-case basis.

Several different investment vehicles operate under the oversight of varying regulatory bodies which provide access to an investment-managers' discretionary decisions. While each approach generally represents ownership of an underlying pool of securities, there is usually a great deal of flexibility for the manager to deviate from a specific asset class or investment approach. Also, the fee structure of each vehicle can vary greatly and be quite large once distribution fees and sales charges are taken into account. Thus, it is important for a medical professional to remember the following:

- Evaluate the features and costs of an investment vehicle carefully;
- Consider the cash flows and valuations of the securities that the manager or management approach will focus on as if the investments were being made directly; and

- Above all, read the prospectus or agreement carefully before making an investment.

## **ONLINE TRADING PLATFORMS**

Active trading in the financial markets requires specialized software which rises above the Web-based platforms used for many online brokers. Conventional Web design technology is effective for trading decisions which do not require split-second execution, but these sites make it nearly impossible to day trade. However, many online brokers also offer more robust trading platforms to complement their investment services. These platforms require separate installation like any other piece of software, and can turn a good computer into a comprehensive--and fast--tool for analyzing and trading any financial vehicle. Stocks, bonds and foreign exchange are among the most popular instruments traded using these platforms. Some of the platforms are free for account holders, but most charge a monthly subscription.

### E\*Trade Pro

E\*Trade was one of the first major brokerage firms, and its active investment and trading services are used worldwide. The platform set an early standard in active trading and remains one of the most robust tools available.

### ThinkOrSwim

This trading platform has led the industry in active trading of financial derivatives, including stock options and futures. While the platform offers standard trading tools for stocks, it includes several exclusive features for options that are not available in other systems.

### Market Delta

A segment of the trading population looks at special indicators that transcend traditional chart models. A close, intricate analysis of trading volume and statistical price distributions informs these traders more than other popular tools. Market Delta software is a premium trading platform based around Market Profile and "footprint" charting methods.

## FOREX PLATFORMS

FOREX (foreign exchange) has ignited strong interest from traders, businesses, physician-investors and individuals all over the world. FOREX enables traders to buy and sell foreign currencies. These platforms process trades rapidly and produce charts [FOREX.com; GFTFOREX.com, MultiCharts system, FX Trading Station and AVATrade.com among others].

## STATISTICAL PLATFORMS

Physicians, investors, finance and insurance agents are bombarded with a barrage of numbers and figures, all of which must be considered in order to maintain economic vitality. Software and other computational aids can assist in statistical analyses for several data sets and, in the process, will expedite a good deal of the work. Many statistical tools also retain data; such a function reduces statistical redundancy. Here are a few leading platforms.

### **Derivative Solutions**

The International Association of Financial Engineers [IAFE] lists several online tools for analyzing various sets of monetary data, though several of them are geared specifically toward financial data. For example, “Derivative Solutions” provides rigorous analytical information which is consistently applied to all fixed-income financial measurements. And, “Fact Set”, a Derivative Solutions database, provides global data regarding debt-driven markets to a user base of top asset, investment, insurance, and hedge fund managers.

### **ForeTrade**

The IAFE also endorses ForeTrade, an international-financial-market data aggregator, provides data to traders using cutting-edge non-linear analysis techniques. One new tool is the “Genetic Pattern Finder” which uses technology inspired by artificial intelligence to detect and analyze patterns in financial data, and designed around “Trade Station”; a discretionary trading technique.

### **Rosella DB**

Risk management is of paramount importance for the medical and healthcare sectors. With the goal of analyzing the most risk-oriented data, Rosella DB offers a predictive knowledge and data-mining tool to aid in analyzing the most data and factors to quote premiums and fees.

### **American Association of Insurance Services (AAIS) Tools**

The AAIS has several actuarial and statistical reporting services; including custom coverage and endorsements analysis, including integration of pertinent research to bolster their credibility. AAIS also calculates and projects an insurer's profits, losses and assists in interpreting data.

### **Estimize**

Estimize is an open financial estimates platform which facilitates the aggregation of fundamental estimates from independent, buy-side, and sell-side analysts, along with those of private investors and students. By sourcing estimates from a diverse community of individuals, Estimize provides both a more accurate and more representative view of expectations compared to sell side only data sets which suffer from several severe biases.

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### OVERHEARD IN THE DOCTOR'S LOUNGE

[Consumer's Report Not Available]

You can spot comparison shoppers a few aisles away at any retail store. They are the ones carrying articles from *Consumer Reports*, badgering the salesperson with a million and one questions. People who manage money well are usually big fans of comparison shopping. If comparison shopping is important before choosing a new refrigerator or lawn mower, it's even more essential before choosing an investment advisor [IA]. Unfortunately, there is no easily available consumer's report on advisors. Even more frustrating, those selling financial products often have incentives not to be forthcoming with the information that is crucial for comparing advisors.

One aspect of shopping for an investment advisor is to know what questions to ask. One common mistake is to focus on investment returns. Shoppers may ask for the average recent returns of the advisor's portfolios or may want to know whether the advisor's returns beat the market averages. There are several problems with focusing on returns.

First, the numbers mean nothing without also knowing how much risk the advisor took to produce the return. It's like someone on a diet focusing only on fat grams without regard to total calories. Consuming ten soft drinks in a day may give you zero fat grams, but you could easily exceed your daily calorie limit before eating one bit of food. Second, any unscrupulous advisor can put together a portfolio consisting of the hottest investment classes over the past 10 years and show you how fantastically they did. Third, whether an advisor beats the market is overrated. Why? A whopping 97 percent of all mutual fund managers don't generate an "average return" over 20 years. Just finding an advisor who has done so means you found someone in the top three percent. Fourth, some financial advisors may show you a phenomenal track record for the short term (under 10 years). Since wise investing focuses on the long term, beating the averages over a short term isn't necessarily significant.

If so many games can be played around returns, what questions should a savvy comparison shopper ask? Focus on one word: transparency. You want to find out if the returns, costs, and risk (standard deviation) of your portfolio will be clearly displayed and contrasted against appropriate benchmarks. Here is how to accomplish that goal.

Most advisors have model portfolios. Ask them to show you the standard deviation and the expense ratio of their model over five and ten years. Ask them to contrast the return of the portfolio against a similar benchmark. For example, if the portfolio has US stocks, US bonds, and foreign stocks, have them compare it to a benchmark of indexes proportionate to those asset classes.

Next, either ask the advisor to run a similar analysis on your existing portfolio or have one done independently. You may even have done better than the advisor's

model. Ask the advisor to disclose all fees in addition to the expense ratios charged by mutual fund or sub-account managers. You need to find out how the advisor is paid and how much. Ask whether there are any wrap fees, transaction costs, administrative fees, mortality fees, redemption fees, annual 12b(1) fees, surrender charges, or up-front sales charges.

Don't be surprised if you get a bit of resistance when you ask for all this information. Brokerage firms, life insurance companies, and many commission-based advisors don't have much incentive to give you this data and may not even be able to. If you don't get clear disclosure on fees and costs, keep asking. If you persist and still don't get understandable answers, you may need to do more comparison shopping before you choose an advisor.

**By Rick Kahler MS CFP®**  
[www.KahlerFinancial.com](http://www.KahlerFinancial.com)

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## **ASSESSMENT**

Effective investment management requires proper diversification of assets to manage risk and maximize the likelihood of reaching your goals. However, the traditional approach for doing so focuses on investment portfolio results alone, or perhaps your personal residence. But, it often ignores your greatest asset, or the ability to continue earning income as the fruits of your medical professional labor ["human capital"].

Just as with financial capital, the value of any human capital will rise and fall over time. However, the reality is that human capital for some medical specialists is far more volatile than others. Other careers like working for the government, or being a tenured professor, produce human capital that exhibits "bond-like" risk and return characteristics, while more corporate and/or entrepreneurial positions are stock-like (including the fact that they may be outright correlated to the economic cycle and stock market returns).

### **Is Your Career an Asset Class?**

Accordingly, effective diversification of your entire household balance sheet may entail using financial capital to counterbalance against the risks of human capital; in other words, those with stock-like careers should own more bonds, while those with bond-like careers can afford to own more stocks. Similarly, decisions about savings should recognize that sometimes, investing in human capital can actually produce a greater Return on Investment [ROI] than saving (even better than buying stocks in a Roth IRA for the long run)!

So, the next time you consider a financial planning decision, remember to consider whether your medical career and human capital behave more like a stock, or a bond!

## CONCLUSION

This chapter reviewed a wide range of investment categories and alternative ideas for the physician-investor and medical professional. Various security selection strategies, and online trading platforms, were also reviewed.

**COLLABORATE:** Discuss this chapter online with others at: [www.MedicalExecutivePost.com](http://www.MedicalExecutivePost.com)

## Acknowledgements

To Christopher Cummings CFA, CFP® of Manning-Napier Investment Advisors, New York, NY

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**THE END**

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