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ASSET MANAGEMENT, LLC

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THE NEW CASE FOR HIGH YIELD: A GUIDE TO UNDERSTANDING AND INVESTING IN THE HIGH YIELD MARKET

PREFACE

It has been three decades since I began my career at a small boutique investment bank by the name of Drexel Burnham. Thirty plus years later, the market we helped to create from almost nothing is now over \$1.3 trillion in the U.S. and nearly \$1.8 trillion of U.S. dollar bonds globally. Yet with all the growth in the high yield bond market, very little has changed among investor attitudes toward the asset class. “Junk bonds” are still considered an “alternative” asset class and remain tremendously confusing to the investing public. They are considered by many to be risky and illiquid. *The New Case for High Yield* is meant to be a road map to the truth. The truth is that the high yield market is a relatively straightforward, well developed and large market that has, as our data will show (see p.13), posted better risk-adjusted returns than equities over the last 30 years that market data has existed for high yield and various periods in between.¹

I’ve spent my entire career investing in the high yield market and have been around for the majority of its modern history. I began in the business on the “sell-side” (constructing and selling bonds), but during the late 1980s, I became intrigued with what we call the “buy-side” of the business (buying bonds and managing money). I figured who better to be the buyer than somebody who was exposed to all of the shenanigans of the sell-side. In 1989, I read the writing on the wall and left Drexel before they carried away the furniture. Before embarking on the buy-side path, I felt that I needed more education. It was not an MBA that I was after but a more applicable and practical education. So off I marched into the Federal Courts in Los Angeles to work in and around the bankruptcy arena. I figured that the worst thing that can happen to a bond buyer is that the company stops paying interest and/or principal and the bond defaults, so it would be good to understand this process. I worked as a Chief Financial Officer in a number of debtor-in-possession or “DIP” cases, having to file financial statements along with explanations to the court, and became an expert witness on valuation issues.

What I learned during this time was that the bankruptcy judges understood both valuation and fraud issues. I also got a sense that they were inherently lazy: they did not want to see a bankrupt company back in their courtroom more than once. What this meant to me as a bond investor is that the amount of debt or leverage a

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¹ See Chart 9 and Chart 10, as well as corresponding source details.

company was allowed to maintain after a reorganization (Chapter 11) was limited and restricted. This knowledge would have a profound impact on the development of our investment philosophy and process down the road.

As I developed my own investing rationale, I also considered what I saw taking place in the equity markets around me. It is important to understand that as the investment business began to experience rapid growth in the early 1980s, stock investors basically fell into two camps: value and growth. In simplified terms, the growth camp believes that the focus should be on finding companies that are growing rapidly and that price or valuation is secondary. The value camp believes in a concept known as intrinsic value, and thorough fundamental analysis often plays a role in identifying this intrinsic value. The value camp also believes that prices of securities may or may not reflect the real worth or intrinsic value of the business at a given point in time. The objective of value investors is to find stocks where the intrinsic value is significantly higher than the stock market value, with the expectation that at some point the market will recognize this value and the stock price will appreciate.

I was quite intrigued with the notion of deep value investing and figured this could be applied to the bond market. Value investing in equities has its challenges. For instance, most value investors rely on market forces to arbitrage their perceived discount away. But what if Mr. Market does not cooperate for many years or decades and your value stocks go nowhere? Even worse, the advent of desktop computing power has allowed everyone to screen for “cheap” stocks so these discounts have become rarer. Yet I felt this value approach would aptly fit into the corporate bond market, and this is the approach we have taken here at Peritus since our foundation. Many of the challenges faced with value investing in equities seemed to be overcome in the corporate bond market. The biggest advantage for us in the bond market is that an exit strategy is assured. Bonds have a maturity date and price so you do not have to rely on Mr. Market being rational in order for the value to be realized. Though our high yield bond world has continued to expand at a rapid pace, the number of investors applying such a philosophy to bonds remains surprisingly limited.

There is one more massive disruption in the bond market that we believe can create or enhance the dislocation between market price and intrinsic value: the bond rating. Frankly, we do not know how the two major rating agencies (Moody’s and Standard & Poor’s) inserted themselves as the determiners of who gets credit and at what price, but we see that their sterile, simplistic and backward-looking views create much of the opportunity for value investors in credit. I have spent a career in the credit markets and still do not understand how the agencies determine what is a BB and what is a BBB credit. Yet this line in the sand is the difference between “investment grade” and “non-investment grade.” I consider this nothing short of insanity.

At Peritus, we view credit as AAA or D and do our own work. We make our own determination of creditworthiness regardless of what the rating agencies tell us. If we believe that the business has a reason to exist, a sustainable capital structure and/or can generate free cash flow (along with numerous other qualities that you can read about later in this owner’s manual), we may consider making the loan, so to speak. It continues to boggle the mind that after Worldcom and Enron (both initially highly rated by the agencies), and then the AAA sub-prime mortgage debacle that began to hit in 2008, that anyone would place reliance on these ratings. Yet pricing and investment decisions are still determined every day with ratings as a primary factor. Rather than fight this process, we would ask you to join us in taking advantage of the opportunities created by it. After all, we are all looking for inefficient markets.

The *New Case for High Yield* is meant to be an “owner’s manual” for those investing in the high yield marketplace. In this paper, we discuss the history of the asset class, compare historical risk-adjusted returns with other asset classes and provide details as to how we select securities for our portfolios. We hope you find it informative and useful and see the benefits of a high yield allocation in an investment portfolio.

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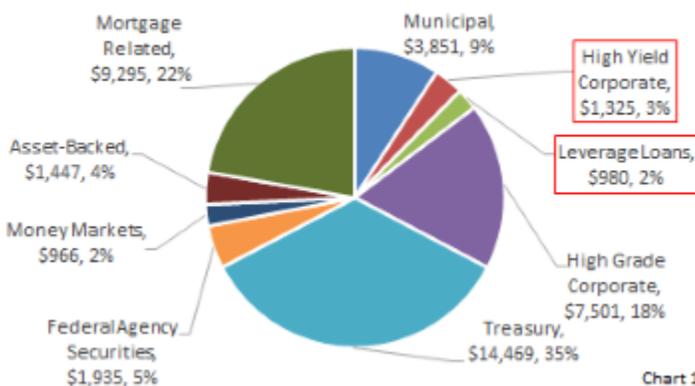
OVERVIEW OF THE FIXED INCOME MARKET

Before embarking on specifics of the high yield bond market, it is important to gain an understanding of the fixed income marketplace and the investment options within it. The first thing to note is its massive size of over \$40 trillion.² The largest subcategory is U.S. Treasury debt. Somewhat surprisingly, mortgages represent the second largest single subcategory of the bond market which helps to explain why problems in the mortgage market nearly took down the entire financial system in 2008.

Yet, a sizable 23% of the fixed income universe is represented by “corporate credit” through leveraged loans, high yield bonds and investment grade corporate bonds. What comes as a surprise to many investors is that the non-investment grade sector of loans and bonds has grown to become a major asset class, now over \$2.3 trillion. After strong issuance in the high yield bond and loan markets over the past several years, we expect that this segment of the market will likely continue

to make up a larger percentage of the fixed income pie in the future. By looking at Chart 1, it is obvious that corporate credit plays a major role in financial markets; yet, for some reason, bonds have always been considered too complex for individual investors and often remain misunderstood. While it is true that large players, such as insurance companies, pension funds and banks, dominate the landscape, bonds at their core are simple. A bond is a loan.

**Breakdown of U.S. Fixed Income Asset Classes
(as of December 31, 2017, in billions)**



A company can issue debt (bonds) or equity (stock). The debt/bonds rank ahead of equities in a company’s capital structure, so are considered less risky. This ranking means that bondholders have a priority claim on the company’s cash flows and get paid first. Corporate bonds have a maturity and an interest rate, creating a contracted stream of income for bondholders. They typically pay this interest twice per year but trade with accrued interest, meaning that a buyer can buy the bond any time before the pay date but would have to pay the seller the accrued interest up to that point. The maturity is the date at which the issuer is obligated to pay the bondholder back the “par value” of the bonds. Companies generally have the ability to refinance at some point prior to that maturity, but must typically pay the bondholder a call, or tender premium (pre-payment penalty) to do so. We believe this finite exit strategy, either via maturity or refinancing, is one of the great advantages of bonds over equities.

Another misunderstanding investors have relating to bonds is the belief that a bond is issued and then goes away into the hands of investors, never to trade again. Most people do not understand that corporate bonds have an active and liquid secondary market, much like stocks. The difference is that the “bond exchange” is not a physical location like the New York Stock Exchange. Rather it is an electronic market created and maintained by large banks and investment banks. These features apply to both high yield and investment grade bonds.

² From the publication “Outstanding U.S. Bond Market Debt” release by SIFMA, data as of 12/31/17. Loan market size as of 12/31/17 from Acciavatti, Peter D., Tony Linares, Nelson R. Jantzen, CFA, Rahul Sharma, and Chuanxin Li, “Leveraged Loan Market Monitor,” J.P. Morgan, North American High Yield and Leveraged Loan Research, January 2, 2018, p.19. US High Yield Market size as of 11/30/17 from Acciavatti, Peter D., Tony Linares, Nelson R. Jantzen, CFA, Rahul Sharma, and Chuanxin Li, “2017 High-Yield Annual Review,” J.P. Morgan, North American High Yield and Leveraged Loan Research, December 19, 2017, p. 277, <https://markets.jpmorgan.com>.

ORIGINS OF THE HIGH YIELD MARKET

Most investors place the origins of the high yield market in the late 1970s, which would not necessarily be wrong if by the high yield market we mean “original issue” high yield. Truthfully, high yield lending has been going on for centuries. Back in the 1700s, the Rothschild family was a dominant high yield lender (lending at higher interest rates/yields to more risky borrowers) but their focus was on countries rather than companies. Over the last two centuries, as commerce and the modern corporation developed, the bond market developed right along with them. However, for decades, the focus of both sides (issuer and investor) was on highly rated companies, aided by John Moody’s development in 1909 of the basic ratings system (Moody’s Rating Service), which is used today.

The earliest modern era data we have on the high yield market came in 1958, when W. Braddock Hickman, a researcher for the National Bureau of Economic Research, produced a seminal piece of work entitled *Corporate Bond Quality and Investor Experience*. As the title suggests, he reviewed the corporate bond market and investors’ experience with it from 1900-1943. Hickman used the terms “low grade” and “high grade” to differentiate what we now refer to as “junk” or “high yield” and “investment grade.” His conclusions were as follows:³

On the average and over long periods, the life-span yields realized on high-grade bonds were below those on low-grade bonds, with the result that investors, in the aggregate, obtained better returns on the low grades. The foregoing may be summarized as follows: (1) Investors, in the aggregate, paid lower prices for, and thus exacted higher promised yields on, the low-grade issues; (2) default rates on the low grades were higher than on the high grades; (3) loss rates, which take into account not only default losses but also capital gains, were higher on low-grade issues; (4) the higher promised returns exacted on the low grades at offering proved to be more than sufficient to offset the higher default losses; (5) in consequence, life-span yields realized on low grades were higher than on high grades. The results were quite typical within major industry groups. Similar results were obtained for most of the longer assumed chronological investment periods.

The finding that realized returns were higher on low-quality corporate bond issues than on high-quality issues has implications for investment theory as well as for practical investment policy.

Hickman’s findings turned everything about investing in fixed income on its head. **His conclusion was unmistakable in that low-grade bonds outperformed high-grade bonds** over this period. The increased default rates of low-grade paper were more than offset by higher-coupon income and recovery rates on the defaulted bonds. Apparently, this superb piece of work was ignored until the late 1970s, when Michael Milken—a graduate student at the Wharton School—dusted this script off and launched what became the original issue high yield market as we know it today. Michael Milken and Drexel Burnham Lambert ultimately became synonymous with high yield.

DEFINITION OF HIGH YIELD

Just what is the formal definition of high yield? High yield, or its more polite acronym, non-investment grade, is based off of the ratings grids provided by the two major credit rating agencies, Moody’s and Standard & Poor’s. All bonds rated below Baa by Moody’s are considered high yield or non-investment grade. Similarly, all ratings below BBB by Standard & Poor’s are considered high yield. We remain perplexed as to how these two private companies came to monopolize the business and have become the definitive standard on who gets credit and on what terms. Ironically, even after their well-publicized

³ Hickman, W. Braddock, 1958. “Introduction and Summary of Findings.” *Corporate Bond Quality and Investor Experience*, partial text from pages 14-15. Princeton, NJ: Princeton University Press for National Bureau of Economic Research.

gaffes in the scandals of Worldcom and Enron, and more recently with the ratings of structured products, they ended up with even more power, as we will explain in more detail later.

Investors should understand what the ratings agencies themselves say about their ratings. Among their various disclosures, the ratings agencies caution that their ratings are opinions and are not to be relied upon alone to make an investment decision, do not forecast future market price movements, and are not recommendations to buy, sell, or hold a security. So if these opinions have no value in forecasting where the security price is going and are not investment recommendations, what good are they? Candidly this is a question we have been asking for the past 30 years. We see the ratings agencies as reactive not proactive, yet many investors in fixed income rely almost entirely on these ratings in making investment decisions.

GROWTH OF THE HIGH YIELD MARKET

Regardless of what the ratings agencies consider as the investment value of high yield bonds, the growth of this market has been significant.⁴



There were several distinct periods of growth that assist in understanding the development of this market. Prior to 1985, the market consisted almost entirely of securities that were once investment grade but had since been downgraded. These securities became known as “fallen angels.” It was in the 1980s that Drexel Burnham, and eventually all of Wall Street, began to embrace the concept of original issue high yield bonds to finance everything from leveraged buyouts to significant new industries, including modernizing Las Vegas (Caesars World, Circus Circus, Bally’s), creating cable networks (Turner Broadcasting-CNN) and ultimately even financing the beginning of the wireless age (MCI and McCaw Cellular). It is important to note both then and now that the high yield issuers are not start-up companies, but generally medium- to large-sized companies with well-established product lines or services looking for an alternative form of financing to sustain or grow their businesses.

The high yield market offered several important advantages to issuers. Prior to the original issue high yield market, companies would have to finance themselves with equity and/or traditional bank debt. The problem is that equity financing is often very expensive and massively dilutive to existing shareholders, while bank debt is short term, has amortization payments and comes with restrictive covenants. Bank

⁴ Acciavatti, Peter D., Tony Linares, Nelson R. Jantzen, CFA, Rahul Sharma, and Chuanxin Li, “2017 High-Yield Annual Review,” J.P. Morgan, North American High Yield and Leveraged Loan Research, December 19, 2017, p. 277, <https://markets.jpmorgan.com>.

financing would not be effective in building out the massive infrastructure required in many of these cases. Thus, the long-term nature and fixed coupon payments provided by high yield bonds allowed for the stability needed for these companies, and the market growth began.

However in 1990, the growth of the market stalled as the US entered a significant recession and default rates climbed. Given the limited size and breadth of the market at the time, many wondered whether this asset class would survive. But survive it did and as the country emerged from this period, the high yield market growth resumed. Yet the truly exponential growth in the market would not begin until 1996 and did not take another breather until the end of 2003.

Several factors led to this exponential growth in issuance. First, the asset class gained the attention of many institutional money management consultants as the return profile from 1990-1995 had been very attractive. This demand enabled more companies to raise money in the high yield space versus bank debt or other forms of financing. This was both good and bad. It did bring in many new players on the issuance side of the market but as the demand grew so did the ability to raise money on fictional business plans, especially in the “TMT” (telecommunications, media and technology) space as the internet and technology bubble developed. Like in the equity market, billions of dollars were raised by companies with no revenues and only a plan for the future. This ultimately led to the second “nuclear winter” in high yield which occurred in 2002, culminating with the high profile defaults of Enron and Worldcom and the collapse of the technology and telecom markets. Once again, a period of healing and consolidation began as issuance subsided. But issuance once again picked up starting in 2006 and the market now stands at over \$1.3 trillion in the U.S. and nearly \$2 trillion of U.S. dollar debt globally and growing, with strong issuance over the past several years.⁵

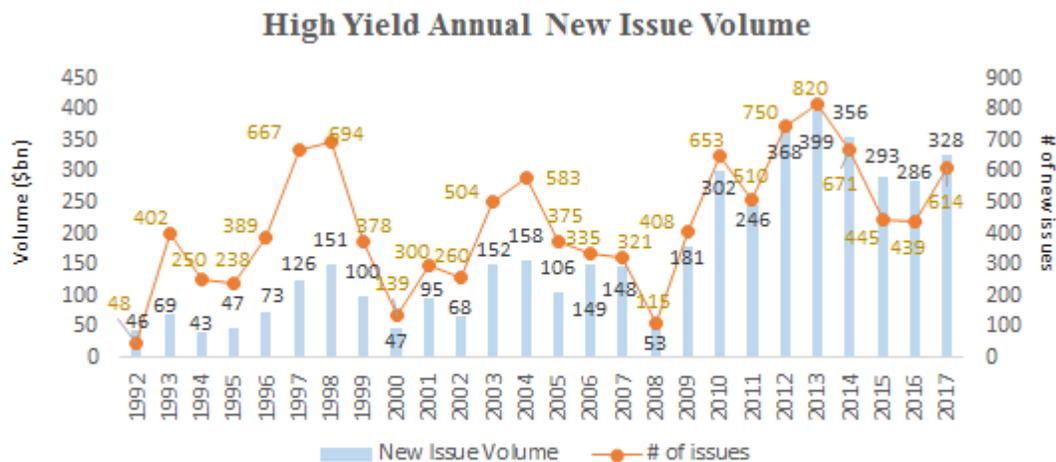


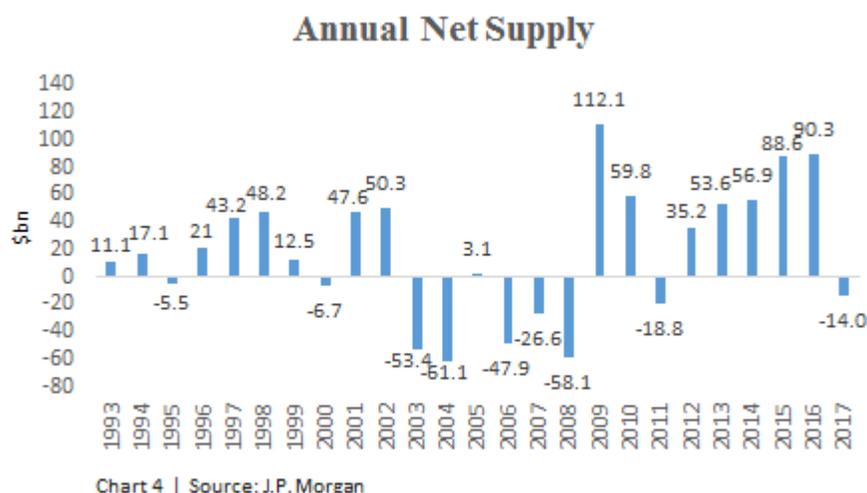
Chart 3 | Data sourced from J.P. Morgan, as of January 2, 2018, Past Performance is not indicative of future results.

To have a functioning and growing market, you need both supply (issuers) and demand (investors). Though we have briefly touched upon the advantages for issuers (no principal amortization, relaxed covenants and long-term financing), an understanding of the buy side is also crucial. As listed below, there are five significant demand forces that exhibit themselves in the high yield market:

1. Coupon cash flows
2. Maturities/refinancings
3. Calls
4. Mutual fund flows
5. Tenders

⁵ Acciavatti, Peter , Tony Linares, Nelson Jantzen, CFA, Rahul Sharma, and Chuanxin Li, “High Yield Market Monitor,” J.P. Morgan, North American High Yield and Leveraged Loan Research, January 2, 2018, p. 9.

Bonds generate interest income for the owner and most investors in the space reinvest these coupon cash flows into more bonds. Each year, a certain percentage of the market matures, which means that investors receive their principal back, again generating cash that needs to be reinvested. Similarly, a percentage of the overall market will be called by the issuer each year, generating more cash for the holder and a need to redeploy proceeds. These factors should be considered permanent technical features of the bond market. In addition, there are two other sources that come into play. High yield mutual funds generate both demand (money inflows, which create a need to invest) but can also create supply (redemptions/outflows, meaning they need to sell bonds to fill the redemptions). A final area of potential demand is created when a company tenders for bonds. This is not a mandatory redemption for the holder, as is a call or maturity, but an optional one. If we combine all of these activities, we get a “net” supply figure.⁶



On the demand side, there is one more significant issue that is not captured in Chart 4 and that is flows into corporate bonds from large institutional and other investors outside of the mutual fund world. For instance, while mutual funds remain the dominant means by which retail investors access the high yield debt market, exchange traded funds have become a notable player in this high bond market as

well. Other large owners in the high yield bond market include insurance companies, hedge funds, investment grade funds, and pensions. We feel that there is currently a secular and demographic shift underway towards the fixed income world, including high yield, as more people recognize the tangible yield provided by high yield bonds and the sector’s risk-adjusted outperformance (as we will explain later). As part of this shift, it now seems that a gradual recognition is setting in that underfunded pension plans are large and dangerous liabilities, leading many plan sponsors to be focused on liability driven investing via fixed income securities. We see that a change in attitudes and awareness brought on by the 2008 financial crisis is being accompanied by a change in allocations and focus on yield.

While mutual fund flows may have been negative over the past couple years, broadly looking at the market, we expect the high yield market to have favorable supply/demand dynamics over the longer-term and growth to continue. As the market grows, so do the available opportunities for investment.

INEFFICIENT MARKET

In addition to the natural supply and demand of the market, it is very important to have a short history lesson in various legislative acts that have created and continue to create the market dislocation that allows investors an opportunity to produce what we see as attractive risk-adjusted returns. The Financial Institutions Reform Recovery and Enforcement Act (FIRREA), which passed in 1990, was the first piece of legislation that dramatically altered the landscape for high yield corporate bonds. In the time leading up to this legislation, bank failures were everywhere and Wall Street lost junk bond pioneer Drexel

⁶ Acciavatti, Acciavatti, Peter D., Tony Linares, Nelson Jantzen, CFA, Rahul Sharma, and Chuanxin Li. “High-Yield Market Monitor,” J.P. Morgan, US High Yield and Leveraged Loan Strategy, January 2, 2018, p. 17.

Burnham Lambert. Citibank was almost dead, more than 700 savings and loans/thrifts failed and the controversial California-based insurance company First Executive disappeared. The government sponsored an agency that became known as the Resolution Trust Corporation (RTC) to deal with the savings and loan (S&L) failures. Investments in junk bonds and junk loans to emerging market countries such as Mexico and Brazil were at the center of the storm and were the root cause of all the problems, according to the popular press.

Regardless of the lynching of Drexel and the so-called junk-bond “pirates,” the real root of the problem developing in the 1980s was actually real estate. William Seidman, former head of both the Federal Deposit Insurance Corporation (FDIC) and the RTC, commented on the 1980s issues, stating:⁷

The critical catalyst causing the institutional disruption around the world can be almost uniformly described by three words: real estate loans. In the U.S., the problem was made even worse by allowing S&Ls to make commercial real estate loans in areas they knew little about. They were already in trouble because they borrowed “short” and lent “long” in financing the housing market.

How familiar does that sound? Since 2008, we have been working off the biggest hangover in the history of residential real estate.

Apparently, we are slow learners or have selective amnesia. Bill Seidman—one of the most respected regulators of our time—had come to the conclusion that real estate lending was at the core of the meltdown in the ‘90s. But Seidman’s claims were ignored. Instead, politicians decided that the answer was to make sure that going forward, thrifts were almost completely invested in real estate while forcing them to sell their high yield bonds at what was then the bottom of the market. Below were two of the requirements that came out of this ridiculous piece of legislation (FIRREA):⁸

(7) Required savings and loans to meet a new “qualified thrift lender” test of the 70% of portfolio assets in residential mortgages or mortgage related securities.

(14) Required savings associations to divest their holdings in junk bonds by July 1, 1994, and generally follow the same investment guidelines as commercial banks. Junk bonds and direct investments of saving and loans must be held in separately capitalized subsidiaries.

Around the same time as all of this legislation was being passed, a group known as the Bank for International Settlements (BIS) was passing the first Basel Accord. Known as Basel I, this accord set capital standards for global banks for a variety of very broad asset classes. Corporate bonds and loans were set at 8%, meaning a bank had to have Tier 1 capital (equity capital and reserves) of 8 cents to back each dollar held in a corporate security. Prior to this accord being passed in 1988, banks operated somewhat by the seat of their pants. They reserved what they deemed appropriate for various asset categories and worked with regional or national regulators on these issues.

The ink was barely dry on Basel I when pressure from the various banks sowed the seeds of a monumental and ill-understood piece of legislation that led to the meltdown that began during the last quarter of 2008. The argument sounded rational. Why would a loan to General Electric require the same amount of capital as one to Joe’s Liquor Store? So back to the drawing board we went, which led to the second Basel Accord, or Basel II. At the heart of this proposal lies the notion of risk. Regulators wanted

⁷“Panel Lessons of the Eighties: What Does the Evidence Show?” *History of the Eighties—Lessons for the Future*. Federal Deposit Insurance Corporation, 1997. p. 58.

⁸ Friedman, Thomas. *Dictionary of Business Terms*. Barron’s Educational Series, Inc., 2007. “Financial Institution Reform, Recovery and Enforcement Act (FIRREA).”

to make sure that capital reserves were appropriate for the risk of the assets held by banks. Sounds like good policy, but how does one measure risk? Well enter our friends the credit ratings agencies. What Basel II effectively said was that credit ratings will determine risk and the amount of capital required. Here is what was finalized:⁹

Claims on Corporates

Credit Assessment	Risk Weight
AAA to AA-	20%
A+ to A-	50%
BBB+ to BBB-	100%
Below B-	150%
Unrated	100%

To translate into simple English, if 8% was the base capital charge, then AAA to AA securities would require only 20% of this, or 1.6% capital backing for each dollar of securities held. Anything below BB- would require 150% of 8%, or 12% capital. This led to banks focusing their attention on the highest-rated securities, which required limited capital and allowed for massive leverage. Let's do the math. If a bank requires only 1.6% capital, the inverse of this is the amount of leverage they get, which is more than 60:1!

So once again, an arcane policy further restricts another group of major institutions from investing in lower-rated securities (regardless of their true investment quality). Ironically, the chase for AAA securities was at the root of the 2008 financial crash as Wall Street created (and the rating agencies were relied upon to rate) many synthetic AAA bonds that turned D (defaulted). As we mentioned previously, the rating agencies ended up with more stature after proving they did not deserve it and the results were disastrous, as witnessed by the 2008 meltdown of the global markets.

More recently we have seen the impact of the Dodd-Frank Act and Volcker provision within it. Post the financial crisis, various pieces of legislation, including Dodd-Frank and the Volcker Rule were put into effect with the goal of reducing risk and increasing the stability of the banking system. While these pieces of legislation may serve to stabilize the banks, they have created unintended consequences for financial markets, including what we see as less stability and higher volatility in fixed income markets. For instance, the Volcker Rule effectively limits the ability for banking institutions to “engage in proprietary trading” of securities for their own accounts.¹⁰

The Bank Holding Company Act of 1952 (12 U.S.C. 1841 et seq.) is amended by adding at the end the following:

“SEC. 13. PROHIBITIONS ON PROPRIETARY TRADING AND CERTAIN RELATIONSHIPS WITH HEDGE FUNDS AND PRIVATE EQUITY FUNDS.

“(a) IN GENERAL.—

“(1) PROHIBITION.—Unless otherwise provided in this section, a banking entity shall not—

“(A) engage in proprietary trading;

When a dealer (investment bank) executes trades for clients they historically have purchased the bonds or loans and then re-sell them. Sometimes they hold the securities for days or weeks and other times for mere seconds before selling them to the client. Under this legislation, it is now close to impossible for the banks to separate proprietary trading from market making activity. As a result, banks now hold very limited inventories of securities and are much less involved in making markets than they once were. The Trump administration has indicated they may repeal some portions if this Act and other legislation is in the works, but for now this is what we are living under.

⁹ “International Convergence of Capital Measurement and Capital Standards,” Basel Committee on Banking Supervision. Bank for International Settlements June 2006.

¹⁰ H.R. 4173, from the one hundred eleventh Congress of the United States of America, January 5, 2010. From the Library of Congress.

Why is it important to understand such legislation? Mainly because it can shape who ends up owning certain asset classes. In the cases of FIRREA and Basel II banks became large sellers of non-investment grade credit, creating opportunities for buyers. Dodd-Frank/Volcker, in turn, has resulted in greater volatility in today's high yield market, as many of the market makers that were previously in place to absorb some of the trading volume are no longer there. Yet this volatility can create attractive entry points. Great credit analysis—a pre-requisite for producing returns in this asset class—is aided by the opportunity-set itself, which is a function of the market and the lack of permanent investors created mainly by misinformation and poorly drafted legislation. Over various points in history, we have seen this legislation create opportunity for high yield bond investors.

VALUATION

With the background set, we now turn our attention to specifics of the high yield market. Valuation in the corporate bond market is generally accomplished by analyzing the spread or yield advantage over a risk-free rate, usually signified by a comparable maturity Treasury bond. Some historical perspective on spreads over the nearly 30 year history is helpful.

During this period we have seen almost every conceivable economic environment. Chart 5 below focuses specifically on value via spreads.¹¹

According to the historical spread chart, the average spread for the high yield bond market over the comparable maturity Treasury is approximately 570 basis points or 5.70%. Averages can be very deceiving as the three spikes which occurred in 1990, 2002 and 2008 disproportionately skew the numbers upward, indicating to us that looking at the median spreads of 519 bps is a more useful way to view spreads. Over 25% of the time spreads have been at or below the current level¹² and we remain well above the lows around 300bps and under reached both in mid-1997 and again in mid-2007.

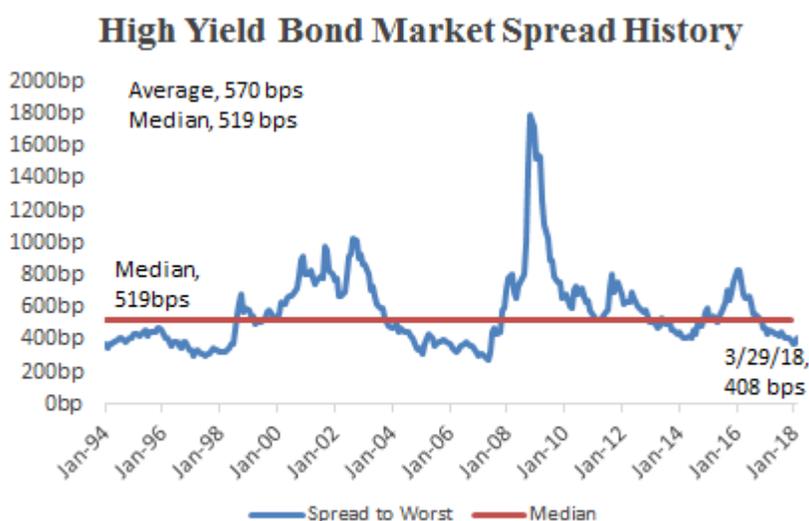


Chart 5 | Source J.P. Morgan, Past performance is not indicative of future results.

Investors in this asset class can use spreads as a tool to assist them in determining whether the market as a whole is priced attractively or expensively versus other investment opportunities available. Obviously this needs to be put into the correct context along with the interest rate environment, economic growth, default and recovery expectations, and other variables. For instance, while we are currently at spread levels below the historical median/averages, this makes sense in the context of an expectation for default rates to be below average of the next couple years, as we will discuss below.

¹¹Jantzen, Nelson, CFA and Peter Acciavatti, "JPM High-Yield and Leverage Loan Morning Intelligence," J.P. Morgan North American Credit Research, 3/29/18, <https://markets.jpmorgan.com>. Spread referenced is the spread-to-worst for the period 1/31/1994 to 3/29/2018, based on month ending data except March 2018, which was as of 3/29/18.

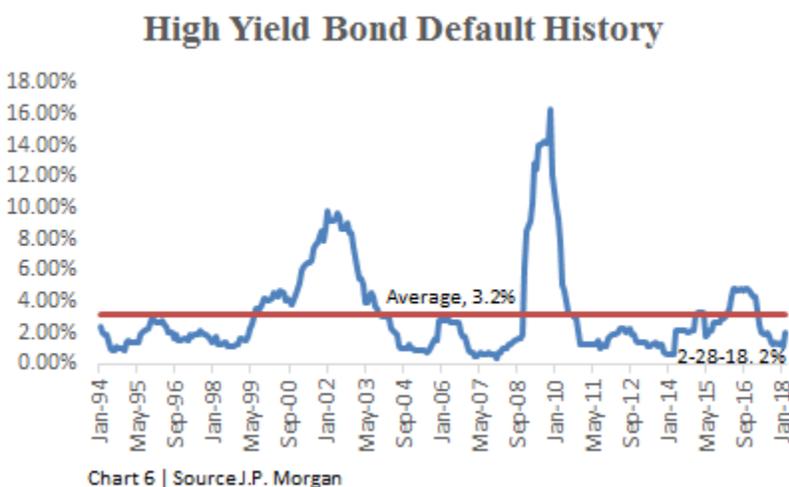
¹² 25% at or below a spread of 408bps based on month-ending spread levels, intra-month data not considered.

Regardless of how one values this marketplace, it is apparent that significant excess spread over the risk-free rate exists and has for the market's history. The next natural question to ask is, does this excess spread/yield come with excessive risk?

DEFAULT RISK

Valuation analysis must be done in the context of understanding and quantifying risk. Yet defining risk can often be challenging. So before finalizing a definition, let's first look at the finite nature of a bond's existence. Unlike equities, bonds have a shelf life (maturity), but their effective maturity is generally much shorter as defined by certain events that can happen to bondholders. We have identified below five specific events or outcomes with which bondholders must contend:

- **Maturity:** The most obvious of all is that a bond matures, but rarely do high yield bonds stay outstanding until their maturity.
- **Call:** The bond can be called by the issuer prior to maturity, typically with the bondholder receiving a premium to the par value. Most bonds come with three to five years of call protection, meaning the issuing company cannot call the bonds from holders during these protected years.
- **Put:** High yield bonds often come with a change-of-control covenant called a "poison put" which allows the bondholder to "put" the bond back to the company in the event of a takeover. This is sometimes known as positive event risk.
- **Tender:** This is an offer by the company to acquire bonds at a certain price but it is at the option of the holder whether to take the offer.
- **Default:** When a company does not make the required interest payment or principal repayment within the required period (including grace periods), the company has defaulted. This default may involve a bankruptcy proceeding (Chapter 11) or an out-of-court restructuring in which the company works with various participants to resolve this default. In some cases, the company could be liquidated (Chapter 7).



Common sense would suggest that out of the five scenarios, only a default appears to be a negative for the investor. If in fact default is the risk most important to high yield bond investors, we need to understand just what the market's default history has been. Default rates are graphically depicted in Chart 6.¹³

¹³ Jantzen, Nelson, CFA and Peter Acciavatti, "JPM High-Yield and Leverage Loan Morning Intelligence," J.P. Morgan North American Credit Research, 3/19/18, <https://markets.jpmorgan.com>. Data based on the monthly default rates.

The actual average annual default rate experienced by high yield bond investors for the last 25 years is 2.9%.¹⁴ But this is not the end of the story for investors as default risk is only part of the equation. As investors we are interested in the simple notion of how much money is actually lost in a default, or the loss rate. Said another way, we are interested in the inverse of this relationship, which is the recovery rate.

The last 25 years have shown a recovery rate of 40.8%. In English this means that upon default an investor could have recovered nearly 41% (or nearly \$41) of the par amount of the bond (\$100). Notice that this recovery rate assumes that the investor paid \$100 (par) for the bonds. If an investor paid less than par, the recovery rate would be higher and the loss lower. Additionally, an investor typically holds the bonds for some period before a default occurs, meaning that they would have received a number of interest payments, further reducing the net loss.

The “net-net” of the story is that the average loss rate for high yield indexes is approximately 1.9% per year without any active management.

Getting back to Hickman’s finding over a half century ago that the “higher promised returns expected on the lower grades at offering proved to be more than sufficient to offset the higher default loss,” let’s put some math behind it. If we use the 20-year historical average yield to worst of 9.1%¹⁵ and an average loss rate of 1.9%, we get a “risk adjusted” average yield of 7.2%, which seems very attractive by most measures. And this risk adjusted yield does not even include the positive event risk from early calls, put, or tenders at a premium.

But the question we must always deal with as investors is, will the future differ dramatically from the past? Will these attractive risk/default-adjusted returns continue? In this case, it appears that near term might even be better than history, to our benefit as investors. While we saw a spike in defaults in 2016

	Default Rate	Principal Recovery Rates	Principal Loss Rate	Default Loss Rate
1992	4.4%	45.9%	54.1%	2.4%
1993	2.3%	43.1%	56.9%	1.3%
1994	1.4%	45.6%	54.4%	0.8%
1995	2.8%	43.3%	56.7%	1.6%
1996	1.6%	41.5%	58.5%	0.9%
1997	1.5%	48.8%	51.2%	0.7%
1998	1.7%	38.3%	61.7%	1.1%
1999	4.1%	33.8%	66.2%	2.7%
2000	5.0%	25.3%	74.7%	3.8%
2001	9.1%	21.8%	78.2%	7.1%
2002	8.0%	29.7%	70.3%	5.6%
2003	3.3%	40.4%	59.6%	2.0%
2004	1.1%	58.5%	41.5%	0.5%
2005	2.8%	56.0%	44.0%	1.2%
2006	0.9%	55.0%	45.0%	0.4%
2007	0.4%	54.7%	45.3%	0.2%
2008	2.3%	26.9%	73.2%	1.6%
2009	10.3%	22.4%	77.6%	8.0%
2010	0.8%	35.7%	64.3%	0.5%
2011	1.7%	40.9%	59.1%	1.0%
2012	1.3%	48.6%	51.4%	0.6%
2013	0.7%	53.2%	46.8%	0.3%
2014	2.9%	52.7%	47.3%	1.4%
2015	1.8%	48.0%	52.0%	0.9%
2016	3.6%	25.2%	74.8%	2.7%
2017	1.5%	31.1%	68.9%	1.0%
25-yr Annual Avg.	2.9%	40.8%	59.2%	1.9%

Chart 7 | Source J.P. Morgan, Past performance is not indicative of future results

¹⁴ Jantzen, Nelson, CFA and Peter Acciavatti, “JPM High-Yield and Leverage Loan Morning Intelligence,” J.P. Morgan North American Credit Research, 3/22/18, <https://markets.jpmorgan.com>. Data based on annual default rates.

¹⁵ Acciavatti, Acciavatti, Peter D., Tony Linares, Nelson Jantzen, CFA, Rahul Sharma, and Chuanxin Li. “Credit Strategy Weekly Update,” J.P. Morgan, US High Yield and Leveraged Loan Strategy, April 6, 2018, p. 32, <https://markets.jpmorgan.com>.

related to energy and commodity credits, high yield bond default rate forecasts for the next couple of years are below historical averages.¹⁶

High-Yield Historical Annual Default Rates and 2018/2019 Forecast

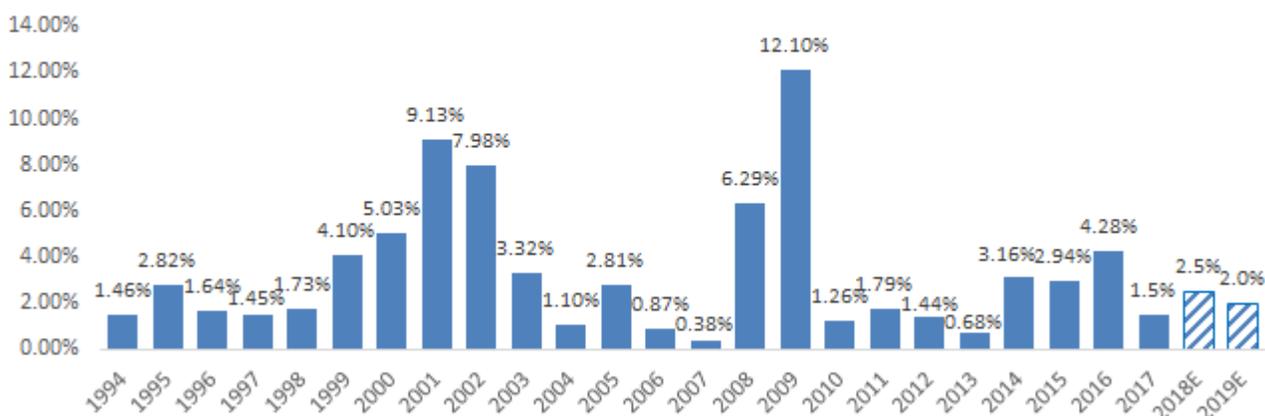


Chart 8 | Source J.P. Morgan, Past performance is not indicative of future results.

RISK AND RETURN

Default and loss rates are important to understand, but at the end of the day, investors expect to earn a return commensurate with the risk they are taking. As we look at the actual returns, the data points in this case appear impressive. Based on the data provided (see Charts 9 and 10), the high yield bond asset class has outperformed equities (as measured by the S&P 500 Index) over various historical time frames on a risk adjusted basis (return/risk). Here, risk is defined as standard deviation, or volatility of returns over the period, an easily comparable measure across all asset classes. Chart 9 provides the detail.¹⁷

	10 Year			20 Year			30 Year		
	Annualized	Annualized		Annualized	Annualized		Annualized	Annualized	
	Total Return	Standard Deviation	Return/Risk	Total Return	Standard Deviation	Return/Risk	Total Return	Standard Deviation	Return/Risk
Bloomberg Barclays High Yield Index	8.30%	10.56%	0.79	6.66%	9.13%	0.73	8.13%	8.46%	0.96
S&P 500 Index	9.72%	15.01%	0.65	7.23%	14.92%	0.48	10.44%	14.07%	0.74

Chart 9 | Source Barclays Capital, Past performance is not indicative of future results. One cannot invest directly in an index, see index definitions.

As pictured in Chart 10, we extend the picture looking at other risk and return metrics among various asset classes over high yield’s 30 year history.¹⁸

¹⁶ Jantzen, Nelson, CFA and Peter Acciavatti, “JPM High-Yield and Leverage Loan Morning Intelligence,” J.P. Morgan North American Credit Research, 2/6/18, <https://markets.jpmorgan.com>. Data based on the annual default rates.

¹⁷ Bloomberg Barclays Capital U.S. High Yield Index covers the universe of fixed rate, non-investment grade debt (source Barclays Capital). The S&P 500 Index is a broad-based, unmanaged measurement of changes in stock market conditions based on the average of 500 widely held common stocks. S&P 500 index data sourced from Bloomberg, using a total return including dividend reinvestment. Annualized Total Return and Standard Deviation calculations are based on monthly returns. Return/Risk calculated as the Annualized Total Return divided by Annualized Standard Deviation. Data for the period ending 2/28/18.

¹⁸ Bloomberg Barclays Capital U.S. High Yield Index covers the universe of fixed rate, non-investment grade debt (source Barclays Capital). Bloomberg Barclays US Corporate Investment Grade Index consists of publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and the quality requirements (source Barclays Capital). Bloomberg Barclays Municipal Bond Index covers the long-term, tax-exempt bond market (source Barclays Capital). The S&P 500 Index is a broad-based, unmanaged measurement of changes in stock market conditions based on the average of 500 widely held common stocks. S&P 500 index data sourced from Bloomberg, using a total return including dividend reinvestment. Annualized Total Return and Standard Deviation calculations are based on monthly returns. Return/Risk calculated as the Annualized Total Return divided by Annualized Standard Deviation.

30 Years Ending 3/31/18	Annualized Return	Annualized Standard Deviation	Return/ Risk	Highest Annual Return	Lowest Annual Return	Number of Positive Return Years	Number of Negative Return Years
Barclays U.S. Corporate High Yield	8.14	8.46	0.96	58.21	-26.16	24	6
S&P 500 Index	10.46	14.06	0.74	37.58	-37.00	25	5
Barclays U.S. Corporate Investment Grade	6.93	5.17	1.34	22.25	-4.94	25	5
Barclays Municipal Bond Index	5.90	4.19	1.41	17.45	-5.17	26	4
Barclays US Treasuries Intermediate Index	5.27	3.12	1.69	14.42	-1.76	27	3
Gold	3.61	15.27	0.24	30.94	-28.28	16	14

Chart 10 | Past performance is not an indication of future results. One cannot invest directly in an index.

Even taking into account the massive equity bull market of the mid to late 1980's and the enormous technology and internet rallies of the late 1990's (two equity runs not likely to be repeated in our lifetimes), high yield bonds have competed very well. While the gross returns are a bit lower than equities, the risk adjusted performance for high yield is notably higher than that of equities (return per measure of risk of 0.96 for high yield versus 0.74 for the S&P 500, "return/ risk") as high yield has performed with about 40% less risk (measured by standard deviation) than equities. In all of the listed time periods in Charts 9 and 10, high yield outperforms equities on a risk adjusted basis. Surprisingly, even looking at the highest and lowest annual return column, another measure of risk/volatility, high yield performed higher than the S&P 500 on the upside and better on the downside. It would make sense that equities would have greater upside because they have more risk, but this is not the case by this data. It is also worth noting that high yield has outperformed the other fixed income asset classes (government, municipal, and investment grade corporate bond indexes listed) on a pure returns basis over this period.

One final note on risk and return. At the end of the day, most investors care about true loss of capital not just volatility. Interestingly, high yield bonds, as represented by the Bloomberg Barclays US High Yield Index in Chart 11, have only had six years of negative returns over the last 30 years¹⁹.

High Yield Bond Market Annual Returns

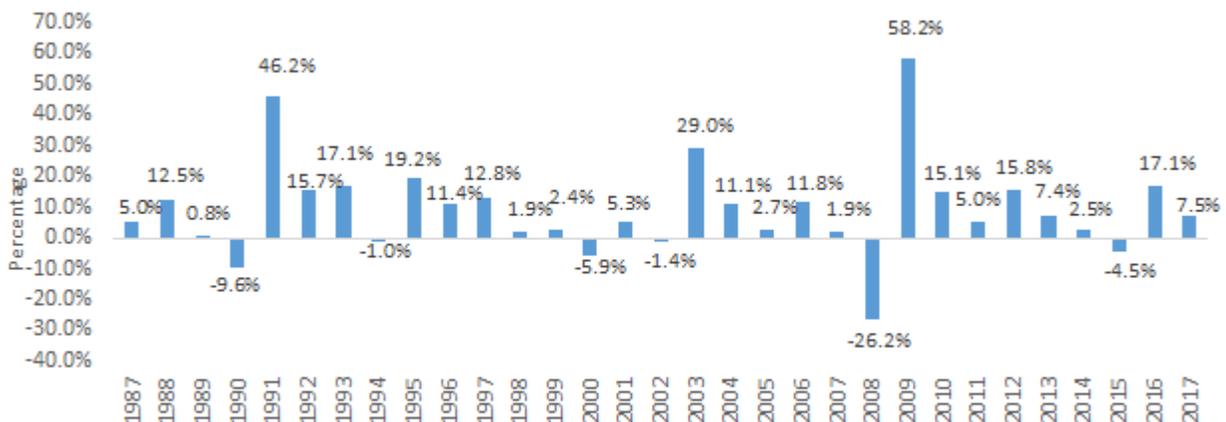


Chart 11 | Source Barclays Capital. Data as of 12/31/17. Past performance is not indicative of future results.

¹⁹ Bloomberg Barclays Capital U.S. High Yield Index covers the universe of fixed rate, non-investment grade debt (source Barclays Capital), for the period 12/31/1986 to 12/31/2017.

PERITUS' APPROACH TO HIGH YIELD

With all of this data on the high yield asset class, why would an investor need an active manager? Why couldn't the investor just buy a passive or index-based product? The answer to this begins with an understanding of what a manager is supposed to do. At Peritus, we view our job as managing risk, not managing money. While we seek to outperform the various indices we are compared to, we believe that outperformance stems as much from what we don't buy as it does from what we do buy.

In essence, avoiding credit problems is the key to active management in the credit space. This is why we choose to view credit as AAA or D. If we expect the company to be able to pay its bills over the life of the bond and then pay us our capital investment back at call or maturity, to us it is an AAA credit. If we don't, it goes into the D bucket and we avoid the name. Investment vehicles tracking the indices don't have the ability to select only the credits that fit that AAA profile, which we feel puts active managers like Peritus at an advantage. Furthermore, many investors and investment vehicles have restrictions based on ratings or tranche size that limit their investment opportunities. And as we have pointed out in painstaking detail through the years, we believe the ratings process to be massively flawed and we do not restrict our portfolios by ratings. Additionally, we do not believe tranche size equates with liquidity and have often found some of the best investment opportunities in some of the off-the-run names and smaller to medium sized tranches. We believe this has been incredibly helpful in allowing us to add value for our clients.

In terms of what we do buy, we focus on the credits we feel offer the best risk/return profile, paying particular attention to the companies that have a product or service that is essential or recurring, hard asset values that provide some support for the company's value, a manageable capital structure, and/or a consistent revenue stream or an adjustable cost structure should revenues fall. Additionally, excess liquidity and the ability for the company to generate free cash flow are other important areas of focus. After all bills are paid (including working capital and capital expenditures), we want to know that the business has money left over, which we believe can provide a margin of safety for us as debt investors.

Several overarching themes dominate the investment philosophy at our firm. Unlike many of our competitors, Peritus does not hold any preconceived notions or restrictions on what industries or even subordination we will buy. We let Mr. Market determine where value exists for us at any given moment. All industries, subordinations, tranche sizes, and ratings will be considered when we manage our portfolios. Additionally, while many consultants and investors like to pigeon-hole managers, Peritus is eclectic in its approach and process. We are not top down or macro in our approach, nor are we purely bottom-up fundamental investors. We have found putting blinders on inhibits our performance, so feel the wisest approach to investing is melding the best of both approaches. Furthermore, we generate our own investment ideas and do all of our own research internally.

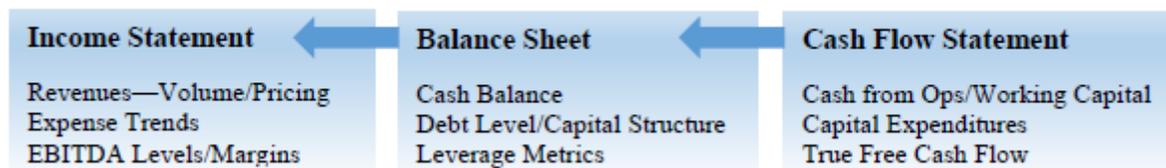
One of the questions most often asked of us is how we find securities to include in our portfolios. There is really no magic to the process except that our analysts and portfolio managers are voracious readers and are always on the hunt for opportunities. Here are some of the methods we use:

- **Axe sheets/yield screens:** Everyday, investors such as Peritus have access to dealers' inventory of bonds, which are listed on what is known as an "axe sheet." As we scan through these and other yield screens put out by investment banks, we often find securities in the mix that we believe might be attractive on a yield to turn of leverage basis.
- **News Screens:** We are constantly reading high yield market publications that highlight significant news (earnings, regulatory changes, mergers, acquisitions, competitive changes, etc.) on individual securities and with this often will find news driven opportunities.

- **Industry themes:** Most value investors, including Peritus, are contrarians at heart. We believe in the philosophy of buying something when it is out of favor (i.e., straw hats in the winter). We are always on the lookout for industries or individual credits that are out of favor for what we believe to be wrong, misunderstood, or temporary reasons.

Once we have identified a prospective credit, we begin the detailed and grinding process of credit analysis. We generally begin by looking at the three major financial statements produced by companies: the income statement, the balance sheet and the statement of cash flows. We conduct our credit and valuation analysis in reverse order of most conventional methods practiced by investors.

Financial Analysis



Traditionally, much time and attention is spent on the income statement, yet we find that it is the least valuable of the three financial statements. The income statement can be and often is easily manipulated and not reflective of the true financial condition of a company. A simple example will illustrate this. Company XYZ sells \$100 million worth of widgets to the government. Their income statement shows a very nice profit of \$25 million before taxes. There is only one problem: the government doesn't pay for the purchase. So while the income statement shows a significant profit, the cash flow statement shows a negative cash flow and the balance sheet shows a large increase in accounts receivable. Our concept of "true free cash flow" incorporates both working capital and capital expenditures, which don't show up on the income statement. We believe "reverse engineering" the financial statement analysis can provide a more accurate picture.

In response to the post financial-crisis regulations and the resulting impact on market liquidity, we supplement our core, alpha generating holdings with a strategic allocation to newly issued high yield bonds, with the goal of increasing liquidity and decreasing volatility within our strategy. Our experience has been that the weeks and months following issuance tend to be the most liquid period in the bond's life-cycle as the underwriters generally support their deals and the securities are often added to various funds. Within this strategy we are much more focused on the market technicals and have a shorter holding period (generally 90-120 days).

Our goal at Peritus is to hold a diversified basket of securities that generates what we see as significant tangible yield to the investor and allows for some capital appreciation. What we don't want is to be "diversified" by holding one of everything, which is not truly an active credit approach. Selectivity and discretion are key. Our preference is to hold approximately 70-100 securities in our portfolios, which we believe accomplishes our goals.

To summarize our process:

Idea Generation

- Identify macroeconomic and industry themes.
- Identify any contrarian market plays.
- Look for companies that meet our investment criteria.
- Screen for yields within our target range.
- Monitor the primary market to identify companies coming to market.

Credit Analysis	<ul style="list-style-type: none"> • Conduct fundamental credit and valuation analysis. • Determine leverage metrics and free cash flow projections. • Conclude where in the capital structure we see the best opportunity.
Credit Monitoring	<ul style="list-style-type: none"> • Monitor daily company, industry, and market news. • Provide an update upon the release of quarterly earnings. • Identify any fundamental credit or industry deterioration or downside exposure.
Portfolio Management	<ul style="list-style-type: none"> • Identify expected price upside or downside and execute trades accordingly. • Monitor credit and industry concentration. • Overlay portfolio positioning with our market outlook.

We believe that to be successful in the credit markets, we must look at debt as senior equity. We do not stop at traditional credit analysis, but look at an appraisal of the business' intrinsic value. In essence, successful investing marries the process of financial analysis, valuation and market psychology.

CONCLUSION

We hope that this historical look has helped to clear up some of the misunderstandings and misperceptions about the high yield asset class. We feel the high yield market, and Peritus' approach to investing in it, can offer benefits to investors. In summary:

- The high yield market is a large and well developed asset class. It continues to grow with strong new issuance over the past several years, providing ample supply to create a diversified and, by our measure, an attractive portfolio.
- Based on the data we have provided (see Charts 9 and 10), over its 30 year history, the high yield market has outperformed equities (as represented by the S&P 500 index) on a risk-adjusted basis (Return/Risk). In other words, the high yield market has posted relatively similar returns with less risk than equities.
- We see active management (versus passive management or indexing) as the best approach to investing in the high yield space. Many asset classes are appropriate for indexing, but we don't believe high yield is one of them. Peritus offers an active, value-based approach to credit. We don't limit ourselves by arbitrary restrictions such as ratings, tranche size, industries, subordination or diversification/tracking error. Instead, we focus on where we see the best value and composing a portfolio for a given market environment.

As a final thought, we don't view this asset class as a "trade." During certain periods of time, many asset classes can be highly correlated, yet over the long haul, industry and company fundamentals will dominate. The decision is therefore not yes or no to the asset class, but rather which names or industries within it are most attractive given the environment ahead. Whether it is viewed as an equity alternative or a notable portion of a fixed income allocation (higher yields, shorter maturity), that is best left up to investors themselves. As clearly shown by the data in the preceding pages, we see that history has shown the asset class to be an outperformer in the fixed income space (see Chart 10) and we view high yield, and the tangible yield/income it offers, as a core component to all portfolios.

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Peritus I Asset Management Disclosure:

Although information and analysis contained herein has been obtained from sources Peritus I Asset Management, LLC believes to be reliable, its accuracy and completeness cannot be guaranteed. This report is for informational purposes only. Any recommendation made in this report may not be suitable for all investors. As with all investments, investing in high yield corporate bonds and loans and other fixed income, equity, and fund securities involves various risks and uncertainties, as well as the potential for loss. High yield bonds are lower rated bonds and involve a greater degree of risk versus investment grade bonds in return for the higher yield potential. As such, securities rated below investment grade generally entail greater credit, market, issuer, and liquidity risk than investment grade securities. Interest rate risk may also occur when interest rates rise. Past performance is not an indication or guarantee of future results. The index returns and other statistics are provided for purposes of comparison and information, however an investment cannot be made in an index.

Definitions:

Dow Jones Industrial Average is a price-weighted average of 30 blue-chip stocks that are generally leaders in their industry.

The Bloomberg Barclays US High Yield Bond Index covers the universe of fixed rate, non-investment grade debt.

The Bloomberg Barclays US Corporate Investment Grade Index consists of publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and the quality requirements.

The Bloomberg Barclays US Treasury: Intermediate is the Intermediate component of the US Treasury index, which represents the public obligations of the US Treasury with a remaining maturity of one year and up to but not including 10 years.

The Bloomberg Barclays Municipal Bond Index covers the long-term, tax-exempt bond market.

The S&P 500 Index is a broad-based, unmanaged measurement of changes in stock market conditions based on the average of 500 widely held common stocks.

The JP Morgan Global High Yield Index is an unmanaged index designed to mirror the investable universe of the U.S. dollar high yield corporate debt, including domestic and international issues.

The JP Morgan Domestic High Yield Index is designed to mirror the investible universe of the US dollar domestic high-yield corporate debt market, including issues of US and Canadian domiciled issuers.

Volatility is the relative rate at which the price of a security moves up and down, often found by calculating the annual standard deviation of changes in price. The volatility returns if also reference, which is the movement in the returns of an index by calculating the standard deviation of returns.

Alpha is the premium an investment earns above a certain benchmark.

One cannot invest directly in an index.