

Expanding the Investment Horizon:
The Limitations of Credit Ratings on Fund Mandates

by

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Abstract

This paper examines the impact of credit rating investment restrictions on a manager's ability to generate short duration returns in a low rate environment. We examine the criticisms surrounding the validity of credit rating methodologies and discuss some market data which can be considered in tandem with a credit rating in order to achieve the most optimal investment decision. Finally, a case study on the Barclays US Investment Grade 1-5 Year Index reveals a historical dislocation by which short duration triple-B industrial credits outperformed triple-A financial credits, despite the assigned S&P credit ratings. We conclude that investment decisions should be made holistically, and restricting a portfolio manager by a credit rating will prevent his or her ability to make optimal risk decisions.

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1 Introduction

Does credit rating criterion in an investment mandate constrain an investment manager's ability to provide optimal risk-adjusted returns for clients? Over the last few years since the 2008 financial crisis, fixed income fund managers have faced the challenge of finding yield for their clients amidst a prolonged low rate environment. Treasuries remained depressed, money markets saw negative returns, and short duration corporate credit followed suit in the plunge. Consequently, it has been more important than ever for portfolio managers to seek out exceptional allocation opportunities in order to ensure their accounts outperform.

Institutional clients who turn their cash over to such asset managers expect their money to be handled with certain precautions. In exchange for a monthly management fee, the portfolio manager makes decisions on behalf of the client, but within the guidelines provided by an investment mandate. While the purpose of the mandate is for the client to define a comfort zone, this research will attempt to reveal the drawback of restrictive mandates which limit the discretion of a manager.

More specifically, we hypothesize that a client whose mandate demands a particular credit rating on corporate credit investments is actually hindering its manager's ability to generate optimal returns. As this paper will demonstrate, the credit rating on any bond issue is not always an accurate reflection of its relative risk-return potential. Therefore, both clients and portfolio managers should not rely solely on a credit rating when analyzing investment opportunities, but rather consider it in tandem with other market indicators.

While this philosophy is straightforward and sounds almost obvious, it is significant that institutional investors keep it in mind, especially in the current economic environment. Limiting the universe of securities a manager can select from also limits the diversification an account can

achieve. Preemptively eliminating opportunities precludes a manager's full potential to outperform in a tough interest rate atmosphere, because he or she will be exercising on a distorted perception of the risks.

The case study presented in this paper is just one example of a dislocation between the risk implied by a credit rating and the risk suggested by the active market. We cite the outperformance of short duration triple-B industrial issues over single-A financials in order to exhibit the limitations of credit rating methodologies on how short duration corporate credit accounts perform. Ultimately, the message here is that conservative clients should consider expanding their investment horizon by pushing out the credit spectrum to allow managers to make better investing choices, which will in turn generate more positive returns. With more leeway around credit rating mandates, managers can more easily meet performance expectations, and clients will have put their money to better use, even if just marginally.

2 Economic Environment

2.1 Post-Crisis Monetary Policy

In efforts to rejuvenate the U.S. economy from the worst financial crisis since the Great Depression, the Federal Reserve took the extraordinary step of reducing short-term interest rates to nearly zero. By pegging down the federal funds rate and implementing a massive treasuries repurchasing program, the government has utilized its monetary policy in the hopes of spurring businesses and citizens to easily finance new purchases¹. As you can see from Exhibit A, this low rate environment has been sustained for a substantial period of time already, despite the recovery progress made in more recent years.

¹ FRB: *Why are interest rates being kept at a low level?* 28 Apr 2014 <http://www.federalreserve.gov/faqs/money_12849.htm>

2.2 *Investor Flight to Safety*

Another contributor to lower, short-term interest rates in the years following the 2008 financial crisis was the investor's intense fear of risk. With so much uncertainty looming over the world, including scrutiny of the U.S. banking system and the future of the Eurozone, there was a clear market flight-to-quality. Investors, desperate to be sure their money would still exist the next day, herded to the comfort of U.S. treasuries and other high-quality paper. And of course, the quicker the demand for these safe-haven assets grew, the quicker the yields they offered fell. In the midst of 2012, yields on money markets funds even turned negative, and many remain so². While it is counterintuitive to have to pay to lend money, the risk-off attitude of large institutional investors drove them to sacrifice a few basis points simply to ensure their cash would remain safe, liquid, and available for use³.

2.3 *Outlook*

Whether or not this low rate environment will be changing anytime soon is the reason why market participants listen so intently for statements from the Federal Reserve. Toward the end of 2013 and now in 2014, we have already begun to see tapering efforts, by which the Fed slowly reduces its bond purchases and allows interest rates to climb back up⁴. Despite this progress, it remains that post-crisis interest rates have fallen to historical lows, and portfolio managers continually struggle to find yield in the short duration space. With these economic conditions in mind, fund managers must capture more unique investment opportunities in order to generate a return for their clients.

² *How Low Can You Go? Negative Interest Rates and Investors' Flight to Safety*. 28 Apr 2014 <<http://www.stlouisfed.org/publications/re/articles/?id=2316>>

³ *Money Market Funds Look to Pass on Losses*. 28 Apr 2014 <<http://www.cnbc.com/id/48906226>>

⁴ *Will Interest Rates Rise Earlier Than Predicted?* 28 Apr 2014 <<http://www.forbes.com/sites/advisor/2014/04/11/will-interest-rates-rise-earlier-than-predicted/>>

3 Institutional Background

3.1 Industry Overview

The business of investment management is split between retail and institutional clients. While the individual investor will consider mutual funds or obtain a private wealth manager, larger institutions with sizeable money and a need for more tailored investing strategies will turn to its own separately management account. Asset managers help achieve the unique investing goals for these many different institutional clients, including corporations, pension funds, and charities, by supervising the separate account differently from his or her retail funds.

For the realm of short duration fixed income separate accounts, we typically find companies which are seeking a small return on their cash while maintaining liquidity within their short-term investments. As its name may suggest, short duration funds usually involve high quality fixed income securities with a tenor between 1 to 5 years, and consequently lower exposure to interest rate risk as well. These include government treasuries, municipal bonds, and investment grade corporate credit.

3.2 Investment Mandates

Clients are allowed to specify which of the previously mentioned securities fall within their parameters via the fund's investment mandate. The mandate serves as the guideline for the portfolio manager in deciding how and when a transaction may occur. Preferences encompass characteristics such as the currency of the bond, the country it has been issued from, the asset class, duration, and of course, the minimum credit rating on the bond. Managers must adhere by these criteria when trading for that separate account, or risk losing the account entirely, because the mandate serves as an agreement on an investment strategy for the client.

3.3 *Benchmark Indices*

Unlike a hedge fund manager that seeks to obtain the highest absolute return possible each month, many asset managers strategically work relative to a benchmark. The benchmark, often an index such as the Russell 2000 Index or the Barclays U.S. Credit Index, is the standard for comparison against which the performance of the portfolio is measured. Simply put, the benchmark represents a minimum requirement for success, and the manager is expected to either replicate or outperform those levels. Even if the portfolio has fallen 2% year-to-date, as long as it has fallen less than the benchmark has, the manager still outperformed, and succeeded in his or her mandate. Given the nature of working with a benchmark, the composition of a portfolio often mimics that of the underlying index, and the manager chooses to overweight or underweight certain characteristics by adjusting the allocations within that existing composition each month, rather than bringing in entirely new securities.

3.4 *Bond Characteristics*

Bond characteristics such as currency, asset class, and duration, can be objectively identified and easily overweighted in the case one of those classifications is outperforming. They are factual labels and hold little to no room for debate. Credit ratings, on the other hand, are much more subjective designations. Once a manager has maximized his options for reallocation on the basis of currency, asset class, and duration, the only remaining way to diversify the portfolio's potential for outperformance is to consider a wider horizon of credit ratings.

4 Rating Methodologies

4.1 *Overview*

Credit ratings are independent third-party opinions, though not recommendations, on an issuer's ability to repay debt in a timely manner. These credit rating agencies help analyze the

plethora of information surrounding a particular company or bond in order to reduce the knowledge asymmetry between issuers and investors⁵. As the financial markets grow more complex and borrowers become more diverse, information transparency commands attention as a crucial component of the capital markets system.

There are many credit rating agencies, however, the business is dominated by three key players: Standard & Poors (S&P), Moody's, and Fitch. Collectively, these agencies rate almost 95% of all issued debt, and their analysts are continually asked to assess new deals⁶. Rating agencies have had a huge influence on the markets since the early 1900s as investors developed a reliance on credit ratings when making financial decisions. Nowadays, a simple rating downgrade from any one of these three agencies could trigger a substantial selloff, as portfolio managers scramble to adhere by their mandates.

S&P, Moody's, and Fitch each have their own rating methodology and rating scale when it comes to analyzing bonds. The accuracy and reliability of an agency's propriety systems and formulas are what build credibility from investors. As a result of different criteria set forth by different agencies, any particular bond or company could receive three entirely different ratings. The full spectrum of possible credit ratings is summarized in Exhibit B. Though many of us will take these credit ratings at face value, it is important to understand the methodology behind how those ratings were determined and question how relevant those criteria are to making trades for a portfolio.

⁵ Cantor, Richard, and Frank Packer. "The Credit Rating Industry." *The Journal of Fixed Income* 5.3 (1995): 10-34.

⁶ Kingsley, Patrick. "How Credit Ratings Agencies Rule the World." *The Guardian*. Guardian News and Media, 16 Feb. 2012. Web. 01 May 2014. <<http://www.theguardian.com/business/2012/feb/15/credit-ratings-agencies-moodys>>

4.2 *Rating Methodology*

While the exact formulas underlying a credit rating are exclusive and thus unknown to the public, it is clear that rating agencies consider a host of quantitative variables as well as qualitative adjustments before publishing a conclusion. The relevant risk factors are evaluated both historically and prospectively for companies and for specific bonds. In the following sections, we will break down the debt methodologies of S&P, Moody's, and Fitch to help make sense of why creditworthiness may vary between agencies.

4.2.1 Standard & Poors

S&P will only provide a rating if it feels it has adequate information available from which they can draw sound conclusions. The agency describes the rating process for a bond “as much an art as it is a science” due to the combination of quantitative, qualitative, and legal analysis involved⁷. At S&P, the framework for examination is broken down into business analysis and financial analysis.

The business category incorporates a company's industry characteristics, competitive position, management, growth prospects, business cycles, and vulnerability to changes.⁸ Because the nature of competition varies so much between industries, S&P offers a tailored methodology for each distinct type of business, even if there are multiple lines of operation within the same company. The resulting risk profile is generally what will set the upper limit of the final credit rating for any participant's debt in that particular industry.

Once an analyst has considered public data, he or she will then meet with management to further assess their strengths and attitudes regarding the company's risks. This step helps the

⁷ "Credit Ratings Definitions & FAQs." S&P. Web. 01 May 2014. <<http://www.standardandpoors.com/ratings/definitions-and-faqs/en/us>>

⁸ "Sweeting, Paul. "An Analysis and Critique of the Methods Used by Rating Agencies." 29 June 2004.

rating agency decipher some of the business's nuances which may not be visible to the public investor. The perceived competency of a company's management has a considerable impact on the rating it will eventually receive.

A company's established business risks will in turn determine how much financial risk is acceptable to obtain a certain S&P rating. This analysis involves the company's financial characteristics, policies, profitability, capital structure, cash flows, and liquidity. Unlike management perception, these financial risks are quantitative and measured using a variety of ratios. Based on where these ratios fall relative to the business risks, S&P will determine the most appropriate rating for that company's bond issues.

Once S&P has published a rating, it is by no means set in stone. Credit ratings require constant surveillance since changes to the underlying assumptions, whether business or financial, will influence the creditworthiness of that issuer. S&P's monitoring process includes an annual review of any new information, as well as additional meetings with management. This process of deriving an updated credit rating is just as comprehensive as the one undertaken for the initial rating.

4.2.2 Moody's

Credit ratings from Moody's are determined using a combination of top-down and bottom-up approaches⁹. This agency starts with a macroeconomic view of the political, economic, and industry environments in which a bond is being issued. From there, similar to S&P, Moody's will then assess the company's operating and competitive position, as well as its financial strategies. Although these criteria are considered in a historical context, Moody's places an emphasis on how the company expects to protect its finances moving forward. Exhibit Z

⁹ "Sweeting, Paul. "An Analysis and Critique of the Methods Used by Rating Agencies." 29 June 2004.

illustrates the Moody's Rating Analysis Pyramid which outlines the fundamental principles on which a credit rating is established.

4.2.3 Fitch

At Fitch, a company is evaluated within the fundamentals of an industry, thus the riskiness of the industry itself will set a ceiling for the bond's credit rating. Performance is compared to others in the same peer group, with a focus on the company's sensitivity and adaptability to changes in competitive environment. In addition to industry risk, Fitch also considers the operating environment, market position, management, and accounting policies¹⁰. Demographic, regulatory, and technological changes to the environment all have the potential to impact a company's operations. To withstand these macroeconomic shifts alongside competitive pressures, a company must have an advantage in its market position, whether it be market share or pricing power.

When assessing management style, Fitch takes into consideration not just the corporate strategies being set forth, but how these strategies are being funded and executed. At least five years of quantitative historical data would be used to evaluate the cash flows and levels of debt contributing to growth, while forecasted data would help anticipate future performance of those assets. The last primary component of the rating process involves establishing the accuracy of the company's accounting records as a reflection of the company's performance. Fitch then aggregates all this information into a credit rating, on the grounds that trends are more relevant to determining creditworthiness than any single observation would be on its own.

¹⁰ "Procedures and Methodologies for Determining Credit Ratings." 1 May 2014. <https://www.fitchratings.com/web_content/nrsro/nav/NRSRO_Exhibit-2.pdf>

4.3 *Criticisms*

While the rating methodologies of each agency involve a thorough and meaningful analysis, there remain many criticisms of the credit rating system which challenge the convention of relying so heavily on an imperfect measure.

4.3.1 Relative, Not Absolute

When it comes to discussing default risk, we know that if an agency rates a bond triple-A, the bond is much less likely to default than one which is rated triple-B. Thus, investors will reasonably assume that the triple-B is relatively riskier than the triple-A, and that the triple-B will be absolutely riskier than any other triple-A ever issued. However, what economists from the Federal Reserve Bank of New York found over 20 years ago was that the default implication of any one particular rating, such as triple-B, was varying over time and across agencies¹¹.

Although rating agencies are able to accurately assess the relative credit risks between two bonds, they have a much more difficult time assessing a bond's absolute risks. Consequently, the default standards associated with any specific credit rating drifts over a period of time, and what was considered triple-B two years ago may no longer be considered so in today's system. This inconsistency creates the challenge of relating bonds which have been issued in different periods.

4.3.2 Management Fraud

Due to the qualitative adjustments made during the ratings process, it is easy for a credit rating to be incorrectly influenced, whether intentional or simply by mistake. An analyst's outlook for a company depends heavily on what its management chooses to disclose, and this judgment call opens up opportunity for misleading or fraudulent information. A poster example for this criticism is Enron, which maintained an investment grade rating from all three rating

¹¹ Cantor, Richard, and Frank Packer. "The Credit Rating Industry." *The Journal of Fixed Income* 5.3 (1995): 10-34.

agencies until just weeks before its collapse in 2001. Similarly, S&P, Moody's, and Fitch were all involved in rating the securitized debt which caused the 2008 financial crisis we are still recovering from. Now ex-Federal Reserve Chairman Ben Bernanke even warned the financial markets in 2007 about the "information fog" surrounding the credit rating agencies at the time¹². Although rating methodologies appear to be complex and structured arrangements, it would be foolish to place complete trust in their accuracy.

4.3.3 Inconsistencies

If the fact that a single bond could receive at least three different ratings from different agencies was not already questionable enough, researchers found that ratings vary between different offices of the same agency as well¹³. Despite a common basic framework, each analyst adapts their own model of rating, and the subjective decisions are easily inconsistent from person to person. Furthermore, the regulatory and reporting environments for any particular industry could differ by geographic location, which will also impact the final rating on a bond. It is clear that a credit rating is not meant to be a definitive and perfect measure since by its nature, rating cannot claim to be a pure science.

4.3.4 Reactivity

Rating agencies claim to meet with management on an annual basis and to be constantly monitoring any material news which may warrant an amendment to a credit rating. However, these agencies are often accused of updating ratings only as a reaction to events, rather than as a prediction. While this is may be more fault of the ratings process itself than it is the choice of the agency, it can be assumed that it takes substantial time for a credit rating agency to digest new information and process it to reflect in an updated credit rating. In the world today of high

¹² "Bernanke Warned of Risks From Flawed Credit Ratings." Bloomberg.com. Bloomberg, n.d. Web. 01 May 2014.

¹³ "Sweeting, Paul. "An Analysis and Critique of the Methods Used by Rating Agencies." 29 June 2004.

frequency information, this delay in reaction renders rating changes in the short run almost meaningless, as more investors turn to live and instantaneous market data to help determine the credit risk of a bond or issuer.

5 Market Parameters

Modeling credit risk is a complex task, and many researchers believe it is impossible to incorporate all the relevant information into a single measure¹⁴. Credit ratings on their own are inaccurate representations of default probability, which is why they can be easily misinterpreted. Instead, the financial markets provide an abundance of data which can be analyzed alongside credit ratings to help provide a better understanding of a bond's perceived risks as well as opportunities. While many of these market parameters do derive from the credit rating itself, they are data points which adjust each day as trading occurs, quickly reflecting any new investor sentiments that may arise. The dynamic nature of this information is the market's way of persistently judging the risks and creditworthiness of a bond, and in combination they are a better guide to making investment decisions.

5.1 Credit Spreads

The difference in yield between a corporate bond and a government treasury of the same duration is known as the credit spread. This spread is considered the premium required by an investor to take on the bond's level of credit risk, independent of the instrument's interest rate risk¹⁵. The gap will widen or tighten as the perceived premium over the risk-free asset changes, and this adjustment occurs as every corporate credit trade is quoted on spread. With this

¹⁴ Hilscher, Jens and Wilson, Mungo Ivor. "Credit Ratings and Credit Risk: Is One Measure Enough?" 7 Mar 2013. <<http://ssrn.com/abstract=1474863>>

¹⁵ Arvanitis, Angelo, Jonathan Gregory, and Jean-Paul Laurent. "Building Models for Credit Spreads." *The Journal of Derivatives* 6.3 (1999): 27-43. Print.

framework, the spread on a low quality bond is expected to be much larger than the spread on a high quality bond, because the low quality bond is much more risky than the Treasury note.

Investors negotiate this spread for each transaction as they decide for themselves how much risk they are willing to accept, and set their opinion on the general creditworthiness of the issuer.

5.2 *Credit Default Swaps*

The infamous credit default swap (CDS) is a derivative which directly implies what investors and insurers perceive to be the creditworthiness of a particular issuer by measuring their willingness-to-pay for what is essentially insurance on a company's default. The premium, known as the CDS spread, is negotiated between the two parties on the risks associated with the underlying bond. While the credit rating of a company will be primarily considered when determining the baseline spread, the CDS market is incredibly sensitive to news, and markets will increase or decrease the spread accordingly. A high quality bond is expected to have a lower CDS spread than a low quality bond, because the buyer does not require as much reassurance and the seller is confident enough the issuer will not default to accept that level of premium.

5.3 *Rating Transitions*

Bonds can migrate between ratings over time as credit rating agencies adjust their opinions on the credit quality of the instrument and the issuer. While the market has no actual impact on this particular phenomenon, it is worth some time for the investor to examine the migration trends a particular industry may be exhibiting. The volatility of rating transitions is just as useful an indicator of creditworthiness, because it reflects how steadily the company is maintaining its operations or finances. We may assume that a company which is constantly being downgraded, then upgraded, and downgraded again is more unpredictable therefore riskier than a

company which maintains a single credit rating over time. The number of notches at which an upgrade or downgrade occurs is also relevant to the company's stability, so investors will examine both the distribution and frequency of these rating transitions.

6 Case

Utilizing all the aforementioned data, we will now discuss a visible dislocation between the risks implied by credit ratings and market risk parameters on an industry level. It is important to note that the resulting analysis is only beneficial when comparing amongst different opportunities and making a relative statement. This does not assess the merits of any single bond on its own, as this requires a judgment call from the investor or portfolio manager.

Many conservative institutional clients with short duration separate accounts instated a single-A credit rating minimum in their mandates. However, amidst the Eurozone crisis and falling rates in 2012, returns on these funds were in the mere single digit basis points relative to the Barclays U.S. Investment Grade 1-5 Year Index. To combat this stagnation, portfolio managers began to uncover opportunities in short duration triple-B credit, which were outside the mandated parameters but within the investment grade universe. Specifically, managers found evidence of triple-B industrial credit outperforming single-A financial credit. If clients were convinced to expand their investment horizons to include some triple-B securities, their managers could stimulate stronger performance and higher returns.

7 Results

7.1 Investable Universe

The Barclays US Investment Grade 1-5 Year Index consists of over two thousand different corporate bond issues. Using Barclays POINT, we are able to stratify the Index by a

variety of criteria and study its composition. When broken down by credit rating in Exhibit C, we see that about 61% of the universe consists of credit rated at or above single-A. Thus, managers have only a little more than half of the index's constituents to work with each month.

Meanwhile, triple-B credit accounts for over 37% of the universe. Expanding into triple-B issues would dramatically increase the portfolio manager's options for diversification and the potential to find outperforming opportunities.

7.2 Credit Spreads

As mentioned previously, credit spread is the market's indication of a bond's risk premium over the treasury rate. Exhibit D charts the historical spread of each credit bucket over the three-month Treasury bill to illustrate the relative risk between the two categories. Prior to the end of 2012, historical spreads for triple-B industrial issues were actually lower than single-A financials, contrary to what our theoretical foundation on credit ratings suggests. The lower-rated industrial credit was trading at a lower spread, suggesting that investors felt these issues required a lower premium over the risk-free rate than the financial issues.

7.3 CDS Spreads

The Index value is calculated by taking a weighted average of all the individual bonds by their market values and respective data. Therefore, a bond with a larger market value has a larger influence on how the Index moves. The Index is often dominated by several large issuers who have multiple bonds represented in the mix, which means the default of any one of these issuers will have a substantial impact on the performance of the portfolio.

The top three issuers in the single-A financial space were Bank of America, J.P. Morgan, and Goldman Sachs. Within the triple-B industrial space, the Index was dominated by Verizon Communications, Time Warner Cable, and Ford Motor Credit. When we observe the historical

CDS spreads of these lead issuers, the cost to insure some single-A financial issues is noticeably higher than the cost for triple-B industrials. While Exhibit E is only representative of one single point in time, there are many instances where the CDS spreads do not correlate to the credit ratings assigned to the bonds.

7.4 Rating Transitions

The rating agencies such as S&P have published rating transition matrices which provide insight into how often bonds get upgraded or downgraded within a specific time span. For example, a non-financial issue which started out as ‘BBB’ would, within a year, have a 1% chance of being upgraded two notches to ‘A-’, 11% chance of being upgraded a single notch, to ‘BBB+’, an 81% chance of keeping its ‘BBB’ rating, and a 3% chance of being downgraded to ‘BBB-’. Exhibit F illustrates these movements over 1-year and 3-year migration periods, with notch ‘0’ indicating the bond kept the same rating, and any upgrades or downgrades distributed accordingly.

From these graphs, we can provide two observations regarding the distribution of ratings migrations. Firstly, the triple-B non-financials were more likely to maintain their established rating, indicated by the higher peak at almost 80% for notch 0. On the other hand, the single-A financials had only a 40% to 60% of maintaining the same rating. Secondly, the rating migrations for single-A financials is noticeably skewed downwards, which suggests that when a rating migration does occur, it is more likely that the single-A financial will be downgraded by a couple notches. The triple-B non-financials appear to have a more even and stable distribution, with rating migrations occurring less frequently and less dramatically. The predictability of an issuer’s performance is reflected by how its rating may change over time, and while this does ultimately involve the credit rating agency’s opinions and reactions, the migration patterns are an

inherent proof that ratings are incredibly dynamic and may not be reliable at any singular point in time.

8 Criticism

The practice of constraining fund managers has had its merits over time as a method of reducing conflicts of interest between the client and the manager. Because the manager's compensation is often tied to the fund's performance, it is logical to take precaution over his or her risk-taking decisions. By upholding a contract which explicitly defines the interaction between the manager and the investor, the industry is able to reduce the cost of monitoring for conflicts and violations, alleviating some of the potential for conflict of interest in the manager's career.

Furthermore, certain studies have shown that funds produce similar risk-adjusted returns regardless of how constrained the manager is. Despite variations in the levels of policy restriction, these funds "do not produce economically or statistically significant return differentials"¹⁶. With that in mind, it is possible that this research is only applicable in short-term, one-off scenarios, such as during an unprecedented crisis. It was no secret that the credit rating agencies lost credibility for a lengthy period starting in 2008, which would cause market data to become the more important determining factor.

However, these findings and suggestions do not preclude the importance of considering market data in tandem with credit ratings. The mandate maintains its ability to reduce conflicts of interest even if flexibility were to be granted around credit ratings, and managers would be able to make better risk decisions while meeting performance expectations each month. Even though

¹⁶ "Why Constrain Your Mutual Fund Manager?" Why Constrain Your Mutual Fund Manager? Web. 09 May 2014. <<http://www.sciencedirect.com/science/article/pii/S0304405X04000157>>

returns as a function of restrictions may not be significantly different over long periods of time, from the short-term perspective of month-to-date returns, it is actually quite important for portfolio managers to be outperforming in any small way possible. Because short duration accounts are relatively liquid, managers must fight to hold on to a client's account before a poor month causes the business to be shifted elsewhere. Thus, it is still important to consider expanding the mandate, especially in a low-rate environment where there is very little opportunity for managers to differentiate themselves.

9 Conclusion

Conservative, short duration corporate cash clients should consider expanding their investment horizons and pushing down the credit curve during periods of exceptionally low rates. Credit rating methodologies are more art than they are science, thus credit ratings should be considered, but not relied upon, when making investment decisions. There are many market parameters which help gauge the implied credit risk of bonds, and should be considered alongside the credit rating. There have been cases when there was a dislocation between a bond's credit rating and its association within the market, such as when triple-B industrial credit outperformed single-A financial credit from the Barclays US Investment Grade 1-5 Year Index. While this inversion may only occur during unique periods such as the financial crisis, it is crucial for managers and clients to understand where opportunity lies when yields are limited. Ultimately, portfolio managers with more flexibility around the credit rating requirements in their investment mandate will be better able to generate returns for their clients within a low rate environment.

10 Tables and Figures

Exhibit A.



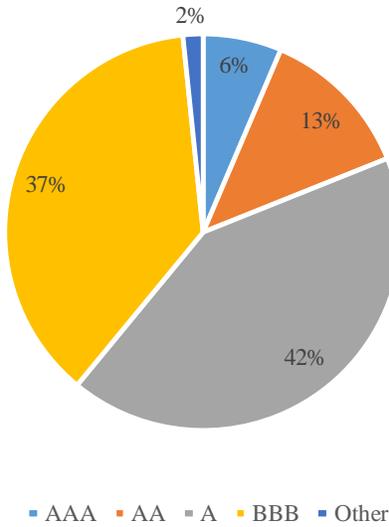
Source: Bloomberg

Exhibit B.

Investment Grade Ratings		
S&P	Moody's	Fitch
AAA	Aaa	AAA
AA+	Aa1	AA+
AA	Aa2	AA
AA-	Aa3	AA-
A+	A1	A+
A	A2	A
A-	A3	A-
BBB+	Baa1	BBB+
BBB	Baa2	BBB
BBB-	Baa3	BBB-

Exhibit C.

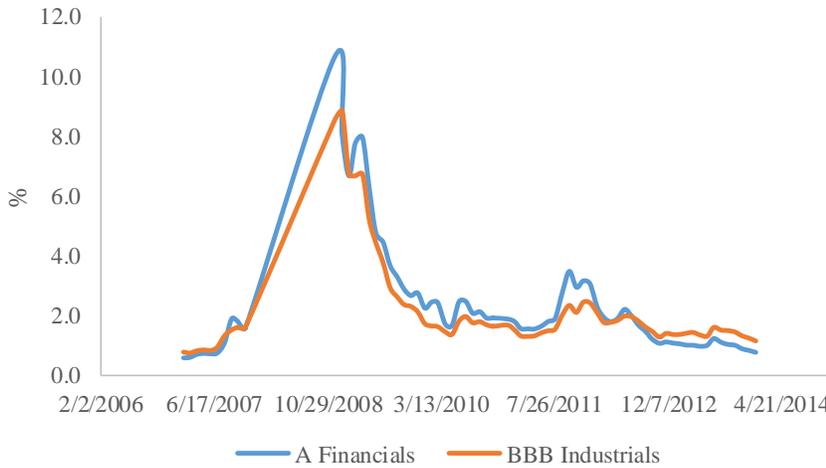
Barclays US IG 1-5Yr Index
Composition by S&P Rating



Source: Barclays US Investment Grade 1-5 Year Index, Statistics Universe, as of 12/31/2013

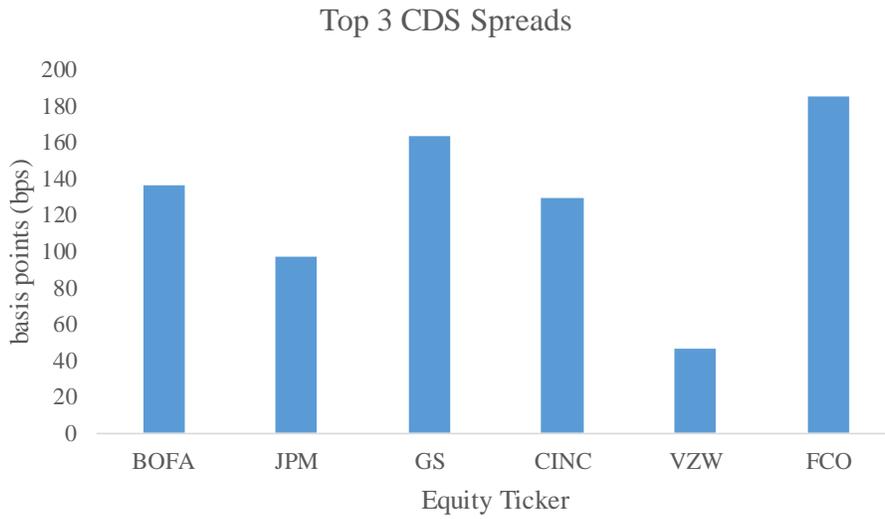
Exhibit D.

Credit Spread over 3M Treasury



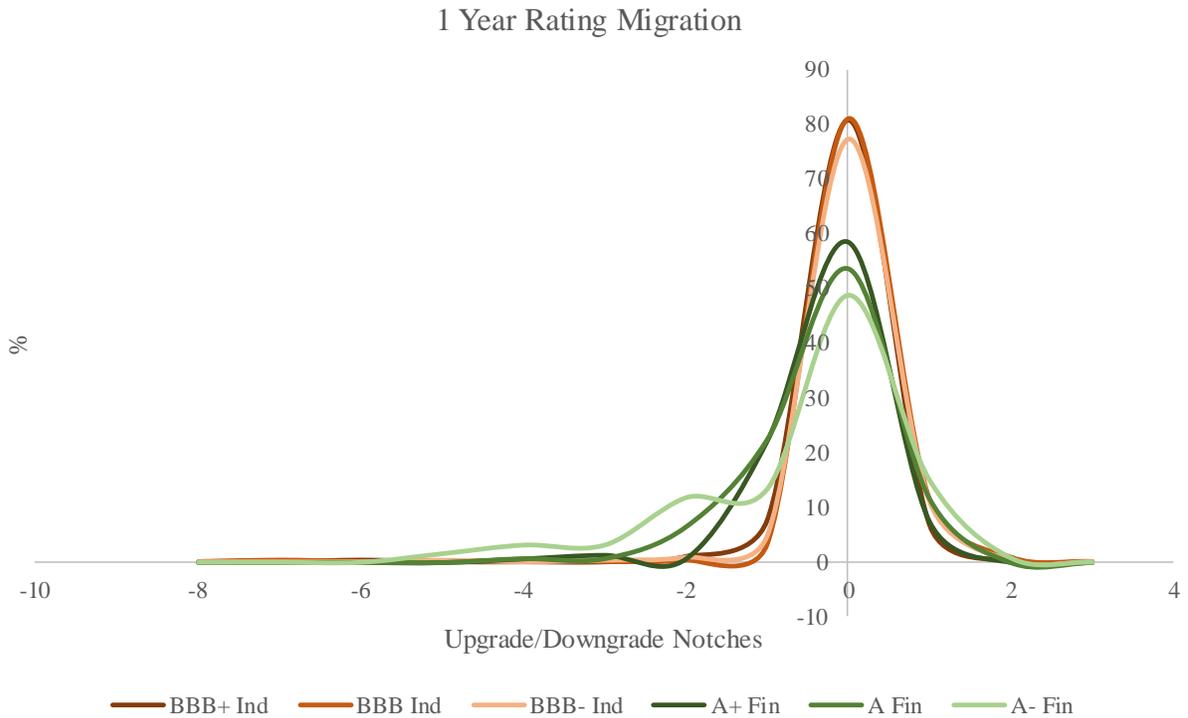
Source: Barclays US Investment Grade 1-5 Year Index, Statistics Universe; Bloomberg

Exhibit E.

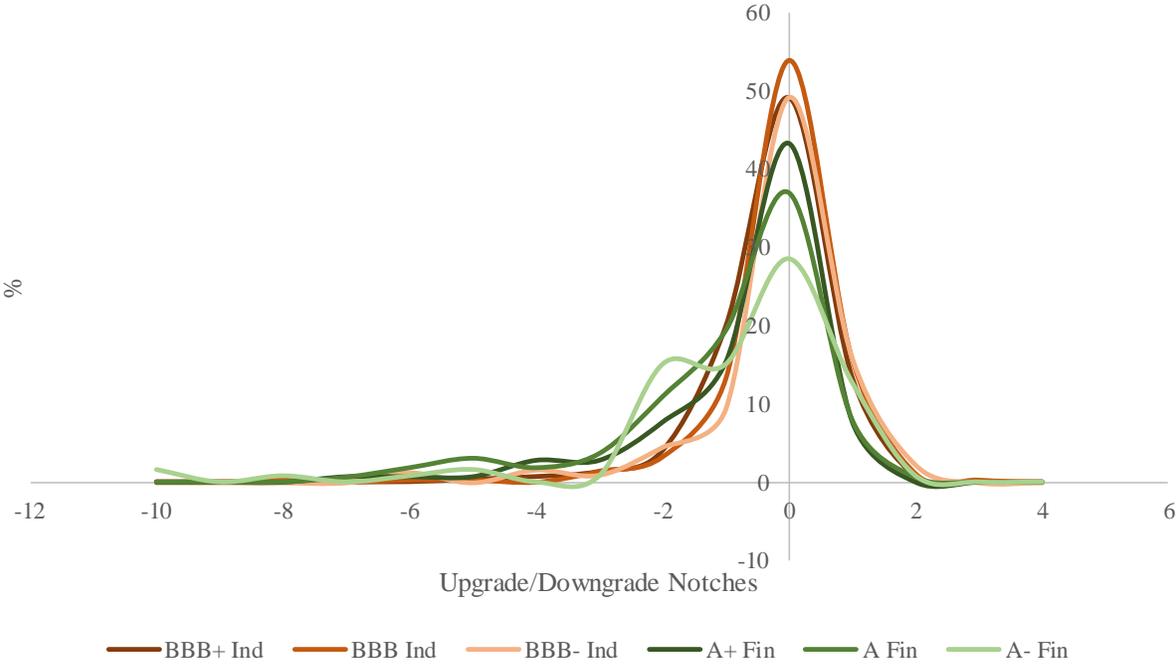


Source: Bloomberg

Exhibit F.



3 Year Rating Migration



Source: Standard & Poor's 2011 Annual Global Corporate Default Study And Rating Transitions