
Credit Analysis throughout the Cycle

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Even in a low interest rate environment, fixed-income investors can find good value. Disciplined, bottom-up, fundamental analysis can help investors identify opportunities and avoid pitfalls if it is diligently applied throughout the economic cycle.

In this presentation, I will begin with an overview of the credit markets. I will then review my firm's approach to security selection and risk management and explain how at Dodge & Cox we assess credits to find value at various points in the cycle. Finally, I will discuss two specific opportunities that we see in the marketplace right now.

My goal is to give you a sense of the importance of in-depth, bottom-up research, especially in this era of heightened focus on top-down quantitative analysis. We believe that, when combined with knowledge gained through experience, an "old-fashioned," detailed examination of credits can uncover pockets of value and help avoid the pitfalls that can accompany credit investing.

Credit Market Overview

Over the past five years, the U.S. dollar-denominated credit market, as measured using figures from Barclays, has grown in size and complexity. In the five years ending August 2012, the market has grown by 78% to over \$5 trillion in par value, while the number of issuers has increased by more than 30% to over 1,900, representing a diverse cross section of sub-sectors and industries.

Having yields near all-time lows, dollar prices near all-time highs, and spreads elevated relative to historical averages only adds to the complexity of investing in credit markets today. Despite macroeconomic headwinds, corporate fundamentals remain strong. We believe that opportunities exist in the credit markets that will generate attractive relative returns over the next three to five years. As **Figure 1** shows, yields on both investment grade and below investment grade debt have dropped to historical lows (Panel A), whereas option-adjusted spreads (OAS) on both high-yield and investment

grade debt remain elevated relative to their long-term historical medians (Panel B).

Most investment grade sector spreads are near their tightest levels since August 2007. The bars in **Figure 2** show the OAS range for each sector from August 2007 to August 2012. The dots indicate the average OAS from 1994 to August 2012. The triangles represent the OAS as of 31 August 2012.

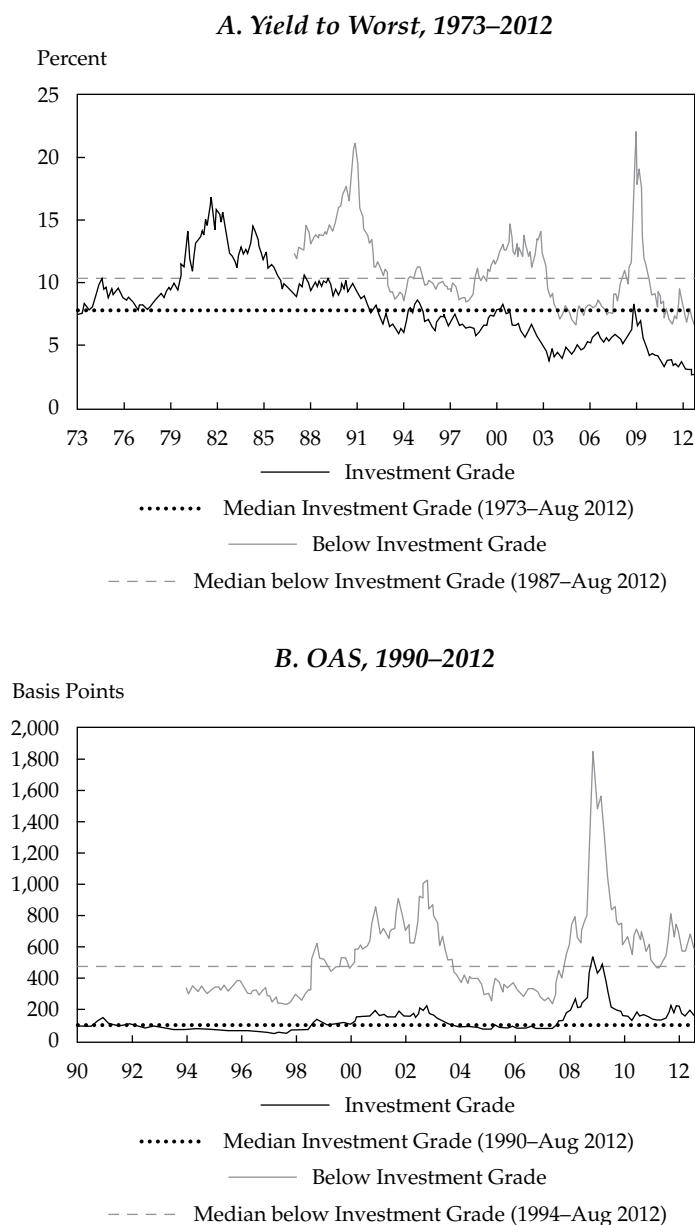
Nevertheless, spreads of many sectors remain above their long-term historical medians. For example, as of 31 August 2012, local-authority bonds (including Build America Bonds) had an OAS of 158 bps versus a historical median of 85 bps (a differential of 73 bps); banking had an OAS of 205 versus a historical median of 140 (a differential of 64 bps); and basic industries had an OAS of 211 versus a historical median of 153 (a differential of 58 bps). In contrast, consumer cyclicals, supranationals, and REITs had very tight margins versus their historical medians, at -2 bps, -16 bps, and -26 bps, respectively.

It is important to note that wide spreads provide a starting point in the search for attractive investments but do not in and of themselves indicate whether a security should be purchased.

Although industrial spreads are generally in line with—or slightly wider than—long-term averages, industrial balance sheets are strong by historical standards. For the Standard & Poor's Industrial index, the ratio of company cash to assets at the end of 2011 was 12%, compared with a 20-year median of 7.3%. The ratios of total debt to total equity, short-term debt to long-term debt, and total debt to EBITDA at the end of 2011 were all below their respective 20-year medians.

All of these metrics provide some comfort that credit risk is now relatively low; yet in times like these, investors need to remain vigilant. Sooner or later, the cash that is sitting on a company's balance sheet will be put to use as management endeavors to boost shareholder value. We believe

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Figure 1. Yield to Worst and OAS for Investment Grade and Below Investment Grade Debt

Note: “Investment grade” and “below investment grade” refer to the Barclays U.S. Credit Bond Index and U.S. High-Yield Index, respectively.

Source: Based on data from Barclays POINT.

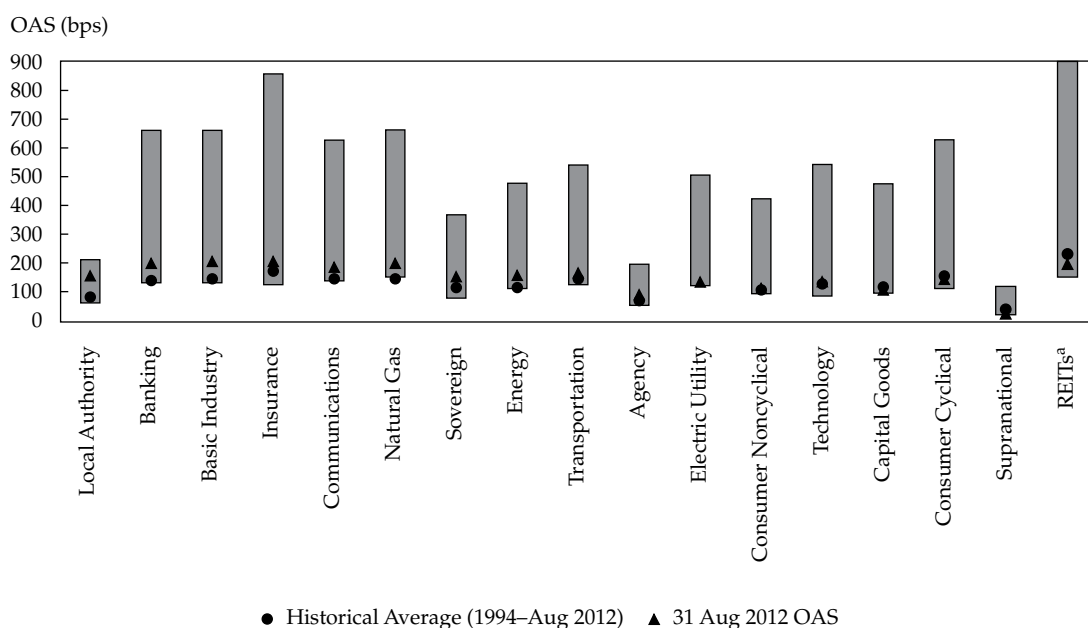
that investors would be well-served to consider the various ways in which a company can spend its cash and how the different scenarios can affect a company’s credit.

We spend considerable time trying to understand issuers’ growth strategies, their priorities for cash flow, and their leverage philosophies, as well as management incentives that may affect these factors.

Since the 2008 crisis, bank capital ratios and other indicators of credit strength have been improving, but 10-year, senior, unsecured bond spreads

remain wider than historical averages. Reflecting these improved fundamentals, certain U.K. banks have recently used their excess liquidity to tender for their bonds and lower their funding costs.

A word of caution is needed when comparing current yield premiums with historical averages. For example, rating migration makes these comparisons a challenging task. Since the end of 2006, the average rating of the investment grade banking sector has declined by two notches, in part because of an assumed lack of implicit government

Figure 2. Five-Year Range of OAS by Sector, August 2007–August 2012

^aREIT max OAS was 1,251 bps.

Notes: The historical average is calculated using monthly data from 1994 to 31 August 2012. The figure excludes sectors that are less than 1% of the index and is sorted by descending spread versus historical average.

Source: Based on data from Barclays POINT.

support in a downturn. As of 31 August 2012, the investment grade banking index OAS was at 205 bps—a difference of 139 bps compared with the 29 December 2006 OAS of 66 bps. But taking into account the two-notch decline in rating over that period, the differential is only 79 bps.

Other reasons that a simple historical comparison of industry spreads can be misleading include the numerous sector changes that can occur over time, such as (1) industry consolidation resulting from global competition, (2) industry leverage levels, as observed in utilities, and (3) technological shifts.

In the current environment, default compensation is very strong, as Panel A in **Figure 3** illustrates. Spreads currently provide significant compensation relative to the average default rates experienced from 1970 to 2011. In contrast, Panel B of **Figure 3** shows that as of December 2006, AA to BB spreads (given an assumed 40% recovery rate) would have provided positive excess compensation (although less than current levels), whereas B spreads would not have. It is important to pay attention to the degree of default and recovery value protection that is embedded in yield premiums over time.

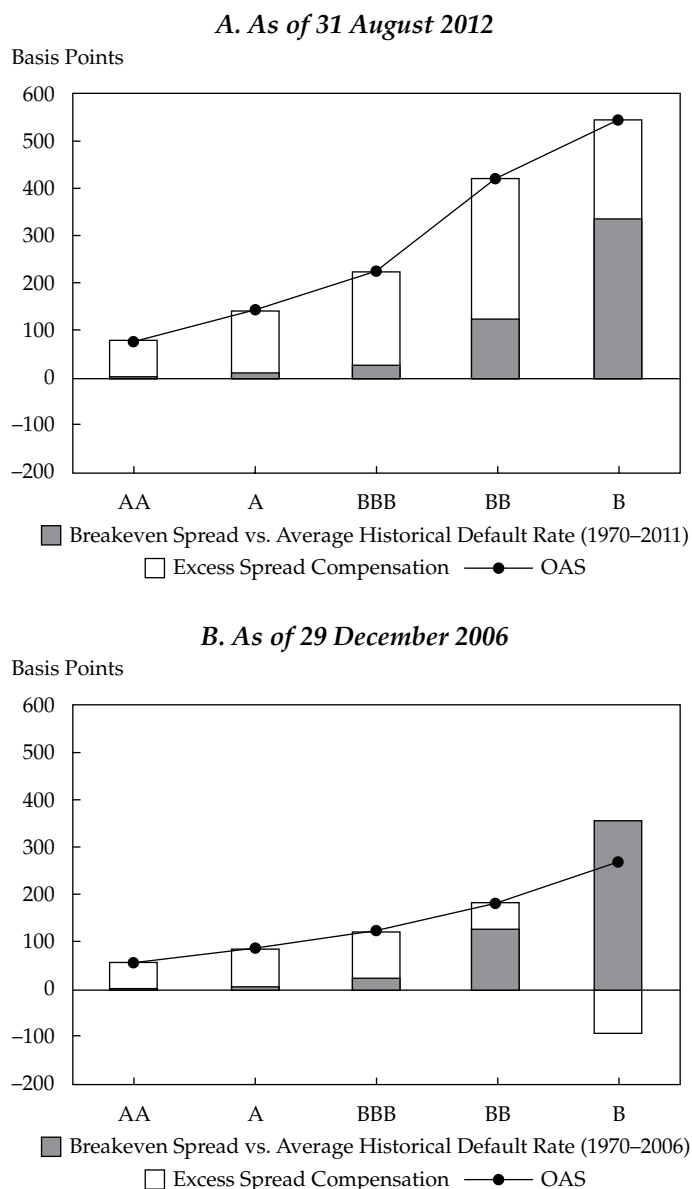
Furthermore, total return simulations indicate that bonds rated BB and higher can currently withstand a repeat of the worst default rates seen in the past 40 years (assuming Treasury yields and spreads remain unchanged). For instance, 10-year BBB corporate bonds purchased at an average

244 bp spread would outperform 10-year U.S. Treasuries by a cumulative 9.2% over the next five years, assuming credit losses match those of the worst rolling 5-year period since 1970.

Because spreads are elevated and certain sectors have strong credit profiles, good fundamental research can find value opportunities for investors in today's large and complex fixed-income universe.

Security Selection and Risk Management

My preferred approach, and that of my firm, is the mindset of a long-term investor asking the question, "Would I purchase the security today if I am unable to sell it in a few years?" This hypothetical exercise allows us to look through the short-term clouds that may impact an issuer's valuation to find long-term opportunity. As the environment changes and valuations adjust, we are in essence repurchasing (or reaffirming) our portfolio every day for the coming three to five years. If at any time we are not comfortable making that long-term purchase decision, we begin to sell the security. Given the contractual nature of fixed-income securities with limited upside, it is important to determine what can go wrong, assess the probabilities associated with various outcomes, and decide whether the security's current valuation provides adequate compensation for the assumed risks.

Figure 3. Corporate Bond OAS Decomposition

Notes: Default-rate time horizon is calculated for each rating bucket based on its effective duration. As of 31 August 2012, the effective durations for the AA through B rating buckets were 6.8, 7.1, 7.3, 4.5, and 3.8 years, respectively. Breakeven spread is the approximate minimum spread that would be required to offset losses from historical average default rates, assuming 40% of par recovery.

Sources: Based on data from Citigroup, Moody's Investors Service, and Barclays POINT.

We use a rigorous fundamental research process with the goal of constructing a diverse portfolio that will produce above-market returns over a three- to five-year time horizon. Our market-driven research emphasizes market sectors, individual issuers, and security selection. This approach provides us with the confidence to invest for the long term and persevere, as appropriate, during times of stress because our long-term horizon dampens the impact of short-term price volatility. We rely on the compounding of interest as an important source of

total return, and our primary tools for risk management are security selection and diversification.

Security Selection. Because economic and financial landscapes can change quickly, we hold a limited number of issuers that can be followed closely. When prices change rapidly, so do valuations. Out of the roughly 1,900 fixed-income issuers, our covered universe includes about 700 names. We arrive at this universe by establishing constraints on size and duration, and we further narrow down the opportunity set by focusing on

those issuers most closely followed by our internal analyst team (generally, companies with strong, sustainable business franchises or the capacity to become market leaders over time). Among these roughly 700 issuers, we seek ones with stable to improving fundamentals and attractive valuations. Our industry analysts provide both equity recommendations and credit opinions to our sector and policy committees, and the credit analysis function overlaps both markets.

We begin a credit assessment by looking at the economic and industry factors that affect a company. We examine macroeconomic sensitivity, industry structure and life-cycle stage, regulatory environment, technology risk, and funding environment. We then explore a number of issuer-specific factors:

- operating issues—including competitive position, business diversity, corporate strategy, management capability, and cash flow priorities;
- financial issues—including capitalization philosophy, stability of earnings, cash flow, and credit metrics;
- legal, capital structure, and liquidity issues;
- asset quality; and
- enterprise quality.

Finally, when choosing the specific securities to purchase, we evaluate each security's position within the issuer's seniority and maturity structure as well as the potential recovery value. We assess the protective covenants, calculate the value of the security, run simulations of the security's potential returns in various operating and market environments, and determine trading liquidity and availability.

Furthermore, because consistent themes can be observed among companies that encounter financial distress in an economic downturn, knowing where we are in the economic cycle is an important factor in security selection. Companies that have a weak franchise in a limited product market, limited geographic diversity, or poor financing are likely to face financial stress in a weakening economy, as opposed to stronger industry peers, which are more likely to have access to liquidity and capital in a downturn.

The specific elements that we consider crucial in any credit analysis are a company's liquidity profile, its likelihood of bankruptcy (and its potential recovery value should this occur), the importance of its credit ratings to its business or for market access, and its starting valuation, which must provide sufficient compensation for the risks assumed.

■ *Liquidity profile.* Understanding a company's liquidity profile is an essential component of fundamental analysis and risk management. We want to understand a company's sources of liquidity

and potential calls on liquidity. Sources of liquidity include cash on hand (including free cash flow), investments, bank lines of credit, noncore assets, capital market access, and regulators. Companies with robust liquidity options are more likely to be able to withstand business downturns. As for calls on liquidity, which could impinge on creditworthiness, we consider scheduled debt maturities, puttable securities, maintenance capital expenditures, confidence-sensitive instruments, derivatives, contingent claims, strategic transactions, returns to equity stakeholders, and regulatory-related claims.

■ *Likelihood of bankruptcy.* Through the collective years of experience of our investment team, we have identified several factors that increase an issuer's probability of default. For example, **Table 1** lists the 10 largest corporate bankruptcies, 7 of which occurred during the recent financial crisis. Five company features are most often associated with large company bankruptcies: thin capitalization, rapid asset growth, a large fixed-cost base in a cyclical industry, reliance on repurchase and demand obligations for funding, and high ratings sensitivity.

Our study of corporate bankruptcies has taught us several important lessons:

- The largest bankruptcies in credit index history generally have not been strategic.
- Evaporation of liquidity is generally the culprit, and nonbank financials have suffered most because of their confidence-based funding profile.
- High fixed costs (especially relative to key competitors) are particularly dangerous in recessions.
- Crystallization of contingent liabilities (e.g., environmental, torts, and off-balance-sheet exposures) is often a precursor to bankruptcy. For example, the class-action lawsuits related to silicone breast implants kept Dow Corning in bankruptcy protection for nine years.
- Fraud is a risk: Beware of opaque operations, high-growth businesses with low free cash flow, and accounting uncertainty.

■ *Recovery value.* We conduct our own recovery value assessment of our credit investments. Senior unsecured bonds have had an average recovery rate of about 40% of par value over the long term, although recovery rates are specific to each situation and industry. Of the senior unsecured bond defaults in 2011 that were identified by Moody's, trading prices 30 days post-default ranged from 0.02% to 97.5% of par value. Factors that affect recovery rates include (1) seniority and security, (2) type of default—distressed exchange versus bankruptcy—and participants' level of involvement in the bankruptcy process, (3) quality of the

Table 1. Lessons from Corporate Bankruptcy

Name	Assets (billions)	Sector	Subsector	Filing Date	Reason for Filing			Company Features					High Ratings Sensitivity
					Insolvency	Regulatory Seizure	Fraud	Thin Capitalization	Rapid Growth	Large Fixed-Cost Base	Reliance on Repo and Demand Obligations		
Lehman Brothers Holdings	\$691	Financial	Brokerage	15 Sep 08	✓			✓				✓	✓
Washington Mutual	328	Financial	Banking	26 Sep 08		✓		✓				✓	✓
WorldCom	104	Industrial	Telecom	21 Jul 02	✓		✓		✓				
General Motors	91	Industrial	Automotive	1 Jun 09	✓					✓			
CIT Group	80	Financial	Banking	1 Nov 09	✓			✓				✓	✓
Enron	66	Industrial	Energy	2 Dec 01	✓		✓		✓				
Conseco	61	Financial	Finance Co.	17 Dec 02	✓			✓	✓				
MF Global	41	Financial	Brokerage	31 Oct 11	✓			✓	✓			✓	✓
Chrysler	39	Industrial	Automotive	30 Apr 09	✓						✓		
Thornburg Mortgage REIT	37	Financial	Mortgage REIT	1 May 09	✓				✓			✓	✓

underlying business and the nature and quality of its assets as well as their attractiveness to strategic and financial buyers, and (4) market environment.

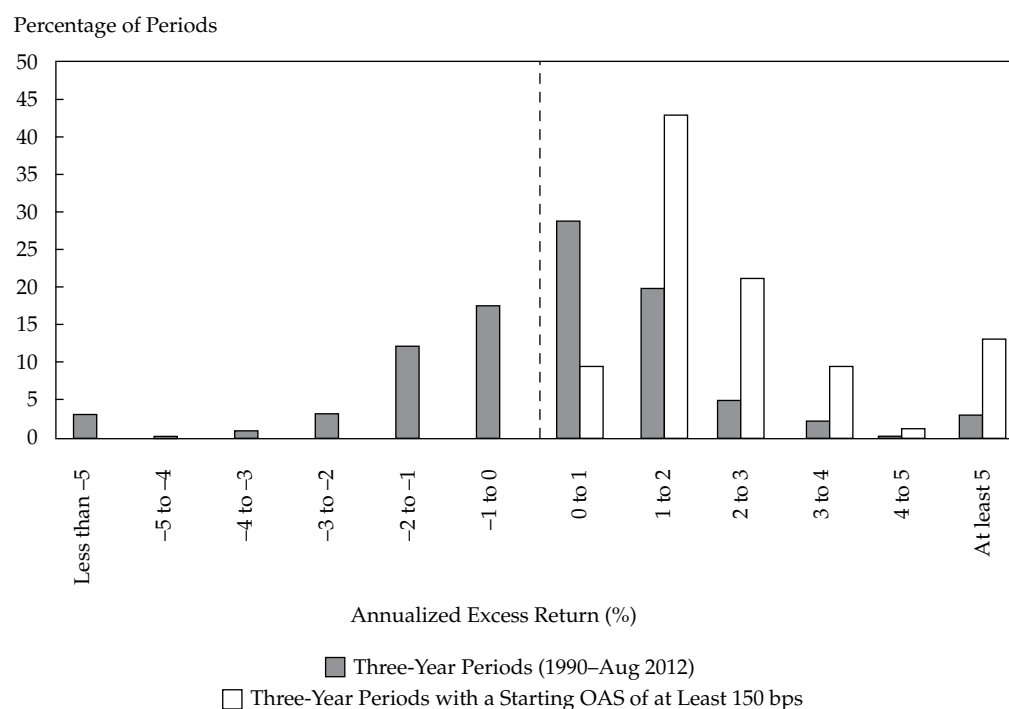
Conducting recovery analysis on high-quality credits is actually very challenging because these issuers tend to have more options for addressing their distress. But it is difficult to know how many of these options management will be able to exercise as the company encounters financial stress. Among the options they may consider are full company or subsidiary sales, asset sales, mergers, or senior financing that may involve lien subordination or structural subordination for existing creditors.

■ **Credit ratings.** Credit ratings are important to certain issuers, especially to those dependent on confidence-based funding. We do not use credit ratings as a primary input to our analysis, but we certainly read the credit agencies' work. In aggregate, credit rating agencies have been good long-term predictors of default, but ratings are not investment recommendations, and rating changes often lag spread movements. For example, consider fallen angels, which are bonds that have been reduced from investment grade to junk status. Fallen angel spreads tend to underperform BBB and BB corporate spreads during the year prior to the bond becoming a fallen angel,

but then they outperform BBB and BB corporate spreads during the subsequent year. Fallen angel bonds generally outperform original-issue, high-yield bonds over the long term because they tend to be issued by larger-scale businesses that usually receive a strategic benefit from being investment grade, are noncallable with longer maturities, and are issued by companies that have a simple, flexible capital structure. Despite the below investment grade rating, the fallen angel segment is an especially interesting area to look for investment opportunities.

■ **Starting valuation.** The starting valuation of a bond is extremely important in generating excess returns. Historically, investment grade corporate bonds have provided higher excess returns than Treasuries when purchased at wider spread levels. For example, consider the rolling, three-year, annualized excess returns of investment grade corporate bonds from 1990 to 31 August 2012, as shown in **Figure 4**. When the starting OAS has been at least 150 bps (represented by the white bars), investment grade corporate bonds have generated positive excess returns in 100% of the subsequent rolling three-year periods. As of 31 August 2012, the Barclays U.S. Corporate Investment Grade Index had an OAS of 172 bps.

Figure 4. Rolling Three-Year Annualized Excess Return of Investment Grade Corporate Bonds



Notes: Excess return equals total return of investment grade corporate bonds minus the total return of a duration-neutral portfolio of U.S. Treasury securities. Returns are computed monthly.

Source: Based on data from Barclays.

Macy's Case Study. Security selection is an ongoing, detailed process that requires a lot of work, but by knowing a company well—particularly in times of stress when security prices are depressed—investors can take advantage of outstanding investment opportunities. The following case study of Macy's illustrates how the research and security selection process changes as interim events affect a company throughout the business cycle.

My firm currently owns Macy's bonds because we believe Macy's is a strong, well-managed, geographically diverse franchise with a solid operating and financial track record in recent years. In addition, it has financial flexibility with discretion in its capital, operating expenditures, and dividend policy; owns strategically valuable real estate; has established long-term bank lines that provide adequate flexibility; and is an important customer to its suppliers.

We also monitor what we consider to be the key risks of the company, including (1) secular trends and their potential implications for profitability and industry consolidation, (2) the possibility of the company being acquired and how an acquisition would affect its strategic and financial trajectory, (3) cyclicity as mitigated by the company's starting financial position and flexibility, and (4) changes in the company's capital structure and leverage philosophy.

During the past decade, Macy's has faced a number of operational and industry challenges, which has required us to reexamine and reaffirm our investment thesis.

In 2005, we owned a small, fixed-income position in May Department Stores, which was acquired by Federated Department Stores that year. Prior to that event, May had owned Lord & Taylor and Marshall Field's, and Federated had owned Bloomingdale's, Macy's, and other chain department stores. The spreads on the May bonds widened from 135 bps before the acquisition announcement to 170 bps after the announcement. We were thus faced with the decision of holding, adding to, or selling our position. We spent a great deal of time trying to understand Federated's leverage philosophy. If Federated were to use leverage to buy May, where would May lie within the legal structure, and what would Federated's options be in terms of reducing leverage to be better positioned for the ratings upgrade that management had expressed as a goal?

In the end, we concluded that Federated had a lot of flexibility; the company could sell key divisions or could securitize its credit card receivables to delever and lower funding costs. One key remaining concern was that May's outstanding debt might

not be guaranteed by Federated. In that case, our bonds might be orphaned and the issuer depleted of assets, or left without dedicated financial support. We decided, however, that the valuation compensated us for that risk. Ultimately, Federated guaranteed the May bonds, cut its dividend, cut capital expenditures, and reduced leverage, so we were able to reduce our position as credit spreads improved commensurately.

A couple of years after the May Department Stores acquisition, the leveraged buyout (LBO) boom was in full swing. To determine our portfolios' vulnerability to LBOs, we examined our credit holdings through the eyes of a private equity firm. We ran LBO models on the companies we believed were susceptible to levered acquisitions to gauge both feasibility and attractiveness. Macy's was rumored to be an LBO candidate, and we considered the reasons the company might or might not follow that route. We thought that the restructuring following the May acquisition had already taken the low-hanging fruit from Macy's and thus the company had fewer obvious opportunities to sell or securitize assets and/or cut expenses to the extent necessary to support the significant debt levels of an LBO. We also did a deep dive into Macy's real estate portfolio and determined that Wall Street estimates of real estate values were overblown. We also weighed management's inclination to engage in an LBO. Macy's had previously undergone an LBO in 1988, which resulted in a bankruptcy filing in 1992. This unfortunate event was a clear memory for certain company leaders. Our analysis suggested that Macy's would be unlikely to participate in an LBO, so we bought additional Macy's bonds after speculation had pushed spreads wider. The bonds that we bought were ultimately the subject of an attractively priced tender offer that was conducted to clean up the company's capital structure.

In the midst of the 2008–09 financial crisis, Macy's spreads again widened dramatically, from 425 bps on 31 July 2008 to 990 bps on 28 February 2009. Some of Macy's senior unsecured debt obligations were priced as low as 50 cents on the dollar. Because we had been following the company for many years from both an equity and fixed-income perspective, we knew a great deal about the company. We had a good idea of the levers management could pull in a crisis environment, including the degree to which it could cut capital expenditures, dividends, and inventories to preserve cash. To further assess Macy's options, we talked with company management, vendor finance specialists, inventory liquidators, and real estate experts. As a result, we were comfortable

investing in Macy's even though the company was under a lot of stress and had been downgraded to below investment grade. On 31 August 2012, the spread on Macy's bonds was 267 bps, a significant narrowing from the spread three or four years earlier.

Risk Management. The key risks we always wish to avoid are permanent loss of capital (default risk), loss of future purchasing power (inflation risk), and significant downward price movement (credit deterioration). We use mitigation tools for each of these major risks. To avert permanent loss, we pursue in-depth knowledge of each investment, a rigorous valuation discipline, and portfolio diversification. To avoid loss of future purchasing power, we use duration and yield curve positioning, seek a yield advantage, maintain a fully invested portfolio, and keep management fees and turnover low. To shelter our portfolios from the impact of price volatility, we adopt a long investment horizon, invest in noncredit alternatives when we deem credit spreads to be tight, continually seek incremental buy and sell opportunities, and embrace the virtues of persistence and patience.

Finding Value throughout the Cycle

A number of different factors throughout the economic cycle can be monitored to identify value in the fixed-income markets, including historical sector performance in recessions and expansions, drivers

of default cycles, general credit conditions, changes in sector spread dispersion, and bond covenants.

Performance during Recessions and Expansions. Although using historical industry performance to predict future industry performance is challenging, some general comments can be made. For instance, consumer noncyclicals typically perform well during recessions, whereas financials generally perform well during expansions. Underperforming sectors, meanwhile, have historically been more idiosyncratic. **Exhibit 1** lists the best- and worst-performing sectors during the recessions and expansions that have occurred since July 1990.

Typically, if a company is under a great deal of pressure during a recession and survives, it is a good performer after the recession. Financials are a case in point. In the three expansions that have occurred since July 1990, financials (which were under stress during the recessionary periods) performed quite well, as Exhibit 1 shows. The past, as we all know, may not be the same as the future for the financial sector. The extraordinary assistance provided to large financial institutions during the recent crisis may not occur again because of the Dodd-Frank Act and other legislation that enhances liquidation authority.

Drivers of Default Cycles. Although default rates are generally correlated with the economic cycle, they do not perfectly coincide. Since 1980, the below investment grade bond market has

Exhibit 1. Credit Sector Performance during Recessions and Expansions

Relative excess returns during recessions

	Jul 90–Mar 91	Mar 01–Nov 01	Dec 07–Jun 09
1 (best)	Energy	Consumer noncyclical	Consumer noncyclical
2	Consumer noncyclical	Communications	Electric utility
3	Communications	Capital goods	Consumer cyclical
...
16	Banking	Transportation	Finance companies
17	Consumer cyclical	Technology	Insurance
18 (worst)	Technology	Natural gas	Brokerage

Relative excess returns during expansions

	Mar 91–Mar 01	Nov 01–Dec 07	Jun 09–Aug 12
1 (best)	Brokerage	REITs	REITs
2	Banking	Technology	Insurance
3	Transportation	Energy	Brokerage
...
16	Insurance	Consumer cyclical	Energy
17	Communications	Electric utility	Consumer noncyclical
18 (worst)	Technology	Natural gas	Technology

Notes: Recession dates as defined by the National Bureau of Economic Research (NBER). Expansions are defined as periods between recessions.

Sources: Based on data from NBER and Barclays POINT.

experienced three waves of defaults, two of which began during an economic expansion and all three of which peaked after the end of a recession. The main drivers of the default cycles varied. From the late 1980s to early 1990s, the main drivers were real estate and the remnants of the 1980s LBO boom. From the late 1990s to the early 2000s, telecommunications, technology, and utilities drove the default cycle. But the 2008–09 default cycle was broad based and would have been much worse in financials without comprehensive government aid.

In all environments, investment grade defaults have been rare—fewer than 0.08% a year since 1970. For the investment grade market, spread widening often poses more of a risk than outright default. As **Figure 5** illustrates, lower-rated securities (in this case, BBB industrials) underperform higher-rated securities (A rated industrials) during times of stress. These peaks of underperformance (measured in basis points on the left axis) are not perfectly correlated with economic growth (measured on the right axis, inverted). We observe a lag between changes in the macro environment and changes in company fundamentals. The lag generally occurs because companies have operating and financial options in the face of weakening demand or changes in market conditions.

Bottom-up rather than top-down sector analysis is crucial in identifying emerging default situations. In our analysis, we look for rapid changes in

leverage and rapid accumulation of assets, both of which tend to lead to longer-term problems.

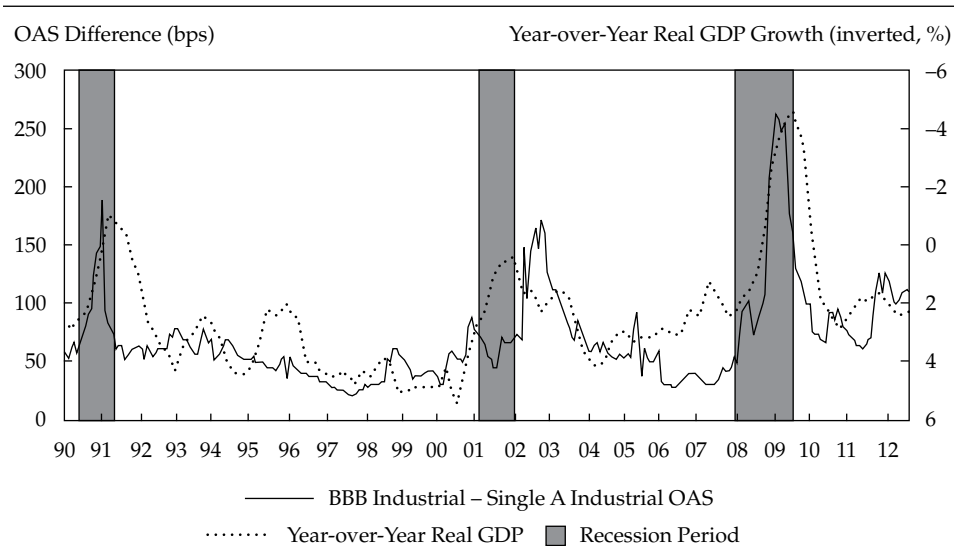
Credit Conditions. A credit review should accommodate different areas of focus, depending on macro and market conditions. Credit conditions are generally loosest several years prior to the peak of defaults. Signs of a credit boom may include a low level of spreads with limited differentiation between stronger and weaker credits, increased issuance of lower-quality and more-complicated securities, a high growth rate of issuance in specific sectors, and a shift in the use of proceeds toward acquisitions and shareholder returns, such as LBOs, leveraged recaps, and share buybacks. We are beginning to enter this last type of environment.

During a credit boom, dispersion narrows and moving up in credit quality is relatively easy. During a credit bust, dispersion widens and opportunities to invest at attractive valuations become abundant. Thus, changes in sector spread dispersion can open up opportunities to enhance the potential future total return of a credit portfolio.

For a more specific view of this phenomenon, **Figure 6** charts the OAS distribution on three dates: 29 December 2006 (before the financial crisis), 30 September 2008 (in the middle of the crisis), and 31 August 2012 (after the crisis).

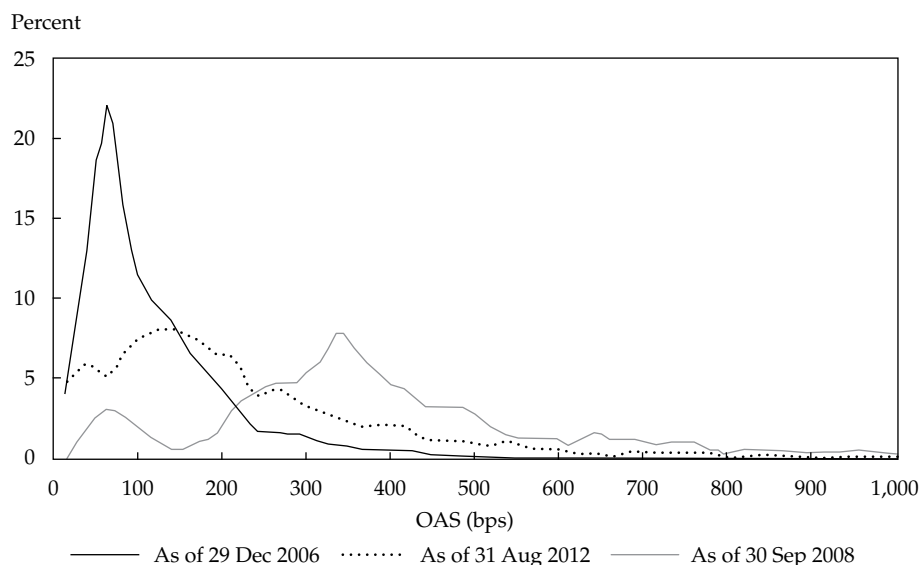
Our view of buying a bond is that we are buying a series of cash flows. We are not wedded to any specific credits. If we can replace lower-quality cash flows with a minimal spread give-up, we consider

Figure 5. BBB Minus A Industrial Spreads vs. Real GDP, January 1990–August 2012



Note: Recession dates are as defined by NBER.

Sources: Based on data from NBER and Barclays POINT.

Figure 6. OAS Dispersion

Note: OAS distribution is based on buckets that are 25 bps wide (bonds trading at >1,000 bps not shown).

Source: Based on data from Barclays POINT.

that a good trade. In the current environment, dispersion remains relatively high, so opportunities for security selection at attractive valuations are still available.

Importance of Covenants. The Credit Roundtable published a white paper in 2007 with proposed improvements to investment grade covenants.¹ Investment grade corporate bonds have historically provided only limited protection against issuer decisions that adversely affect bondholder value. As a result, investors have to put themselves in the shoes of management to assess which strategies might be effective in pursuing corporate goals and how those strategies might affect the balance sheet.

The devil is in the details; investors need to read covenants carefully. Typical investment grade covenant packages offer only limited protection from lien/structural subordination, dividends/share repurchases, and transformational events, such as LBOs, leveraged recapitalizations, and asset sales. Other covenants that bondholders should pay attention to are the financial reporting requirements (in the event that the issuer is no longer a public company) and the voting rights (if management seeks to amend or waive indenture terms).

Investors should negotiate covenants whenever possible because well-crafted covenants can limit the issuer's ability to implement transactions

that are not in the best interest of bondholders without adequate compensation to the bondholders. Covenants that we pay particular attention to include the following:

- Lien covenants that limit issuers' ability to incur secured debt.
- Limits on subsidiary guarantees that reduce structural subordination risk.
- Strong change-of-control provisions that place a floor on post-transaction bond values and provide bondholders the opportunity to reassess positions.
- Coupon step-up clauses that provide some compensation for lost value in the event of a downgrade below investment grade.

Unfortunately, covenants are now getting weaker because demand for credit is so great that investors have little negotiating power.

A good example of the importance of covenants to the investment outcome is illustrated in a comparison of the Alltel and First Data LBOs in early 2007. Alltel Corporation bonds had a covenant defect in that the lien covenant applied to the Alltel parent company, not to its subsidiaries, enabling the company to finance the buyout with senior debt at the subsidiary level and increase aggregate leverage to 7.7 \times . The senior unsecured bonds declined in price significantly and remained outstanding, whereas First Data Corporation bonds, which had strong lien, sale leaseback, and subsidiary debt covenants, were tendered for at a premium.

¹Credit Roundtable, "Improving Covenant Protections in the Investment Grade Bond Market" (17 December 2007; updated 2 July 2008): <http://www.creditroundtable.org>.

The threat of LBOs and leveraged recapitalizations still exists because many of the factors that supported the LBO boom in 2006–2007 remain present, including the following:

- low all-in yields,
- large amounts of cash committed to buyout/private equity funds,
- reasonable valuations of public equity securities,
- low amounts of corporate leverage but high levels of profitability, and
- weak investment grade covenants that enable issuers to subordinate existing unsecured bondholders.

Scenario analysis is essential for assessing the inclination and ability of management or a sponsor to undertake a leveraged transaction. Often, when a credit looks attractive on a fundamental basis, it can also be vulnerable to a transformational event if it lacks strong protective covenants.

Current Opportunities

The current market offers two particularly interesting opportunities: banks and taxable municipal bonds.

Banks. In the intermediate term, large U.S. and U.K. banks offer investors an opportunity to buy robust franchises with improving credit profiles at compelling valuations. Regulatory reform has been broadly constructive for fixed-income investors and has better prepared institutions for periods of stress by increasing required levels of capitalization and liquidity. Both countries benefit from having independent central banks and governments that can borrow in their own currency.

Macroeconomic hurdles remain, as does the possibility of sovereign contagion risk. Banks are still exposed to legacy assets and liabilities (e.g., mortgage put-backs) and face headwinds from low interest rates and limited loan demand. Although, on balance, we believe regulatory reform has been a positive for bank bondholders, it has also introduced new risks via the efforts to end “too big to fail” (e.g., bank resolution regimes).

Taxable Municipal Bonds. Another opportunity that we see in the credit markets is the taxable municipal bond sector. New issuance of taxable municipal bonds was quite strong under the Build America Bonds (BABs) program, created by the American Recovery and Reinvestment Act of 2009. The program expired on 31 December 2010, but about \$180 billion is outstanding in taxable BABs and other types of taxable municipals.

Taxable municipal bonds can be structured as general obligation bonds, essential-service revenue bonds, or appropriation bonds. We focus our research on the first two because general obligation bonds are secured by the taxing power and full faith and credit of the issuer and because essential-service revenue bonds are secured by a specific stream of revenues.

Spreads are elevated in this sector, currently just above 200 bps, and a large, diverse list of issuers is available. Diligent credit analysis can be used to pick and choose among the credits to find the most attractive situations.

Conclusion

Because the global credit market is growing in size and complexity, significant time and resources are needed to assess credit quality. Credit investing is a defensive, forward-looking, and iterative exercise requiring a focus on valuation and downside risks, even in good times. Despite the low interest rate environment, attractive long-term investment opportunities are available for investors who take the time to do the necessary credit work.

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This article qualifies for 0.5 CE credit.

Question and Answer Session

Dana M. Emery, CFA

Question: Did the 2008 financial crisis change your credit analysis process?

Emery: Yes. Today, we pay more attention to regulatory and policy risk. We are spending more time in Washington, DC, because we want to make sure we understand how policymakers are thinking. We are also trying to broaden our sources of information, asking ourselves how we can get smarter on

a particular situation or risk that we are assessing. We are making greater use of outside legal experts, financial experts, Washington analysts, and others.

Question: If the financial sector is attractive, why aren't spreads tighter?

Emery: Spreads are not tighter for several reasons, but the main reason is uncertainty about the impact of new regulation. In the intermediate term, we think a lot

of the change favors bondholders. Financials are increasing capital, liquidity, and asset quality, but sooner or later, they will have to start making investments to grow their net interest margin, and doing so will be difficult because of conflicting regulatory concerns. So, in the longer term—going out more than five years—we have concerns about how financials will be able to generate return.

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