

Business Development Companies (“BDCs”)

(A liquid alternative to private debt)

January 30, 2015

Business Development Companies, or “BDCs,” are exchange traded vehicles investing in private non-syndicated secured and unsecured middle market corporate debt, the type of investments generally found in private mezzanine, insurance, and commercial bank portfolios. BDCs provide their shareholders access to private corporate debt investments but with daily liquidity and therefore are attractive to investors desiring both high yield and liquidity. This report describes what BDCs are, their investment characteristics, how they might fit within a diversified portfolio, and tactical opportunities. This report also provides an introduction to the Cliffwater BDC Index, a tool that furthers our research efforts to better understand and benchmark this growing asset class.

What are BDCs?

Business Development Companies (BDCs) were created by Congress in 1980, under Section 54 of the Investment Company Act of 1940, to stimulate private investment in middle market U.S. companies, which had suffered during the stagflationary period following the steep 1973-74 recession. Congress gave the BDC the advantage of electing to be exchange-traded with a tax-free pass-through of investment income, but with some restrictions, including:

- SEC registration and oversight
- At least 70% of assets invested in non-public debt and equity in U.S. corporations
- Maximum leverage equal to net asset value (NAV)
- Annual distribution of at least 90% of income to shareholders
- Certain portfolio diversification constraints

BDCs are in many ways like REITs and MLPs in their cash generating, tax-preference investment characteristics that have appealed to retail investors and have recently found institutional interest.

There are currently 51 publicly traded BDCs with a combined market capitalization equal to approximately \$32 billion, a small fraction of the approximately \$1.8 trillion private debt market.¹ By market capitalization, BDC size is well behind other publicly traded yield oriented instruments. High yield bonds, leveraged loans, REITs and MLPs have market capitalizations equal to approximately \$1.6 trillion, \$725 billion, \$880 billion and \$500 billion, respectively.² However, we expect the BDC market to grow, both from investor demand for yield, the growth of non-bank middle market financing, and the general trend toward securitization of private assets.

Also benefiting BDC growth is the entry of well-known institutional investment firms. Apollo launched its BDC in 2004 and since that time other well-known names include Ares, Blackrock, Golub, THL Credit and, most recently, TPG and Franklin Square/Blackstone have sponsored BDCs. Several other high quality institutional firms have plans to build and list new BDCs.

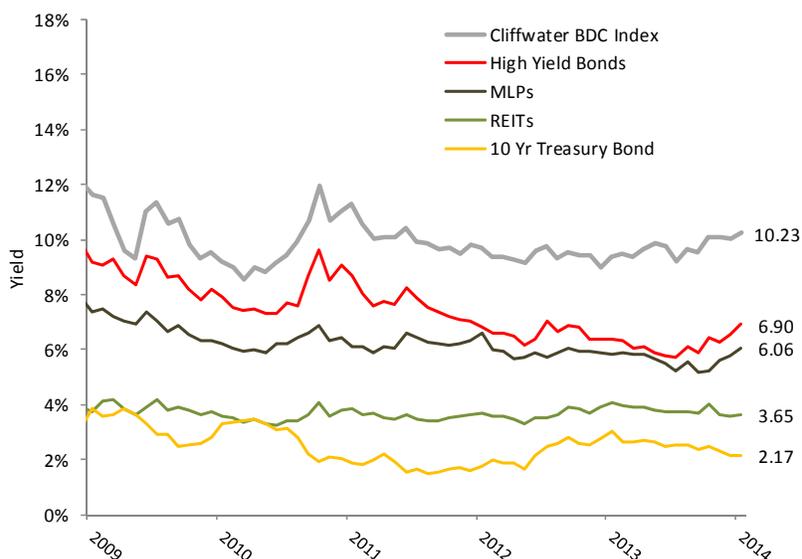
¹ Federal Reserve, All Commercial Bank Corporate Loans, Nov 2014

² Barclays, NAREIT, Alerian

BDC Yield and Expected Return

We believe that most investors are first drawn to BDCs for their high current dividend yield, as illustrated in Exhibit 1.

Exhibit 1: Comparison of Yields across Selected Asset Classes³
(Five Years ending Dec 2014)



BDCs have consistently yielded well above other yield-oriented asset classes over the last five years. Particularly relevant is the comparison to high yield bonds as both are credit driven asset classes. BDCs have historically offered 1.54% in additional cash yield compared to high yield bonds. That yield spread, however, has widened significantly in recent years to 3.33% at year-end 2014.

Exhibit 2 provides a table of current yield spreads to 10-year Treasuries together with a comparison to historical norms.

Exhibit 2: Yield Spread to 10-Year Treasuries⁴
(As of Dec 31, 2014)

	Compared to 10-Year US Treasury Yields		Difference
	Current Spread	Historical Spread*	
BDCs	8.06%	7.01%	+1.05%
High Yield Bonds	4.73	4.70	+0.03
MLPs	3.89	3.08	+0.81
REITs	1.48	1.24	+0.24

*The average historical spread is based upon the longest time period available which is 2004, 1987, 1996, and 1995, respectively.

The current high BDC yields are not an aberration. Their historical average yield spread to the 10-Year Treasury is 7.01%, and well above average spreads for high yield bonds, MLPs, and REITs. The average

³ See disclosures

⁴ See disclosures

historical yield spread between BDCs and high yield bonds equals 1.54%, surprisingly high considering the fact that underlying BDC assets are of higher quality. Exhibit 2 also suggests that there may be considerable current tactical opportunity investing in BDCs. Year-end 2014 spreads for all yield-oriented asset classes are above their historic averages but, at 1.05%, BDC spreads appear particularly attractive.

But yield is not everything and investors must also consider growth prospects or, in the case of BDCs and high yield bonds, the potential for negative cash flow growth from credit losses that may impair future dividends or interest and, hence, total expected return. In Exhibit 3 we estimate total expected return for the yield-oriented asset classes together with U.S. stocks and investment grade bonds (“IG bonds”).

Exhibit 3: Long Term (7-10 Year) Expected Returns

	1	2	1+2
	<u>Yield*</u>	Forecast Cash Flow <u>Growth</u>	Total Expected <u>Return</u>
BDCs	10.25%	-1.00%	9.25%
High Yield Bonds	6.90	-1.45	5.45
MLPs	6.05	0.95	7.00
REITs	4.00	1.70	5.70
U.S. Stocks	2.00	5.05	7.05
IG Bonds	2.25	0.00	2.25

*Yield is rounded to the nearest 0.05%; the REIT yield is adjusted upward to reflect normalized, not actual, dividends per share.

Column 1 reports current yield at December 31, 2014. Column 2 contains Cliffwater estimated long term cash flow growth rates. The last column reports expected total return, which equals the sum of current yield plus cash flow growth.⁵

We expect both BDCs and high yield bonds to experience negative cash flow growth, attributable to credit losses from defaults or restructurings. We forecast 1.00% and 1.45% annual credit loss rates for BDCs and high yield bonds, respectively.⁶ The lower BDC loss rate compared to high yield bonds is attributable to higher debt seniority for BDC assets and the fact that BDC assets are managed, unlike high yield bonds, which are represented in the table above by a passive index. Growth rates for the other asset classes listed are all positive with stocks having the highest 5.05% expected earnings per share growth rate. Our forecasts indicate a long term return for BDCs that is well above other major asset classes.

BDC Risk

Exhibit 4 reports risk (standard deviation) and correlations for BDCs and other asset classes for the trailing five years. Risk is shown in the first row. BDC returns have an annualized standard deviation equal to 15.34%, a level similar to REITs and MLPs, but greater than high yield bonds. We also report asset class returns for the 2008 Financial Crisis in the second row of Exhibit 4 as a stress test. BDCs fell 37%, a magnitude similar to REITs, MLPs, and stocks, while high yield bonds fell a somewhat smaller 26%. Overall, we would observe that BDCs are risky, comparable to other popular asset classes that can provide investors with substantial immediate yield.

Correlations are contained in the last section of Exhibit 4. BDCs have about the same correlation to stocks as high yield bonds, MLPs and REITs over the past five years, again making the case that BDCs, as an asset class, should be viewed through the same lens as other yield driven asset classes.

⁵ Gordon Model

⁶ Forecasts based on historical loss rates (Sources: J.P. Morgan; Wells Fargo)

Exhibit 4: Asset Class Risk and Correlations⁷
(5 years ending Dec 2014)

	High Yield				U.S.	IG
	BDCs	Bonds	MLPs	REITs	Stocks	Bonds
Risk (Std. Dev.)	15.34%	6.30%	13.76%	16.62%	13.00%	2.69%
2008 Drawdown*	-37%	-26%	-37%	-38%	-37%	5%
Correlations:						
BDCs	1	0.75	0.61	0.69	0.81	-0.12
High Yield Bonds		1	0.61	0.76	0.75	0.17
MLPs			1	0.45	0.59	-0.01
REITs				1	0.73	0.16
U.S. Stocks					1	-0.28
IG Bonds						1

*2008 Drawdown represents the total return from December 31, 2007 to December 31, 2008.

BDCs have other risks. For example, BDCs invest primarily in the debt and equity of smaller and developing companies, most of which are privately held and lack publicly available information. BDCs may use modest amounts of leverage, but the use of leverage can worsen the effect on the BDC's stock price if the value of its assets declines. In addition, many BDCs have limited trading liquidity.

Portfolio Allocations to BDCs

In Exhibit 5 we show selected portfolios to illustrate some benefits to BDC allocations, and compare them to allocations to high yield bonds, which we believe represents the closest asset class equivalent. Portfolio return and risk are based upon our return forecasts in Exhibit 3 and historical risk and correlations in Exhibit 4.

Exhibit 5: Portfolio Diversification with BDCs⁸

	Portfolio Allocations (%)				Expected Return*	Historical Risk*	Return/Risk
	U.S. Stocks	IG Bonds	High Yield Bonds	BDCs			
Portfolio 1	60%	40%			5.37%	7.59%	0.71
Portfolio 2	55%	35%	10%		5.43%	7.53%	0.72
Portfolio 3	50%	40%		10%	5.63%	7.58%	0.74

*Represents long term (7-10 year) expected return and risk.

Portfolio 1 reports expected return and risk for a traditional 60%/40% mix of U.S. stocks and IG bonds. The portfolio has a 5.37% expected return and a 7.59% risk, measured historically. The return-to-risk ratio equals 0.71.

Portfolio 2 reports return and risk for a slightly modified Portfolio 1. U.S. stock and IG bond allocations are each reduced by 5% and reallocated to high yield bonds. The result is an improved portfolio with a higher 5.43% return and lower 7.53% risk. The risk-adjusted return increases from 0.71 to 0.72. The equal 5% reductions from stocks and bonds to fund the 10% high yield allocation was intended to keep Portfolio 2 risk close to that of Portfolio 1 so that most of the diversification benefit is seen through increased return.

⁷ See disclosures

⁸ See disclosures

Portfolio 3 reports return and risk for a 10% allocation to BDCs, rather than high yield bonds. To keep risk similar to Portfolio 1, we reduce U.S. stocks by 10% and keep IG bonds at a 40% allocation. The need to fund the 10% BDC allocation entirely from stocks rather than a split between stocks and bonds as we did for high yield is explained by the higher historic volatility of BDCs compared to high yield bonds, as shown in Exhibit 4. BDCs have had volatility closer to stocks in the past while high yield bonds have had volatility between stocks and bonds. Going forward, we believe BDC volatility will move closer to high yield bonds if its market capitalization grows and as investors gain a better understanding of these securities.

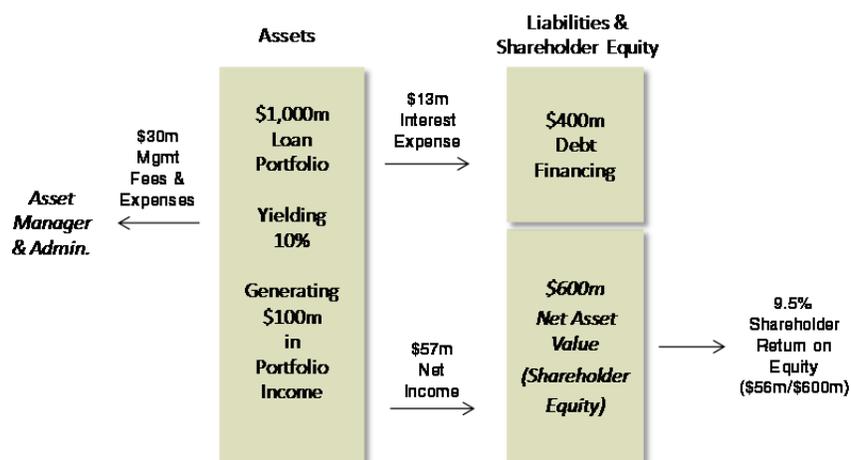
The return-to-risk ratio for Portfolio 3 equals 0.74, well above the ratios for Portfolios 1 and 2. Expected return for Portfolio 3 equals 5.63%, which is 0.26% above the 5.37% return for Portfolio 1 with a slightly lower level of risk. We conclude that in this hypothetical situation, BDCs meaningfully improved overall portfolio risk-adjusted return even at low portfolio allocations. Further, funding that came primarily from equity allocations improved portfolio return and kept risk unchanged. Of course, this is a hypothetical and may not represent how accounts would perform under actual market conditions.

BDC Fundamentals

A good starting point for understanding BDCs is to appreciate that their primary business function is lending to middle market U.S. companies, loosely defined as those with EBITDA between \$10 and \$50 million. Financing to these companies has historically been the domain of banks and insurance companies but, increasingly, their participation has retrenched with increased regulation. Stepping in have been hedge funds, private debt funds, specialty finance companies, and BDCs, both private and publicly traded. Publicly-traded BDCs currently represent approximately 20% (\$50 billion) of all middle market lending.⁹

Exhibit 6 depicts the financial architecture of a typical BDC.

Exhibit 6: Illustrative BDC Balance Sheet & Cash Flow



The BDC in this example raises \$600 million in equity financing and \$400 million in bank financing in order to originate \$1 billion in middle market loans. At a 10% average coupon rate, the loan assets generate \$100 million in interest income, of which \$13 million services debt financing (Libor+3%), \$30 million goes to asset management fees and BDC administrative expenses, and the remaining \$57 million is paid to shareholders in dividends, for a 9.5% annual return.

⁹ Sources: Cliffwater; Wells Fargo Securities; Keefe, Bruyette & Woods

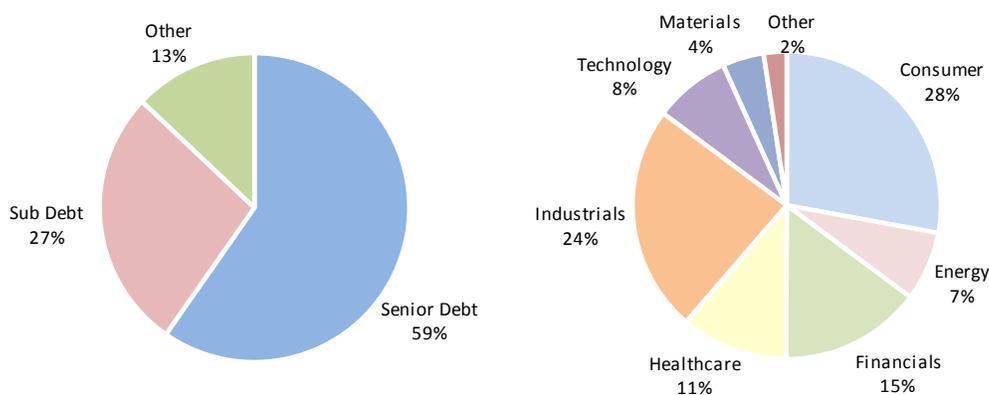
BDC Assets

BDC assets are primarily middle market loans that are directly originated by the asset manager, or a “club deal” that involves a few asset managers collectively participating in the loan. Unlike high yield bank loans, BDC loans are generally smaller and not syndicated or traded, and the BDC managers have direct access to the underlying portfolio companies. Another distinction is the increased use of covenants on BDC loans, a feature that is not always present with bank loans and high yield bonds.

BDC loans generally have a five year maturity, but pay a floating rate (Libor plus a spread), making them less interest rate sensitive than high yield bonds. Also, because BDCs originate loans, they frequently receive fees from loan origination and restructuring. These fees are estimated to provide an average 0.25% in additional annual income.¹⁰

BDCs assets are generally very well diversified. The typical BDC holds 50 to 150 positions, diversified by industry and geography. The majority of BDC loans are senior debt, unlike high yield bonds that are generally subordinated. The seniority of BDC assets means that BDCs are less likely to experience loan losses compared to high yield bond funds. Exhibit 7 provides a credit and industry profile of BDC assets based on the Cliffwater BDC Index¹¹.

Exhibit 7: BDC Loan Portfolio – Credit and Industry Profile



BDC loans cut across industries, though a few BDCs specialize in one or two industries. BDC energy exposure is just 7% of assets, comparable to bank loans but far less than the 15% energy exposure found in high yield bonds.

BDC assets (and sometimes liabilities) are re-valued quarterly, sometimes using an outside provider. BDC assets generally are not traded, which can make valuation difficult. These re-valuations give rise to quarterly changes to shareholder net asset values (NAV). This can be useful information to investors who want to compare market share price to what management believes is fair value share pricing. This price-to-NAV or price-to-book ratio is closely watched by some investors as a measure of an over-valued (P/NAV greater than 1.0) or undervalued (P/NAV less than 1.0) condition. At year-end 2014, for example, the BDC market had a price-to-NAV ratio equal to 0.96.

BDC Liabilities

BDCs are limited to a maximum one turn of leverage (1:1 debt-to-equity ratio). BDCs generally operate at far lower leverage levels with the current average BDC debt equal to 0.6 times equity. Leverage is obtained through several sources, including bank credit facilities, preferred equity, unsecured notes, and

¹⁰ BDC SEC filings

¹¹ BDC SEC filings

securitization. Asset-liability management is a key consideration in the type of financing and currently approximately two-thirds is floating rate and one-third fixed rate. Financing costs vary and change with the market. However, current floating rate financing averages Libor + 2.75% and fixed rate debt averages 5.0%.¹²

BDC Shareholder Equity (Net Asset Value)

BDCs can be private, but most are public exchange-traded vehicles. A major benefit of public listing is the continuous investor ability to buy or sell BDC shares. Trading volume varies by BDC and day, and could be viewed as similar in liquidity to trading regional bank shares.¹³

A second benefit of public listing and regulatory oversight is the excellent transparency provided in regular public disclosures. This transparency allows the investor access to detailed BDC portfolio, financing, and management activities (subject to disclosure laws). This information far exceeds what the investor receives on publicly traded bank balance sheets, for example.

BDC Management Fees

BDCs have a governance structure like any other registered investment company, and have a board of directors that includes independent members. However, the principal business of asset management is most frequently contractually outsourced to an investment management company whose professionals may also be directly involved in the management of the BDC.

The primary expense of a BDC is its management fee payments. A typical structure is a 1.5% management fee on assets coupled with a 20% carried interest, subject to an 8% preferred return, though fees can vary considerably. Individual BDC fees can vary materially from the average and new BDCs are generally offering more investor friendly fee terms.

The Cliffwater BDC Index

On January 1, 2015 we launched the Cliffwater BDC Index, with the following objectives:

- *Education & Research.* To make investors better informed about BDCs through data and research not readily available.
- *Benchmarking.* To provide a performance benchmark against which to assess the performance of individual BDCs or portfolios of BDCs.
- *Passive Investment Construction.* To construct an index with the qualities of transparency, inclusiveness, low turnover, and investability.

The Cliffwater BDC Index is a capitalization weighted index of all BDCs that meet the following eligibility criteria, among others:

1. SEC regulated as a BDC under the Investment Company Act of 1940
2. Common stock listed on the NYSE or NASDAQ, and meets all the listing requirements of the applicable exchange
3. A market capitalization of at least \$50 million
4. Must have paid a dividend within the last 180 days
5. A substantial majority (approximately 75%) of total investments represented by corporate debt¹⁴

The addition of criteria 4 and 5 is meant to keep the focus of our index on private debt, rather than private equity. A few BDCs hold a significant fraction of their assets in non-interest paying securities with the

¹² BDC SEC filings

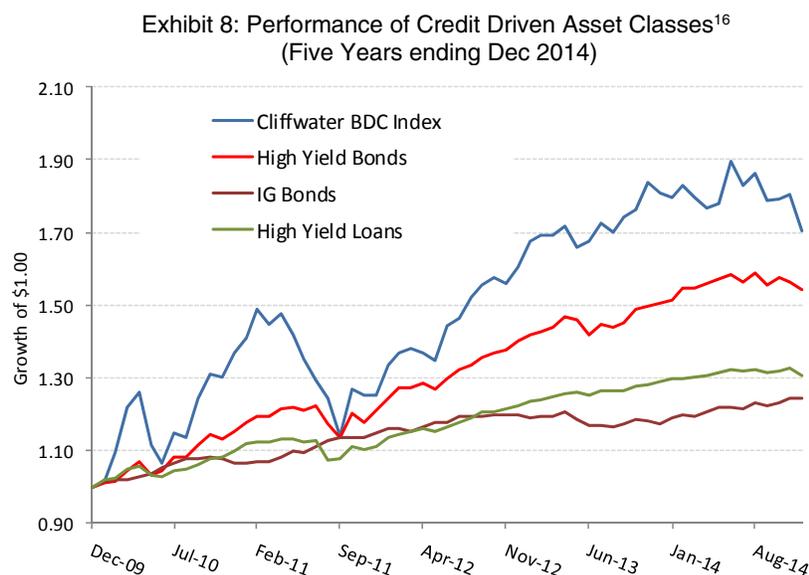
¹³ Wells Fargo Securities

¹⁴ As determined by Cliffwater LLC on a rolling 12-month basis based on quarterly SEC filings

expectation that shareholder returns will come from asset appreciation. We exclude any BDC where non-interest paying securities represent a material portion of investments (approximately 25%).¹⁵ At January 1, 2015 the Cliffwater BDC Index held 39 individual BDCs with a combined \$26 billion market capitalization. There were 12 BDCs totaling \$6 billion in market capitalization that did not meet our eligibility criteria.

A full description of the index and its historical performance dating back to 2004 can be found at BDCs.com.

Back-tested performance for the Cliffwater BDC Index over the last five years is shown in Exhibit 8 along with two credit oriented bond indices (high yield bonds and high yield loans) and IG bonds, as a measure of investment grade bond performance.



BDCs performed better than the other bond indices over the last five years, earning an 11.27% return. By comparison, high yield bonds, high yield loans, and IG bonds returned 9.03%, 5.52%, and 4.45%, respectively. BDC performance was particularly impressive given that BDC yield spreads widened to all three indices over this period, creating a performance headwind.

Exhibit 8 also illustrates the higher volatility found with BDCs compared to high yield bonds and loans. This is likely to continue but gradually decline as the BDC market grows in market capitalization and institutional participation.

Conclusion

Investors of all types are demanding higher yielding assets to offset record low yields on traditional investment grade securities. Private debt, in the form of mid-market commercial loans, is attracting a great deal of institutional attention and investment due to their attractive 7-12% unlevered yields. Investors desiring liquidity can participate in the private debt market through BDCs, a publicly traded vehicle that invests in a diversified portfolio of mid-market corporate loans. The BDC market is responding to this increased demand with newly launched BDCs with high quality, well-established, institutional management. We expect this to continue.

¹⁵ Selected REIT and MLP indices follow similar exclusionary protocols

¹⁶ See disclosures

Our analysis shows that an allocation to BDCs is accretive to portfolio yield and return. BDCs also diversify an existing credit portfolio comprised of more traditional high yielding bond and loan assets. Finally, we believe BDCs can offer further return (alpha) opportunity from active management, through superior qualitative assessment of management and underlying portfolios.

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The asset classes referenced above are defined as follows: (i) High Yield Bonds are represented by Barclays US High Yield Index, (ii) MLPs is represented by the Alerian MLP Index, (iii) REITs is represented by the FTSE NAREIT US (Equity) Real Estate Index, (iv) U.S. Stocks is represented by the S&P 500 Index, (v) IG Bonds is represented by the Barclays US Aggregate Bond Index, and (vi) BDCs is represented by the Cliffwater BDC Index.

The Cliffwater BDC Index (the "Index") is owned exclusively by Cliffwater, and is protected by law including, but not limited to, United States copyright, trade secret, and trademark law, as well as other state, national, and international laws and regulations.

Past performance of the Index is not an indication of future results. It is not possible to invest directly in the Index. The Index returns shown are not based on actual advisory client returns and do not reflect the actual trading of investible assets. The performance of the Index has not been reviewed by an independent accounting firm and has been prepared for informational purposes only.

Index returns do not reflect payment of any sales charges or fees a person may pay to purchase the securities underlying the Index or a product that is intended to track the performance of the Index. The imposition of these fees and charges would cause the actual and back-tested performance of these securities or products to be lower than the Index performance shown.

Any information presented prior to the Launch Date (January 1, 2015) of the Index is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested calculations are based on the same methodology that was in effect when the Index was officially launched. Please refer to the methodology paper for the Index (available at www.bdcs.com) for more details about the Index, including the Base Date/Value (September 30, 2004 at 1,000) and the Launch Date of the Index and the manner in which the Index is rebalanced, the timing of such rebalancing and the eligibility criteria for the Index.

Prospective application of the methodology used to construct the Index may not result in performance commensurate with any back-tested returns shown. The back-test period does not necessarily correspond to the entire available history of the Index. Another limitation of back-tested hypothetical information is that generally the back-tested calculation is prepared with the benefit of hindsight. Back-tested data reflect the application of the Index methodology and selection of Index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the financial markets in general which cannot be, and have not been accounted for in the preparation of the Index information set forth, all of which can affect actual performance.

When Cliffwater was unable to determine the nature of a BDC's investments because of limited information included in historical SEC filings, Cliffwater did not apply the portfolio composition criteria (a substantial majority (approximately 75%) of total investments represented by corporate debt) to the BDC. All other eligibility criteria were applied to determine whether to include the BDC in the historical Index composition and return.

The Index is derived from sources that are considered reliable, but Cliffwater does not guarantee the veracity, currency, completeness or accuracy of the Index or other information furnished in connection with the Index. No representation, warranty or condition, express or implied, statutory or otherwise, as to condition, satisfactory quality, performance, or fitness for purpose are given or duty or liability assumed by Cliffwater in respect of the Index or any data included therein, omissions therefrom or the use of the Index in connection with any product, and all those representations, warranties and conditions are excluded save to the extent such exclusion is prohibited by applicable law.

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