

Opportunistic Deep-Value Investing: A Multi-Asset Class Approach

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Introduction

In recent years, the capital markets offered an abundance of “deep-value” investing opportunities that subsequently yielded outsized returns relative to broad equity and bond market benchmarks. Despite the rich opportunity set, for a variety of reasons many investors did not participate in these high-performing investments. We embarked on our research of deep-value investing with these investors in mind, hoping to lay a foundation for approaching these investments in advance of the next deep-value investing cycle and to broaden the use of this strategy in portfolios where it is appropriate.

Our research confirmed deep-value investing’s position as a total return strategy that can provide excess returns with capital efficiency. For those considering deep-value investing, we propose the following:

- **Broadening the search for deep-value investments to multiple asset classes.** We expect a multi-asset class search for deep-value investments to yield more opportunities than an implementation restricted to a single asset class (e.g., equity only).
- **Implementing deep-value investments opportunistically and classifying them within an “opportunity” portfolio category.** An “opportunity” allocation is a broadly defined investment category within an overall investment policy that typically includes unique investment strategies across asset classes. Opportunity allocations, due to the flexibility in types of assets they can include, offer an ideal policy framework for categorizing multi-asset deep-value investments.
- **Accessing asset class and manager research** to identify opportunities, select the appropriate investment vehicles, and provide methods with which to monitor and harvest investments.

Why Deep-Value Investing, and Why Now?

Deep-value investing aims to profit from the trading of assets at very low valuation levels. By investing at significantly below-average valuation levels, the investor seeks to capture the resulting capital appreciation that occurs when the investment recovers to a more normal valuation. This strategy is not a recent invention, with its history among equity investors dating to at least the 1930s¹. In more recent decades, the value style has gathered support in non-equity asset classes.

In our view, there are currently several reasons why some exposure to deep-value investing seems sensible:

1. **Excess returns.** A significant amount of research supports value investing as a strategy for generating excess returns. In today’s low-growth and low-yield environment, many investors should find the potential for excess returns appealing.
2. **Increasing market dislocations.** Deep-value investment opportunities often appear during economic downturns and market dislocations. Market dislocations have occurred with regular frequency since the late 1990s, and deep-value investing offers a counter-cyclical capital allocation strategy that could potentially benefit from dislocations.
3. **Capital efficiency.** Deep-value investing is both a high-return and a high-volatility strategy, which means that relative to more broadly diversified strategies, smaller capital outlays are required to produce a portfolio impact.

¹ For example, Graham and Dodd’s influential value equity textbook, *Security Analysis* (1934), appeared during this period.

- 4. Asymmetric return profiles.** In the ideal situation, a deep-value investment is identified when it is trading not far from its “floor value.” While admittedly only a small percentage of deep-value investments have a readily identifiable floor value, investing close to an asset’s floor offers the potential for asymmetric return profiles; i.e., greater upside potential relative to the downside. We would expect skilled deep-value investment managers to find and exploit these asymmetries.

Even with all of these appealing characteristics, we must also recognize, as many investors do, that deep-value investments often involve above-average investment volatility and business risks (namely, the probability that something goes wrong and forever impairs the investment’s value). We later describe several ways to mitigate some of the primary risks associated with deep-value investments.

Recent Deep-Value Opportunities

The “Great Recession” and the related economic turmoil of the last six years has led to historically low valuation levels for many asset classes and, consequently, a significant number of deep-value investment opportunities. To provide some perspective, Table 1 highlights, for illustrative purposes, funds that have recently targeted opportunities created by the last recession.

Table 1: Examples of Recent Opportunistic Deep-Value Funds

Fund Name	Vintage Year	Target Asset Types	NET IRR	S&P 500 IRR	As of Date
Davidson Kempner Long Term Distressed Opportunities	2011	Distressed Credit, Loans, Banks, Real Estate Debt	27%	19%	4/30/2014
Davidson Kempner Long Term Distressed Opportunities II	2013	Distressed Credit, ABS, Real Estate Debt	29%	23%	4/30/2014
Och Ziff Structured Products (Overseas)	2010	Distressed Structured Products	19%	17%	8/31/2014
Och Ziff Structured Products II (Overseas)	2011	Distressed Structured Products	18%	19%	8/31/2014
PIMCO BRAVO	2010	RMBS and CMBS	27%	17%	6/30/2014
PIMCO DCF	2010	Distressed Credit	15%	17%	6/30/2014
PIMCO DMF	2007	RMBS and CMBS	9%	10%	7/31/2014
PIMCO DMF II	2008	RMBS and CMBS	35%	13%	7/31/2014
PIMCO TALF	2009	CMBS and ABS	34%	16%	7/31/2014

Note: S&P 500 internal rate of return assumes an investment in the S&P 500 Index at the beginning of each calendar year in each fund’s investment period.

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In addition to the examples provided in Table 1, during the same period, many deep-value opportunities existed in smaller markets and sub-asset classes. Some of the better-known examples included collateralized mortgage-backed securities, convertible bonds, distressed real estate properties (commercial and residential), financial sector stocks and bonds, leveraged loans, non-agency mortgages, and tanker ships. While the last recession certainly created an unusually high number of value opportunities, historically, similar deep-value situations have appeared during other episodes of economic or market stress². Economic and financial market cyclicalities is also a reason to continue to expect future deep-value opportunities³.

Empirical Support

Value investing enjoys considerable support from both the professional and academic communities. Literature from both camps backs using value-based methodologies in pursuit of excess returns. Perhaps underappreciated is the growing amount of research supporting value strategies in non-equity asset classes. We summarize some key multi-asset class research findings in Table 2.

Table 2: Multi-Asset Class Support for Value Investing

Authors	Asset Class	Key Conclusions
Campbell, Shiller (2001)	U.S. Equities	Low equity valuation levels were positively correlated to future long-term stock price returns during the period from 1871 to 2000.
Fama, French (1992)	U.S. Equities	Equities with lower valuations outperformed the broad market and more highly valued equities from July 1963 to 1990.
Chan, Lakonishok (2004)	Global Equities	Found a consistent pattern of value equities outperforming average and higher-valuation equities in U.S. and 12 other countries from 1975 to 1995.
Ilmanen (2011)	Corporate Fixed Income	Higher corporate spreads were positively correlated with excess returns over the next year.
Gorton, Rouwenhorst (2005)	Commodity Futures	Commodity futures trading at steeper discounts to spot prices significantly outperformed equal weighted portfolios from 1959 to 2004.
Koijen, Moskowitz, Pedersen, Vrugt (2013)	Currencies	Currencies offering higher carry outperformed an equal weighted currency basket from 1983 to 2012.

² Some examples of stress periods since 1990 include the 2001–2002 dotcom and telecom collapse, the 2000 U.S. recession, the 1998 Russian default, the 1997 Asian financial crisis, the 1994–1995 Mexican currency crisis, and the 1990 U.S. recession and credit crisis.

³ Deep-value opportunities can also arise for non-cyclical reasons. Examples include “event risks” such as a political crisis or a natural disaster, or at the security level, opportunities created by business and legal complexity such as bankruptcies and legal judgments.

The research supports a multi-asset class approach to deep-value investing. Casting a net across a broad array of asset classes should lead to a greater number of investing opportunities than narrower approaches such as those focusing in a single asset class.

Volatility and the Case for Investing Opportunistically

We expect deep-value investments to exhibit higher absolute volatility than broad market indices because of concentration, added business risks, and potentially greater economic sensitivity. How to manage the potentially high volatility of deep-value investments is a question that must be addressed prior to investing. Our research indicates that the opportunistic use of deep-value investments (i.e., as opportunities arise rather than on a dedicated basis) can strengthen the risk-return profile of the strategy.

To better understand the potential risk-return attributes of deep-value investments and the benefits of using deep-value investing opportunistically in multiple asset classes, we studied naïve portfolios covering the 10 years from 2003 to 2012. We created portfolios to proxy deep-value equity, deep-value debt, and an equal blend of deep-value debt and equity, and a portfolio that allowed opportunistic use of deep-value equity and debt. We also present market benchmark portfolios to show returns for broad equities, bonds, and blended portfolios.

A brief description of the portfolios and benchmarks used in the study is as follows:

- **Deep-value portfolios.** The deep-value equity portfolio consisted of the bottom decile of stocks in the Russell 3000 Index when ranked by price-to-book, rebalanced each month. To proxy a naïve deep-value debt portfolio, we simply used the Barclays Ca-D Rated Bond Index—an index of distressed bonds.
- **Opportunistic deep value.** We constructed an opportunistic deep-value portfolio using a few simple rules: a) If the price-to-book ratio for the equity market is at a five-year low, invest 5% of the Russell 3000 Index portion of an equally blended stock-bond portfolio in the deep-value equity portfolio described above. b) Similarly, if distressed debt prices reach five-year lows and prices are below estimated long-term recovery rates (rate estimated at 40%), up to an additional 5% of the Russell 3000 Index is replaced by the deep-value debt proxy⁴. We assumed a holding period of 36 months for the opportunistic deep-value investments⁵.
- **Market benchmark portfolios.** To assess portfolio impacts, we used a blended portfolio weighted 50% in the Russell 3000 Index and 50% in the Barclays Aggregate Bond Index.

Table 3 presents the risk-return statistics for the portfolios in the sample study, which are also presented graphically in Figure 1. The portfolios did not assume transaction or other investment costs. Returns are presented on a gross-of-fees basis. (We should note that the Distressed Debt Index composition changes over time with new defaults and thus is not entirely investable.)

⁴ Standard & Poor's "Default, Transition, and Recovery: Recovery Study (U.S.): Piecing Together the Performance of Defaulted Instruments after the Recent Credit Cycle."

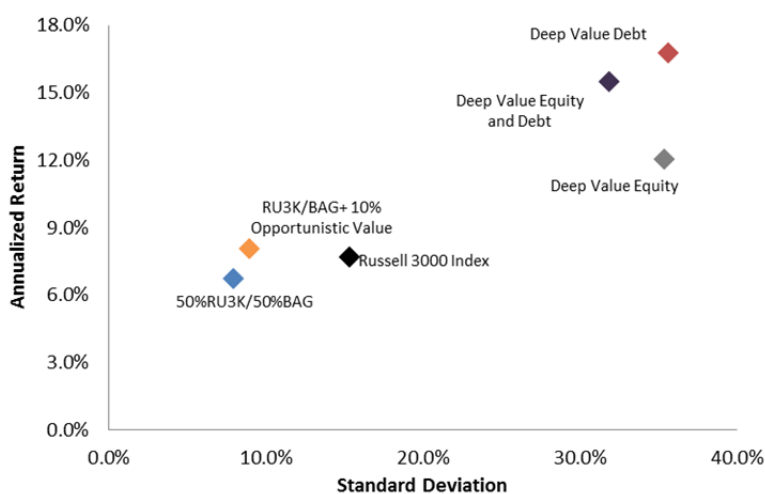
<http://www.standardandpoors.com/ratings/articles/en/us/?articleType=HTML&assetID=1245325211585>

⁵ We found that three- to five-year holding periods are common for funds pursuing deep-value investments.

Table 3: Risk and Return of Deep-Value Portfolios (2003–2012)

Portfolio	Annualized Return	Standard Deviation	Worst 12-Month Drawdown
Deep Value Equity	12.1%	35.3%	-63.1%
Deep Value Debt	16.8%	35.6%	-73.7%
Russell 3000 Index	7.7%	15.4%	-43.5%
50% Deep Value Equity/50% Deep Value Debt	15.5%	31.8%	-65.0%
50% Russell 3000 Index/50% Barclays Aggregate	6.8%	7.9%	-23.3%
Passive Blend +10% Opportunistic Deep Value	8.1%	8.9%	-22.7%

Figure 1: Annualized Risk Return Comparison (2003–2012)



Both the Deep Value Equity and Debt portfolios generated greater return and greater volatility than the broad market benchmark (the Russell 3000 Index). The risk-return relationship improved, in terms of return relative to standard deviation, for the equal blend of Deep Value Equity and Debt. However, the worst-case drawdowns, at -63.1% for Deep Value Equity and -73.7% for Deep Value Debt, remained steep over the period⁶.

The last line in Table 3 provides risk-return results for a portfolio that allowed opportunistic allocations to the Deep Value Equity and Deep Value Debt portfolios. This portfolio is perhaps most interesting because

⁶ We also tested a strategy using the HFRI Distressed Debt Index as a proxy for distressed bonds. This blended portfolio produced improved returns relative to the Deep Value Equity portfolio with lower monthly volatility and worst-case drawdowns.

it represents an allocation to deep value that fits with the risk tolerance of most institutional investors. The results for the Opportunistic Deep Value portfolio were strong on a risk-adjusted basis. The portfolio produced a 1.3% greater annualized return relative to an equal blend of the Russell 3000 Index and the Barclays Aggregate Bond Index, while exhibiting a similar worst-case drawdown and 1.0% greater annual volatility, which was less than the increase in incremental return. In addition, the opportunistic strategy required only a small outlay of capital—the average exposure to Opportunistic Deep Value was only 4.7% of the total portfolio.

- **Takeaway 1:** The risk-return of deep-value equity portfolios can potentially be improved with the addition of non-equity deep-value strategies such as distressed debt.
- **Takeaway 2:** Even limited amounts of opportunistic deep-value investing can allow for excess returns at the portfolio level without significantly increasing portfolio volatility.

While this study covered only a 10-year period and used simplified portfolio construction methods, the results provide insights into deep-value investing in multiple asset classes.

Opportunistic Deep Value in Practice

In this section, we offer our approach to managing opportunistic deep-value investment programs. We define what to look for, review and address the common risks of the strategy, and discuss investment and governance approaches to consider.

What to Look For

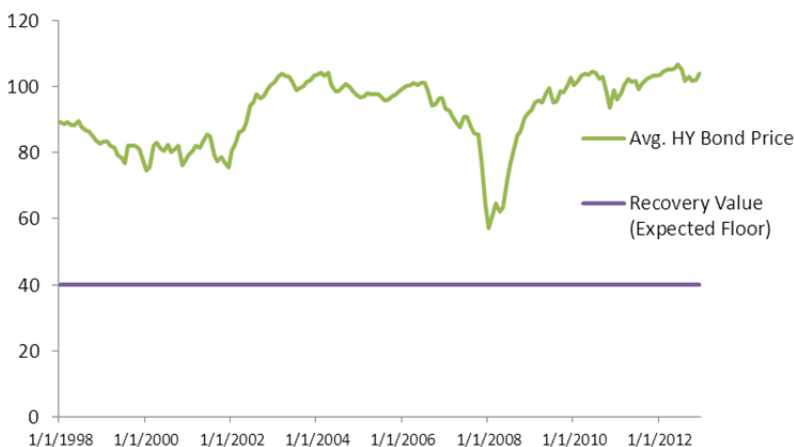
We broadly define potential deep-value investments as those with the following attributes:

1. The potential investment is significantly cheap with respect to long-term (five to 10 years or more) historical valuation levels when compared to itself, peer asset classes, or the broader market.
2. The potential investment is cheap relative to future prospects; i.e., it has a reasonable chance of returning to an average valuation level.
3. The potential investment offers a prospective return that, to compensate for potential risks, exceeds returns available in the broad public equity markets.

The ideal deep-value investment exhibits all of these characteristics. In addition, an identifiable “floor” valuation, if discernible, is highly desirable and could allow for added investment conviction and asymmetric return profiles. Examples of floor valuations (albeit in simplistic terms) could include tangible book value for equities or, in the case of high-yield bonds, the expected value in the event of a default.

As an example, Figure 2 presents the average bond price in the Barclays High Yield Index versus the long-term average high-yield recovery value. These are situations where a deep-value investor could potentially invest in opportunities that have less downside than upside. We would expect skilled deep-value investors, especially in complex situations such as bankruptcies, to find and exploit these pricing asymmetries.

Figure 2: Example of a High Yield Price and "Floor"



Managing the Key Risks

The primary potential risks of deep-value investing are increased absolute and relative volatility, possible opportunity costs and investment timing, and concentration risk. We address each and review approaches to mitigate them.

Controlling Volatility

As we've demonstrated, in addition to offering strong returns, deep-value investments can experience both absolute and relative volatility. From a relative perspective, deep-value investments do not track closely with broader markets, leading to dispersion (tracking error) versus broad benchmarks⁷.

To mitigate absolute and relative volatility, we advocate setting policy limits for deep-value investments relative to the overall portfolio. The actual limit will depend upon each investor's risk preference and risk budget, which should be understood in advance. Leverage should be applied sparingly.

Minimizing Opportunity Costs and Timing

Although an asset class may be classified as "cheap," the time required to reach a normalized valuation level is uncertain. This can lead to the so-called "value trap" investment and opportunity costs. Timing investments in value situations can also be challenging, and investors entering early into a value situation may experience further depreciation and short-term opportunity costs.

In our view, diversification is the key to minimizing opportunity costs. Refreshing deep-value investments across vintage years and asset classes should help reduce the likelihood of being caught in a value trap. This logic is similar to diversifying private equity investments by vintage year and type in an effort to avoid

⁷ Deep-value equity investors experienced this tracking error risk during the late 1990s as value equity underperformed the broad market indices by wide margins. This experience contributed to the use of tracking error constrained active management approaches such as enhanced indices.

concentrating investments in a particularly bad year. Diversifying investments by year and varying entry points could also help with the challenges of timing.

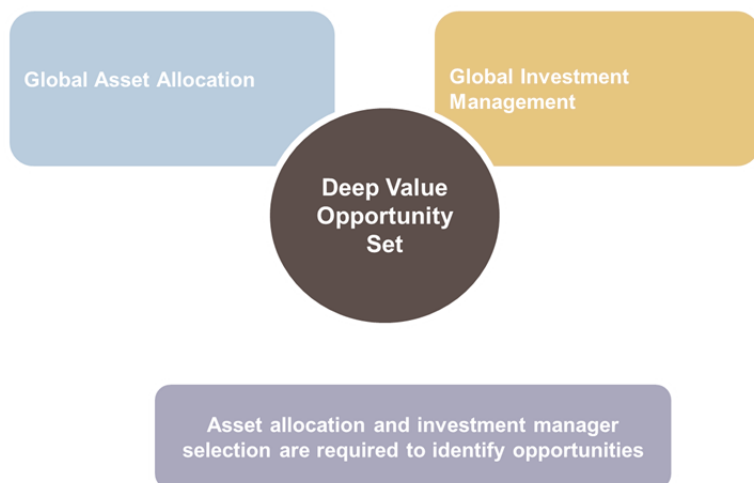
Managing Concentration Risk

By definition, deep-value investments are concentrated, since only parts of the capital markets will qualify as deep value at any time. Concentration, although unavoidable, can also be controlled by using the previously mentioned policy targets and constraints, and ensuring asset class diversification.

Identifying Deep-Value Opportunities

Value opportunities are always easy to identify with hindsight, but spotting them in real time requires an appropriate investment infrastructure that includes asset allocation and investment manager research. Aon Hewitt Investment Consulting, Inc.'s Global Asset Allocation team provides monthly market views and topical research reports that can be used to identify potential value and deep-value markets, while the Global Investment Manager research team scans the industry for vehicles in each asset class that use deep-value strategies. We feel both asset allocation and investment manager research are important to systematically source and implement deep-value investments.

Figure 3: Sourcing Deep-Value Opportunities via AHIC Research Teams



Where Do They Fit?

We have written previously about opportunistic investment allocations and believe deep-value investments have a natural fit within “Opportunity Allocations⁸.” The Opportunity Allocation is an investment policy category that is set to anticipate unique market opportunities or strategies that may one day become part of an investment program. In practice, an Opportunity Allocation involves adopting a formal range that determines the minimum and maximum amount of opportunistic holdings (for example, 0% to 10% of the overall portfolio). The Opportunity Allocation can hold a broad category of different investment types, of which deep-value investments could be one.

Opportunistic Deep-Value Investing: How to Get Started

We reviewed the merits of and potential approaches to implementing deep-value investments favoring an opportunistic approach. In this section, we provide a checklist of the steps prerequisite to setting up an opportunistic deep-value investment program.

1. Make deep-value investing an agenda topic.
2. If it fits with the nature of the investment pool, review policies to determine if additional flexibility is required (e.g., determine if the policy allows for opportunistic investments, either through an Opportunity Allocation or asset class flexibility).
3. Update investment policies as necessary to afford required flexibility.
4. Commit to a periodic scan of markets for deep-value opportunities (e.g., annually, quarterly, monthly).
5. Determine the potential sizing of deep-value investments (as a percentage of total portfolio) through asset modeling and liquidity analyses.
6. Identify the party that will handle execution and implementation of the investments (internal or external).

⁸ Aon Hewitt Investment Consulting, Inc.: “The Opportunity Allocation: A Tool to Provide Maximum Flexibility with Implementation.” <http://www.hekblog.com/2013/09/18/hek-white-papers/>

Conclusion

This paper presents the potential merits of deep-value investing as a total return strategy, suggestions for mitigating the principal risks of this investment style, and an approach for identifying and managing these investments. Deep-value investment strategies offer several attractive characteristics for return-minded investors, including the potential for excess returns relative to broad markets, capital efficiency, and a means to allocate capital during market downturns. The investors most interested in these investments will have intermediate to long time horizons and a desire for return enhancement, and may include endowments, foundations, sovereign wealth funds, and a subset of pension plans.

As we have shown, the strategy's main drawbacks and risks can be controlled through careful implementation. Finding deep-value investments over time requires, in our view, both asset allocation (market views) and investment manager research (vehicle selection). Setting a plan in place now will increase the likelihood that, when opportunities arise, investments will be made.

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