

**MCERA RETIREMENT EDUCATION HALF DAY MEETING AGENDA  
THURSDAY, MARCH 28, 2019  
MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
3199 M STREET, MERCED, CA 95348**

**Please turn your cell phone or other electronic device to non-audible mode and please refrain from using them during the Board meeting.**

**CALL TO ORDER: estimated time of 9:30 A.M. or after Investment Meeting Adjournment.**

- ROLL CALL

**PUBLIC COMMENT**

Members of the public may comment on any item under the Board's jurisdiction. Matters presented under this item will not be discussed or acted upon by the Board at this time. For agenda items, the public may make comments at the time the item comes up for Board consideration. Persons addressing the Board will be limited to a maximum of five (5) minutes in total. Please state your name for the record.

**MEETING**

- BOARD EDUCATION HALF DAY  
Discussion and possible action on the following presentations:
  - Benchmarking and active v. passive management – Meketa Investment Group.
  - Private opportunistic credit – Cliffwater, LLC.

**INFORMATION ONLY**

**ADJOURNMENT**

All supporting documentation is available for public review in the office of the Merced County Employees' Retirement Association, 3199 M Street, Merced, California, 95348 during regular business hours, 8:00 a.m. – 5:00 p.m., Monday through Friday.

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# MEETING MATERIALS

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## Merced County Employees' Retirement Association

### Benchmarking 101

Education Day

March 28, 2019



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## What is a Benchmark?

Objective way to evaluate the performance of an investment.

- Benchmarks are used at all levels of investing.
  - For funds/managers, asset classes, and the whole portfolio.
- Benchmarks are often based upon the performance of the most appropriate opportunity set.
  - For example, a U.S. large-cap equity manager might be compared to the Russell 1000 index.
- Benchmarks may also facilitate comparison to long-term financial objectives.
  - For example, a pension plan would be compared to its actuarial assumed rate of return.

## What Objectives Do Benchmarks Serve?

- Allow investors to assess whether they are achieving their goals.
  - Compare relative performance of portfolio with another reasonable option.
    - Allows for measurement of value added.
    - Enables performance attribution analysis.
- Facilitate better-informed investment decisions.

## What are Criteria in Selecting Effective Benchmarks?

Six widely accepted criteria<sup>1</sup> for benchmarks:

- Unambiguous – well-defined identities and weights of constituents;
- Investable – one can own portfolio of the benchmark's constituents;
- Measurable – can calculate performance at reasonable intervals;
- Appropriate – consistent with composition of portfolio for which it is a benchmark;
- Reflective of current investment options – represents market of the asset class; and
- Specified in advance – constructed before evaluation period.

Unfortunately, many common benchmarks (e.g., peer comparisons) fail one or more of these criteria.

- While we acknowledge this makes them less than ideal, they are often the best choice available.

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<sup>1</sup> The Bailey Criteria: Financial Analysts Journal, CFA Institute, 1992.

## The Big Picture: Portfolio Level Benchmarks

It is often helpful to have more than one benchmark, at both the asset class and portfolio level.

- Portfolio benchmarks represent a weighted average of benchmarks for the component asset classes.
- Weights can be actual or target allocations.
  - Policy benchmark – based on the target allocation.
    - Informs how the portfolio performed due to having different allocations and through manager implementation.
  - Actual allocation benchmark – based on the actual allocation.
    - Informs how the portfolio performed primarily due to manager implementation.

|                             | 4Q18<br>(%) | 1-Year<br>(%) | 3-Year<br>(%) | 5-Year<br>(%) |
|-----------------------------|-------------|---------------|---------------|---------------|
| Example Total Fund          | -5.4        | -3.6          | 6.2           | 5.1           |
| Policy Benchmark            | -7.0        | -4.6          | 6.0           | 4.4           |
| <i>Excess Return</i>        | <i>1.6</i>  | <i>1.0</i>    | <i>0.2</i>    | <i>0.7</i>    |
| Actual Allocation Benchmark | -6.5        | -4.8          | 5.9           | 4.3           |
| <i>Excess Return</i>        | <i>1.1</i>  | <i>1.2</i>    | <i>0.3</i>    | <i>0.8</i>    |

- In this example, in the fourth quarter, the fund outperformed the Policy Benchmark by 160 bp and the Actual Allocation Benchmark by 110 bp.
  - Tactical positioning added approximately 50 bp of value while active management within the portfolio added roughly 110 bp of value relative to the indices.

## Peer Benchmarks: Biases and Investability

For some asset classes, a peer group is the most common comparison because there is no other benchmark that meets the key criteria.

- These peer universes are often used for private markets and hedge funds.<sup>1</sup>
- These benchmarks have several problems:
  - Rely on constituents' self-reported performance, introducing upward biases.
    - Selection bias occurs when funds report only when their returns are good.
    - Survivorship bias occurs when funds that do poorly and close stop reporting bad returns.
    - They are not investable.
    - The universe cannot be replicated due to lack of transparency, lack of access, and lack of liquidity.
    - May not represent the investor's opportunity set.
    - If skewed toward smaller funds, larger investors may be unable to get meaningful access.
    - Timing of valuations presents operational challenges.
    - Underlying assets are not regularly marked to market.
    - Their valuations are often estimates.
    - The valuation process takes time, usually resulting in lagged reporting.

<sup>1</sup> For example, Cambridge Associates Private Equity index is often used for private equity, the NCREIF ODCE is often used for private real estate, and the HFRI/HFRX is often used for hedge funds.

## Challenges of Benchmarks: Using the Least Bad Comparison

For some asset classes, there is not always a suitable peer universe available for comparison.

- Private natural resources and infrastructure present particular challenges.
  - While funds in these spaces are tracked,<sup>1</sup> the universes are too narrow for meaningful comparisons.
  - For example, the Cambridge Associates private natural resources universe for vintage year 2018 is composed of four funds, and the 2017 vintage year includes 16 funds.
  - They may also be skewed to sub-sectors that do not represent the way an investor constructs their own portfolio.
- The alternative is to choose a public markets benchmark that most closely resembles the underlying opportunity set.
- While this may be a reasonable approach for long-term comparisons, there will be significant tracking error over shorter periods.

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<sup>1</sup> Preqin and Cambridge offer composites.



## Challenges of Benchmarks: The “Plus a Spread” Approach

Some investors use a “plus-a-spread” approach for making a long-term comparison.

- These may combine a benchmark that approximates the opportunity set with an additional hurdle.
  - Examples include:
    - A private equity program may seek returns of 200 bp over a public equity index.
    - A private real estate program that includes non-core investments may seek returns of 100 bp over a peer core fund universe.
  - The size of the hurdle may depend on expectations for manager alpha or compensation for additional risks (e.g., an illiquidity premium).
- Alternatively, they may combine a less-directly related measure with a hurdle.
  - Examples include:
    - An absolute return program may seek returns of 400 bp over 90-day T-Bills (i.e., cash).
    - A real assets program may seek returns of 500 bp over CPI-U (i.e., inflation).
  - The size of the hurdle should reflect the investor’s expectations for the program.
- Again, while this may be a reasonable approach for long-term comparisons, there will be significant tracking error over shorter periods.
- Furthermore, these are not investable: one cannot own a portfolio of instruments that deliver these returns.

### **Specific Example for MCERA: Where a Benchmark was Recently Improved**

Historically, the SSgA Real Assets Strategy Fund was benchmarked versus a composite index comprised of the NCRIEF ODCE, S&P Global Infrastructure, and S&P Global Natural Resources Index.

The SSgA Real Assets fund seeks to approximate the performance of a blend of five indexes: Bloomberg Roll Select Commodity Index, S&P LargeMidCap Commodity and Resources Index, S&P Global Infrastructure Index, Dow Jones U.S. Select REIT Index, and Bloomberg Barclays U.S. TIPS Index.

A better gauge of tracking performance for this fund (especially given its passive approach) is a composite benchmark made up of the same benchmarks used in its objective, rather than the current blend. In February, Meketa recommended making this adjustment, and we believe it will improve the ability of the Board to monitor performance over time.

When comparing the tracking error<sup>1</sup> between the two indexes, the tracking error for the current benchmark is more than four times greater than the same metric versus the composite benchmark made up of the five indexes (4.9% vs 0.2%). Clearly, there is less of a difference between the latter benchmark and the fund.

Additional benchmarks for MCERA will be reviewed in coming months to ensure they are the “best fit” for each component of the program, as well as for each individual manager.

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<sup>1</sup> Tracking Error represents the standard deviation of the excess returns. It indicates how closely the fund tracks the index. The specific tracking error figures referenced above is for the period from June 2013 through December 2018. The composition of the objective based benchmark has changed throughout it's history.

## Summary

- Benchmarks are an objective way to measure the performance of an investment against a reasonable alternative and determine whether that investment is meeting the investor's goal.
  - They should be applied at different levels of the portfolio.
- There are a number of widely-accepted criteria for effective benchmarks
  - Unfortunately, many common benchmarks fail one or more of these criteria
  - Private market and hedge fund benchmarks have particular drawbacks.
  - Therefore, combined “total portfolio benchmarks” will have flaws in most cases.
- Institutional investors often utilize two or more total portfolio level benchmarks, being aware of the structure of each.
- It may be appropriate to use different benchmarks for different time horizons:
  - Over the short term, consider comparisons to weighted averages of market indexes or to peers.
  - Over the long term, fiduciaries may prefer to focus on benchmarks tied to their financial objectives.

# MEETING MATERIALS

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## Merced County Employees' Retirement Association

### 2018 Active Manager Performance

Education Day

March 28, 2019



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## U.S. Equity

- 2018 was a difficult year for value and core managers, but a relatively good year for growth managers, especially small cap growth managers. Value managers tend to have a lot of cyclical (industrial, material) and interest rate sensitive (financials) exposure. In the fourth quarter, investors were very concerned about the durability of the economic recovery and the yield curve remained pretty flat. The stocks of companies with a lot of debt were also punished. These factors hurt the groups that tend to dominate value portfolios. Deeper value managers generally performed the worst.
- The Russell 1000 Value, Russell MidCap Value, and Russell 2000 Value Index were in the 47th, 36th, and 40th percentiles, respectively, in 2018. These percentiles are much lower than the 5-year and especially 10-year percentiles. The biggest anomaly is in small cap value where the Russell 2000 Value index is in the 36th percentile over the last 3 years. In other words, a small cap value manager had to be in the top third of the peer group to outperform, and that is gross of fees. (In 2016, the Russell 2000 Value was in the 15th percentile for the year.) However, over the 5 and 10 year periods, the Russell 2000 Value is in the 61st and 92nd percentiles, the latter indicating that most small cap value managers have outperformed over 10 years.
- In Core, the Russell 1000, Russell MidCap and Russell 2000 were in the 38th, 40th and 50th percentiles, respectively, during 2018. The percentile for large cap is consistent with the multi-year periods, but the midcap index is approximately 5 to 15 percentage points lower than the 3, 5 and 10-year periods. The contrast is much greater in small cap core with the index percentiles being 47th, 60th, and 83rd for the 3, 5 and 10-year periods.
- Active growth managers did relatively well in 2018. In large cap growth, the Russell 1000 Growth was in the 53rd percentile, which is unusually high compared to history. The index has been in the 27th, 30th, and 36th percentiles over 3, 5, and 10-years, and is dominated by the FAANGS. Some of those stocks did not perform well last year. The MidCap growth index was in the 54th percentile, which is 10 to 20 points higher than the multi-year periods.

### U.S. Equity (continued)

- Small cap growth was the big outlier. Three to five years ago, the Russell 2000 Growth was difficult to beat. In 2018, the index was in the 78th percentile and the median small cap growth manager outperformed by just over 500 basis points. We are not sure exactly why small cap growth managers outperformed by so much, but we suspect it was because of wider than normal dispersion and positive skew. The degree of outperformance in 2018 created end-point bias, so the index is now in the 79th, 69th, and 78th percentiles for the 3, 5 and 10-year periods.

### U.S. Equity = 2018 Russell Index Percentiles

|                  | Period Yrs | Value                                      | Core                           | Growth                         |
|------------------|------------|--|--------------------------------|--------------------------------|
| <b>Large Cap</b> | 1          | 47   | 38                             | 53                             |
|                  | 3          | 55   | 34                             | 27                             |
|                  | 5          | 56   | 31                             | 30                             |
|                  | 10         | 70   | 39                             | 36                             |
|                  |            | 2018 median manager <sup>1</sup> = -18 bps | 2018 median manager = -51 bps  | 2018 median manager = +54 bps  |
| <b>MidCap</b>    | 1          | 36   | 40                             | 54                             |
|                  | 3          | 45   | 46                             | 43                             |
|                  | 5          | 40   | 50                             | 43                             |
|                  | 10         | 48   | 56                             | 33                             |
|                  |            | 2018 median manager = -144 bps             | 2018 median manager = -133 bps | 2018 median manager = +41 bps  |
| <b>Small Cap</b> | 1          | 40   | 50                             | 78                             |
|                  | 3          | 36   | 47                             | 79                             |
|                  | 5          | 61   | 60                             | 69                             |
|                  | 10         | 92   | 83                             | 78                             |
|                  |            | 2018 median manager = -100 bps             | 2018 median manager = -12 bps  | 2018 median manager = +507 bps |

<sup>1</sup> Median manager is gross of fees.



## International Equity

- Active managers struggled to outperform their respective indices in 2018.
- On average, ACWI ex-U.S. and EAFE managers underperformed the index by -0.35% and -0.61% for the year.
- On a relative basis, breadth favored ACWI ex-U.S. managers when compared to EAFE managers.
- Style Risk Factors:
  - “Minimum Volatility” factor experienced strong outperformance, which led all other style factors.
  - The MSCI ACWI ex-U.S. Minimum Volatility and MSCI EAFE Minimum Volatility indices outperformed their Parent Index by 9.7% and 8.1%, respectively.
  - “Quality” and “High Dividend” factors were also rewarded, but by a smaller degree.
  - “Value” factors kept pace with index returns within the ACWI ex-U.S. space, but continued to struggle within the EAFE space.

|              | ACWI ex-U.S. |        |       |       |       | EAFE   |       |       |       |       |
|--------------|--------------|--------|-------|-------|-------|--------|-------|-------|-------|-------|
|              | 1 YR         | 3 YR   | 5 YR  | 7 YR  | 10 YR | 1 YR   | 3 YR  | 5 YR  | 7 YR  | 10 YR |
| % Outperform | 48           | 51     | 74    | 85    | 77    | 41     | 56    | 72    | 80    | 84    |
| Average      | -0.35        | 0.09   | 1.18  | 1.76  | 1.64  | -0.61  | 0.40  | 0.88  | 1.09  | 1.39  |
| Median       | -0.34        | 0.02   | 0.97  | 1.66  | 1.62  | -0.94  | 0.38  | 0.71  | 0.97  | 1.22  |
| Max          | 9.92         | 8.71   | 10.17 | 8.83  | 7.48  | 10.83  | 6.13  | 5.71  | 6.75  | 8.92  |
| Min          | -13.85       | -11.35 | -3.91 | -3.56 | -2.47 | -11.40 | -5.68 | -4.13 | -2.85 | -2.64 |



## Global Equity

- 2018 was a difficult year in terms of relative performance.
- Across global mandates, breadth favored ACWI.
- Of ACWI managers, 51% outperformed the MSCI ACWI index by an average of 0.31%, whereas the majority of World managers underperformed the MSCI World index.
- Style Risk Factors in favor:
  - “Minimum Volatility”
  - The MSCI ACWI and World Minimum Volatility indices outperformed their Parent Index by +7.9% and +6.7%, respectively.
  - Momentum (+4.5%, +5.9%), Quality (+2.0%, +3.2%), and Growth (+1.3%, +2.0%) also delivered strong relative outperformance (ACWI & World, respectively).
- Style Risk Factors Facing Headwinds:
  - Conversely, “Value” factors struggled within both universes.
    - The MSCI ACWI Value Weighted index underperformed the MSCI ACWI index by 3.3%, and the MSCI World Value Weighted underperformed the MSCI World by 3.3%.

|              | ACWI   |       |       |       |       | World  |       |       |        |       |
|--------------|--------|-------|-------|-------|-------|--------|-------|-------|--------|-------|
|              | 1 YR   | 3 YR  | 5 YR  | 7 YR  | 10 YR | 1 YR   | 3 YR  | 5 YR  | 7 YR   | 10 YR |
| % Outperform | 51     | 54    | 63    | 74    | 73    | 47     | 56    | 56    | 58     | 67    |
| Average      | 0.31   | 0.29  | 0.75  | 1.19  | 1.40  | -0.21  | 0.13  | 0.31  | 0.38   | 0.76  |
| Median       | 0.06   | 0.17  | 0.56  | 1.14  | 1.15  | -0.32  | 0.21  | 0.27  | 0.36   | 0.60  |
| Max          | 20.62  | 10.05 | 9.71  | 8.77  | 11.71 | 14.66  | 9.73  | 8.63  | 9.70   | 9.66  |
| Min          | -14.14 | -8.62 | -7.84 | -9.72 | -4.05 | -19.13 | -8.50 | -6.78 | -11.01 | -4.10 |

## Emerging Market Equity

- Here too, 2018 was a difficult year for active manager performance.
- The last three years have been particularly difficult for active emerging markets managers, as factor dispersion and index concentration has made for a difficult market environment in which to navigate.
- Style Risk Factors in Favor:
  - “Minimum Volatility” (+8.8% vs the EM Index).
  - “High Dividend” (+7.0% vs the EM High Dividend Index).
  - Last year, the MSCI Emerging Markets index experienced its weakest absolute and risk-adjusted returns since 2015/2016. It is therefore no surprise that investors favored safety (minimum vol) and near-term certainty (high dividends) in what was a volatile year for the asset class.
  - Value (+2.3%).
- Style Risk Factors Facing Headwinds:
  - “Growth” (-3.7%), “Quality” (-1.9%), and “Momentum” (-0.3%) all underperformed the index.

|              | EM     |       |       |       |       |
|--------------|--------|-------|-------|-------|-------|
|              | 1 YR   | 3 YR  | 5 YR  | 7 YR  | 10 YR |
| % Outperform | 43     | 46    | 67    | 82    | 84    |
| Average      | -0.63  | -0.28 | 0.69  | 1.36  | 1.40  |
| Median       | -0.58  | -0.18 | 0.64  | 1.14  | 1.35  |
| Max          | 10.41  | 13.15 | 9.00  | 9.38  | 7.24  |
| Min          | -18.58 | -9.23 | -5.82 | -3.80 | -3.51 |

## Core Fixed Income

- Active managers in Core Fixed Income have had a reasonable amount of success in beating the index over time.
- Ten-Year Index Performance Rank: 93rd percentile.
- 3-Year and 5-Year Performance Rank: 83rd percentile.
- Construction of the Index is heavily weighted toward U.S. government agencies and toward the companies and agencies that have the most debt.
  - Strong active managers can often find better opportunities in smaller or less levered issuers, as well as more opportunities in corporates. *Last year, however, was more unusual and returns were flat with active managers more evenly dispersed above and below the index, which ranked in the 53rd percentile.*

|              | Core (U.S. Aggregate) |        |        |        |         |
|--------------|-----------------------|--------|--------|--------|---------|
|              | 2018                  | 1-Year | 3-Year | 5-Year | 10-Year |
| Index Return | 0.00                  | 0.0    | 2.1    | 2.5    | 3.5     |
| Index Rank   | 53                    | 53     | 83     | 83     | 93      |
| Average      | 0.1                   | 0.1    | 2.5    | 2.9    | 4.5     |
| Median       | 0.0                   | 0.0    | 2.4    | 2.8    | 4.4     |
| Max          | 4.1                   | 4.1    | 6.3    | 6.4    | 7.5     |
| Min          | -2.1                  | -2.1   | 0.2    | 0.4    | 2.7     |

### Emerging Market Local Currency

- Manager ability to outperform the Index has been more difficult of late, as seen in the progression from 10-year to more recent time periods.
- Headwinds Faced by Active Managers:
  - The strength of the U.S. dollar.
  - Construction of the EM local index in that it reflects only 16 countries and less than 100 sovereign (non-corporate) issuers.
  - Survivorship bias.
  - Active managers in the EM Local space typically invest opportunistically in many non-benchmark countries and corporates, which can be more volatile than the benchmark due to currency effects and illiquidity.

| EM Local Currency (JPMGBI- EM Global Diversified) |       |        |        |        |         |
|---|-------|--------|--------|--------|---------|
|   | 2018  | 1-Year | 3-Year | 5-Year | 10-Year |
| Index Return                                      | -6.2  | -6.2   | 5.9    | -1.0   | 3.5     |
| Index Rank  | 31    | 31     | 46     | 63     | 70      |
| Average   | -6.8  | -6.8   | 5.9    | -0.5   | 3.8     |
| Median  | -6.9  | -6.9   | 5.7    | -0.8   | 4.0     |
| Max   | -0.4  | -0.4   | 9.3    | 2.7    | 6.2     |
| Min   | -11.5 | -11.5  | 3.2    | -2.5   | 0.7     |

### Emerging Market Hard Currency

- Active managers in EM Hard currency have also experienced declining performance vs. the benchmark.
- The Hard Currency benchmark, which is more robust than EM Local, with 63 countries and nearly 500 issuers, had a large 16.7% loss in 2018 (worse than Local's decline of 11.5%).
- Headwinds Faced by Active Managers:
  - Currency surprises, geopolitical events, and U.S. policies caused bets on the debt of riskier countries to go wrong.
- The benchmark ranked in the 31st percentile in 2018 vs. the 75th percentile over the 10-year period.

| EM Hard Currency (JPM EMBI Global Diversified) |       |        |        |        |         |
|--|-------|--------|--------|--------|---------|
|  | 2018  | 1-Year | 3-Year | 5-Year | 10-Year |
| Index Return                                   | -4.3  | -4.3   | 5.2    | 4.8    | 8.2     |
| Index Rank                                     | 31    | 31     | 76     | 33     | 75      |
| Average  | -5.2  | -5.2   | 5.8    | 4.2    | 8.9     |
| Median   | -5.2  | -5.2   | 5.8    | 4.6    | 8.9     |
| Max  | 1.4   | 1.4    | 9.2    | 6.6    | 13.3    |
| Min  | -16.7 | -16.7  | 0.7    | -1.6   | 3.8     |

## High Yield

- The 2018 High Yield Market:
  - January to October: Narrowing credit spreads and rising interest rates.
  - October through December: Widening credit spreads and falling interest rates.
- What Helped / Hurt Manager Performance:
  - During periods of widening spreads, Managers tend to reduce risk relative to the benchmark.
  - Shorter duration positioning also helped many managers keep up with the index in the first period from January to October
  - The 3- and 10-year periods were difficult years for the peer group as they encompass periods mostly of spread tightening, beginning with recovery period in 2009.
  - The 5-year period has two longer spread widening periods in 2014 and 2015.

| High Yield Managers (Bloomberg Barclays High Yield Index) |       |        |        |        |         |
|---|-------|--------|--------|--------|---------|
|   | 2018  | 1-Year | 3-Year | 5-Year | 10-Year |
| Index Return  | -2.1  | -2.1   | 7.2    | 3.8    | 11.1    |
| Index Rank  | 56    | 56     | 22     | 47     | 17      |
| Average   | -1.6  | -1.6   | 6.4    | 3.8    | 10.2    |
| Median  | -1.9  | -1.9   | 6.3    | 3.8    | 10.2    |
| Max   | 5.2   | 5.2    | 12.5   | 7.1    | 16.5    |
| Min   | -11.8 | -11.8  | 3.1    | -2.7   | 5.3     |

## Bank Loans

- Lower credit quality segments drove bank loan market returns during 2018.
- The index was one of the only positive performing indices during the year.
- Opportunistic Managers faced bigger headwinds than pure-play peers.
- The loan market pulled back in December due to a combination of factors including the Fed softening language on future interest rate hikes and the potential changes to CLO demand. While the retail market clearly treats bank loans as a way to express a view on future interest rates, this group is only about 15% of the total loan market, and CLOs, at about 60% of the market, are more likely to drive bank loan market dynamics.

| Bank Loan Managers (CS Leveraged Loan Index) |      |        |        |        |         |
|--|------|--------|--------|--------|---------|
|  | 2018 | 1-Year | 3-Year | 5-Year | 10-Year |
| Index Return                                 | 1.1  | 1.1    | 5.0    | 3.3    | 8.3     |
| Index Rank                                   | 22   | 22     | 38     | 54     | 47      |
| Average                                      | 0.4  | 0.4    | 4.9    | 3.4    | 8.5     |
| Median                                       | 0.7  | 0.7    | 4.8    | 3.4    | 8.3     |
| Max  | 3.4  | 3.4    | 9.5    | 6.1    | 13.8    |
| Min  | -9.0 | -9.0   | 2.5    | -2.5   | 5.9     |





# What is Opportunistic Credit?

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Opportunistic credit is broadly defined as credit-sensitive securities trading at a discount to the fundamentals due to a disruption in the market or mis-valuation of the asset

- The reasons for the disruptions can be due to issues with the underlying asset, the security or holder of the security & can vary:
  - Ratings downgrades, forced deleveraging, regulatory pressure, other technical pressures, etc
- The disruptions may result from the inability of current holders of the securities to retain ownership, and will last until the securities are transferred from the unstable/unnatural holder to more well-capitalized investors and are re-priced
- Return is driven by coupon income as well as capital gains (e.g. “buy on the cheap & paid to wait”)
- Monetizations typically occur from events rather than from market sales

Disruptions can be temporary or sustained & timing matters as credit instruments are OTC traded

- Example: Leveraged loans in 2007/2008 sustained massive price declines due to a deleveraging event; the opportunity disappeared over a period of many months as liquidity returned to the markets
- Example: RMBS became a downgraded asset class with regulatory restrictions on traditional/legacy holders
- Example: Bank lending has been constrained leading to the emerging of private lending strategies

The opportunity is not entirely predicated on managers having an “intelligence premium” over other investors

- Investors who sell often have non-economic motivations, whereas managers not facing redemption pressure can focus on economic fundamentals and ignore aspects such as credit ratings
- Part of the return is a premium for holding less liquid assets, which managers can earn due to their liability structure (structure of the underlying investment vehicle holding the assets is important)

# US Fixed Income Securities—Market Size

Traditional high yield investments – corporate high yield bonds and loans, represent over \$2 trillion on a notional basis

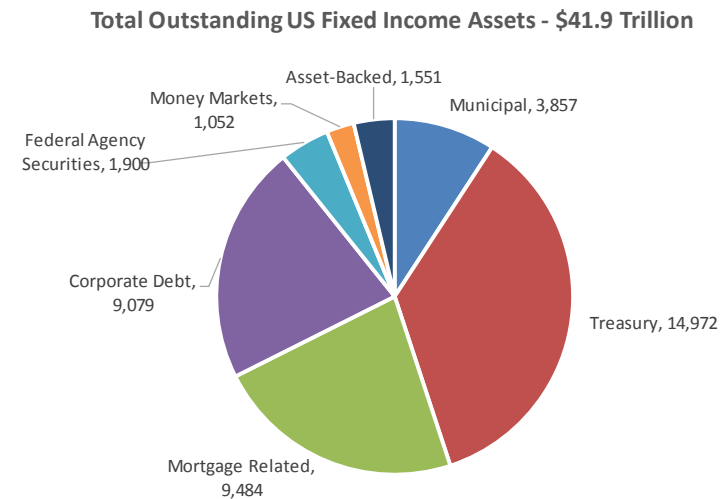
- Investment grade corporate debt may be downgraded or have hybrid investment/non-investment grade ratings

Credit-sensitive residential mortgage backed securities market (RMBS), both Agency & non-Agency, and commercial mortgage backed securities market (CMBS) are included in the “mortgage related” category

- A portion of the category is non-investment grade

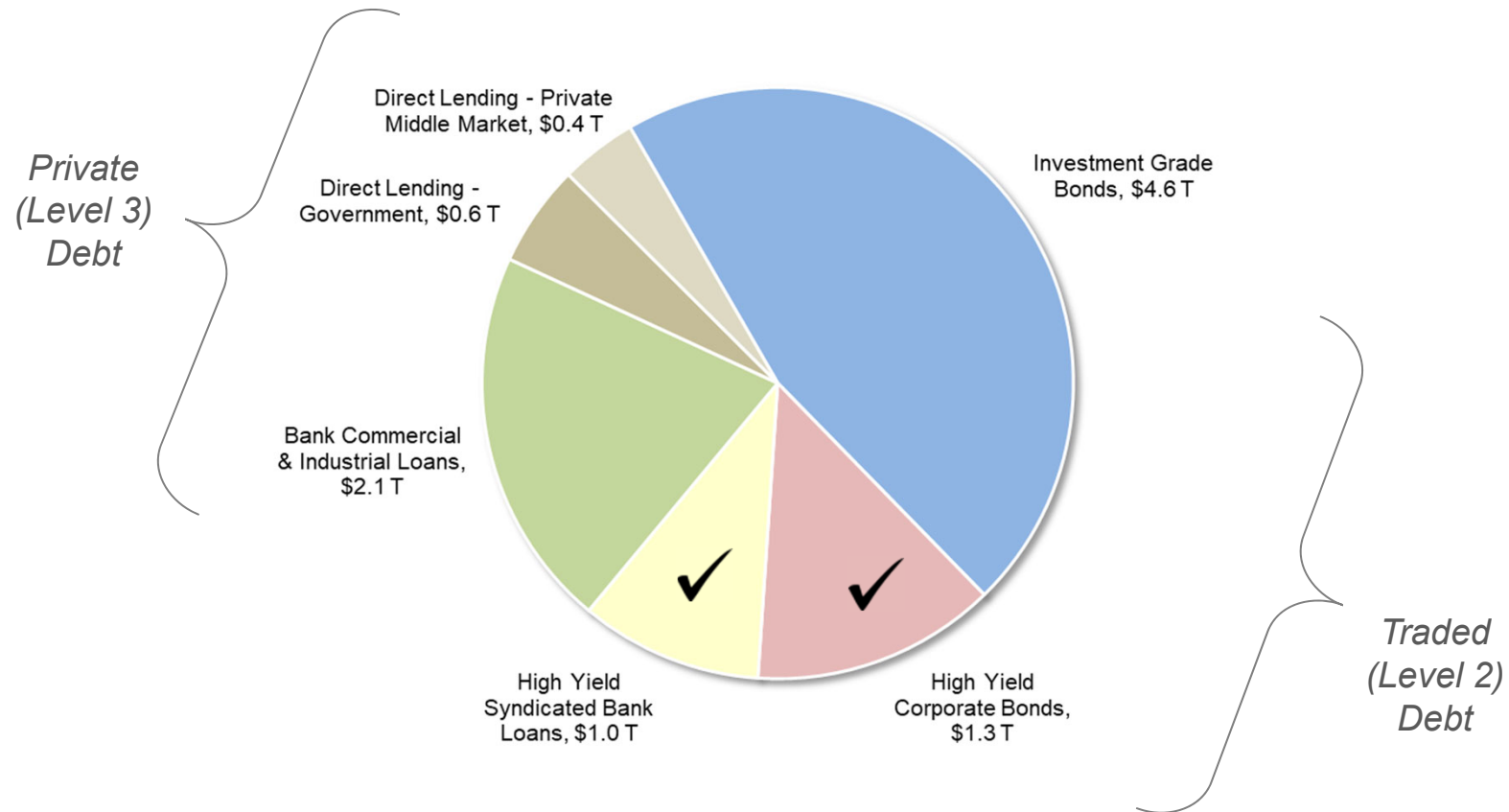
Asset backed securities include issuance backed by automobile, credit card, equipment trusts, student loans as well as approximately \$0.8 trillion in collateralized loan/debt obligations (CLOs/CDOs), which are complex structures which own underlying corporate and mortgage-backed securities

- Includes both investment & non-investment grade



# Corporate Credit is a Large Opportunity Set with Many Sub-Components

*U.S. Corporate Debt Market*



*“Opportunistic credit” typically involves investment in some form/combination of corporate loans or bonds*

Sources: Federal Reserve, Barclays, JPMorgan Markets. Information as of December 31, 2017.

# Strategies Often Employed in Opportunistic Credit Portfolios

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## Stressed performing credit/event driven credit

- Secondary debt (first or second lien bank debt and high yield bonds) typically trading between \$65-\$90 with some operating issues at the company impacting pricing, but ultimately well covered and expected to repay in full through a refinancing, restructuring, tender offer or merger/acquisition
- Can also include DIP financings, hung new issue syndicated bank debt and revolvers

## Distressed debt/special situations

- Distressed secured debt typically senior in the capital structure with optionality. This can include re-organized equity resulting from bankruptcies/re-structurings as well as orphaned, post re-organization liquidation/insurance claims
- Special situations include private placements, debt securities with warrants and equity optionality, late stage bankruptcy claims or exchange offers

## Capital solutions

- Primary financings originated and structured with optionality. Includes high yield direct loans, rescue financings, structured convertible notes, margin loans, off-the-run equity with structural protection and growth potential

## Structured credit

- Securities trading at a discount that can be held, worked out and/or re-packaged:
  - Fixed and floating-rate bonds backed by pools of residential (RMBS) and commercial (CMBS) mortgages; RMBS are further divided into Non-Agency (private label) and Agency (government-backed) securitizations
  - Asset backed securities (ABS) backed by some variation of consumer debt
  - Collateralized loan obligations (CLOs) and bond obligations (CDOs) are structured securities whose cash flows are derived from underlying pools of corporate loans and bonds

## Why the Use of Active Management in Opportunistic Credit?

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### Active management is critical to achieving a return in the credit markets

- The universe is large, diverse & complex
- Need to be able to understand not just the underlying collateral but also need to understand the details of the structure that owns the collateral as well as bankruptcy laws

### With each investment, you are buying a series of future cash flows

- Need to assess how much of that cash flow you will actually get back, the timing of the cash flow and how much to pay for it
  - Both quantitative analysis and qualitative assessment is required
- Most of the instruments trade in less liquid markets on an over the counter basis, not exchange traded
  - Thus, the ability to source and trade the investment is also important

# Summary Investment Vehicle Characteristics

Investment vehicles tend to be a hybrid of hedge fund and private equity structures

Due diligence should focus on whether the vehicle structure is compatible with the underlying investment and/or strategy with an emphasis on:

- Term: is it an evergreen structure or a drawdown structure?
- Liquidity: if an evergreen structure, are the terms appropriate?
- Valuation: does the valuation frequency/methodology tie into the remuneration structure?
- Fees: does the level of fees align with the projected returns?

|                   | Private<br>Commingled Funds  | Separate<br>Accounts   |
|-------------------|--|--|
| Description       | May be an evergreen or drawdown structure  | Ability to customize a portfolio for large investments                                 |
| Investor Minimums | \$5m   | \$50m - \$100m   |
| Leverage          | 0.0x to 2.5x depending on offering   | Investor directed  |
| Mgt Fees          | 1.00% - 2.00%  | 0.50% - 1.00%  |
| Perf Fees         | Most have performance fees between 10% and 15% of profits, after 7-8% preferred return |  |
| Positives         | Access to good firms with strategies/terms to match investor objectives                | Lowest fees with ability to customize terms and portfolio; co-investment opportunities |
| Negatives         | Lack of liquidity, but better than private equity                                      | Large commitment   |

Source: Cliffwater research.

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Appendix

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# The Credit Cycle

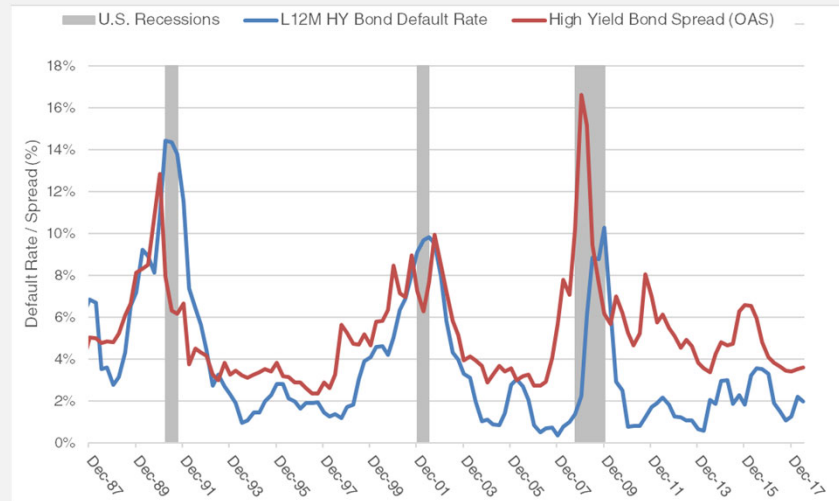
Widening margins  
Free cash flow  
Leverage declines  
Spreads narrow

Increase in leverage  
Speculation  
Narrow spreads

Expansion

Recovery

Downturn



Source: Bloomberg Barclays, JPMorgan, BLS

Repair

Debt repayment  
Improved balance sheets  
Cost cutting  
Wide spreads

Credit contracts  
Recession  
Falling asset prices  
Spreads widen



# Loan Definitions by Repayment Seniority

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## *Loan Classification by Priority*

|                |  |
|----------------|--|
| Revolver       | Debt facility allowing draw down, repayment, and re-borrow   |
| First Lien     | Lender has first position to benefit from liquidation of any collateral  |
| Stretch Senior | Senior debt underwritten on both cash flow and assets, providing either cheaper or larger financing  |
| Unitranche     | Combines senior and subordinated into one instrument; “first out” or “last out” positions set independent of borrower in “agreement among lenders” |
| Second Lien    | Lender has second position to benefit from collateral liquidation  |
| Unsecured      | Junior debt not protected by guarantor or collateral   |
| Mezzanine      | Senior only to common stock and typically coupled with equity warrants   |
| Convertible    | Allows conversion into equity to participate in upside opportunity   |

## Basic Terminology

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Corporate bond

Borrowing from public through securities offering

Bank loan

Borrowing from a bank

Leveraged loan

Loan extended to borrowers with higher default risk

Broadly syndicated loans (BSL)

Large leveraged loans broadly syndicated and publicly traded

Direct loan

Leveraged loan not originated by a banker or broker

Sponsored loan

Loan to a company as part of a financial sponsor transaction

EBITDA

Earnings before interest, tax, depreciation and amortization

U.S. middle market

Russell 2000 sized companies, \$10m - \$100m EBITDA

BDC (Business Development Co.)

1940 Act-regulated vehicles that frequently invest in loans

Cliffwater Direct Lending Index

An index tracking performance of direct loans held by BDCs

## Key Terms in Loan Agreements

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|                           |  |
|---------------------------|--|
| Borrower and Lender       | Key parties to credit agreement  |
| Loan Commitments          | Specifies facility types (revolver, senior, junior) and loan sizes   |
| Use of Proceeds           | General corporate purposes, recapitalization, refinancing, M&A   |
| Interest Rate / Tenor     | Libor floors, spreads and loan maturity  |
| Amortization / Cash Sweep | Amortization schedule, treatment of excess cash flow and prepayment fees   |
| Security and Collateral   | Lien on assets, pledge of equity interests, guarantors, subsidiaries   |
| Covenants                 | Leverage, interest coverage, reporting, compliance, asset sales, dividends   |
| Event of Defaults         | Definitions include non-payments, covenant violation, misrepresentation, inaccuracy, bankruptcy, change of control or cross-default triggers |
| Fees / Expenses           | Structuring, closing, administration, OID, underwriting, legal fees  |
| Other                     | Board rights, exclusivity periods, reps & warranties, EBITDA add-backs, etc.   |
| Inter-creditor Agreement  | Agreement among creditors that sets forth lien positions and rights  |

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# Cliffwater Disclosures

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