Discounted CEFs: Hitting Singles and Drawing Walks

MONEYBALL – Michael Lewis’s best-selling book from 2003 and later a hit movie starring Brad Pitt and Jonah Hill – tells the story of the Oakland A’s stat-based approach to building their roster and competing for championships with limited cash resources.

At its most basic level, the Moneyball theory that Oakland employed was **buy low / sell high** – where using statistical analysis, small-market teams can “buy” undervalued players and “sell” overvalued players. It wasn’t necessarily a new concept (statistical analysis in baseball has been around for as long as the game has been played), but the way in which Oakland applied it went against almost all conventional baseball wisdom.

Okay, but how is this relevant to Closed-End Funds (CEFs) or Matisse? – I promise we’ll get there (we aren’t just excited October baseball fans).

The most popular Moneyball theory was that on-base percentage was undervalued and being a slugger was overvalued. **In other words, there was more value to be found in drawing walks and hitting singles than hitting home runs.** Players who hit more home runs were typically “more expensive” (higher salaries), while those who were good at getting on base were typically “cheaper” (lower salaries).

The Oakland A’s took this idea (among other stat-based theories to finding value) and ran with it. The result was a contrarian approach to building their roster, where numbers trumped conventional wisdom and big names were irrelevant. Oakland would reach three straight world series from 1988 – 1990, and beat the San Francisco Giants in 1989 – a testament to the strategy’s success.

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We are not going to claim that what we do at Matisse (our Discounted CEF strategy) is based off Moneyball (because it’s not). In our opinion, our approach is easier than baseball – but the comparisons are certainly there:

1. **NUMBER CRUNCHING & DISCOVERING PATTERNS** – we have 29 years (and counting) of statistical data that strongly suggests CEF discounts are highly predictive of future returns (like how on-base percentage was highly predictive of wins).

2. **FINDING UNDervalued ASSETS** – we buy undervalued CEFs and sell overvalued CEFs in the same way the Oakland A’s acquire undervalued players and trade away overvalued players. The main difference being a CEF’s market price and NAV are published daily, meaning we know how over/undervalued a fund is relative to 29 years of history. Determining a baseball players “price” is much more complex – salaries are public information, but there isn’t necessarily a mechanism in place to publish universal pricing.

3. **CONTRARIAN APPROACH** – Statistics dictate virtually all our trading (we just look at different types of stats). For our strategy, Discount to NAV is the most significant factor that helps us determine a CEF’s relative value. Executing a contrarian strategy also appears to be easier in CEFs – we can buy and sell funds in minutes, where in baseball trades typically take a long time to develop.

4. **WE DON’T HIT HOME RUNS** – actually, we aren’t even interested in home runs (they can happen, but it isn’t our goal). We don’t even hit that many doubles, but we are very good at hitting singles and drawing walks. We get on base – you could call us the “Pete Rose of Closed-End Fund Trading” (without all the negative connotations – perhaps Ichiro Suzuki is a better comparison).

Let’s break down our Discounted Closed-End Fund Strategy’s “on-base percentage” for the previous 3 years by examining all our sales:

<table>
<thead>
<tr>
<th></th>
<th>“On-Base Percentage” (net positive sales / total # sales)</th>
<th>% Singles/Walks (positive but &lt; 10% gain realized)</th>
<th>% Doubles/Triples (10-20% gain realized)</th>
<th>% Home Runs (&gt;20% gain realized)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>.705</td>
<td>.375</td>
<td>.242</td>
<td>.088</td>
</tr>
<tr>
<td>2015</td>
<td>.616</td>
<td>.518</td>
<td>.086</td>
<td>.012</td>
</tr>
<tr>
<td>2014</td>
<td>.851</td>
<td>.561</td>
<td>.230</td>
<td>.060</td>
</tr>
</tbody>
</table>

On average over these 3 years, 73% of our trades realized a profit, and 66% of our profitable trades were “singles or walks”.

If it’s any indication, our numbers suggest you don’t need to chase home runs in investing to be ultra-competitive – just hit singles and draw walks (or let us pinch-hit for you).
Number Crunchers – For Those Who Track Stats by Hand

Let’s demonstrate how our strategy has worked in the first 3 quarters of 2017. Our strategy is up more than 17% YTD with a beta of only 0.63, so where is our excess return coming from?

**SPRAYING ALPHA ALL OVER THE FIELD**

How have we produced positive alpha in every asset class this year? – by capturing discount movement. Broad CEF discounts have narrowed by 280 bps YTD, yet we’ve captured 490 bps of net discount narrowing in our holdings (and our portfolio remains at an attractive 13% discount to NAV).

<table>
<thead>
<tr>
<th>Contribution to Strategy Returns YTD</th>
<th>What Was Our Average Exposure to the Asset Class?</th>
<th>What Did the Asset Class Return?</th>
<th>Alpha Produced (Actual Contribution – Expected from Asset Class Weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Bond CEFs</td>
<td>60 bps</td>
<td>15%</td>
<td>3%</td>
</tr>
<tr>
<td>Foreign Bond CEFs</td>
<td>20 bps</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Balanced CEFs</td>
<td>80 bps</td>
<td>5%</td>
<td>12%</td>
</tr>
<tr>
<td>US Equity CEFs</td>
<td>670 bps</td>
<td>43%</td>
<td>14%</td>
</tr>
<tr>
<td>Foreign Developed Equity CEFs</td>
<td>270 bps</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>Emerging Market CEFs</td>
<td>590 bps</td>
<td>17%</td>
<td>28%</td>
</tr>
</tbody>
</table>

How have we produced positive alpha in every asset class this year? – by capturing discount movement. Broad CEF discounts have narrowed by 280 bps YTD, yet we’ve captured 490 bps of net discount narrowing in our holdings (and our portfolio remains at an attractive 13% discount to NAV).

**NOT STRIKING OUT**

Out of the 96 positions we owned at some point YTD, only 6 of them lost us money – our largest negative contributor detracted only 24 bps from our returns. The second largest negative contributor detracted less than 5 bps!

90 out of 96 is a **.938 on-base percentage**. Perhaps we should switch our sports metaphor for a moment to free throw percentage in basketball. *We are talking about Steph Curry’s best-ever season at the line here.*

**SMALL BALL**

Out of our 96 positions:

- 51 positions contributed between 5 and 72 bps to our return
- Only one position contributed more than 72 bps (BIF, our largest holding contributed 158 bps)

How do we hit all these singles?

By taking fairly small positions (typically 1-4%), where each position is itself highly diversified.

*(Continued on Page 4)*
CONSISTENT DISCOUNT CAPTURE = CONSISTENT ALPHA

Over the past 21 months, along with tracking our realized gains/losses and discount capture, we’ve also tracked (for each sale) what some basic benchmarks would have returned during the same holding period.

During these 21 months, 80% of our sales realized gains (with a weighted average 9% gain).

These gains have been (on a weighted average):

- 2.1% ahead of the S&P 500
- 5.2% ahead of the S&P Target Risk Growth Index
- 2.1% ahead of the S-Network Composite CEF Index

On a weighted average basis, we captured favorable (narrowing) discount movement on 95% of these sales, with a weighted average 361 basis points of discount captured.

GAME RECAP

Our disciplined, singles-hitting, discount-capturing approach has led us to produce +9.2% annualized after-fee returns since inception. We’ve also grinded out anywhere from 3-5% alpha each year. We can’t promise the markets will keep rising, but we will do everything in our power to make every at bat count.

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Portfolio Composition:

TYPICAL ACCOUNT LOOKTHROUGH ALLOCATION 09.30.17

![Asset Allocation Pie Chart]

- **US Stocks**: 32%
- **Greater Asia Stocks**: 21%
- **Greater Europe Stocks**: 9%
- **Non US Americas Stocks**: 7%
- **Other**: 5%
- **Cash**: 8%
- **Bonds**: 18%

![Equity Cap Allocation Pie Chart]

- **Giant**: 41%
- **Large**: 28%
- **Medium**: 21%
- **Small**: 8%
- **Micro**: 2%

**Source: Morningstar®**

TOP 10 HOLDINGS 09.30.17

<table>
<thead>
<tr>
<th>Holding</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boulder Growth &amp; Income</td>
<td></td>
</tr>
<tr>
<td>Central Securities Corporation</td>
<td></td>
</tr>
<tr>
<td>Adams Diversified Equity Fund</td>
<td></td>
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<tr>
<td>RMR Real Estate Income Fund</td>
<td></td>
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<tr>
<td>MS China A Share</td>
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<tr>
<td>Adams Natural Resources Fund</td>
<td></td>
</tr>
<tr>
<td>General American Investors</td>
<td></td>
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<tr>
<td>Nuveen NJ Quality Muni Inc</td>
<td></td>
</tr>
<tr>
<td>Templeton Emerging Markets Income</td>
<td></td>
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<tr>
<td>MS Emerging Markets</td>
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Performance comparisons are for illustrative purposes only and are not a forecast of future returns. Alpha, beta and R2 are annualized since inception. Please contact us if you would like to receive a copy of the performance audit from ACA Compliance Group (formerly Ashland Partners). Although the above data is derived from sources deemed to be accurate, Matisse Capital does not guarantee its accuracy.

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For More Information:

CONTACT

Bryn Torkelson – President, CIO
Bryn@matissefunds.com – (503) 210-3001

Eric Boughton, CFA – Portfolio Manager & Chief Analyst
Eric@matissefunds.com – (503) 210-3005

Matisse Capital
4949 Meadows Rd. Ste. 200 Lake Oswego, OR 97035
www.matissefunds.com – (503) 210-3000