AGENDA

RETIREMENT BOARD MEETING

SECOND MONTHLY MEETING
October 26, 2016
9:00 a.m.

Retirement Board Conference Room
The Willows Office Park
1355 Willow Way, Suite 221
Concord, California

THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

1. Pledge of Allegiance.

2. Accept comments from the public.

3. Presentation from staff and Siguler Guff regarding a potential commitment to Siguler Guff Secondary Opportunities Fund.

4. Consider and take possible action regarding a commitment to Siguler Guff Secondary Opportunities Fund.

5. Consider and take possible action to authorize manager searches for:
   a. Emerging market equity
   b. Passively managed US equity

6. Consider and take possible action to adopt BOR Resolution 2016-3, Investment Asset Allocation Targets and Ranges.

7. Consider authorizing the attendance of Board and/or staff:
   a. Aether annual meeting, Aether, January 25-26, 2017, Denver, CO.

8. Miscellaneous
   a. Staff Report
   b. Outside Professionals’ Report
   c. Trustees’ Comments

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.
Secondary Opportunities Fund

Contra Costa County Employees’ Retirement Association
Competitive Advantage:

+ Siguler Guff has one of the largest investment programs devoted to investing in distressed private equity managers and assets
+ $5.3 billion of capital commitments raised across four Distressed Opportunities Funds since 2002
+ Over $6 billion invested across 154 investments provides access to information and insight¹

Inefficient Market:

+ Unlike the broader secondaries market that typically trades at purchase prices of 90%+ of NAV, Siguler Guff has been able to purchase secondary interests in distressed and special situations funds at a weighted average price of 70% of NAV since 2010²
+ The broader market has been characterized by a focus on purchasing large and mega buyout funds and an avoidance of distressed or special situations funds due to the complexity of the assets
+ SOF targets smaller opportunities, driven by relationships with GPs, LPs and intermediaries, which Siguler Guff believes have the least competition and among the highest return potential
+ Distressed secondary investments offer greater downside protection, verifiable market pricing and increased transparency compared to the typical buyout fund secondary

Significant embedded value in SOF:

+ SOF has invested $80 million and generated $22 million in proceeds to date
+ Given early mark ups, investors participating in SOF’s final closing will benefit from a net multiple of 1.3x¹

¹ As of June 30, 2016.
² Siguler Guff calculates weighted average pricing by dividing the aggregate capital invested by the aggregate net asset value purchased at the time of closing the transaction. In the case of investments that did not have a manager stated net asset value, Siguler Guff estimated net asset values based on third party quotes from other investment managers that held the same asset. There can be no assurance that SOF will be able to acquire assets with similar pricing.
### Firm Overview

| Deep Experience | + Multi-strategy private equity investment firm which, together with its affiliates, has over $11 billion of assets under management\(^1\)
|                 | + Firm includes an independent registered investment advisor founded in 1995 as the successor to the Private Equity Group of PaineWebber
|                 | + Dedicated exclusively to private equity investing with over 20 years of experience

| Opportunistic Strategy | + Value-oriented opportunistic strategy, focusing on capital starvation, competitive advantage, government policy inefficiencies, and downside protection (risk controls)
|                        | + Extensive expertise across a range of private equity structures, including direct investment funds, specialized multi-manager funds with substantial direct investments/co-investments, and customized separate accounts

| Global Presence | + Global footprint with offices in New York (headquarters), Boston, Shanghai, Mumbai, São Paulo, Moscow and London
|                | + 160 employees worldwide, including in-house operations, legal and compliance, accounting, and tax professionals

| Valuable Partnership | + Serving over 500 institutional clients including corporate and public employee benefit plans, endowments, foundations, government agencies, sovereign wealth funds and financial institutions
|                      | + Active, best practice investment policies, including environmental, social and corporate governance (ESG)
|                      | + Strategic, non-voting investment by The Bank of New York Mellon Corporation

\(^1\)Estimated as of June 30, 2016.
Executive Summary

+ Siguler Guff seeks to capitalize on its strong institutional knowledge of traditional distressed / credit managers, out-of-favor managers and fund liquidations

**Market Opportunity**
- $40 billion per year market and growing\(^1\)
- Limited competition in special situations / credit-focused funds

**Differentiated Strategy**
- Distressed, credit, and special situations focus
- Buyer and opportunistic seller

**Firm and Platform**
- One of the largest primary distressed multi-manager fund platforms globally

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\(^1\) Source: Greenhill Cogent, January 2016.
\(^2\) Includes secondary transactions in the Siguler Guff Distressed Opportunities Fund III, LP, the Siguler Guff Distressed Opportunities Fund IV, LP, the Siguler Guff Distressed Opportunities Fund V, LP, the Siguler Guff Secondary Opportunities Fund, LP, and two secondary investment-focused separate accounts managed by Siguler Guff, estimated as of June 30, 2016.

Please see Certain Disclosures for important additional information.
Siguler Guff believes that the potential volume for secondary transactions (“Primary Inventory”) will increase as institutional investors grow in size and increase exposure to alternative assets
- Primary Inventory represents the capital raised in vintage years where a fund is likely past its investment period but still has significant value remaining
- In 2016, Primary Inventory represents the average annual capital raised from 2005 – 2012

In addition, Siguler Guff believes that LP interests transferred into the hands of secondary buyers will grow from 8% - 9% of Primary Inventory in 2015 to 10% - 12% over the next three to four years, driven by the following stimulants:
- Greater number of secondary participants
- Regulatory changes
- Portfolio rebalancing
- Focus on core relationships
- Increased familiarity of secondaries by LPs

Methodology: Calculated as the average assets of all primary private equity global funds from their previous seven vintage years, applying a lagging effect of four vintage years.

Sources: Preqin, Greenhill Cogent, and Siguler Guff as of December 2015.
Global Market Opportunity: Market for Special Situations Opportunities

- Private equity funds have raised $4.8 trillion of primary capital since 2006¹
  - Siguler Guff estimates that approximately $700.1 billion¹ of this capital is managed by out-of-favor or “fallen angel” GPs
  - $302.3 billion¹ was raised by dedicated distressed fund managers, over the same time period

- Assuming 5% - 6% annual secondary volume, the potential for special opportunity transactions over the next 10 years is $60.2 billion² or $6.0 billion per year³

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### Total Market Size

- **Total Private Equity Capital Raised¹**
  - $4.8 Trillion¹

### Special Situations Opportunities: Primaries

- **Managers with net IRR <8.0%¹**
  - $583.0 Billion¹

- **Distressed Capital Raised¹**
  - $302.3 Billion¹

### Special Situations Opportunities: Secondaries

- **Market Size**
  - $60.2 Billion²

### Estimated Volume of Secondary Special Situations Opportunities Per Year

- **Volume Per Year**
  - $6.0 Billion³

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¹ Sources: Preqin and Siguler Guff as of December 2015.
² Represents 6% of total primary capital available for secondary transactions.
³ Estimated volume over a 10-year timeline based on Siguler Guff’s estimates.
Siguler Guff has a niche focus in a space that is largely dominated by generalist secondary funds.
SOF will primarily focus on three types of special situations opportunities within its core competencies:

- **Traditional Distressed Managers**
  - 80+ distressed funds in which Siguler Guff is invested
  - 60+ distressed-focused GPs that Siguler Guff tracks

- **Out-of-Favor Managers / Fallen Angels**
  - Funds in asset classes that unexpectedly experienced distress (e.g. financials, media, banking, shipping, power)

- **Side Pocket Liquidations**
  - Assets that are co-investments with private equity funds
  - Private equity managers with hedge fund products

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1 Represents underlying funds in Siguler Guff’s Distressed Opportunities Funds as of March 31, 2016.
Siguler Guff’s Pricing Advantage

Siguler Guff has consistently purchased assets at a wider discount to the broader secondary market.

Historical Secondary Market Pricing

Historical Outperformance
- Weighted average purchase price of 70% of NAV since 2010

Niche Opportunities
- Distressed managers that the secondary market does not cover
- Out-of-favor managers that have been overlooked
- Value-oriented credit and special situations

Sourcing
- Proprietary deals / non-competitive processes
- Leading consortiums to subsidize purchase price
- Preferred relationships with intermediaries

Source: Greenhill Cogent as of July 2016.
Siguler Guff Weighted Average Pricing is estimated as of June 30, 2016.
Past performance does not ensure future results. Please see Certain Disclosures on secondary transactions.
### Siguler Guff’s Secondary Investment Track Record

**$ millions as of estimated June 30, 2016**

<table>
<thead>
<tr>
<th>Purchase Date</th>
<th>Purchase</th>
<th>NAV</th>
<th>Capital</th>
<th>Realized</th>
<th>Unrealized</th>
<th>Total</th>
<th>Portfolio-Level Returns</th>
<th>% of Cost</th>
<th>IRR1</th>
<th>MOIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 '10</td>
<td>$6.3</td>
<td>$5.4</td>
<td>$9.6</td>
<td>$0.0</td>
<td>$9.6</td>
<td>1.76x</td>
<td>32.8%</td>
<td>176%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 '12 - Q1 '13</td>
<td>54.7</td>
<td>28.6</td>
<td>40.6</td>
<td>0.0</td>
<td>40.6</td>
<td>1.42x</td>
<td>30.6%</td>
<td>142%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 '12</td>
<td>41.6</td>
<td>30.0</td>
<td>39.5</td>
<td>4.7</td>
<td>44.1</td>
<td>1.47x</td>
<td>40.7%</td>
<td>131%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 '13</td>
<td>70.3</td>
<td>49.9</td>
<td>87.0</td>
<td>1.4</td>
<td>88.4</td>
<td>1.77x</td>
<td>82.8%</td>
<td>174%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1 '14</td>
<td>7.9</td>
<td>7.2</td>
<td>5.3</td>
<td>3.7</td>
<td>9.0</td>
<td>1.24x</td>
<td>37.8%</td>
<td>73%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 '14 - Q3 '14</td>
<td>32.5</td>
<td>27.2</td>
<td>20.9</td>
<td>14.7</td>
<td>35.6</td>
<td>1.31x</td>
<td>24.4%</td>
<td>77%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4 '14</td>
<td>10.2</td>
<td>7.0</td>
<td>4.5</td>
<td>5.1</td>
<td>9.6</td>
<td>1.26x</td>
<td>28.1%</td>
<td>64%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1 '15</td>
<td>6.9</td>
<td>5.7</td>
<td>3.9</td>
<td>3.7</td>
<td>7.6</td>
<td>1.34x</td>
<td>41.0%</td>
<td>68%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1 '15 - Q2 '15</td>
<td>30.7</td>
<td>21.9</td>
<td>14.3</td>
<td>13.6</td>
<td>27.9</td>
<td>1.28x</td>
<td>NM</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 '15</td>
<td>12.5</td>
<td>8.9</td>
<td>3.2</td>
<td>7.9</td>
<td>11.1</td>
<td>1.25x</td>
<td>26.0%</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 '15</td>
<td>54.6</td>
<td>34.5</td>
<td>16.4</td>
<td>39.3</td>
<td>55.7</td>
<td>1.62x</td>
<td>76.6%</td>
<td>48%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 '15</td>
<td>16.3</td>
<td>10.0</td>
<td>2.0</td>
<td>13.0</td>
<td>15.1</td>
<td>1.51x</td>
<td>NM</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 '15</td>
<td>13.1</td>
<td>8.8</td>
<td>1.5</td>
<td>12.5</td>
<td>14.0</td>
<td>1.59x</td>
<td>NM</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 '15</td>
<td>13.4</td>
<td>9.7</td>
<td>0.0</td>
<td>9.8</td>
<td>9.8</td>
<td>1.01x</td>
<td>NM</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 '15</td>
<td>28.7</td>
<td>20.7</td>
<td>6.5</td>
<td>20.6</td>
<td>27.1</td>
<td>1.31x</td>
<td>NM</td>
<td>31%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4 '15</td>
<td>14.5</td>
<td>10.2</td>
<td>1.6</td>
<td>11.8</td>
<td>13.4</td>
<td>1.31x</td>
<td>NM</td>
<td>15%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1 '16</td>
<td>5.5</td>
<td>5.0</td>
<td>0.6</td>
<td>5.6</td>
<td>6.2</td>
<td>1.26x</td>
<td>NM</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1 '16</td>
<td>94.8</td>
<td>72.3</td>
<td>26.5</td>
<td>61.6</td>
<td>88.2</td>
<td>1.22x</td>
<td>NM</td>
<td>37%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 '16</td>
<td>16.0</td>
<td>10.4</td>
<td>0.5</td>
<td>15.5</td>
<td>16.0</td>
<td>1.54x</td>
<td>NM</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 '16</td>
<td>10.9</td>
<td>6.9</td>
<td>0.6</td>
<td>10.3</td>
<td>10.9</td>
<td>1.59x</td>
<td>NM</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 '16</td>
<td>16.7</td>
<td>10.3</td>
<td>0.9</td>
<td>15.8</td>
<td>16.7</td>
<td>1.63x</td>
<td>NM</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sub-Total:</strong></td>
<td><strong>$558.2</strong></td>
<td><strong>$390.6</strong></td>
<td><strong>$285.9</strong></td>
<td><strong>$270.7</strong></td>
<td><strong>$556.5</strong></td>
<td><strong>1.42x</strong></td>
<td><strong>51.8%</strong></td>
<td><strong>73%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investments with Less Than $5 Million Capital Invested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments XXII - XXVI (SOF)</td>
</tr>
<tr>
<td>$15.3</td>
</tr>
</tbody>
</table>

| **Grand Total:** | **$573.5** | **$402.5** | **$292.7** | **$279.1** | **$571.7** | **1.42x** | **51.4%** | **73%** |

<table>
<thead>
<tr>
<th>Pending Investments3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment XXVII (SOF)</td>
</tr>
<tr>
<td>$2.3</td>
</tr>
</tbody>
</table>

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1 IRR is based on cash flows since the close of the investment and the underlying manager’s estimated valuation as of June 30, 2016. For investments that have been outstanding for less than a year, the IRR is noted as “NM” (Not Measurable) because the discount to net asset value typically associated with the purchase of secondary investments produces an unrealistically high IRR in the early months after an investment is acquired, which will dissipate over time absent appreciation in net asset value. The Total IRR reflects aggregate cash flows and underlying manager estimated valuations for all investments, including those noted as NM, and will therefore become lower over a period of time, absent appreciation in net asset value.

2 Represents an investment in an LP secondary and two synthetic secondaries. The NAV of the synthetic secondaries was calculated based on the general partner’s valuation of the underlying assets and has not been independently verified.

3 Pending transactions represent transactions that were closed and committed to after June 30, 2016. Capital Invested in Pending Transactions may change based on capital calls and distributions prior to the funding date or other factors.

Note: Figures in chart may not total due to rounding. IRR calculations rely significantly on unrealized values, which are based primarily on valuations by the underlying managers. Please see Certain Disclosures for a discussion of some of the limitations of such valuations, as well as for important information regarding performance.
Siguler Guff Secondary Opportunities Fund

SOF has committed to seven investments and will deploy approximately $59.8 million

<table>
<thead>
<tr>
<th>Investment</th>
<th>Purchase Date</th>
<th>Equity Commitment</th>
<th>Total Value&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Current MOIC&lt;sup&gt;1,2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOF Investment I</td>
<td>Q3 ‘15</td>
<td>$3.0</td>
<td>$4.5</td>
<td>1.50x</td>
</tr>
<tr>
<td>SOF Investment II</td>
<td>Q3 ‘15</td>
<td>$2.6</td>
<td>$4.2</td>
<td>1.59x</td>
</tr>
<tr>
<td>SOF Investment III</td>
<td>Q3 ‘15 - Q1 ‘16</td>
<td>$9.1</td>
<td>$11.0</td>
<td>1.21x</td>
</tr>
<tr>
<td>SOF Investment IV</td>
<td>Q4 ’15</td>
<td>$1.0</td>
<td>$1.3</td>
<td>1.31x</td>
</tr>
<tr>
<td>SOF Investment V</td>
<td>Q1 ’16</td>
<td>$30.1</td>
<td>$36.6</td>
<td>1.21x</td>
</tr>
<tr>
<td>SOF Investment VI</td>
<td>Q1 ’16 - Q2 ’16</td>
<td>$11.3</td>
<td>$18.0</td>
<td>1.60x</td>
</tr>
<tr>
<td>SOF Investment VII</td>
<td>Q2 ‘16</td>
<td>$2.7</td>
<td>$4.0</td>
<td>1.48x</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$59.8 million</strong></td>
<td><strong>$79.6 million</strong></td>
</tr>
</tbody>
</table>

Note: Figures in chart may not total due to rounding.

<sup>1</sup>Total Value and Current MOIC are based on estimated June 30, 2016 NAV.

<sup>2</sup>Current MOIC is defined as Total Value divided by Equity Commitment at the time of the close. We expect the multiple to normalize over time. Please see Certain Disclosures for important information regarding the use of related performance.
**Situation Overview**

+ **Exclusive process**
  - After winning the mandate with a broad price range, Siguler Guff fully underwrote the portfolio and bid to a high return.

+ **Unique structure**
  - Used co-investment partners to backstop capital commitment and provide information.

+ **Motivated sellers**
  - LPs who had signed up for quarterly liquidity had first option to sell since 2008.
  - Sellers did not have informed view on the assets.

**Investment Rationale**

+ **Diversified pool of assets with high-quality managers**
  - The portfolio consists of over 100 underlying fund interests and over 1,000 underlying assets.

+ **Significant discount**
  - 38% discount to NAV upon closing.
  - Purchasing underlying assets an estimated 20 points below market pricing.

**Notes:** Figures in charts may not total due to rounding. Net Price is based on Siguler Guff underwriting, and may not ultimately be achieved. Please see Certain Disclosures for important information.
Siguler Guff identified an opportunity to provide an optical bid of 84% of NAV while acquiring the underlying assets at 61% of NAV.

Underlying Asset Mix

% of estimated 9/30/15 NAV

<table>
<thead>
<tr>
<th>Asset</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank 1</td>
<td>36%</td>
</tr>
<tr>
<td>Bank 2</td>
<td>28%</td>
</tr>
<tr>
<td>Bank 3</td>
<td>23%</td>
</tr>
<tr>
<td>Bank 4</td>
<td>12%</td>
</tr>
<tr>
<td>Cash</td>
<td>1%</td>
</tr>
</tbody>
</table>

Siguler Guff is effectively purchasing Bank 1 and Bank 2 at their market prices and receiving Bank 3 and Bank 4 at no cost.

Pricing and Equity Commitment

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Price</td>
<td>84.0%</td>
</tr>
<tr>
<td>Net Price</td>
<td>61.2%</td>
</tr>
<tr>
<td>Equity Commitment</td>
<td>$2.6 million</td>
</tr>
</tbody>
</table>

Notes: Figures in charts may not total due to rounding. Net Price is based on Siguler Guff underwriting, and may not ultimately be achieved. Please see Certain Disclosures for important information.
Siguler Guff identified an overlooked fund with valuable, near-term catalysts and used a larger portfolio sale to subsidize its bid

### Pricing and Equity Commitment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Price</td>
<td>73.0%</td>
</tr>
<tr>
<td>Net Price</td>
<td>58.0%</td>
</tr>
<tr>
<td>Equity Commitment</td>
<td>$2.9 million</td>
</tr>
</tbody>
</table>

### Underlying Exposure

<table>
<thead>
<tr>
<th></th>
<th>% of 3/31/15 NAV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Investments</td>
<td>7.5%</td>
</tr>
<tr>
<td>Investment 7</td>
<td>8.0%</td>
</tr>
<tr>
<td>Investment 6</td>
<td>4.6%</td>
</tr>
<tr>
<td>Investment 5</td>
<td>6.2%</td>
</tr>
<tr>
<td>Investment 4</td>
<td>13.9%</td>
</tr>
<tr>
<td>Investment 3</td>
<td>17.7%</td>
</tr>
<tr>
<td>Investment 2</td>
<td>16.8%</td>
</tr>
<tr>
<td>Investment 1</td>
<td>38.5%</td>
</tr>
</tbody>
</table>

### Investment Overview

#### Situation Overview
- Portfolio of five funds being sold with no one natural buyer
  - Siguler Guff identified most overlooked fund
  - Through due diligence, Siguler Guff identified an asset being sold at 2x its mark
- Siguler Guff paid the minimum price, 73%, for the portfolio to sell at the seller’s reserve price

#### Conservative Underwriting
- Investment 1 – Real estate broker in the UK
  - Growth opportunities from economic growth and investments in ancillary, less cyclical businesses
  - Siguler Guff assumes no growth from current share price despite attractive fundamentals and P/E
- Investment 2 – Offshore oil services company
  - Competitively positioned due to specialized segment
  - Bond market is implying that the company is very healthy relative to sector
  - Siguler Guff assumes 25% recovery of NAV
- Investment 3 – Specialty glass manufacturer
  - Valuation based on comparable value added packaging companies
  - High yield bonds trading above par
  - Siguler Guff assumes no additional upside despite strong earnings

Notes: Figures in charts may not total due to rounding. Net Price is based on Siguler Guff underwriting, and may not ultimately be achieved. Please see Certain Disclosures for important information.
SOF Investment III (Part II)

Siguler Guff stepped into a broken auction process after the initial bidder was unable to close in a timely manner and acquired the portfolio at a 26% discount to NAV

### Pricing and Equity Commitment

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Price</td>
<td>83.5%</td>
</tr>
<tr>
<td>Net Price</td>
<td>74.1%</td>
</tr>
<tr>
<td>Equity Commitment</td>
<td>$6.2 million</td>
</tr>
</tbody>
</table>

### Investment Highlights

#### Top Underlying Investments

<table>
<thead>
<tr>
<th>Investment</th>
<th>% of 3/31/15 NAV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment 1</td>
<td>17.8%</td>
</tr>
<tr>
<td>Investment 2</td>
<td>10.0%</td>
</tr>
<tr>
<td>Investment 3</td>
<td>7.7%</td>
</tr>
<tr>
<td>Investment 4</td>
<td>5.8%</td>
</tr>
<tr>
<td>Investment 5</td>
<td>5.0%</td>
</tr>
<tr>
<td>Investment 6</td>
<td>4.6%</td>
</tr>
<tr>
<td>Investment 7</td>
<td>3.4%</td>
</tr>
<tr>
<td>Investment 8</td>
<td>3.2%</td>
</tr>
<tr>
<td>Investment 9</td>
<td>2.5%</td>
</tr>
<tr>
<td>Investment 10</td>
<td>2.3%</td>
</tr>
<tr>
<td>Investment 11</td>
<td>2.2%</td>
</tr>
<tr>
<td>Investment 12</td>
<td>1.4%</td>
</tr>
<tr>
<td>Other BS Items</td>
<td>7.9%</td>
</tr>
<tr>
<td>Other Investments</td>
<td>26.2%</td>
</tr>
</tbody>
</table>

### Situation Overview

- **Broken auction process**
  - As part of Investment III, the broker selected another bidder for other interests (the “Interests”) based solely on price rather than ability to close
  - This bidder did not understand the assets well and was unable to come to terms two weeks before the deal had to close
  - Siguler Guff had already negotiated a PSA with the seller and was the preferred buyer for the Interests
- **Attractive entry point**
  - Siguler Guff was able to purchase the Interests at a lower price, a 26% discount to NAV at closing, than its first round bid

### Investment Rationale

- **Alignment and upside**
  - European-focused fund has entered harvest period and is focused on selling assets at large premiums after executing their business plans
  - U.S.-focused fund focused on liquidating its public positions to improve perception of general partner
- **Approximately 65% of Investment 1’s 3/31/15 NAV has been realized as a result of a result sale processes**
- **A sale process involving Investment 2 occurred in Q2’ 15; approximately 31% of Investment 2’s 3/31/15 NAV has been realized**

Notes: Figures in charts may not total due to rounding. Net Price is based on Siguler Guff underwriting, and may not ultimately be achieved. Please see Certain Disclosures for important information.
Siguler Guff identified a portfolio that provided exposure to arguably the most well-known, distressed-focused manager and ultimately acquired the assets at an attractive discount to NAV of more than 27%.

### Investment Overview

**Situation Overview**

+ Competitive process
  - Given the secondary investment team’s familiarity with the underlying funds and pre-existing knowledge of the underlying assets, Siguler Guff was invited to participate in the auction process
+ Strong relationship with the manager
  - Siguler Guff was able to have direct dialogue with investment professionals responsible for underwriting and monitoring the largest positions
+ Motivated seller
  - Academic institution looking to reduce exposure to non-core private equity funds and liquate older vehicles

**Investment Rationale**

+ Diversified asset mix
  - Well-diversified mix of liquid securities in well-known distressed situations and private companies with dominant market positions and room for operational improvement
+ Over 5% of NAV was distributed before the transaction closed

### Pricing and Equity Commitment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Price</td>
<td>74.0%</td>
</tr>
<tr>
<td>Net Price</td>
<td>72.5%</td>
</tr>
<tr>
<td>Equity Commitment</td>
<td>$1.0 million</td>
</tr>
</tbody>
</table>

### Investment Highlights

**Top Underlying Investments**

- **Investment 1**: 12.5%
- **Investment 2**: 9.2%
- **Investment 3**: 7.4%
- **Investment 4**: 5.9%
- **Investment 5**: 5.4%
- **Investment 6**: 4.9%
- **Investment 7**: 4.1%
- **Investment 8**: 3.1%
- **Investment 9**: 2.7%
- **Investment 10**: 2.5%
- **Other**: 42.4%

Notes: Figures in charts may not total due to rounding. Net Price is based on Siguler Guff underwriting, and may not ultimately be achieved. Please see Certain Disclosures for important information.
SOF Investment V

Siguler Guff won the exclusive right to tender for $153 million of NAV across high-quality, private equity interests and hedge fund side pockets at 76% of NAV

<table>
<thead>
<tr>
<th>Pricing and Equity Commitment</th>
<th>High-Quality Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross Price</strong></td>
<td>% of Pricing Date NAV</td>
</tr>
<tr>
<td>76.3%</td>
<td>HF Interests and Cash 11.3%</td>
</tr>
<tr>
<td><strong>Net Price</strong></td>
<td>PE Interest 1 70.1%</td>
</tr>
<tr>
<td>76.3%</td>
<td>PE Interest 2 11.5%</td>
</tr>
<tr>
<td><strong>Equity Commitment</strong></td>
<td>PE Interest 3 7.1%</td>
</tr>
<tr>
<td>$30.1 million</td>
<td>PE Interest 4 1.7%</td>
</tr>
</tbody>
</table>

Investment Overview

+ High-quality private equity assets managed by one of the most well-known general partners in the distressed space
  - Siguler Guff is currently invested in each of the portfolio’s private equity interests (~89% of NAV)
  - Siguler Guff believes it was the only group in the process to review official valuation books and meet directly with teams covering the assets
+ Unique “opt-out” tender process structure to maximize uptake
  - Resulted in over 60% uptake
+ Sellers are motivated to participate in the process
  - Siguler Guff believes investors are high net worth individuals that do not have an informed view on the assets
  - Vehicles have been locked up since 2008
+ Purchase market leading assets at a deep discount
  - 24% discount to NAV
  - 28% to its estimated mark-to-market value
  - Discount to “mosaic” of highest line-item bids
+ High-conviction portfolio
+ Clear paths to significant upside
+ Conservative valuations
+ Assets with near-term liquidity

Notes: Pricing dates include September 30, 2015 and October 31, 2015. Figures in charts may not total due to rounding. Net Price is based on Siguler Guff underwriting, and may not ultimately be achieved. Please see Certain Disclosures for important information.
SOF Investment VI (Parts I & II)

Siguler Guff participated in a targeted auction process for a portfolio of private equity and hedge funds that is almost entirely managed by a high-quality, institutional hedge fund-of-funds

Pricing and Equity Commitment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Price</td>
<td>68.5%</td>
</tr>
<tr>
<td>Net Price</td>
<td>67.0%</td>
</tr>
<tr>
<td>Equity Commitment</td>
<td>$9.0 million</td>
</tr>
</tbody>
</table>

Investment Highlights

Top Underlying Assets

<table>
<thead>
<tr>
<th>Asset</th>
<th>% of Pricing Date NAV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset 1</td>
<td>32.6%</td>
</tr>
<tr>
<td>Asset 2</td>
<td>26.0%</td>
</tr>
<tr>
<td>Asset 3</td>
<td>18.8%</td>
</tr>
<tr>
<td>Asset 4</td>
<td>12.1%</td>
</tr>
<tr>
<td>Asset 5</td>
<td>6.2%</td>
</tr>
<tr>
<td>Asset 6</td>
<td>2.7%</td>
</tr>
<tr>
<td>Asset 7</td>
<td>1.3%</td>
</tr>
<tr>
<td>Asset 8</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Situation Overview

+ Targeted auction process
  - Given the secondary investment team’s knowledge of the underlying funds and ability to transact quickly, the broker included Siguler Guff in its process
  + Sourced additional LP interests at a deeper discount
    - Siguler Guff bid less in a second process for interests that had a substantially similar mix of underlying investments as the first transaction
  + Motivated sellers
    - Sellers went to market several times in the past and ultimately made the decision to transact at Siguler Guff’s attractive price

Investment Rationale

+ Highly diversified asset mix
  - Purchased a highly diversified portfolio of market-leading assets at a 33% discount to net asset value
  + On a look through basis, approximately 96% of the portfolio, as a percentage of pricing date NAV, is comprised of five vehicles managed by the hedge fund-of-funds
    - The remaining NAV is managed by three well-known managers

Notes: Pricing dates include September 30, 2015 and October 31, 2015. Figures in charts may not total due to rounding. Case study excludes $2.3 million in the third equity commitment made in Q2 2016. Net Price is based on Siguler Guff underwriting, and may not ultimately be achieved. Please see Certain Disclosures for important information.
### Summary of Key Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Fund Size:</td>
<td>$250 million</td>
</tr>
<tr>
<td>Investment Period:</td>
<td>Three years from final closing</td>
</tr>
<tr>
<td>Term:</td>
<td>Ten years, plus two one-year extensions</td>
</tr>
</tbody>
</table>
| Management Fee:             | 1.0% on committed capital during the commitment period  
|                             | 1.0% on invested capital thereafter               |
| Preferred Return:           | 8.0%                                              |
| Carried Interest:           | 12.5%                                             |
| GP Commitment:              | At least $15 million                              |
| Clawback Provision:         | Yes                                               |
Secondary Investment Team and Key Professionals

+ **Anthony Cusano***
  - Managing Director at Siguler Guff, Head of Secondary Investments
  - Distressed Debt and Special Situations Group, StepStone Group LLC
  - Owner and Operator, SDPC (sold in 2007 to a strategic buyer)
  - B.S., California Polytechnic State University; M.B.A., Rady School of Management at University of California San Diego
  - CFA charterholder

+ **C.J. Driessen**
  - Vice President at Siguler Guff
  - Associate, LSV Advisors, LLC (focused on hedge fund secondary investments and special situations direct investments)
  - Analyst, Mergers & Acquisitions – Structured Transactions Group, The Blackstone Group, L.P.
  - B.S. and B.A., University of Pennsylvania

+ **Scott Halper**
  - Principal at Siguler Guff
  - Chief Operating Officer, Czech Asset Management
  - Director, Stamos Capital Partners
  - Senior Associate, Central Park Group
  - Fund Accountant, Lindsay Goldberg & Bessmer
  - Junior Financial Analyst, Alternative Investment Group, UBS Financial Services, Inc.
  - B.B.A., University of Miami

+ **Bryce Chilton**
  - Associate at Siguler Guff
  - Investment Banking Analyst, Healthcare and Life Sciences Group, Harris Williams & Co.
  - B.S.B., Curtis L. Carlson School of Management at the University of Minnesota

+ **James Gereghty***
  - Managing Director at Siguler Guff, Distressed Opportunities Funds portfolio manager
  - 18 years of distressed debt and private equity experience
  - Founding member of the Distressed Debt Group, Wachovia Capital Markets
  - Head of Distressed Analytics, UBS
  - Senior member of the distressed debt research staffs, Morgan Stanley and Bear Stearns
  - B.A., University of Connecticut; M.B.A, the Fuqua School of Business at Duke University
  - CFA charterholder

* Denotes Investment Committee member.
Secondary Investment Team and Key Professionals

+ **Prabhas Panigrahi**
  - Managing Director at Siguler Guff
  - 25 years of investment experience in the energy, natural resources and infrastructure sectors
  - Founder and Chief Executive Officer, NRG Worldwide LLC
  - Principal, MHR Fund Management LLC
  - Vice President and Senior Analyst of Energy Research, Credit Suisse
  - Senior Vice President and Director of Energy Research, Dresdner Kleinwort
  - Associate, Corporate Finance and M&A, Bankers Trust (Deutsche Bank)
  - Lead Engineer and Project Manager, McDermott
  - B. Tech in Engineering, Indian Institute of Technology; MEng, Texas A&M University; M.B.A. in International Business, Catholic University of Leuven (Belgium); M.B.A. in Finance, the University of Chicago Booth School of Business

+ **Bradley Bennett**
  - Principal at Siguler Guff
  - Vice President, Distressed Credit Research, Gleacher & Company
  - Vice President, High Yield Distressed Investing – Fixed Income, Goldman, Sachs & Co.
  - B.A., University of Pennsylvania
  - CFA charterholder

+ **Ryan Stuckert**
  - Vice President at Siguler Guff
  - Investment Banking Analyst, Jefferies & Company, Inc.
  - B.S., the Wharton School of the University of Pennsylvania; B.S., University of Pennsylvania School of Engineering and Applied Science

+ **Michael Sharp**
  - Associate at Siguler Guff
  - Officer, Distressed Debt Group, Wachovia Capital Markets, LLC
  - Assistant Vice President, Distressed Debt Group, Merrill Lynch & Co.
  - B.S., Marist College; M.B.A., Fordham University
Secondary Investment Team and Key Professionals

+ Lindsay Ingram
  - Associate at Siguler Guff
  - Investment Banking Associate, Financial Sponsors and Leveraged Finance Group, UBS Investment Bank
  - Investment Banking Analyst, Leveraged Capital Markets Group, UBS Investment Bank
  - B.S., the Wharton School of the University of Pennsylvania; B.A., the College of Arts and Sciences of the University of Pennsylvania

+ Xiao Cong
  - Associate at Siguler Guff
  - Investment Banking Analyst, Barclays Global Finance, Structuring and Advisory Group
  - A.B., Harvard College

+ Geoffrey Roth
  - Associate at Siguler Guff
  - Research Analyst, Aberdeen Asset Management
  - B.A., University of California, Berkeley; M.A. (Hons), University of Cambridge

+ Bibhusha Dangol
  - Analyst at Siguler Guff
  - Private Equity Research Analyst, Barclays Wealth and Investment Management
  - B.A., Yale University
Partners / Investment Committee Members

+ **George Siguler**
  - Managing Director and Founding Partner of Siguler Guff
  - 43 years of private equity investment experience
  - Associate Treasurer, Harvard University
  - Founding Partner of the Harvard Management Company
  - Chief of Staff, U.S. Department of Health and Human Services under President Reagan
  - Head of Paine Webber’s Private Equity Group
  - Director, MSCI Corporation
  - A.B., Amherst College; M.B.A., Harvard Business School

+ **Drew Guff**
  - Managing Director and Founding Partner of Siguler Guff
  - 33 years of private equity investment experience
  - Assistant to the President of PaineWebber for four years
  - First Vice President in PaineWebber’s Merchant Banking Group
  - B.A., Harvard University

+ **Jay Koh**
  - Managing Director and Partner of Siguler Guff
  - 18 years of private equity experience
  - Head of Investment Funds, Chief Investment Strategist, Chief Financial Officer, Overseas Private Investment Corporation
  - Partner, R3 Capital Partners
  - Managing Director, Lehman Brothers
  - Principal, The Carlyle Group
  - Law Clerk to Justice David H. Souter, United States Supreme Court
  - Law Clerk to Judge Michael Boudin, United States Court of Appeals for the First Circuit
  - A.B., Harvard College; Masters in Management, Oxford University; J.D., Yale Law School
Certain Disclosures

This Presentation is for informational purposes only and is not an offer, solicitation or recommendation to purchase or sell any securities or partnership interests of any investment fund managed by or affiliated with Siguler Guff Advisers, LLC ("SGA") (each, a “Fund” and, collectively, the “Funds”). Each Fund is offered or sold pursuant to a Fund’s Private Placement Memorandum and related documents (such as an Agreement of Limited Partnership) that set forth detailed information regarding such Fund, including investment program and restrictions, management fees and expenses, investment risks and conflicts of interest. This Presentation does not present a full or balanced description of any Fund, and should not be used as the exclusive basis for an investment decision.

Potential investors are urged to consult a professional adviser regarding any economic, tax, legal or other consequences of entering into any transactions or investments described herein. Alternative investment strategies, such as private equity, inherently involve risk and may not be suitable for all investors. Investments in private investment funds are speculative and involve special risks, and there can be no assurance that a Fund’s investment objectives will be realized or that suitable investments may be identified. An investor could lose all or a substantial portion of their investment. Private funds are generally not subject to the same regulatory oversight and/or regulatory requirements as a mutual fund. Investments may involve complex tax structures resulting in delays in distributing important tax information. Managers or their administrators may fair value securities and other instruments for which there is no readily available market or third party pricing, or for which the manager believes the third party pricing does not accurately reflect the value of those securities, and such value may be based on proprietary or other models. Private funds may not be required to provide periodic pricing or valuation information to investors. Performance may be volatile as underlying managers may employ leverage and speculative investment practices that may increase the risk of investment loss, and adherence to risk control mechanisms does not guarantee investment returns. SGA may have total discretion over underlying manager and strategy selection and allocation decisions. A lack of manager and/or strategy diversification may result in higher risk. A Fund may reserve the right to limit transparency and other notification to investors, there may be restrictions on transferring interests in the fund vehicle, and there is generally no secondary market for an investor's interest in a privately-offered fund. In addition, as the investment markets and the Funds develop and change over time, an investment may be subject to additional and different risk factors.

This Presentation contains certain statements, estimates and projections that are “forward-looking statements.” All statements other than historical facts are forward-looking statements and include statements and assumptions relating to: plans and objectives of management for future operations or economic performance; conclusions and projections about current and future economic and political trends and conditions; and projected financial results and results of operations. These statements can generally be identified by the use of forward-looking terminology, including “may,” “believe,” “will,” “expect,” “anticipate,” “estimate,” “continue,” “rankings” or other similar words. Siguler Guff does not make any representations or warranties (express or implied) about the accuracy of such forward-looking statements. Readers are cautioned that actual results of an investment in a Fund could differ materially from forward-looking statements or the prior or projected results of the Funds. Readers are cautioned not to place undue reliance on forward-looking statements.

Some information contained within this Presentation has been obtained from third party sources and has not been independently verified by Siguler Guff. Siguler Guff makes no representations as to the accuracy or the completeness of any of the information herein. Cambridge Associates data has been provided to Siguler Guff at no cost.

Additional information on Assets Under Management calculation. Siguler Guff’s assets under management are calculated based on the most recent quarter-end net asset value plus uncalled commitments for each active investment vehicle managed by the Firm.

Additional information on Case studies or sample deal summaries: This Presentation may include case studies evaluating certain investments made in a Fund. These examples are not representative of the entire portfolio, and may not ultimately be profitable. A full list of a Fund’s underlying investment is available upon request.

Additional information on sample Pipeline and Portfolio Construction Information. This Presentation may include a pipeline of potential investments, or a sample portfolio construction. Each potential investment is subject to additional due diligence and Investment Committee approval. There can be no assurance that commitments will be made to any of these investments, nor that the Fund will achieve the illustrative portfolio construction portrayed.

Siguler Guff’s Mumbai office is a local affiliate.

Representatives of Siguler Guff Global Markets, LLC (“SGGM”) may also be employees of SGA (or its direct or indirect parent). To the extent that certain registered representatives of SGGM are compensated based on their marketing efforts, these representatives’ relationship with the Funds and SGA may conflict with the interests of investors. Any sale of securities in Canada will be effected either through SGGM or an affiliated broker dealer. Securities transactions are effected by SGGM in its capacity as a broker-dealer and, in such capacity, SGGM is not acting as an investment adviser or subject to a fiduciary duty pursuant to Section 15B of the Securities Exchange Act of 1934 with respect to a municipal entity or obligated person.
Certain Disclosures

Additional information on performance calculations. Past performance does not guarantee future results. No representation or warranty, express or implied, is made regarding future performance. Most performance calculations rely to a significant extent on the value of Fund’s unrealized investments and those of the underlying portfolio funds. The market prices of publicly-traded securities can be extremely volatile, and therefore might fluctuate significantly after the valuation date. A variety of methods are used to value securities that are not publicly-traded, with the methodologies and underlying assumptions selected by the relevant investment manager (which might create a bias toward a higher valuation). Furthermore, business or economic developments after a valuation date could significantly change the value for any particular investment. Accordingly, an investment might ultimately be sold for less than its unrealized valuation.

Siguler Guff derives information about the investments of underlying portfolio funds, including investment valuations, from the underlying portfolio fund manager, without independent verification. The managers of the underlying portfolio funds have not reviewed or approved this Presentation and Siguler Guff makes no representations as to the accuracy or completeness of any of the information herein. Siguler Guff funds are structured to have parallel partnerships that address the tax and structural concerns of specific investor types. Unless otherwise noted, Siguler Guff funds’ returns are consolidated across all parallel partnerships.

Various investors in a pooled investment fund may pay management fees at different rates, as a result of management fee “breakpoints” based on the size of the investment, or negotiated fee reductions contained in side letters or similar agreements. Because Siguler Guff calculates net performance for pooled investment funds based on the aggregate fees and expenses paid by the fund, net performance data reflects the “blended” management fee rate paid by all investors in the aggregate. To the extent that the account of a particular pooled investment fund investor is charged management fees at a rate higher than that blended rate, that investor’s net performance would be lower than the performance shown in this presentation. Investments by the general partner of pooled investment funds, and by individuals and entities affiliated with the general partner, are not assessed management fees. The investments of these individuals and entities are excluded from the net performance calculation, and thus do not reduce the blended management fee rate when Siguler Guff calculates net performance.

Net performance takes into account management fees, expenses and carried interest at both the portfolio investment (i.e. underlying portfolio fund or direct investment) and Siguler Guff level. Carried interest at the Siguler Guff level is calculated as though the fund sold its entire portfolio at its carrying value on the last day of the period. Portfolio level performance information is gross and takes account of management fees, expenses and carried interest at the portfolio investment (i.e. underlying portfolio fund or direct investment) level, but does not deduct management fees, expenses and carried interest at the Siguler Guff level. The effect of these deductions could be significant. Investors should consider gross performance information together with the corresponding net performance. Gross performance information does not deduct management fees, expenses and carried interest at the portfolio investment (i.e. underlying portfolio fund or direct investment) level, or at the Siguler Guff level. The effect of these deductions could be significant. Investors should consider gross performance information together with the corresponding net performance.

Additional information on "Estimated Performance Information”. A Fund’s “Estimated Fund Performance Information” is performance information based in part on a Siguler Guff-prepared estimate of the change in that Fund’s net asset value since the most recent quarter for which fund financial statements were made available (the “Last Financial Statement Date”). The estimated changes in the values of the relevant Fund’s portfolio holdings from the Last Financial Statement Date are based primarily on estimates provided to Siguler Guff by the general partners or managers of the underlying portfolio funds. The general partners or managers generally provide these estimates to Siguler Guff solely as a convenience, and they are typically are calculated in a less rigorous fashion than is the case for quarter-end financial statements. Furthermore, the reliability of these estimates varies among the general partners or managers of the underlying funds, primarily because of differences in their internal policies and procedures, most notably the timing of valuations. Accordingly, performance information based on estimated valuations, including changes in net asset values, IRRs and multiples, is less reliable than comparable information derived from quarter- or year-end financial statements, and the actual performance information for the same period (calculated after the financial statements are made available) might differ significantly. Estimated performance information for the fourth quarter is particularly likely to differ from the performance information ultimately derived from year-end financial statements, because the year-end financial statements typically are audited by independent accountants, which increases the likelihood that some of the valuations ultimately included in the financial statements will differ from the valuations in the general partner’s or manager’s preliminary estimates.

Additional risks associated with secondary investments. The Siguler Guff Secondary Opportunities Fund, LP may invest in an underlying fund that has completed its closings by purchasing an interest in such underlying fund from affiliates or unaffiliated parties in the secondary market. Such “Secondary Investments” may present additional risks, such as the difficulty in valuing the existing investments of an underlying fund or the possibility that the interests acquired in a secondary market transaction may be subject to contingent liabilities resulting from activity that transpired prior to the Secondary Investment (such as an indemnification obligation in respect of an act or omission occurring prior to the date of the acquisition of the Secondary Investment). Further, a Secondary Investment may be subject to the consent of the underlying fund and other qualification requirements that may make such purchase or a sale of such Secondary Investment more difficult or, ultimately, prevent it.

IRR is based on cash flows received and paid since the close of the investment and the underlying manager’s estimated valuation as of December 31, 2015. For investments that have been outstanding for less than a year, the IRR is noted as “NM” (Not Measurable) because these assets have been purchased at a discount to NAV, which typically results in elevated initial IRRs that we expect to normalize over a period of time.

Secondary transactions are defined as transactions that were purchased and sold in the secondary market, specifically in Siguler Guff Distressed Opportunities Fund III, LP, Siguler Guff Distressed Opportunities Fund IV, LP, the Siguler Guff Distressed Opportunities Fund V, LP, Siguler Guff Secondary Opportunities Fund, LP and two secondary investment-focused separate accounts managed by Siguler Guff. It excludes sales of primary investments that were completed in Siguler Guff’s Distressed Opportunities Funds and those secondary transactions that have been done within other Siguler Guff strategies. The estimated net IRRs for Siguler Guff Distressed Opportunities Fund III, LP and Siguler Guff Distressed Opportunities Fund IV, LP are 11.0% and 10.3%, respectively, as of December 31, 2015. The net IRRs for the Siguler Guff Distressed Opportunities Fund V, LP, the Siguler Guff Secondary Opportunities Fund, LP and the Siguler Guff’s secondary investment-focused separate accounts are not meaningful as of December 31, 2015, as they have less than 12 months of cash flow activity.
MEMORANDUM

Date: October 17, 2016

To: CCCERA Board of Retirement

From: Timothy Price, Chief Investment Officer
      Chih-chi Chu, Investment Analyst

Subject: Siguler Guff Secondary Opportunities Fund

Recommendation

We recommend the Board make a capital commitment of $50 million to Siguler Guff Secondary Opportunities Fund (SOF), subject to satisfactory on-site visit and legal review.

SOF is an opportunistic investment targeting the distressed segment of the secondary private equity market where attractive entry points can still be found by SOF’s investment team. CCCERA has invested in two general secondary funds; however, as the broad secondary market is becoming saturated with new capital raised in recent years, this segment has become less attractive.

SOF’s investment team has been investing in the distressed segment of the secondary market since 2010 as a component of the firm’s Distressed Opportunities Funds. In 2015 Siguler Guff decided to launch a dedicated fund, SOF, to address this market opportunity where the firm believes they have a competitive advantage.

SOF was seeded by a southwest public pension fund along with Siguler Guff’s two founders, George Siguler and Drew Guff. SOF is capped at $300 million, $80 of which has been invested, $60 million called, and $22 million already realized. As a result of this early success, CCCERA will come in, at cost, to a portfolio that is currently marked at 1.3x (net of all CCCERA’s expenses).
Secondary Market Overview

The secondary market is where investors buy and sell illiquid fund investments. The market started as a channel for investors to salvage “unwanted” investments. In those early days there were few buyers in the market, so transactions typically occurred at relatively large discounts to the fund net asset values, thus receiving high returns just by entering an investment at a lower cost base. In addition, secondary investment’s portfolios are known in advance (as contrasted with the blind pool risk of primary funds) and are more mature, leading to shorter J-curve and usually higher IRRs. Below is a table that summarizes the major differences between “Primary” and “Secondary” fund investments:

Table: Comparison between “Primary” and “Secondary” Fund Investments

<table>
<thead>
<tr>
<th></th>
<th>Primary Funds</th>
<th>Secondary Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Pool at the time of invest</td>
<td>Unknown</td>
<td>Known</td>
</tr>
<tr>
<td>Portfolio Age at the time of invest</td>
<td>Young</td>
<td>Mature</td>
</tr>
<tr>
<td>J – Curve (the time line from investment’s initial negative returns to eventual positive)</td>
<td>Longer</td>
<td>Shorter</td>
</tr>
<tr>
<td>Loss Rate*</td>
<td>15.7%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Average IRR*</td>
<td>12.8%</td>
<td>18%</td>
</tr>
</tbody>
</table>

*Numbers provided by Siguler Guff based on data from Preqin as of September 30, 2015 including funds with vintage years from 1993 to 2012

Having said that, the success of secondary investments has caught investors’ attention. This recognition has led to significant inflows that have driven up the transaction price of secondary assets (funds). But on the “distressed” pocket of the secondary market, SOF can still find consistently lower entry points due to the team’s sourcing ability and the firm’s distressed fund-of-funds platform.
The chart below compares the historical secondary market entry pricings between overall secondaries and Siguler Guff’s distressed:

*Chart: Historical Secondary Market Pricing Comparison*

As shown on the chart above, the secondary pricing has gone up significantly since the second half of 2012, but Siguler Guff has maintained its pricing advantage since the beginning, mostly due to far less capital and capable firms investing in the “distressed” secondary market.

Data Source: Greenhill Cogent, Siguler Guff
SOF Investment Strategy

SOF targets niche special situation opportunities in the secondary market that can generate above average private equity returns. Special situation opportunities include traditional distressed funds, out-of-favor managers, side pocket liquidation sales (usually from hedge funds), and credit or value-oriented strategies that will be coming out more due to the recent inflow into private credit.

SOF team has completed 22 investments since Q4 '10; some of which have already resulted in realizations. SOF’s transactions have a few common characteristics: the assets are harder to price, special situations are more involved, the due diligence work required is overlooked more often by others, and the requirement for quick execution is paramount.

After buying the distressed assets, SOF team often seeks to dispose the assets opportunistically, or purchases more of the same assets from primary funds or other available markets to build a larger package for sale. Its sale philosophy is to leave some money (to be made) for the next owner. Below are some of the investments exited by SOF team, which demonstrate the exit profiles of SOF’s investments.

Investment I
This investment has some real estate and a public company’s stocks. The public holdings exited through the public market, and the real estate was sold to an investment entity whose return expectation is 6-10%.

Investment II
This investment was purchased from European hedge fund investors. The fund’s 90 days lock-up period couldn’t be honored post financial crisis so Siguler Guff came in to provide the liquidity to those who want out. The portfolio has a SPV (Special Purpose Vehicle) that is a renowned distressed fund that Siguler Guff has investments in, so Siguler Guff knows the values of the fund very well. An investment bank ended up buying these funds from SG and still made 13% return for the bank.

Investment III
This investment was purchased from a brand name fund that contains a private company. Siguler Guff paid slight discount for the private company and bought more of the same private company at bigger discount from Over The Counter market, it then sold the entire private holdings to an European secondary fund.

Investment IV
This investment was purchased from a bank at large discount when the bank was forced to sell its non-core assets in 2013. The portfolio has some restaurant concepts that were doing well. Siguler Guff later sold this holding to a private banking group.

Investment V
This portfolio was purchased from a hedge fund's special purpose vehicle; one of the
investments in the portfolio has a casino development in Macau. Siguler Guff sold this
development to a secondary side pocket of a fund and recouped more than 2/3 of the total
portfolio cost.

Investment IX
There are five funds in this portfolio and one of them was sold to an endowment through a
broker. SG recouped 59% of the total portfolio cost from this single sale.

*Overall three profiles came out from analyzing these exits: 1] Investors have different return
expectations that can be arbitraged, 2] many investors have lower cost of capital than Siguler
Guff (in real estate terms, lower cap rate requirement), and 3] there is a lot of money buying
secondary investments, which leads to the next question:*

“Will this opportunity last?”

Staff looked into SOF’s historical transaction volumes to see if the sourcing trend has changed
adversely. Below is the summary:

*Table: Siguler Guff Secondary Deal Flow Tracking ($ in millions)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Deal Flow</th>
<th>Total Capital Invested</th>
<th>Invested Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$2,431</td>
<td>$51</td>
<td>2.1%</td>
</tr>
<tr>
<td>2014</td>
<td>$3,420</td>
<td>$55</td>
<td>1.6%</td>
</tr>
<tr>
<td>2015</td>
<td>$3,624</td>
<td>$129</td>
<td>3.5%</td>
</tr>
<tr>
<td>2016 (Jan – Sep)</td>
<td>$2,598</td>
<td>$123</td>
<td>4.7%</td>
</tr>
</tbody>
</table>

Source: Siguler Guff

Note the higher capital invested after 2014 was due to the funds available from SOF to make
investments. In other words, had SOF team has more money to invest in 2013 and 2014, it
could have invested more.

Due to its small size of $300 million, SOF is expected to be fully invested in the next two to
three years. After that, the basic assumption on investment holding period is to return the
capital in two years and distribute 94% of the invested capital in 5 years. The residuals may
drag into year 7 or 8 but those won't be meaningful in terms of dollar amount. This velocity of
money should generate higher IRR than average private equity funds.
Overview of Firm and Investment Staff

Siguler Guff was founded in 1991 by George Siguler, Drew Guff, and Donald Spencer as the private equity group of PaineWebber. It later became independent in 1995. In 2010 BNY Mellon purchased a 20% non-voting interest in Siguler Guff. Currently Siguler Guff has over $10 billion of assets under management in strategies like distressed buyout, distressed real estate, small buyout, and emerging markets, most in fund-of-funds vehicles supplemented by co-investment and secondaries. CCCERA currently has roughly $400 million invested and committed with Siguler Guff, evenly split between real estate and small buyout funds.

SOF was conceived under Siguler Guff’s distressed opportunities fund franchise, and has been the strongest alpha generator for these flagship funds. Realizing the secondary opportunities are substantial enough to stand on their own, Siguler Guff seeded SOF with George and Drew’s personal capital, then with an institutional commitment from a public pension in southwest.

SOF is managed by Tony Cusano and intensely monitored by George Siguler. Below are the bios of Tony and George:

- **Tony Cusano is a Managing Director and Head of Secondary Investments at Siguler Guff. He is the portfolio manager of SOF.** Tony completed the firm’s first distressed secondary investment in 2010, and has since led the sourcing, underwriting, and exit for all secondary investments purchased by Siguler Guff’s Distressed Opportunities Funds. Tony is a graduate of Cal Poly. After founding and selling an IT consulting business he has spent his entire career in distressed private equity funds, secondaries and co-investments. Prior to Siguler Guff Tony was an equity holder and one of the original employees at StepStone Group.

- **George Siguler is a founder and Managing Director of Siguler Guff.** He was also a founder of Harvard Management Company and initiated and managed its private equity program for 13 years. He also assisted in the creation of Commonfund Capital. George is the chief investment Officer at Siguler Guff and a member of SOF’s investment committee.
Track Record Review

Siguler Guff started its distressed secondary investments under Distressed Opportunities Fund III (DOF III) in 2010. Up to the launch of SOF in 2015 the SOF team led by Tony Cusano has invested more than $400 million of investors’ capital. Below is Siguler Guff’s secondary investment track record:

Table: Siguler Guff’s Secondary Investment Track Record, $ in millions as of June 30, 2016

<table>
<thead>
<tr>
<th></th>
<th>DOF III</th>
<th>DOF IV</th>
<th>DOF V</th>
<th>Separate Acct</th>
<th>Co-Inv Acct</th>
<th>SOF</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td>Distressed/ Special Sit</td>
<td>Distressed/ Special Sit</td>
<td>Distressed/ Special Sit</td>
<td>Secondaries</td>
<td>Secondaries</td>
<td>Secondaries</td>
<td></td>
</tr>
<tr>
<td><strong>Invested</strong></td>
<td>$57.6</td>
<td>$143.4</td>
<td>$26</td>
<td>$65.5</td>
<td>$52.4</td>
<td>$57.5</td>
<td>$402.5</td>
</tr>
<tr>
<td><strong>Realized</strong></td>
<td>$93.7</td>
<td>$137.7</td>
<td>$4.7</td>
<td>$22.5</td>
<td>$14.5</td>
<td>$19.6</td>
<td>$292.7</td>
</tr>
<tr>
<td><strong>Unrealized</strong></td>
<td>$3.6</td>
<td>$64.7</td>
<td>$29.7</td>
<td>$66.9</td>
<td>$58</td>
<td>$56.2</td>
<td>$279.1</td>
</tr>
<tr>
<td><strong>Total Value</strong></td>
<td>$97.3</td>
<td>$202.3</td>
<td>$34.3</td>
<td>$89.5</td>
<td>$72.5</td>
<td>$75.9</td>
<td>$571.7</td>
</tr>
<tr>
<td><strong>Portfolio IRR</strong></td>
<td>53.3%</td>
<td>39%</td>
<td>NM</td>
<td>NM</td>
<td>NM</td>
<td>NM</td>
<td>51.4%</td>
</tr>
<tr>
<td><strong>Portfolio Multiple</strong></td>
<td>1.69x</td>
<td>1.41x</td>
<td>NM</td>
<td>1.36x</td>
<td>1.38x</td>
<td>1.32x</td>
<td>1.42x</td>
</tr>
<tr>
<td><strong>Portfolio Distribution</strong></td>
<td>1.63x</td>
<td>0.96x</td>
<td>NM</td>
<td>0.34x</td>
<td>0.28x</td>
<td>0.34x</td>
<td>0.73x</td>
</tr>
</tbody>
</table>

NM: Not Meaningful

Although SOF is the first time fund, the SOF team is not the first time investor in the strategy it pursues. The track record shown in the table above demonstrates the track record of invested capital that is larger than SOF’s fund size. SOF is over-subscribed at this point including CCCERA’s consideration. The seed institutional investor put a cap of $300 million on the fund when it came in.
CCCERA Private Equity Investments

The CCCERA Private Equity program over-commits by 100% in order to compensate the slower deployment and distribution pace of alternative investments. With this over-commitment and CCCERA’s total asset value as of August 31, 2016, the availability for CCCERA to commit to private equity is approximately $429 million, illustrated by the schedule followed:

Table: CCCERA Private Equity Availability

<table>
<thead>
<tr>
<th></th>
<th>Value (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCERA Total Fund</td>
<td>$7,671</td>
</tr>
<tr>
<td>as of 8/31/2016</td>
<td></td>
</tr>
<tr>
<td>Private Equity @ 12%</td>
<td>$921</td>
</tr>
<tr>
<td>Private Equity Target</td>
<td>$921</td>
</tr>
<tr>
<td>less Closed End Investments</td>
<td>$715</td>
</tr>
<tr>
<td>less Commitments</td>
<td>$698</td>
</tr>
<tr>
<td>Available to Commit</td>
<td>-$492</td>
</tr>
<tr>
<td>plus 100% Over-Commitment</td>
<td>$921</td>
</tr>
<tr>
<td>Estimated Available to Commit</td>
<td>$429</td>
</tr>
</tbody>
</table>

Upon further dissection of total private equity exposure, CCCERA’s allocation to buyout, venture, distressed/special situation, Real Assets/Infrastructure, and other (mostly credit) strategies are illustrated in the chart below.

CCCERA Current Private Equity Allocation
With a $50 million commitment to SOF, CCCERA can increase its exposure to Distressed/Special situation to above 10%, as illustrated by the chart below:

The overall exposure to Real Asset and Infrastructure is perhaps too high due to its merge with Private Equity, and the exposure to distressed and venture are too low due to their higher return potential. Staff will work with the private asset advisors-to-be-hired to come up with a more detailed construction plan, but a $50 million commitment to SOF is a safe step to the desired direction.

**Risk Factors**

Some of the risk factors to consider related to SOF include:

- **Key man Risk** – Siguler Guff’s secondary platform owes lots of its success to Tony Cusano who is a sourcing machine with a keen sense to call the sale. Tony is supported by a small yet capable team of three, with two focus on due diligence and one on closing transactions.

- **Complacency Risk** – Early success may bring complacency to future investments, such as relying on repeat deal sources that were successful in the past without shortcut to due diligence given the desire to close fast or fear of losing transactions to competitors, etc.
Summary of SG SOF Terms

Expected Size: $300 million

GP Commitment: At least $15 million

Investment Period: Third anniversary of its final closing

Maturity: Tenth anniversary of its initial closing

Management Fee: 1%

Carried Interests: 12.5%

Preferred Return: 8%

Key Man: Both George Siguler and Drew Guff, OR Tony Cusano

Fee Projection

Below is the projected fee table with three hypothetical return scenarios for a $50 million commitment to SOF, $ in millions:

<table>
<thead>
<tr>
<th>Net IRR Scenario</th>
<th>10%</th>
<th>15%</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Economics to CCCERA</td>
<td>$66.91</td>
<td>$124.56</td>
<td>$132.67</td>
</tr>
<tr>
<td>Mgmt Fees</td>
<td>$2.90</td>
<td>$2.90</td>
<td>$2.90</td>
</tr>
<tr>
<td>Carried Interest</td>
<td>$1.75</td>
<td>$2.71</td>
<td>$3.72</td>
</tr>
<tr>
<td>Net CCCERA Distribution</td>
<td>$62.25</td>
<td>$68.96</td>
<td>$76.05</td>
</tr>
</tbody>
</table>
Memorandum

To: Contra Costa County Employees’ Retirement Association
From: Edward Hoffman, CFA, FRM
Subject: Public Equity Portfolio – Emerging Markets Equity and S&P 500 Searches
Date: October 13, 2016

Executive Summary
At the September 28th, 2016 Board Meeting, an implementation plan was presented outlining the steps to be taken over the coming year. The next step in the implementation plan is to address the structure of the public equities portfolio, specifically to put into place a passive S&P 500 strategy along with a dedicated emerging markets equity mandate in order to attain the domestic large cap and emerging market exposures required in the asset allocation study.

We are recommending that the Board approve searches for both the S&P 500 and emerging markets equity mandates. Once approved, Verus and CCCERA Staff will launch the searches and, as outlined in the implementation plan, present recommendations for the emerging markets mandate at the December Board meeting and the S&P 500 mandate at the January Board meeting.

Emerging Markets Equity
The FFP 4-yr asset allocation prescribes a 10% target allocation to Emerging Markets Equity. CCCERA’s current exposure to emerging markets is achieved through both the global and international equities strategies, which have discretion to allocate across regions. This approach may result in geographic exposures that are materially different than Policy. In order to achieve the new increased target exposure to emerging markets, a search is necessary to identify and select dedicated emerging markets strategies.

This search will focus on a number of different types of strategies as there is great variability across the universe of managers. As a result, multiple complementary managers may be recommended in order to gain exposure to multiple styles and factors.

Verus and Staff expect to present a recommendation at the December 2016 Board meeting.

S&P 500 Mandate
The FFP 4-yr asset allocation prescribes a 6% target allocation to domestic large cap equities. Per the implementation plan presented in September, CCCERA will be allocating to a passive S&P 500 strategy during “phase 3” in order to gain broad exposure to the domestic large cap equity space.

CCCERA currently utilizes active managers within the domestic large cap space. The benefits of transitioning from active to passive management in this space include reduced cost, reduction of
active risk in an asset class that is generally considered to be efficient, and the potential for increased liquidity due to the relative size of passive strategies as compared to most active strategies.

The S&P 500 search will examine the various vehicles available to achieve passive exposure including separate accounts, commingled funds, and the use of the Plan’s overlay provider. These options will be evaluated based on cost, liquidity, tracking error, and ease of administration.

Verus and Staff expect to present a recommendation at the January 2017 Board meeting.

**Recommendation**

Given the changes to the composition of the public equity portfolio prescribed in the FFP 4-yr asset allocation, we recommend that the Board approve searches for the passive S&P 500 and Emerging Markets Equity mandates.
MEMORANDUM

Date: October 26, 2016
To: CCCERA Board of Retirement
From: Gail Strohl, Chief Executive Officer
Subject: Consider and take possible action to adopt BOR Resolution 2016-3, Investment Asset Allocation Targets and Ranges.

Background

In the recently adopted Investment Policy Statement, the Board approved a structure whereby annual adjustments to the target asset allocation would be expressed in the form of investment resolutions. The attached memo and supporting documentation from Verus outlines the portfolio targets and ranges associated with the initial implementation of the new investment strategy outlined in the restated Investment Policy Statement adopted September 28, 2016. Verus has previously outlined a three phase implementation process. The initial phase focuses on building the liquidity sub-portfolio while phases two and three focus on restructuring of the growth and diversifying sub-portfolios. BOR Resolution 2016-3 allows for the implementation of Phase 1.

Recommendation

Consider and take possible action to adopt BOR Resolution 2016-3, Investment Asset Allocation Targets and Ranges.
Memorandum

To: Contra Costa County Employees’ Retirement Association
From: Edward Hoffman, CFA, FRM
Subject: Board Resolution #3 – Phase I Targets and Ranges
Date: October 26, 2016

At the September 28, 2016 Board meeting, an implementation plan was presented to provide a roadmap for migrating the current investment portfolio to the recently adopted FFP asset allocation. At that same meeting, the Board selected three investment managers to fulfill the Liquidity sub-portfolio mandate, pending final due diligence. We are now seeking Board approval for the funding of the Liquidity sub-portfolio consistent with that implementation plan. To accomplish this, the Board is asked to adopt BOR Resolution 2016-3 as written.

Investment Resolution

The attached Investment Resolution outlines long-term asset allocation targets along with the Phase I asset allocation targets and ranges. The Phase I targets and ranges are the same as those provided in the implementation plan, which showed the risk and return characteristics for this interim portfolio. Once adopted, this Investment Resolution will provide Staff and Verus with the investment policy necessary to fulfill our respective fiduciary duties.

Rebalancing analysis

The attached rebalancing spreadsheet outlines the detailed movement of money associated with the adoption of the Phase I targets. The values in the spreadsheet are updated to September 30, 2016 whereas the implementation plan included values as of July 31, 2016. This analysis includes the full redemption of the PIMCO All Asset and Invesco Global ex-US Real Estate Securities Trust strategies as well as the elimination of the Lord Abbett Core Plus, PIMCO Total Return, Goldman Sachs Core Plus (and the GSAM workout portfolio), and the Lazard global fixed income strategies. The specific market values for each strategy will differ from those presented in the spreadsheet, so the amount drawn from Cash will compensate for the differences.

Past performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Verus Advisory Inc. and Verus Investors, LLC (“Verus”) file a single form ADV under the United States Investment Advisors Act of 1940, as amended.
## CCCERA Rebalancing Analysis

### Phase 1: Implement Liquidity Program

*Market values as of September 30th, 2016*

<table>
<thead>
<tr>
<th>Sub-portfolio</th>
<th>Actual</th>
<th>Phase I Target</th>
<th>Re-Balance</th>
<th>New</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Growth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intech Large Cap</td>
<td>5,687,044,670</td>
<td>5,340,165,463</td>
<td>(346,555,531)</td>
<td>5,340,489,139</td>
<td>0.0%</td>
</tr>
<tr>
<td>PIMCO Stocks+</td>
<td>333,527,240</td>
<td>333,527,240</td>
<td></td>
<td>333,527,240</td>
<td>0.0%</td>
</tr>
<tr>
<td>Jackson Square</td>
<td>326,298,051</td>
<td>326,298,051</td>
<td></td>
<td>326,298,051</td>
<td>0.0%</td>
</tr>
<tr>
<td>Robeco Boston Partners</td>
<td>318,268,874</td>
<td>318,268,874</td>
<td></td>
<td>318,268,874</td>
<td>0.0%</td>
</tr>
<tr>
<td>Emerald</td>
<td>242,298,604</td>
<td>242,298,604</td>
<td></td>
<td>242,298,604</td>
<td>0.0%</td>
</tr>
<tr>
<td>Ceredex</td>
<td>229,791,449</td>
<td>229,791,449</td>
<td></td>
<td>229,791,449</td>
<td>0.0%</td>
</tr>
<tr>
<td>Pyrford</td>
<td>416,695,850</td>
<td>416,695,850</td>
<td></td>
<td>416,695,850</td>
<td>0.0%</td>
</tr>
<tr>
<td>William Blair</td>
<td>419,979,055</td>
<td>419,979,055</td>
<td></td>
<td>419,979,055</td>
<td>0.0%</td>
</tr>
<tr>
<td>Artisan</td>
<td>340,366,101</td>
<td>340,366,101</td>
<td></td>
<td>340,366,101</td>
<td>0.0%</td>
</tr>
<tr>
<td>First Eagle</td>
<td>324,823,862</td>
<td>324,823,862</td>
<td></td>
<td>324,823,862</td>
<td>0.0%</td>
</tr>
<tr>
<td>Intech Global Low Vol</td>
<td>23,958,644</td>
<td>23,958,644</td>
<td></td>
<td>23,958,644</td>
<td>0.0%</td>
</tr>
<tr>
<td>JP Morgan</td>
<td>277,805,457</td>
<td>138,919,016</td>
<td>(139,000,000)</td>
<td>138,805,457</td>
<td>0.0%</td>
</tr>
<tr>
<td>PIMCO All Asset</td>
<td>128,643,611</td>
<td>0.0%</td>
<td>(128,643,611)</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Invesco</td>
<td>75,986,848</td>
<td>0.0%</td>
<td>(58,911,920)</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Private Real Estate</td>
<td>641,564,564</td>
<td>641,564,564</td>
<td></td>
<td>641,564,564</td>
<td>0.0%</td>
</tr>
<tr>
<td>Private Real Assets</td>
<td>82,824,389</td>
<td>82,824,389</td>
<td></td>
<td>82,824,389</td>
<td>0.0%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>582,380,875</td>
<td>582,380,875</td>
<td></td>
<td>582,380,875</td>
<td>0.0%</td>
</tr>
<tr>
<td>Opportunistic</td>
<td>33,066,071</td>
<td>33,066,071</td>
<td></td>
<td>33,066,071</td>
<td>0.0%</td>
</tr>
<tr>
<td>Torchlight</td>
<td>130,966,685</td>
<td>130,966,685</td>
<td></td>
<td>130,966,685</td>
<td>0.0%</td>
</tr>
<tr>
<td>Allianz</td>
<td>387,668,528</td>
<td>387,668,528</td>
<td></td>
<td>387,668,528</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSAM Core Plus</td>
<td>328,840,846</td>
<td>0.0%</td>
<td>(328,840,846)</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Lord Abbott Core Plus</td>
<td>333,047,536</td>
<td>0.0%</td>
<td>(333,047,536)</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>PIMCO Total Return</td>
<td>442,289,365</td>
<td>0.0%</td>
<td>(442,289,365)</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Lazard Global</td>
<td>244,749,556</td>
<td>0.0%</td>
<td>(244,749,556)</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Insight</td>
<td>800,000,000</td>
<td>10.5%</td>
<td>800,000,000</td>
<td>10.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>DFA</td>
<td>450,000,000</td>
<td>5.9%</td>
<td>450,000,000</td>
<td>5.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Sit</td>
<td>450,000,000</td>
<td>5.9%</td>
<td>450,000,000</td>
<td>5.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Risk Diversifying</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFL-CIO HIT</td>
<td>245,403,667</td>
<td>3.2%</td>
<td>245,403,667</td>
<td>3.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Wellington Real Return</td>
<td>188,115,660</td>
<td>2.5%</td>
<td>188,115,660</td>
<td>2.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cash</td>
<td>129,193,489</td>
<td>1.7%</td>
<td>(4,517,165)</td>
<td>1.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,598,684,790</td>
<td>100%</td>
<td>7,598,684,790</td>
<td>100%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
RESOLUTION OF THE BOARD OF RETIREMENT
CONTRA COSTA COUNTY EMPLOYEES’ RETIREMENT ASSOCIATION

INVESTMENT ASSET ALLOCATION TARGETS AND RANGES

WHEREAS, Article XVI, §17 of the Constitution of the State of California vests the Board of Retirement (Board) with "plenary authority and fiduciary responsibility for the investment of moneys and the administration of the system"; and

WHEREAS, the Board has exclusive control of the investment of CCCERA and may, in its discretion and subject to applicable law, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding or sale or any form or type of investment, financial instrument, or financial transaction when prudent in the informed decision of the board, pursuant to the County Employees Retirement Law of 1937 (CERL), Government Code Section 31595; and

WHEREAS, the Board has adopted an Investment Policy Statement ("IPS"), pursuant to which the Board is to periodically set, review and revise its asset allocation targets.

NOW, THEREFORE BE IT RESOLVED that it shall be the policy of CCCERA to invest assets in the following manner:

Asset Allocation

Section 6.B of the Investment Policy Statement ("IPS"), adopted September 28, 2016, provides that “annually the Board shall review the relative size and composition of [the] sub-portfolios and revise them as necessary through Investment Resolutions.” During this annual review, the Investment Consultant will recommend the targets, weightings, and the rationale for any deviation to an under-weight or over-weight across the asset allocation. The Board will consider and take action to adopt or revise asset allocation targets. Under the direction of the Board of Retirement, investment staff will administer the asset allocation per the Board’s action.

As of 2016 the long-term asset allocation targets determined by the Board are as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td>25%</td>
</tr>
<tr>
<td>Growth</td>
<td>63%</td>
</tr>
<tr>
<td>Diversifying</td>
<td>12%</td>
</tr>
</tbody>
</table>

The Liquidity sub-portfolio will have a target allocation of 25% once the annual funding has been completed (typically in July of each year). Over the course of the following 12 months, the Liquidity sub-portfolio will be used to pay benefits and expenses. As a result and aside from market fluctuations, the funds in the Liquidity sub-portfolio will decline from the targeted allocation and, therefore, the relative allocations to the Growth and Diversifying sub-portfolios will increase proportionately.
In order to allocate assets such that the long-term allocation targets are satisfied, Investment Staff and the Investment Consultant recommended an Implementation Plan to the Board at the September 28, 2016 Board meeting. The Implementation Plan included 3 phases to prudently migrate the portfolio from its current asset allocation to the long-term asset allocation. This resolution provides the Phase I asset allocation targets and ranges as an interim step towards reaching the desired long-term asset allocation. Phase II targets, once established, will be adopted by the Board and will supersede these Phase I targets.

### Phase I Targets

<table>
<thead>
<tr>
<th>Sub-portfolio Strategy</th>
<th>Phase I Target</th>
<th>Minimum Allocation</th>
<th>Maximum Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Growth</strong></td>
<td>70.3%</td>
<td>60%</td>
<td>80%</td>
</tr>
<tr>
<td>Intech Large Cap</td>
<td>3.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIMCO Stocks</td>
<td>4.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jackson Square</td>
<td>4.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robeco Boston Partners</td>
<td>4.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emerald</td>
<td>3.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceredex</td>
<td>3.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pyrford</td>
<td>5.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>William Blair</td>
<td>5.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artisan</td>
<td>4.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Eagle</td>
<td>4.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intech Global Low Vol</td>
<td>0.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP Morgan</td>
<td>1.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adelante</td>
<td>1.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Real Estate</td>
<td>8.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Real Assets</td>
<td>1.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Equity</td>
<td>7.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunistic</td>
<td>0.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torchlight</td>
<td>1.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allianz</td>
<td>5.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td>24.0%</td>
<td>20%</td>
<td>28%</td>
</tr>
<tr>
<td>Insight</td>
<td>10.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFA</td>
<td>5.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sit</td>
<td>5.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>1.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk Diversifying</strong></td>
<td>5.7%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>AFL-CIO HIT</td>
<td>3.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wellington Real Total Return</td>
<td>2.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AYES:
NOES:
ABSTAIN:
ABSENT:

____________________________________________
John Phillips
Chairperson of the Board of Retirement

Attest:

____________________________________________
Scott Gordon
Secretary of the Board of Retirement
Aether’s annual meeting of limited partners and their consultants and advisors will be held in Denver, Colorado on January 25-26, 2017. Please reply with the number of attendees that will be attending from your organization no later than November 30, 2016.

For your convenience, we have reserved a discounted block of rooms at The Crawford Hotel. Reservations can be made through December 23, 2016 via the following link: Book at The Crawford Hotel Please note, the link will only recognize the group rate for 1/25/17. If you’d like to extend your stay with the discounted rate, please call the reservations department at 844.432.9374.

The following is the event itinerary surrounding the annual meeting:

**Wednesday, January 25, 2017**
Colorado Avalanche hockey game  
Time: 6:00pm MST  
Location: Pepsi Center VIP Entrance (East Atrium), 1000 Chopper Circle, Denver, CO 80204, Suite 49/50

**Thursday, January 26, 2017**
Annual Meeting  
Time: 9:30am MST  
Location: The Gallery, Crawford Hotel, 1701 Wynkoop Street, Denver, CO 80202

Proposed Agenda (subject to change):

- Business Update  
- Market Environment  
- 2016 Due Diligence Metrics  
- ARA Fund Updates  
- Investment Pipeline  
- Q&A Session

Lunch  
Time: 11:30am MST  
Location: The Gallery, Crawford Hotel

Manager Presentations (2)  
Time: 12:30pm MST  
Location: The Gallery, Crawford Hotel

Advisory Committee Meeting  
Time: 2:00pm MST  
Location: Belz Boardroom, Crawford Hotel

Regards,  
Aether Investment Partners  
720.961.4190  
www.aetherip.com