

FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Donald C. Kendig, CPA, Retirement Administrator

BOARD AGENDA LETTER

- **DATE:** June 7, 2017
- TO: Board of Retirement
- FROM: Donald C. Kendig, CPA Retirement Administrator
- Staff Contact: Elizabeth Avalos Executive Assistant

SUBJECT: Educational Attendance Report: Trustee Gregory Baxter and Donald Kendig, Retirement Administrator – RECEIVE AND FILE

Recommended Action(s)

1. Receive and File

Fiscal and Financial Impacts

None from the receiving and filing of this item.

Discussion and

I have attached a report from Trustee Gregory Baxter and Donald Kendig, Retirement Administrator, on their attendance at the Institutional Investor Public Funds Roundtable on April 26-28, 2017.

Attachment(s)

1. Educational Attendance Report – Gregory Baxter and Donald Kendig: Institutional Investor Public Funds Roundtable

Background

Per the Fresno County Employees' Retirement Association (FCERA) Education Policy, paragraph 18, trustees attending a non FCERA educational program shall provide a written report to the Board which summarizes the program's merit and content. Such reports will be included in the public meeting on the consent agenda.

Similarly, the Retirement Administrator will also prepare written reports to the Board so that the Board is aware of training activities and of potential training opportunities.



FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Report of Attendance at Conference or Seminar

Attendee Name:	Gregory Baxter, Trustee Donald C. Kendig, CPA Retirement Administrator		
Conference/Seminar Name:	Public Funds Roundtable		
Conference/Seminar Sponsor:	Institutional Investor		
Dates of Attendance From:	April 26, 2017	То:	Aptil 28, 2017
Educational Credit Earned:	11.5hrs/21.25hrs	Туре:	Baxter/Kendig

Brief Summary of Information and Knowledge gained:

Both Greg and Donald missed the evening session on the 25th, starting April 26th. Greg had to leave Thursday afternoon and Donald stayed through the end on Friday afternoon. Donald also attended the two morning private investor breakfasts on the 27th and 28th. Donald will share key takeaways from those breakfast sessions below.

April 26, 2017

It's a Mad, Mad World (Moderator: Josh Friedlander, Deputy Editor, Euromoney Magazine; Derek Broderson, Chief Investment Officer, Alberta Teachers Retirement Fund; Dame Amelia C. Fawcett, Chairman, Hedge Fund Standards Board; Joel Greenblatt, Managing Partner & Co-CIO, Gotham Asset Management; and, Ashbel C. Williams, Executive Director & Chief Investment Officer, Florida State Board of Administration) In summary, as crazy as everything is, governments (regulators) and central banks will try and do anything to keep the markets from turning. It is the trustees' responsibility to determine where to invest (with the help of advisors as necessary). It is the managers' responsibility to manage well what they are allocated.

Case Study: The Texas Teachers' "1 or 30" Fee Structure (Brad Gilbert, Senior Director of Hedge Funds, Teacher Retirement System of Texas and James Walsh, Partner and Head of Portfolio Group, Albourne America LLC) this new fee structure was born out of low return environments where the hedge fund fees likely ate away the majority of earnings. Attached is the paper on it. In essence, the proposed 1 or 30 structure is aimed at providing a fair fee in all market environments.

Do Alts GPs Deserve Your Money? (Moderator: Stephen L. Nesbitt, Chief Executive Officer, Cliffwater LLC; Nathanael Benzaken, CEO, Lyxor Asset Management Inc.; Adam Berger, Asset Allocation Strategist, Wellington Management; Bruce H. Cundick, Chief Investment Officer, Utah Retirement Systems; and, David Villa, Chief Investment Officer, State of Wisconsin Investment Board) The panel gave their opinions about various asset classes and their importance/attractiveness now and long term. Private Equity was hold the course even though they are expensive and crowded currently. Hedge funds were good short and long term. Liquid alternatives are oxymoronic. Liquid Real Estate and Private Equity are silly. Co investment and direct investment would be a good move. Hedge funds need deferred carry for 3 to 5 years. 2 and 20 is unsustainable for hedge funds with dedicated managed account possibly replacing them. Private Debt frowned upon (direct investing is where it is at right now). Agriculture has attractive returns, but tough to get into and coordinate/stitch together into something significant. P/E pricing is a concern. Middle market lending is unattractive right now. Global debt apocalypse a concern.

Table Discussions – with the members at our tables.

Dangerous Ideas Labs: Portfolio Construction – When There Is No Alternative... breakout discussion groups, delegates will shared creative ways they are using alternative strategies in their portfolios. Greg attended the group lead by Chris Schelling, Director, Private Equity, Texas Municipal Retirement System and James Walsh, Partner and Portfolio Analyst, Albourne America LLC. Donald attended the group lead by Kathleen K. Barchick, Senior Managing Director, Cliffwater LLC and Fadi J. BouSamra, Chief Investment Officer, The Metropolitan Government of Nashville & Davidson County Employee Benefit System. Each system shared what they were doing. Nugget: Co-investment is important for infrastructure so assets can be owned in perpetuity when time to close the fund.

Seated Lunch and Featured Speaker: Behind the Curtain of Trump's Washington. (Interviewer: Harvey Shapiro, Senior Advisor, Institutional Investor and Steve Schmidt, Political Analyst, MSNBC) Societal bifurcation is not based on ideology (left v right, liberal v conservative) any more. Now it is between the haves and the have nots bifurcating the bifurcation into 4 quadrants. The west coast has (both coasts have) a profound level of "out-of-touchness" with the rest of the nation. Trump has 3 success in 100 days: 1) the judge appointment, 2) Trump, "If you use chemical weapons, we will attack you", 3) Good meeting with China. He is caught in a dairy war with Canada (the North Korea of milk). The 100 days have been more like 100 episodes. Trump wants to be popular and successful. With Russia we don't know if there is any collusion, but we do know Putnam is attempting to undermine the systems surrounding democracy increasing distrust of the people and causing instability. The hacking of a US Presidential election would be considered an act of war. Both Clinton and Trump were unelectable, which is why one of them one. The next President will likely be very contrary to the current President and Trump is to Obama.

Private Parts for Public Funds (Moderator: Patrick Adelsbach, Founding Partner and Head of Credit Strategies, Aksia LLC; Jonathan Grabel, Chief Investment Officer, Los Angeles County Employees Retirement Association; Brett Hickey, Founder & CEO, Star Mountain Capital; Rick J. Noel, Partner and Head of Global Specialty Finance; and, Varde Brett Starr, CFA, Investment Officer, City of San Jose Department of Retirement Services) The conundrum: investors want liquidity, but nobody can time the markets. Private markets can always offer liquidity... at the right price. Incorrect view that smaller = less risky and larger = more risky. Real risk is in the amounts of leverage, fundamentals, covenants, and underwriting. Investing is the easiest business in the world to lose money.

Managing Money When Expected Returns are near 100-Year Lows, Risk are near 100-Year Highs, and Markets Are Fully Priced for "Stability". (Patrick Dimick, Senior Portfolio Strategist, Bridgewater

Associates, LP) Four main risks on Bridgewater's mind: 1) Populism – Power of the common man... by a leader... to attack the establishment on behalf of the common man. Protectionism, nationalism, militarism, greater conflict, and greater attempt to take over the media. 2) We have no real room/ability to improve/protect the economy if it struggles (even if governments will try anything). Interest rates are already low and the risk premium is already low. We will need policy cohesion at a time when it is harder than ever to create (see populism). 3) Tightening and deleveraging together. First time done together in over 70 years. Last time done was 1937 and the economy contracted 10% and stocks fell 50%. 4) Inflation is at an inflection point. Markets expect no change, but it could go up or down. Could be first reflation in 30 years. Commodity cycles are turning. Risk for savers are all time highs. Answer: Diversify counties, stay liquid and nimble, know the linkages so you are prepared to adjust at the first signs of an event unfolding (don't need to predict unpredictable, just see early when it is starting to happen).

Case Study: From Limited Partner to Actual Partner? (Moderator: Harvey Shapiro, Senior Advisor, Institutional Investor David E. Francl, Managing Director, Absolute Return, San Francisco Employees' Retirement System and John McCormick, Senior Managing Director, The Blackstone Group) The case for co and direct investment was furthered here, but it is not done successfully without additional effort.

April 27, 2017

Private Breakfast and Conversations: Women in Investing...and a Few Good Men. (Breakfast Chairs: Sharmila Kassam, Deputy Chief Investment Officer, Employees Retirement System of Texas and Misti Preziosi, Chief Revenue Officer, Mississippi Legislative Budget Office). Little did Donald know what he was getting into. There were about 4 good men and 18 great women. We reviewed statistics and trends and FCERA was admired for its proactive addressing of maternity and paternity leave (taking the stress out of the conversation of doing what is right for a new baby/family) and its creation of triage rooms for nursing and women's health, and its diverse management, supervisor and staff teams. We talked about gender differences in how each expresses their views and needs. We talked about the impetus for change, where it starts, and why it is sometimes resisted. Donald left the group with the question, "how are we going to address transgender issues/needs? It's coming, if not already here."

Did Secular Stagnation Die on Nov 8th? (Megan Greene, Chief Economist and Managing Director, Manulife Asset Management) We have an oversupply of everything: debt, age (world is on the older side of young), population, etc. 2% growth rate is great for a developed market. Problem: UK is 1.5% and Japan 0.5% by comparison. Business cycles are no longer 10 years with many extended almost in perpetuity because central banks are not permitting the painful adjustment. Downside risk is the hardest to predict. Geopolitical risk has increased. A central bank policy bank mistake could spell disaster.

Oh Canada! Today's Asset Allocation Best Practices in Canada's Largest Pension Funds. (Moderator: Alain Bergeron, Senior Vice President, Investments, Mackenzie investments; Ed Cass, Senior Managing Director and Chief Investment Strategist, Canada Pension Plan Investment Board (CPPIB); Daniel Garant, Chief Investment Officer, PSP Investments; and, Michael Wissell, Senior Vice-President, Portfolio Construction, Ontario Teachers' Pension Plan) Canadian funds (all very large) seem to do a lot of things right. They have the resources to do so. One manages the majority of its investments in house (87% and likely the 298 in the RVK report). Three key characteristics: 1) in house investing. 2) Large alternatives allocations. 3) Independent Governance Arm with no direct influence by the sponsors, nor politically directed investing. They spoke about currency often being an uncompensated and an unmanaged risk.

Table Discussions – with the members at our tables.

Investing for the Future: A Roadmap for Focusing Capital on the Long Term. (Lars Meuller, PhD, Senior Portfolio Manager, Canadian Pension Plan Investment Board (CPPIB)) Instead of boxes/buckets, what are the return drivers of the potential investment?

Innovative Asset Allocation: Managing Expectations and Assumptions. (Moderator: Laura B. Wirick, Principal/Consultant, Meketa Investment Group; Jerome Burns, Chief Investment Officer, Michigan Municipal Employees Retirement System; David Dowden, Managing Director, MacKay Shields; Robert Jacksha, Chief Investment Officer, New Mexico Educational Retirement Board; and, Timothy Price, CFA, Chief Investment Officer, Contra Costa County Employees' Retirement Association) An example: just having 4 categories of assets with Equities including P/E and fixed income including Core R/E and allocating upon risk/return characteristics.

Dangerous Ideas Labs: Innovative Asset Allocation. Greg and Donald attended the same discussion group exploring how the current market behavior impacts thinking about diversification, liquidity, and other portfolio attributes that result from the asset allocation process. (Jon Spinney, Acting CIO & VP, Quantitative Investing, Vestcor Investment Management Corporation and Scott Whalen, Executive Vice President & Senior Consultant, Verus)

Greg departed.

Seated Lunch & Featured Speaker: The Case for (Edgy) Optimism. (Zachary Karabell, Head of Global Strategies, Senior Consultant of Envestnet, Inc.; President, River Twice Research; Contributing Editor, Politico Magazine and Writer of the regular "Wealth of Nations" column) Zak made three points: 1) We are obsessed with DC politics. Federal Government can't really do all that much to improve the economy. Not much is going on in DC anyway. 2) Irrespective of anxiety of developed markets, we are in a global efflorescence and growth systematically, with an innate urge towards growth and advancement. Jobs are evolving and 40% will be obsolete due to AI and automation. 3) net effect for the present and next three years is: is what we are measuring, actually what we are living and doing? We have old measures for old world processes. The basic costs that all of us face are decreasing faster than our wages are (cost of basic necessities are going down). In 2080 world population will stop growing. Higher education has gotten a lot more expensive. Cost finally stable, but financial aid is going away causing us to have to continue to pay more and more. He was skeptical of higher education. Is it just a credential or is it providing value? North Korea, interestingly, is not that much of a threat to the US, but will not be going away any time soon.

Case Study: At U. California, Teamwork is Dreamwork! (Jagdeep Singh Bachher, Chief Investment Officer, University of California and Dr. Ashby Monk, Executive and Research Director, Stanford Global Projects Center; Senior Research Associate, University of Oxford; Former Senior Advisor to the Chief Investment Officer, University of California) Fortunately they did not take Donald's slogan: "Teamwork makes the dream work!" They were a dynamic duo and worked well together. Ashby has spoken a lot recently and keeps getting better at it. Collaboratin = knowledge exchange and is a lot like Covey's Synergy = 1 + 1 =100. Jagdeep reduced UC's 300 managers to 75 with deeper relations. We are at the service to our stakeholders. It is not our money and we need to listen to them. Developed a state of the art risk system that includes climate/carbon, Emerging Markets, etc. Our job is to determine and manage the risk and the managers manage the assets. Advice: pick a few countries or relationships and go deep. Fresno does this in a number of ways (i.e. Mondrian and Invesco with two mandates.).

The Innovators. (Moderator: Allan R. Emkin, Founder, Managing Director, Pension Consulting Alliance; Scott C. Evans, CFA, Deputy Comptroller for Asset Management & Chief Investment Officer, New York City Retirement Systems; W. Bryan Lewis, Chief Investment Officer, Pennsylvania State Employees' Retirement System; Sam Masoudi, Chief Investment Officer, Wyoming Retirement System; and, Anastasia Titarchuk, Deputy Chief Investment Officer, New York State Common Retirement Fund) We need to celebrate innovation in investment management. One panelist: passive unless there is an appropriate gain share from active investing. Easy to do with public markets. In private markets, the gain share is still not split fairly.

The Shark Tank. (Moderator: Cheryl D. Alston, Executive Director, Employees' Retirement Fund of the City of Dallas; Elliott Burris, Co-Founder & CEO, Dynasty.com; Dr. Michael Rubin, MD, MBA, CFA, Managing Partner, Sands Capital Ventures; Joseph N. Sanberg, Co-Founder and Chair of the Board of Advisors, Aspiration.com; and, Nico Sand, Founder & CEO, Zanbato) Each panelist shared their firms product and how it was a worthy investment. One involved a private residential housing reit, where investors could invest I a pool of single family homes. Another touted a bank you actually liked with fees you decided to pay or not. Some were better speakers than others and it was very interesting. There was no blood in the water when we finished and there were no specific awards, but attendees could have always followed up afterwards, independently, offering angel investing etc.

April 28, 2017

Private Breakfast for Heads of Investment Offices. (Breakfast Chairs: Rodney June, Chief Investment Officer, Los Angeles City Employees' Retirement System (LACERS) Sam Masoudi, Chief Investment Officer, Wyoming Retirement System) Geo political risk is a concern. Currency hedging was one way to address it. Many had hedging programs, but took them off because many currencies appear undervalued right now (likely a bad time to start hedging). One plan only hedges infrastructure and foreign real estate. Hedging is viewed as worth while, but it adds complications. Does it reduce risk? For Canadians, no. Currency was called an uncompensatied risk by some and a diversifier by others. Sometimes managers and private companies are already doing it, resulting in a double hedge or a waste of insurance. Many plans delegate to their managers and have their performance reported in US \$. Tail risk protection: Some plans are loking at it. Not a proven product. CTAs (buying and selling futures) did well the last time, but would the work for the next crisis? Could fail like "portfolio insurance" failed. Only works if not everybody is doing it. One plan is only 35% in stocks which is essentially doing this. One plan uses cash, which got Donald thinking. Donald dreamed up an overlay program of 5 to 10% maybe more that passively overlaid stocks and put on or removed leverage based on the margin required. In essence, assuming an initial 10% stock overlay required 40 million in margin to overlay 400 in market exposure, 360 milion would be maintained in a cash account or conservative bond account (like a stocks plus) and the \$40 would be kept for the margin. The overlay would be dynamic daily with more or less overlay based on the required margin. For instance, if margins doubled, the overlay would be reduced to 200M and 200M would be kept in cash. If margins halved, the overlay would increase to \$800M. This is a very simple concept piece (may the sharks come out and tear away) because there are issues with the ratio of the change, over all plan leverage (not necessarily bad if isolated) and lag (likely the most risky (which could be modeled for). It would likely need to be resent and if the markets did well, I would want a way to monetize that gain and reset the margin and put the earnings into the rest of the plan. Anyway, an idea. Big Data was discussed: We can't predict anything that is truly random was the last open comment. Donald started dreaming again. That was random. Donald believes that Big Data will likely be able to separate what is truly random from the rest that is not. We might not like the answer. What seems complicated and chaotic may actually be very simple. We are solving for zero/infinity and we may find out free will is not so random and fatalists might have a hay day. What Big Data will likely do is allow more and more to see the beautiful simplicity in the complex reality that surrounds us.

The Search for Alpha: Top Investors Tell You Their Best Ideas. (Moderator: Kip McDaniel, Chief Content Officer and Group Editorial Director, Institutional Investor; Matthew L. Clark, CFA, Chief Investment Officer, South Dakota Investment Council; Farouki Majeed, Chief Investment Officer, Ohio School Employees Retirement System; Robert M. Maynard, Chief Investment Officer, Public Employee Retirement System of Idaho; and, Andrew C. Palmer, Chief Investment Officer, Maryland State) One plan talked about replicating benchmarks in house and mentioned three ways to beat the benchmark every time (Donald only caught 2 of them) 1) securities lending and put up small shorts when benchmark changes (those going out sell less, those going in go up). When using internal management, give flexibility to move quickly. Sometimes doing nothing is an advantage.

Retirement on the Rocks: Why Americans Can't Get Ahead and How New Savings Policies Can Help. (Christian E. Weller, Senior Fellow, Center for American Progress; Professor of Public Policy, McCormack Graduate School of Policy and Global Studies, University of Massachusetts, Boston) Pockets of poverty are increasing. Parents and siblings are coming back home. Now we have to save for more than just ourselves. Younger households are less prepared for retirement. There are racial and rural/urban divides. Tax benefits are skewed towards higher income earners. Very few take advantage of the 12 methods offered: life insurance, education, care giving, housing, retirement (Roth/regular), healthcare, etc. Hope: States already engage in a lot of good initiatives and opposition to these state options appear to come for insurance companies.

ESG or OMG?! (Moderator: Wendy Walker, Managing Director and Outsourced Chief Investment Officer, Cambridge Associates LLC; Dominic Byrne, Director, Global Equities, Standard Life Investments; Verity

Chegar, Vice President, BlackRock; Janine Guillot, Director of Capital Markets Policy & Outreach, SASB; Daniel Ingram, Head of Responsible Investment, BT Pension Scheme Management; and, The Rev. Kirsten Snow Spalding, Interim Director, California Office and Director, Investor Programs, Ceres) Standard Life used to be ESG risk focused and is now opportunity focused. BlackRock at 5T\$ under management indicated that ESG is actively integrated and has \$180B in dedicated ESG strategies. The Sustainability Accounting Standards Board indicated that it is working towards better disclosure standards to aid in company analysis the produces results. The sense is that there are many ESG factors that are likely already in place, but not explicitly marketed. UK engagement and Australia exclusion are two methods of approaching ESG. A Harvard study is available that shows which factors are material and which factors are not. BofA found that good ESG factors resulted in lower bankruptcies, good for credit strategies. Goldman has its own factors and findings were indicative of risk mitigation. Disclosure = performance. It is not the volume of data but the actual behavior and related data that matters. For BT Pension there was one Champion (disruptor, see not all disruption is bad) an engineer who brought about the change. The engineer focused on health and safety metrics and how the companies took care of its employees. They also became more energy efficient and then asked their managers what they were doing. The low carbon economy is coming. Just one woman on a corporate board substantially reduces the incidence of fraud (from statistics). It is getting harder to look the other way and the current question is, "How do we want to implement?" (according to one panelist).

Plan Governance: Walking the Walk vs. Talking the Talk. (Moderator: Allan C. Martin, Partner, NEPC, LLC; Ryan Parham, Chief Investment Officer, Arizona Public Safety Personnel Retirement Systems; Steve Russo, Executive Director, Indiana Public Retirement System; and, Ruth Ryerson, Executive Director, Wyoming Retirement System) Board governance focus is needed on Sponsors and their effects on decisions or staff actions.

Evaluation of the Conference/Seminar:

The conference was well organized and well attended. Name cards were provided and seating was assigned for morning sessions, the break out groups, and lunch. After lunch attendees could sit were they wanted. There was a master of ceremonies (Harvey Shapiro) that made sure the logistics were clear and the sessions ran to as close to on time as possible. There was ample space and the sound, temperature, and lighting were good. The closed door investor breakfasts are well worth attending, as you can see from what was discussed above, extending the academic day by one hour each morning. there were attendees from all over North America (primarily US and Canada) as well as a handful of international attendees.

Recommendation Concerning Future Attendance:

Institutional Investor is an academic conference, closed to the press, where attendees can be open and honest abot their views. We recommend continiued attendance as one of a trustee's elective conferences.

rald C. Kondig

Signature

May 5, 2017

Albourne White Paper

Case Study: The Texas Teachers' "1 or 30" Fee Structure Jonathan Koerner, Implementation Support Analyst

December 2016



Contents

Introduction	. 2
Starting point	. 2
Modified solution	. 2
Put another way	. 2
"1 or 30"	. 2
"Management fee as an advance on performance fee"	
"Secondary hurdle"	. 3
Breaking it down	. 3
Defining alpha	. 4
Simple example	. 4
Paying performance incentives in loss years	. 5
Treatment of negative alpha	. 6
Management fee recoup and carryforward	. 6
Running "1 or 30" in the FeeMometer	. 8

Introduction

The Teacher Retirement System of Texas (TRS) are implementing what they call a "1 or 30" fee structure. As this fee structure is rapidly gaining the attention of both managers and investors, we are releasing this case study to introduce the "1 or 30" and to explain our opinion of its basic merits, mechanics and general effects on the expected shape of fees over multiple periods.

Purpose. The objective of "1 or 30" is to more consistently ensure that the investor retains 70% of alpha generated for its investment in a hedge fund. Put another way, "1 or 30" is designed to reduce the risk of total fees paid to a manager exceeding 30% of alpha, tested at both annual and cumulative intervals.

Beyond de-beta'ized fees. Other investors may not view fees in the context of alpha retention, but rather by the total share of net profits with the manager or the total share of profits over a fixed or variable non-beta hurdle. The fee structure described in this concept paper is equally relevant for these investors, who can replace "Beta Expected NAV" discussed below with the result of their desired hurdle (or no hurdle).

Starting point

The simplest way to consistently meet an investor's 70% alpha share objective would be a fee structure with no management fee and a 30% performance fee, paid only on alpha.

Management fee = 0% Performance fee = 30%*alpha **Total fees = 30% of alpha**

Such a fee structure, however, could result in significant business risk to the manager during any prolonged period of underperformance – as there could be long periods without any certain revenue for the manager from either management or performance fees. We recognize that this risk is not ideal for the long-term interests of either the manager or investor.

Modified solution

To eliminate this risk, the "1 or 30" structure guarantees regular management fee income to the manager on a consistent ongoing basis, identical to current traditional management fee mechanics. A reduction of the same amount is then made to the performance fee to return total fees to equilibrium at 30% of alpha.

Management fee = Mf Performance fee = 30% *alpha – Mf **Total fees = 30% of alpha** (with exceptions explained below)

Put another way

"1 or 30"

This structure has been referred to as "1 or 30" because it will always pay a 1% management fee, which the manager trades in for a 30% (of alpha) performance fee when the latter is greater. The only exception to this is when an investor is catching up to its 70% share of alpha, following periods when the 1% management fee exceeded its 30% share of alpha (see "Situation #2" below).

"Management fee as an advance on performance fee"

The 1% management fee in this structure can be described as an advance against the next eventual performance fee, so that the otherwise payable performance fee is reduced by the exact dollar amount of current year management fees paid, as well as prior year management fees not previously deducted from a prior year performance fee (see "Situation #2" below).

"Secondary hurdle"

The dollar value of the deduction of management fees paid, as described in the preceding paragraph, can also be defined as a second independent hurdle (in addition to Beta Expected NAV), with an accrual equal to NAV * (management fee rate / performance fee rate), prorated and calculated on the same timing as the payment of the management fee. For example, with the 1 or 30 structure on a fund that charges a 1% management fee annually in advance, the manager needs to outperform year-end Beta Expected NAV + [year beginning NAV * (0.01/0.3)].

This is comparable to a 3.33% hard and cumulative hurdle on gross performance (or 2.33% hard hurdle on a net performance basis).

In order to ensure that the long-term alpha share between the investor and manager tracks the targeted 70:30 split, this secondary hurdle must carry forward to subsequent years to the extent any prior years' performance does not offset it (see "Situation #2" below).

Breaking it down

The result is that the manager always receives a predictable and guaranteed management fee revenue stream, and the investor achieves an exact 70% retention of alpha, except in two limited circumstances:

Situation #1: If 30%*alpha is less than Mf.

The manager receives greater than 30% of alpha in total fees when 30% of the alpha generated for a performance period is less than the management fees paid (or alpha is negative).

This occurs because the management fee in this fee structure is essentially an advance against the next performance fee amount. If the total management paid throughout the course of a performance period ultimately exceeds 30% of alpha (as determined at the end of the performance period), the "advanced" amount exceeds the 30% target.

In this situation, no additional performance fee is due and any management fees not recouped to the investor should carry forward into the subsequent year to be recouped against a future performance fee, dollar-for-dollar.

Situation #2: Performance period(s) immediately following a Situation #1 performance period.

The investor will only retain greater than 70% of alpha in the years immediately following Situation #1 while returning to a 70:30 alpha share equilibrium.

This occurs because in addition to reducing the manager's current period 30% alpha share by current period management fees paid, any un-recouped management fees from prior periods are also recovered from the manager's 30% alpha share, dollar-for-dollar.

Situation #2 will only occur in a period immediately following a Situation #1 period, and will only last beyond one period if 30% of alpha is again less than the amount of current period management fees plus any prior period unrecovered management fees.

Defining alpha

For purposes of discussion and modeling, we have defined "alpha" as equal to:

Alpha = NAV + management and performance fees (or accruals) - Beta Expected NAV

Because management fees will serve as an offset to the 30% of alpha calculation of the performance fee, this model uses gross alpha, with advanced management fees added back in. The term "alpha" used throughout this paper refers to gross alpha.

We calculate Beta Expected NAV as a custom VAMI benchmark with an initial value equal to the invested amount, and adjusted monthly to reflect performance equal to a mutually agreed upon publicly available index multiplied by a mutually agreed upon beta. The Beta Expected NAV resets at the beginning of every performance period to equal the greater of prior year ending NAV and prior year ending Beta Expected NAV.

Structured this way, the Beta Expected NAV acts as a replacement to the traditional high water mark (HWM).

Simple example

Example #1: Market up, fund up more than expected beta would predict.

Assumptions:

- Initial investment of \$100 in the hedge fund.
- 1% management fee, charged annually in advance.
- Gross fund performance of positive \$20 for the period.
- Pre-agreed beta of 50% of the MSCI ACWI TR.
- MSCI ACWI TR has returned positive \$20 for a \$100 investment.
- · For simplicity, disregard intra-period performance incentive accruals.

Under the "1 or 30" model, the Beta Expected NAV begins at the same level of the initial investment, or \$100. Beta Expected NAV is adjusted during the period by the pre-agreed beta, or 50% of MSCI ACWI TR.

Beta Expected NAV = \$100 + (50% * \$20) = \$110.

Alpha is calculated as:

Alpha = NAV + management and performance fees (or accruals) – Beta Expected NAV

Alpha = \$119 + \$1 - \$110 Alpha = \$10

To achieve a 70:30 split of that \$10 gross alpha, the manager would receive \$3.00 in total fees and the remaining \$7.00 would go to the investor.

Case Study: The Texas Teachers' "1 or 30" Fee Structure December 2016

The proposed fee structure would calculate the 70:30 alpha split as follows:

Management fee = **\$1.00** (paid on January 1st by the investor) \$10.00 alpha determined on December 31st Performance fee = 30% * \$10.00 - \$1.00 = **\$2.00 Total fees paid = \$1.00 + \$2.00 = \$3.00**

Example #2: Market down, fund down less than market beta would predict.

Assumptions:

- Initial investment of \$100 in the hedge fund.
- 1% management fee, charged annually in advance.
- Gross fund performance of negative \$10 for the period.
- Pre-agreed beta of 50% of the MSCI ACWI TR.
- MSCI ACWI TR has returned negative \$40 for a \$100 investment.
- For simplicity, disregard intra-period performance incentive accruals.

Beta Expected NAV = (50% * - 40) = 80.

Alpha is calculated as:

Alpha = NAV + management and performance fees (or accruals) – Beta Expected NAV Alpha = \$89 + \$1 - \$80 Alpha = \$10

Despite the overall loss of \$10, alpha is calculated as positive \$10, and the expected share of that \$10 alpha would be \$3.00 to the manager and \$7.00 to the investor.

The proposed fee structure would calculate the 70:30 alpha split as follows:

Management fee = \$1.00 (paid on January 1st by the investor) \$10.00 alpha determined on December 31st Performance fee = 30% * \$10.00 - \$1.00 = **\$2.00 Total fees paid = \$1.00 + \$2.00 = \$3.00**

Paying performance incentives in loss years

Example #2 illustrates the possibility of paying a performance incentive in a period where absolute performance is negative. Because this fee structure seeks to achieve a consistent 70:30 share of alpha between the investor and manager, it will reward the manager in periods of positive alpha despite negative absolute performance. By that same rule, in positive performance years, it only rewards managers on positive alpha.

Albourne recognizes that not all investors embrace de-beta'ized performance fees. Most investors agree it would be ideal to pay only for alpha, but face a more difficult question when faced with paying for that

alpha in a loss year (despite the positive alpha). As suggested in the introduction to this paper, this "1 or 30" can be applied to total positive performance instead of alpha. However, that would eliminate certain improved alignment and shape of fees benefits the de-beta'ized fee achieves.

Treatment of negative alpha

Where the manager generates negative alpha (regardless of whether absolute performance is positive or negative), no performance incentive is due and the alpha shortfall is built into the moving HWM-like Beta Expected NAV hurdle, and will carry forward for the manager to make-up before earning its next performance incentive.

Management fee recoup and carryforward

Both examples above result in scenarios where 30% of alpha exceeds the management fees paid, therefore entitling the manager to an additional performance fee payment to bring the manager's total alpha share to 30%.

To ensure that the investor and manager maintain a 70:30 split of alpha over the long-term, all management fees must be carried forward until they have been applied against the performance fee as a reduction.

Example #3: Market up, fund up more than market beta would predict, but 30% of alpha is less than management fees paid.

Year 1 – Situation #1 occurrence.

Year 1 Assumptions:

- Initial investment of \$100 in the hedge fund.
- 1% management fee, charged annually in advance.
- Gross fund performance of *positive* \$10 for the period.
- Pre-agreed beta of 50% of the MSCI ACWI TR.
- MSCI ACWI TR has returned *positive* \$18 for a \$100 investment.
- For simplicity, disregard intra-period performance incentive accruals.

Beta is calculated as:

Beta Expected NAV = (50% * 18) = 109.

Alpha is calculated as:

Alpha = NAV + management and performance fees (or accruals) – Beta Expected NAV

Alpha = \$109 + \$1 - \$109

Alpha = \$1

\$1 of alpha is generated for the investor's account, and the expected share of that \$1 alpha would be \$0.30 to the manager and \$0.70 to the investor.

The proposed fee structure would calculate the 70:30 alpha split as follows:

Case Study: The Texas Teachers' "1 or 30" Fee Structure December 2016

Management fee = **\$1.00** (paid on January 1st by the investor) \$1.00 alpha determined on December 31^{st} Performance fee = 30% * \$1.00 - \$1.00 = \$0.30 - \$1.00 = \$(0.70)

Total fees paid = \$1.00, reflecting an overpayment for the year by \$0.70

In this case, the manager has received 100% of the alpha share. As that exceeds the expected 70:30 split, no performance fee would be paid. Rather than true-up or claw back the amount the investor paid to the manager in excess of 30% of alpha (\$0.70), that amount is carried forward into the subsequent year to be recovered from the next performance fee.

Year 2 – Situation #2 occurrence.

To extend this example into the second year, assume the following for Year 2:

Year 2 Assumptions:

- Year 1 ending NAV = \$109.
- 1% management fee, charged annually in advance.
- Gross fund performance of *positive* \$10 for the period.
- Pre-agreed beta of 50% of the MSCI ACWI TR.
- MSCI ACWI TR has returned positive \$8 for a \$100 investment.
- For simplicity, disregard intra-period performance incentive accruals.

Beta is calculated as:

Beta Expected NAV = \$109 + (50% * \$8) = \$113.

Alpha is calculated as:

Alpha = NAV + management and performance fees (or accruals) - Beta Expected NAV
Alpha = \$117.91 + \$1.09 - \$113
Alpha = \$6

\$6 of alpha is generated for the investor's account.

Normally, the expected share of that \$6 alpha would be \$1.80 to the manager and \$4.20 to the investor. In this case, however, we must carry forward the \$0.70 overpayment of fees from the prior year.

With the \$0.70 overpayment of fees carried forward from the prior year, the "1 or 30" fee structure would calculate the 70:30 alpha split as follows:

Management fee = **\$1.09** (paid on January 1st by the investor) Management fee recoup carry forward balance = **\$0.70 \$6.00** alpha determined on December 31st Performance fee = 30% * **\$6.00 - \$1.09 - \$0.70 = \$0.01 Total fees paid = \$1.09 + \$0.01 = \$1.10**

	Year 1	Year 2	Aggregate
Gross alpha	\$1.00	\$6.00	\$7.00
Management fees	\$1.00	\$1.00	\$2.00
Performance fees	\$0.00	\$0.10	\$0.10
Total fees	\$1.00	\$1.10	\$2.10
Manager share of alpha	100%	18.33%	30.00%

Notice that the manager's total fees for the second year is less than 30% of alpha (1.10, 6.00 = 18.33), in order to bring the 70:30 alpha share back to equilibrium over the entire period:

Running "1 or 30" in the FeeMometer

An update to Albourne's FeeMometer, a tool that facilitates the estimation of the effect of alternative fee structures/fee features on the net return stream of an investment given a gross return stream, will be released in December 2016 to allow those with access to that tool (such as Albourne clients) the ability to run the "1 or 30" fee structure by following these steps:

- 1. Select or import a manager's historical gross return stream (or convert net to gross before computing).
- 2. Select "Fee Recovery" as the Management Fee Type, with a rate of 1.0%.
- 3. Select "Alpha Only" as the Performance Fee Type, with a rate of 30%.
- 4. Begin typing the market index under "Index" to select the desired benchmark (e.g., MSCI ACWI Gross TR). Since the "1 or 30" calculates fees based on gross and pre-tax performance, using a Gross TR version of the index is most suitable.
- 5. Enter the desired beta under "Beta" (e.g., 0.50).
- 6. Select "Beta as HWM".

Please also see Albourne's white paper titled, "An Introduction to De-Beta'ized Fees".

December 2016

IMPORTANT NOTICE

The information in this White Paper (the "Information") is for general informational purposes and is being provided to you by an Albourne Group Company. For this purpose, "Albourne Group Company" means Albourne Partners Limited or one of its subsidiaries and affiliates from time to time, including Albourne America LLC, Albourne Partners Japan, Albourne Partners (Asia) Limited, Albourne Partners (Singapore) Pte. Ltd., Albourne Partners Deutschland AG, Albourne Partners (Cyprus) Limited, Albourne Partners (Canada) Limited and Albourne Partners (Bermuda) Limited (such companies being, collectively, the "Albourne Group"). If in your jurisdiction it would be unlawful for you to receive the Information, then the Information is not intended for your use. The Information is not provided to and may not be used by any person or entity in any jurisdiction where the provision or use thereof would be contrary to applicable laws, rules or regulations or where any Albourne Group Company is not authorized to provide such Information.

The Albourne Group excludes to the fullest extent permitted by law all liability, including any loss or damage (financial or otherwise) that may result directly or indirectly from your use of or reliance upon the Information.

Without prejudice to the foregoing, the Information is not, nor should it be construed as, an invitation, inducement, offer or solicitation in any jurisdiction to any person or entity to acquire or dispose of, or to deal in, any security or any interest in any fund, or to engage in any investment activity, nor does it constitute any form of tax or legal advice. The Information does not take into account the particular investment objectives or specific circumstances of any person or entity. For those reasons, the Information in this presentation is for illustrative purposes only and should not be used as the basis of any investment decisions.

This Information may not be reproduced in whole or in part and no part of this material may be reproduced, distributed, transmitted or otherwise made available to a third party or incorporated into another document or other material or posted to any bulletin board without the prior written consent of an Albourne Group Company.

To the extent any third party service provider is referred to in the Information, you should not necessarily view this as an endorsement by Albourne of such service provider. The Information may also contain information obtained from third parties which may not have been independently verified. The Albourne Group makes no representations or warranties, express or implied, as to the accuracy or completeness of the Information and disclaims all liability for any loss or damage which may arise directly or indirectly from any use of or reliance upon any such data, forecasts or opinions, or from the Information generally.

•