City Pension Fund for Firefighters and Police Officers
in the City of Miami Beach

NOTICE

DATE: February 10, 2022

TO: All Interested Parties

FROM: Donna Brito
Executive Director

This is to advise you of the regular meeting of the Board of Trustees

City Pension Fund for Firefighters and Police Officers
in the City of Miami Beach

Thursday, February 17, 2022
8:30 AM

Fire and Police Pension Office
1691 Michigan Avenue, Suite 355
Miami Beach, Florida 33139

Attendance will be limited to the Board of Trustees, Counsel and Administration.
The general public may join via zoom.

Electronic Meeting

https://us06web.zoom.us/j/84926562676
Access ID: 849 2656 2676
Dial by your location:
+1 312 626 6799 US (Chicago)
+1 346 248 7799 US (Houston)
+1 929 205 6099 US (New York)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 301 715 8592 US (Washington D.C.)
Find your local number: https://us06web.zoom.us/u/k7aSjEr1V

IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990, PERSONS NEEDING A SPECIAL ACCOMMODATION TO PARTICIPATE IN THIS PROCEEDING SHOULD CONTACT DONNA BRITO NO LATER THAN 48 HOURS PRIOR TO THE PROCEEDING. EMAIL DONNABRITO@MIAMIBEACHFL.GOV FOR ASSISTANCE; IF HEARING IMPAIRED, TELEPHONE THE FLORIDA RELAY SERVICE NUMBERS, (800) 955-8771 (TDD) OR (800) 955-8770 (VOICE) FOR ASSISTANCE.

IF A PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE BOARD WITH RESPECT TO ANY MATTER CONSIDERED AT THIS MEETING OR HEARING, HE/SHE WILL NEED A RECORD OF THE PROCEEDINGS, AND FOR SUCH PURPOSE, HE/SHE MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDING IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED. FLORIDA STATUTES 286.0105.

THIS MEETING MAY BE CONDUCTED BY MEANS OF OR IN CONJUNCTION WITH COMMUNICATIONS MEDIA TECHNOLOGY, SPECIFICALLY A TELEPHONE OR VIDEO CONFERENCE CALL.

FEBRUARY 17, 2022
CITY PENSION FUND FOR FIREFIGHTERS AND POLICE OFFICERS IN THE CITY OF MIAMI BEACH

AGENDA
940th MEETING

I. **CALL TO ORDER**

II. **GENERAL PUBLIC COMMENTS**

III. **INPUT FROM ACTIVE AND RETIRED MEMBERS**

IV. **MINUTES**

A. Regular Meeting of the Board of Trustees – January 20, 2022 (Pg. 1)

V. **DEFERRED RETIREMENT OPTION PLAN (DROP) – APPROVAL OF ENTRY**

A. Police Officer Jorge S. Mercado – Effective 02/01/2022, with 22 years of pension service, eligible for retirement by Tier 1, Rule of 70 and attainment of at least age 47.

B. Firefighter Wayne A. Trentacosta – Effective 02/01/2022, with 11 years and 11 months of pension service, eligible for retirement by Tier 1, and attainment of age 50

VI. **COMMENCEMENT OF PENSION**

Position at Commencement	Name	Drop Entry Date	Date of Resignation	Commencement of Pension
Police Officer	Miguel Noa	01/01/2019	01/14/2022	01/15/2022
Police Officer	Antonio Ferbeyre	08/01/2021	01/31/2022	02/01/2022

VII. **DECEASED**

A. Retired Firefighter Samuel Richter, passed away on January 1, 2022

B. Retired Fire Captain John M. Morgan, passed away on January 25, 2022

IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990, PERSONS NEEDING A SPECIAL ACCOMMODATION TO PARTICIPATE IN THIS PROCEEDING SHOULD CONTACT DONNA BRITO NO LATER THAN 48 HOURS PRIOR TO THE PROCEEDING. EMAIL DONNABRITO@MIAMIBEACHFL.GOV FOR ASSISTANCE; IF HEARING IMPAIRED, TELEPHONE THE FLORIDA RELAY SERVICE NUMBERS, (800) 955-8771 (TDD) OR (800) 955-8770 (VOICE) FOR ASSISTANCE.

IF A PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE BOARD WITH RESPECT TO ANY MATTER CONSIDERED AT THIS MEETING OR HEARING, HE/SHE WILL NEED A RECORD OF THE PROCEEDINGS, AND FOR SUCH PURPOSE, HE/SHE MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDING IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED. FLORIDA STATUTES 286.0105.

THIS MEETING MAY BE CONDUCTED BY MEANS OF OR IN CONJUNCTION WITH COMMUNICATIONS MEDIA TECHNOLOGY, SPECIFICALLY A TELEPHONE OR VIDEO CONFERENCE CALL.

1691 Michigan Avenue • Suite 355 • Miami Beach, Florida 33139-2573 • (305) 673-7039

FEBRUARY 17, 2022
CITY PENSION FUND FOR FIREFIGHTERS AND POLICE OFFICERS
IN THE CITY OF MIAMI BEACH

AGENDA
940th MEETING

VIII. **PENSION BENEFITS TERMINATED – JANUARY 2022**
A. Beneficiary Nancy D. Reilly (widow of retired Police Division Major Louis J. Reilly, Sr.) reached end of benefit period based on Major Reilly's normal life expectancy at time of death

IX. **FINANCIAL REPORT FOR FEBRUARY 2022 – ESTIMATED**
A. Pension Payroll – Warrants

1. Regular Pension	$ 5,810,000
2. DROP Deposit	1,010,000
	$6,820,000

B. Administrative Warrants

X. **BUYBACK COVERING THE PERIOD OF JANUARY 21, 2022, THROUGH FEBRUARY 17, 2022**
A. Buyback of probationary service time with interest at 3% (Pg. 6)

XI. **COUNSEL**
A. Legislative Update

XII. **INTERCONTINENTAL REAL ESTATE CORPORATION**
PETER PALANDJIAN – CEO
A. Email dated January 28, 2022, regarding Retirement Notice – Peter Hapgood of Intercontinental Real Estate Corporation (Pg. 7)
B. Portfolio Review

XIII. **INVERNESS COUNSEL, LLC**
MICHAEL BRAY – VICE PRESIDENT
ROBERT K. MADDOCK – SENIOR VICE PRESIDENT
ADRIAN SANCHO – VICE PRESIDENT, EQUITY ANALYST
A. Portfolio Review

XIV. **ANDCO CONSULTING**
BRENDON VAVRICA - CONSULTANT
A. Investment Performance Review
B. Quarterly DROP Review
C. Asset Allocation Analysis – Discussion and possible action (Pg. 8)

1691 Michigan Avenue • Suite 355 • Miami Beach, Florida 33139-2573 • (305) 673-7039

FEBRUARY 17, 2022
CITY PENSION FUND FOR FIREFIGHTERS AND POLICE OFFICERS
IN THE CITY OF MIAMI BEACH

AGENDA
940th MEETING

XV. **DIRECTOR'S REPORT**
- A. Disability application received from Police Officer Robert K. Mitchell
- B. Administrative Budget (Pg. 23)

XVI. **OTHER BUSINESS**

XVII. **ADJOURNMENT**

1691 Michigan Avenue • Suite 355 • Miami Beach, Florida 33139-2573 • (305) 673-7039

939TH MEETING OF THE BOARD OF TRUSTEES
CITY PENSION FUND FOR FIREFIGHTERS AND POLICE OFFICERS
IN THE CITY OF MIAMI BEACH

January 20, 2022

CALL TO ORDER

Meeting was called to order at 8:33 AM by Chairman Nolan.

Board members present, via a quorum physically present and videoconference, were as follows:

FIRE DEPARTMENT	*POLICE DEPARTMENT*	*ADMINISTRATION*
David J. Frazier, Jr.	*Steven L. Feldman*	
Paul D. Johnson	*Daniel D. Molina*	
Dwight M. Nicholas	*James D. Nolan*	

Absent were:

- *Hernan D. Cardeno* - *Administration*
- *Eric T. Carpenter* - *Administration*
- *Tameka Otto Stewart* - *Administration*

Present were:

- *Stuart A. Kaufman, Esq.* - *Attorney, Klausner, Kaufman, Jensen & Levinson (KKJL)*
- *Donna Brito* - *Executive Director*
- *Myriame Jean-Baptiste* - *Pension Administrator*
- *Clara La Rosa* - *Office Manager*

Also present were:

- *Eric J. Leventhal, CPA, CVA* - *Partner; Kabat, Schertzer, De La Torre, Taraboulos & Co. (KSDT)*
- *Dann Smith* - *Director, Institutional Client Relations and Business Development, Allspring Global Investments*
- *Lauren van Biljon, CFA* - *Portfolio Manager, WFAM Global Fixed Income*
- *Brendon Vavrica, CFP* - *Consultant, AndCo Consulting*

MINUTES

Regular Meeting of the Board of Trustees – December 16, 2021

Minutes from the regular board meeting were distributed as part of the agenda packet. Secretary Frazier made a motion to approve the minutes. The motion was seconded by Trustee Johnson and unanimously carried.

DEFERRED RETIREMENT OPTION PLAN (DROP) – APPROVAL OF ENTRY

Police Sergeant Martin Dionne retired under the DROP program effective January 1, 2022, in accordance with the Miami Beach Code, Section 66(a) and Section 79. Sergeant Dionne had 24 years and 7 months of pension service time and met the eligibility for retirement by Tier 1, and attainment of 85% maximum pension benefit. In addition, Sergeant Dionne purchased the 6% multiplier.

Firefighter Ricardo Fernandez retired under the DROP program effective January 1, 2022, in accordance with the Miami Beach Code, Section 66(a) and Section 79. Firefighter Fernandez had 22 years and 6 months of pension service and met the eligibility for retirement by Tier 1, Rule of 70 and attainment of at least age 47. In addition, Firefighter Fernandez purchased the 6% multiplier.

Police Sergeant Mishart S. Torres retired under the DROP program effective January 1, 2022, in accordance with the Miami Beach Code, Section 66(a) and Section 79. Sergeant Torres had 22 years and 3 months of pension service and met the eligibility for retirement by Tier 1, Rule of 70 and attainment of at least age 47. In addition, Sergeant Torres purchased the 6% multiplier.

Trustee Feldman made a motion to approve the pension service retirement for Sergeant Dionne, Firefighter Fernandez and Sergeant Torres and grant entry into the Deferred Retirement Option Plan (DROP). The motion was seconded by Secretary Frazier and unanimously carried. (Attachment #1-1 Schedule A)

COMMENCEMENT OF PENSION

Police Officer Vicente Canete was retired under the DROP program and resigned from City employment effective December 31, 2021. He is eligible to commence his monthly pension in accordance with the Miami Beach Code, Section 66(a) and Section 79.

Trustee Feldman made a motion to approve the commencement of pension for Officer Canete. The motion was seconded by Chairman Nolan and unanimously carried. (Attachment #1-1 Schedule A)

DECEASED

Retired Police Officer Nelson Long passed away on December 27, 2021. His pension has been discontinued as there are no beneficiaries under the Plan.

Trustee Feldman made a motion to stop the monthly pension for Nelson Long. The motion was seconded by Secretary Frazier and unanimously carried. (Attachment #1-1 Schedule A)

Beneficiary Madeleine Ward, widow of retired Police Officer John J. Ward, passed away on December 11, 2021. Her pension has been discontinued as there are no other beneficiaries under the Plan.

Trustee Feldman made a motion to stop the monthly pension for Madeleine Ward. The motion was seconded by Chairman Nolan and unanimously carried. (Attachment #1-1 Schedule A)

FINANCIAL REPORT FOR JANUARY 2022

The Financial Warrants were emailed to the Board for their review prior to the meeting.

Secretary Frazier made a motion to accept the Financial Warrants as presented. The motion was seconded by Trustee Nicholas and unanimously carried. (Attachment #1-1 Schedule A)

BUYBACKS COVERING THE PERIOD OF NOVEMBER 13, 2021, THROUGH JANUARY 20, 2022

The following buyback schedules included in the agenda packet were processed from November 13, 2021, through January 20, 2022:

- *Buyback of additional multiplier*
- *Buybacks of probationary service time with interest at 3%*

Secretary Frazier made a motion to approve the buybacks shown on the schedules. The motion was seconded by Chairman Nolan and unanimously carried. (Attachment #2)

COUNSEL

Discussion on the Status of Pension Benefits for William T. Skinner

Attorney Kaufman notified the Board that he has not received an appeal contesting the final order served to William T. Skinner's attorney on November 30, 2021, bringing this item to a close.

Written legal opinion request from the Florida Attorney General regarding purchase of pre-employment public safety service

Attorney Kaufman advised that the request for a written legal opinion from the Florida Attorney General has been submitted, and anticipates that a response within the next six months would be reasonable.

Legislative Update

Attorney Kaufman provided a legislative update regarding proposed Senate Bill 774 and corresponding House Bill 117, titled Communicable and Infectious Diseases. The bills were introduced this month providing a presumption to specified workers that an impairment of health caused by COVID-19, or an infectious disease, happened in the line of duty. KKJL will keep the Board informed of any developments.

Trustee Molina arrived at 8:43 AM.

KABAT, SCHERTZER, DE LA TORRE, TARABOULOS & CO. (KSDT)
ERIC J. LEVENTHAL, CPA, CVA – PARTNER

Presentation of Draft Financial Statements – September 30, 2021, and 2020

Eric Leventhal presented the tentative audited Financial Statements as of September 30, 2021. In connection with the audit, as evidenced by the report, Mr. Leventhal indicated that KSDT has rendered an unmodified opinion that the financial statements were presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.

Mr. Leventhal discussed in detail the Statement of Fiduciary Net Position, the Statement of Changes in Fiduciary Net Position and the Schedule of Investment and Administrative Expenses for the period ending September 30, 2021.

Mr. Leventhal advised that by September 30, 2022, the Plan is required to implement the new Governmental Accounting Standards Board (GASB) Statement No. 87, Leases. GASB 87 requires plans to change how they report their lease agreements. Where in the past leases were noted as off-balance sheet transactions, with GASB 87 a plan must present value their lease commitment, record it as liability on the balance sheet, and show a corresponding right of use asset along with additional disclosures. Typically, this would be done at the client level, but the calculations are complicated and require licensed software. KSDT could provide this service to the Plan using their proprietary software for an additional fee of approximately $1,500 annually.

The Director recommended to have KSDT use their software and make the calculations, monthly journal entries, and additional disclosures going forward. There were various discussions.

Secretary Frazier made a motion to authorize KSDT to perform the GASB 87 calculation requirements, monthly journal entries, and additional disclosures for a fee of approximately $1,500 annually to be implemented for the Fiscal Year End September 30, 2022. The motion was seconded by Chairman Nolan and unanimously carried.

Mr. Leventhal reviewed the Compliance and Other Matters Report stating that KSDT was not specifically engaged to look at the effectiveness of internal control nor to give an opinion on the effectiveness of internal control. However, if during the course of the audit KSDT would have found anything of concern regarding internal control, they would have been required to share that information with the Board. Given these limitations, he reported that:

- *There were no identifiable deficiencies in internal control that were considered to be material weaknesses.*
- *There were no significant difficulties encountered in performing the audit.*
- *The testing results disclosed no instances of non-compliance or other matters that are required to be reported under Government Auditing Standards.*

Secretary Frazier made a motion to approve the audited Financial Statements for the year ending September 30, 2021. The motion was seconded by Trustee Johnson and unanimously carried. (Attachment #3)

Management Representation Letter

Secretary Frazier made a motion to authorize the Chairman and the Director to execute and deliver the management representation letter. The motion was seconded by Trustee Feldman and unanimously carried. (Attachment #4)

ALLSPRING GLOBAL INVESTMENTS
DANN SMITH, DIRECTOR, INSTITUTIONAL CLIENT RELATIONS AND BUSINESS DEVELOPMENT
WFAM GLOBAL FIXED INCOME – ALLSPRING GLOBAL
LAUREN VAN BILJON, CFA, PORTFOLIO MANAGER

Portfolio Review

Dann Smith and Lauren van Biljon reviewed in detail the Fire and Police Pension International Bond Fund Portfolio as of December 31, 2021.

DIRECTOR'S REPORT

2021 Affidavits

Director Brito advised that the 2021 affidavit for beneficiary Ann Patton has not been received to date. Therefore, her pension benefit for January 2022 will be stopped.

2021 Form 1099-R

Director Brito indicated that the Form 1099-Rs have been printed and will be mailed by January 25, 2022, to all retirees and beneficiaries.

Budget Advisory Committee Meeting – February 8, 2022

Director Brito advised that the Budget Advisory Committee (BAC) would like to have the pension administrators from the Fire and Police Pension and the General Employees' Pension attend their next meeting on February 8, 2022. A standing motion allows the Director to invite a representative from both Gabriel Roeder Smith & Company and AndCo Consulting to attend the meeting with her and to be compensated at their respective hourly rates.

For the Board's information, the following items were distributed as either part of the Agenda or meeting packet:

A. *Accrued Investment Expenses Years 2017 – 2021 (Attachment #5)*
B. *Administrative Budget*

ADJOURNMENT

Secretary Frazier made a motion to adjourn the meeting. The motion was seconded by Trustee Molina and unanimously carried. The meeting was adjourned at 9:36 AM.

James D. Nolan, Chairman

David J. Frazier, Jr., Secretary

CITY PENSION FUND FOR FIREFIGHTERS AND POLICE OFFICERS IN THE CITY OF MIAMI BEACH
BUYBACK OF PROBATIONARY SERVICE TIME
PURCHASED AFTER 6 MONTHS WITH INTEREST @ 3%
POLICE DEPARTMENT
FISCAL YEAR 10/01/2021 - 09/30/2022

MEMBER	SERVICE TIME PURCHASED	DATE PURCHASED	MODE OF PAYMENT	ACCUMULATIVE LEAVE CREDIT	DATE OF DEPOSIT	AMOUNT	NOTES
DHANIEL NIEVES	18 MONTHS	1/26/2022	ANNUAL	158.00		7,986.98	
			SICK	55.03		2,781.80	
			CASH	N/A		578.29	
TOTAL						**11,347.07**	

LaRosa, Clara

From:	Kristin Phalen <kristinp@intercontinental.net>
Sent:	Friday, January 28, 2022 9:23 AM
To:	Kristin Phalen
Cc:	Peter Palandjian; Paul Nasser; Peter Hapgood; Abby Howland
Subject:	Retirement Notice - Peter Hapgood of Intercontinental Real Estate Corporation
Attachments:	Peter Hapgood of Intercontinental Real Estate Corp Retirement Notice.pdf

[THIS MESSAGE COMES FROM AN EXTERNAL EMAIL - USE CAUTION WHEN REPLYING AND OPENING LINKS OR ATTACHMENTS]

Dear Investors, Consultants & Friends,

Intercontinental Real Estate Corporation announces that after fifteen years of service, Peter Hapgood, an Institutional Services Director, will retire at the end of January 2022. Peter has been instrumental in establishing and servicing Intercontinental's investor base in Florida. He has been a respected mentor and friend within the organization. He will be missed.

Peter will continue to work with the Florida Public Pension Trustees Association (FPPTA) furthering the mission of Trustee education. Peter's tireless commitment to education in the Florida pension community will most surely have lasting positive impact on countless many.

Intercontinental client service in Peter's markets will continue to be handled with utmost care. As such, Intercontinental has hired Tim Nash to the role of Director, Institutional Services. Tim will lead service and sales in the Florida marketplace. Tim will join Intercontinental in April 2022 following 13 years at Andco Consulting.

Prior to Tim's start date, we will send an additional communication containing Tim's contact information. Please expect Tim to contact you in the weeks following his start date.

In the meanwhile, should you have any questions or needs for account service, please contact either of Kristin Phalen [(617) 212-9390 / kristinp@intercontinental.net] or, anytime, myself.

Thank you for your investment with us.

Respectfully yours,

Peter Palandjian

INTERCONTINENTAL
REAL ESTATE CORPORATION

Clients first.

To: Miami Beach Fire and Police Pension Fund
From: Brendon Vavrica, CFP®
Date: February 17, 2022
Re: Asset Allocation

Trustees,

As a follow up to the "Consulting Ideas for 2022" memo from last November, I wanted to provide you with an asset allocation and this memo in advance of our next discussion at your February meeting.

As for the contents of the asset allocation, pages 1 & 2 detail the capital market assumptions and asset class correlations used in the analysis. Page 3 is where all of the Plan specific information is contained. The Plan's current target allocation (as specified in the IPS) is the first column on the left, with the expected mean return, standard deviation, and Sharpe ratio (return per unit of risk) listed at the bottom. The next 8 columns to the right then look at the forecasted impact on risk and return when adding Value-Add Real Estate, Infrastructure, Private Equity, Direct Lending (Private Debt), or Hedge Funds. In the column headings with a "-F" or "-E", that refers to the source of the funds being Fixed or Equity. In each given column, the asset class being reduced is shown in red, while the asset class being added/increased is shown in green.

Results:

All of the allocations shown either reduce risk (standard deviation) or increase the expected return of the portfolio. Even though all of the iterations have a positive impact, I think the asset classes that stand out as the most beneficial are Value-Add Real Estate, Private Equity, and Direct Lending as they have a larger positive return impact with a relatively small increase to the standard deviation. Should you have any thoughts or questions prior to the meeting, please feel free to contact me ahead of time. I look forward to our discussion at the meeting and seeing if the Board has any interest in any new asset class education or further information.

Sincerely,

Brendon Vavrica

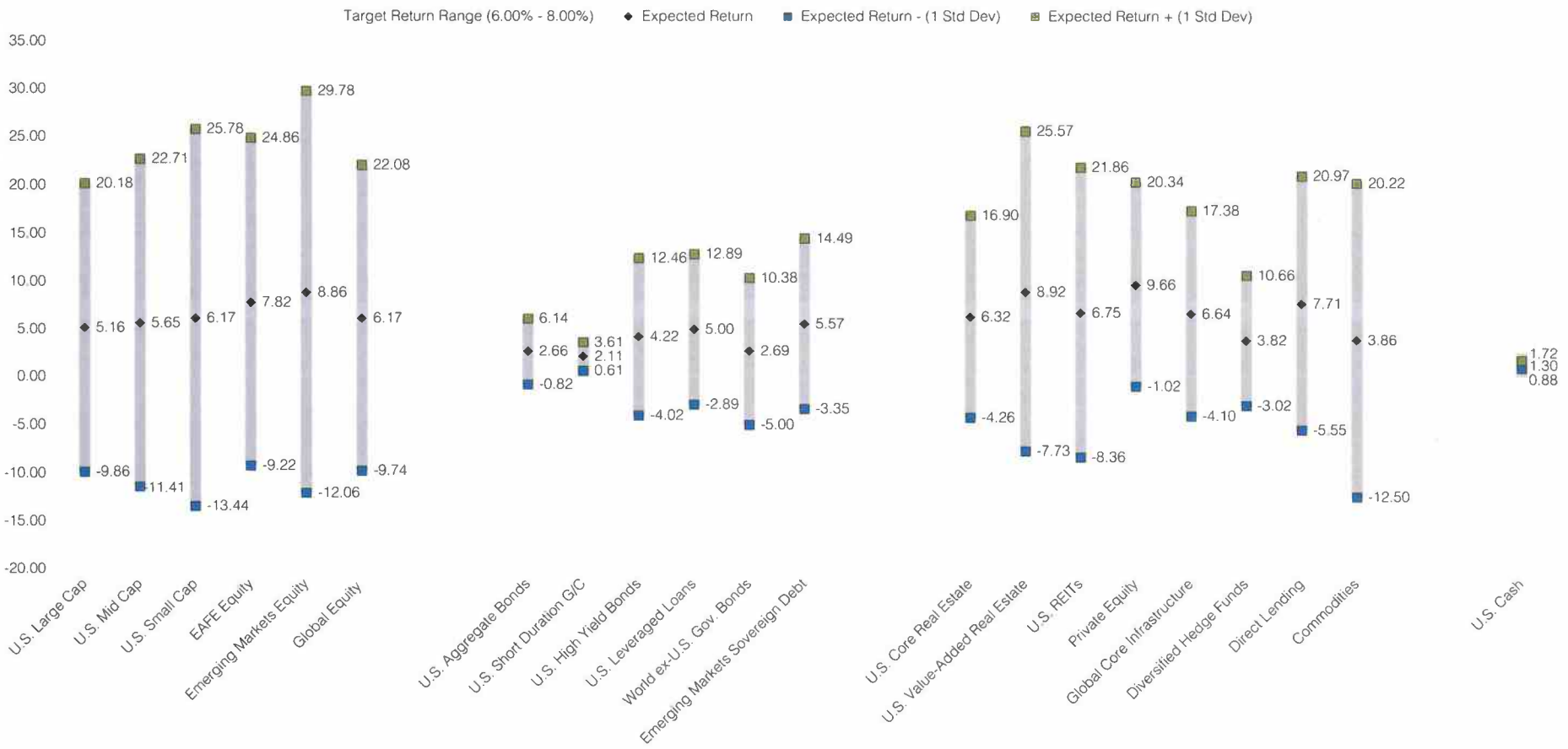
Brendon Vavrica, CFP®

Asset Allocation Analysis

February 2022

Miami Beach Fire & Police Pension Fund

Expected Returns and Standard Deviations



Source: JPMorgan Capital Market Assumptions 2022

Input Correlation Matrix

	Asset Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	U.S. Cash	1.00																				
2	U.S. Aggregate Bonds	0.10	1.00																			
3	U.S. Short Duration Government/Credit	0.35	0.76	1.00																		
4	U.S. High Yield Bonds	-0.12	0.20	0.11	1.00																	
5	U.S. Leveraged Loans	-0.15	-0.05	-0.13	0.81	1.00																
6	World ex-U.S. Government Bonds	0.07	0.61	0.58	0.26	-0.03	1.00															
7	Emerging Markets Sovereign Debt	-0.02	0.52	0.32	0.72	0.46	0.52	1.00														
8	U.S. Large Cap	-0.09	0.01	-0.08	0.71	0.60	0.22	0.53	1.00													
9	U.S. Mid Cap	-0.10	0.02	-0.08	0.76	0.64	0.19	0.54	0.96	1.00												
10	U.S. Small Cap	-0.11	-0.07	-0.13	0.68	0.56	0.13	0.45	0.91	0.95	1.00											
11	EAFE Equity	-0.05	0.08	0.04	0.75	0.59	0.38	0.64	0.88	0.87	0.79	1.00										
12	Emerging Markets Equity	0.01	0.12	0.10	0.74	0.57	0.40	0.67	0.76	0.77	0.70	0.87	1.00									
13	Global Equity	-0.06	0.06	0.00	0.77	0.62	0.33	0.62	0.96	0.94	0.87	0.97	0.88	1.00								
14	U.S. Core Real Estate	-0.08	-0.22	-0.28	0.44	0.51	-0.14	0.20	0.41	0.41	0.38	0.38	0.37	0.40	1.00							
15	U.S. Value-Added Real Estate	-0.08	-0.22	-0.28	0.43	0.51	-0.14	0.20	0.41	0.41	0.38	0.38	0.36	0.40	1.00	1.00						
16	U.S. REITs	-0.06	0.26	0.05	0.64	0.42	0.30	0.56	0.73	0.76	0.73	0.67	0.57	0.71	0.54	0.54	1.00					
17	Private Equity	0.00	-0.19	-0.14	0.72	0.69	0.13	0.58	0.80	0.81	0.76	0.81	0.82	0.84	0.43	0.43	0.52	1.00				
18	Global Core Infrastructure	-0.04	-0.02	0.00	0.57	0.56	0.32	0.51	0.53	0.50	0.45	0.60	0.63	0.60	0.38	0.38	0.38	0.65	1.00			
19	Diversified Hedge Funds	0.01	-0.06	-0.12	0.63	0.67	0.07	0.46	0.71	0.73	0.64	0.73	0.70	0.76	0.37	0.37	0.41	0.80	0.46	1.00		
20	Direct Lending	-0.15	-0.19	-0.23	0.72	0.75	-0.09	0.50	0.63	0.69	0.63	0.59	0.60	0.64	0.47	0.46	0.43	0.75	0.44	0.65	1.00	
21	Commodities	0.03	-0.02	0.03	0.49	0.43	0.34	0.42	0.48	0.50	0.43	0.56	0.62	0.57	0.36	0.36	0.31	0.63	0.50	0.58	0.55	1.00

1.00 to 0.75 | 0.75 to 0.50 | 0.50 to 0.25 | 0.25 to 0.00
0.00 to -0.25 | -0.25 to -0.50 | -0.50 to -0.75 | -0.75 to -1.00

Note that not all asset classes are appropriate for every client portfolio.

Source: JPMorgan Capital Market Assumptions 2022

Asset Mixes and Statistics

Asset Class Allocation

%	Policy	RE	Infra.	PE-F	PE-E	DL-F	DL-E	HF-F	HF-E
U.S. Cash	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
U.S. Aggregate Bonds	15.00	15.00	13.00	13.00	15.00	13.00	15.00	13.00	15.00
U.S. Short Duration Government/Credit	4.00	4.00	3.00	3.00	4.00	3.00	4.00	4.00	4.00
U.S. High Yield Bonds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U.S. Leveraged Loans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
World ex-U.S. Government Bonds	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Emerging Markets Sovereign Debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U.S. Large Cap	29.00	29.00	29.00	29.00	28.00	29.00	28.00	29.00	28.00
U.S. Mid Cap	10.00	10.00	10.00	10.00	9.00	10.00	9.00	10.00	9.00
U.S. Small Cap	10.00	10.00	10.00	10.00	10.00	10.00	9.00	10.00	10.00
EAFE Equity	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00
Emerging Markets Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Global Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U.S. Core Real Estate	15.00	10.00	13.00	15.00	15.00	15.00	15.00	15.00	15.00
U.S. Value-Added Real Estate	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U.S. REITs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Equity	0.00	0.00	0.00	3.00	3.00	0.00	0.00	0.00	0.00
Global Core Infrastructure	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
Diversified Hedge Funds	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	3.00
Direct Lending	0.00	0.00	0.00	0.00	0.00	3.00	3.00	0.00	0.00
Commodities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Single Year Expectations

%	Policy	RE	Infra.	PE-F	PE-E	DL-F	DL-E	HF-F	HF-E
Mean Return	4.75	4.88	4.88	4.97	4.86	4.91	4.81	4.77	4.72
Standard Deviation	9.52	9.68	9.71	9.98	9.51	9.78	9.29	9.61	9.30
Sharpe Ratio	0.50	0.50	0.50	0.50	0.51	0.50	0.52	0.50	0.51

APPENDIX

Proxies:

Proxies are used for GTAA and MLP allocations. The proxies are constructed to mirror the properties of these asset classes as well as reflect the overall risk and return behavior.

- GTAA: U.S. Large Cap - 21%, EAFE Equity - 20%, Emerging Markets Equity - 9%, U.S. Aggregate Bonds - 50%
- MLP: U.S. Small Cap - 50%, Commodities - 50%

Constraints:

A minimum and/or maximum allocation constraint can be applied on a group or an individual asset class level.

- 15% ≤ US Aggregate Bonds ≤ 25%
- 0% ≤ US High Yield Bonds ≤ 3.33%, 0% ≤ World exUS Government Bonds ≤ 3.33%, 0% ≤ Emerging Mkts Bond ≤ 3.33%
- 0% ≤ US Large Cap ≤ 38.5%, 0% ≤ US Mid Cap ≤ 11%, 0% ≤ US Small Cap ≤ 5.5%
- 0% ≤ EAFE Equity ≤ 12%, 0% ≤ EM Equity ≤ 3%
- 0% ≤ US Core RE ≤ 15%
- 0% ≤ Global Core Infrastructure ≤ 10%
-

Mean/variance optimization using forecast capital market assumptions:

Asset Allocation model inputs include:

- **Expected Return** - the arithmetic average expected return (mean) of each asset class
- **Expected Risk** - the variability (standard deviation) of each asset class around its mean return
- **Correlation** - the degree of co-movement (correlation coefficient) of each asset class relative to other asset classes

Understanding asset allocation model limitations:

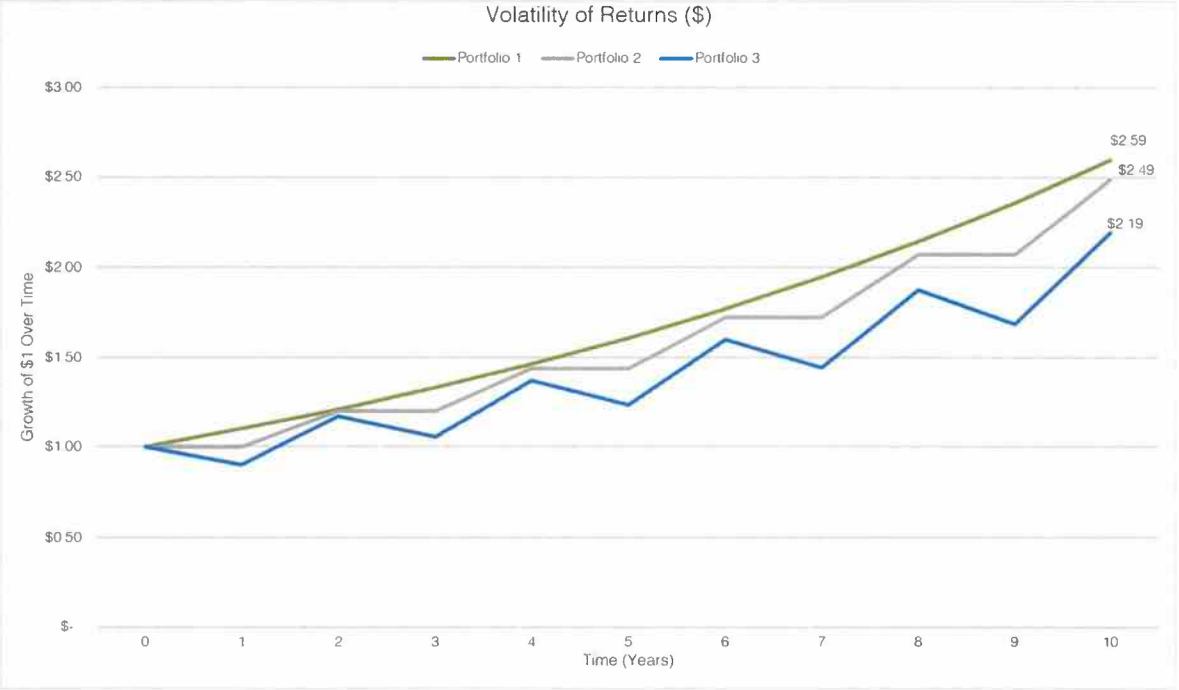
- Output is based on forecasts (guesses) of each capital market assumption. Accurately predicting the expected return, expected risk (standard deviation), and correlation coefficients for each asset class is not a science, it's an economic methodology that varies by organization and forecast timeframe.
- Assumes asset class returns are normally distributed (bell-shape curve). However, many asset classes exhibit non-normal (kurtosis - fat-tails and/or skewness) return distributions.
- Assumes correlations between asset class pairs are static. However, since correlation coefficients can and do change over time, diversification and/or stability benefits of combining different asset classes may be overstated. Even historically stable correlation relationships may break down during periods of market stress.
- Alternative asset classes introduce a variety of important risk factors that are not captured in their standard deviation measures.

Despite its shortcomings, asset allocation modeling provides a foundational framework for making sound portfolio decisions.

Arithmetic vs. Geometric Returns

- **Arithmetic Returns** - the simple average of annual returns
- **Geometric Returns** - the average of annual returns compounded over multiple periods
- The larger the volatility, the greater the dispersion is between an arithmetic and geometric return

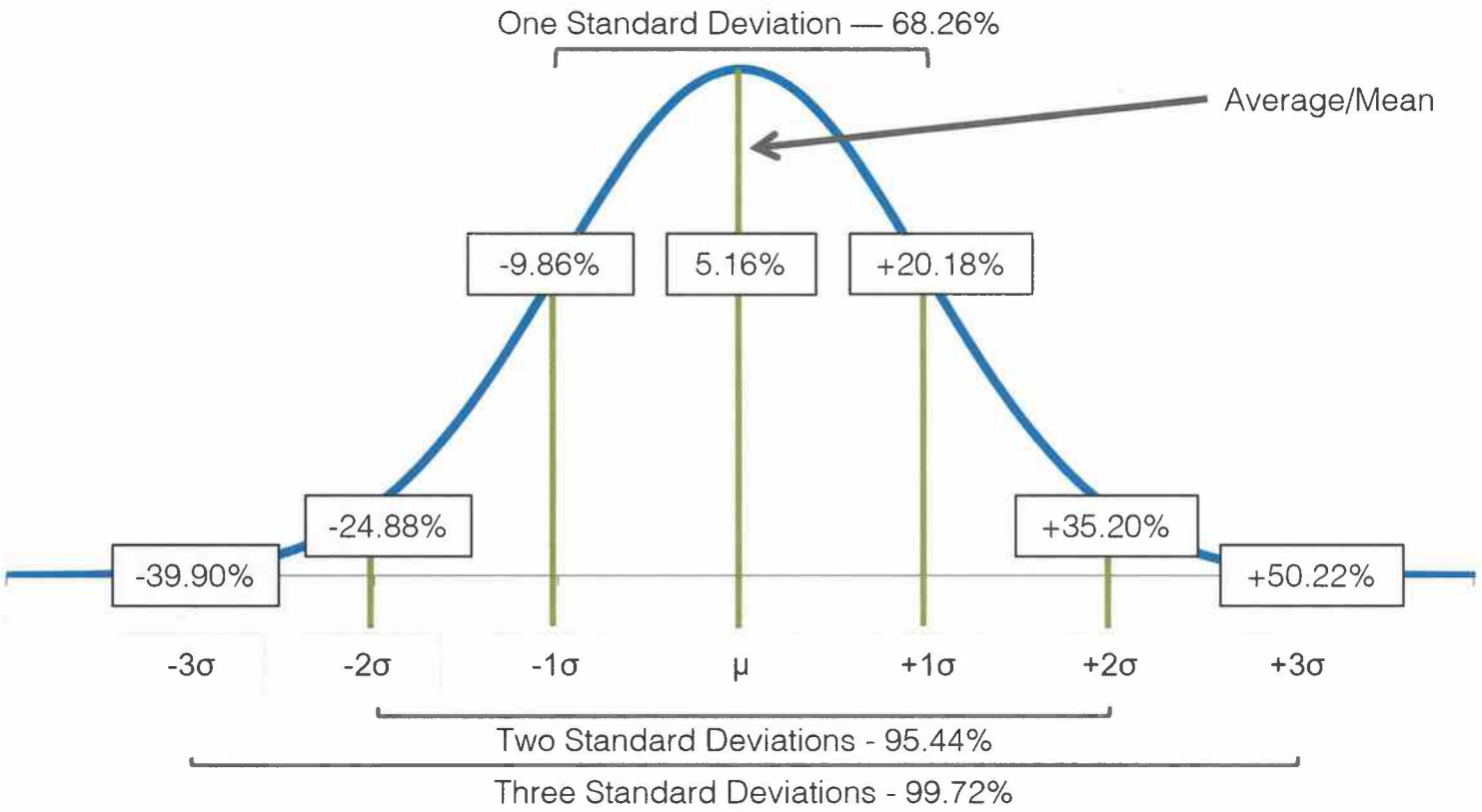
Years	Portfolio 1	Portfolio 2	Portfolio 3
1	10%	0%	-10%
2	10%	20%	30%
3	10%	0%	-10%
4	10%	20%	30%
5	10%	0%	-10%
6	10%	20%	30%
7	10%	0%	-10%
8	10%	20%	30%
9	10%	0%	-10%
10	10%	20%	30%
Arithmetic Return	10.00%	10.00%	10.00%
Std. Deviation	0.00%	10.54%	21.08%
Geometric Return	10.00%	9.54%	8.17%



Risk = Variability Around Mean = Standard Deviation

Variability of return around its arithmetic average

Large Cap Equity Average Expected Return of 5.16% with a Standard Deviation of 15.02%



Source: JPMorgan Capital Market Assumptions 2022

FOR ILLUSTRATIVE PURPOSES ONLY

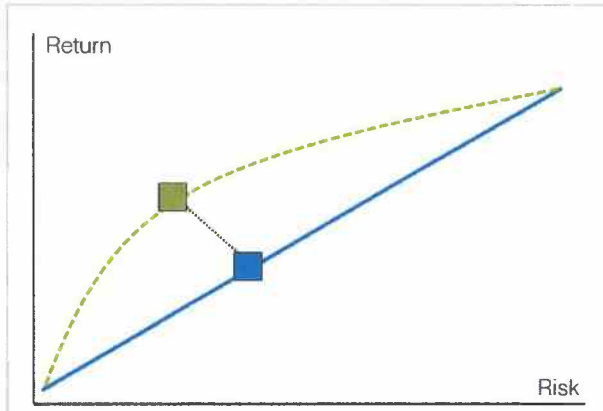
Understanding Correlations

Where the magic happens: How asset class pairs move relative to one another

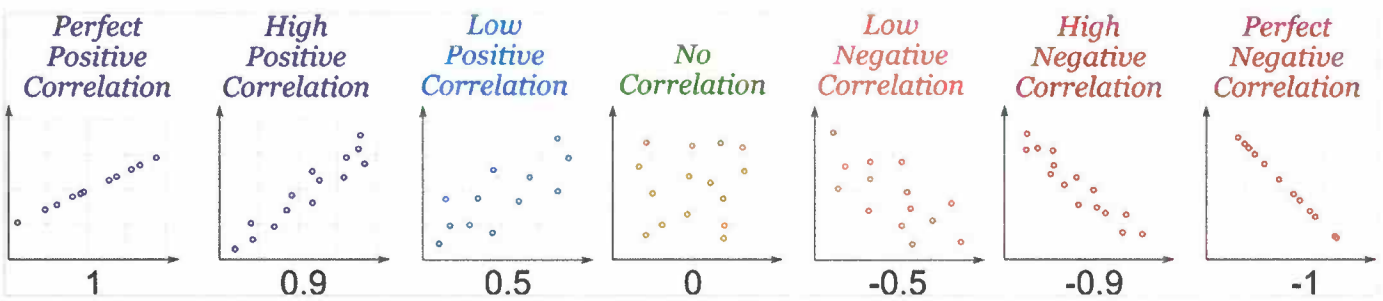
A statistical measure of co-movement withing a range between +1 and -1.

- +1 = Perfect positive correlation. Assets move in tandem in the same direction.
- 0 = No correlation. Assets move independently of one another - essentially no distinguishable pattern, more random.
- -1 = Perfect negative correlation. Assets move in opposite directions - one goes up, the other goes down and vice versa.

It is important to remember that correlations are not consistant through time.



$$\sigma_p^2 = \sum_i w_i^2 \sigma_i^2 + \sum_i \sum_{j \neq i} w_i w_j \sigma_i \sigma_j \rho_{ij}$$



Beyond Variability - Other Risks are always Present

- **Business** - Underlying operational volatility/uncertainty
- **Call** - Debt security called prior to maturity
- **Credit** - Bond Issuer defaults on interest/principal payment
- **Currency/Exchange Rate** - Change in price of one currency against another
- **Fiduciary** - Potential non-arm's length transactions
- **Headline** - Manager makes the headlines or negative press
- **Inflationary** - Value of a security is eroded by inflation
- **Interest Rate** - Bonds decline in value when rates rise
- **Investment Manager** - Changes in investment style or management team
- **Leverage** - Amplifies losses
- **Liquidity** - Lock-up terms or gates during market stress
- **Social/Political/Legislative** - Investment landscape changes
- **Systemic/Market** - Correlations go to "1" (like 2008)
- **Valuation** - Some assets are difficult to price

Allocation Ranges - the range a specific asset class' allocation must fall between.

Arithmetic Mean- the average of annual returns.

Asset Allocation - the process of determining how investment fund should be distributed among asset classes to optimize the balance between risk and reward based on investment needs.

Asset Classes - a grouping of investments that exhibit similar characteristics and behave similarly in the marketplace. Examples include equities, fixed income, cash equivalent or money market instruments, and alternatives.

Capital Market Assumptions - expected returns, standard deviations, and correlation estimates that represent the long-term risk/return forecasts for various asset classes.

Correlation - statistical measurement of the relationship between two variables. Possible correlations range from +1 to -1. A zero correlation indicates that there is no relationship between the variables. A correlation of -1 indicates a perfect negative correlation and +1 indicates a perfect positive correlation.

Diversification - the process of owning different investments that tend to perform well at different times in order to reduce the effects of volatility in a portfolio, and also increase the potential for increasing returns.

Efficient Frontier - a representation of potential portfolios that offer the highest expected return for a specific level of risk (standard deviation).

Expected Return- the arithmetic average (mean) of each asset class.

Geometric Mean - the average of annual returns compounded over multiple periods.

Kurtosis - indicates the peakedness of a distribution. For normal distribution, Kurtosis is 3.

Monte Carlo Simulation - a model used to predict the probability of different outcomes and used to understand the impact of risk and uncertainty in prediction and forecasting models.

Optimized Portfolio - a portfolio that lies along the efficient frontier and is determined by target risk/return objectives. The underlying exposures are dependent on forecasted asset class expectations.

Risk Tolerance - the degree of uncertainty that an investor can handle in regard to a negative change in the value of the portfolio.

Skewness - reflects the degree of asymmetry of a distribution. If the distribution has a longer left tail, the function has negative skewness. Otherwise, it has positive skewness. A normal distribution is symmetric with skewness 0.

Sharpe Ratio - In this report, a reward-to-variability ratio and a measure of the return per unit of risk in an investment asset or a trading strategy. This is based on methodology used by Morningstar, whose software was used to create these charts. This definition differs from the ratio that Dr. William Sharpe created in that the risk-free rate has not been deducted in Morningstar's calculations.

Standard Deviation - A measure of the dispersion of a set of data from its mean. Calculated by the square-root of the variance.

Target Return - the specific return the investor is modeling to reach, usually sent in place by the actuary.

Time Horizon - the total length of time that an investor expects to hold a security or a portfolio before it is liquidated.

Volatility- the amount and frequency an investment fluctates in value.

IMPORTANT DISCLOSURE INFORMATION

This material is confidential and not intended for distribution to the public. AndCo Consulting ("AndCo") compiled this report for the sole use of the client for which it was prepared. AndCo uses the material contained in this evaluation to make observations and recommendations to the client, however the strategies listed may not be suitable for all investors and there is no guarantee that the strategies listed will be successful. Any information contained in this report is for informational purposes only and should not be construed to be an offer to buy or sell any securities for investment consulting, or investment management analysis services.

This Asset Allocation Analysis (the "Analysis") uses assumptions from the 2021 JPMorgan Long Term Capital Market Assumptions (the "2021 JPMorgan Assumptions"). Accordingly, there are statements of future expectations, estimates, projections, and other forward-looking statements that are based on available information and views as of the time of those statements. Such forward-looking statements are inherently speculative as they are based on assumptions which may involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such statements.

Furthermore, the reader should be aware that the outputs presented in this Analysis are slightly different than those presented in the original 2021 JPMorgan Assumptions. Due to changes in the underlying forecasted correlations from the 2021 JPMorgan Long Term Capital Assumptions, and thereby changes to the methodology used by JPMorgan to create correlation estimates, a malfunction occurs when the 2021 JPMorgan Assumptions interface with Morningstar (i.e., one of the means by which AndCo creates this Analysis). Accordingly, the utilization of a secondary resource created by Morningstar is utilized to remediate this issue; however, this remedy causes some deviation in figures from the original 2021 JPMorgan Assumptions. We consider these deviations to be generally immaterial.

Performance data is provided for historical and informational purposes only. Where applicable, results shown represent past performance and do not represent expected future performance or experience. Past performance does not guarantee future results. Returns are typically stated net of fees, which may include: investment advisory fees, taxes and other expenses. There may be instances where certain returns are shown gross of fees (i.e., before the aforementioned fees are deducted) and would be noted as such. Generally, there are two instances where returns may be shown as gross figures. In the case of separate accounts, typically returns are demonstrated as gross of fees due to the fact that the fee structure would generally vary widely depending on the client's size and circumstances. Additionally, there are instances where a strategy vehicle is relatively new and does not have a sufficiently long track record to represent a viable comparison relative to other strategies. Accordingly, the returns for the separate account version of such a strategy could be used as demonstrative of the performance for a similar vehicle; separate account returns are generally shown as gross of fees. It is important to note that any such separate accounts being used as a "proxy" are strictly for illustrative purposes. An investor should not expect the same results from the actual strategy(ies) under consideration. When client-specific performance is shown, AndCo uses time-weighted calculations, which are founded on standards recommended by the CFA Institute. In these cases, the performance-related data shown are based on information that is received from custodians. As a result, this provides AndCo with a reasonable basis that the investment information presented is free from material misstatement.

RISK FACTORS

As presented in this report, although investing in equities can be beneficial, it is also important to consider the associated risks. Investing in such funds may not be suitable for all investors. Equity markets can be volatile and can decline significantly in response to, or investor perceptions of, issuer, market, economic, industry, political, regulatory, geopolitical, and other conditions. These conditions can affect a single issuer or type of security, issuers within a broad market sector, industry or geographic region, or the equity markets in general. The primary risk factors to consider include, but are not limited to: stock market risk, manager risk, investment style risk, sector-focus risk, issuer risk and liquidity risk. The securities markets are volatile and the market prices of the funds' securities may decline generally. Securities fluctuate in price based on changes in a company's financial condition and overall market and economic conditions. If the market prices of the securities owned by the fund fall, the value of your investment in the fund will decline. Depending on the specific strategy, there many additional considerations such as the risks associated with equity investing.

SOURCING

Information is based on sources and data believed to be reliable, but AndCo cannot guarantee the accuracy, adequacy or completeness. The information provided is valid as of the date of distribution or the as-of date indicated and not as of any future date and will not be updated or otherwise revised to reflect information that subsequently becomes available, or circumstances existing or changes occurring after such date.

This document may contain data provided by Morningstar. All rights reserved. Use of this content requires expert knowledge. It is to be used by specialist institutions only. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied, adapted or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information, except where such damages or losses cannot be limited or excluded by law in your jurisdiction. Past financial performance is not guarantee of future results.

This document may contain data provided by Bloomberg. Bloomberg Barclays Index Data provided by way of Barclays Live.

This document may contain data provided by Standard and Poor's. Nothing contained within any document, advertisement or presentation from S&P Indices constitutes an offer of services in jurisdictions where S&P Indices does not have the necessary licenses. All information provided by S&P Indices is impersonal and is not tailored to the needs of any person, entity or group of persons. Any returns or performance provided within any document is provided for illustrative purposes only and does not demonstrate actual performance.

This document may contain data provided by MSCI, Inc. Copyright MSCI, 2012. Unpublished. All Rights Reserved. This information may only be used for your internal use, may not be reproduced or re-disseminated in any form and may not be used to create any financial instruments or products or any indices. This information is provided on an "as is" basis and the user of this information assumes the entire risk of any use it may make or permit to be made of this information. Neither MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information makes any express or implied warranties or representations with respect to such information or the results to be obtained by the use thereof, and MSCI, its affiliates and each such other person hereby expressly disclaim all warranties (including, without limitation, all warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information have any liability for any direct, indirect, special, incidental, punitive, consequential or any other damages (including, without limitation, lost profits) even if notified of, or if it might otherwise have anticipated, the possibility of such damages.

This document may contain data provided by Russell Investment Group. Russell Investment Group is the source owner of the data contained or reflected in this material and all trademarks and copyrights related thereto. The material may contain confidential information and unauthorized use, disclosure, copying, dissemination or redistribution is strictly prohibited. This is a user presentation of the data. Russell Investment Group is not responsible for the formatting or configuration of this material or for any inaccuracy in presentation thereof.

Clients first.

CHICAGO | CLEVELAND | DALLAS | DETROIT | ORLANDO | PITTSBURGH | RENO

Pension Fund for Firefighters & Police Officers - Miami Beach

ADMINISTRATIVE BUDGET

October 2021 through September 2022

	Actual Expenses Oct 21 - Jan 22	Approved Budget Oct 21 - Sep 22
Administrative Expenses		
Accounting Fees	22,329.00	40,000.00
Actuarial	17,212.00	65,000.00
Computer & Furniture	0.00	5,000.00
Computer & phone IT chargeback	0.00	46,000.00
Computer Consult	5,445.50	20,000.00
Education	19,650.41	55,000.00
Equipment Lease and Contracts	1,511.36	8,000.00
Insurance	10,484.35	80,000.00
Legal Fees	26,000.00	103,000.00
Member's Medical	0.00	10,000.00
Part Time Help	580.00	3,000.00
Payroll Employee Benefits	26,386.80	98,000.00
Payroll Taxes	9,225.03	38,000.00
Payroll Wages	124,248.78	410,000.00
Rent	55,966.82	170,000.00
Utilities	2,039.32	8,000.00
Various Other Expenses	7,085.01	55,000.00
Sub-Total Administrative Expenses	328,164.38	1,214,000.00
Investment Expenses		
Custodial Fees	41,282.60	135,000.00
Investment Managers	1,789,751.41	4,200,000.00
Performance Consultant	54,446.50	115,000.00
Sub-Total Investment Expenses	1,885,480.51	4,450,000.00
GRAND TOTAL EXPENSES	2,213,644.89	5,664,000.00

1691 Michigan Avenue • Suite 355 • Miami Beach, Florida 33139-2573 • (305) 673-7039