

A G E N D A

VIRTUAL - REGULAR MEETING OF THE CITY OF MIAMI FIRE FIGHTERS' & POLICE OFFICERS' RETIREMENT TRUST

DATE: Thursday, December 17, 2020
TIME: 8:30 a.m.

LOCATION: Via Microsoft Teams Link At: www.miamifipo.org
Or Reach Us By Phone: (305) 858-6006

The items on this agenda are for discussion and any recommendations for action to be taken by the Board.

1. INPUT FROM RETIRED/ACTIVE MEMBERS

- (Pg. 1 - 5) 2. MEMBER REQUESTING COLA RETRO PAY
Regina Wilson – Ordinary Disability Retiree

3. FOR DISCUSSION / APPROVAL
 - (Pg. 6 - 7) a. Minutes Regular Meeting – Sept. 9, 2020
 - (Pg. 8 - 10) b. Minutes Investment Review – Nov. 12, 2020
 - (Pg. 11) c. Retirement for the Period
 - Addendum d. Payments for the Period
 - e. COLA Table – 2021 \$1670
 - Attachment f. COLA Fund Review
 - (Pg. 12) g. 2021 Meeting Schedule
 - Attachment h. Investment Issues and Updates

AGENDA

December 17, 2020

Page 2 of 2

4. COMMITTEE REPORTS

(a) Audit Review

(Last met 02/07/2020)

M. Fernandez, O. Cotera

(b) COLA Committee

(Last met 12/17/2020)

O. Cotera

(c) Personnel

(Last met 04/06/2020)

O.Cotera, T.Roell, T.Gabriel, R.Suarez, M.Fernandez

5. ATTORNEY'S REPORT

6. ADMINISTRATOR'S REPORT

7. CONFERENCES

(a) New Conferences

(b) Report(s) on Conferences Attended

Dania Orta

From: regina mann <reginamann99@yahoo.com>
Sent: Monday, November 02, 2020 4:51 PM
To: Dania Orta
Subject: Meeting with the Board Composition about Pay raises called the C.O.L.A.

[EXTERNAL EMAIL] CAUTION: This email originated from outside of City of Miami Fire Fighters and Police Officers Retirement Trust. Do not click links or open attachments unless you recognize the sender and know the content is safe.

This is Regina D. Mann-Wilson I need to meet with the Board Composition concerning unpaid C.O.L.A. since March 6, 2006 until today's time. Contact number 786- 379- 6789

Dania Orta

From: regina mann <reginamann99@yahoo.com>
Sent: Sunday, November 08, 2020 9:35 AM
To: Dania Orta
Subject: Board meeting Date because of COLA raises that weren't received from March 2006 to today's date

[EXTERNAL EMAIL] CAUTION: This email originated from outside of City of Miami Fire Fighters and Police Officers Retirement Trust. Do not click links or open attachments unless you recognize the sender and know the content is safe.

This is Regina Mann Wilson Social Security Number 590- 01- 6500 Address 27707 South Dixie Hwy unit 430 Homestead FL 33032. Send me a email of the day I meet with the Board and a letter stating when I meet with the Board.

- (7) The actuarial interest and mortality assumptions used for the retirement system will be used for COLA.
- (8) COLA benefits will be determined on a defined benefit basis, based on the minimum city scheduled contribution.
- (9) The active member contributions into the COLA account will have an effective termination date of January 1, 1994.
- (10) In addition to current inactive and active employees, funding for the COLA benefits of future employees hired during the remaining term of the amended final judgment shall be defined and allocated through the remaining term of the amended final judgment.
- (11) The monthly COLA benefit distribution beginning January 1, 1994, is summarized in table "A" of amended final judgment, *Gates v. City of Miami*, Circuit Court Case No. 77-9491 CA 04. Such table is subject to modification by the COLA committee annually based solely upon available assets and joint recommendations by the retirement system actuary and the city's actuary, using generally accepted actuarial principles and prudent reserves, and subject to the arbitration provisions of section 40-196(b)(5).
- (12) The available assets shall be identified and distributed in a defined tabular format. The COLA benefits table shall be based upon full years of creditable service at time of retirement and full years of retirement, as of April 1, 1994, and each April 1 thereafter. There shall be increasing dollar amounts for each additional full year of creditable service and full year of retirement.
- (13) Creditable service with the exception of accidental death, accident disability, and service-incurred disability is defined as follows:
- Date of retirement:
- minus; date of membership
- plus; service bought back and military credit purchased
- plus; time before 1940
- minus; time without pay
- (14) Years of retirement for benefits distributed beginning January 1 of a given year shall be projected forward to April 1 of that same year.
- (15) The present value of assets available for COLA benefits as defined within Stanley, Holcombe and Associates, Inc.'s September 21, 1993, actuarial impact statement is \$32,854,426.00.
- (16) The present value of benefits defined within the approved allocation table is \$29,581,845.00.
- (17) Eligibility for receipt of the COLA benefit shall be based upon a retiree reaching at least four full years of retirement after 46 years of age. Years of retirement shall be determined each year. For this paragraph only, in the case of DROP participants, date of retirement shall mean date of separation from city employment.
- (18) For accidental death, accidental disability, and service-incurred disability, years of service shall be defined as 25 years or actual creditable service if greater. Receipt of the COLA benefit shall be based on the retiree reaching at least four full years of retirement and 50 years of age. In the case of accidental death, the beneficiary shall be entitled to the COLA benefit on the April 1 following the 50th anniversary of the employee's birth and the fourth anniversary of the employee's death.
- (19) COLA benefits for vested rights retirees shall be based upon such retiree reaching at least four full years of retirement after 50 years of age.
- (20) The COLA benefit shall reflect the defined the retirement system benefit options. Existing beneficiaries' benefits shall be based on the retirement system option, e.g., if the original option was joint and 40 percent, then the beneficiary would

Pay Components Navigation: Person: Home: Pay Components

WILSON, REGINA D (ss, sp)
 Born: 9/28/1966 (Age: 54) Female

Retired (3/4/2006)

Home

Phone: (Home)
 Email: (Home)

Non Duty Disability Retirement (3/4/2006) Active

Filter
 Type:

Pay Components

[Edit Delete Select](#) Benefit Adjustment

[Edit Delete Select](#) COLA II

[Add](#)

Component Name	Type	Amount	Effective Date	Termination Date
Benefit Adjustment	Adjustment	\$1,061.21	1/1/2008	1/31/2008
COLA II	Adjustment	\$67.00	1/1/2017	
COLA II	Adjustment	\$33.00	1/1/2018	
COLA II	Adjustment	\$34.00	1/1/2019	
COLA II	Adjustment	\$33.00	1/1/2020	

RETIRED: 3/4/2006

TURNED 46: 9/28/2012

4 YEARS AFTER AGE 46: 1/1/2017

CST	GRP	ID Number	Employee Name	C	T	S	Birth Date	Retire/Member	'93 COLA/Widow	Adjusted Service	Service Adjust	COLA Service	Yrs Ret/'19 Amt	Table/Adjust	1/1/20 COLA
3			FE WILLIAMS RUL64 CLIFE 1	R	1	F	10/30/2005		0.00	26.74606	-3.00000	23.00	9.00	526.00	552.30
3			J WILLIAMS RUL64 CLIFE 0	R	1	M	3/10/2013		0.00	22.18857	-3.00000	19.00	4.00	117.00	122.85
3			P WILLIAMS DDUTY SLIFE 0	W	1	F	7/4/2000		0.00	21.15891	0.00000	25.00	16.00	1,169.00	584.50
3			RD WILLIAMS SRET JSURV 40	R	4	M	3/14/1999		0.00	26.78833	0.00000	26.00	18.00	1,403.00	1,403.00
3			RL WILLIAMS RUL64 CLIFE 1	R	1	M	5/30/1972		0.40	1.00000	Out DROP:	10/31/2001	1,315.00	1,403.00	
3			CR WILLIS CONT JSURV 50	W	1	M	1/23/2005		0.00	29.55019	-3.00000	26.00	12.00	877.00	920.85
3			RD WILSON NDRR SLIFE 0	D	1	F	9/28/1966		0.00	13.59168	0.00000	13.00	7.00	167.00	167.00
3			SS WILSON SRET CLIFE 1	R	1	F	2/12/1996		0.00	1.00000	0.00000	14.00	134.00	167.00	
3			GA WING SRET CLIFE 1	R	1	M	9/26/2010		0.00	14.08333	0.00000	14.00	3.00	75.00	0.00
3			JE WING DROPC CLIFE 0	R	1	F	4/2/2006		0.00	25.29928	0.00000	25.00	8.00	501.00	526.05
3			T WING SRET CLIFE 1	R	1	F	12/1/1980		0.00	1.05000	Out DROP:	4/1/2012	438.90	526.05	
3			RC WIRTH SRET JSURV 40	R	4	M	5/27/2018		0.00	21.20765	0.00000	21.00	0.00	134.00	0.00
3			MW WISNER RUL64 JSURV 40	R	4	M	3/11/1997		0.00	1.05000	Out DROP:	5/27/2023	0.00	0.00	
3			B WOODS RUL64 JSURV 40	R	4	M	7/10/2005		0.00	22.43309	-2.00000	20.00	12.00	626.00	657.30
3			J WOODS CONT JSURV 40	W	1	F	2/4/1985		0.00	1.05000	Out DROP:	3/31/2008	592.20	657.30	
3				R	4	M	2/9/1981		29.42	28.03790	0.20944	28.00	39.00	3,553.00	3,582.42
3				R	4	M	2/28/1955		0.40	1.00000		27.00	3,457.00	3,553.00	
3				R	4	M	1/2/2000		0.00	27.99880	0.00000	27.00	17.00	1,378.00	1,378.00
3				R	4	M	1/3/1972		0.40	1.00000	Out DROP:	12/31/2002	1,286.00	1,378.00	
3				R	4	M	4/22/2012		0.00	22.48378	0.00000	22.00	5.00	213.00	213.00
3				R	4	M	5/15/1989		0.40	1.00000	Out DROP:	9/30/2013	142.00	213.00	
3				W	1	F	2/13/1978		16.76	27.18570	0.37861	27.00	42.00	3,674.00	1,486.36
3				W	1	F	9/20/1954		0.40	0.40000		27.00	1,432.80	1,469.60	

Category: D = Ord. Disabled; L = Acc. Disabled; R = Retired; V = Vested Termination; W = Beneficiary
Type: 1 = Life Annuity; 3 = 10 Year Certain & Life; 4 = Contingent Annuitant

**MINUTES OF THE REGULAR MEETING OF
THE CITY OF MIAMI FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST**

September 9, 2020

Members Present

O. Cotera	-	Appointed by the City Commission
N. Enriquez	-	Elected by the Fire Fighters
M. Fernandez	-	Appointed by the City Commission
T. Gabriel	-	Appointed by the City Commission
S. MacDonald	-	Elected by the Police Officers
T. Roell	-	Appointed by the City Commission
R. Suarez	-	Elected by the Fire Fighters
A. Valdivia	-	Elected by the Police Officers

Also Present

R. Klausner	-	Legal Advisor
G. Bikkesbakker	-	Investment Consultant
A. Lally	-	Investment Consultant
S. Bowen	-	Investment Consultant
H. Merlak	-	Actuary

Vacant - City Manager Appointee

Chairman O. Cotera called the meeting to order at 8:30 a.m. with a quorum being present.

APPROVAL OF MINUTES

The minutes of the Regular meeting of June 17, 2020 were reviewed. Corrections were called for typographical errors. The minutes were approved by a motion from R. Suarez, a second from S. MacDonald and a unanimous vote.

The minutes of the Investment Review meeting of August 13, 2020 were reviewed. A motion was made by S. MacDonald and seconded by R. Suarez to approved the minutes. The motion was approved unanimously.

RETIREMENTS FOR THE PERIOD

The Board reviewed the list presented with the retirements for the period. A motion by R. Suarez a second by M. Fernandez and a unanimous vote ratified the retirements as presented.

MINUTES OF THE REGULAR MEETING OF THE CITY OF MIAMI FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST

September 9, 2020

Page 2 of 2

RATIFICATION OF PAYMENT

Payments for the period were reviewed. A motion was made by R. Suarez and seconded by T. Gabriel to ratify payments presented. The motion was approved unanimously.

THREE YEAR EXPERIENCE STUDY QUOTE

The Board reviewed a quote submitted by Pension Board Consultants, Inc. for the review of assumptions used for FIPO's actuarial valuations for the last three years. Discussion ensued. Pension Board Consultants, Inc. has been conducting the Three-Year Study for over 10 years. It was the consensus that conducting an RFP for the work would be appropriate and in the Fund's best interest. Discussion continued. A motion was made by T. Gabriel and seconded by R. Suarez to conduct an RFP. The motion was approved unanimously.

INVESTMENT ISSUES

G. Bikkesbakker and A. Lally and S. Bowen represented Meketa.

- Performance Update - a market and Fund performance update report was reviewed which showed the Fund with a return of 1.7% for Fiscal Year To Date.
- Manager Structure/Rebalancing Transfers - The Investment Consultants reviewed with the Board the rebalancing that had transpired during the third quarter and the estimated asset allocation after the rebalancing transfers were executed.

Being no further business, the meeting was adjourned at 10:00 a.m. by a motion by N. Enriquez a second by T. Gabriel and a unanimous vote.

Ornel Cotera, Chairman

Attest:

Dania Orta, Administrator

**MINUTES OF THE VIRTUAL INVESTMENT REVIEW MEETING OF
THE CITY OF MIAMI
FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST**

November 12, 2020

MEMBERS PRESENT

O. Cotera	-	Appointed by the City Commission
N. Enriquez	-	Elected by the Fire Fighters
M. Fernandez	-	Appointed by the City Commission
T. Gabriel	-	Appointed by the City Commission
S. MacDonald	-	Elected by the Police Officers
T. Roell	-	Appointed by the City Commission
R. Suarez	-	Elected by the Fire Fighters

ALSO PRESENT

G. Bikkesbakker	-	Investment Consultant
A. Lally	-	Investment Consultant
S. Bowen	-	Investment Consultant
R. Klausner	-	Legal Counsel
H. Merlak	-	Actuary

MEMBERS ABSENT

A. Valdivia	-	Elected by the Police Officers
-------------	---	--------------------------------

VACANT

- City Manager Appointment

Chairman O. Cotera called the meeting to order at 8:30 a.m. with a quorum being present.

INVESTMENT ISSUES AND PERFORMANCE REVIEW QE 06/30/2020

The Meketa Group was represented by G. Bikkesbakker, A. Lally and S. Bowen. The reviewed:

- The priority time line shows that all of the categories listed as Priority One and Priority Two, have now been completed. Discussion ensued. The Investment Consultants were asked to edit the report in future to show the actual date of completion for each of the tasks.
- The Consultants reviewed with the Board the performance for quarter ending September 30, 2020. A full report of the quarter's Fund performance and position is on file and available for review.

INVESTMENT ISSUES AND PERFORMANCE REVIEW QE 09/30/2020 (continued)

- A draft of the Crisis Response Plan was reviewed. The Board's Legal Counsel reported that he had reviewed the Plan and recommended approval. Discussion ensued. A motion was made by N. Enriquez and seconded by T. Roell to adopt the Plan as presented. The motion was approved unanimously.
- The Consultants reported that the Manager Guidelines had been reviewed at length and current Guidelines were proper and in line with industry guidelines.
- The report presented a review of the management fee savings of nearly \$2.5 million per year which can be attributed to the portfolio restructuring.
- The Consultant reported that an extensive review was conducted on Custodial fees. The review revealed that, in addition to the estimated \$60,000 savings associated with the streamlining of the manager roster, there is a potential savings of an additional \$150,000 if First Eagle and Wellington were to be changed to comingled funds. Discussion ensued. The issue of investment restrictions mandated by Florida Statute and City Resolution was discussed. The Consultants were asked to reach out to the Board's Legal Counsel for an opinion on the issue.

MANAGER PRESENTATIONS

The below listed Investment Managers made presentations to the Board on their performance for the quarter ending June 30, 2020. A copy of their individual reports is on file at the Fire and Police Pension Office and available for review.

AXA – R. Houle, L. Cornell
Champlain – S. Braynan
SL Partners – M. Nicolson, S. Hay
Catalyst – G. Wolfson, B. Rich

ADMINISTRATIVE ISSUES

- a. COLA Reserve
The Actuary, H. Merlak reviewed with the Board an estimate done for the COLA reserves. Discussion followed. The Actuary was asked to prepare a full COLA Fund review to include purpose of the reserves along with recommendations on safeguards that can be used to preserve the COLA Fund.

ADMINISTRATIVE ISSUES (continued)

b. Three Year Experience Study RFP Responses

The Board reviewed the responses received on the RFP done for actuarial service for our Three Year Experience Study. Firms that responded to the RFP were:

Cheiron
Foster & Foster
Pension Board Consultants
Segal Group

Lengthly discussion took place. A motion was made by T. Gabriel and seconded by R. Suarez to engage with Foster & Foster to conduct the Study. The motion was approved unanimously.

With no further business, the meeting was adjourned at 12:45 p.m. by a motion from N. Enriquez a second from T. Roell and a unanimous vote.

O. Cotera, Chairman

Attest:

Dania Orta, Administrator

REGULAR MEETING December 17, 2020

<u>Group</u>	<u>Name</u>	<u>Retirement Type</u>	<u>D.O.R.</u>	<u>Option</u>	<u>Pension Gross</u>	<u>Back DROP Lump Sum</u>
Fire	WINCHESTER, Michael	Forward DROP	09/13/20	6B	15,986.61	0.00
Police	CARROLL, Thomas	Forward DROP	09/27/20	2	12,044.26	0.00
Fire	GOMEZ, Arturo	Forward DROP	09/27/20	3	15,988.29	0.00
Police	MAGUFFEY, Shane	Forward DROP	09/27/20	6B	8,963.58	0.00
Police	SUAREZ, Hiram	Forward DROP	09/27/20	6B	10,569.52	0.00
Police	ANTUNEZ, Carlos	Service	10/25/20	6B	5,101.48	0.00
Police	CRUZ, Freddie	Forward DROP	10/11/20	6B	12,642.37	0.00
Police	GUERRA, Albert	Forward DROP	10/11/20	3	12,495.29	0.00
Police	PADRON, Rolando	Forward DROP	10/11/20	4-60%	10,241.95	0.00
Police	PANKOWSKI, Robert	Forward DROP	10/11/20	6B	8,567.85	0.00
Fire	RODRIGUEZ, Sergio	Forward DROP	10/11/20	6C	13,135.43	0.00
Police	BELFORT, Odney	Forward DROP	10/25/20	3	8,780.93	0.00
Police	BROWN, Laketha	Forward DROP	10/25/20	6B	7,053.81	0.00
Police	BRYANT, Cherie	Forward DROP	10/25/20	6B	6,244.13	0.00
Police	CANOVAS, Alexander	Forward DROP	10/25/20	6B	8,819.76	0.00
Police	DIAZ, Wily	Forward DROP	10/25/20	3	6,546.22	0.00
Police	HINSON, Antoinette	Forward DROP	10/25/20	6B	6,378.89	0.00
Police	PROSPERE, Emanuel	Forward DROP	10/25/20	6C	7,056.28	0.00
Fire	THOMPSON, Antoinette	Forward DROP	10/25/20	6B	9,860.82	0.00
Police	WHEATLEY, Lonise	Forward DROP	10/25/20	6B	6,898.94	0.00
Fire	MOHAMMED, Kevin	Forward DROP	11/08/20	4-45%	6,911.38	0.00
Police	DORCELY, Sans	Forward DROP	11/08/20	6C	5,543.76	0.00
Police	PAPIER, Nerly	Forward DROP	11/22/20	3	10,791.87	0.00

CITY OF MIAMI
FIREFIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST
1895 SW 3rd AVENUE
MIAMI, FL 33129

2021
SCHEDULE OF BOARD MEETINGS

<u>MONTH</u>	<u>DAY</u>	<u>TIME</u>	<u>MEETING</u>
January (deadline 01/06/2021)	20 (Wednesday)	8:30 a.m.	Regular
February (deadline 02/05/2021)	18 (Thursday)	8:30 a.m.	Investment Review
March (deadline 03/03/2021)	17 (Wednesday)	8:30 a.m.	Regular
April (deadline 03/31/2021)	14 (Wednesday)	8:30 a.m.	Regular
May (deadline 04/29/2021)	13 (Thursday)	8:30 a.m.	Investment Review
June (deadline 06/09/2021)	23 (Wednesday)	8:30 a.m.	Regular
August (deadline 07/29/2021)	12 (Thursday)	8:30 a.m.	Investment Review
September (deadline 09/01/2021)	15 (Wednesday)	8:30 a.m.	Regular
November (deadline 11/04/2021)	18 (Thursday)	8:30 a.m.	Investment Review
December (deadline 12/01/2021)	15 (Wednesday)	8:30 a.m.	Regular



nyhart
part of FuturePlan by Ascensus®

CITY OF MIAMI FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST – COLA Fund Review

DRAFT

December 2, 2020



Table of Contents

Topic	Page
About This Material	3
COLA Fund Basics	4
Valuation Methodology	7
Contribution to COLA Fund	9
Historical Results	10
Reserve Sensitivity	13
Summary	16
Certification	17



About This Material

During the November 12, 2020 FIPO Board meeting, there was discussion about the potential need for identifying a framework to trigger adjustments to the COLA benefit if reserve levels would fall below a certain level. To assist with this review, this report provides an overview on the COLA basics, describes the valuation methodology, summarizes historical results, and identifies the sensitivity of results.



COLA Fund Basics

- COLA benefit based on years of service at retirement and years in retirement
 - COLA Table Amount based on participant that retires with 25 years of service and has been retired for 22 years
 - COLA Table Amount is adjusted upward or downward depending on service and years in retirement for each retiree
 - Current COLA Table Amount is \$1,670 per month
- COLA Table Amount is reviewed each year to confirm sustainability of benefit. If target reserve is satisfied, COLA Table Amount may increase.



COLA Fund Basics

2020 COLA Fund Table (monthly amounts)

		Completed Years of Retirement					
		20	21	22	23	24	25
Years of Credited Service	23	1,353	1,428	1,503	1,578	1,653	1,728
	24	1,428	1,507	1,587	1,666	1,745	1,824
	25	1,503	1,587	1,670	1,754	1,837	1,921
	26	1,578	1,666	1,754	1,841	1,929	2,017
	27	1,653	1,745	1,837	1,929	2,021	2,113
	28	1,728	1,824	1,921	2,017	2,113	2,209

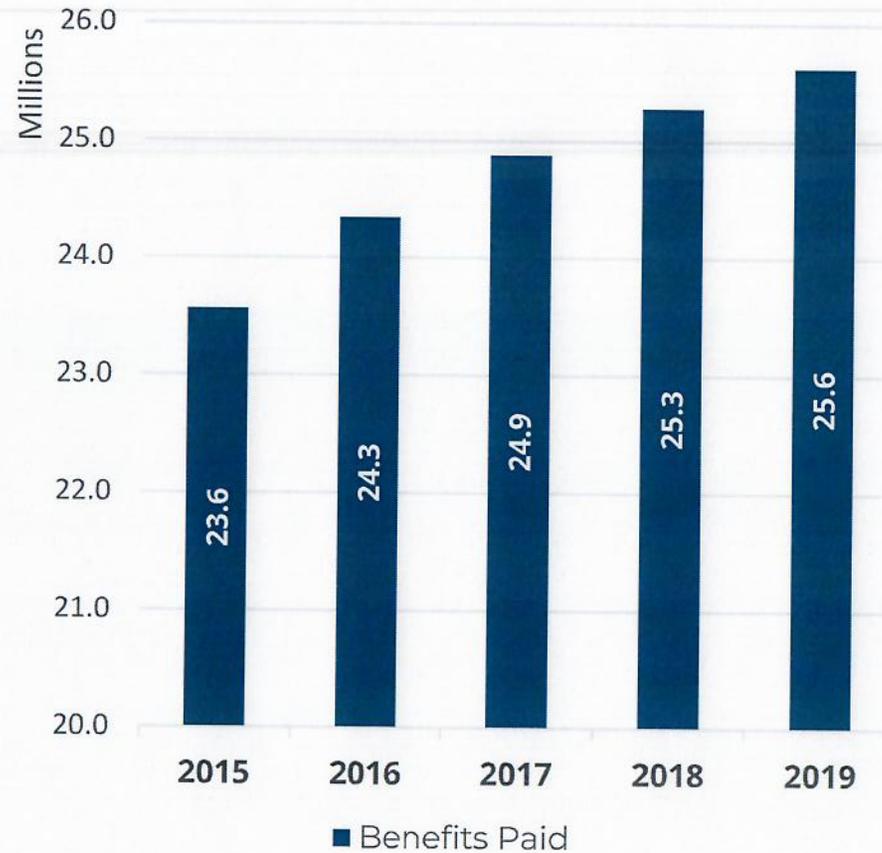


COLA Fund Basics

Demographic Information

	2017	2018	2019
# of Retirees	2,188	2,203	2,194
Avg. Monthly Payment from FIPO	\$5,499	\$5,576	\$5,624
# of Retirees Receiving COLA	1,726	1,836	1,850
Avg. Monthly Payment from COLA	\$1,282	\$1,239	\$1,233

Total Annual Payments





Valuation Methodology

- “All-in” approach is utilized to value liabilities and assets for the COLA Fund
 - Liability is based on Present Value of Future Benefits – retirees, actives, and 15% reserve for future hires
 - COLA Fund Assets based on market value plus present value of minimum annual payments (excess returns + contributions)
 - Methodology includes a target reserve equal to 20% of the assets available for the COLA Fund

Example Calculation	Sample Amount	Description
COLA Fund Assets	\$100	Market Value + PV of future contributions
COLA Fund Liability	\$75	PV of Future Benefits + 15% reserve for future hires
Current Reserve	\$25	
Target Reserve	\$20	20% of COLA Fund Assets
Excess Reserve	\$5	
Potential COLA Increase	6.7%	\$80/\$75



Valuation Methodology

- Miami FIPO utilizes 3 asset methods
 - 1) Write-up Method (similar to 5-year smoothing) is used to determine City's Contribution for FIPO
 - 2) 3-Year Average Method is used to determine excess asset return available for transfer to COLA (assuming plan is in net cumulative gain position)
 - 3) Annual COLA valuation to determine reserve is based on market value of COLA fund assets plus present value of future minimum annual payments
 - Use of market value creates volatility in reserve amount
 - 20% target reserve has proven effective to ensure sustainability of COLA through negative markets



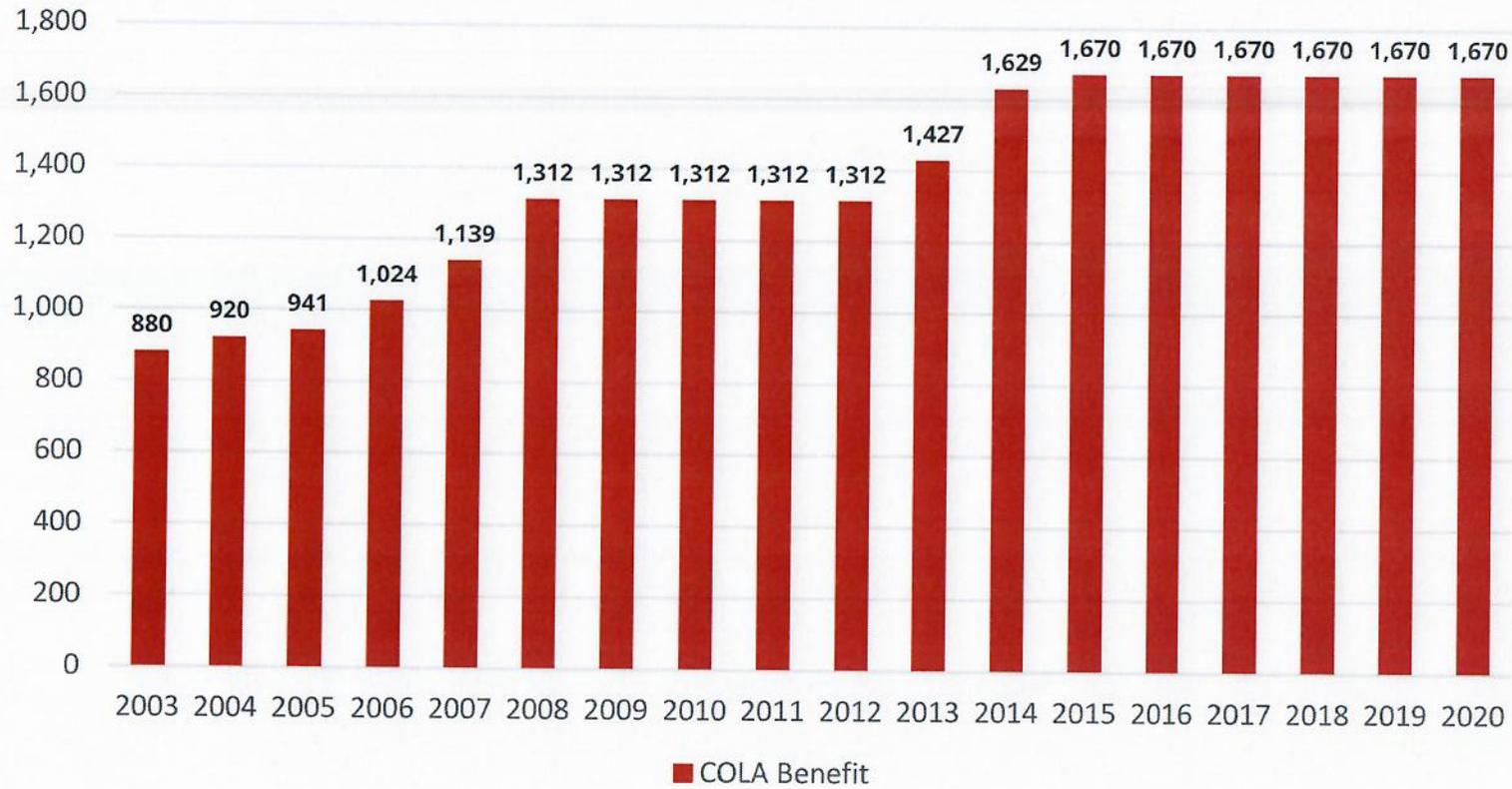
Contribution to COLA Fund

- Beginning effective January 1, 1994, the minimum annual payment to the COLA Fund is \$2,500,000 increasing 4% compounded per year.
- If the minimum annual payment is not met with excess returns, the City covers the difference.
- Excess returns can only be transferred if plan is in “a net positive experience position”.
 - As of 10/1/2019, the plan was in a loss position of \$310 million
 - Loss position driven by market performance since 2008 – market returns trailing assumption by approximately 2% per year
- The contribution payable January 1, 2021 is \$7,208,422.



Historical COLA Fund

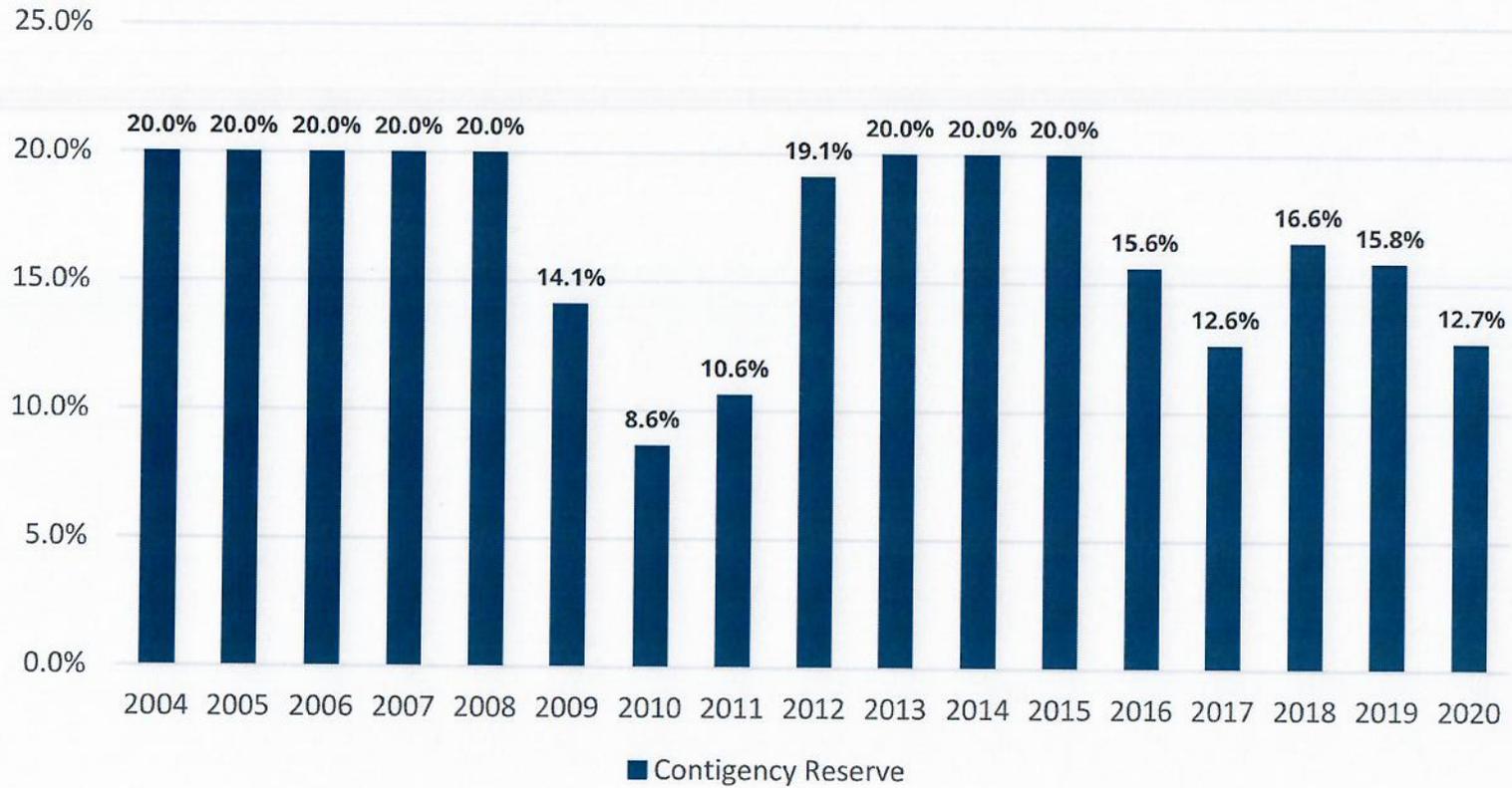
Historical COLA Benefit





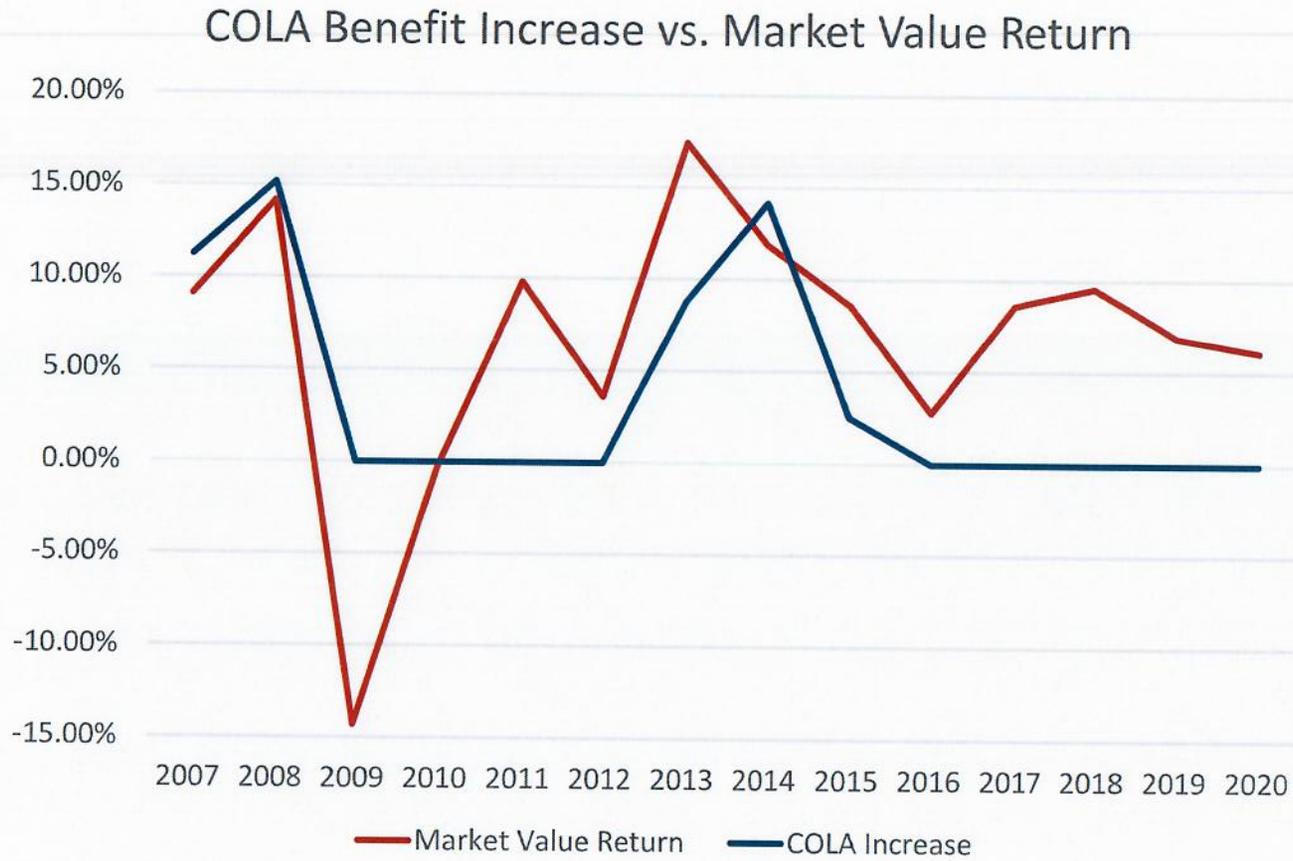
Historical COLA Fund

Contingency Reserve Percentage





Historical COLA Fund





Reserve Sensitivity

- Based on reserve approach, the reserve is expected to grow from one year to the next (holding all other variables constant) if the reserve is above 0%

Reserve Amount	Expected Growth Next Year
20%	0.9%
10%	0.5%
0%	0.0%

- The 20% reserve is designed to replenish the reserve if it's below 20%, however, the closer you get to a 0% reserve, the longer it will take to replenish to the target 20% reserve.



Reserve Sensitivity

The following test scenarios were completed to better understand how the COLA results are impacted by the various assumption changes.

- Scenario 1 – Interest Rate lowered by 25 basis points.
- Scenario 2 – No COLA increase from 2019 to 2020, future COLA growth as designed
- Scenario 3 – Standard COLA increase from 2019 to 2020, future COLA growth declines by 10%
- Scenario 4 – Standard COLA increase from 2019 to 2020, future COLA growth declines by 50%

In the indicated scenarios where a future COLA growth declines, it means there would still be growth but at a smaller amount. For example, under the “COLA growth declines by 10%” scenario, instead of the standard COLA growth of approximately \$84 per month, it would be approximately \$76 increase per month.



COLA Results – Test Scenarios

Scenario	Baseline, 7.34%	Lower Interest Rate, 7.09%	No 2020 COLA Increase, Normal COLA Growth After	Standard 2020 COLA Increase, COLA Growth Declines by 10% After 2020	Standard 2020 COLA Increase, COLA Growth Declines by 50% After 2020
Assets Available:	\$512,586,877	\$516,155,214	\$512,586,877	\$512,586,877	\$512,586,877
Total Cola Liability	\$447,248,968	\$463,151,951	\$417,524,779	\$411,079,544	\$307,887,934
Net Reserve	12.70%	10.30%	18.50%	19.80%	39.90%
Target Reserve	\$102,517,375	\$103,231,043	\$102,517,375	\$102,517,375	\$102,517,375
Actual Reserve	\$65,337,909	\$53,003,263	\$95,062,098	\$101,507,333	\$204,698,943



Summary

- Reserve approach has proved to be effective to ensure sustainability of the COLA during difficult economic times
- COLA Fund is very sensitive to market returns
- Small adjustments to future COLA amounts can increase the reserve significantly
 - ✓ May need to address intergenerational equity with any adjustments considered (if needed)
- Further safeguards could be put into place that adjusts the COLA downward if certain reserve thresholds are hit. Examples may include:
 - ✓ 0% reserve
 - ✓ Under 5% reserve for 2-3 consecutive years



Certification

This report has been prepared for the primary purpose of summarizing historical results and sensitivity of results for the Miami Fire Fighters' and Police Officers' Retirement Trust – COLA Fund Report as of October 1, 2019. To the best of our knowledge, the reports summarized herein present fair positions of the funded status of the plan in accordance with the Actuarial Standards of Practice as described by the American Academy of Actuaries, and are based on the plan provisions and assumptions summarized within each report.

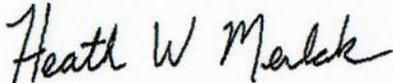
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such facts as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or other additional cost or contribution requirement based on the plan's funded status); and changes in plan provisions of applicable law. The scope of our assignment did not include an analysis of the potential range of future measurements.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

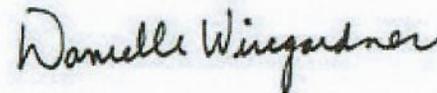
The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

To our knowledge there have been no significant events prior to the current year's measurement date or as of the date of this report which could materially affect the results contained herein.

Nyhart



Heath W. Merlak, FSA, FCA, EA, MAAA



Danielle Winegardner, FSA, EA, MAAA

December 2, 2020

Date

www.nyhart.com

City of Miami Firefighters' and Police Officers' Retirement Trust

Securities Lending Review

What is Securities Lending?

Securities Lending is a program that temporarily lends securities to a third party to generate additional income.

- Investors use a program provider, also known as the lending agent, to oversee the program.
 - The program provider can be either a custody bank or a third-party provider.
- Some of an investor's securities are lent in exchange for collateral, typically cash.
 - Collateral required is generally 102% to 105% of the security value.
 - The collateral is invested by the provider in short-term fixed income investments.
 - To provide a cushion, collateral in excess of the value of the loaned security is provided.
 - As with all investments, the greater the risk, the greater the expected (collateral) return.
 - The program provider must pay a "rebate rate" to the borrower.
 - The size of the rebate rate varies, based on how much borrowing demand there is for the security.

How Does Security Lending Earn a Return?

- The amount that the collateral earns above the rebate rate typically represents the maximum net gain to the lender.
- The investor and program provider split the gains from the collateral investment.
 - The revenue split ranges from 50%/50% to 90%/10% in favor of the investor.
 - Factors that tilt the percentage higher or lower towards the institutional investor are generally the supply for and demand of the security in the market. If there is little supply, or high demand for a security in the market, the investor keeps a higher percentage of the split.
 - Additionally if the borrower uses non-cash collateral—such as other securities—the borrower pays the lending agent a fee or premium and there is no reinvestment of collateral nor any rebate fee paid to the borrower.

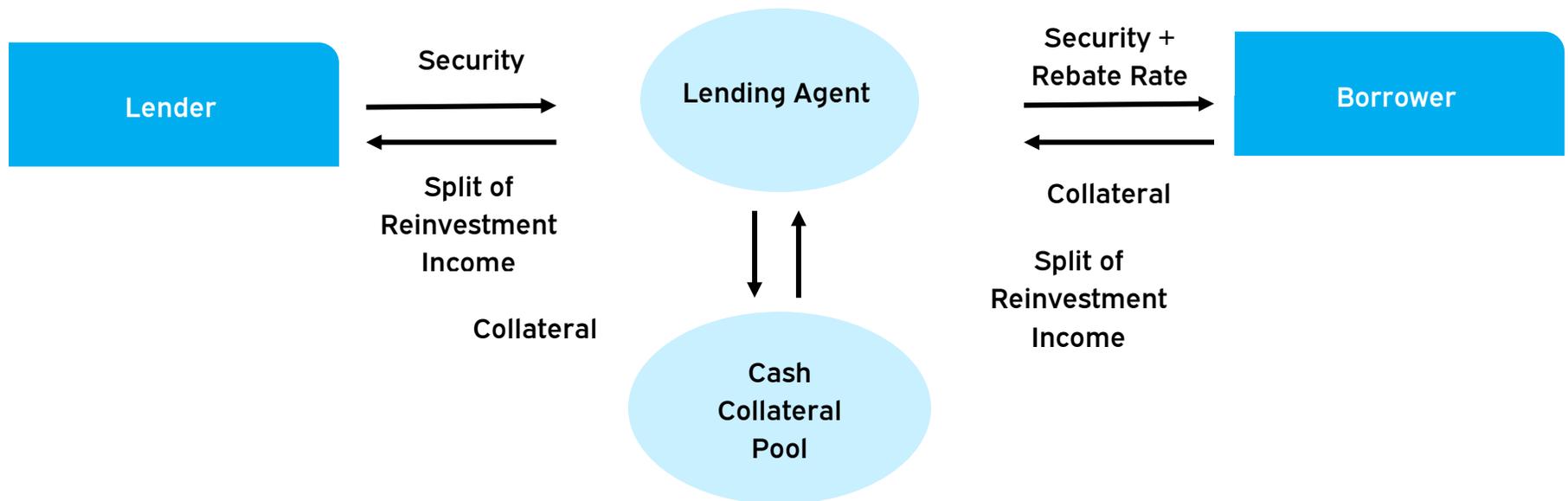
Who Borrows Securities?

There are numerous market participants that borrow securities for varying reasons.

- Broker/Dealers
 - Market Making: Brokers with borrowing access can provide buy and sell pricing with fewer securities actually held on their balance sheet.
 - Transaction Facilitation and Protection: Borrowing securities allows brokers to prevent sell fails and buy-ins on behalf of their clients.
- Primer Brokers and Hedge Funds
 - Short Selling: Borrowing a security and then immediately selling it to profit from a downward price movement.
 - Arbitrage Strategies: Borrowing securities to profit from jurisdictional and market structure issues.
 - Convergence Trades (Index, Share Class, and Convertible arbitrage): Trades where slightly different securities with the same underlying exposure are bought and sold with the expectation that their values will converge.
 - Collateral: Borrowing particular securities (e.g., U.S. Treasuries) to pledge as non-cash collateral.
 - Legal and Regulatory Considerations: Borrowing a security allows the borrower to exercise rights they would not otherwise have.
 - Dividend Tax Arbitrage
 - Corporate Actions (e.g., proxy voting)

Securities Lending Mechanics

- The terms for a loan are negotiated at the outset of the loan.
 - The terms generally address the type and amount of collateral, the rebate rate, the length of the loan, and dividend payments (when applicable).
- The loaned security is transferred to the borrower, and the lending agent receives the collateral.
- The cash collateral is reinvested, generating income for the lender.
- The collateral and the loaned security are marked to market daily.
- At the end of the loan, the security and the collateral are respectively returned.



The Different Ways Securities Lending Makes Money

- There are essentially two approaches to profit from securities lending: value lending and volume lending.
- Value lending (aka, intrinsic value lending) seeks to benefit primarily by lending securities that are not easily borrowed.
 - Certain securities are scarce and thus hard to borrow (often referred to as “specials”).
 - Because borrowing demand outstrips supply for these securities, the rebate rate is often quite low or negative.
 - A negative rebate rate results in the lender making money without having to invest the collateral (although the collateral is often still invested to increase profitability).
 - A low rebate rate allows for very conservative investment of the collateral (e.g., short-term Treasuries) to make money.
- Volume lending (aka, general collateral lending) seeks to benefit primarily by lending as many securities as is profitably possible.
 - The profit from each loan is generally small.
 - The profitability can be enhanced by taking on more risk (e.g., credit, duration, liquidity) with the collateral investment.
 - These risks resemble other risks that are likely present in an investor’s portfolio, and thus can be thought of as taking on a modest degree of leverage.
 - While more lending volume means greater income, it also means potentially greater risks.

Securities Lending Risks

- During most periods, the risk of loss in a securities lending program is minimal.
 - Collateral in excess of the value of the loaned security is provided, this value is marked to market daily, the collateral is generally invested in short-term high quality fixed income, and the program provider will often indemnify the borrower from counterparty risk.
- However, during periods of market disruption, the potential for significant losses exist.
- The investment of the collateral pool represents the most obvious risk.
 - If the investments in this pool take on credit risk or interest rate risk, they could lose value.
 - Likewise, if any of the collateral investments are potentially illiquid, they could lose value during a credit crunch and impair a lender's ability to access those funds.
- Counterparty risk can manifest itself in multiple ways.
 - If the borrower defaults and fails to return the loaned security, the lender could lose money.
 - Virtually all program providers will offer to indemnify the lender against counterparty risk, often for a fee (i.e., a higher share of lending proceeds).
 - Securities held as collateral can be negatively impacted by issuer defaults. In some cases, those issuers are the same parties who are borrowing shares (e.g., Lehman Brothers).

Case Study: The 2007 to 2009 Experience

- In order to generate additional income throughout the early to mid-2000s, many securities lending programs invested portions of their collateral pool in securities that carried significant credit risk or had a long time to maturity (e.g., long-term MBS).
- As the mortgages underlying securitized products began to fail at the beginning of the crisis, securities loan recalls increased just as riskier and longer-term collateral began to suffer losses. This dynamic caused many lenders to be “upside down” on their loans, with less collateral than necessary available to return to their borrowers.
- Collateral impairment had different impacts depending on the structure of the lending program.
- In commingled vehicles with lending programs, collateral pools tended to transact as though the collateral was not impaired (i.e., maintained a net asset value of \$1 per share) but used liquidity restrictions to prevent a “run” on collateral.
- In separate accounts, client collateral impairments were extended loans by lending agents to allow the program to continue to function. However, these clients generally still owed the lending entity for the funds necessary to cover the shortfall.
- Ultimately, many managers funded any differences in their collateral pools.

Securities Lending Risk Mitigation

The lender or its agent can help minimize program risks in several ways.

- Counterparty Risk
 - Lend to well-capitalized borrowers and continually monitor credit quality.
 - Require sufficient (based on volatility and security supply) collateral with daily mark to market.
 - Require agent indemnification for borrower defaults and monitor agent's capability to make good on indemnification.
- Investment Risk
 - Determine overall lending strategy and implement appropriate guidelines for minimum profitability and maximum utilization rates.
 - Within pooled vehicles, ensure the investment manager's return and risk guidelines are appropriate given the lender's overall risk tolerance.
 - Structure collateral investment guidelines to ensure sufficient profitability (i.e., above rebate rate) while controlling credit risk and liquidity and ensuring appropriate sector and issuer diversification.
 - Establish minimum standards for non-cash collateral liquidity and risks.
 - Segmented portfolio approach: Leave one or more asset classes invested in non-lending strategies to protect against potential disruption in securities lending markets.

Securities Lending Risk Mitigation (continued)

- Operational Risk
 - Perform due diligence on lending agent similar to any other vendor, reviewing internal controls as well as requesting reporting to verify program meets risk guidelines.
 - Potentially excluding some high quality assets (e.g., investment grade bonds) from lending programs to ensure an ability to meet obligations even in the event of program problems.

General Program Changes Observed Since the Global Financial Crisis

- Given the experience with collateral impairment during the Financial Crisis there has been a shift in the market toward reduction of collateral pool risk with movement toward money-market-like (2A-7 type) restrictions.
- Lenders are now requiring collateral with:
 1. Higher credit quality
 2. Higher liquidity requirements
 3. Shorter time to maturity
- The crisis has also led to greater lending risk management across the board. There is now much greater scrutiny of borrowers and exposure limitations to reduce counterparty risk, with additional stress testing requirements throughout the system.
- Still throughout this more cautious lending environment, there has been increased opportunity for income. Rising interest rates allow afford greater income to be earned from collateral.
- On the reinvestment side, some programs have migrated towards an uber-conservative stance, though some have stayed aggressive.

Summary

- Similar to other aspects of investing, securities lending provides the potential for higher returns in exchange for increased risk.
 - Securities lending programs have the ability to generate modest incremental revenue, varying based on the lending approach and revenue split agreed to with the agent.
 - Although not likely under normal market conditions, securities lending programs can result in securities being lost to defaulted borrowers or liabilities being owed to borrowers for bad collateral.
 - For lending programs within pooled vehicles, there is also an additional risk of redemption restrictions or forced in-kind redemptions due to impaired collateral.
- Individual programs vary according to several factors, including the degree of risk accepted and the percentage of gains accruing to the investor.
 - Selection of a skilled agent with a competitive fee split is important to both generate income and control risk.
- The amount of income, and risk, in any securities lending program is determined largely by its investment approach (value versus volume lending) and how the borrowing collateral is invested.
- Investors may find that controlled exposure to securities lending can provide added income with an acceptable risk level.

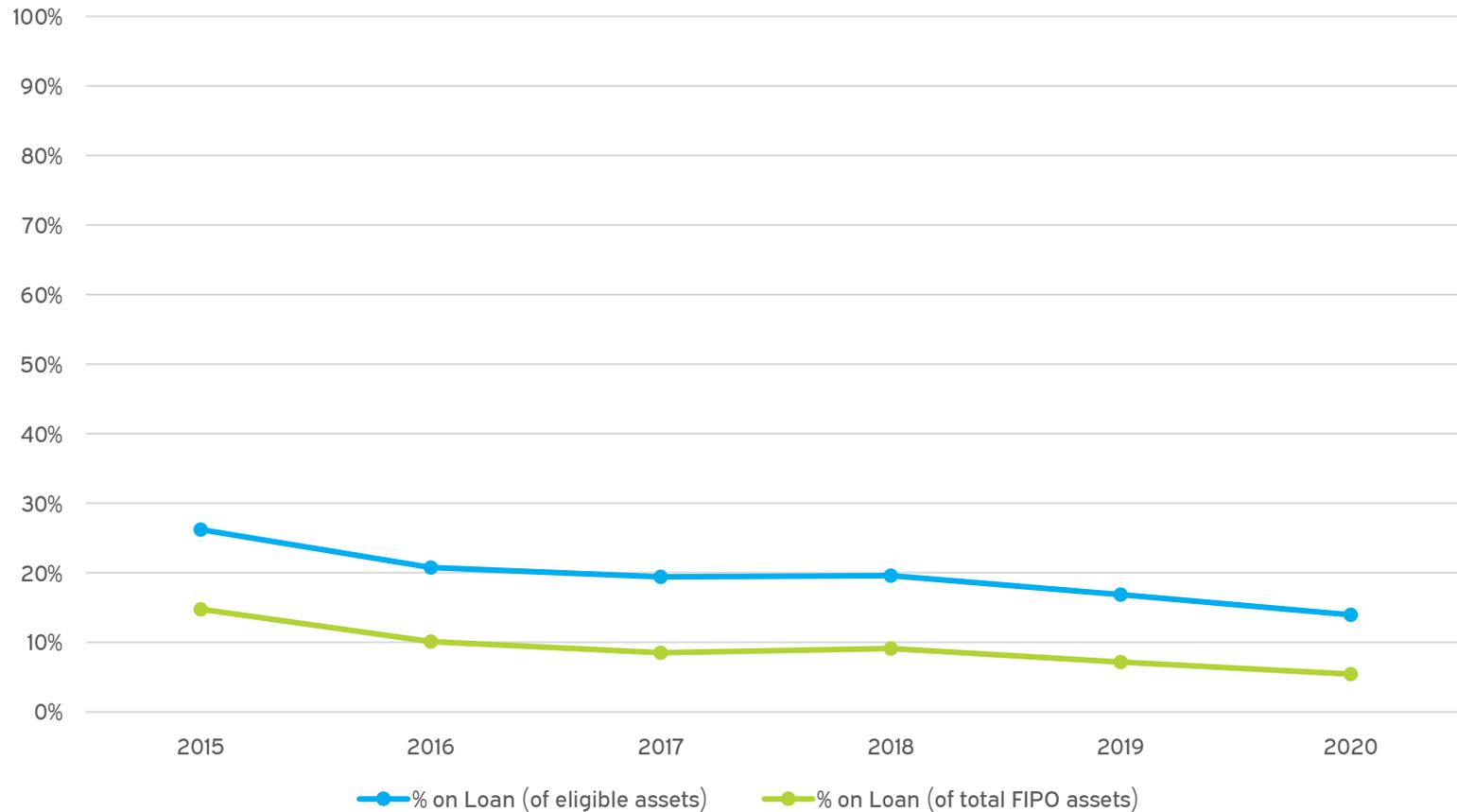
Miami FIPO Program

Miami FIPO Securities Lending Overview

Category	FIPO	Consistent with Industry Standard
Lending Agent:	Northern Trust (custodian bank)	Yes
Split:	75% to FIPO/25% to Northern Trust	Yes
Collateral Requirement:	102% of market value of borrowed securities. (105% if non-USD)	Yes
Collateral Fund:	Northern Trust Collective SL Short Term Investment Fund.	Yes
Collateral Fund guidelines:	<ul style="list-style-type: none"> • High grade money market instruments with short maturities • Limited to sec lending clients of Northern Trust • Average security maturity must be less than 60 days • Fund must be valued daily • Must be investment grade 	Yes
Collateral Fund current characteristics:	<ul style="list-style-type: none"> • 70% in AAA or AA securities • 30% in A securities • Weighted average maturity of 32 days • Largest asset class exposure is: repo agreements, time deposits, CDs. 	Yes
Indemnification:	Northern will make FIPO whole if a borrower fails to repay/return a security on loan	Yes

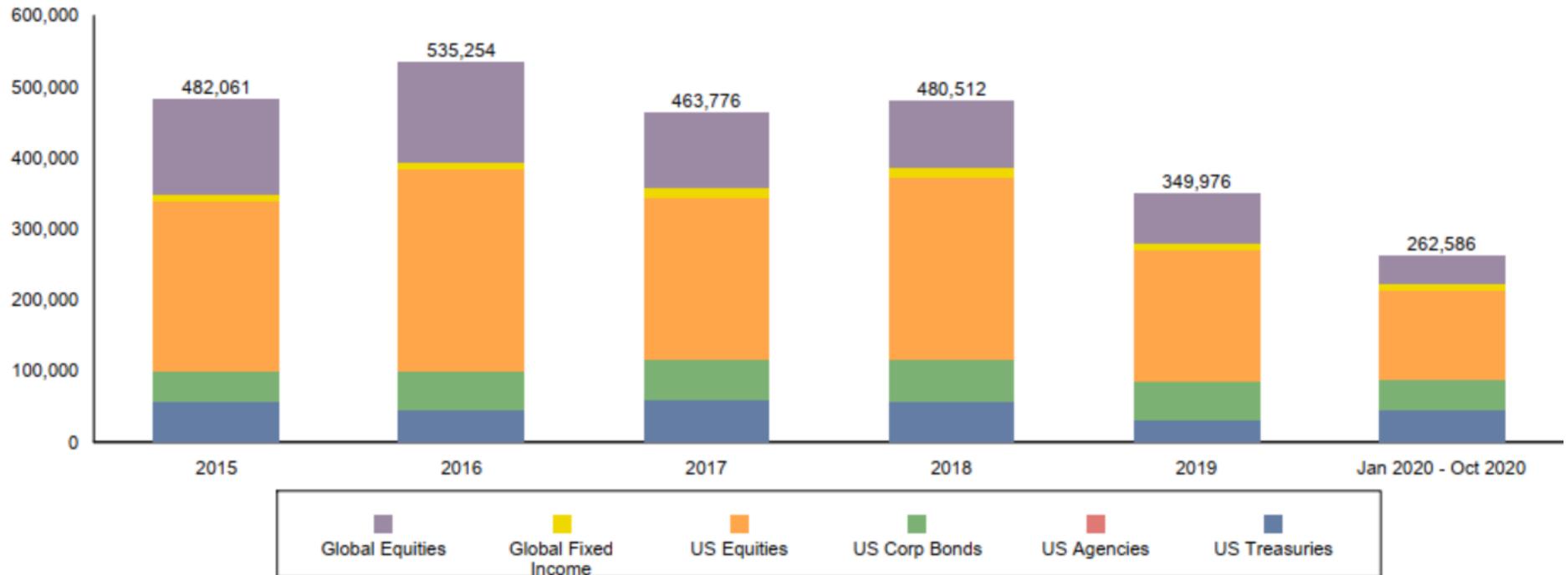
¹ As of November 30, 2020

Miami FIPO Securities on Loan



- Securities on Loan (as a percent of eligible assets) has steadily decreased.
- As a percent of total FIPO, 15% of the plan was on loan in 2015. This has decreased to 5% in 2020.

Miami FIPO Securities Lending Annual Income



- Income earned from securities lending has decreased over the past five years as yields on high quality bonds (typical collateral) have decreased and overall participation has declined.

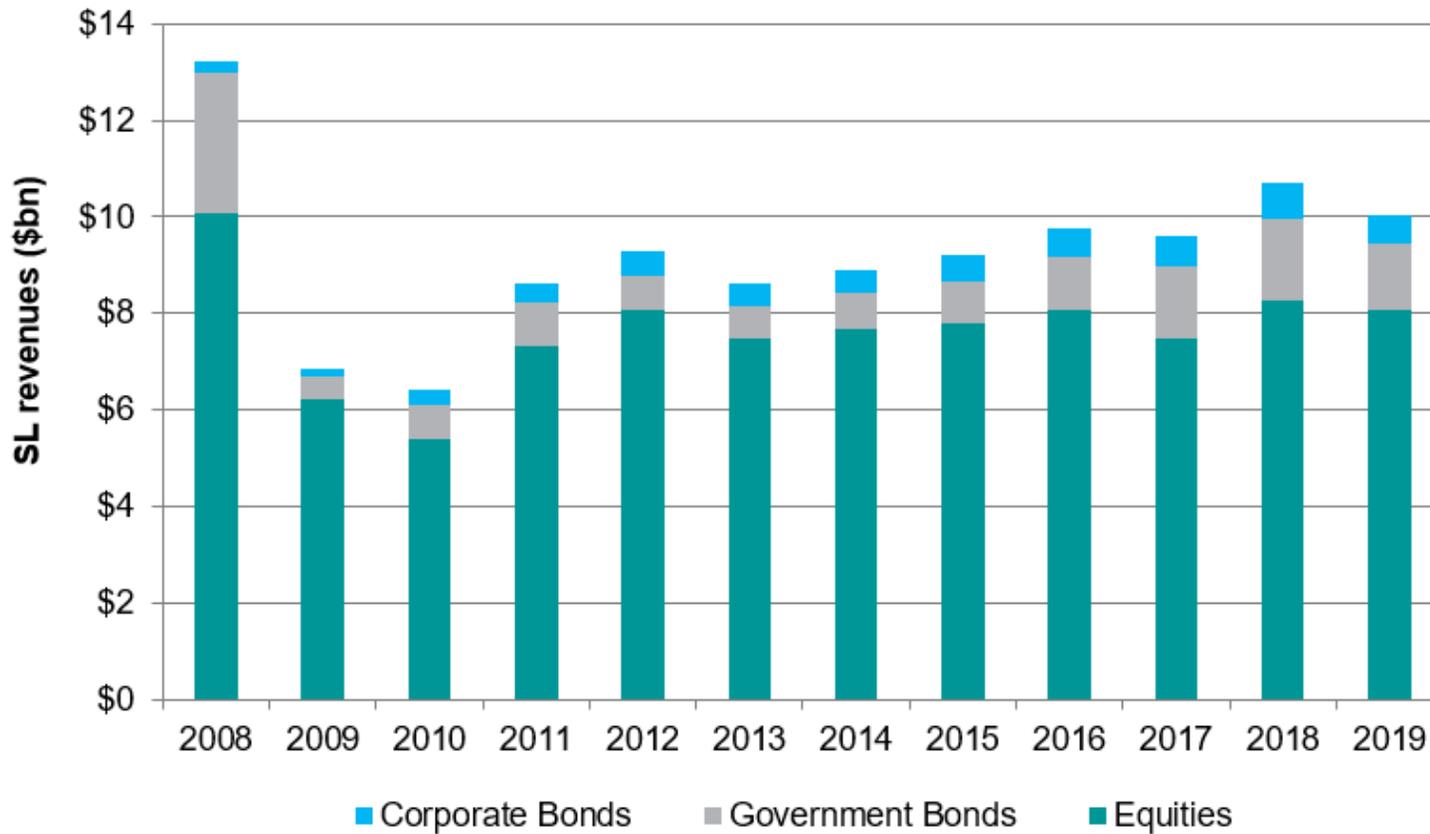
Conclusions

- Miami FIPO's securities lending program framework is consistent with industry norms.
- Revenues from securities lending have declined over the past five years and are not likely to increase due to:
 - Decrease in available assets to be loaned out (the decrease in number of separately managed accounts results in less assets available for Northern Trust to lend).
 - Record low yields/interest rates on high quality fixed income instruments.
- We are comfortable with Miami FIPO's continued participation in securities lending through its custodian bank Northern Trust.
 - But expect the program will have a declining impact in terms of usage and revenue for the reasons above.

Appendix: Industry Charts

Global Securities Lending Revenues

Global securities lending revenues

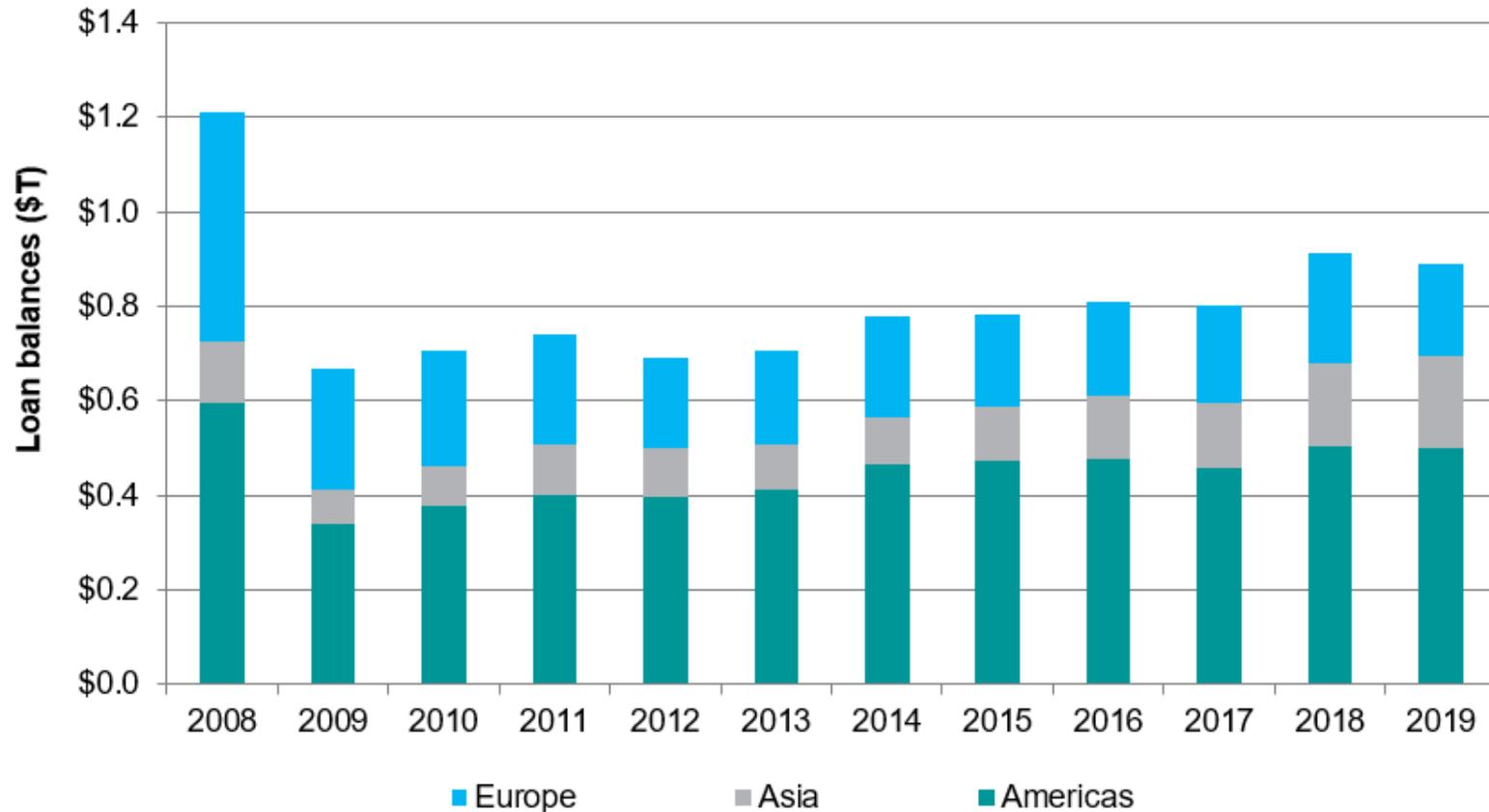


Source: IHS Markit Securities Finance

© 2020 IHS Markit

Global Securities Lending Loan Balances

Global equity loan balances



Source: IHS Markit Securities Finance

© 2020 IHS Markit