MEKETA
INVESTMENT GROUP

City of San Jose Police and Fire Department Retirement Plan

Third Quarter 2022

Private Markets Program
PUBLIC

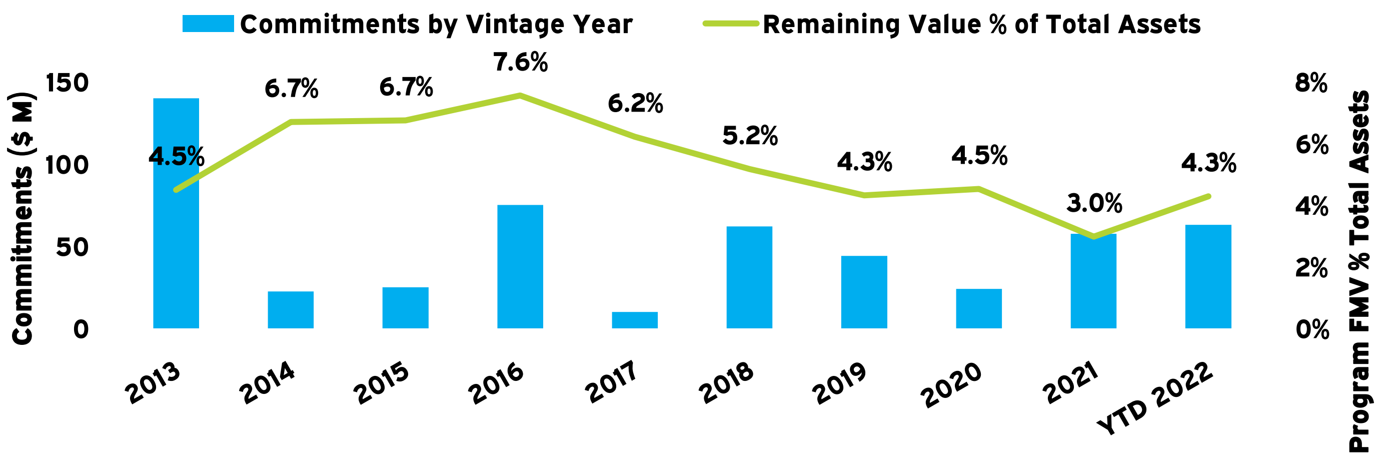
Snapshot

By Account

Account Type	Inception Year	Committed ($M)	Unfunded ($M)	Contributed ($M)	Distributed ($M)	Remaining Value ($M)	TVPI (X)	IRR (%)	PME IRR (%)
Legacy Private Equity	2005	261.2	0.0	332.4	458.2	89.7	1.65	9.9	8.0
NB Fund of One	2017	318.6	86.5	194.3	44.2	297.2	1.76	25.8	-2.7
Private Debt	2010	698.0	190.0	612.2	546.8	187.9	1.20	6.4	5.0
Real Estate	2012	358.7	109.7	278.3	181.8	199.1	1.37	13.5	-2.0
Real Assets	2016	134.2	62.3	78.6	25.2	84.8	1.40	13.5	5.1
Venture Capital	2020	107.2	72.9	34.4	0.3	36.9	1.08	9.3	-22.7
Total		1,877.9	521.4	1,530.2	1,256.6	895.5	1.41	10.3	NA

Introduction

As of September 30, 2022, the San Jose Police and Fire Department Retirement Plan had committed $698.0 million to 22 debt partnerships. The reported fair value of the aggregate Private Debt Program was $187.9 million at September 30, 2022, which equates to 4.3% of the overall Retirement Plan, slightly above the 4.0% policy target.



Program Status

No. of Investments	22
Committed ($ M)	698.0
Contributed ($ M)	612.2
Distributed ($ M)	546.8
Remaining Value ($ M)	187.9

Performance Since Inception

	Program
DPI	0.89x
TVPI	1.20x
IRR	6.4%

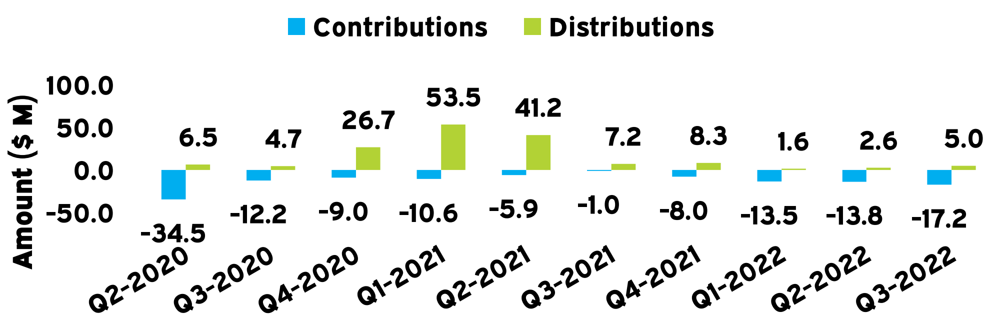
Commitments

Commitments This Quarter

Fund	Region	Amount (M)
Eagle Point II	North America	21.00
HPS Opps II	North America	21.00

Cash Flows

Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Region	Amount ($M)
Octagon Fund IV	2022	North America	7.35
AG Credit Fund II	2021	North America	4.20
Arbour Lane III	2021	North America	2.91

Largest Distributions This Quarter

Fund	Vintage	Region	Amount ($M)
Cross Ocean ESS II	2016	Western Europe	2.95
Cross Ocean ESS III	2019	Western Europe	1.49
AG Credit Fund II	2021	North America	0.32

By Vintage

Group	Number	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	Exposure ($ M)	DPI (X)	TVPI (X)	IRR (%)	Peer IRR (%)
2010	3	150.0	180.3	0.0	177.8	45.9	45.9	0.99	1.24	5.4	13.4
2011	1	25.0	25.0	0.0	31.1	0.0	0.0	1.24	1.24	8.6	8.3
2013	2	140.0	127.8	18.4	147.5	6.9	25.2	1.15	1.21	5.9	8.3
2014	1	22.5	22.4	1.0	18.7	5.6	6.6	0.84	1.08	2.2	9.8
2015	1	25.0	25.0	0.0	28.5	0.0	0.0	1.14	1.14	11.3	8.4
2016	1	75.0	60.0	63.5	58.7	13.2	76.6	0.98	1.20	5.7	10.1
2017	1	10.0	10.0	0.0	12.2	0.0	0.0	1.22	1.22	12.9	10.0
2018	2	62.0	65.5	7.5	63.3	16.0	23.5	0.97	1.21	16.5	10.8
2019	2	44.0	38.7	8.6	4.1	48.4	57.0	0.11	1.36	16.7	12.5
2020	2	24.0	18.9	9.0	4.5	14.9	23.9	0.24	1.03	2.9	10.6
2021	3	57.5	22.8	34.7	0.3	21.5	56.2	0.01	0.96	NM	NM
2022	3	63.0	15.8	47.3	0.0	15.6	62.8	0.00	0.99	NM	NM
Total	**22**	**698.0**	**612.2**	**190.0**	**546.8**	**187.9**	**378.6**	**0.89**	**1.20**	**6.4**	**NA**

Fund Performance: Sorted By Vintage And Strategy

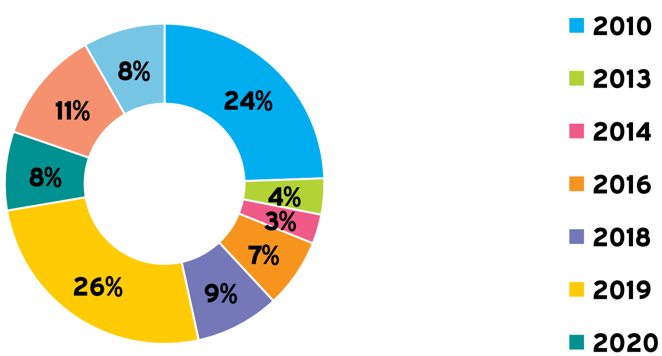
By Investment	Vintage	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
GSO Direct Lending	2010	50.0	43.4	0.0	45.0	4.0	1.13	1.51	4.1	13.4
Medley II	2010	50.0	51.6	0.0	53.5	4.9	1.13	1.51	2.4	13.4
White Oak DL	2010	50.0	85.4	0.0	79.3	37.1	1.36	1.51	8.1	13.4
Marathon Euro Credit	2011	25.0	25.0	0.0	31.1	0.0	1.24	1.45	8.6	8.3
Park Square II	2013	50.0	51.6	4.6	62.0	0.0	1.20	1.32	4.7	8.3
Cross Ocean ESS I	2013	90.0	76.2	13.8	85.5	6.9	1.21	1.32	6.9	8.3
Shoreline China III	2014	22.5	22.4	1.0	18.7	5.6	1.08	1.41	2.2	9.8
Octagon CLO II	2015	25.0	25.0	0.0	28.5	0.0	1.14	1.27	11.3	8.4
Cross Ocean ESS II	2016	75.0	60.0	63.5	58.7	13.2	1.20	1.32	5.6	10.1
ArrowMark Sep Acct	2017	10.0	10.0	0.0	12.2	0.0	1.22	1.30	12.9	10
Arbour Lane II	2018	12.0	23.0	0.0	11.5	16.0	1.19	1.23	14.1	10.8
Octagon CLO III	2018	50.0	42.5	7.5	51.9	0.0	1.22	1.23	16.8	10.8
Cross Ocean ESS III	2019	32.0	30.6	4.1	3.5	38.7	1.38	1.19	14.4	12.5
HPS Special Sits.	2019	12.0	8.1	4.6	0.6	9.6	1.26	1.19	NM	NM
Crestline Fund II	2020	12.0	7.7	8.2	4.0	4.2	1.07	1.11	NM	NM
Eagle Point Income	2020	12.0	11.1	0.9	0.5	10.7	1.01	1.11	0.6	10.6
Arbour Lane III	2021	21.0	8.9	12.2	0.0	8.0	0.91	1.07	NM	NM

Performance Analysis | As of September 30, 2022

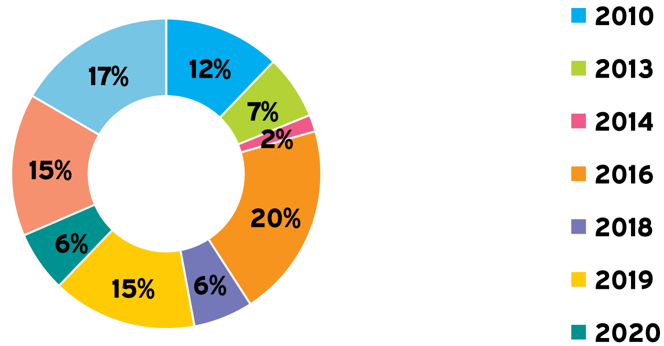
By Investment	Vintage	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Strategic Value V	2021	15.5	5.0	10.5	0.0	5.3	1.05	1.07	NM	NM
AG Credit Fund II	2021	21.0	8.9	12.1	0.3	8.2	0.95	1.07	NM	NM
Eagle Point II	2022	21.0	1.1	20.0	0.0	1.0	0.92	1.02	NM	NM
Octagon Fund IV	2022	21.0	14.7	6.3	0.0	14.6	0.99	1.02	NM	NM
HPS Opps II	2022	21.0	0.0	21.0	0.0	0.0	NM	1.02	NM	NM
Total		**698.0**	**612.2**	**190.0**	**546.8**	**187.9**	**1.20**	**NA**	**6.4**	**NA**

By Vintage

Percent of FMV

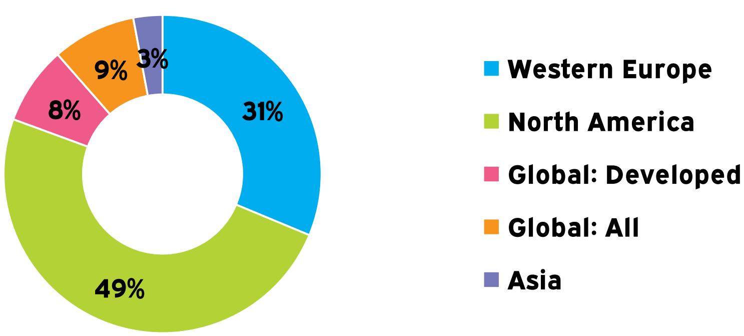


Percent of Exposure

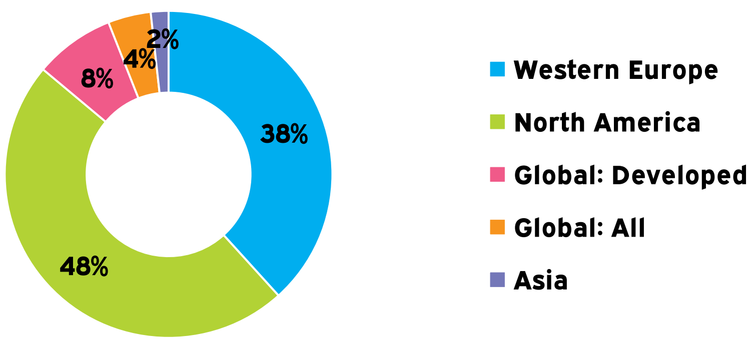


By Geographic Focus

Percent of FMV

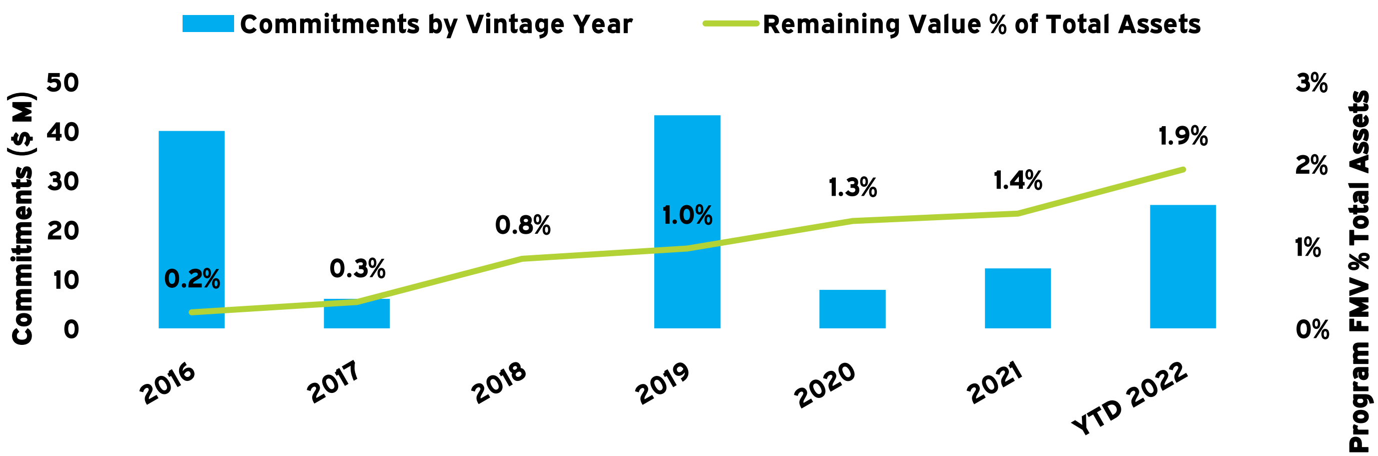


Percent of Exposure



Introduction

As of September 30, 2022, the Plan had committed $134.2 million to 12 real assets funds and 2 co-investments. The total reported fair value of real assets investments was $84.8 million at September 30, 2022, which equates to 1.9% of the overall Retirement Plan, versus a 4.0% policy target.



Program Status

No. of Investments	14
Committed ($ M)	134.2
Contributed ($ M)	78.6
Distributed ($ M)	25.2
Remaining Value ($ M)	84.8

Performance Since Inception

	Program
DPI	0.32x
TVPI	1.40x
IRR	13.5%

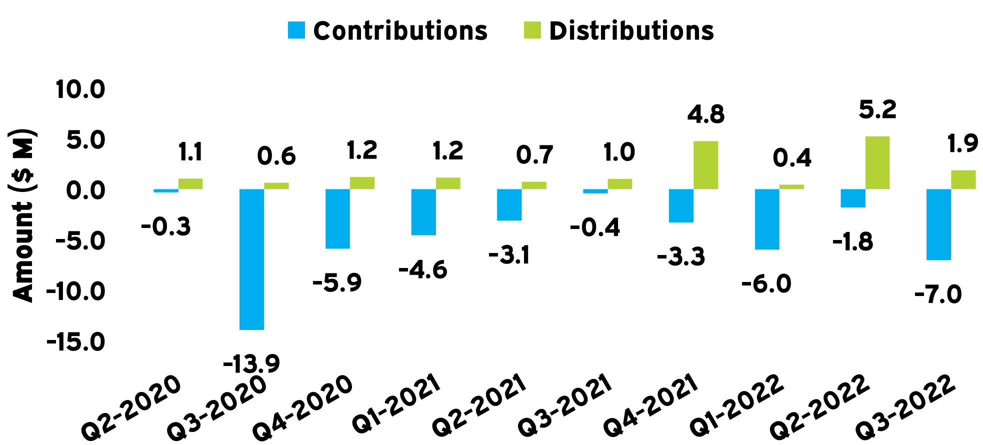
Commitments

Commitments This Quarter

Fund	Region	Amount (M)
Kimmeridge Fund VI	North America	16.00

Cash Flows

Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Region	Amount ($M)
Kimmeridge Energy V	2019	North America	3.22
Lime Rock New Energy	2019	Global: Developed	0.94
Orion Mine III	2019	Global: All	0.94

Largest Distributions This Quarter

Fund	Vintage	Region	Amount ($M)
GIP III	2016	Global: Developed	0.76
Brookfield Infra III	2016	Global: Developed	0.37
Mountain Capital II	2019	North America	0.25

By Vintage

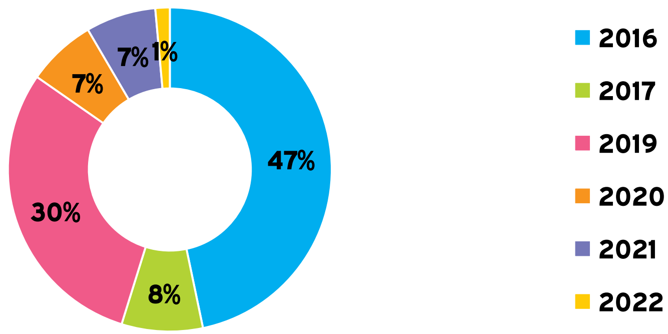
Group	Number	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	Exposure ($ M)	DPI (X)	TVPI (X)	IRR (%)	Peer IRR (%)
2016	2	40.0	37.6	4.8	14.8	39.6	44.4	0.39	1.45	10.9	12.0
2017	1	6.0	5.6	1.4	1.3	6.9	8.3	0.22	1.45	12.8	15.0
2019	5	43.2	26.1	20.2	9.1	25.3	45.5	0.35	1.32	21.7	14.7
2020	2	7.8	5.7	2.4	0.0	5.8	8.2	0.00	1.02	1.5	NA
2021	2	12.2	3.3	8.8	0.0	5.9	14.8	0.00	1.78	NM	NM
2022	2	25.0	0.2	24.8	0.0	1.2	26.0	0.00	5.25	NM	NM
Total	**14**	**134.2**	**78.6**	**62.3**	**25.2**	**84.8**	**147.1**	**0.32**	**1.40**	**13.5**	**NA**

Fund Performance: Sorted By Vintage And Strategy

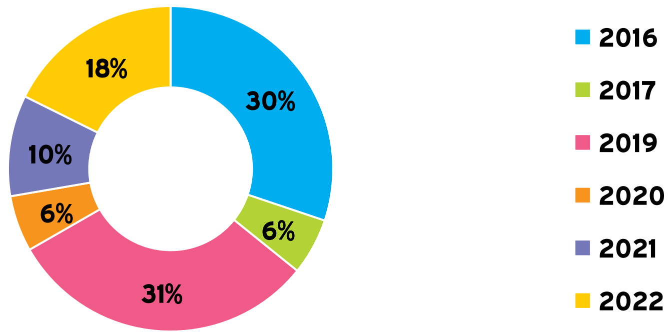
By Investment	Vintage	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Brookfield Infra III	2016	20.0	17.7	2.3	8.2	17.7	1.46	1.49	11.7	12.0
GIP III	2016	20.0	19.9	2.5	6.7	21.9	1.44	1.49	10.2	12.0
Lime Rock VIII	2017	6.0	5.6	1.4	1.3	6.9	1.45	1.42	12.8	15.0
Kimmeridge Energy V	2019	7.2	9.7	0.0	4.7	11.3	1.65	1.26	41.1	14.7
Mountain Capital II	2019	9.0	1.9	7.1	0.5	1.5	1.08	1.26	NM	NM
Orion Mine III	2019	9.0	6.7	2.6	0.4	7.1	1.12	1.26	7.8	14.7
Tembo Capital III	2019	9.0	2.7	6.3	0.0	2.3	0.85	1.26	NM	NM
Lime Rock New Energy	2019	9.0	5.1	4.2	3.5	3.1	1.30	1.26	15.0	14.7
Energy Co-Invest	2020	1.8	1.8	0.0	0.0	1.8	1.00	1.19	0.0	NA
GIP IV	2020	6.0	3.9	2.4	0.0	4.0	1.03	1.19	3.0	NA
Crestline Co-Inv. II	2021	3.2	3.2	0.0	0.0	5.8	1.85	1.06	NM	NM
Hull Street II	2021	9.0	0.2	8.8	0.0	0.1	0.56	1.06	NM	NM
Kimmeridge Fund VI	2022	16.0	0.0	16.0	0.0	0.0	NM	NM	NM	NM
Aether Seed Partners	2022	9.0	0.2	8.8	0.0	1.2	5.25	1.05	NM	NM
Total		**134.2**	**78.6**	**62.3**	**25.2**	**84.8**	**1.40**	**NA**	**13.5**	**NA**

By Vintage

Percent of FMV

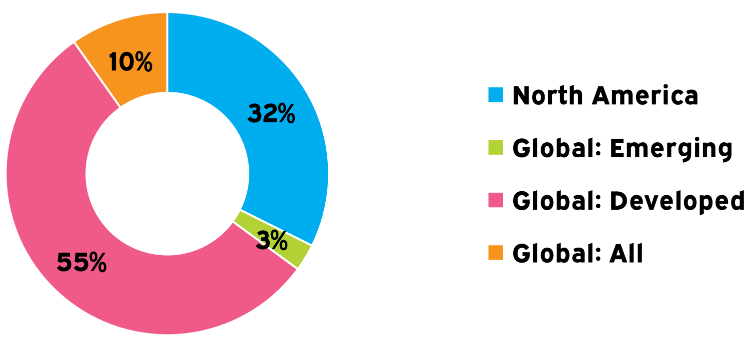


Percent of Exposure

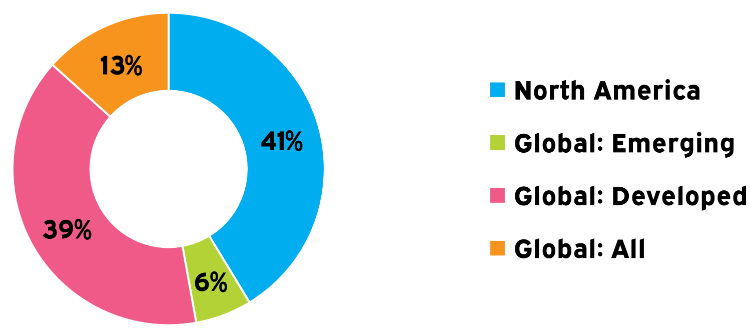


By Geographic Focus

Percent of FMV

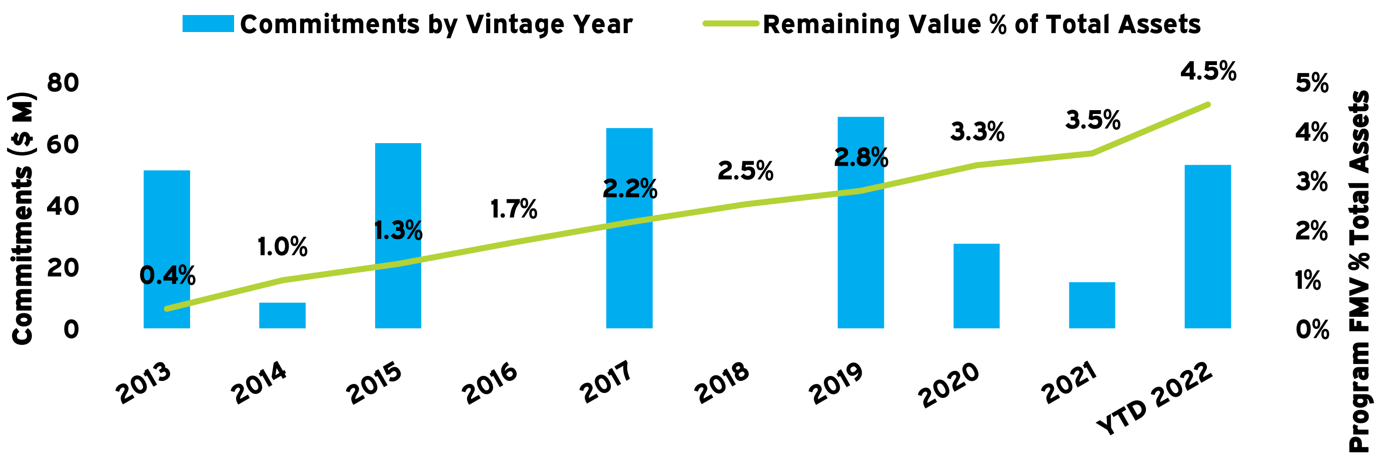


Percent of Exposure



Introduction

As of September 30, 2022, the Plan had committed $358.7 million to 23 real estate funds. The total reported fair value of the Real Estate Program's investments was $199.1 million at September 30, 2022, which equates to 4.5% of the overall Retirement Plan, versus a 4.0% policy target.



Program Status

No. of Investments	23
Committed ($ M)	358.7
Contributed ($ M)	278.3
Distributed ($ M)	181.8
Remaining Value ($ M)	199.1

Performance Since Inception

	Program
DPI	0.65x
TVPI	1.37x
IRR	13.5%

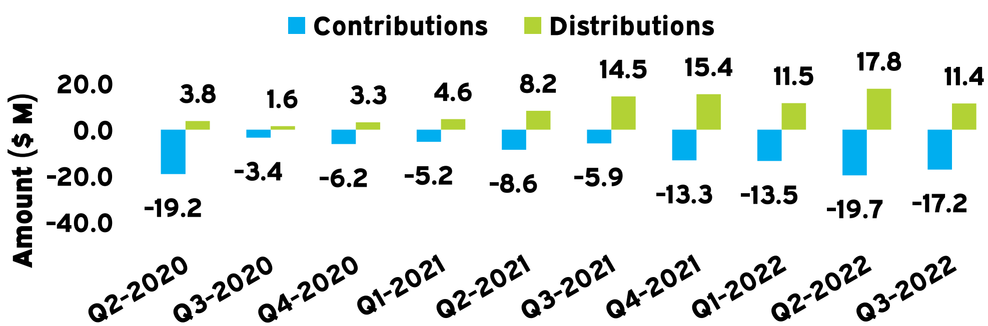
Commitments

Commitments This Quarter

Fund	Strategy	Region	Amount (M)
GCP SecureSpace	Value-Added	North America	14.00
Exeter Industrial VI	Value-Added	North America	17.00

Cash Flows

Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Region	Amount ($M)
GCP SecureSpace	2022	North America	4.27
HIG Realty IV	2020	North America	3.75
DRA X	2019	North America	2.77

Largest Distributions This Quarter

Fund	Vintage	Region	Amount ($M)
Torchlight VI	2017	North America	4.17
EPISO 5	2019	Western Europe	1.44
DRA X	2019	North America	1.36

By Vintage

Group	Number	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	Exposure ($ M)	DPI (X)	TVPI (X)	IRR (%)	Peer IRR (%)
2012	1	10.0	11.9	0.0	19.7	3.4	3.4	1.65	1.94	18.1	16.8
2013	4	51.2	45.6	7.9	59.3	7.3	15.1	1.30	1.46	13.4	14.0
2014	1	8.3	8.7	1.1	4.6	3.2	4.3	0.53	0.89	-4.0	15.4
2015	3	60.0	60.9	3.7	36.6	58.0	61.7	0.60	1.55	12.7	14.0
2017	3	65.0	72.3	7.1	51.0	45.1	52.2	0.71	1.33	13.8	11.8
2019	4	68.6	44.8	27.6	8.2	42.2	69.8	0.18	1.12	11.6	15.7
2020	3	27.5	17.9	10.1	2.3	21.3	31.4	0.13	1.32	NM	NM
2021	1	15.0	2.3	12.7	0.0	1.9	14.7	0.00	0.86	NM	NM
2022	3	53.0	13.9	39.6	0.1	16.7	56.3	0.00	1.20	NM	NM
Total	23	358.7	278.3	109.7	181.8	199.1	308.8	0.65	1.37	13.5	NA

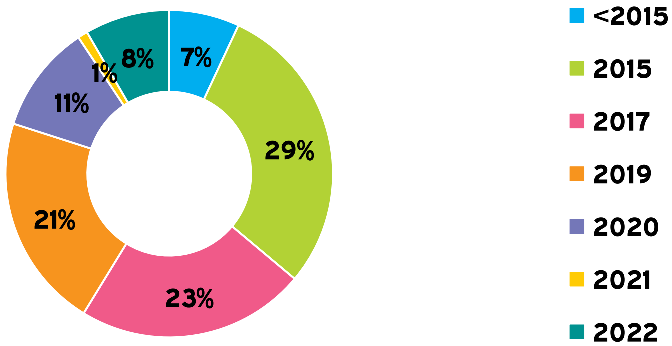
Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Brookfield RE I	2012	10.0	11.9	0.0	19.7	3.4	1.94	1.55	18.1	16.8
Blackstone RE Debt 2	2013	12.5	12.8	0.0	14.8	0.0	1.16	1.53	9.2	14.0
Sculptor RE III	2013	20.0	13.6	7.9	19.7	4.6	1.79	1.53	23.4	14.0
EPISO 3	2013	8.7	9.2	0.0	8.7	2.6	1.23	1.53	6.3	14.0
TA Realty X	2013	10.0	10.0	0.0	16.1	0.0	1.61	1.53	12.6	14.0
Orion Euro IV	2014	8.3	8.7	1.1	4.6	3.2	0.89	1.68	-4.0	15.4
Brookfield RE II	2015	20.0	20.8	0.0	14.2	19.9	1.65	1.55	13.2	14.0
KSL IV	2015	20.0	21.8	1.9	14.9	21.6	1.67	1.55	17.2	14.0
EPISO 4	2015	20.0	18.3	1.7	7.5	16.5	1.31	1.55	7.3	14.0
Torchlight VI	2017	30.0	39.3	2.2	23.7	22.6	1.18	1.40	8.5	11.8
GEM VI	2017	15.0	11.6	3.4	7.7	7.6	1.32	1.40	17.2	11.8
DRA IX	2017	20.0	21.4	1.5	19.6	14.9	1.62	1.40	18.3	11.8
Rockpoint VI	2019	11.5	8.8	3.1	1.4	9.5	1.23	1.26	19.8	15.7
DRA X	2019	18.0	13.8	7.5	5.2	12.1	1.26	1.26	28.5	15.7
EPISO 5	2019	21.1	18.1	3.0	1.4	16.7	1.00	1.26	0.2	16.8
Praedium X	2019	18.0	4.0	14.0	0.1	3.9	0.99	1.26	NM	NM
Torchlight Debt VII	2020	9.0	5.0	4.5	0.5	4.7	1.04	1.13	NM	NM
HIG Realty IV	2020	9.0	6.3	2.8	1.8	6.1	1.26	1.13	NM	NM

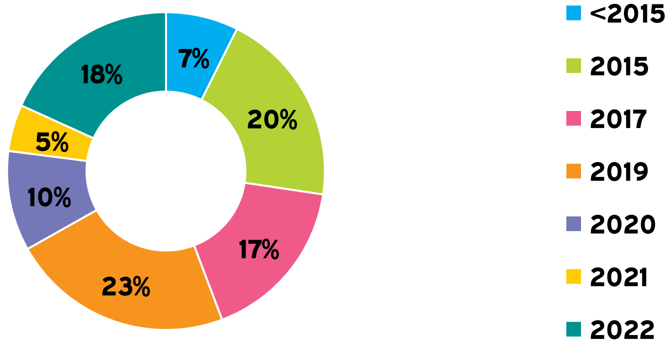
By Investment	Vintage	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Exeter V	2020	9.5	6.7	2.9	0.0	10.5	1.58	1.13	NM	NM
Centerbridge RE II	2021	15.0	2.3	12.7	0.0	1.9	0.86	1.06	NM	NM
AIGGRE U.S. Fund IV	2022	22.0	9.7	12.8	0.1	12.3	1.28	1.01	NM	NM
Exeter Industrial VI	2022	17.0	0.0	17.0	0.0	0.0	NM	1.01	NM	NM
GCP SecureSpace	2022	14.0	4.3	9.8	0.0	4.4	1.02	1.01	NM	NM
Total		358.7	278.3	109.7	181.8	199.1	1.37	NA	13.5	NA

By Vintage

Percent of FMV

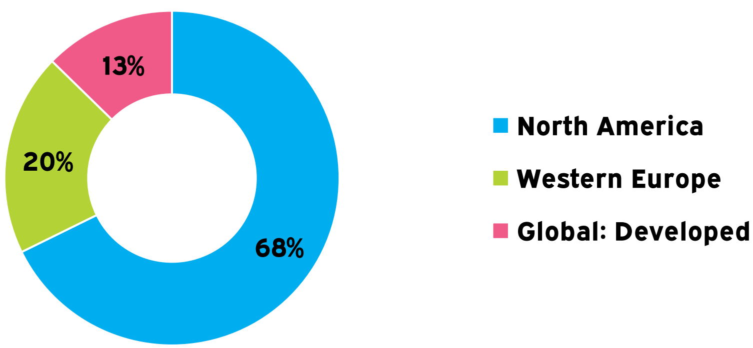


Percent of Exposure

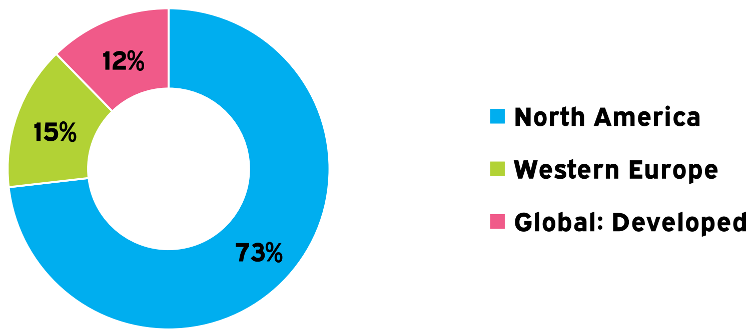


By Geographic Focus

Percent of FMV

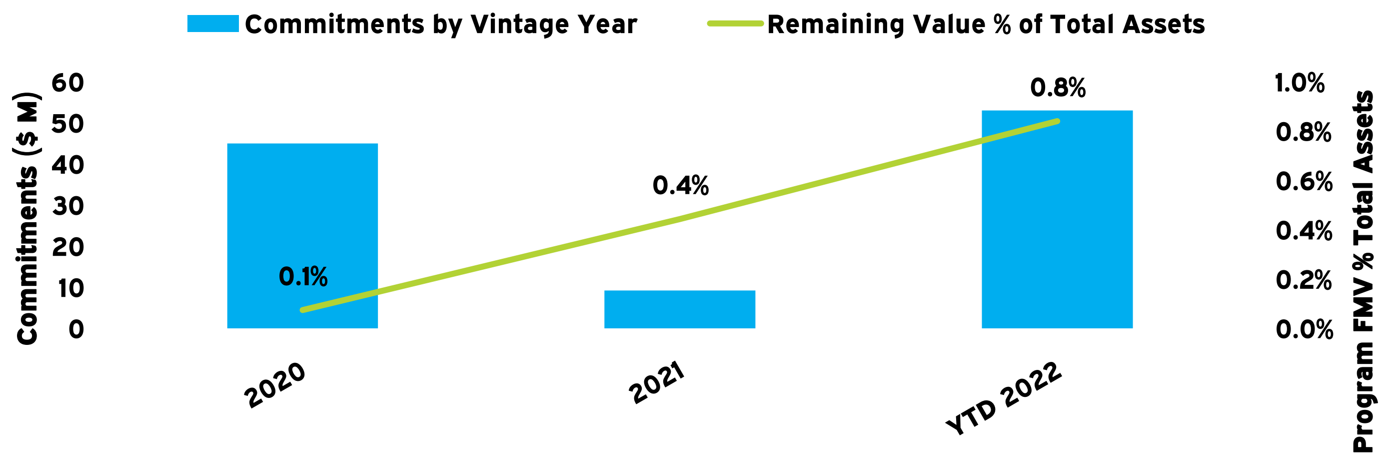


Percent of Exposure



Introduction

As of September 30, 2022, the Plan had committed $107.2 million to 12 venture capital funds. The total reported fair value of the Venture Capital Program's investments was $36.9 million at September 30, 2022, which equates to 0.8% of the overall Retirement Plan, versus a 4.0% policy target.



Program Status

No. of Investments	12
Committed ($ M)	107.2
Contributed ($ M)	34.4
Distributed ($ M)	0.3
Remaining Value ($ M)	36.9

Performance Since Inception

	Program
DPI	0.01x
TVPI	1.08x
IRR	9.3%

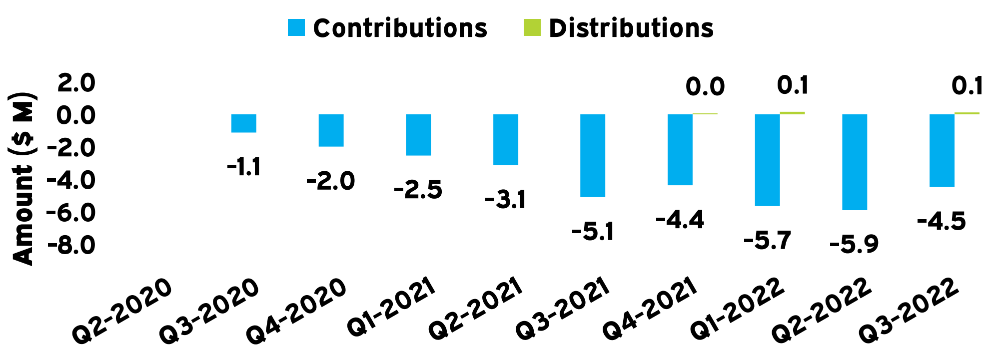
Commitments

Commitments This Quarter

Fund	Region	Amount (M)
Lerer Ventures VIII	North America	5.00
Next Play SJPF	North America	10.00
Signia Venture IV	North America	3.00

Cash Flows

Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Region	Amount ($M)
Tiger Iron SJPF	2022	North America	0.86
Invesco II	2020	North America	0.74
BSF II	2022	North America	0.63

Largest Distributions This Quarter

Fund	Vintage	Region	Amount ($M)
Top Tier VC IX	2020	North America	0.11

By Vintage

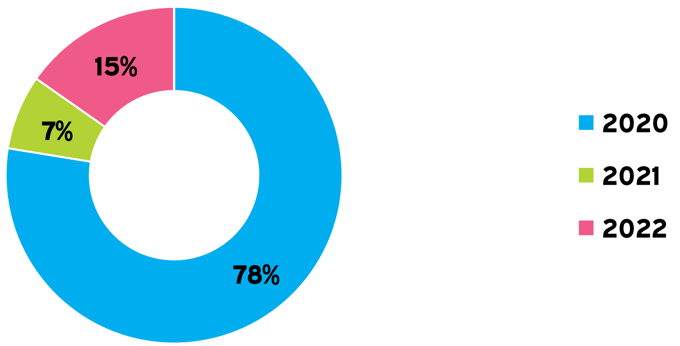
Group	Number	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	Exposure ($ M)	DPI (X)	TVPI (X)	IRR (%)	Peer IRR (%)
2020	5	45.0	25.2	19.9	0.3	28.6	48.5	0.01	1.15	14.2	NA
2021	2	9.2	2.8	6.4	0.0	2.6	9.1	0.00	0.95	NM	NM
2022	5	53.0	6.4	46.6	0.0	5.6	52.2	0.00	0.87	NM	NM
Total	**12**	**107.2**	**34.4**	**72.9**	**0.3**	**36.9**	**109.8**	**0.01**	**1.08**	**9.3**	**NA**

Fund Performance: Sorted By Vintage And Strategy

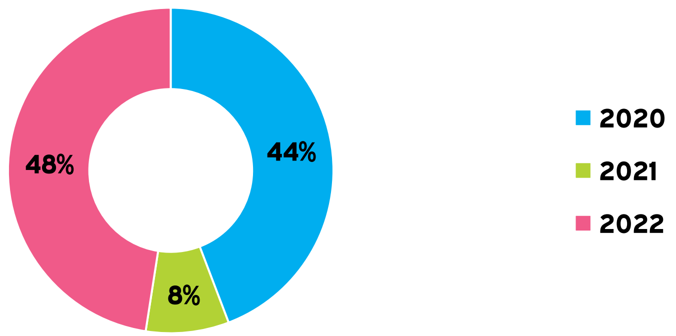
By Investment	Vintage	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Invesco II	2020	10.0	4.5	5.6	0.0	5.8	1.27	1.35	NM	NM
Northgate VP IX	2020	10.0	8.0	2.0	0.0	9.1	1.13	1.35	11.2	NA
Top Tier VC IX	2020	10.0	6.2	3.8	0.3	6.9	1.16	1.35	13.0	NA
Next Play III	2020	10.0	4.0	6.0	0.0	3.8	0.95	1.35	NM	NM
Canvas Ventures 3	2020	5.0	2.4	2.6	0.0	3.0	1.25	1.35	NM	NM
Bow Capital Fund II	2021	5.0	1.4	3.6	0.0	1.3	0.93	1.02	NM	NM
Innovation Endeavors IV	2021	4.2	1.4	2.8	0.0	1.3	0.97	1.02	NM	NM
Next Play SJPF	2022	10.0	0.0	10.0	0.0	0.0	NM	0.95	NM	NM
Tiger Iron SJPF	2022	30.0	5.3	24.7	0.0	4.7	0.89	0.95	NM	NM
Lerer Ventures VIII	2022	5.0	0.5	4.5	0.0	0.4	0.80	0.95	NM	NM
BSF II	2022	5.0	0.6	4.4	0.0	0.5	0.88	0.95	NM	NM
Signia Venture IV	2022	3.0	0.0	3.0	0.0	NM	NM	0.95	NM	NM
Total		**107.2**	**34.4**	**72.9**	**0.3**	**36.9**	**1.08**	**NA**	**9.3**	**NA**

By Vintage

Percent of FMV

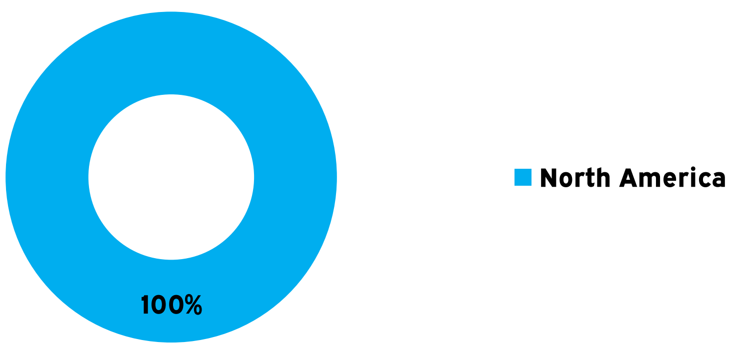


Percent of Exposure

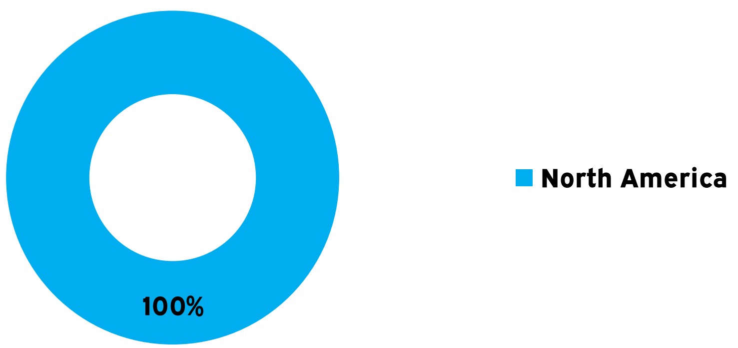


By Geographic Focus

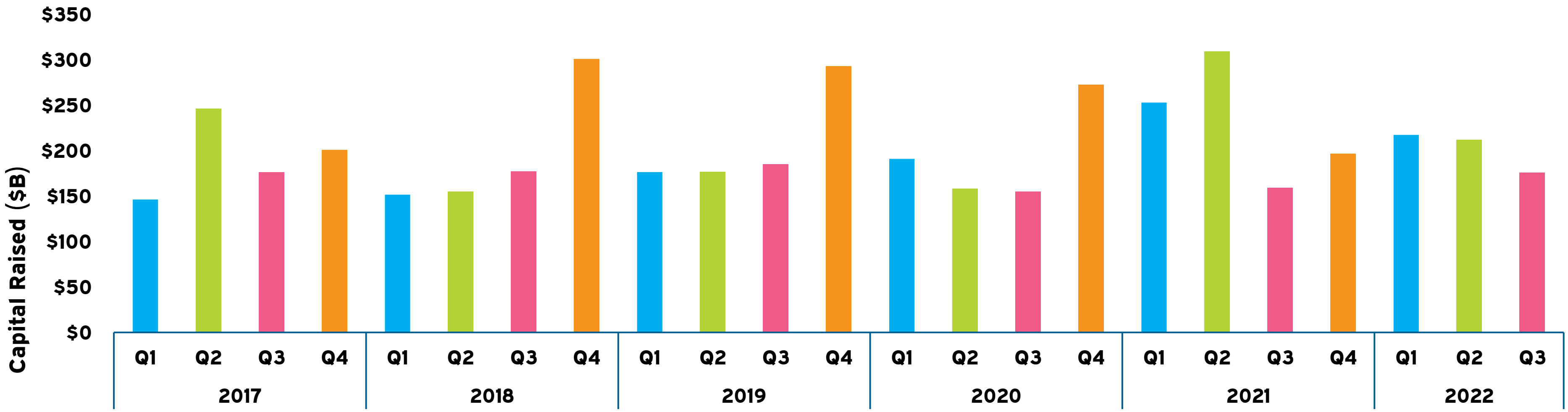
Percent of FMV



Percent of Exposure



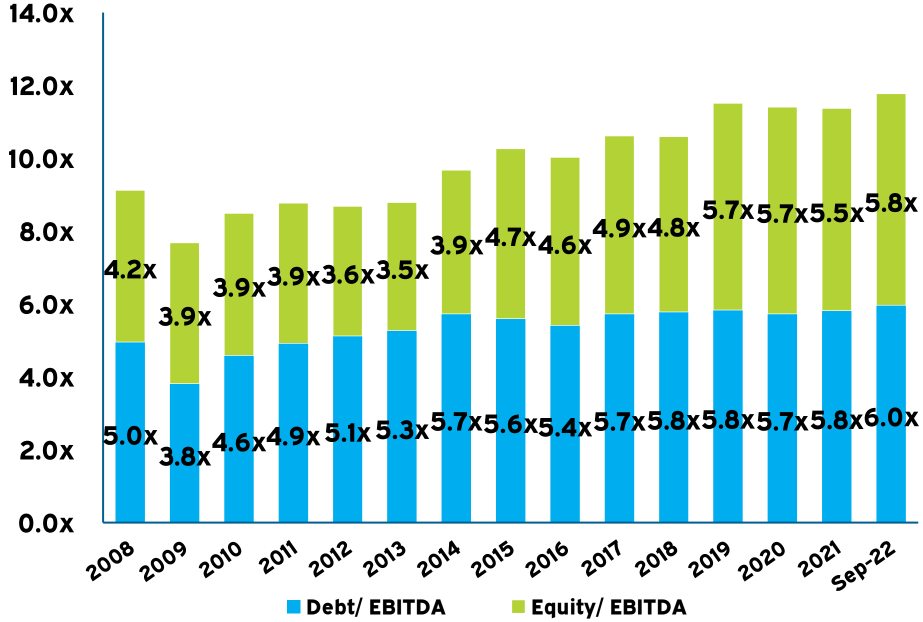
Private Equity
Global Fundraising[1]



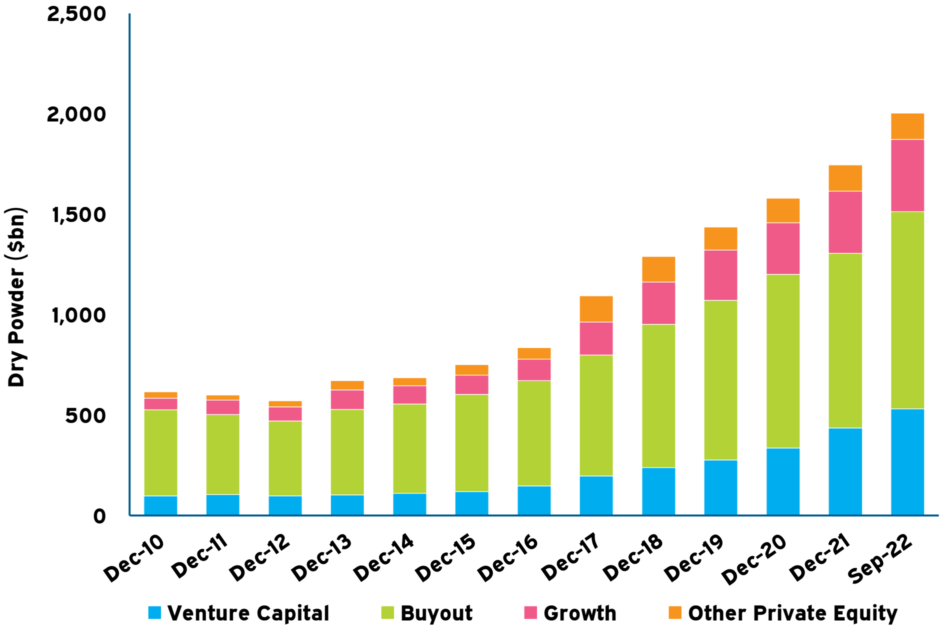
Fundraising activity for private equity funds in the third quarter of 2022 decreased by 17% compared to the previous quarter, with $175.6 billion raised. While 2021 was an exceptional year for private equity markets, there have been signs of moderation of activity in 2022. The post-COVID boost in fundraising activity has diminished, and evidence may now be growing of a sustained slowdown on the back of macroeconomic and geopolitical concerns resulting from the outbreak of war in Ukraine, inflationary pressures, and rising interest rates. Additionally, the denominator effect on investors' portfolios is among the factors expected to drive softer fundraising in coming quarters. As public equity and fixed income markets have declined in 2022, private equity allocations are proportionately higher as a percentage of investors' overall portfolios, given the delay in private equity valuations reflecting those of public markets. Therefore, some investors have found themselves relatively closer to long-term target allocations, which could curb their appetite for fresh allocations. Per Preqin, despite these concerns, most investors still plan to continue committing capital to private equity in the next 12 months even as the aggregate amount of fundraising is expected to remain weak in 2023. Overall, Preqin forecasts global private equity fundraising to fall by 2.7% in 2023, following an expected 21.5% decline in 2022. According to Preqin data, there were more than 8,233 funds raising in the market as of September 2022, with an aggregate capital target of around $1.6 trillion. Both metrics are pushing record highs and therefore paint a picture of highly competitive fundraising. As a result, funds have been spending more time on the road than ever, averaging 20.8 months to final close in 2022, up from 17.1 months in 2021. That said, spending more time in the market does not seem to improve the chances of hitting target but rather seems to suggest a lower success rate. Overall, the trend clearly appears to be that investors still plan to deploy capital into private equity on the whole but average ticket sizes are likely to be down. A growing share of total fundraising is likely to be assigned via re-ups to existing manager relationships, as well.

[1] Preqin

Purchase Price Breakdown, All LBOs[1]



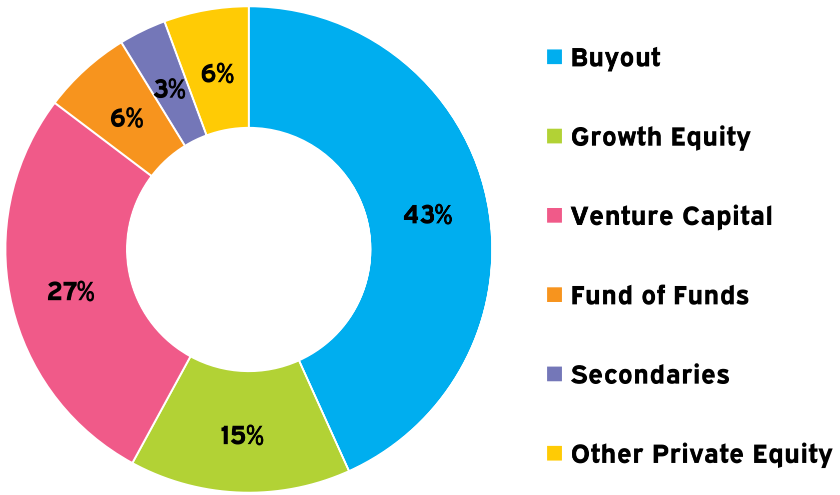
Dry Powder by Fund Type[2]



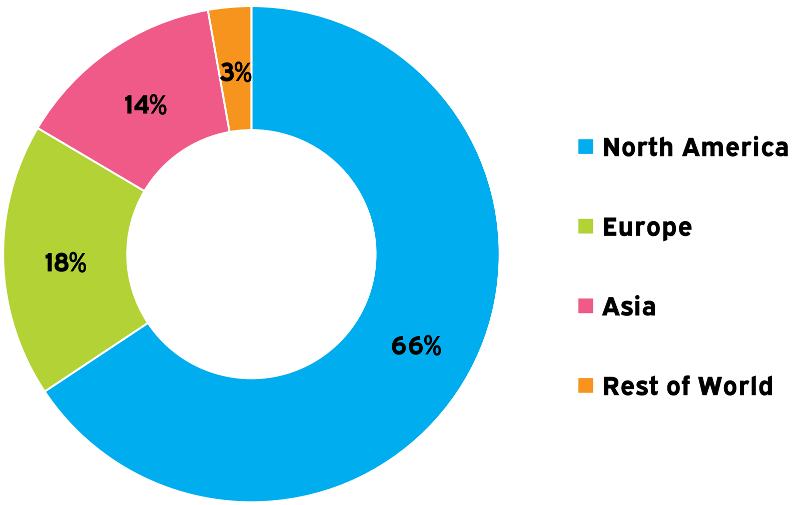
Relative to 2021, the average private equity purchase price multiple has increased from 11.4x EBITDA to 11.8x EBITDA in the first three quarters of 2022. Equity contribution (relative to total purchase price) in the first three quarters of 2022 has remained consistent with 2021 at approximately 49%, indicating that total purchase prices comprise slightly more debt than equity. That said, in the third quarter alone, equity contribution relative to a total purchase price of 11.7x EBITDA was 42%. Dry powder levels have increased by approximately 15% from Q4 2021 (and 11% from Q2 2022) and remain at all-time highs. Dry powder will remain high as long as more capital is being raised than is being deployed, and in the near-term, investors may expect to continue to see high purchase prices as a result of the high levels of capital competing for deals. That said, private equity deal valuation multiples have also experienced downward pressure and started to lower with depressed valuations in the public markets as well as higher interest rates, which have increased borrowing costs.

[1] S&P
[2] Preqin

Capital Raised by Strategy[1]



Capital Raised by Geography[2]



Buyout (43% of all private equity capital raised) and Venture Capital (27%) funds represented the most popular private equity sub-strategies during the third quarter of 2022. Buyout funds increased from 41% of capital raised in Q2 2022 to 43% in the third quarter of 2022, and Growth Equity increased from 14% to 15% of capital raised. Venture Capital strategies, as a percentage of total capital raised, slightly decreased by 1% from Q2 2022. Fund of Funds, Secondaries, and Other Private Equity, which includes co-investment and hybrid vehicles, decreased from 17% to 15%, collectively, through the third quarter compared to the previous quarter.

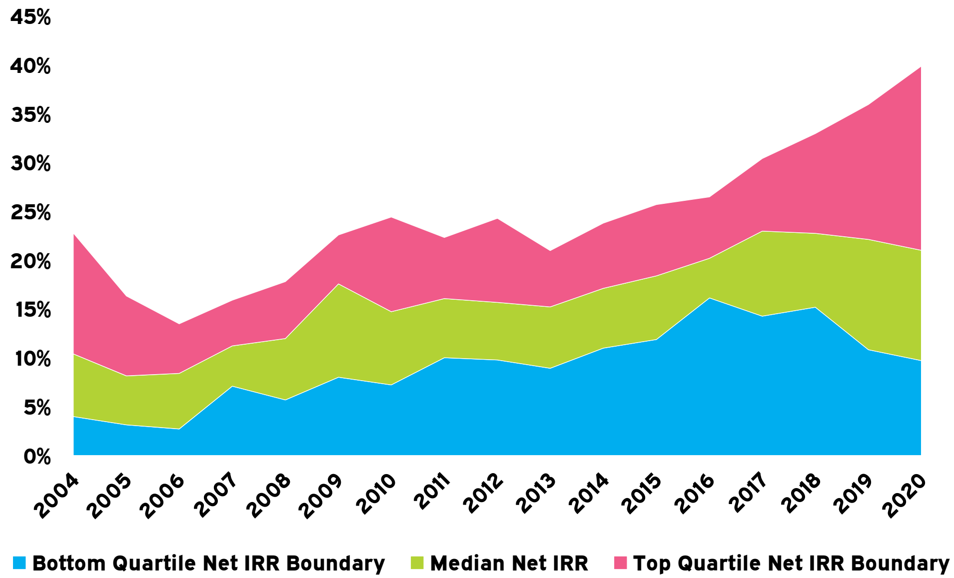
North America-focused vehicles continued to represent the majority of funds raised during the third quarter, representing 66% of total capital. However, this is a decrease from the 75% in the prior quarter. Alternatively, as a percentage of total capital raised, commitments to Europe and Asia increased by 12% and 3%, respectively, during the third quarter. Of note, recent commitments to Asia have primarily comprised Asia-focused regional funds whereas commitments to China-focused funds have dropped, driven by notable risk aversion resulting from China's residential property market and ongoing lockdown measures. Overall, private equity investors continued to favor commitments to North America-focused funds, and investor appetite for Rest of World decreased over the quarter while commitments to Europe- and Asia-focused vehicles increased.

[1] Preqin
[2] Preqin

Private Equity Performance by Horizon[1]

Horizon	Private Equity	Buyout	Venture Capital	Growth Equity
1 Year to 6/2022	14.4%	14.0%	3.9%	4.9%
3 Years to 6/2022	23.3	23.8	21.2	17.1
5 Years to 6/2022	20.8	21.4	19.4	18.2
10 Years to 6/2022	17.6	18.6	15.3	17.0

Private Equity Performance by Vintage Year[2]



As of June 30, 2022, private equity returns weakened significantly, generating a 14.4% IRR over the trailing 12 months through Q2 2022. This represents an ~15% drop from the trailing one-year returns as of Q1 2022, which shows that private equity returns are starting to reflect the decline of valuations observed in the public markets throughout 2022 and the dampening effects of inflationary pressures, rising interest rates, and geopolitical concerns on performance. Returns have decreased significantly across each private equity strategy with Growth funds experiencing the largest drop of 24.4% from 29.3% one-year returns as of Q1 2022 to 4.9% as of Q2 2022. In general, performance has been strong in each vintage year since the Global Financial Crisis. Buyout, Venture Capital, and Growth Equity funds have all generally performed well over the various horizons on an absolute basis, with Buyout funds outperforming Venture and Growth funds across each time period as of Q2 2022. The spread between first and third quartile performance in private equity has grown consistently since the Global Financial Crisis; 2007 vintage funds reported an 8.8% spread while 2020 vintage funds reported a 30.2% spread.

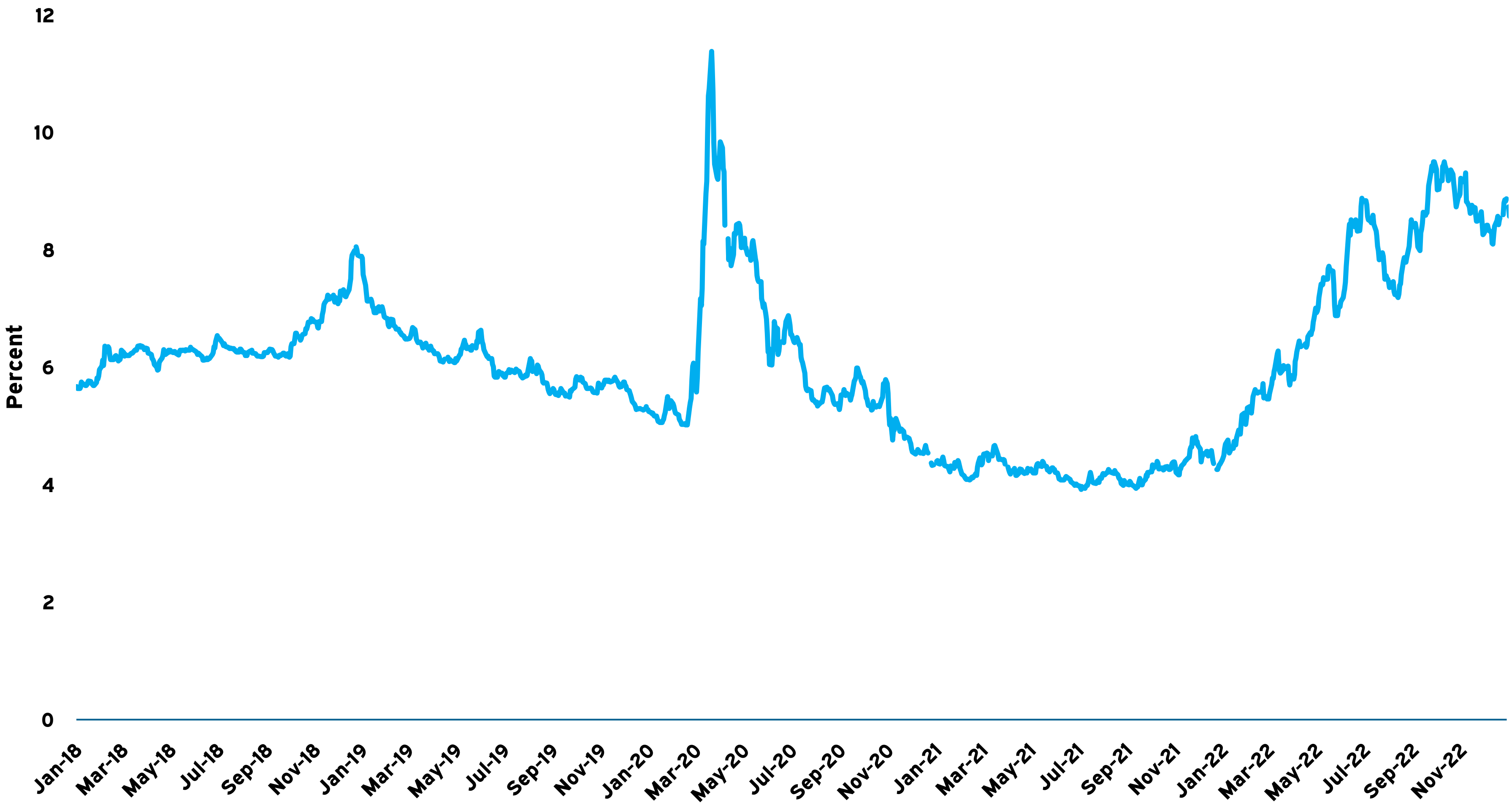
[1] Preqin Horizon IRRs as of 6/30/2022. Data as of 9/30/2022 not yet available.
[2] Preqin, Private Equity – All, Quartile Returns as of 9/30/2022. Data pulled on January 4, 2023.

Credit Market Outlook

As of the end of the third quarter, the bond market was on its way to registering its worst year ever (at least over the last 40-years since the publication of the Bloomberg Aggregate Bond Index) due in no small part to resurgent inflation and the Federal Reserve's seven rate hikes since the beginning of the year. Below investment grade bond yields approached 10% (Chart 1) by quarter end with the spread between lower rated and higher rated credits widening to levels not seen since 2015. Against this backdrop private credit markets experienced bouts of volatility as loans and other liabilities pegged to the Secured Overnight Financing Rate (SOFR) adjusted to the new interest rate regime. Inflation pressures have cooled since the end of the third quarter, but a longer rate hiking cycle is a possibility if inflationary pressures remain entrenched.

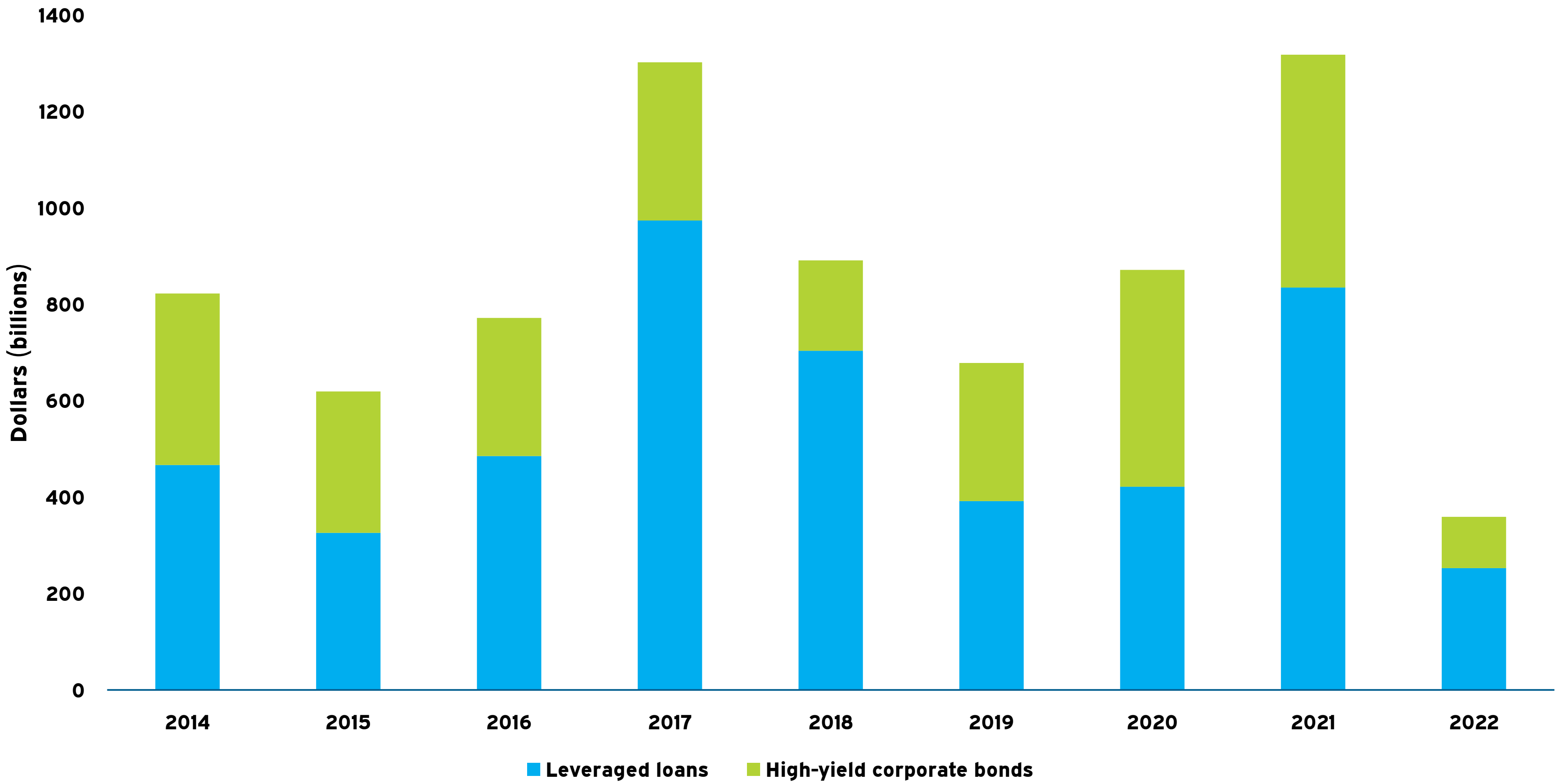
Private credit senior direct lenders reported resiliency in their loan portfolios with few issuers moved to internal "watch" or non-accrual lists. This denotes strength in the near term but highlights the importance of credit selection and underwriting for the coming year when the full brunt of interest rate hikes will come to bear. The pull back of banks from the broadly syndicated loan market has resulted in the lowest issuance levels seen in more than a decade (Chart 2), providing a tailwind for the shift away from public to private credit markets.

Chart 1: ICE BofA US High Yield Effective Yield[1]



[1] Source: FRED

Chart 2: Issuance of new leveraged loans and junk bonds in the US, by year[1]

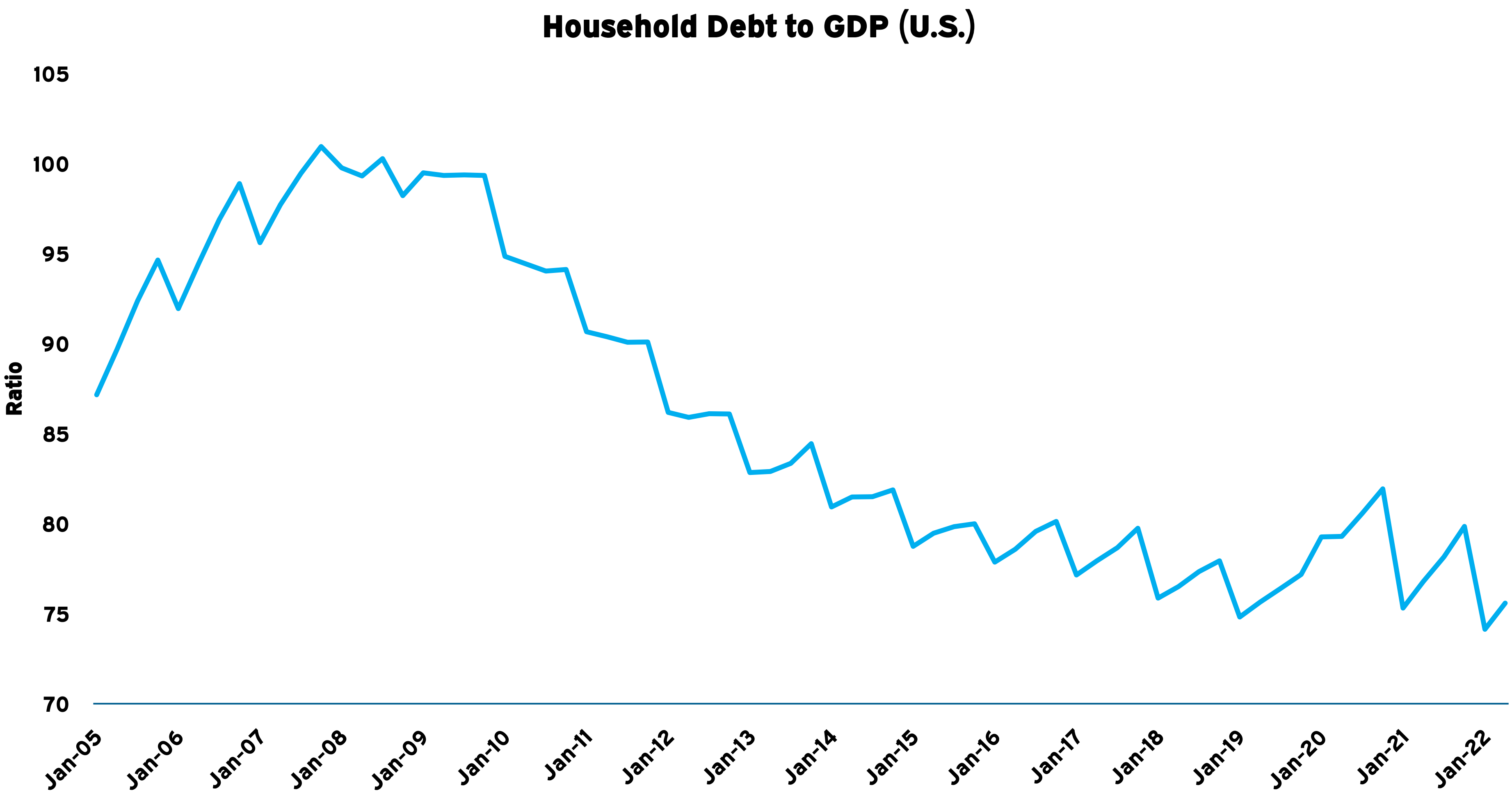


[1] Source: JP Morgan

Consumer Central to Upside and Downside Scenarios

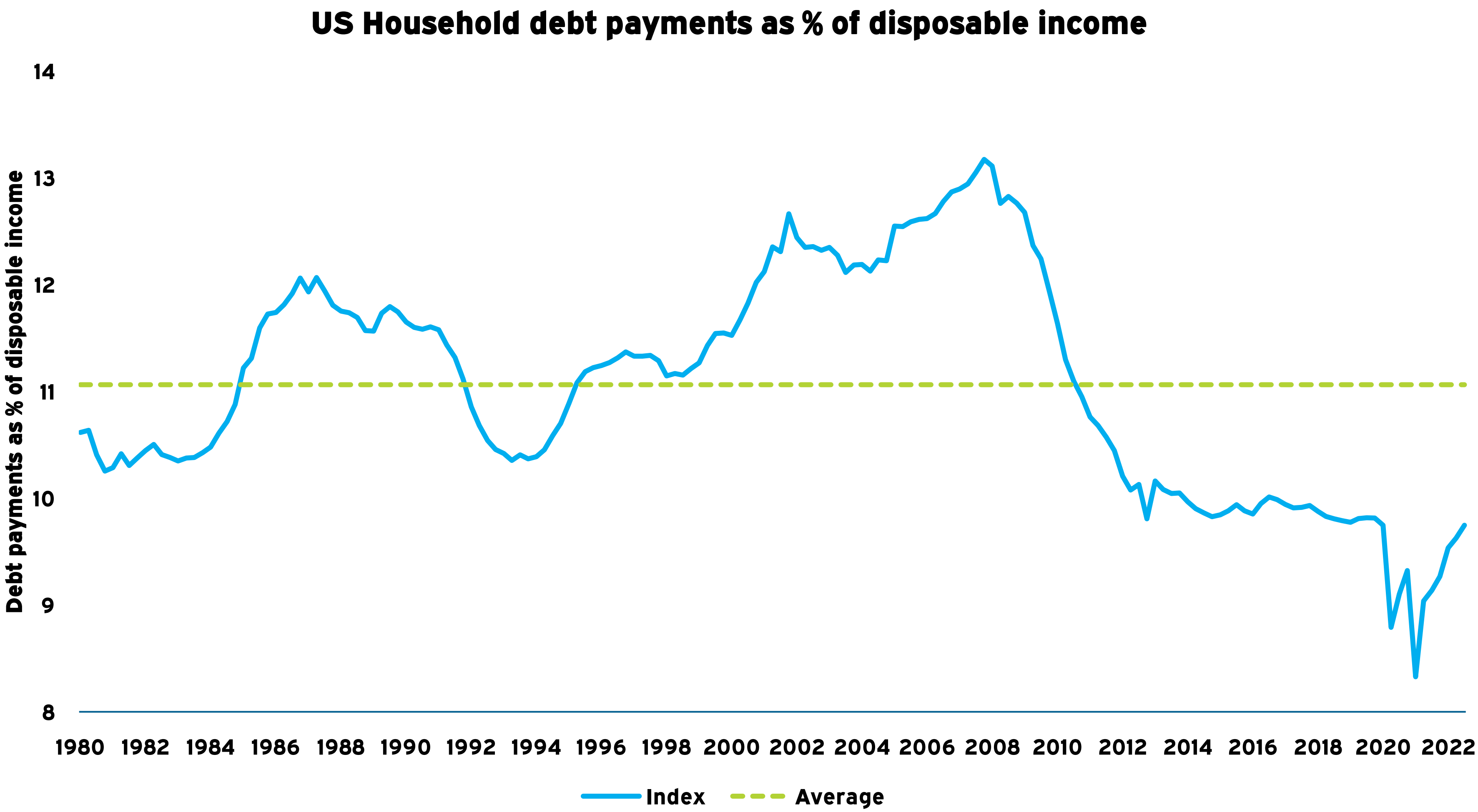
With uncertainty surrounding the future direction of the Federal Reserve and the economy, private credit markets offer several pockets of strength starting with the ability to access the consumer through asset-based lending. Asset based lending describes loans underwritten against a broad range of collateral types many of which are more closely tied to consumer spending (and necessities) such as real estate, mortgages, auto loans and student loans. These assets also provide diversification from middle market direct lending which is more closely tied to company valuations. While the domestic unemployment rate is effectively unchanged from the third quarter, registering 3.7% in November 2022, it is likely to increase in a weakening economy. However, U.S. households are entering this weaker economic period with relatively healthy balance sheets (Chart 3, Chart 4).

Chart 3: U.S. Household Balance Sheets[1]



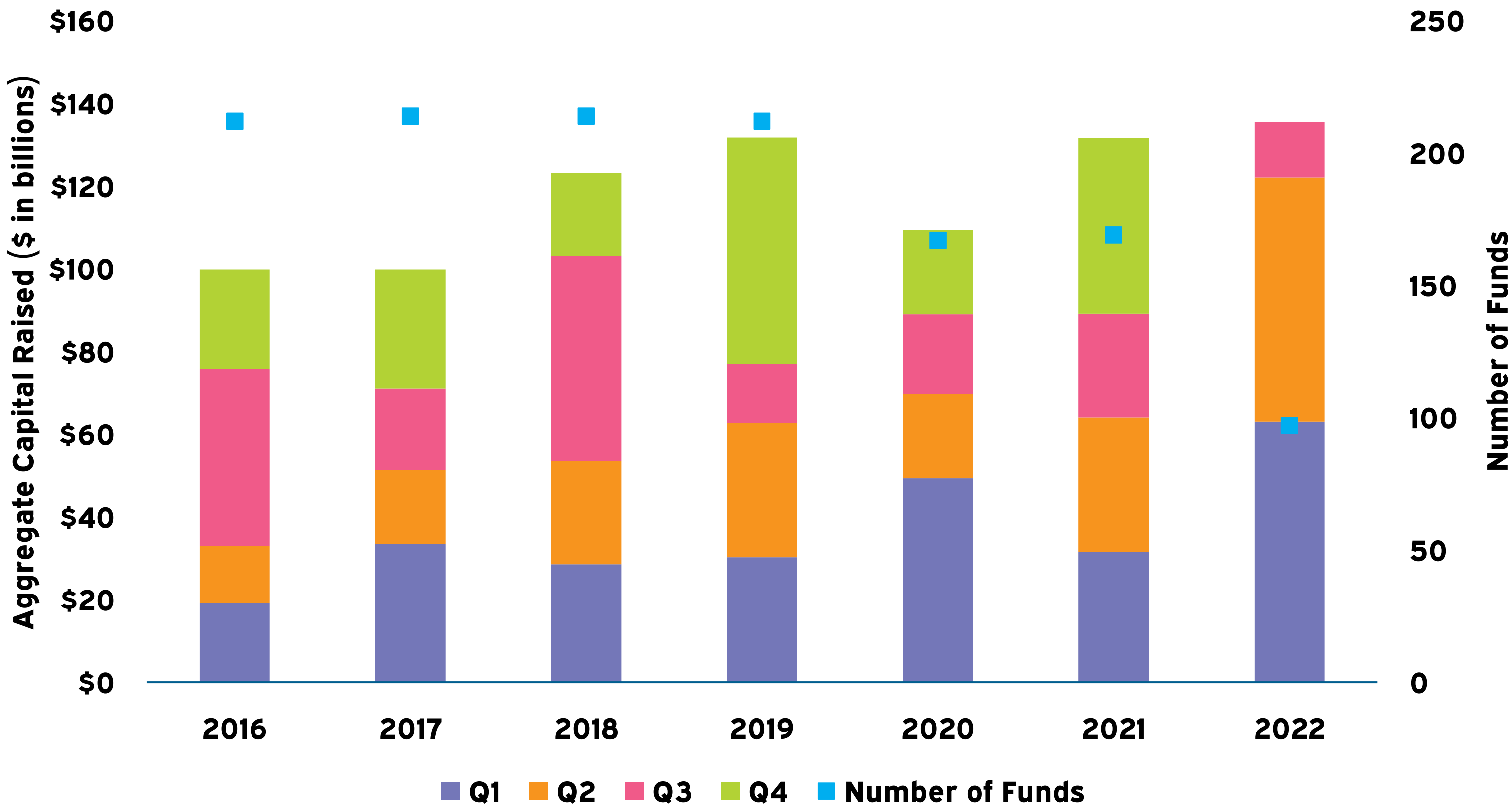
[1] Source: FRED Economic Data St. Louis Fed

Chart 4: Household Debt Service Coverage[1]



[1] Source: FRED

Global Quarterly Unlisted Natural Resources Fundraising[1]



During the third quarter, $13 billion was raised across 24 funds with the average fund size raised at $0.6 billion of commitments. After two straight quarters of approximately $60 billion of fundraising, the third quarter slowed to $13 billion. Activity through the third quarter of 2022 has already exceeded all of 2021 with a significantly smaller number of funds. The average fund size raised in 2022 has been $1.4 billion versus $0.8 billion average in 2021.

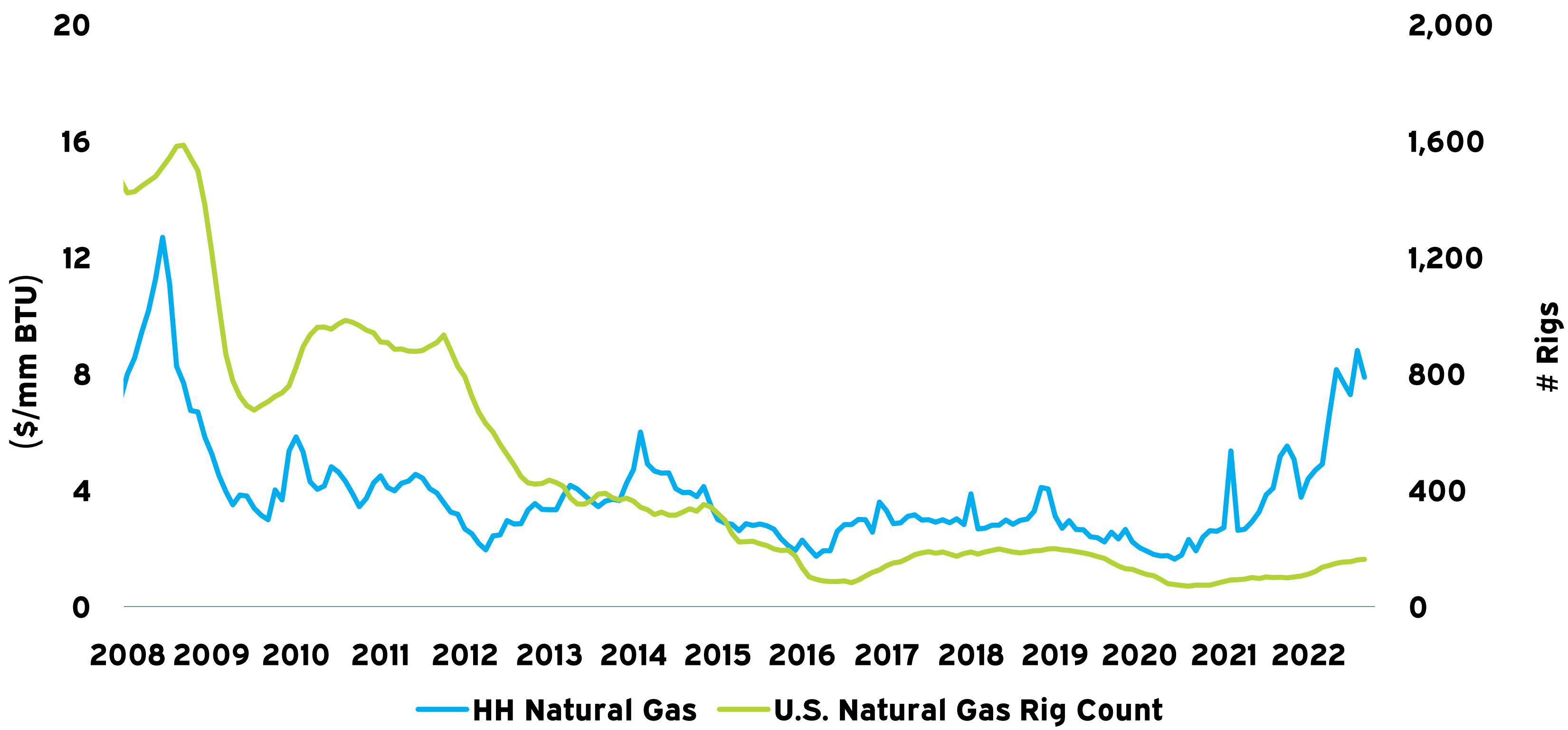
[1] Source: Preqin Private Capital Fundraising Update, 3Q 2022.

Oil Price vs. Active US Rigs[1]

Despite the ongoing conflict between Russia and Ukraine and the resulting supply uncertainty to global energy, oil prices dropped during the third quarter. China's restrictive zero-COVID policy continued to weigh on global demand, in addition the strong U.S. dollar. WTI ended the quarter down 27% at $84 per barrel while Brent ended down 25% at $90 per barrel. However, relative to one year prior, WTI and Brent prices were 18% and 20% higher, respectively. The number of rigs increased by 191 from one year prior to a total of 598. The U.S. produced approximately 12.3 million boepd in September 2022. While gasoline prices for regular blend in the U.S. dropped 24% to an average of $4.00 per gallon, they are still up 22% from one year prior.

[1] Source: EIA and Baker Hughes.

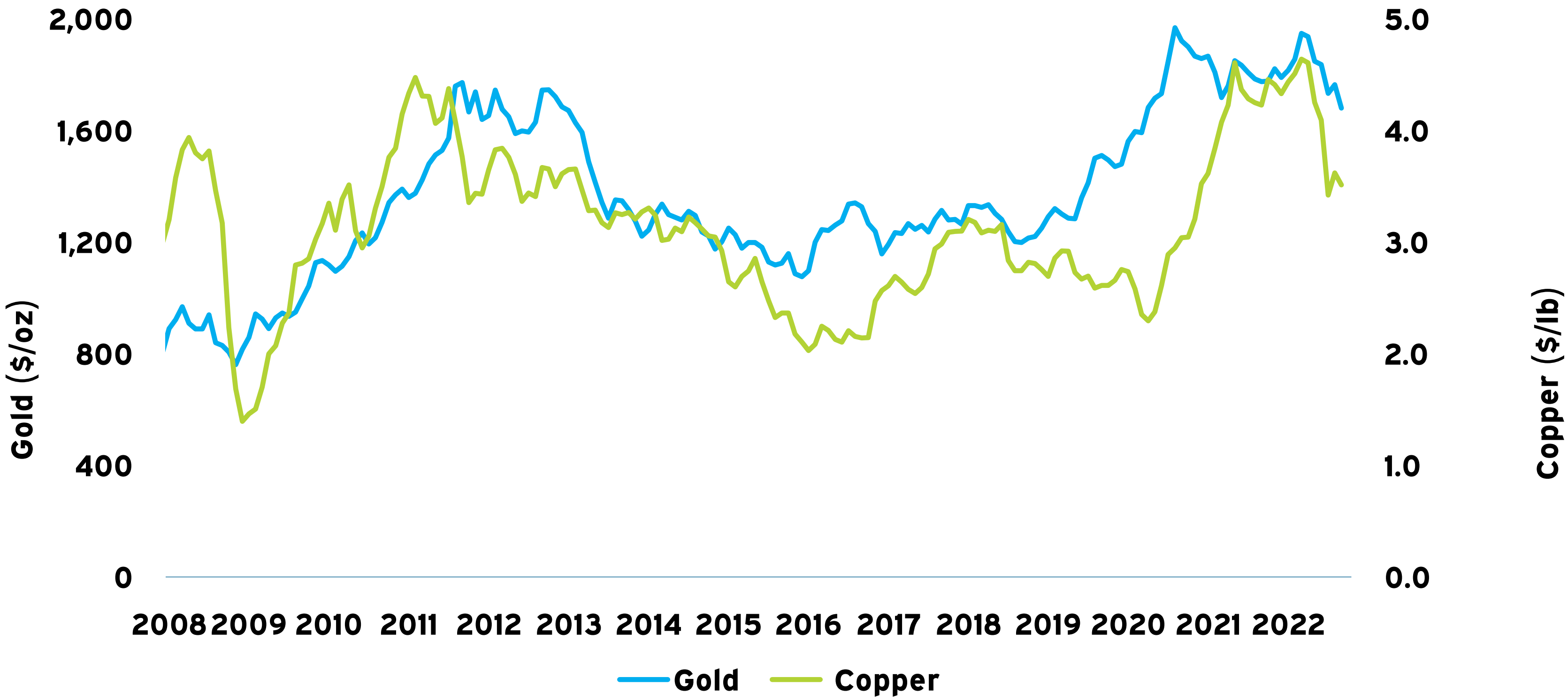
Natural Gas Price vs. Active US Rigs[1]



European countries, highly dependent on Russian oil and natural gas, are exploring various near-term options, including the restart of coal and nuclear power plants, to help build natural gas inventories for the upcoming winter season. Longer term, more LNG import terminals are likely to be constructed. Henry Hub gas prices ended the quarter at $7.88/mm BTU, a quarterly and annual increase of 2% and 53%, respectively. The U.S. natural gas rig count increased by nine to 162 during the quarter. The U.S. produced a record 111.6 billion cubic feet of natural gas per day in August 2022.

[1] Source: EIA and Baker Hughes.

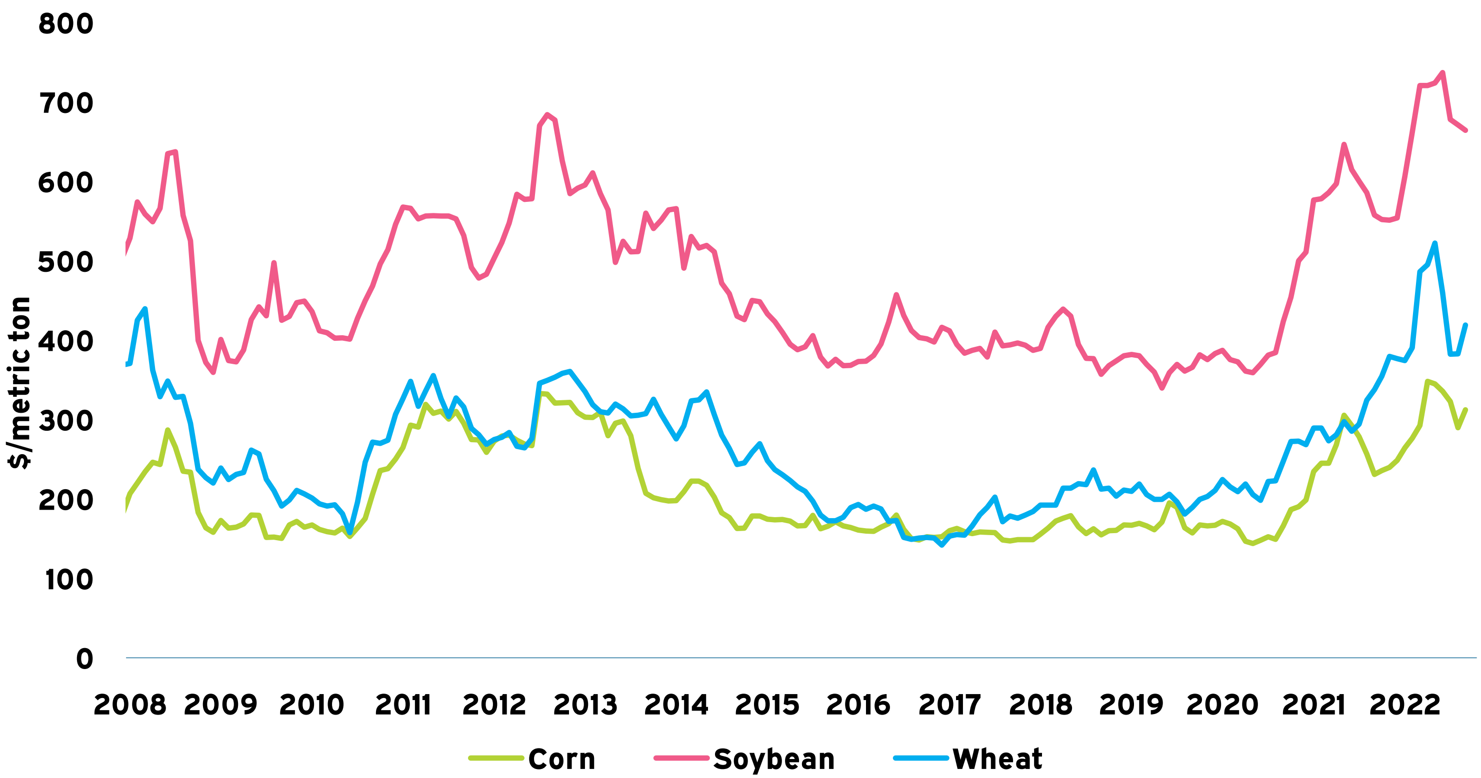
Metals Prices[1]



Global recessionary fears contributed to a continued decrease in metal prices during the third quarter. Copper prices fell 14% during the quarter while gold was down 8%. Longer term, metals and minerals used in batteries for electric vehicles, renewable energy projects, infrastructure development, and commercial energy storage projects should result in robust demand.

[1] Source: World Bank

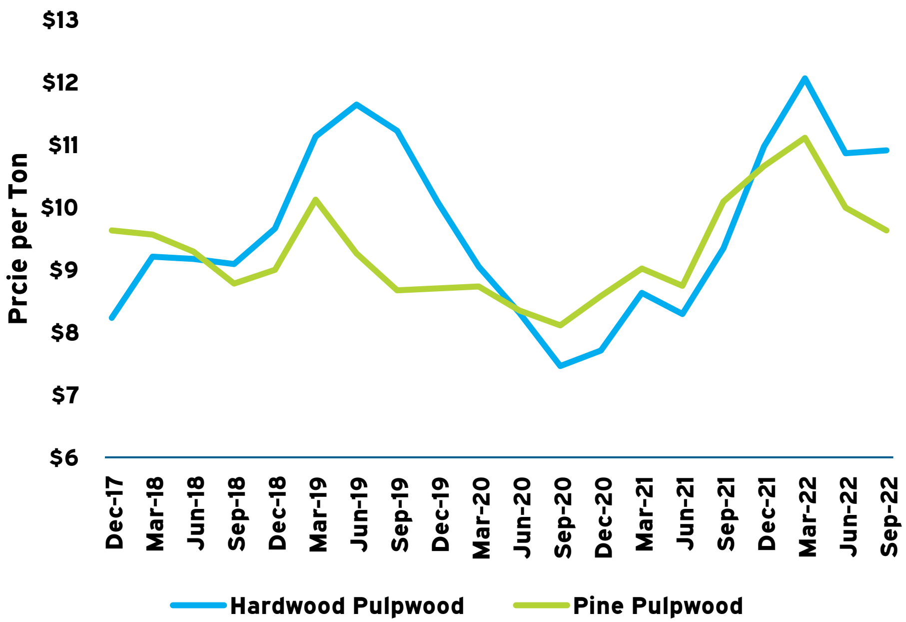
Wheat, Corn, and Soybean[1]

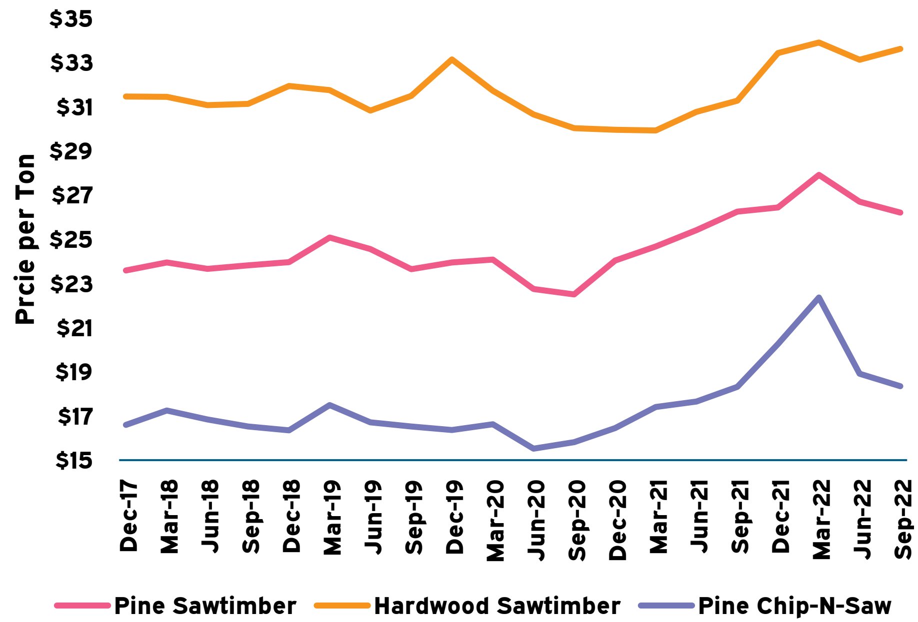


In 2022, heat, frost, and droughts impacted crop production and yields across the U.S., particularly permanent crops along the West Coast. During the quarter, wheat, corn, and soybean prices were down 9%, 7%, and 10%, respectively. Relative to one year prior, they were up 24%, 35%, and 19%, respectively. The NCREIF Farmland index increased by 2.0% during the quarter driven by income returns of 0.8% and appreciation of 1.2%.

[1] Source: World Bank

U.S. South Timber Prices[1]

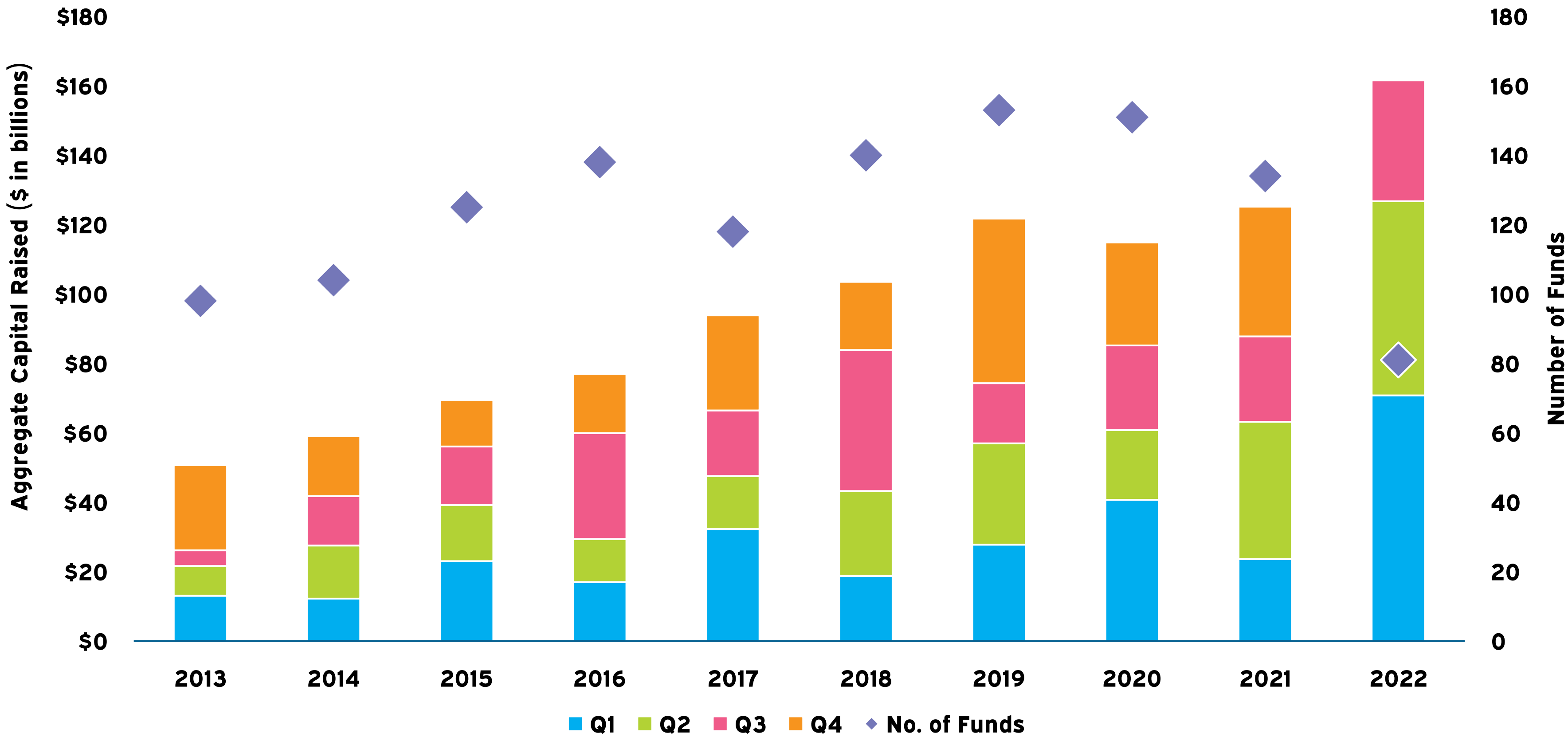




U.S. South average timber prices for pulpwood, sawtimber, and chip-n-saw were all down during the third quarter 2022 except for hardwoods. This is the second straight quarter of decreasing prices after an upward trend over the previous two years. Pulpwood has experienced more volatility than sawtimber since 2017 and saw decreases of 4% in both pine pulpwood. Pine Chip-N-Saw had the largest decrease during the third quarter at 3.0%. The NCREIF Timberland index increased by 2.4% during the quarter driven by income returns of 0.7% and appreciation of 1.7%.

[1] Source: Bloomberg and TimberMart South

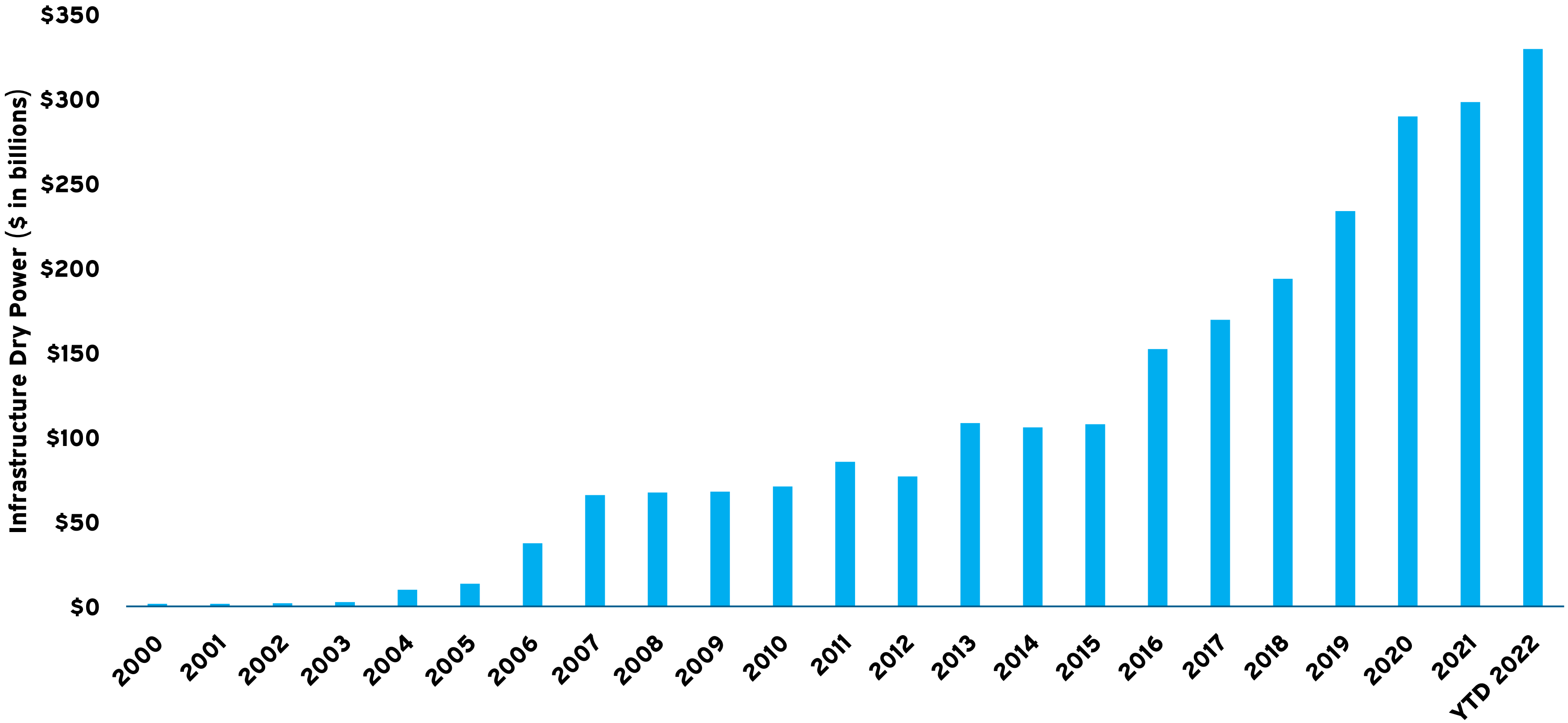
Global Quarterly Unlisted Infrastructure Fundraising[1]



Through three quarters of 2022, infrastructure has already raised more capital than any other full year in the past decade. This capital was raised by a significantly smaller number of funds totaling 81 partnerships averaging $2 billion per fund. This was an increase over the 2021 average of $1.0 billion per fund.

[1] Source: Preqin 3Q 2022.

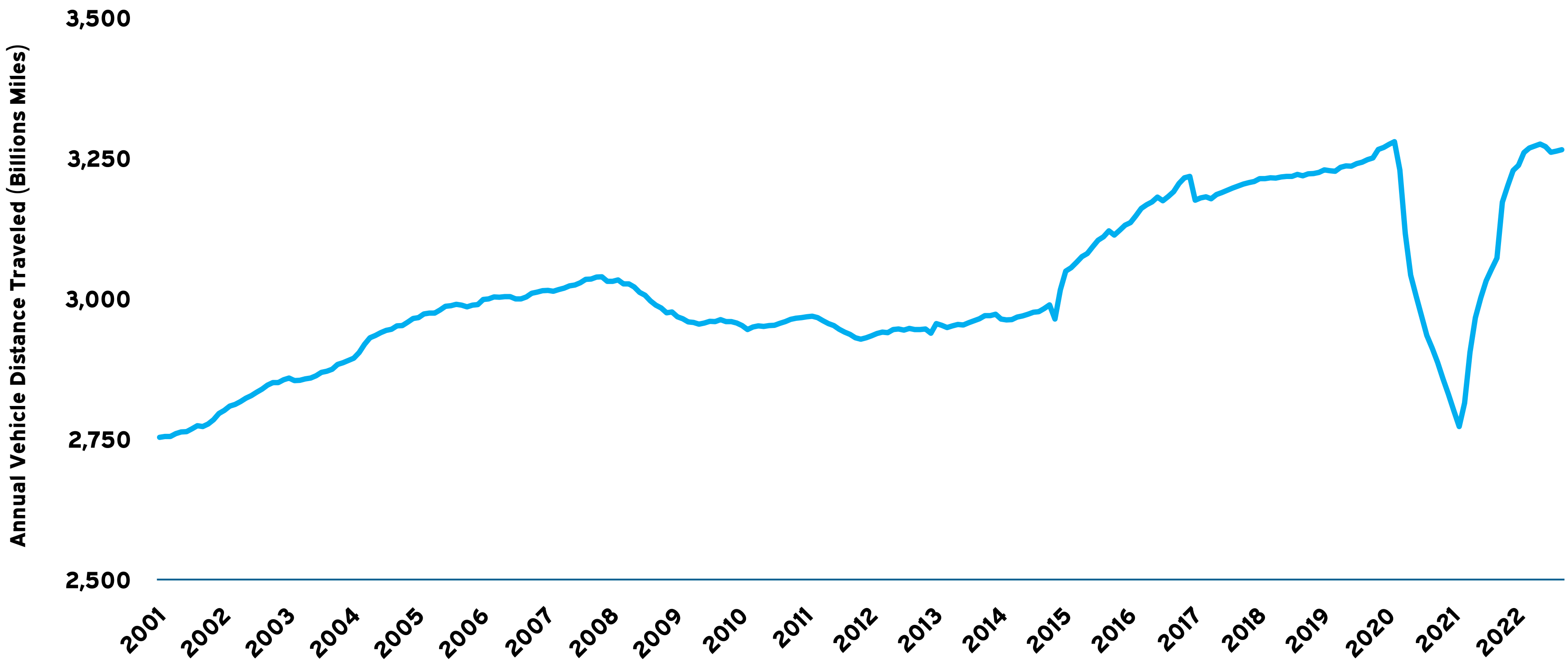
Global Infrastructure Dry Powder[1]



Infrastructure dry powder remains at an all-time high, with an increase year-over-year since 2015. The early days of the asset class are evident in the sub-$50 billion levels until 2006, after which levels stayed between $50 billion and $100 billion until they reached $150 billion in 2016. After that, the level began to climb to the over $300 billion today.

[1] Source: Preqin Dry Powder downloaded October 2022.

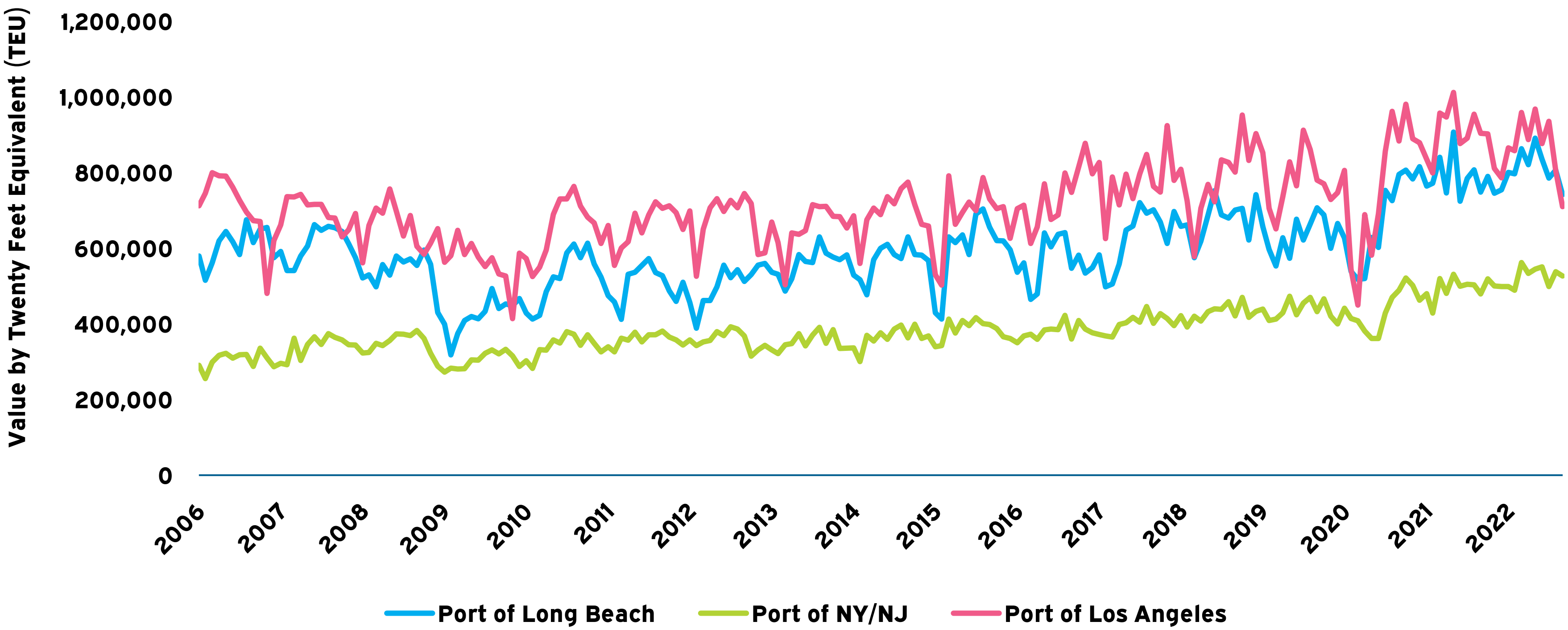
Trailing 12-month Annual Vehicle Miles on All US Roads[1]



The third quarter continued post-pandemic travel recovery with a total of approximately 857 billion miles. This represented a slight decrease of negative 0.6% over the same period in 2021. The trailing 12-month travel mileage is effectively back to where it was pre-COVID, indicating a welcome and positive return to movement as COVID-19 restrictions loosened and people continue going back to offices, etc. The third quarter continued to show an increase in the US price of a gallon of gas, which steadily increased to an average price of $4.00 per gallon. This compares to $3.09 per gallon average in 2021.

[1] Source: US Department of Transportation, Federal Highway Administration: Office of Highway Policy Information.

US Port Activity – Container Trade in TEUs[1]

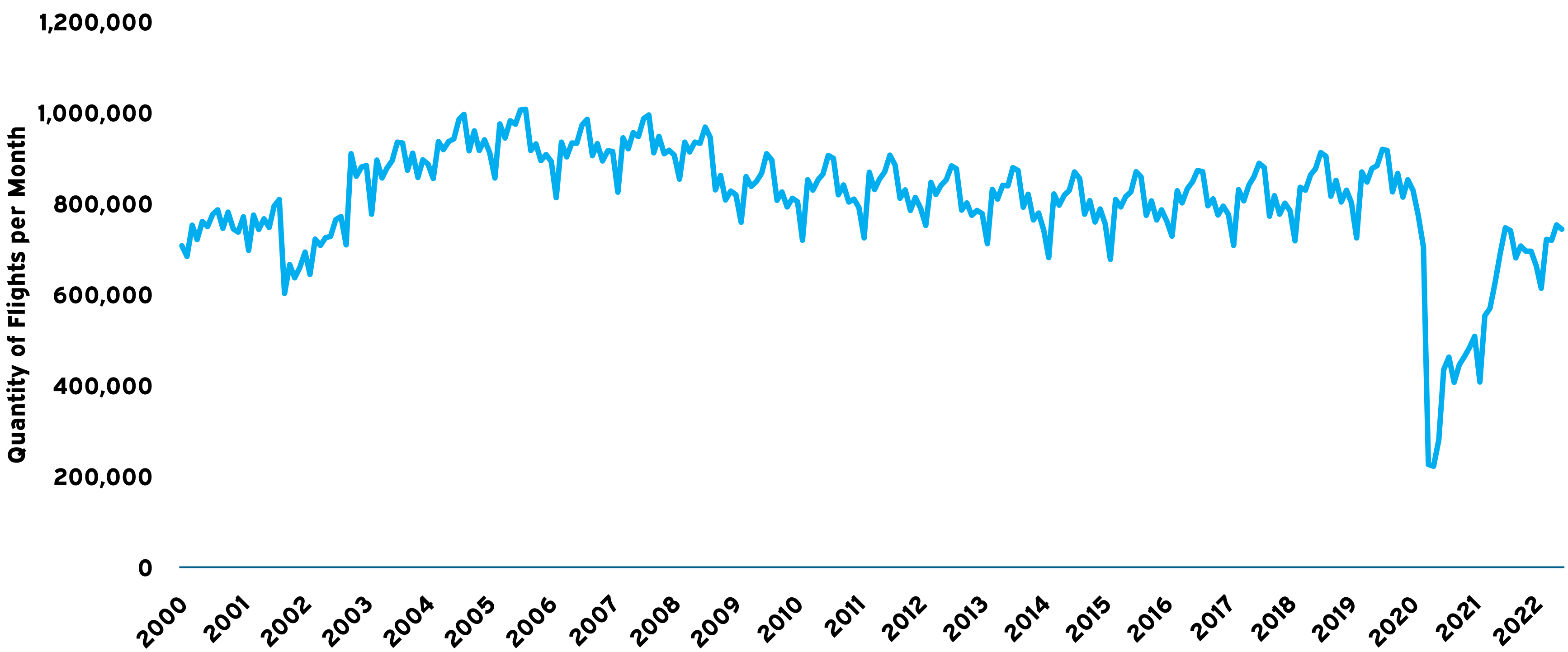


The chart presents the top three US ports by container volume, as measured by twenty-foot equivalent units (TEU). Activity at the three ports provides a high-level representation of the volume at US ports more broadly.

During the third quarter, volumes at the three ports decreased by 0.2 million units relative to the same period in 2021. On a year-over-year basis, the combined port volumes decreased by 0.1 million TEUs, or -0.3%, over the prior 12-month period. The Port of Long Beach recorded an increase of 1.4% (0.1 million TEUs), the Port of NY/NJ reported an increase of 5.9% (0.3 million TEU), and the Port of Los Angeles recorded a decrease of 5.1% (0.6 million TEUs) over the prior 12 months.

[1] Source: www.polb.com, www.panynj.gov, and www.portoflosangeles.org.

Total US Domestic and International Flights[1]

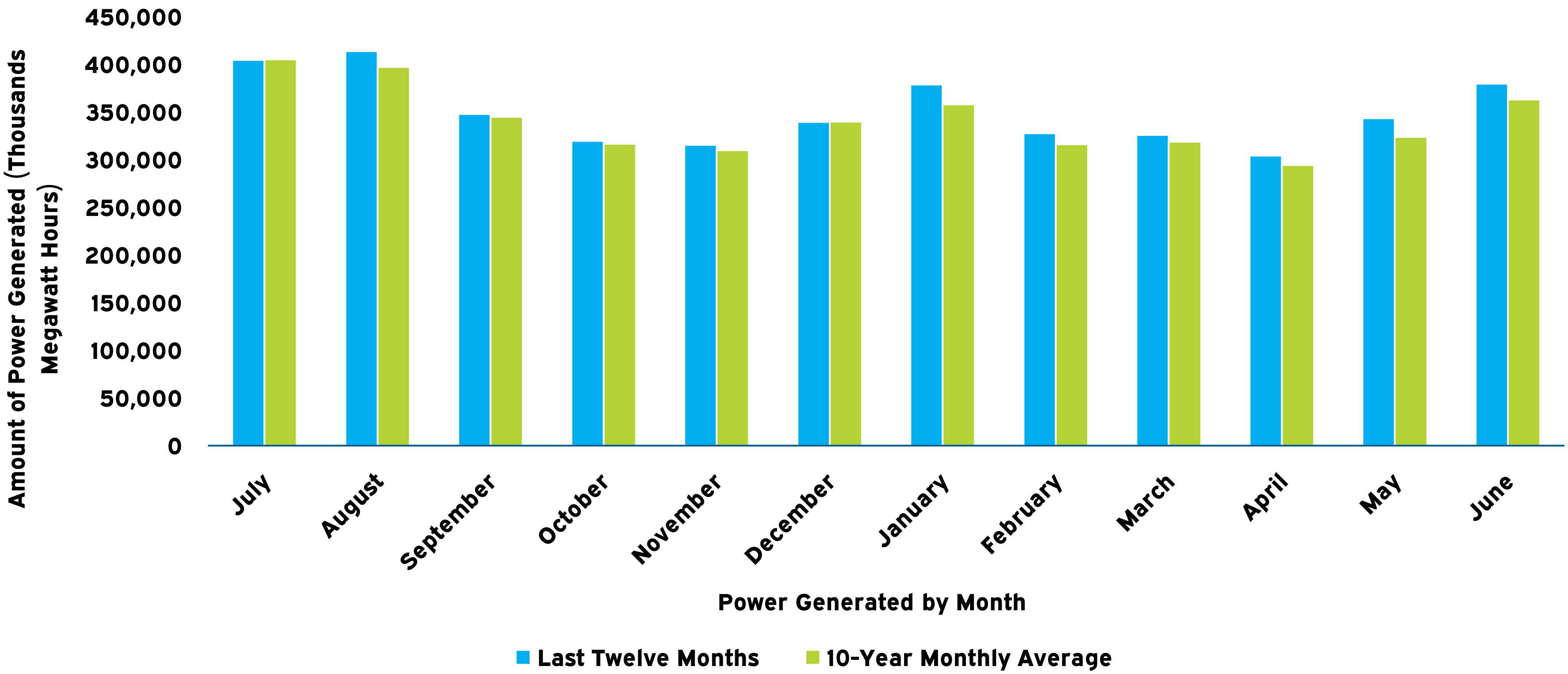


The chart above presents all US domestic and international flights, excluding foreign point-to-point flights by month. Historically, air traffic is cyclical with peaks in the summer months and troughs in the winter months.

There were 0.1 million more flights during the third quarter of 2022 over same period in 2021, representing a 6% increase. In addition to the number of flights, the total number of passengers travelling on US and international airlines increased by 53% for the 12 months ended September 2022 over the prior 12 months.

[1] Source: Bureau of Transportation Statistics: Flights, All US, and Foreign Carriers.

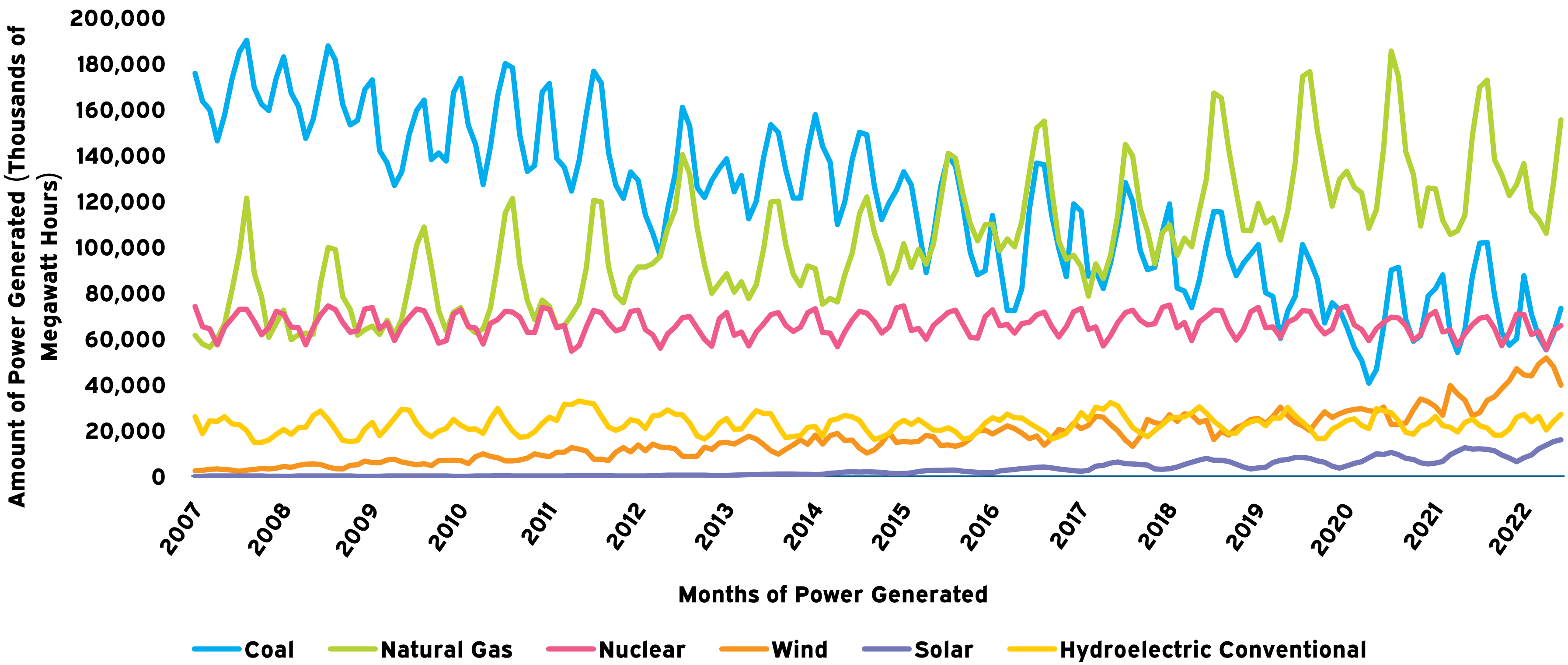
Total US Power Generation[1]



The graph above presents the total net generation for the past 12 months compared to the 10-year average for each month. Net energy generation in the US increased by 1.8% during the second quarter, compared to the same period in 2021.

[1] Source: US Energy Information Administration: Electric Power Monthly, September 2022.

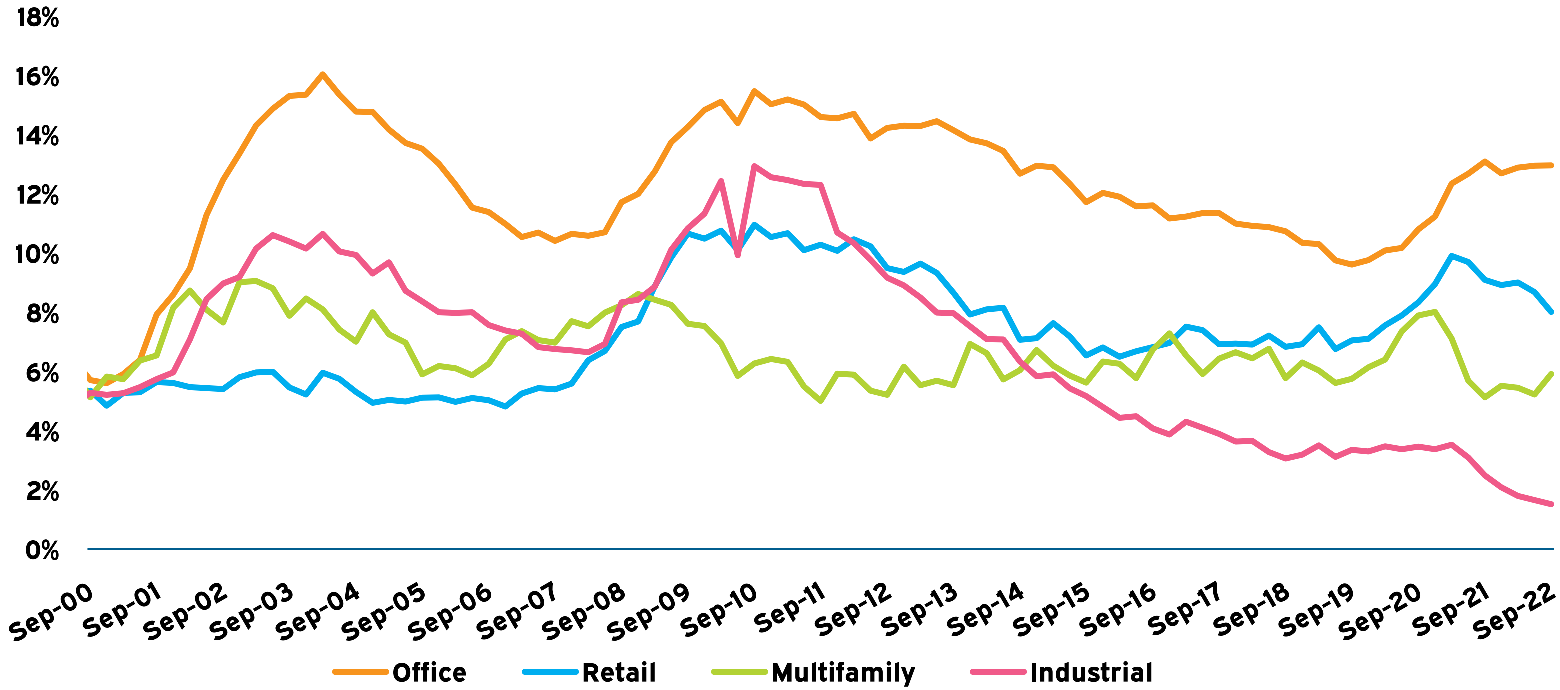
US Power Generation by Source[1]



In the third quarter 2022, total US power generated increased by 2% over the same period in 2021 with the largest increase from the renewable sources and natural gas. Wind and utility-scale solar continue to make up a small portion of total net energy generation in the US, accounting for only 12% and 3% of energy generation, respectively. Natural gas, coal, and nuclear accounted for 40%, 20%, and 18%, respectively. However, the growth of wind and solar as sources of energy generation continues to increase at a faster rate than coal and natural gas, especially over the last several years.

[1] Source: US Energy Information Administration: Electric Power Monthly, September 2022.

Real Estate Fundamentals
Vacancy by Property Type[1]



In the third quarter of 2022, vacancy rates increased slightly for multifamily, while vacancy rates for retail and industrial decreased. Office vacancy remained flat quarter-over-quarter. Retail saw the largest decrease in vacancy rates, moving down 68 basis points in Q3. Multifamily vacancies increased 69 basis points in Q3 2022, and industrial vacancies fell another 14 basis points to set a new all-time low at 1.5%. Office vacancies increased slightly by 2 basis points in Q3 2022 to remain at 13.0%. Compared to one year ago, vacancy rates in industrial decreased 97 basis points, retail decreased 109 basis points, multifamily increased 79 basis points., and office decreased 13 basis points. Overall, the vacancy rate across all property types decreased 65 basis point from Q3 2021.

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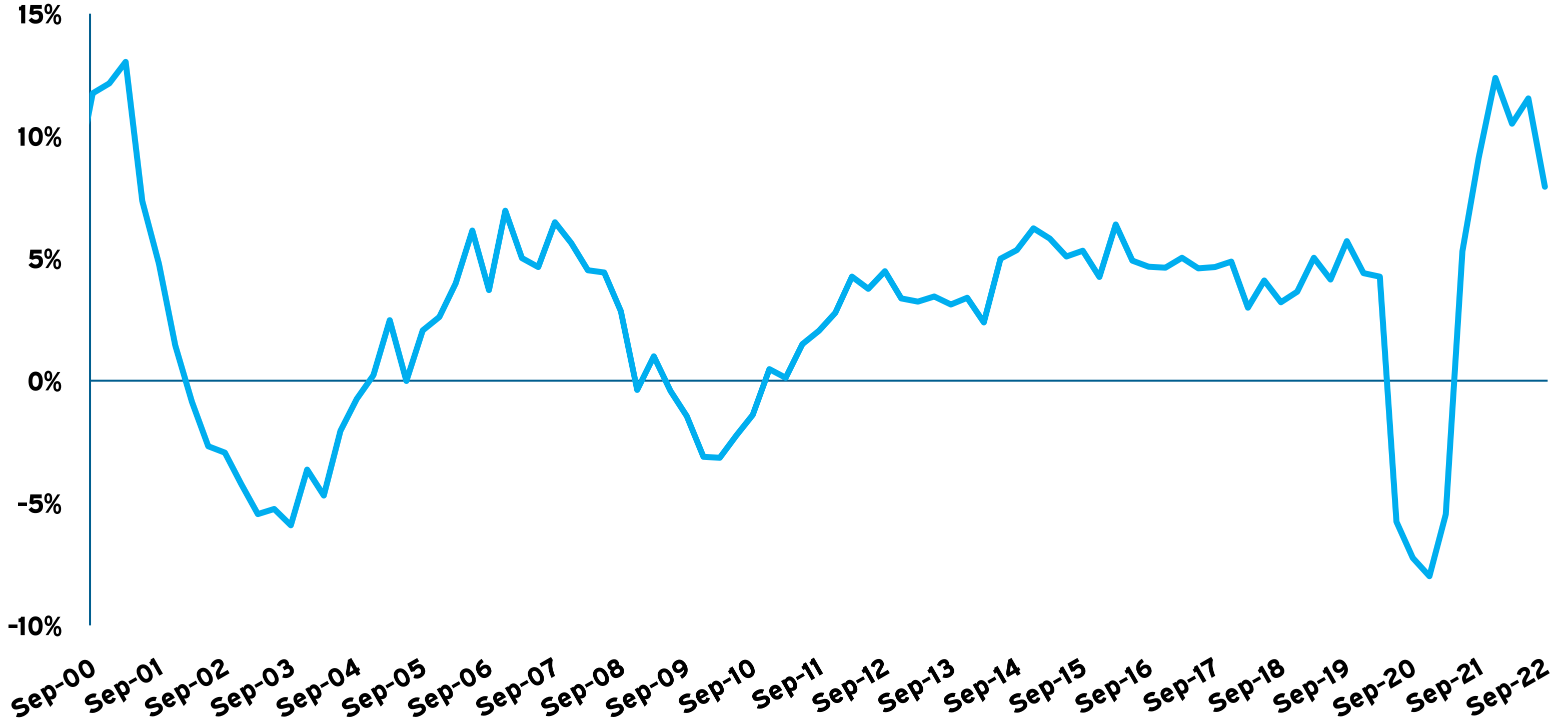
[1] Source: NCREIF

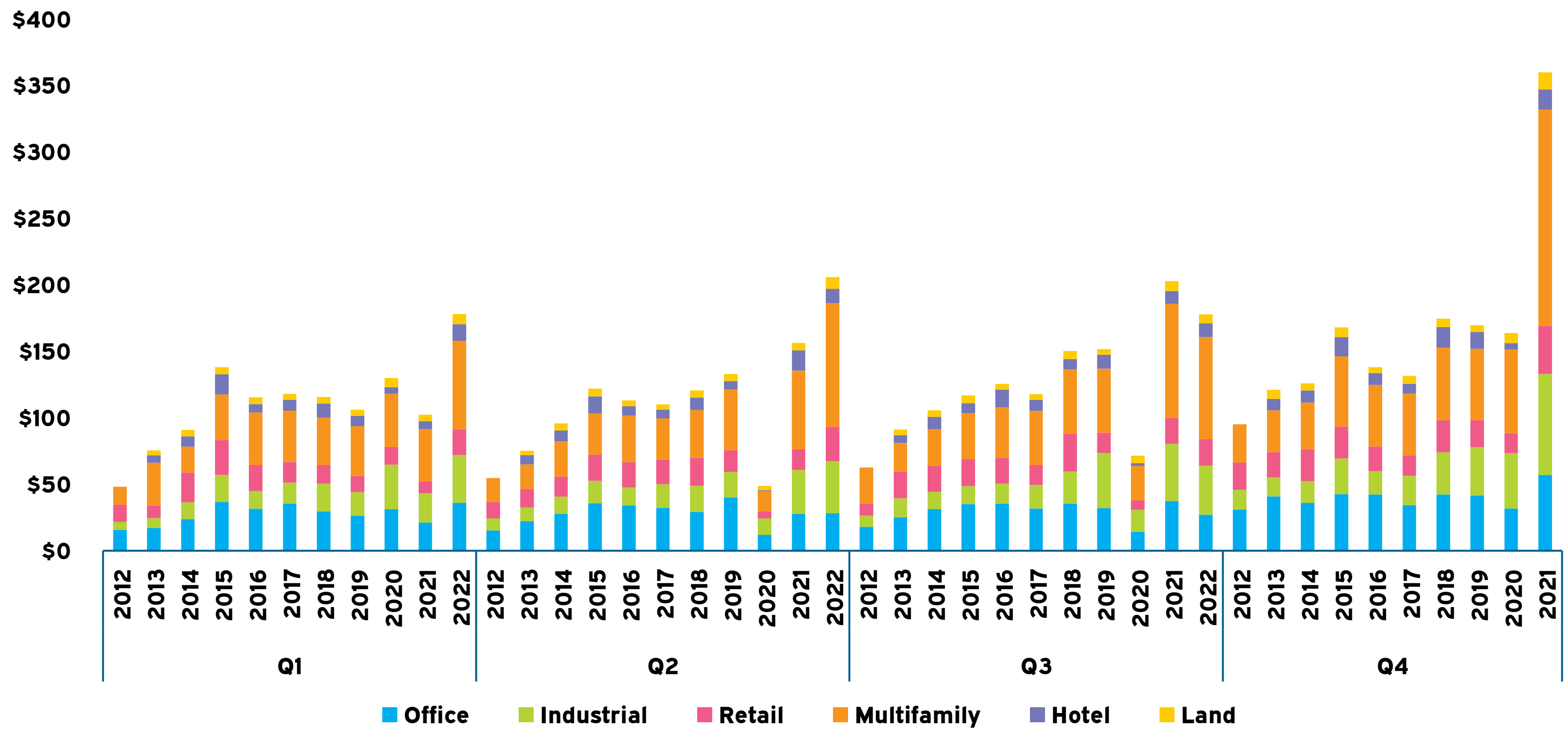
NOI Growth[1]



The trailing twelve-month rate of NOI growth decreased in Q3 2022 to 7.9%. Resilient demand and near immediate take-up of new supply in the industrial sector underpinned the continued NOI growth. Industrial NOI growth is trending at 13.6% for the trailing year ending Q3 2022. Office NOI growth has moved back to negative territory to -0.8% year-over-year, and Apartment NOI (a sector with "gross" rents, compared to "net" rents in other property types) experienced positive NOI growth at 17.6% year-over-year as occupancy levels and rental rate growth remained strong. Retail NOI growth moderated, now at 4.1% year-over-year.

[1] Source: NCREIF

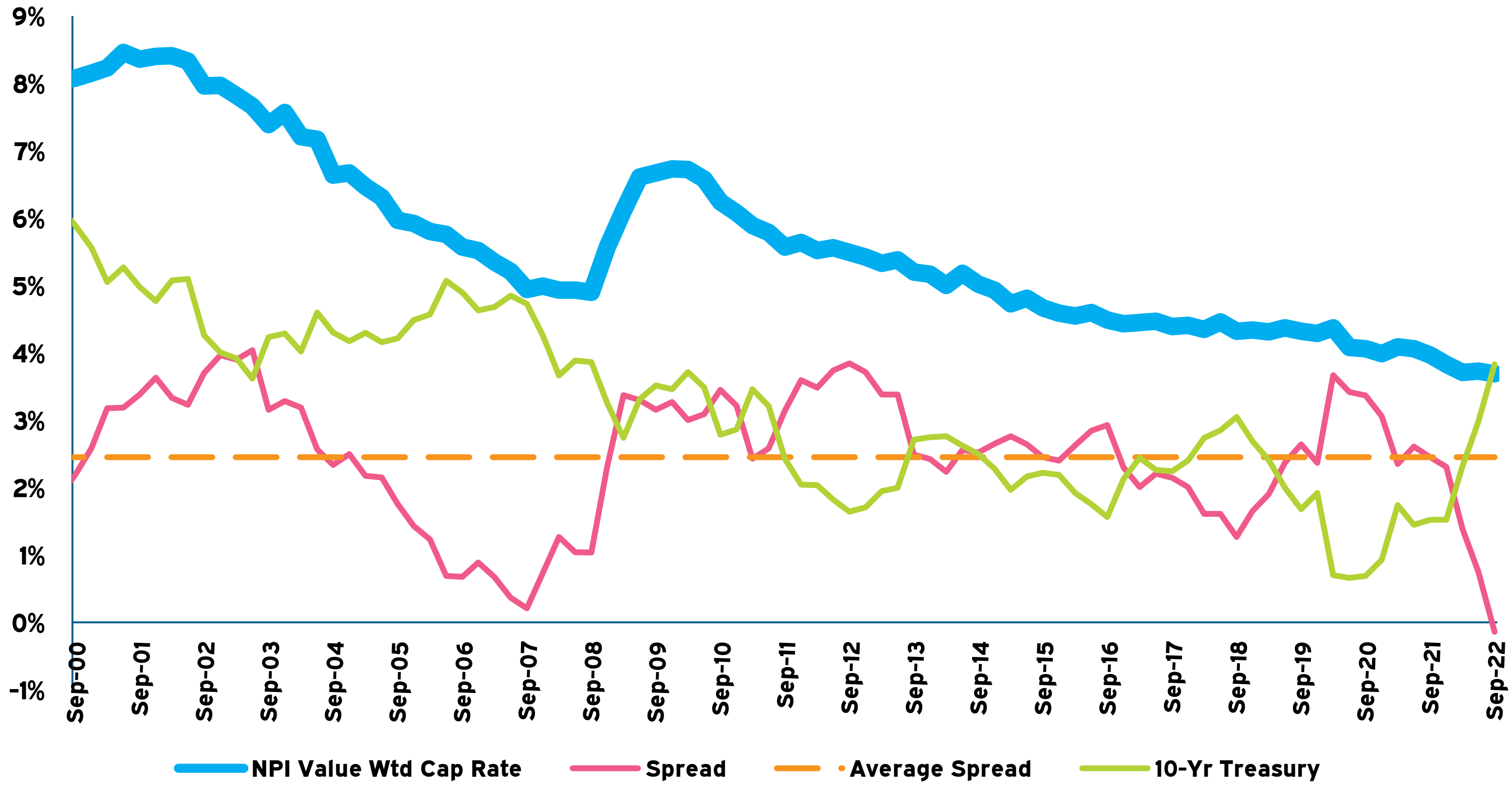
Transaction Volume ($bn)[1]



Private real estate transaction volume for properties valued over $2.5 million for Q3 2022 was down from Q3 2021 to $178 billion. Compared to a year ago, most property types saw decreases in transaction volume: office (-28%), multifamily (+10%), land (+9%), and industrial (+14%). Retail transaction volume increased slightly by 2%, and hotel transaction volume was up 6%. Multifamily and industrial properties made up the largest percentages of total transaction volume during the quarter, at 43% and 21%, respectively.

[1] Source: PREA

Real Estate Capital Markets
Cap Rates vs. 10-Year Treasury[1]



The NPI Value Weighted Cap Rate was unchanged in Q3 2022 at 3.7%. The 10-year Treasury yield increased by 85 basis points in Q3 2022 to 3.8%. The spread between cap rates and treasury yields (-14 basis points) is now negative for the first time since 1991 and is well below the long-term average spread of 249 basis points.

[1] Source: NCREIF and US Department of the Treasury

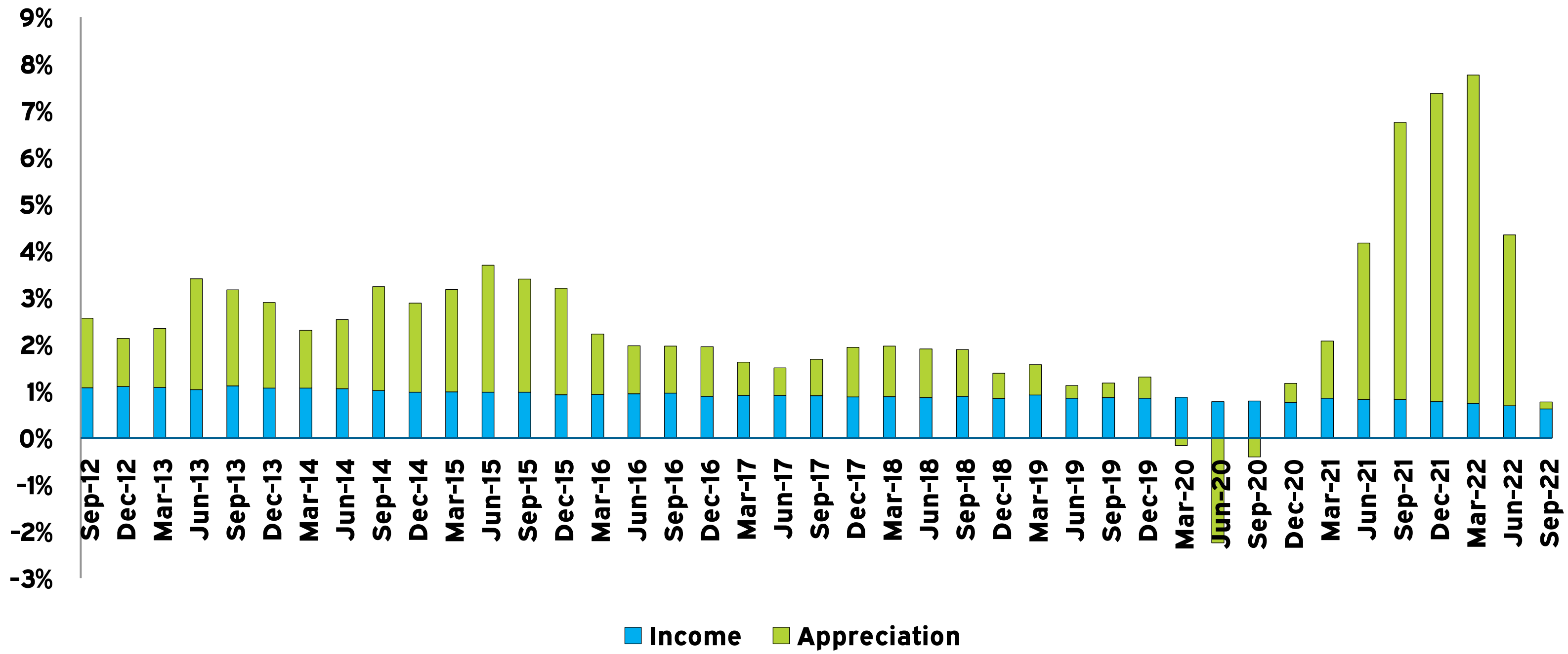
Trailing Period Returns[1]

As of September 30, 2022	1 Year	3 Years	5 Years	10 Years
NFI-ODCE (EW, net)	21.7%	12.1%	9.9%	10.3%
NFI-ODCE (VW, net)	21.0	11.4	9.3	9.9
NCREIF Property Index	16.1	9.9	8.6	9.5
NAREIT Equity REIT Index	-16.3	-1.1	4.0	7.0

Private real estate indices were slightly positive in Q3 2022 and continue to be positive over the 1-year, 3-year, 5-year, and 10-year time horizons. The NFI-ODCE Equal Weight Index posted a weaker return in Q3 2022 of 0.8%, however private core real estate continues to vastly outperform the public index over the trailing one-year period. Indeed, private core real estate has outperformed the public index for all periods presented. Public real estate performance continues to be volatile, returning -10.8% in Q3 2022, after posting a 16.2% return in Q4 2021.

[1] Source: NCREIF

ODCE Return Components [1]
(Equal Weight, Net)



The NFI-ODCE Equal Weight return in Q3 2022 moderated significantly, producing a 0.8% net return for the quarter. This represents a significant decrease from Q1 2022's record setting return of 7.8%. Small upward adjustments to the discount rate, used in valuations to reflect increasing interest rates and the cost of debt financing, chipped away at the appreciation component of returns. The income component of the quarterly return has slowly decreased over time, now at 0.6% for Q3 2022.

[1] Source: NCREIF

Below are details on specific terminology and calculation methodologies used throughout this report:

Committed	The original commitment amount made to a given fund. Some funds may be denominated in non-USD currencies, and such commitment amounts represent the sum of fund contributions translated to USD at their daily conversion rates plus the unfunded balance translated at the rate as of the date of this report.
Contributed	The amount of capital called by a fund manager against the commitment amount. Contributions may be used for new or follow-on investments, fees, and expenses, as outlined in each fund's limited partnership agreement. Some capital distributions from funds may reduce contributed capital balances. Some funds may be denominated in non-USD currencies, and such aggregate contributions represent the sum of each fund contribution translated to USD at its daily conversion rate.
Distributed	The amount of capital returned from a fund manager for returns of invested capital, profits, interest, and other investment related income. Some distributions may be subject to re-investment, as outlined in each fund's limited partnership agreement. Some funds may be denominated in non-USD currencies, and such aggregate distributions represent the sum of each fund distribution translated to USD at its daily conversion rate.
DPI	Acronym for "Distributed-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculation equals Distributed divided by Contributed. DPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
Exposure	Represents the sum of the investor's Unfunded and Remaining Value.
IRR	Acronym for "Internal Rate of Return", which is a performance measurement for Private Market investments. IRRs are calculated by Meketa based on daily cash flows and Remaining Values as of the date of this report. IRRs for funds and groupings of funds are net of all fund fees and expenses as reported by fund managers to Meketa.
NCV	Acronym for "Net Change in Value", which is a performance measurement for Private Market investments. The performance calculation equals the appreciation or depreciation over a time period neutralized for the impact of cash flows that occurred during the time period.
NM	Acronym for "Not Meaningful", which indicates that a performance calculation is based on data over too short a timeframe to yet be meaningful or not yet possible due to inadequate data. Meketa begins reporting IRR calculations for investments once they have reached more than two years since first capital call. NM is also used within this report in uncommon cases where the manager has reported a negative Remaining Value for an investment.

Peer Universe	The performance for a set of comparable private market funds. The peer returns used in this report are provided by Thomson ONE, based on data from Cambridge Associates as of the date of this report. Program-level peer universe performance represents the pooled return for a set of funds of corresponding vintages and strategies across all regions globally. Fund-level peer performance represents the median return for a set of funds of the same vintage and the program's set of corresponding strategies across all regions globally. Data sets that include less than five funds display performance as "NM". Meketa utilizes the following Thomson ONE strategies for peer universes: Infrastructure: Infrastructure Natural Resources: Private Equity Energy, Upstream Energy & Royalties, and Timber Private Debt: Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed Private Equity (including Private Debt): Venture Capital, Growth Equity, Buyout, Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed Private Equity (excluding Private Debt): Venture Capital, Growth Equity, and Buyout Real Assets (excluding Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, and Timber Real Assets (including Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, Timber, and Real Estate Real Estate: Real Estate
Public Market Equivalent ("PME")	A calculation methodology that seeks to compare the performance of a portfolio of private market investments with public market indices. The figures presented in this report are based on the PME+ framework, which represents a net IRR value based on the actual timing and size of the private market program's daily cash flows and the daily appreciation or depreciation of an equivalent public market index. Meketa utilizes the following indices for private market program PME+ calculations: Infrastructure: Dow Jones Brookfield Global Infrastructure Index Natural Resources: S&P Global Natural Resources Index Private Debt: Meryl Lynch High Yield Master II Bond Index Private Equity: MSCI ACWI Investable Market Index Real Assets (excluding Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index and S&P Global Natural Resources Index

	Real Assets (including Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index, S&P Global Natural Resources Index, and Dow Jones U.S. Select Real Estate Securities Index Real Estate: Dow Jones U.S. Select Real Estate Securities Index
Remaining Value	The investor's value as reported by a fund manager on the investor's capital account statement. All investor values in this report are as of the date of this report, unless otherwise noted. Some funds may be denominated in non-USD currencies, and such remaining values represent the fund's local currency value translated to USD at the rate as of the date of this report.
TVPI	Acronym for "Total Value-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculations represents Distributed plus Remaining Value, then divided by Contributed. TVPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
Unfunded	The remaining balance of capital that a fund manager has yet to call against a commitment amount. Meketa updates unfunded balances for funds to reflect all information provided by fund managers provided in their cash flow notices. Some funds may be denominated in non-USD currencies, and such unfunded balances represent the fund's local currency unfunded balance translated to USD at the rate as of the date of this report.

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