San Jose Federated City Employees' Retirement System

PUBLIC VERSION
September 30, 2016

MEKETA INVESTMENT GROUP

BOSTON MASSACHUSETTS | CHICAGO ILLINOIS | MIAMI FLORIDA | PORTLAND OREGON | SAN DIEGO CALIFORNIA | LONDON UNITED KINGDOM

www.meketagroup.com

Table of Contents

Private Equity Program

Introduction
As of September 30, 2016

The purpose of this document is to offer an interim review of the Retirement System's private equity investments. It is divided into three sections: Market and Industry Analysis, Executive Summary, and Aggregate Private Equity Portfolio. The Market and Industry Analysis is a broad overview of the private equity industry. The final two sections are a review of the San Jose Federated City Employees' Retirement System's private equity partnership investments on both an aggregate and individual basis.

As of September 30, 2016, the San Jose Federated City Employees' Retirement System had committed $155.4 million to six partnerships (two fund of funds, three secondary funds, and one buyout fund). The reported fair value of the aggregate Private Equity Program was $69.9 million at September 30, 2016.

Aggregate Private Equity Program[1]	
Number of Partnerships	6
Committed Capital	$155.4 million
Capital Called[2]	$140.7 million
Distributions	$130.7 million
Reported Value	$69.9 million
Total Value Multiple	1.4x
Net IRR[3]	7.4%

[1] Throughout this report, numbers may not sum due to rounding.
[2] One of the partnership commitments is made in a foreign currency. This total reflects committed capital in dollars, adjusted for foreign currency exchange rates, as of the report date.
[3] Net IRR is net of fees, expenses, and carried interest for each partnership.

Market and Industry Analysis
As of September 30, 2016

Global fundraising for all private equity funds totaled $62 billion during the third quarter of 2016[1], marking a drastic decline from the more than $100 billion raised in the prior quarter and representing the lowest amount raised Q3 2013.

- Fundraising by buyout funds during the third quarter stood at $36 billion, a decrease from $56 billion in the prior quarter. This quarter's slowdown in fundraising was also reflected by venture capital fundraising in the U.S., with $9 billion raised, a decrease from $13.4 billion in Q2 2016, according to PitchBook. The number of venture funds closed also dropped to 56 from 77 in the previous quarter.
- According to Preqin, the number of buyout deals completed or announced in Q3 decreased by 13% from the previous quarter, while the aggregate value of deals remained mostly flat, increasing by $1 billion. Both the number of global private equity buyout-backed exits and aggregate exit values decreased slightly, to approximately 400 deals and $75 billion, respectively.
  - The largest buyout deal announced during the quarter was the $4.4 billion deal for Playtika, Caesars Entertainment Corporation's online casino-style game unit, which is expected to be bought by a consortium led by several China based private equity managers.
- The aggregate value of venture capital deals globally dropped to $26 billion, a 37% decrease from the previous quarter, and the lowest quarterly figure since Q3 2014 ($22 billion). North America accounted for 50% of venture capital deals globally. Meanwhile, venture capital activity in Asia also declined significantly, accounting for only $6.5 billion (42%) of global deal value during the quarter compared to $17 billion (25%) in the prior quarter. Angel/Seed financings remained the most common stage of venture capital deals, representing 33% of all deals.
  - The most notable venture deal during the quarter was Uber's sale of its China unit to its former rival in China, Didi Chuxing's (Didi), which in turn will invest $1 billion in Uber. Also as a result of the deal, Uber and its investors will own 20% of Didi.

[1] All data mentioned as of Q3 2016 are from Preqin as of October 5, 2016 and is subject to revision, unless otherwise noted.

- Transaction valuations noticeably increased in the third quarter of 2016 as buyout transaction data published by S&P Capital IQ showed average pricing at 10.9x trailing EBITDA for all buyout transactions, compared to 9.7x trailing EBITDA in the second quarter and 10.5x trailing EBITDA for 2016 year to date. Even though the availability of debt remained high, transactions on average were well capitalized with 45% equity.
- Europe, after being surpassed by Asia, is now the third most targeted region in terms of funds in the market and target capital commitments, with 323 vehicles targeting $106 billion as of Q3 2016. However, according to a recent survey of institutional investors by Preqin, Europe was chosen as the most targeted region by investors in the next 12 months.
- According to EMPEA data, emerging markets comprised 8% of the global fundraising market and 6% of global invested capital year-to-date. Emerging market fundraising has declined 30% relative to the same quarter last year. Across all asset classes, approximately $9 billion was raised in the third quarter of this year ($24 billion year-to-date) for developing economies compared to $48 billion of private capital raised last year.

Private Equity Program
As of September 30, 2016

Executive Summary
As of September 30, 2016

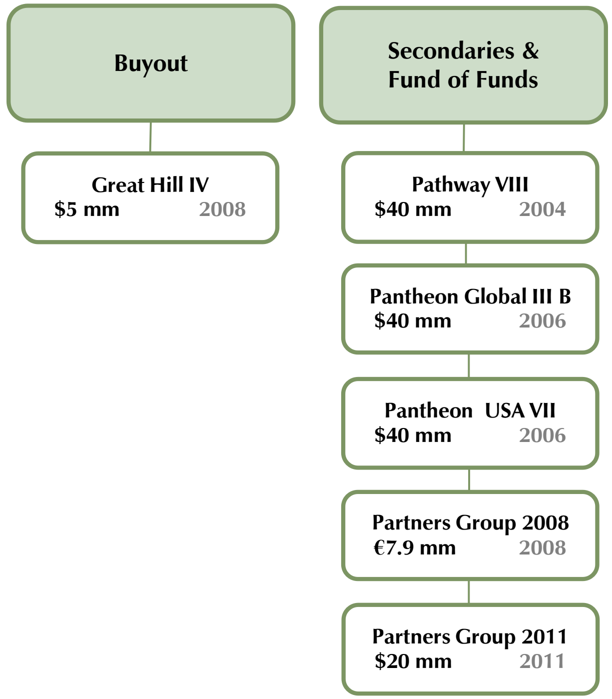
In aggregate, $0.8 million of capital was called from the Retirement System during the third quarter of 2016 by the underlying partnerships.

- Partners Group Secondary 2011 called $0.6 million from the Retirement System to fund capital calls. Recent calls were made by an underlying partnership investment to finance the acquisition of a stake in a UK-based specialist consumer lender, and by another underlying partnership investment, to fund its acquisition of an Italy-based software application provider.
- Pantheon USA Fund VII called $0.2 million primarily to fund capital drawn by investments in several underlying partnerships.

Distributions received by the Retirement System from underlying partnerships during the third quarter totaled $5.7 million.

- Partners Group Secondary 2011 distributed $1.5 million of proceeds primarily resulting from distributions made by underlying partnership investments.
- Pantheon USA Fund VII distributed $1.3 million received through distributions made by six underlying partnerships.
- Pathway Private Equity Fund VIII distributed $1.3 million primarily in cash distributions made by three underlying partnerships.
- Pantheon Global Secondary Fund III 'B" distributed $0.6 million from four fund portfolios.
- Partners Group Secondary 2008 distributed $0.5 million received from underlying partnership investments.
- Great Hill Equity Partners IV distributed $0.4 million from the sale of one underlying investment partnership (2.8x gross MOIC), the sale of nearly 500,000 shares of another(4.4x), and escrow proceeds from the 2015 sale one underlying investment portfolio (10.7x).

The Retirement System did not make any new commitments during the third quarter of 2016.



- White box: Current investment.
- Green box: Investment made subsequent to quarter end and, as such, is not included in any other section of this report.

Aggregate Private Equity Portfolio
As of September 30, 2016

	Investment Strategy	Capital Committed ($ mm)	Total Contributions Paid to Date[1] ($ mm)	Unfunded Commitment[2] ($ mm)	Total Distributions Received to Date ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[3] (%)	Inv. Multiple[4] (x)
Total Program		**155.4**	**140.7**	**14.8**	**130.7**	**69.9**	**200.6**	**7.4**	**1.4**
Vintage Year 2004		**40.0**	**39.4**	**0.6**	**47.4**	**10.3**	**57.7**	**6.9**	**1.5**
Pathway Private Equity Fund VIII	Fund of Funds	40.0	39.4	0.6	47.4	10.3	57.7	6.9	1.5
Vintage Year 2006		**80.0**	**74.6**	**5.4**	**61.8**	**38.2**	**100.0**	**5.9**	**1.3**
Pantheon Global Secondary Fund III 'B'	Secondary	40.0	37.8	2.2	32.0	9.5	41.5	1.8	1.1
Pantheon USA Fund VII	Fund of Funds	40.0	36.7	3.3	29.8	28.7	58.5	9.9	1.6
Vintage Year 2008		**15.4**	**14.1**	**1.3**	**15.0**	**8.3**	**23.3**	**13.5**	**1.7**
Great Hill Equity Partners IV	Buyout	5.0	4.9	0.1	5.2	4.5	9.6	23.4	2.0
Partners Group Secondary 2008[5]	Secondary	10.4	9.2	1.2	9.8	3.9	13.7	9.6	1.5
Vintage Year 2011		**20.0**	**12.6**	**7.5**	**6.6**	**13.0**	**19.6**	**22.4**	**1.6**
Partners Group Secondary 2011	Secondary	20.0	12.6	7.5	6.6	13.0	19.6	22.4	1.6

1 In certain instances, Total Contributions Paid to Date may exceed Capital Committed as certain partnerships may call fees outside of commitment and most partnerships reserve a limited right to recycle capital and/or recall distributions.
2 Unfunded Commitment amounts are an approximation due to the inclusion of recallable distributions.
3 The Net IRR calculations were performed by Meketa Investment Group. Total Program IRR is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year IRRs are net of partnership fees but gross of Meketa Investment Group fees.
4 The Inv. Multiple calculations were performed by Meketa Investment Group. Total Program Inv. Multiple is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year Inv. Multiples are net of partnership fees but gross of Meketa Investment Group fees.
5 The Retirement System committed €7.9 million to the Partnership in 2008. The $10.4 million is an estimated amount based on the contributed capital and unfunded commitment as of 9/30/2016.

The IRR (internal rate of return) and investment multiple are the most meaningful measures of performance for a private equity fund. IRR measures how assets are performing in relation to time. Investment multiple shows the cash on cash return generated on the invested capital by the underlying assets.

The Total Program net IRR increased by 10 basis points during the third quarter, from 7.3% to 7.4%. Over this period, the total reported fair value of the Private Equity Program increased by $1.6 million, or 2.3%, after adjusting for capital calls and distributions during the period. Performance was primarily driven by the net valuation increase of Pantheon USA Fund VII ($0.9 million or 3.3%).

Private & Opportunistic Debt Program

Introduction
As of September 30, 2016

The purpose of this document is to offer an interim review of the Retirement System's private & opportunistic debt investments. It is divided into three sections: Market and Industry Analysis, Executive Summary, and Aggregate Private & Opportunistic Debt Portfolio. The Market and Industry Analysis is a broad overview of the private debt industry. The final two sections are a review of the San Jose Federated City Employees' Retirement System's private & opportunistic debt partnership investments on both an aggregated and individualized basis.

As of September 30, 2016, the San Jose Federated City Employees' Retirement System had committed $165.0 million to four opportunistic debt partnerships. The reported fair value of the aggregate Private & Opportunistic Debt Program was $91.7 million at September 30, 2016.

Aggregate Private Debt Program[1]	
Number of Partnerships	4
Committed Capital	$165.0 million
Capital Called[2]	$184.8 million
Distributions	$129.4 million
Reported Value	$91.7 million
Total Value Multiple	1.2x
Net IRR	7.1%

[1] Throughout this report, numbers may not sum due to rounding.
[2] In certain instances, total contributions may exceed the commitment, as a Partnership may reserve the right to recycle capital and/or recall distributions depending upon the terms of its Limited Partnership Agreement.

Market and Industry Analysis
As of September 30, 2016

The U.S. leveraged credit markets continued to rally during the third quarter, with the high yield market returning 5.6% and bank loans returning 3.1%. Returns continued to be led by lower-rated debt, though there was less differentiation by industry.

- Default activity slowed in the 3rd quarter but distressed exchanges continued to increase as subordinated debt holders were comfortable surrendering some of their original lender rights and debt terms in order to give borrowers additional financial flexibility and avoid bankruptcy processes.
- The distressed ratio in both bonds and loans continued to fall. Within the high yield universe, approximately 4.7% of the index (55 issuers, $48 billion par amount) traded below $80.00.
- The energy sector has now significantly recovered from lows in February 2016, with bond prices moving from $60.35 to $93.36. The yield spread between energy and the broad high yield market moved from 5.3% to 1.6%. The issuer-weighted default rate finished the quarter at 4.6%, though ex.-energy and mining, the default rate was just 0.5%.
- As middle market activity decreased, total leverage multiples in LBO transactions also fell and subordinated and mezzanine debt issuance increased as a percentage of total debt issued.

Private & Opportunistic Debt Program
As of September 30, 2016

Executive Summary
As of September 30, 2016

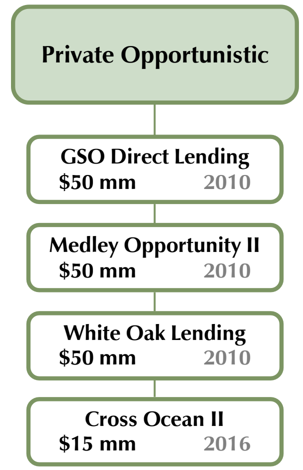
In aggregate, $3.2 million was called from the Retirement System during the third quarter of 2016 by the underlying partnerships.

- Cross Ocean USD ESS Fund II called $3.0 million comprised of an equalization call and a second capital call used for investments, fees, and expenses.
- White Oak Direct Lending called $0.1 million to fund management fees and partnership expenses.
- GSO Direct Lending called $0.1 million to fund management fees and partnership expenses.

The Retirement System received an aggregate of $7.7 million in distributions during the third quarter of 2016 from its underlying partnerships.

- White Oak Direct Lending distributed $5.0 million during the quarter, primarily in principal repayments received from investments in two underlying partnerships.
- Medley Opportunity Fund II distributed $2.6 million of income distributions, reflective of various cash receipts including interest, amortization, and maturity payments.
- GSO Direct Lending distributed $0.1 million, primarily in realized gains from the investment in one underlying partnership.

The Retirement System did not make any new commitments during the third quarter of 2016.



- White box: Current investment.
- Green box: Investment made subsequent to quarter end and, as such, is not included in any other section of this report.

Aggregate Private & Opportunistic Debt Portfolio
As of September 30, 2016

Aggregate Program
Performance Summary as of 9/30/16

	Capital Committed ($ mm)	Total Contributions Paid to Date[1,2,3] ($ mm)	Unfunded Commitment[4] ($ mm)	Total Distributions Received to Date3[,5] ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[6] (%)	Inv. Multiple[7] (x)
Total Program	**165.0**	**184.8**	**43.6**	**129.4**	**91.7**	**221.1**	**7.1**	**1.2**
Vintage Year 2010	**150.0**	**181.8**	**31.6**	**129.4**	**88.5**	**218.0**	**7.1**	**1.2**
GSO Direct Lending	50.0	42.2	30.0	35.2	16.4	51.5	8.0	1.2
Medley Opportunity Fund II	50.0	51.7	1.7	21.6	45.4	67.0	7.4	1.3
White Oak Direct Lending[8]	50.0	87.8	0.0	72.6	26.8	99.4	6.3	1.1
Vintage Year 2016	**15.0**	**3.0**	**12.0**	**0.0**	**3.1**	**3.1**	**NM**	**1.0**
Cross Ocean USD ESS Fund II, L.P.	15.0	3.0	12.0	0.0	3.1	3.1	NM	1.0

1 In certain instances, Total Contributions Paid to Date may exceed Capital Committed as certain partnerships may call fees outside of commitment and most partnerships reserve a limited right to recycle capital and/or recall distributions.
2 Total contributions include management fees paid outside of capital committed.
3 Recallable distributions, fees out of commitment and returns of capital have been reclassified to match manager statements.
4 Unfunded Commitment amounts are an approximation due to the inclusion of recallable distributions.
5 Distributions may include capital that was recycled back into the Partnership.
6 The Net IRR calculation was performed by Meketa Investment Group. Total Program IRR is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year IRRs are net of partnership fees but gross of Meketa Investment Group fees.
7 The Inv. Multiple calculation was performed by Meketa Investment Group. Total Program Inv. Multiple is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year Inv. Multiples are net of partnership fees but gross of Meketa Investment Group fees.
8 White Oak Direct Lending's investment period has expired, therefore no callable capital remains as of 9/30/2016. Unfunded commitment as reported by White Oak is $15.2 million.

The IRR (internal rate of return) and investment multiple are the most meaningful measures of performance for private and opportunistic debt funds. The IRR measures how assets are performing in relation to time. The investment multiple shows the cash on cash return generated on the invested capital by the underlying assets.

The total program net IRR increased by 10 basis points during the third quarter, from 7.0% to 7.1%. The fair market value of the total program increased by $2.4 million, or 2.6%, after adjusting for capital calls and distributions during the third quarter. The net portfolio valuation was driven by increases in the valuation of Medley Opportunity Fund II (2.6%), White Oak Direct Lending (2.5%), and GSO Direct Lending (2.2%).

Private Real Assets Program

Introduction
As of September 30, 2016

The purpose of this document is to offer an interim review of the Retirement System's private real assets investments. It is divided into three sections: Market and Industry Analysis, Executive Summary, and Aggregate Private Real Assets Portfolio. The Market and Industry Analysis is a broad overview of the economy and the real assets industry through quarter-end. The final two sections are a review of the San Jose Federated City Employees' Retirement System's private real assets partnership investments on both an aggregated and individualized basis.

As of September 30, 2016, the System had committed to 11 real assets funds (two core real estate funds, eight closed-end real estate funds, and one infrastructure fund). The total reported fair value of real assets investments was $121.3 million at September 30, 2016, including $79.2 million in core real estate, $37.8 million in closed-end real estate, and $4.3 million in infrastructure.

Total Closed-End Private Real Assets Program[1,2]	
Number of Partnerships	9
Committed Capital	$147.4 million
Capital Called[3]	$114.7 million
Distributions	$96.1 million
Reported Value	$42.1 million
Total Value Multiple	1.2x
Net IRR	4.5%

[1] Throughout this report, numbers may not sum due to rounding.
[2] Excludes investments in PRISA I and American Core Realty Fund, both of which are open-end vehicles.
[3] One of the partnership commitments is made in a foreign currency. This total reflects committed capital in dollars, adjusted for foreign currency exchange rates, as of the report date.

Market and Industry Analysis
As of September 30, 2016

Real estate property fundamentals were relatively flat over the quarter remained at peak levels. An increase in capital market activity also supported moderate private real estate returns during the third quarter.

Real Estate Fundamentals

- The NCREIF Property Index's (NPI) value-weighted cap rate (appraisal based) decreased by 11 basis points from the prior quarter. The current cap rate of 4.5% has set a new record low and is 44 basis points below the prior cycle peak in the second quarter of 2008. The property types of office and apartments are valued at the lowest cap rates, at 4.3% each, while industrial properties have the highest cap rate at 5.0%.
- Private real estate occupancy rates remained relatively flat during the quarter, increasing by 3 basis points, while vacancy remained at cycle lows of 6.8%. Occupancy rates increased by 35 basis points over the prior year, and are currently at the highest rate since the second quarter of 2001. Of the property types included in the NCREIF Property Index, industrial properties recorded the largest quarterly increase in occupancy of 41 basis points, while apartment property occupancy decreased by 96 basis points over the quarter.
- The trailing twelve month rate of NOI growth remained strong at 5.3% over the third quarter, although the rate of growth moderated slightly relative to the first half of 2016. Driven by increasing occupancy and rental rates, NOI growth was positive across all property types. Apartment properties generated the strongest NOI growth (7.8%) while office property NOI grew at the slowest pace (4.0%).
- Real estate capital market activity rebounded in the third quarter following two quarters of declining activity. Transaction volume for properties valued over $2.5 billion totaled $123 billion, 9% higher than the previous quarter, and 5% higher than the third quarter of 2015. The majority of the increase in activity was driven by hotel property transactions, which increased to $13 billion from $7 billion the previous quarter, accounting for $6 billion of the $10 billion total increase in total volume.

Fundamentals	**3Q16 Value**		**Q-o-Q △**		**Y-o-Y △**
NPI Occupancy	93.2%	⇔	0.0%	↑	0.4%
NPI TTM NOI Growth	5.3%	↓	-0.3%	↓	-0.4%
NPI MV Cap Rate	4.5%	↓	-11 bps	↓	-18 bps
RCA Transaction Volume	$123bn	↑	8.6%	↑	5.2%
RCA Transaction Cap Rate	6.3%	↓	-4 bps	↓	-24 bps
NAREIT Dividend Yield	3.8%	↑	0.1%	↓	-0.3%

U.S. Economic Indicators	**3Q16 Value**		**Q-o-Q △**		**Y-o-Y △**
Unemployment Rate	5.0%	↑	0.1%	↓	-0.1%
Real GDP Growth	3.2%	↑	1.7%	↑	1.2%
10-Yr Treasury	1.6%	↓	-0.2%	↓	-0.7%
CPI	241.4	↑	0.2%	↑	1.5%
New Housing Unit Starts	313k	↓	-3.1%	↓	-1.6%

Trailing Returns	**3Q16 Value**	**1-Yr**	**3-Yr**
NPI	1.8%	9.2%	11.4%
NFI-ODCE (EW, gross)	2.2%	10.6%	12.6%
NFI-CEVA (EW, gross)	2.2%	15.5%	17.5%
NAREIT Equity REITs	-1.4%	19.9%	14.2%
Barclays Aggregate	0.5%	5.2%	4.0%
S&P 500 Index	3.9%	15.4%	11.2%

Sources: NCREIF Property Index, Real Capital Analytics, NAREIT Equity Index, U.S. Bureau of Labor Statistics, U.S. Federal Reserve, U.S. Census Bureau, NCREIF Fund Index, ANREV, INREV.

Note: For cap rates, a down arrow indicates falling cap rates or rising prices.

U.S. Macro Trends

- Following two quarters of below-trend growth to begin 2016, the U.S. economy rebounded in the third quarter, with GDP recording a 3.2% annualized rate of growth. This quarterly growth rate is the highest since 2Q15, although the year-over-year growth of 1.6% remains muted. The rebound of third quarter GDP was largely driven by a jump in exports as well as personal consumption expenditures on durable goods. Although inflation remains below the Federal Open Market Committee's long-run objective of 2%, household spending has been rising and labor market conditions have improved, resulting in market expectations of a gradual normalization of the federal funds rate.
- The U.S. labor market continued to add jobs throughout the quarter, with nonfarm payrolls increasing by an average of 212k jobs per month. The unemployment rate increased by 0.1% to 5.0%, however, as the labor force participation rate increased from 62.7% to 62.9%. The largest job gains occurred in the industries of professional & business services, retail trade, leisure & hospitality, and healthcare, while manufacturing and mining jobs decreased. Over the quarter, the average hours per workweek remained at 34.4, while average hourly earnings increased at an annualized rate of 2.8%.

Real Estate Returns

- The NFI-ODCE Equal Weight return over the quarter was 2.2%, gross of fees, with a 1.2% income return and a 1.0% appreciation return. This is in line with the prior quarter's return, although down from the 3.6% return generated in the same period one year prior. For the trailing one-year period, the NFI-ODCE Equal Weight Index returned 10.6%, gross of fees, consisting of a 4.7% income component and 5.7% appreciation component. Although below the 14.8% return generated in the year prior, the one-year return of 10.6% remains well above the since inception rate of return of 8.3%.
- The FTSE NAREIT Equity REITs Index underperformed both the S&P 500 and the Barclays U.S. Aggregate Bond Index over the third quarter, returning -1.4% as the dividend yield rose slightly to 3.8%. Despite the small pullback, the Index has performed well over longer time periods, returning 19.9% and 14.2% over the one-year and three-year horizons, respectively. At quarter end, REITs traded at a 2% discount to NAV, below their historical average of a 3% premium.

Infrastructure fundraising and transactions

- In the third quarter, a total of 186 unlisted infrastructure funds were in market, according to Preqin, with a combined fundraising target of approximately $113 billion. North American and European investment destinations represented approximately 72% of the total capital sought in the market.
- Seventeen unlisted infrastructure funds closed during the quarter, raising a total of $23 billion. Notable final closes included Brookfield Infrastructure Fund III, which raised $14 billion, the largest unlisted infrastructure fund ever raised, Macquarie European Infrastructure Fund V (€4 billion), and InfraVia European Fund III (€1 billion).
- As reported by Preqin, 280 deals were reported by unlisted infrastructure fund managers in the second quarter with an aggregate value of $108 billion and an average deal size of $390 million. Both the volume and aggregate value of deals have declined for two consecutive quarters.

Several notable transactions occurred during the third quarter

- A consortium led by Global Infrastructure Partners, QIC Global Infrastructure, Ontario Municipal Employees Retirement System, and Future Fund agreed to acquire a 100% ownership stake in the Port of Melbourne for $7.3 billion. The Port of Melbourne is Australia's busiest container and general cargo port.
- I Squared Capital's ISQ Global Infrastructure Fund entered into an agreement with Duke Energy to purchase 100% of Duke Energy International's Latin American businesses for an enterprise value of $1.2 billion. The assets include over 2,300 megawatts of hydro and thermal power generation, 450 miles of transmission lines and natural gas processing facilities across Peru, Chile, Ecuador, Argentina and Central America.
- A consortium led by Brookfield Infrastructure, GIC, China Investment Corporation and several large institutional investors agreed to acquire 90% of Novo Transportadora do Sudeste SA ("NTS") from Petrobras for $5.2 billion. NTS owns and operates 1,273 miles of regulated natural gas pipelines throughout southern Brazil.

Infrastructure Market Summary

During the third quarter of 2016, roads[1] and airports[2] increased while seaport[3] utilization and electricity generation decreased over the same period in 2015.

- ***Utilities:*** Net energy generation decreased 1.1% during the third quarter of 2016 compared to the prior year. Net generation was flat for several years as increases in energy efficiency balanced against economic demand growth. However, coal-generated power has been decreasing while natural gas-generated power has been increasing.
- ***Transportation*:** During the third quarter, approximately 824 billion miles were travelled on U.S. roads, representing a 0.4% increase over the same period in 2015. Container volume at the nation's three largest U.S. ports (Long Beach, Los Angeles, and New York/New Jersey) declined by approximately 0.5% compared to the third quarter of 2015. The number of domestic and international flights during the period was up 1.0% over the same period in 2015.

[1] Aggregate travel on U.S. roads.
[2] Represent all U.S. domestic and international flights, excluding foreign point-to-point flights.
[3] Represents the top three U.S. ports by container volume, as measured by twenty-foot equivalent units (TEU).

Private Real Assets Program
As of September 30, 2016

Executive Summary
As of September 30, 2016

In aggregate, $4.8 million of capital was called from the Retirement System during the third quarter of 2016 by the underlying closed-end partnerships.

- Global Infrastructure Partners III called $4.8 million, primarily to fund the partnership's first investment, a 17% stake in an underlying partnership investment.

In aggregate, $8.3 million of capital was distributed to the Retirement System by the underlying closed-end partnerships during the third quarter of 2016.

- DRA Growth and Income Fund V distributed $5.3 million, primarily from the return of capital.
- DRA Growth and Income Fund VII distributed $1.0 million from supplemental loan proceeds in the one portfolio and from proceeds related to the sale of an underlying partnership investment, which generated a 32.1% gross IRR and 2.1x gross MOIC.
- Fidelity Real Estate Growth Fund III distributed $0.8 million in proceeds from the sale of an underlying partnership.
- DRA Growth and Income Fund VI distributed $0.6 million from the sale of an underlying partnership, which generated a gross IRR of 34.1% and a gross MOIC of 3.7x.
- DRA Growth and Income Fund VIII distributed $0.5 million related to additional loan proceeds from the refinance of an underlying partnership and loan modification for another underlying partnership.
- European Property Investors Special Opportunities 4 distributed $0.1 million in return of capital related to early sales on an underlying partnership.

The Retirement System did not make any new commitments during the third quarter of 2016.

Real Estate

American Core Realty
Diversified
North America
$31 mm Open-end

PRISA I
Diversified
North America
$21.3 mm Open-end

DRA Growth & Income V
Diversified
North America
$20 mm 2005

GEAM Value Added
Diversified
North America
$20 mm 2006

DRA Growth & Income VI
Diversified
North America
$9.9 mm 2007

Fidelity Growth Fund III
Diversified
North America
$17.9 mm 2007

DRA Growth & Income VII
Diversified
North America
$15 mm 2011

DRA Growth & Income VIII
Diversified
North America
$15 mm 2014

European Property Inv. 4
Diversified
Western Europe
€13 mm 2015

GEM Realty Fund VI
Blend
North America
$10 mm 2016

DRA Growth & Income IX
Diversified
North America
$20 mm **2016**

Infrastructure

Global Partners III (GIP III)
Diversified
Global
$25 mm 2016

- White box: Current investment.
- Green box: Investment made subsequent to quarter end and, as such, is not included in any other section of this report.
- Gray box: Liquidated investment.

Aggregate Private Real Assets Portfolio
As of September 30, 2016

Real Estate Assets
Performance as of 9/30/16

	3Q16 (%)	Cal YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Inception Date	Since Inception (%)
Core Real Estate[1]	**1.6**	**5.3**	**8.4**	**11.4**	**11.2**	**NA**	**7/1/09**	**9.5**
PRISA I	1.7	5.6	8.7	12.0	11.6	4.6	7/1/04	6.9
NCREIF ODCE Equal Weighted (net)	*2.0*	*6.3*	*9.7*	*11.6*	*11.4*	*4.9*		*6.9*
American Core Realty Fund, LLC	1.6	5.1	8.0	10.8	10.8	NA	1/1/07	4.5
NCREIF ODCE Equal Weighted (net)	*2.0*	*6.3*	*9.7*	*11.6*	*11.4*	*4.9*		*4.6*

[1] Time weighted returns are only presented for core open-end funds and are reported net of fees.

San Jose Federated City Employees' Retirement System Private Real Assets Program

Aggregate Program Performance Summary as of 9/30/16

	Investment Strategy	Capital Committed ($ mm)	Total Contributions Paid to Date [1] ($ mm)	Unfunded Commitment[2] ($ mm)	Total Distributions Received to Date ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[3] (%)	Inv. Multiple[4] (x)
Total Closed-end Private Real Assets Program		**147.4**	**114.7**	**47.5**	**96.1**	**42.1**	**138.2**	**4.5**	**1.2**
Vintage Year 2005		**20.0**	**30.5**	**0.0**	**38.1**	**1.9**	**40.0**	**5.2**	**1.3**
DRA Growth and Income Fund V	Real Estate	20.0	30.5	0.0	38.1	1.9	40.0	5.2	1.3
Vintage Year 2006		**20.0**	**18.2**	**1.8**	**8.8**	**0.0**	**8.8**	**-10.9**	**0.5**
GEAM Value Add Realty Partners	Real Estate	20.0	18.2	1.8	8.8	0.0	8.8	-10.9	0.5
Vintage Year 2007		**27.8**	**28.4**	**0.2**	**36.0**	**5.5**	**41.5**	**9.2**	**1.5**
DRA Growth and Income Fund VI[5]	Real Estate	9.9	10.6	0.2	14.5	3.1	17.5	11.1	1.7
Fidelity Real Estate Growth Fund III[6]	Real Estate	17.9	17.9	0.0	21.5	2.4	23.9	7.6	1.3
Vintage Year 2011		**15.0**	**15.2**	**0.8**	**9.3**	**15.4**	**24.7**	**18.2**	**1.6**
DRA Growth and Income Fund VII	Real Estate	15.0	15.2	0.8	9.3	15.4	24.7	18.2	1.6
Vintage Year 2014		**15.0**	**15.2**	**2.3**	**3.5**	**13.3**	**16.8**	**NM**	**1.1**
DRA Growth and Income Fund VIII	Real Estate	15.0	15.2	2.3	3.5	13.3	16.8	NM	1.1
Vintage Year 2015		**14.6**	**2.1**	**12.4**	**0.4**	**1.8**	**2.2**	**NM**	**1.0**
European Property Investors Special Opportunities 4[7]	Real Estate	14.6	2.1	12.4	0.4	1.8	2.2	NM	1.0
Vintage Year 2016		**35.0**	**5.1**	**29.9**	**0.0**	**4.3**	**4.3**	**NM**	**0.8**
GEM Realty Fund VI	Real Estate	10.0	0.0	10.0	NA	NA	NA	NA	NA
Global Infrastructure Partners III, L.P	Infrastructure	25.0	5.1	19.9	0.0	4.3	4.3	NM	0.8

1 In certain instances, Total Contributions Paid to Date may exceed Capital Committed as certain partnerships may call fees outside of commitment and most partnerships reserve a limited right to recycle capital and/or recall distributions.
2 Unfunded Commitment amounts are an approximation due to the inclusion of recallable distributions.
3 The Net IRR calculation was performed by Meketa Investment Group. Total Program, Partnership, and Vintage Year IRRs are net of fees, expenses, and carried interest for each partnership.
4 The Inv. Multiple calculation was performed by Meketa Investment Group. Total Program, Partnership, and Vintage Year Inv. Multiples are net of partnership fees.
5 Capital Committed to DRA Growth & Income Fund VI was originally $15.0 million, and has been reduced to $9.9 million following a release of commitments of $5.1 million.
6 Capital Committed to Fidelity Real Estate Growth Fund III was originally $20.0 million, and has been reduced to $17.9 million following a release of commitments of $2.1 million.
7 The Retirement System committed €13.0 million to the Partnership in 2015. The $14.6 million is an estimated amount based on contributed capital and unfunded commitments as of 9/30/2016.

The IRR (internal rate of return) and investment multiple are the most meaningful measures of performance for private closed-end real estate funds. The IRR measures how assets are performing in relation to time. The investment multiple shows the cash on cash return generated on the invested capital by the underlying assets.

The Total Closed-End Program[1] net IRR increased by 10 basis points during the third quarter, from 4.4% to 4.5%.[2] The improved performance was driven primarily by the valuation increase of DRA Growth and Income Fund VII ($1.1 million or 7.3%) and DRA Growth and Income Fund VIII ($0.7 million or 5.1%). During the third quarter, the reported fair value of the Total Closed-End Program increased by $1.4 million, or 3.3%, after adjusting for capital calls and distributions during the quarter. Furthermore, the Aggregate Private Real Estate Program[3] increased by $2.8 million, or 2.3%, over the same period.

1 Total Closed-End Program includes all closed-end funds in the real assets program.
2 May not sum due to rounding.
3 The Aggregate Private Real Assets Program includes both open-end and closed-end funds in the real assets program.

Appendices
As of September 30, 2016

Disclaimers and Valuation Policies
As of September 30, 2016

Disclaimer

The material contained in this report is confidential and may not be reproduced, disclosed, or distributed, in whole or in part, to any person or entity other than the intended recipient. The data are provided for informational purposes only, may not be complete, and cannot be relied upon for any purpose other than for discussion.

Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.

If we manage your assets on a discretionary basis, please contact us if there are any changes in your financial situation or investment objectives, or if you want to impose any reasonable restrictions on our management of your account or reasonably modify existing restrictions.

In general, the valuation numbers presented in this report are prepared by the custodian bank for listed securities, and by the fund manager or appropriate General Partner in the case of unlisted securities. The data used in the market comparison sections of this report are sourced from various databases. These data are continuously updated and are subject to change.

This report does not contain all the information necessary to fully evaluate the potential risks of any of the investments described herein. Because of inherent uncertainties involved in the valuations of investments that are not publicly traded, any estimated fair values shown in this report may differ significantly from the values that would have been used had a ready market for the underlying securities existed, and the differences could be material. Note that for unlisted securities the valuations may be lagged by one or more calendar quarters, or may reflect original cost.

This document may contain certain forward-looking statements, forecasts, estimates, projections, and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. A number of factors, in addition to any risk factors stated in this material, could cause actual future results to vary materially from the Forward Statements. No representation is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. There can be no assurance that the investment strategy or objective of any fund or investment will be achieved, or that the Retirement System will receive a return of the amount invested.

In some cases Meketa Investment Group assists the Retirement System in handling capital calls or asset transfers among investment managers. In these cases we do not make any representations as to the managers' use of the funds, but do confirm that the capital called or transferred is within the amounts authorized by the Retirement System.

The values of companies and partnerships in this review are based on unaudited reports for September 30, 2016, provided by the General Partners, unless otherwise noted.

Because there is no readily accessible market for private markets assets (companies and partnerships), the values placed on private markets assets are calculated by General Partners using conservative and industry standard pricing procedures. Annually, an independent auditor reviews the pricing procedures employed by the General Partner of each partnership.

While all private markets partnerships are audited by an independent entity, there is some discretion as to the method employed to price private companies and, therefore, private markets partnerships. At all times, Meketa Investment Group expects General Partners to utilize conservative and industry standard pricing procedures, and requires the General Partners to disclose those procedures in their reports. However, because of the inherent uncertainty of valuation, these estimated values may differ from the values that would be used if a ready market for the investments existed, and the differences could be significant.

Glossary of Terms
As of September 30, 2016

Private markets investors have developed a number of unique terms to describe their investment work. The following glossary of private markets terms is intended to help make sense of these terms. Where the term "private equity" is used, the definition will generally also apply to private debt funds that are structured in a similar manner.

Absorption: The amount of inventory or units of a specific commercial property type that become occupied during a specified time period (usually a year) in a given market, typically reported as the absorption rate.

Advisory Board: Partnerships often establish an advisory board comprised of representatives of the Limited Partners to oversee the on-going work of the General Partners. Advisory boards typically meet once each year to review the partnership's investments. It is important to note that unlike the Board of Directors of a public company, the advisory board has very little power to control the activities of the General Partners.

Angel Investor: Angel investors are individuals who invest their own capital directly in small, early stage companies. Angels are an alternative source of funding for entrepreneurs. Such investments are characterized by high levels of risk and potentially a large return on investment.

Appreciation: An increase in the value or price of a real estate asset.

Appreciation return: The portion of the total return generated by the change in the value of the real estate assets during the current quarter, as measured by both appraisals and sales of assets.

Appraisal: An estimate of a property's fair market value that is typically based on replacement cost, discounted cash flow analysis and/or comparable sales price.

Asset management: The various disciplines involved with managing real property assets from the time of investment through the time of disposition, including acquisition, management, leasing, operational/financial reporting, appraisals, audits, market review and asset disposition plans.

Asset management fee: A fee charged to investors based on the amount invested into real estate assets for the fund or account.

Barrel: 42 U.S. gallons of oil.

Base metals: Non-precious, non-ferrous metals that include copper, aluminum, lead, nickel, tin, and zinc.

Base rent: A set amount used as a minimum rent with provisions for increasing the rent over the term of the lease.

Biofuels: Biofuels are combustible fuels, such as bio-ethanol, that are made and processed from vegetation sources such as corn, sugar cane, barley, or wheat.

Blind Pool: Most limited partnerships are organized as blind pools, meaning that Limited Partners commit capital to the partnership before any actual investments are made. At the point of commitment, the Limited Partners do not know specifically how their money will be used (hence the term blind pool), and must therefore rely entirely upon the track record and experience of the General Partner.

BOE/day: a daily production metric equivalent to the energy content of a barrel of oil equivalent often related to natural gas, natural liquids, and condensates.

Broker: A person who acts as an intermediary between two or more parties in connection with a transaction.

Brownfield: A project with an operating history. The initial outlay is entirely to the public entity. Brownfield can be considered an easier starting point for investors, given the shorter J-curve and lower level of risk. Meketa Investment Group categorizes a Fund as brownfield if the Fund's investment strategy calls for over 65% of its underlying investments to be in brownfield (operating) assets.

Buyout Fund: A buyout partnership uses the partners' capital to purchase existing, established businesses. The acquired firms may be family owned prior to purchase, or may be operating divisions of larger companies seeking to restructure their businesses. In a few cases, the buyout partners may purchase all of the outstanding shares of a publicly traded company, effectively taking it private. Buyout funds are not involved in venture capital or startups.

Buyout partnerships own the acquired companies outright, or in combination with other buyout partnerships. In some cases the buyout partners will replace the existing management with a new team, or the acquired firm will be left autonomous. The buyout partners frequently take one or more board seats in order to ensure control of the business.

Capital Appreciation: The change in market value of a property or portfolio adjusted for capital improvements and partial sales.

Capital Call (Contribution): Once a partnership has declared its first close, the General Partners will begin to make portfolio investments. As each investment is made, the capital necessary to fund the investment is "called" from the Limited Partners.

Capitalization Rate: A percentage that relates the value of an income-producing property to its future income, expressed as net operating income divided by purchase price. This is also referred to as *cap rate*.

Carried Interest: The share of profits that the fund manager is due once it has returned the cost of investment to investors. Carried interest is normally expressed as a percentage of the total profits of the fund. The industry norm is 20%. The fund manager will normally therefore receive 20% of the profits generated by the fund and distribute the remaining 80% of the profits to investors.

Carrying Value: The General Partner must list on the partnership's balance sheet a value for every investment held. These valuations are called carrying values, and in most cases are simply the original cost of the investment. Note that carrying values in most cases are not audited and do not represent actual market values.

Capital Call (Contribution): Once a partnership has declared its first close, the General Partners will begin to make portfolio investments. As each investment is made, the capital necessary to fund the investment is "called" from the Limited Partners.

Cash Flow Positive: When a company generates more free cash than it consumes in normal operations, it is deemed to be cash flow positive. Such companies may not need extra financing or debt in order to grow.

Cash Leasing Farmland: A low risk/return strategy that shifts the operational risk of farming to a local operator. Farmland investors receive stable lease payments from the local operators who are allowed to farm the land. Cash leasing is typically used for row croplands.

Cash on Cash Return: The simple gross total return earned by the Limited Partners, calculated as the total distributions received divided by the total contributions made. Thus, if an investor supplied a total of $100 in cash calls and contributions, and received over the life of the partnership $200 in distributions, the cash on cash return would be 100%. The cash on cash return is typically reported as a multiple. In the example above, the investment returned 2x (two times).

Chip-N-Saw: Produced from mid-sized trees that are cut and chipped to pulpwood chips or small dimension lumber. Chip-N-Saw is typically derived from trees measuring 10-13" DBH.

Claw-Back Provision: A claw-back provision ensures that a General Partner does not receive more than its agreed percentage of carried interest over the life of the fund. So, for example, if a General Partner receives 21% of the partnership's profits instead of the agreed 20%, Limited Partners can claw back the extra one percent.

Cleantech: A broad term used to classify products or services that improve energy productivity, performance, or efficiency while reducing input costs, consumption, waste, or pollution. Common products associated with cleantech are wind farms, photovoltaics, fuel cells, biofuels, and smart grid technologies.

Closed-end fund: A commingled fund that has a targeted range of investor capital and a finite life.

Closings and Closing Dates: Every partnership must specify the date upon which the General Partners will cease fundraising and begin making actual investments with the Limited Partners' committed capital. That date is called the closing date, and defines the vintage year of the partnership. Most partnerships, however, have several closing dates, and all partnerships must eventually have a final closing. In most cases, the final closing lags six to nine months after the first closing. If a majority of the original Limited Partners consent, a partnership can remain open to new investors after the final closing and while early investments are being made, in order to have time to attract additional investors.

Co-Investment: In some cases, Limited Partners want the right to make additional direct investments in one or more of the underlying companies purchased by the General Partner. If the partnership agreement gives co-investment rights to specific Limited Partners, then they may elect to invest additional monies "along side" the General Partner in various deals. In these cases, the co-investing Limited Partners would have two investments in an underlying property: their share of the partnership's investment, and their direct additional co-investment on the side. Note that co-investment rights may be available only to the largest Limited Partners.

Co-investment rights are often negotiated by very large Limited Partners when they have strong convictions about the deal finding skills of the General Partners, because co-investment rights permit them to make even larger investments in the underlying properties than would otherwise be possible, without paying carried interest.

Committed Capital: When a Limited Partnership is formed, each Limited Partner agrees to contribute a specific amount of capital to be invested over the life of the partnership. Once the agreement is signed, the Limited Partners are legally bound and committed to supply the agreed upon capital when it is called for by the General Partner.

Concession (Infrastructure): A business operated under a contract or license associated with a degree of exclusivity. In the case of a public service concession, a private company (the concessionaire) enters into an agreement with the government to have the exclusive right to operate, maintain and carry out investment in a public asset (such as a utility) for a given number of years.

Concessions (Real Estate): Cash or cash equivalents expended by the landlord in the form of rental abatement, additional tenant finish allowance, moving expenses, or other monies expended to influence or persuade a tenant to sign a lease.

Construction loan: Interim financing during the developmental phase of a property.

Consolidation (Roll Up): Many industries in America are highly fragmented, as the market space is serviced by a large number of locally owned businesses. By consolidating fragmented industries (i.e., purchasing many local businesses), private equity firms can create a single larger company with greater market control, more attractive financial characteristics, and potentially, better pricing flexibility and lower costs.

Convertible Bonds: Some private equity partnerships, generally those that provide mezzanine financing, may take convertible bonds as part of their compensation for providing investment capital. The convertible bond pays interest like other bonds, but can be exchanged for shares of the company stock at a favorable price if certain conditions are met, hence the term convertible.

Core properties: The major property types - specifically office, retail, industrial and multifamily. Core assets tend to be built within the past five years or recently renovated. They are substantially leased (90% or better) with higher-credit tenants and well-structured long-term leases with the majority fairly early in the term of the lease. Core assets generate good, stable income that, together with potential appreciation, is expected to generate total returns in the 10% to 12% range.

Crude Oil: An unpurified mixture of liquid hydrocarbons derived from rock formations, containing different levels or impurities such as water or sulfur.

DBH: DBH (Diameter at Breast Height) is the most common measure made by a forester to determine the growth, volume, yield, and potential of a tree. DBH is defined as 4.5 ft above the ground on the uphill side of a tree.

Development Well: A well drilled in a proven area of an oil or gas reservoir to a depth known to be productive.

Direct Investment: Partnerships that invest in companies are said to make direct investments. The alternative is a partnership that invests in other partnerships, a fund of funds.

Direct Operation Farmland: A strategy typically employed with permanent crops to retain complete control over the assets. Farmland investors use farmland management firms to operate the farm and add value through increased quality and output. The primary risks associated with direct operation are operating, weather, and marketing risks.

Diversification: The process of consummating individual investments in a manner that insulates a portfolio against the risk of reduced yield or capital loss, accomplished by allocating individual investments among a variety of asset types, each with different characteristics.

Downstream: Portion of the energy chain that includes oil refineries, petrochemical plants, power generation, and distribution outlets.

Dry Hole: An oil well that fails to find or produce any oil or gas.

Due Diligence: The process of examining a property, related documents, and procedures conducted by or for the potential lender or purchaser to reduce risk. Applying a consistent standard of inspection and investigation one can determine if the actual conditions do or do not reflect the information as represented.

E&P: Acronym for "Exploration and Production" that relates to the exploration, development, and production of crude oil or natural gas reserves. E&P is also referred to as the upstream sector.

EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization): The "top line" profits of a private company are the monies earned before paying interest and taxes, and adding back depreciation and amortization. Unlike public companies, which are valued as the multiple of bottom line earnings to the stock price (P/E or price to earnings), private companies are valued as the multiple of EBITDA to the price of the stock.

There is no simple conversion factor that will convert an EBITDA multiple to a P/E for all companies, but in general, a factor of 2 is appropriate. Thus, a private company selling for an EBITDA multiple of 6 is priced about as richly as a public company with a P/E of 12.

EBITDA Multiples: The ratio of a private company's top line earnings to the price of its shares. See EBITDA above.

Enterprise Value: A measure of a company's value, often used as an alternative to straightforward market capitalization. Enterprise Value is calculated as market cap plus debt, minority interest and preferred shares, minus total cash and cash equivalents.

Exploratory Well: A well drilled to find and produce oil or gas in an unproven area or expand production of a previously known reservoir.

Fee Income: The General Partners in a limited partnership generally receive two types of compensation: fee income as payment for their portfolio management services, and a share of any profits (carried interest) as incentive compensation.

Fuel Cell: A device that captures the electricity generated from a chemical reaction between a fuel and an oxidant. An example is a hydrogen fuel cell, which uses hydrogen as the fuel and oxygen as the oxidant to produce electricity and water.

Fund of Funds: A limited partnership that consists primarily of investments in other partnerships, as opposed to direct investments in individual companies and deals. The General Partners of a fund of funds thus act as a manager of managers to create a diversified portfolio of partnerships, each of which in turn consists of a portfolio of direct investment deals.

Although a fund of funds is a collection of partnerships, the fund of funds itself is a partnership, and therefore has a vintage year, a commitment period, a distribution phase, and a final end. Thus, fund of funds have finite lifetimes, just like their underlying partnerships.

The advantages of a fund of funds are high diversification and "one stop shopping," i.e., the client has a single relationship with the fund of funds manager.

The disadvantages of fund of funds are higher costs (another entire layer of management fees and carried interest), an additional loss of liquidity, and an additional loss of control by the Limited Partners. Just as with direct limited partnerships, a fund of funds is organized as a blind pool. That is, when a new fund of funds is announced, and a subscription target set, early investors do not know what specific sub-funds will be selected by the manager. Generally, the Private Placement Memorandum gives the General Partner almost unlimited latitude in making subsequent investments.

General Partner: The control partner in private equity partnerships, analogous to the portfolio manager in a public stock portfolio. Under the IRS code, the General Partner must commit some personal capital to the partnership (a minimum of 1% of the partnership's committed capital), and unlike the Limited Partners, is liable for leverage and other losses generated by the partnership.

Geothermal Energy: Energy extracted from the earth's interior to produce heat and electricity. Applications of geothermal energy include conventional geothermal (use of steam to drive turbines), geothermal heat pumps (pipes sunk beneath the earth's surface to act as a heat exchanger during the warmer and colder seasons), and direct heat (hot water pumped from the earth for use as a heat source).

Greenfield: A project without an operating history. Some of the initial outlay may be to the public entity, but the majority is used for construction. Greenfield opportunities may take an exceptionally long time to come to fruition. Meketa Investment Group categorizes a Fund as Greenfield if the Fund's investment strategy calls for over 65% of its underlying investments to be in greenfield assets.

Growth (Expansion Capital): A strategy that entails providing capital to a private company with the intention that the capital be used to expand operations. Generally, expansion capital strategies result in minority equity positions in companies, but with some degree of control over how the expansion capital is spent.

Hedging: Strategy used to limit or offset exposure to pricing risk of an underlying commodity. A common way to execute this strategy is through the use of futures contracts, a financial derivative that allows for the sale of a commodity at a pre-specified price in the future, whether or not the market price increases or decreases at the time. Counterparties to the futures contracts are speculators who are willing to accept the risk of price fluctuations in exchange for the potential upside.

High-rise: In the central business district, this could mean a building higher than 25 stories above ground level, but in suburban markets, it generally refers to buildings higher than seven or eight stories.

Hurdle Rate: The minimum rate of return that the Limited Partners must receive before the General Partners have a right to a share of any additional profits (carried interest) produced by the partnership's investments. For example, the partnership may specify that once the Limited Partners have received distributions representing an 8% total return on their commitment (the hurdle rate), the General Partner will share in all future distributions until they have been allocated 80% to the Limited Partners, and 20% to the General Partners (their carried interest).

Hydrocarbon: A hydrogen and carbon compound created from the decomposition of organic material over time. Most hydrocarbons are found naturally in fossil fuels such as crude oil, natural gas, and coal.

Hydro Energy: Energy derived from the natural movement of falling or flowing water. The most common form of hydro energy comes from dammed water driving a turbine and generator to produce electricity. Once a hydroelectric complex is built, no direct waste is produced.

Independent Oil Company: A company involved in the exploration, production, and development of oil and natural gas that is not a Major Oil Company.

In-Kind Distribution: Most distributions from private equity partnerships are in cash. However, in some cases, a private deal will be taken public through an initial public offering (IPO), or through a trade sale for stock to a public company. In these cases, the Limited Partners will receive their distributions in the form of publicly traded common stocks and/or rights and warrants.

Improvements: In the context of leasing, the term typically refers to the improvements made to or inside a building but may include any permanent structure or other development, such as a street, sidewalk, utilities, etc.

Investment Period: The period of time after the first closing during which the General Partner will call capital from the Limited Partners and make partnership investments. Legally, the investment period is usually six years. Practically, it is three to four years. Not to be confused with the term of the partnership, generally ten to twelve years.

IPO (Initial Public Offering): When a private company issues publicly traded stock, it becomes known as a public company. The initial sale of publicly available stock is called the initial public offering, or IPO.

IRR (Internal Rate of Return): The annualized rate of return on capital that is generated or capable of being generated within an investment or portfolio over a period of time, assuming all cash flows can be reinvested at the same rate. Mathematically, the IRR of an investment is the discount rate applied to that investment such that the net present value of the investment is zero. IRR is commonly used to measure profitability by applying the calculation to the after tax cash flows to arrive at an after-tax equity yield rate.

J-Curve: Many limited partnerships have small negative returns in their first years of operation as capital is invested. The negative returns result because the partnership's investments have not matured and turned a profit, but the partnership has nevertheless experienced various operating costs. When early deals begin to mature and are liquidated at a profit, the partnership's returns should become positive. Thus, the graph of the partnership's returns versus time can resemble the capital letter "J."

Landfill Methane: Landfill methane is generated from the decomposition of waste in landfills. Bacteria break down the organic matter, releasing a gas that is rich in methane. By capturing the methane, greenhouse gases released into the atmosphere are reduced, and the gases can be used as an energy source.

Later Stage Fund: A venture capital partnership that specializes in investing in startup companies that have already achieved at least some actual revenues, or a venture fund that provides subsequent rounds of venture financing after all of the capital provided in the first rounds has been consumed.

Lead Investor: Describes a General Partner who is the "lead" investor in a deal, as opposed to co-investors or follow-on investors. The term implies that the lead investor has taken the lead in sourcing, evaluating, and executing the deal.

Lease: An agreement whereby the owner of real property gives the right of possession to another for a specified period of time and for a specified consideration.

Lease Rate: The period rental payment to a lessor for the use of assets. It may also be considered as the implicit interest rate in minimum lease payments.

Leverage: Many General Partners use both equity capital provided by the Limited Partners and money borrowed from banks or other lenders to finance their investments. Any borrowed money is called leverage. If a deal is successful, leverage can often enhance the returns of the Limited Partners substantially. On the other hand, too much leverage can cripple an investment with interest and financing costs. It is important to note that the Limited Partners are not responsible for the repayment of any borrowed money. In real estate funds, positive leverage occurs when the interest rate is lower than the capitalization rate or projected internal rate of return whereas negative leverage occurs when the current return on equity is diminished by the employment of debt.

Leveraged Buyouts: The purchase of a private or public company wherein the bulk of the purchase price is paid using borrowed money.

Lifecycle: The various developmental stages of a property: pre-development, development, leasing, operating and redevelopment (or rehab).

Limited Partner: All investors in a Limited Partnership other than the named General Partner are defined under the IRS code as Limited Partners. Limited Partners have only the control rights defined for them in the Private Placement Memorandum, and are generally passive investors in the partnership's deals.

A very important point is that Limited Partner's total liability for all deals made by the partnership are limited strictly by law to the Limited Partner's committed capital. Thus, even if the General Partners borrow a great deal of money (leverage), and lose it all, the lenders have no recourse to the assets of the Limited Partners. In effect, a Limited Partner can lose no more than the amount of money invested.

Look-Back Provision: See Claw-Back Provision above.

Low-rise: A building with fewer than four stories above ground level.

Major Oil Company: One of the original "Seven Sisters" consisting initially of Exxon, British Petroleum, Chevron, Gulf, Mobil, Texaco, and Royal Dutch Shell.

Market Strategy: A course of action defined with respect to a particular real estate market phase. For example, consider the market strategy of avoiding real estate transactions when there is an oversupply of space available in the market.

Market Value: The most probable price that a property would bring in a competitive and open market under fair sale conditions. Market value also refers to an estimate of this price.

Mezzanine Financing: An additional level of financing provided to a private company to expand sales, market share, or develop new products. Most mezzanine financing is structured as a package of high coupon bonds with equity "kickers," i.e., rights to acquire the company's stock at a favorable price at a future point. Companies seeking mezzanine financing often have substantial revenues, and if not actual profits, the expectation of imminent profitability.

Midstream: Portion of the energy chain that transports and stores commodities such as oil and natural gas.

MMCF: One million cubic feet.

Multiples and Multiple Expansion: Managers purchasing public common stocks often buy companies with low price to earnings multiples when they believe some factor will induce other investors to bid up the price of the stock without an increase in actual earnings, thus causing the price multiple to expand. In the same fashion, a General Partner may purchase a private company with a low EBITDA multiple, expecting to profit through an expansion of that multiple. A typical example of a multiple expansion plan is consolidation. Many small companies, operating independently, may each be priced at relatively low multiples. But if purchased and combined into a larger, cohesive entity, investors might be willing to pay a higher multiple for the aggregate than for any individual component.

Natural Gas: A gaseous fossil fuel consisting primarily of methane and other heavier hydrocarbons. Natural gas burns cleaner than oil and coal and is a major source of electricity generation through the use of gas and steam turbines.

Net Metering: An arrangement that allows a facility to sell any excess energy it generates back to the electrical grid to offset its consumption.

Net Operating Income (NOI): The potential rental income plus other income, less vacancy, credit losses, and operating expenses.

Oil Sands: Naturally occurring mixtures of a very dense, tar-like form of petroleum called bitumen and sand or clay. Because of the high production and refining costs associated with oil sands, economic feasibility only occurs with high oil prices.

OPEC: OPEC (Organization of Petroleum Exporting Countries) is an oil cartel comprising twelve countries around the world.

Open-end fund: A commingled fund that does not have a finite life, it continually accepts new investor capital and makes new property investments.

Operator (Infrastructure): The party responsible for managing the asset; may be (and usually is) different than the owner/lessee of the asset.

Operator (Natural Resources): An individual or company responsible for the exploration, production, and development of an oil or gas well.

Opportunistic: A phrase generally used by advisers and managers to describe investments in underperforming and/or undermanaged assets that hold the expectation of near-term increases in cash flow and value. Total return objectives for opportunistic strategies tend to be 20% or higher. Opportunistic investments typically involve a high degree of leverage - typically 60% to 100% on an asset basis and 60% to 80% on a portfolio basis.

Permanent Crops: Permanent crops include those grown on a tree or vine such as almonds, wine grapes, apples, and oranges. They are usually directly operated to produce higher income returns from crop sales but can carry a higher level or risk.

PFI: The Private Finance Initiative specifies a method, developed initially by the U.K. government, to provide financial support for Public-Private Partnerships. This has since been adopted as part of a wider reform program for the delivery of public services which is driven by the WTO, IMF & World Bank as a part of their "deregulation" and privatization drive. In return for their services, the private sector receives payment linked to its performance.

Pipeline: A system made of steel piping used to transport oil, gas, and other liquids from one location to another.

Placement Agent: Unlike public stock management companies, most of whom utilize an in-house sales force to market their services, private equity partnerships are generally marketed by third-party placement agents. These outside marketing firms and individuals are paid a commission by the General Partner.

Platform Company: Some private equity buyout funds attempt to add value by merging companies into larger, more cost efficient enterprises. This strategy generally begins with the acquisition of a platform company, often a market leader, to which other companies are added.

Possible Reserves: Reserves of oil or natural gas that have a less likely chance of being recovered than probable reserves. These reserves are often claimed as having a 10% certainty of being produced and are also known as P10 or 3P.

PPM (Private Placement Memorandum): Because Limited Partnership interests are not registered with the SEC, private equity managers must distribute a comprehensive document to prospective investors that describes the broad investment thesis of the partnership, and highlights any risks involved in the partnership. This document is called a Private Placement Memorandum.

PPP: A Public Private Partnership (or P3) is a system in which a government service or private business venture is funded and operated through a partnership of government and one or more private sector companies. Also referred to as Collective Development Agreements or Alternative Finance Procurement.

Precious Metals: Precious metals include gold, silver, palladium, and platinum. These metals have wide industrial uses but are better known for their usage in jewelry, art, and store of value.

Pre-merch (merchantable): Logs that do not meet the minimum size, quality, or usable volume required for the commercial sale of timber.

Privatization: The transfer of property or control of assets used to provide public services from the public sector to the private sector.

Probable Reserves: Probable reserves are those reserves based on median estimates and claim a 50% confidence of recoverability. These reserves are also known as P50 or 2P.

Producing Well: A well the produces oil and gas in sufficient quantities such that the revenue generated exceeds the associated production costs and taxes.

Property Type: The classification of commercial real estate based on its primary use. The four primary property types are: retail, industrial, office, and multi-family residential.

Proved Reserves: Reserves of oil or natural gas that are claimed to have a 90% certainty of being recovered using existing technology. The SEC only allows oil companies to report proved reserves to investors. Proved reserves are also known as P90 or 1P.

Public to Private: If a private partnership (or group of private partnerships) purchases all of the outstanding shares of a publicly traded company, the company's shares may be de-listed from the stock exchange. The company is then said to have been "taken private." For example, in June 1989, the private partnership Wings Holdings acquired the public stock of Northwest Airlines in a $3.65 billion-dollar leveraged buyout. Following this acquisition, Northwest became a privately held corporation for the first time since 1941.

Pulpwood: Wood cut and chipped for the manufacturing of paper and paper related products. Pulpwood is typically too small or insufficient quality for sawtimber and is classified as 6-9" DBH.

Real Estate Cycles (phases): The regularly repeating sequence of economic downturns and upturns and associated changes in real estate market transactions tied to market dynamics and changing macroeconomic conditions, whose phases include (in order) recession, recovery, expansion, and oversupply.

Real Estate Investment Trust (REIT): An investment vehicle in which investors purchase certificates of ownership in the trust, which in turn invests the money in real property and then distributes any profits to the investors. The trust is not subject to corporate income tax as long as it complies with the tax requirements for a REIT.

Shareholders must include their share of the REIT's income in their personal tax returns. (Barron's Dictionary of Real Estate Terms and Encyclopedia of Real Estate Terms 2nd Edition, Damien Abbott)

Real Estate Trends: Long-term movements or tendencies in the demand for commercial real estate (which can typically last for years or decades), usually tied to macro-economic or business cycles.

Renewable Energy: Energy derived from natural resources such as solar, wind, geothermal, or biofuels. Unlike oil, natural gas, or coal, these sources of energy are naturally replenished, providing a potential source of cleaner and more sustainable energy.

Row Crops: Row crops are those that are planted and harvested annually from the soil, as opposed to trees or vines, and include corn, cotton, rice, soybeans, and vegetables. Row crops are often eligible to receive federal subsidies.

Sawtimber: Timber of sufficient size and quality to be cut and harvested for lumber or other solid wood products. Sawtimber is usually derived from trees measuring 14"+ DBH.

Secondary Fund: Occasionally, a Limited Partner will wish to sell his interest in a partnership before the term of the partnership is completed. Any such sale is termed a secondary market sale. A secondary fund creates a portfolio of partnership interests from earlier partnerships purchased in the secondary market. The advantage of a secondary fund is that it gives investors an opportunity to invest in seasoned partnerships from closed funds of prior vintage years.

Shadow Tolls: Payments made by government to the private sector operator of a road based, at least in part, on the number of vehicles using the road. They are currently in operation on some roads in the U.K., and they have also been adopted in other countries.

Solar Energy: Source of energy derived from the sun's light and heat. Common solar technologies include photovoltaics (PV) and solar thermal.

Sponsor: Every private equity opportunity that Meketa Investment Group evaluates is assigned to a sponsor. This individual, who is a member of Meketa Investment Group's Private Equity Investment Committee, is responsible for the collection of information and the evaluation of the opportunity.

Submarket: A segment or portion of a larger geographic market defined and identified on the basis of one or more attributes that distinguish it from other submarkets or locations.

Take Down/Draw Down: A take down or a draw down is the same as a capital call.

Term: The term of a limited partnership is its expected lifetime, and is specified in the Private Placement Memorandum. Most partnerships have a term of ten years, with the option to extend the term once or twice by an additional year if the Limited Partners approve.

The term of a partnership consists of several phases. After the final closing, no new commitments are accepted and the partnership enters the commitment phase or investment phase, legally lasting up to six years, but generally lasting three to four years, during which the individual investments are made. A distribution phase follows, during which mature investments are realized and profits distributed to the partners. The final phase is the liquidation phase, during which all remaining properties and assets are sold in order to terminate the partnership.

Trade Sale: The most prevalent exit strategy for many private equity managers involves selling a company in the private markets, usually through an auction process, to other private equity investors or to larger companies. This type of exit is termed a trade sale.

Turnaround: A turnaround strategy involves buying a troubled company, usually for a relatively low price, and making significant managerial or organizational changes to better the company's operations and enhance profitability.

Upstream: Portion of the energy industry engaged in the exploration, production, and development of crude oil and natural gas reserves.

VCOC (Venture Capital Operating Company): The IRS code defines one category of private partnerships to be venture capital operating companies for tax purposes. The General Partners of VCOCs are not required to register with the SEC as investment advisors. The name venture capital operating company relates only to the partnership's legal and tax structure, and does not imply that the partnership will invest in venture capital deals. For example, a middle market buyout fund, which invests only in mature companies with enterprise values of between $200 million and $1 billion, may be structured as a venture capital operating company.

Vacancy: The number of units or space (of a specific commercial type) that are vacant and available for occupancy at a particular point in time within a given market (usually expressed as a vacancy rate).

Vacancy Rate: The percentage of the total supply of units or space of a specific commercial type that is vacant and available for occupancy at a particular point in time within a given market.

Value-added: A phrase generally used by advisers and managers to describe investments in underperforming and/or undermanaged assets. The objective is to generate 13% to 18% returns.

Veneer: Continuous sheets of thin wood cut from trees measuring at least 16"+ DBH. Veneer is commonly used in the manufacture of furniture and plywood.

Venture Capital: Money supplied to entrepreneurs to create new businesses is called venture capital. It is the first stage of financing for any new venture.

Traditionally, the recipient of the venture capital was a small group of entrepreneurs with an idea and a business plan, but no management team, corporate structure, revenues or profits. In the 1990s, however, venture capital was often used to seed established teams of entrepreneurs with well-defined products and in-place corporate structures. Thus, there is great variability in the meaning of venture capital and in the types of deals financed with venture capital money.

Vintage Year: The calendar year in which the first cash flow to a partnership occurred. This cash flow can be intended for management fees or investment capital. Vintage year can be used to differentiate the partnerships established over time by a General Partner, to track portfolio commitment pacing, and to benchmark portfolio performance.

Warrants: Just like publicly traded companies, private companies may issue warrants to their shareholders or to other groups providing some form of financing. A warrant is the right to purchase shares of the company's stock at a future date at a predetermined price, called the exercise price. Warrants become valuable if the exercise price is below the market price of the stock.

Wind Energy: Source of energy derived from wind motion that can be converted to electricity by turning a turbine and generator.