

# **Board of Retirement Regular Meeting**

## Sacramento County Employees' Retirement System

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**MEETING DATE:** June 20, 2018

SUBJECT: Quarterly Investment Performance Report —

**Real Estate** 

Deliberation Receive SUBMITTED FOR: \_\_\_ Consent \_\_\_ and Action \_X and File

## **RECOMMENDATION**

Staff recommends the Board receive and file the Townsend Real Estate Portfolio Performance Measurement Report for the first quarter of 2018.

## **PURPOSE**

This agenda item complies with SCERS' investment policy statement reporting requirements and provides a summary of SCERS' Real Estate portfolio returns, current real estate market conditions and outlook, and Townsend's Quarterly Real Estate Portfolio Performance Measurement Report.

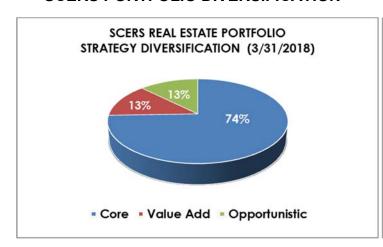
## **SCERS REAL ESTATE PORTFOLIO**

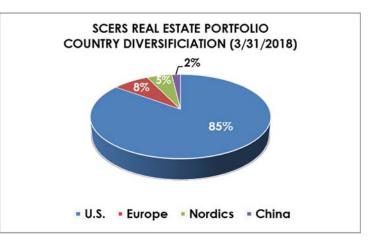
In 2017, the Board approved the winding down of the core separate account portfolios with BlackRock and Barings/Cornerstone in favor of open-end commingled funds. Staff and Townsend are currently progressing on implementation of the plan. Once the separate account assets have been sold, SCERS' Core Real Estate portfolio will consist of only closed and open-end core commingled funds. In the meantime, the performance of the core separate accounts will continue to be included in the Townsend quarterly report.

# SCERS REAL ESTATE PERFORMANCE SUMMARY As of March 31, 2018

SUB-ASSET CLASS	Quarter	1-Year	3-Year	5-Year	Since Inception	Since Inception Date
SCERS Real Estate Portfolio	2.5%	13.9%	10.8%	11.3%	8.3%	Nov-86
(65%) NFI-ODCE + (35%) NFI-ODCE + 1%	2.1%	7.5%	9.4%	10.8%	6.7%	
Core Portfolio	2.3%	12.6%	9.8%	10.7%	6.6%	Nov-86
Separate Account	1.5%	11.6%	8.4%	9.9%	9.0%	Nov-86
Commingled Funds	2.8%	13.2%	11.9%	11.7%	7.0%	Sep-13
NFI-ODCE Index	2.0%	7.1%	9.0%	10.4%	6.3%	Jul-95
Non-Core Portfolio	3.1%	18.1%	14.5%	14.0%	5.6%	Jun-06
Value Add Portfolio	2.7%	21.4%	15.9%	14.3%	4.6%	Jun-06
Opportunistic	3.5%	14.4%	12.2%	17.4%	7.8%	May-13
NFI-ODCE + 1% Index	2.2%	8.1%	10.0%	11.4%	7.3%	Jun-06

#### SCERS PORTFOLIO DIVERSIFICATION





#### SCERS TOTAL PORTFOLIO RETURNS

## First Quarter 2018:

- SCERS Total Portfolio generated a solid +2.5% net return for the quarter, exceeding SCERS' blended benchmark return of 2.1%. Despite exceeding the benchmark, the net return is down from last quarter's exceptional return of 3.8%. Leading the outperformance were the Core Commingled and Non-Core portfolios, which generated a +2.8% and +3.1% net return, respectively.
- SCERS' European investments generated a net return of +5.0% (+2.4% in Euros), while SCERS' China investments generated a net return of +8.1% (+4.3% in Yuan).
- During the quarter, SCERS made a \$40 million commitment to NREP Nordic Strategies Fund III, SCSp.

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## One-year ended March 31, 2018:

• SCERS' Total Portfolio generated a strong +13.9% net return, outpacing SCERS' benchmark return of +7.5%. Contributing to the strong outperformance was the exceptional return of the Value Add portfolio at 21.4%.

#### SCERS CORE PORTFOLIO RETURNS

### First Quarter 2018:

- Another solid quarter, with SCERS Core portfolio generating a +2.3% net return, exceeding the NFI-ODCE Index net return of +2.0%. Contributing to the outperformance was the 2.8% net return of the Commingled Funds portfolio.
- Notable Core outperformers include:
  - Prologis Targeted Europe Logistics: +7.1% in U.S. dollars (+4.3% in Euros)
  - Prologis Targeted U.S. Logistics: +3.5%
  - Jamestown Premier Property Fund: +3.1%

## One-year ended March 31, 2018:

- SCERS' Core portfolio generated a strong 12.6% net return for the one-year period, outpacing the NFI-ODCE Index return of +7.1%. Contributing to the outperformance was the 13.2% net return of the Commingled Funds portfolio.
- Notable Core outperformers include:
  - Prologis Targeted Europe Logistics: +33.3% in U.S. dollars (+15.3% in Euros)
  - Barings Separate Account: +20.0%
  - Prologis Targeted U.S. Logistics: +19.7%

#### SCERS NON-CORE PORTFOLIO RETURNS

### First Quarter 2018:

- SCERS' Non-Core portfolio generated a strong +3.1% net return, exceeding the NFI-ODCE plus 1% benchmark net return of +2.2%.
- Notable Non-Core outperformers include:
  - Carlyle China Realty: +8.3%
  - Carlyle China Rome Logistics: +8.0%
  - Och-Ziff Real Estate Fund III: +7.7%
  - ➤ ECE European Prime Shopping: +5.1% in U.S. dollars (+2.4% in Euros)

### One-year ended March 31, 2018:

• SCERS' Non-Core portfolio generated an outstanding +18.1% net return, over two times greater than the NFI-ODCE +100 bps benchmark net return of +8.1%.

- Notable outperformers include:
  - Och-Ziff Real Estate Fund III: +38.9%
  - ➤ NREP Nordic Strategies Fund I: +37.7% in U.S. dollars (+18.9% in Euros)
  - ➤ NREP Nordic Strategies Fund I: +34.8% in U.S. dollars (+17.0% in Euros)
  - ➤ ECE European Prime Shopping: +28.0% in U.S. dollars (+10.7% in Euros)

## **U.S. REAL ESTATE PERFORMANCE AND MARKET TRENDS**

#### U.S. REAL ESTATE PERFORMANCE

U.S. private real estate market (NCREIF) returns for Q1 2018 edged up slightly to 2.2%, from 2.1% in the prior quarter.

• The NCREIF Fund Index-Open End Diversified Core Equity (NFI-ODCE) index returned 2.2% gross for the quarter, up from the Q4 2017 return of 2.1% and the Q3 2017 return of 1.9%. The quarter return was up slightly due to capital appreciation. However, NCREIF reported the income return for the quarter of 1.0% was the lowest since its inception. The NFI-ODCE income return has been fairly flat over the past

NCREIF I	nvestm	ent Pei	rformar	ıce											
	March 3	1, 2018													
	То	tal Gross	Return (%	6)											
Sector	Sector 2016 2017 4Q2017 1Q201														
NFI - ODCE	8.8%	7.6%	2.1%	2.2%											
Apartments	7.3%	6.2%	1.6%	1.5%											
Industrial	12.3%	13.1%	3.3%	3.3%											
Office	6.2%	6.0%	1.7%	1.8%											
Retail	9.0%	5.7%	1.3%	0.7%											
Source: NCREIF®.															

six quarters, while capital appreciation has been slightly up due to the industrial sector's outperformance.

- The industrial sector continues its strong performance and has been the best performing sector for the last six quarters, exceeding NFI-ODCE on average of over 100 bps per quarter.
- Headwinds from e-commerce continue to weigh on the retail sector's performance, returning +0.7% for the quarter, significantly down from the prior quarter return of 1.3%.
- Weak apartment fundamentals from new supply are bearing on investor returns, with the sector returning 1.5% for the quarter, down from last quarter's return of 1.6%.

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#### U.S. REAL ESTATE MARKET TRENDS

According to Principal U.S. Property's Q1 2018 U.S. real estate commentary:

"Space market fundamentals have been broadly favorable and in equilibrium with the strong job market that has provided a steady flow of new tenant demand. Nationwide, new supply in the pipeline is generally balanced and within historical averages, though we see pockets of oversupply in certain property sectors and markets. Absorption remained especially strong in the industrial sector, with new supply also beginning to gain significant traction in some markets. Similarly, demand for multifamily remained resilient, augmented by diminished affordability of single family housing, especially in coastal markets. The challenges to retail are well catalogued and investors have demonstrated a preference for well-located, grocery anchored centers over all other types of retail. While office performance has slowed, rental rate growth increased nationwide and the limited supply pipeline may serve to anchor the near-term health of and outlook for the sector."

MULTIFAMILY: Thanks to new deliveries, vacancies are slightly above longterm averages in most markets, but absorption and transaction flow remain high.

OFFICE: In 10 2018, new deliveries exceeded absorption for the fifth straight quarter. Markets with strong tech sectors are experiencing the most growth—but will have to absorb significant upcoming supply.

RETAIL: Once again, limited construction activity is propping up neighborhood and community retail performance. Transaction volume was at its lowest since 01 2013 and, anecdotally, is focused on higher quality centers.

INDUSTRIAL: Industrial remains the healthiest major property sector, though construction is catching up with demand. This is unlikely to be problematic given high occupancies nationwide and likely continued demand.

In their Q1 2018 U.S. Capital Markets report, Cushman & Wakefield commented about real estate cap rate activity:

"Retail transaction cap rates have been rising for some time in both secondary and major markets, and retail yields in tertiary markets have been surprisingly stable. Multifamily transaction cap rates declined across market tiers during most of 2017 and currently seem to be stabilizing. Similarly, industrial yields have been declining for some time, most prominently in the major and tertiary industrial markets. In Q1 2018, however, major market yields increased significantly compared to Q4 2017—from 5.3% to 6.1%. It seems likely that this will correct downward as the year continues. CBD office cap rates have modestly declined in both major and secondary markets, as have those for suburban office but more pronounced."

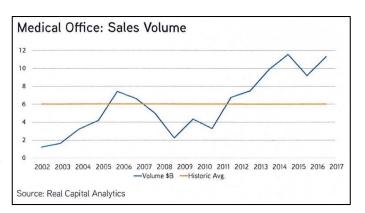
## **HEALTHCARE**

Many of the key medical office fundamentals strengthened according to Colliers Healthcare Q1 2018 U.S. Healthcare report. Overall vacancy fell to an all-time low of 7.3%, as net absorption remained above its long-term average. Despite the vacancy at all-time lows, overall rental rates were up only 1%, which is partially explained by the industry consolidation occurring among major healthcare providers. New construction has tapered after dropping in 2017, but is expected to rise modestly in 2018. Strong healthcare fundamentals continue to drive investor demand, with total transaction activity up leading to cap rates compressing to 6.4%.

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According to Marcus & Millichap's Medical Office report for the first half of 2018:

"Stabilized medical office assets in prime markets are in high demand, and on-campus buildings fetch initial returns in the mid-5% to 6%. Comparable off campus assets trade at cap rates approximately 50 basis points higher, while buildings in secondary or tertiary locations typically garner first-year yields up to 200 basis points higher."



SCERS' commitment to Hammes Partners II and III, an on-campus ambulatory and acute care manager, is capitalizing on the healthcare industry's movement to outpatient healthcare delivery. Below are Hammes Partners II period returns versus the benchmark. Hammes Partners III has not funded yet:

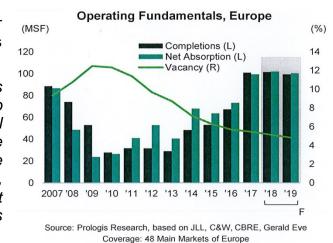
- > First Quarter 2018: +2.1% versus +2.2%
- One-year ended March 30, 2018: +9.6% versus +8.1%

## GLOBAL REAL ESTATE PERFORMANCE AND MARKET TRENDS

#### EUROPE REAL ESTATE MARKET TRENDS

Prologis Targeted Europe Logistics' Q1 2018 investor report highlighted conditions in the European logistics market as such:

"Logistics real estate had a solid start to 2018. Values grew more than 3% over the quarter, driven by cap rate compression and rental growth. Occupational dynamics remain strong, supply continues to be measure and replacement costs have begun to rise quickly. Investor demand for logistics real estate, drawn by the return opportunity and attractive market dynamics, remains similarly strong with cap rates declining again this guarter."



SCERS' commitment to Prologis Targeted Europe Logistics Fund, LP (PTELF) has been a strategic investment in European logistics and the growth in e-commerce. PTELF is one of the world's largest specialist logistics managers targeting continental Europe and the U.K.

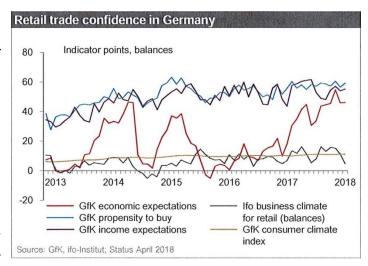
- Prologis Targeted Europe Logistics period returns:
  - First Quarter 2018: +7.1% in U.S. dollars (+4.3% in Euros) versus +2.0% U.S. benchmark return
  - ➤ One-year ended March 30, 2018: +33.3% in U.S. dollars (+15.3% in Euros) versus +7.1% U.S. benchmark return

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#### GERMANY REAL ESTATE MARKET TRENDS

ECE European Prime Shopping Center Q1 2018 investor report highlighted conditions in the German retail market as such:

"Consumer sentiment amongst German shoppers remains high, boosted by rising employment figures (unemployment rate of 3.4% in Q1 2018) and incomes. expected to bode well for retail sales growth, expected to grow by 2.0% in 2018 according to Oxford Economics. However, much of this growth is projected to be driven by e-commerce. As a result. retailers continue to adapt their business models to the changing consumer shopping habits, with many focused on optimising their channel presence omni incorporating digital features into their



stationary shops such as interactive shop screens and video walls, offering their customers new holistic shopping experiences. Due to the size and growth prospects of the German market, international brands continue to expand into the retail stationary market, with Q1 2018 seeing the market entrance of the Spanish shoe brand Pikolinos and the Urban Outfitters Groups Anthropology concept."

SCERS' commitment to ECE European Prime Shopping Center Fund II (ECE) is a strategic investment in Europe. ECE targets prime shopping malls and retail centers primarily in Germany, Austria, and Central Eastern Europe.

- ECE European Prime Shopping Center period returns versus the U.S. benchmark:
  - First Quarter 2018: +5.1% in U.S. dollars (+2.4% in Euros) versus +2.2% U.S. benchmark return
  - ➤ One-year ended March 30, 2018: +28.0% in U.S. dollars (+10.7% in Euros) versus +8.1% U.S. benchmark return

#### NORDICS REAL ESTATE MARKET TRENDS

The Swedish economy continues its rapid growth and is at or near cyclical peak. Low interest rates, a strong labor market, and a housing construction boom have all contributed to strong domestic demand growth. Norway's economy is picking up with the recovery in oil prices, while a strong jobs market and low inflation are leading to increasing domestic consumption. Denmark remains on a stable growth path with unemployment steadily falling. Strong jobs growth is contributing to solid wage growth. Finland's economy has improved significantly with strong GDP growth, up 3% during 2017, the strongest result in five years. Despite the growth in domestic consumption and rising exports, the Finnish economy is still below its pre-global financial crisis peak.

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JLL noted the strong logistics fundamentals across the Nordics, in their Spring 2018 Nordic Outlook report:

"The logistics market in Sweden has remained stable across the country, with low vacancy rates in all submarkets. Demand has been high both from occupiers in pursuit of new business opportunities and from investors in the segment. As e-commerce expands, logistics real estate will become an increasingly important segment in which modern efficient logistics solutions in strategic locations will become ever more popular."

SCERS' investment in NREP Nordic Strategies Fund (NREP I) and NREP II is a strategic investment in the Nordic region. NREP targets residential, retail, and logistics properties across the Nordic region. During the quarter, SCERS made a \$40 million commitment to NREP Nordic Strategies Fund III, SCSp.

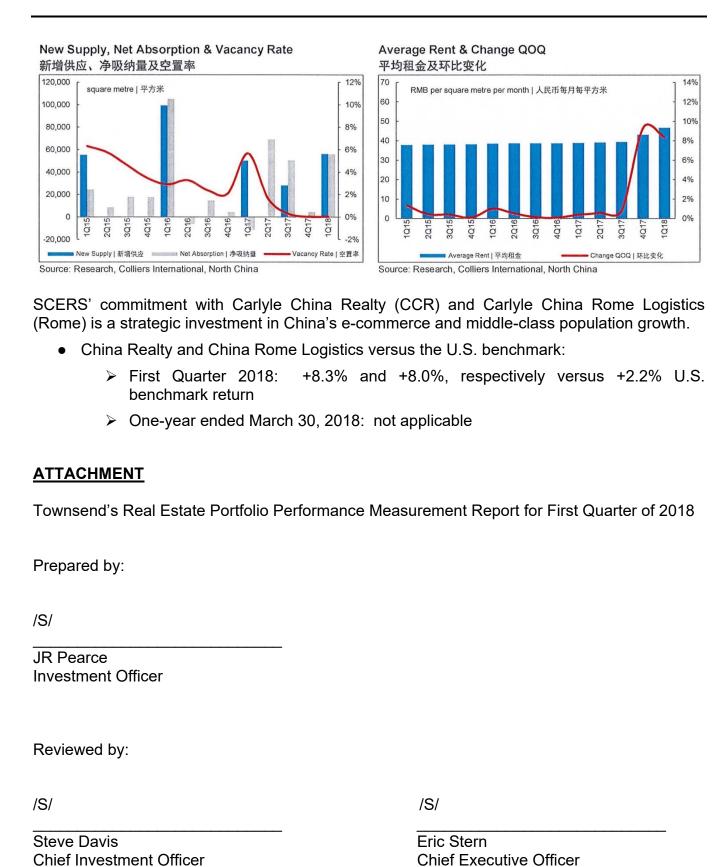
- NREP I and NREP II period returns versus the U.S. benchmark:
  - First Quarter 2018: +3.0% and +3.7%, respectively in U.S. dollars (+0.4% and +1.5% in Euros) versus +2.2% U.S. benchmark return
  - ➤ One-year ended March 30, 2018: +37.7% and +34.8%, respectively in U.S. dollars (+18.9% and +17.0% in Euros) versus +8.1% U.S. benchmark return

#### CHINA REAL ESTATE MARKET TRENDS

Colliers China reported strong demand and rapid rental growth in the prime logistics markets of Beijing, Tianjin, and Langfang in their Q1 2018 China Logistics market report.

"Very buoyant demand for prime logistics properties in the Beijing-Tianjin-Langfang region continued in Q1 2018. The fully occupied Beijing and Langfang logistics markets drove numerous tenants to Tianjin and the available space there was absorbed rapidly. Net take-up totaled 136,000 square metres (1.46 million sq ft) in Q1, which was flat compared with the same period in 2017. Average rents in the region witnessed substantial increases.

As we expected, demand for prime logistics space in Beijing remained extremely high in 2018. The imbalance between supply and demand became even more intense with the continued closure of illegal low-end warehouses, combined with the very limited new supply. Tenants who would like to enter the market or expand, however, were on standby in a long waitlist. Meanwhile, more and more tenants turned to Tianjin, resulting in a rapid absorption of Tianjin's remaining warehousing space."





# TOWNSEND\* GROUP an Aon company

## **SCERS Real Estate Portfolio Overview**

- In July 2017, Sacramento County Employees' Retirement System ("SCERS") Board adopted a series of changes to its Real Estate Investment Policy Statement. Real Estate, housed within the Real Return asset category, now includes Core, Non-Core and Non-U.S. Private Real Estate; thought there is no current exposure to Real Estate Investment Trusts ("REITs"), REITs are included within the Equity allocation. This report will focus on the SCERS Private Real Estate portfolio.
- SCERS targets 7.0% to Real Estate with an allowable range of 5.0% to 9.0%. As of the end of the First Quarter, 2018 (the "Quarter"), the Real Estate Portfolio remains within the allowable range at 8.9%. Core Real Estate currently makes up 74.5% of the portfolio, with Non-Core Real Estate making up the remaining 25.5%.

#### SCERS' Real Estate Portfolio Construction:

	Minimum	Target	Maximum
Total Real Estate Program	5.0%	7.0%	9.0%
	Minimum	Target	Maximum
Core Real Estate	50%	65%	80%
Non-Core Real Estate	20%	35%	50%
Non-U.S. Real Estate	0%	0%	30%

- Performance of the Core Portfolio is evaluated over rolling 10-year time periods relative to the NCREIF Fund Index of Open-End Diversified Core Equity funds ("NFI-ODCE"), net of fees. The NFI-ODCE represents the aggregation of twenty-four Core open-end commingled funds invested across the United States. The SCERS Core Portfolio outperformed the NFI-ODCE over all time periods. Rationale is detailed on slides 8 and 9.
- Townsend and Staff continue to evaluate and underwrite Non-Core opportunities in Asia, Europe and the United States.
- The loan-to-value ratio of the Private Real Estate Portfolio was 29.9% at the end of the First Quarter of 2018. The loan-to-value ratio of the Core Portfolio was 25.5%, below the 40.0% leverage constraint for Core as approved by the Board. As a point of reference, the loan-to-value ratio of the NFI-ODCE was 21.1% as of the First Quarter. The Non-Core Portfolio reported a loan-to-value ratio of 40.1%.

# **Portfolio Funding Status**



- The following slides provide a review of key information of the SCERS Real Estate Portfolio (the "Portfolio") through March 31, 2018.
- A detailed performance report is also provided in **Exhibit A**.
- Figures exclude commitments / redemptions / dispositions approved subsequent to Quarter-end.

SCERS Portfolio Snapshot As of March 31, 2018	Market Value (in millions of dollars)*	% of SCERS Plan
SCERS Total Plan Assets	9,216	100.0%
Private Portfolio Target	645	7.0%
Private Portfolio Permissible Range		5.0-9.0%
Private Real Estate		
Core Portfolio	612	6.6%
Non-Core Portfolio	210	2.3%
Total SCERS Private Real Estate Market Value	822	8.9%
Total SCERS Private Real Estate Unfunded Commitments	163	1.8%

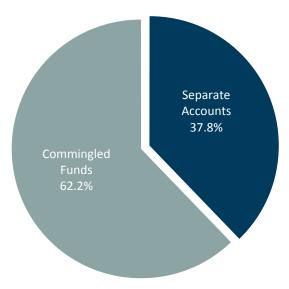
# **Real Estate Portfolio Composition**



#### **CORE PORTFOLIO**

- The SCERS Core Portfolio represents 6.6% of the Total Plan which is well within the established range for real estate of 5.0% to 9.0%. The Core Portfolio exposure represented 74.5% of the Private Real Estate Portfolio, and a breakout of the current allocation by vehicle is displayed below.
  - Core Commingled Fund exposure increased during the Quarter, as the carrying value of the positions appreciated by \$7.5 million.
- In July of 2017, Staff and Townsend recommended revising the Real Estate IPS to reflect transition away from IMAs, including removal of the Core vehicle constraints of 0-60% (30% target) for funds and 40-100% (70% target) for IMAs, which was subsequently approved by the Board.
- It is expected that the SCERS IMA Program will transition to a commingled fund manager before year-end 2018. Following an extensive bidding, selection and structuring process, Staff and Townsend have selected a recipient for the IMA Portfolio. Given the size of the IMA Portfolio, SCERS will also reduce concentration risk by allocating funds to an additional manager, in order to achieve greater diversification within the Core Portfolio. Additional due diligence and legal reviews are underway.

## **Core Portfolio Allocation By Vehicle**



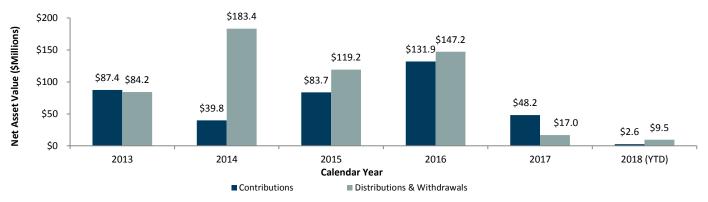
# **Real Estate Portfolio Composition**



#### **CORE PORTFOLIO**

Since 2014, SCERS has been a net seller of Core Real Estate. The chart below depicts the aggregate in-flows (contributions) and out-flows (distributions & withdrawals)\* for the Core Portfolio in calendar years 2013, 2014, 2015, 2016, 2017, and 2018. Each of the actions below was part of the Core Rebalancing Program, which was implemented to improve the quality of the SCERS Core Program, and reposition the Portfolio toward investments focused on strong net operating income growth.

	2013	2014	2015	2016	2017	2018 (YTD)
Acquisitions	<ul> <li>Prime Property Fund</li> <li>MetLife Core Property Fund</li> </ul>	<ul> <li>Jamestown Premier Property Fund</li> <li>Refinancing of Lake Washington Park (now unlevered)</li> </ul>	<ul> <li>Prologis USTLF</li> <li>Prologis ETLF</li> <li>Principal US Property Account</li> <li>Townsend Real Estate Fund ("TREF")</li> </ul>	Townsend Real Estate Fund Re- Up	Prologis USTLF     Re-Up	Prologis Europe     Re-Up
Dispositions	BlackRock Granite Fund (Full Redemption)	<ul> <li>Cornerstone Patriot Fund (Partial Redemption)</li> <li>Salt Pond</li> <li>Fontana Industrial</li> <li>Dupont</li> </ul>	<ul> <li>Cornerstone Patriot         <ul> <li>Fund (Remaining</li></ul></li></ul>	<ul><li>Gateway Corporate Center</li><li>Flying Cloud</li><li>Forest Pointe</li><li>Stonefield Apartments</li></ul>	• N/A	• N/A



<sup>\*</sup> Note that contributions, distributions and withdrawals will not only represent acquisitions and dispositions, but also income, refinancing activity and fees (where appropriate for accurate calculation of net asset values based on cash flows).

# **Real Estate Portfolio Composition (continued)**

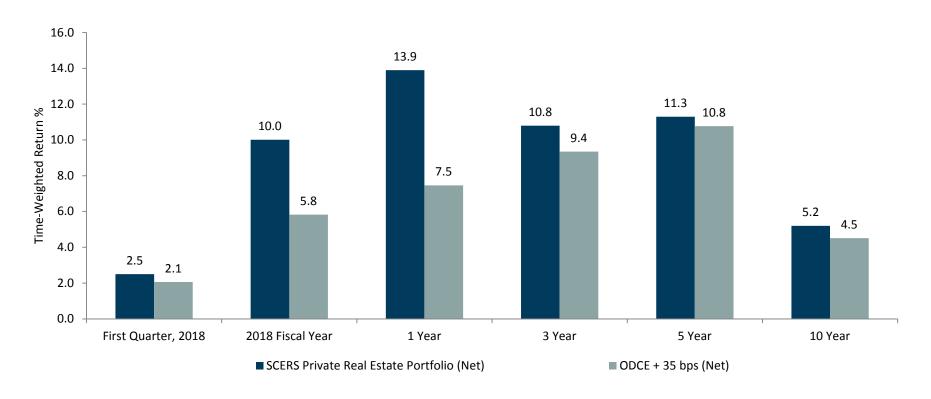


#### **Non-Core Portfolio**

- Non-Core Real Estate includes both Value Add and Opportunistic Real Estate strategies and is included in the SCERS Real Estate allocation with an allowable range of 20.0% to 50.0% of the Real Estate Portfolio. As of the First Quarter, the Non-Core Real Estate Portfolio was well within its established range, representing 25.5% of the Real Estate Portfolio but lower than the target 35%. Including all approved unfunded commitments through March 31, SCERS has an aggregate exposure of 3.8% to Non-Core opportunities, measured as a percentage of the Total Plan.
- Non-Core Real Estate includes investments that take on additional risk in order to achieve higher returns. Typical sources of risk are: development, redevelopment, rehabilitation, land investing, operating company investing, international exposure, debt investments, distressed properties and high leverage.
- Within the Opportunistic Portfolio, the BlackRock High Return Separate account acquired the Leland James Center ("LJC") in 2016. LJC is a joint venture with Cairn Pacific and Capstone Partners to redevelop and deliver a 4-story Class A creative office building in Portland, Oregon. LJC has experienced positive leasing momentum over the last six months, bringing the building to 72% occupancy. Additional leasing activity could increase the occupancy to 78% before Third Quarter 2018. To maximize its return, SCERS has chosen to retain the Leland James Center in the Portfolio until stabilization. Upon stabilization, the IMA asset will be transferred to the selected commingled fund manager at a new, independent valuation.
- In the first half of 2017, SCERS committed an aggregate \$30 million to Carlyle to invest in China. These investments provide the first ex-US exposure outside of Europe within the Private Real Estate Portfolio. Project Rome, a \$20 million co-invest, provides SCERS with exposure to a pre-specified portfolio of logistics assets in China, a compelling investment thematic. In addition, SCERS committed \$10 million to Carlyle China Realty fund. In February 2018, Carlyle decided to effectively discontinue new investment inside Carlyle China Realty Fund, after two departures from Carlyle's Asia Pacific team. As a result and in tandem with a desire for additional Chinese logistics exposure, SCERS completed a \$20 million re-up in April of 2018.
- During the Fourth Quarter 2017, SCERS committed \$25 million to Hammes Partners III, which is a continuation of Hammes Partners II strategy of acquiring medical office assets located in national markets. During the Quarter, SCERS committed \$40 million to NREP Nordic Strategies III, a diversified value-add fund and follow on commitment to Fund I and II.
- Based on discussions with managers, near-term liquidations are expected as the following funds wind-down: AEW Value Investors Fund II (2018), Hines U.S. Office Value Added Fund II (2018), and Allegis Value Trust Fund II (2018).
- Townsend and Staff continue to review Non-Core opportunities in Asia, Europe and the United States.

## **Private Real Estate Portfolio Performance**

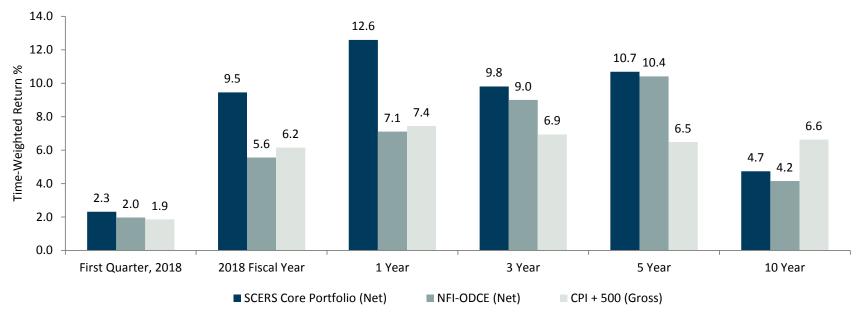




- The SCERS Private Real Estate Portfolio includes: (1) Core Real Estate and (2) Non-Core Real Estate.
- The SCERS Private Real Estate Benchmark is comprised of the NFI-ODCE (Core Benchmark, net) (65%) and the NFI-ODCE + 100bps (Non-Core Benchmark, net) (35%), resulting in an NFI-ODCE + 35bps (net) portfolio benchmark.
- On a net of fee basis, the SCERS Total Real Estate Portfolio performed above the blended benchmark for all time periods;
  - Strong near-term performance was driven by exposure to NREP's Nordics Fund I & II, Chinese industrial exposure (Carlyle), and an overweight exposure to logistics in the Core Portfolio (US & Europe).

## **Core Portfolio Performance**

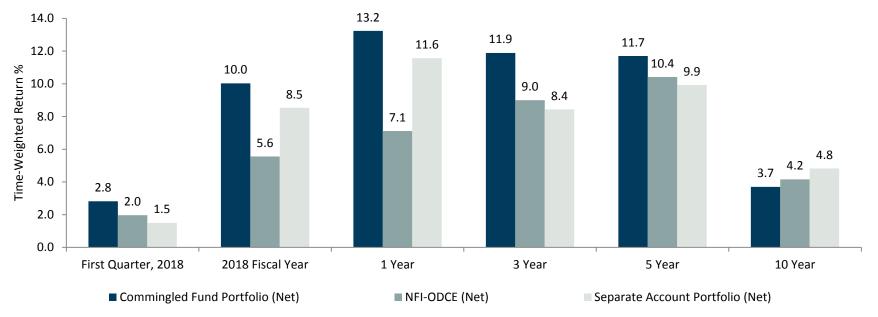




- The SCERS Core Portfolio consists of two Core Separate Accounts, managed by BlackRock and Cornerstone, and seven open-end Core Commingled funds. The Core Commingled Fund exposure includes Morgan Stanley's Prime Property Fund, MetLife Core Property Fund, Jamestown Premier Property Fund, Principal U.S. Property Account, Prologis Targeted U.S. Logistics Fund, Prologis European Logistics Fund, and Townsend Real Estate Fund. All recent investments in the commingled fund space have been accretive to outperforming the benchmark.
- Performance of the Core Portfolio is evaluated relative to the NCREIF Fund Index of Open-End Diversified Core Equity funds ("NFI-ODCE"), net of fees.
- In aggregate, the Core Portfolio outperforms the NFI-ODCE, net of fees, over all displayed time periods.
- The Core Portfolio has recently benefited from an overweight exposure to industrial, with both the Prologis U.S. and European fund generating a 1 year net return of 19.7% and 33.3%, respectively. In addition, the Core portfolio benefitted from a write-up of Jamestown's Chelsea Market, which Google is in contract to acquire for well above carrying value, resulting in a 1-year net return of 15.5%.
- Medium term performance experienced a drag from write-downs in the SCERS Separate Accounts, specifically for assets being sold that did not command the prior carrying value (Flying Cloud / Cornerstone Separate Account and Stonefield Apartments / Blackrock Separate Account).
- The SCERS Core Portfolio outperformed the CPI + 500 bps (the SCERS Real Asset benchmark), with the exception of the ten-year and since inception time period (since inception returns not displayed).

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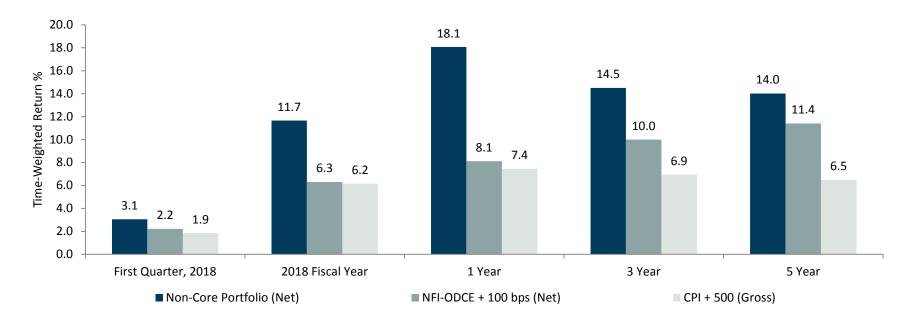
## **Core Portfolio Performance By Vehicle**



- Commingled Funds outperformed the NFI-ODCE over the Quarter, Fiscal, one-year, three-year, five-year and since inception time periods (not displayed) but underperformed over the ten-year time period. During the Quarter, the industrial sector continues to benefit from global economic growth, with Prologis Targeted U.S. Logistics Fund outperforming the ODCE by 150bps and Prologis Targeted Europe Logistics fund by 510 bps. Commingled Fund outperformance over the one-year time period is attributable to recent investments in Prologis Targeted U.S. Logistics Fund, Prologis Targeted Europe Logistics Fund, Prime Property Fund, MetLife Core Property Fund, Jamestown Premier Property Fund, Principal U.S. Property Account and Townsend Real Estate Fund.
- Longer term underperformance is primarily attributable to the inclusion of the BlackRock Granite Property Fund in historical returns (as a result, SCERS redeemed capital in the third Quarter of 2013). As a result, and also as part of the overall rebalancing plan for the Core Commingled Fund Portfolio, a partial redemption was made from Cornerstone Patriot Fund in 2014 followed by a full redemption in 2015.
- Separate Account performance has suffered as a result of recent sales activity, where sale prices trailed carrying value. The decision to liquidate was made in recognition of core pricing reaching a perceived cyclical peak and in tandem with efforts to rebalance the core portfolio with commingled funds. In July 2017, SCER's board approved a complete liquidation of the separate account assets, in favor of commingled fund investments going forward.
- Jamestown has entered into an agreement with Google to sell Chelsea Market. This price was well above carrying value and approximately half of the difference was recognized in 4Q17. As a result, Jamestown produced a net return of 3.1% during the Quarter.

## Non-Core Portfolio Performance

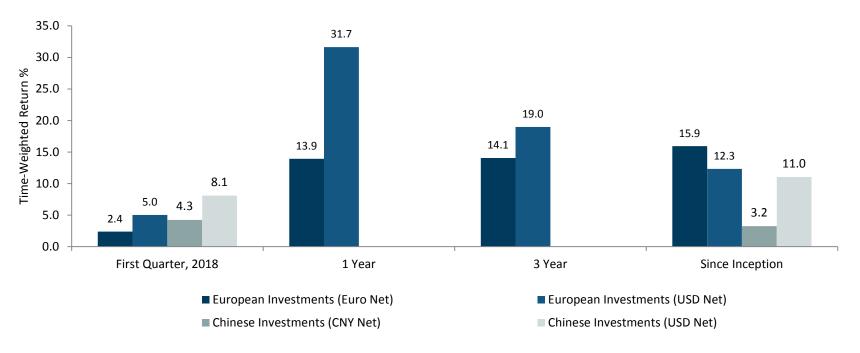




- The SCERS Non-Core Portfolio includes both Value Add and Opportunistic Real Estate strategies, which are defined in the Glossary of Terms. As displayed above, the SCERS Non-Core Portfolio outperformed the NFI-ODCE + 100 basis points over all periods displayed; short-term outperformance has been further augmented by the appreciation of the Euro relative to the Dollar.
- Outperformance over the shorter time periods is attributable to Value Add and Opportunistic strategies.
  - During the Quarter, the following Value Add funds were particularly accretive and have outperformed relative to the NFI-ODCE + 100bps (Net): Carlyle China Realty Fund (8.3%), DRC European Real Estate Debt Fund II (4.3%), ECE European Prime Shopping Centre Fund II (5.1%), NREP Nordic Strategies Fund (3.0%) and NREP Nordic Strategies Fund II (3.7%).
  - During the Quarter, the following Opportunistic funds were particularly accretive and have outperformed relative to the NFI-ODCE + 100bps (Net): Block 295 (2.9%), Carlyle's Project Rome (8.0%), and Och-Ziff Real Estate Fund III (7.7%).
- The five-year number also reflects a reset of market values for underperforming legacy investments following the global financial crisis.

## **Ex-US Portfolio Performance**

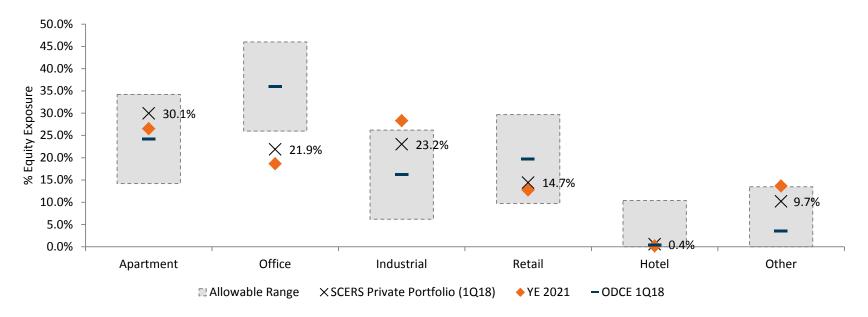




- Approximately 17% of the SCERS Portfolio is comprised of Ex-US investment. SCERS does not currently hedge its foreign currency exposures and pays liabilities in US Dollars. As such, FX movement will impact performance for Ex-US investments. The chart above isolates European and Asia investments and displays performance both before and after currency conversion.
- Currency movement has been favorable to foreign investments over recent time periods. The performance in dominant local currencies has also been positive and accretive to SCERS' primary benchmark.
- The SCERS Euro Denominated Composite includes: DRC European Real Estate Debt Fund II (Pound Sterling) 3.3%, ECE European Prime Shopping Center Fund II (Euro) 2.4%, NREP Nordic Strategies Fund (Euro) 0.4%, and NREP Nordic Strategies Fund II (Euro) 1.5%
  - Since Inception period begins 1Q14.
  - For the purposes of this composite, DRC has been included as a Euro denominated fund.
- The SCERS Chinese Yuan Denominated Composite includes: Carlyle China Realty Fund (Chinese Yuan) 4.5% and Carlyle's Project Rome (Chinese Yuan) 4.2%.
  - Since Inception period begins 3Q17.

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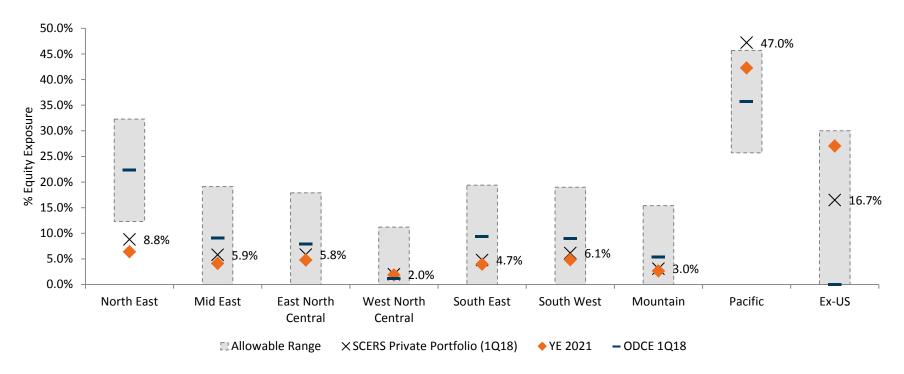
## **Real Estate Private Portfolio Diversification – Property Type**



- The diversification of the Private Portfolio is compared to the diversification of the NFI-ODCE, with a permissible deviation of ± 10.0% for each property type. The Real Estate Policy also allows for temporary deviations in order to provide SCERS with the flexibility required to overweight or underweight property types during certain parts of the market cycle.
- As of the First Quarter, the Private Portfolio was in compliance across all property types with the exception of office.
  - Favorable views on the industrial property type fundamentals support increasing exposure in today's environment. SCERS made a \$70 million commitment in 2014 to the industrial space (in both the US and Europe). SCERS made an additional contribution of \$15 million to Prologis USLF during the Quarter which further increased exposure. Going forward, exposure to logistics assets will increase as capital is called by Carlyle for the Project Rome co-invest and an additional \$15 million commitment to Prologis' European vehicle.
- Office strategies should be considered going forward given the current underweight to the property type and no real projected change to exposure through year-end 2020.
- The "Other" property type exposure represents Och-Ziff Real Estate Fund III (parking, senior housing and cell towers), KKR Real Estate Partners Americas (senior housing), CIM Fund VIII (condominiums), Hammes Partners II (medical office), Jamestown Premier Property Fund (signage One Times Square), Townsend Real Estate Fund (senior and student housing) and Prime Property Fund (self storage).

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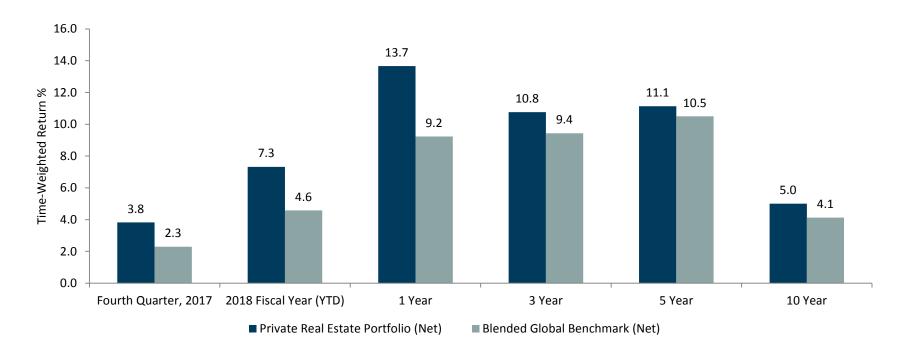
## Real Estate Private Portfolio Diversification – Geographic Region



- The diversification of the Private Portfolio is compared to the diversification of the NFI-ODCE, with a permissible deviation of ± 10.0% for each region. Ex-US exposure is limited to 30% of the Total Private Portfolio.
- As of the First Quarter, the Private Portfolio was in in breach of the target compliance range with an overweight exposure to the Pacific region and underweight exposure to the North East. Near-term plans for terminating the separate account program should dilute the Portfolio's exposure to the Pacific region, given the separate account program's current exposure of more than 90% to the pacific region, as capital gets redeployed across regions.
- Tactical overweight/underweight positions may exist over time.
- The Private Portfolio's international exposure is 16.7%, well within its 30% constraint, but will increase as KKR Real Estate Partners Americas, Och-Ziff Real Estate Fund III, NREP Nordic Strategies Fund II & III, ECE European Prime Shopping Centre Fund II, and Prologis European Logistics Fund continue to call capital and purchase assets in Europe.
- In 2017, SCERS committed to Carlyle China Realty (\$10m) and Project Rome co-invest (\$20m initial; \$20m re-up April 2017) which will increase Ex-US exposure and diversify international exposure as both investments are 100% China. As of 1Q18, these investments provide \$15 million in equity exposure to China.

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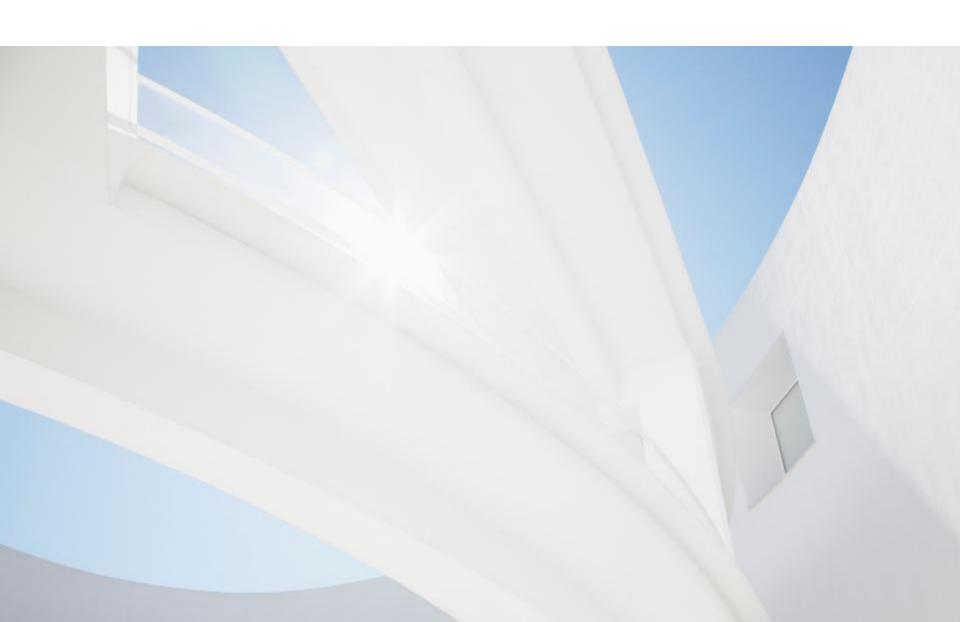
## **Private Real Estate Performance – Global Ancillary Benchmark (4Q17)**



The Global Ancillary Benchmark is made-up of a the NFI-ODCE (Core), NFI-ODCE + 100bps (Non-Core), GREFI Europe Core and GREFI Europe Non-Core to create a global blended benchmark based on weighted average invested capital for each strategy.

- GREFI reports on a 12 week lag so the ancillary bench will be reported on a quaterly lag to SCERS.
- The Private Portfolio's international exposure is 16.5%, well within its 30% constraint. International exposure is mainly non-core in nature, with the exception of Prologis Targeted Europe Logistics Fund.
- The SCERS Private Real Estate program has outperformed it's secondary benchmark over all time periods.

**Exhibit A: Performance Flash Report** 





Portfolio Composition (\$)								
Total Plan Assets	Alloc	ation	Market '	Value	Unfunded Cor	mmitments	Remaining A	llocation
9,216,398,538	Core	7.0%	612,080,666	6.6%	21,301,014	0.2%	11,766,218	0.1%
	Non-Core	0.00% - 5.00%	210,038,860	2.3%	141,300,469	1.5%	-143,970,362	-1.6%
	Total	7.0%	822,119,526	8.9%	162,601,483	1.8%	-132,204,144	-1.4%

Performance Summary	Quart	er (%)	1 Yea	ar (%)	3 Yea	ar (%)	5 Year (%)		
	TGRS TNET		TGRS	TNET	TGRS	TNET	TGRS	TNET	
Core Portfolio (Commingled Funds & Separate Accounts)	2.6	2.3	14.0	12.6	11.1	9.8	12.1	10.7	
Non-Core Portfolio (Value Added & Opportunistic, 1Q2007 Forward)	3.4	3.1	20.6	18.1	17.2	14.5	17.1	14.0	
Private Real Estate Portfolio	2.8	2.5	15.6	13.9	12.4	10.8	13.0	11.3	
NFI-ODCE (Core)	2.2	2.0	8.1	7.1	10.0	9.0	11.4	10.4	
NFI-ODCE + 100 bps (Non-Core)	2.4	2.2	9.1	8.1	11.0	10.0	12.4	11.4	
NFI-ODCE + 35 bps (Private Portfolio)	2.3	2.1	8.4	7.5	10.3	9.4	11.8	10.8	

Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
Core Commingled Funds								
Jamestown Premier Property Fund	2014	15,000,000	19,204,426	5,279,323	10,997,491	17,283,962	2.1	2.3
MetLife Core Property Fund	2013	35,000,000	42,760,510	0	8,350,974	56,141,376	6.8	5.7
Prime Property Fund	2013	35,000,000	43,009,955	0	8,009,955	56,940,419	6.9	5.8
Principal U.S. Property Account	2015	35,000,000	35,000,000	0	0	43,184,916	5.3	4.4
Prologis European Logistics Fund	2015	33,122,637	34,479,993	16,021,691	603,778	38,711,711	4.7	5.6
Prologis Targeted U.S. Logistics Fund	2015	50,000,000	50,000,000	0	3,461,086	63,574,107	7.7	6.5
Townsend Real Estate Fund, L.P. <sup>1</sup>	2016	90,000,000	95,606,449	0	5,606,449	104,936,958	12.8	10.7
Core Commingled Funds	1986	293,122,637	320,061,333	21,301,014	37,029,733	380,773,449	46.3	40.8
Core Separate Accounts								
BlackRock Core Separate Account	1995	0	828,325,647	0	1,043,630,447	153,159,709	18.6	15.6
BlackRock Separate Account (PM Realty Takeover)	2002	0	150,601,481	0	216,358,440	0	0.0	0.0
Cornerstone Separate Account	2004	0	255,273,169	0	270,306,331	78,147,508	9.5	7.9
Core Separate Accounts	1996	0	1,234,200,297	0	1,530,295,218	231,307,217	28.1	23.5
Total BlackRock Separate Account	1996	0	997,183,048	0	1,259,988,887	176,344,259	18.6	15.6
Total Core Portfolio	1986	293,122,637	1,554,261,630	21,301,014	1,567,324,951	612,080,666	74.5	64.3
Value Added Portfolio								
AEW Value Investors Fund II <sup>1</sup>	2007	21,812,596	21,857,719	0	27,736,393	45,482	0.0	0.0
Allegis Value Trust	2006	25,000,000	25,550,296	0	17,909,296	15,129,523	1.8	1.5
Carlyle China Realty	2017	10,000,000	3,941,786	6,058,215	0	3,821,589	0.5	1.0
DRC European Real Estate Debt Fund II	2013	50,007,963	45,526,846	28,845,628	36,221,987	13,340,997	1.6	4.3
ECE European Prime Shopping Centre Fund II	2015	33,611,623	7,866,449	29,456,104	1,459,582	11,159,220	1.4	4.1
Hammes Partners II	2015	25,000,000	21,777,781	4,131,376	5,056,412	19,345,615	2.4	2.4
Hines US Office Value Added Fund II	2007	25,000,000	24,382,964	846,154	16,970,755	545,685	0.1	0.1
NREP Nordic Strategies Fund	2014	25,130,756	21,924,715	606,976	19,571,286	19,993,107	2.4	2.1
NREP Nordic Strategies Fund II	2016	35,176,432	20,437,423	17,349,493	1,420,508	23,494,549	2.9	4.1
Value Added Portfolio	1986	250,739,370	193,265,979	87,293,946	126,346,219	106,875,767	13.0	19.7

Funding Status 16



**Market Value** Commitment Funded Unfunded Capital Market Market Investment Funding Status (\$) + Unfunded **Vintage Year** Amount Amount Commitments Returned Value Value (%) Commitments (%) Opportunistic Portfolio 23,184,550 BlackRock High Return Separate Account 2016 0 18,255,920 0 0 2.8 2.4 Carlyle China Project Rome Co-Investment 2017 20,000,000 10,951,455 9,329,790 0 11,557,740 1.4 2.1 CIM Fund VIII 2015 35,000,000 25,939,053 11,692,227 857,764 29,688,692 3.6 4.2 KKR Real Estate Partners Americas<sup>1</sup> 2014 35,000,000 28,696,700 16,686,640 17,647,361 20,174,586 2.5 3.7 Och-Ziff Real Estate Fund III 3.5 2014 35,000,000 20,265,478 16,297,866 9,178,782 18,557,525 2.3 1991 16.0 Opportunistic Portfolio 125,000,000 104,108,606 54,006,523 27,683,907 103,163,093 12.5 Total Non-Core Portfolio 1Q 2007 Forward 2007 375,739,370 297,374,585 141,300,469 154,030,126 210,038,860 25.5 35.7 Total Private Portfolio SCERS 1986 668.862.007 1,851,636,215 162,601,483 1,721,355,077 822,119,526 100.0 100.0

Funding Status 17

<sup>&</sup>lt;sup>1</sup> Preliminary performance, subject to change.



Returns (%)	Market Value	Quarter			Fiscal Ye	ar 2018			1 Ye	ear		3 Year					
necuris (76)	(\$)	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	
Core Commingled Funds																	
Jamestown Premier Property Fund	17,283,962	0.9	3.6	4.5	3.1	3.4	13.9	17.6	13.2	4.7	15.4	20.6	15.5	4.6	10.9	15.9	12.3
MetLife Core Property Fund	56,141,376	1.3	0.8	2.1	2.0	3.6	3.9	7.6	7.3	5.0	3.4	8.6	8.1	5.1	5.8	11.1	10.5
Prime Property Fund	56,940,419	0.9	1.3	2.3	2.0	3.0	4.2	7.2	6.5	4.1	5.7	9.9	8.8	4.3	7.2	11.7	10.5
Principal U.S. Property Account	43,184,916	1.2	0.9	2.1	1.9	3.5	3.1	6.7	5.9	4.7	4.3	9.1	8.1				
Prologis European Logistics Fund <sup>5</sup>	38,711,711	1.5	6.4	7.9	7.1	4.4	19.7	24.6	21.8	5.9	28.7	35.9	33.3				
Prologis Targeted U.S. Logistics Fund	63,574,107	1.3	2.7	4.0	3.5	3.9	14.0	18.3	15.8	5.3	17.3	23.3	19.7				
Townsend Real Estate Fund, L.P. <sup>2</sup>	104,936,958	1.0	1.2	2.2	2.1	3.3	4.2	7.5	7.3	4.3	6.0	10.5	10.2				
Core Commingled Funds	380,773,449	1.1	2.0	3.2	2.8	3.5	7.5	11.2	10.0	4.8	9.6	14.7	13.2	4.7	8.2	13.2	11.9
Core Separate Accounts																	
BlackRock Core Separate Account	153,159,709	1.2	1.0	2.1	1.8	3.8	3.0	6.9	5.8	5.0	4.3	9.5	7.9	5.0	6.3	11.6	9.9
BlackRock Separate Account (PM Realty Takeover)	0																
Cornerstone Separate Account	78,147,508	1.0	0.0	1.1	0.9	3.2	11.6	15.1	14.6	4.4	15.7	20.7	20.0	4.7	6.7	11.6	10.9
Core Separate Accounts	231,307,217	1.1	0.7	1.8	1.5	3.6	5.8	9.5	8.5	4.8	7.8	12.9	11.6	4.9	4.7	9.7	8.4
Total BlackRock Separate Account	176,344,259	1.0	1.3	2.2	1.9	3.3	4.3	7.5	6.3	4.3	6.5	11.0	9.3	4.6	4.9	9.7	8.2
Total Core Portfolio	612,080,666	1.1	1.5	2.6	2.3	3.6	6.8	10.6	9.5	4.8	8.9	14.0	12.6	4.8	6.1	11.1	9.8
Value Added Portfolio																	
AEW Value Investors Fund II <sup>2,4</sup>	45,482																
Allegis Value Trust <sup>1</sup>	15,129,523	1.1	-3.9	-2.8	-2.9	3.4	-1.6	1.8	1.5	4.8	-0.7	4.1	3.7	5.5	1.6	7.2	6.7
Carlyle China Realty	3,821,589	-0.2	8.5	8.3	8.3	-0.4	11.6	11.2	8.6								•
DRC European Real Estate Debt Fund II	13,340,997	0.8	3.8	4.6	4.3	4.6	8.4	13.3	12.3	12.8	10.8	24.7	23.2	11.9	-3.4	8.2	6.7
ECE European Prime Shopping Centre Fund II C	11,159,220	1.0	4.4	5.3	5.1	9.5	13.6	23.9	23.6	10.1	19.8	31.3	28.0	11.5	3.4	0.2	0.7
Hammes Partners II	19,345,615	1.5	1.3	2.8	2.1	5.6	3.9	9.6	7.5	8.3	4.0	12.5	9.6				
Hines US Office Value Added Fund II	545,685	1.5	1.5	2.0	2.1	5.0	3.3	5.0	7.5	0.5	4.0	12.5	5.0				
NREP Nordic Strategies Fund	19,993,107	1.5	1.8	3.2	3.0	4.3	16.8	21.6	20.9	6.9	30.4	38.7	37.7	10.8	30.1	43.1	41.3
NREP Nordic Strategies Fund II	23,494,549	-0.8	5.5	4.7	3.7	-1.3	29.1	27.5	22.4	0.6	43.0	43.6	34.8	10.8	30.1	43.1	41.3
Value Added Portfolio	106,875,767	0.8	2.3	3.1	2.7	2.5	6.0	8.6	7.7	7.0	<b>16.3</b>	<b>24.1</b>	21.4	8.2	9.6	18.4	15.9
Opportunistic Boytfolio																	
Opportunistic Portfolio	22 404 550	0.4	2.2	2.0	2.0	0.6	12.1	12.6	10.1	0.6	24.4	22.4	24.0				
BlackRock High Return Separate Account	23,184,550	-0.4	3.3	3.0	2.9	-0.6	13.1	12.6	10.4	-0.6	24.1	23.4	21.0				
Carlyle China Project Rome Co-Investment	11,557,740	-0.1	8.1	8.0	8.0	-0.4	13.5	13.1	11.9	0.1	6.0	c 7	<b>5</b> 4	0.4	11.0	11.1	0.6
CIM Fund VIII	29,688,692	0.0	1.7	1.7	1.3	-0.1	2.9	2.8	1.6	-0.1	6.8	6.7	5.1	0.1	11.0	11.1	8.6
KKR Real Estate Partners Americas <sup>2</sup>	20,174,586	1.9	-0.2	1.7	1.8	9.3	-3.0	6.2	5.6	11.5	-1.0	10.5	8.9	11.1	0.4	11.9	9.3
Och-Ziff Real Estate Fund III <sup>3</sup>	18,557,525	4.1	4.5	8.6	7.7	9.4	22.3	33.0	29.6	12.4	28.8	43.8	38.9	12.4	19.8	34.0	25.0
Opportunistic Portfolio	103,163,093	0.9	2.8	3.7	3.5	1.9	4.8	6.7	6.0	4.1	12.2	16.8	14.4	5.4	9.8	15.6	12.2
Total Non-Core Portfolio 1Q 2007 Forward	210,038,860	0.8	2.6	3.4	3.1	3.5	9.5	13.2	11.7	5.6	14.4	20.6	18.1	7.2	9.6	17.2	14.5
Total Private Portfolio																	
SCERS	822,119,526	1.1	1.8	2.8	2.5	3.6	7.5	11.2	10.0	5.0	10.3	15.6	13.9	5.3	6.8	12.4	10.8
Ex-US Dollar Denominated Investments (In Local Currency)																	
Prologis Targeted Europe Logistics Fund (Euro)	€ 31,410,682	1.5	3.6	5.1	4.3	4.9	10.3	15.5	12.9	5.8	11.3	17.5	15.3				
DRC European Real Estate Debt Fund II (Pound Sterling)	£9,517,467	0.8	0.0	0.8	0.5	6.2	0.0	6.2	5.3	12.6	0.0	12.6	11.3	11.9	-1.5	10.3	8.8
ECE European Prime Shopping Centre Fund II (Euro)	€ 9,054,591	1.4	1.2	2.6	2.4	11.6	3.8	15.7	15.4	10.5	3.1	13.6	10.7				
NREP Nordic Strategies Fund (Euro)	€ 16,222,407	1.4	-0.9	0.6	0.4	4.7	7.7	12.7	12.1	6.7	12.5	19.8	18.9	10.8	24.0	36.5	34.7
NREP Nordic Strategies Fund II (Euro)	€ 19,063,477	-0.8	3.3	2.5	1.5	-1.3	20.1	18.7	13.9	0.5	24.0	24.6	17.0				
Indices																	
NFI ODCE+ 35bps				2.3	2.1			6.5	5.8			8.4	7.5			10.3	9.4
NFI-ODCE		1.0	1.2	2.2	2.0	3.2	3.0	6.3	5.6	4.3	3.6	8.1	7.1	4.5	5.3	10.0	9.0
NFI-ODCE + 100bps				2.4	2.2			7.0	6.3			9.1	8.1			11.0	10.0
CPI + 500 bps				1.9				6.2				7.4				6.9	

Returns <sup>18</sup>



2 (00)	Market Value		5 ۱	ear (			10 \	ear (			Ince	ption		T	Net	Equity
Returns (%)	(\$)	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	Calculation Inception	IRR	Multiple
Core Commingled Funds														песрион		
Jamestown Premier Property Fund	17,283,962									4.7	10.4	15.5	12.2	1Q14	12.2	1.5
MetLife Core Property Fund	56,141,376									5.1	7.3	12.7	12.1	1Q14	12.2	1.5
Prime Property Fund	56,940,419									4.4	8.2	12.9	11.6	4Q13	11.6	1.5
Principal U.S. Property Account	43,184,916									4.8	4.8	9.8	8.8	4Q15	8.8	1.2
Prologis European Logistics Fund <sup>5</sup>	38,711,711									4.4	13.0	17.8	16.5	1Q16	13.8	1.2
Prologis Targeted U.S. Logistics Fund	63,574,107									5.7	13.4	19.6	16.8	3Q15	18.0	1.3
Townsend Real Estate Fund, L.P. <sup>2</sup>	104,936,958									4.4	6.2	10.9	10.6	2Q16	10.4	1.2
Core Commingled Funds	380,773,449	4.7	8.0	12.9	11.7	5.0	-0.3	4.7	3.7	4.5	3.4	8.0	7.1	4Q86	6.6	1.3
Core Separate Accounts																
BlackRock Core Separate Account	153,159,709	5.3	7.1	12.6	10.6	5.3	0.6	6.0	4.8	7.0	3.2	10.4	8.8	1Q96	10.0	1.4
· ·	155,159,709	5.5	7.1	12.0	10.6	5.5	0.0	6.0	4.0	7.0	3.2	10.4	0.0	3Q02	8.3	1.4
BlackRock Separate Account (PM Realty Takeover)	70 147 500	F 2	<i>c</i> 0	12.2	11.0	F 4	1.4	<i>c</i> 0	C 1		2.7	0.4	7.5	-		
Cornerstone Separate Account	78,147,508	5.2 <b>5.2</b>	6.9	12.3 <b>11.4</b>	11.6 <b>9.9</b>	5.4	1.4	6.9	6.1 <b>4.8</b>	5.5 <b>7.1</b>	2.7 <b>3.0</b>	8.4 <b>10.3</b>	7.5 <b>9.0</b>	3Q04	5.6 <b>8.9</b>	1.4 <b>1.4</b>
Core Separate Accounts	231,307,217		6.0			5.3	0.5	5.9						1Q96		
Total BlackRock Separate Account	176,344,259	4.9	6.3	11.5	9.7	5.2	0.5	5.7	4.5	7.1	3.2	10.4	9.0	1Q96	9.8	1.4
Total Core Portfolio	612,080,666	5.0	6.8	12.1	10.7	5.2	0.5	5.8	4.7	5.6	1.9	7.6	6.6	4Q86	8.4	1.4
Value Added Portfolio																
AEW Value Investors Fund II <sup>2,4</sup>	45,482													3Q07	5.6	1.3
Allegis Value Trust <sup>1</sup>	15,129,523	5.7	1.9	7.7	7.2	5.5	-8.4	-3.3	-4.2	4.8	-4.4	0.3	-1.3	1Q07		
Carlyle China Realty	3,821,589									-0.4	11.6	11.2	8.6	3Q17	-4.1	1.0
DRC European Real Estate Debt Fund II	13,340,997									10.9	-4.8	5.8	3.8	1Q14	3.8	1.1
ECE European Prime Shopping Centre Fund II C	11,159,220									2.1	25.2	28.0	25.1	4Q15	25.1	1.6
Hammes Partners II	19,345,615									10.7	7.4	18.9	13.0	3Q15	9.7	1.1
Hines US Office Value Added Fund II	545,685													4Q07	-4.9	0.7
NREP Nordic Strategies Fund	19,993,107									11.5	23.5	37.0	35.0	1Q15	34.9	1.8
NREP Nordic Strategies Fund II	23,494,549									4.0	28.2	33.0	18.3	3Q16	22.8	1.2
Value Added Portfolio	106,875,767	7.8	8.4	16.6	14.3	6.8	-5.2	1.2	-0.9	1.9	3.8	5.8	4.6	4Q86	5.0	1.2
Opportunistic Portfolio																
BlackRock High Return Separate Account	23,184,550									-1.2	20.4	19.0	17.7	3Q16	17.6	1.3
Carlyle China Project Rome Co-Investment	11,557,740									-0.4	13.5	13.1	11.9	3Q17	7.4	1.1
CIM Fund VIII	29,688,692									0.1	11.0	11.1	8.6	2Q15	7.5	1.2
KKR Real Estate Partners Americas <sup>2</sup>	20,174,586									9.8	2.5	12.8	9.1	2Q14	14.2	1.3
Och-Ziff Real Estate Fund III <sup>3</sup>	18,557,525									17.0	17.0	36.3	10.0	4Q14	26.1	1.4
Opportunistic Portfolio	103,163,093	4.7	17.2	22.6	17.4	3.6	16.3	20.3	14.7	1.3	8.4	9.8	7.8	1Q91	26.5	1.4
Total Non-Core Portfolio 1Q 2007 Forward	210,038,860	7.1	9.5	17.1	14.0	5.7	3.7	9.5	6.0	4.5	5.3	9.9	5.6	1Q07	7.4	1.3
Total Private Portfolio																
SCERS	822,119,526	5.4	7.3	13.0	11.3	5.4	1.1	6.5	5.2	4.4	4.7	9.3	8.3	4Q86	8.3	1.4
Ex-US Dollar Denominated Investments (In Local Currency)																
Prologis Targeted Europe Logistics Fund (Euro)	€ 31,410,682									4.4	6.8	11.4	10.1	1Q16	10.3	1.1
DRC European Real Estate Debt Fund II (Pound Sterling)	£9,517,467									10.9	-0.9	9.9	7.8	1Q14	7.9	1.2
ECE European Prime Shopping Centre Fund II (Euro)	€ 9,054,591									1.9	20.6	23.4	20.6	4Q15	19.8	1.5
NREP Nordic Strategies Fund (Euro)	€ 16,222,407									11.6	22.6	36.1	34.0	1Q15	34.5	1.8
NREP Nordic Strategies Fund II (Euro)	€ 19,063,477									4.0	20.5	25.0	11.2	3Q16	13.5	1.1
Indices																
NFI ODCE+ 35bps				11.8	10.8			5.5	4.5			7.7	6.7	4Q86		
NFI-ODCE		4.7	6.5	11.4	10.4	5.2	-0.1	5.1	4.2	6.8	0.5	7.3	6.3	4Q86		
NFI-ODCE + 100bps				12.4	11.4			6.1	5.2			8.3	7.3	4Q86		
CPI + 500 bps				6.5				6.6				7.7		4Q86		

Returns 19



Datuma (n/)	Market Value		Qua	arter		Fisc	cal Year	2018 (Y	TD)		11	/ear		3 Year			
Returns (%)	(\$)	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET
BlackRock Core Separate Account																	
1811 Brittmoore	13,154,005	0.8	0.8	1.7	1.6	3.2	0.8	4.0	3.6	5.1	-0.2	4.9	4.5	6.1	-0.2	6.0	6.7
Forest Pointe <sup>1</sup>	112,519																
Harbour Pointe	39,621,012	1.3	1.7	3.0	2.4	4.0	2.6	6.7	5.3	5.3	6.9	12.5	10.3	5.5	5.2	10.9	8.8
Hillside Village	43,415,030	1.0	0.1	1.1	0.8	3.4	3.2	6.6	5.2	4.3	3.9	8.3	6.5	4.3	10.5	15.1	12.1
Lake Washington Park	39,190,704	1.2	0.9	2.1	2.0	3.6	1.9	5.5	5.1	4.5	2.4	7.0	6.4	4.7	3.8	8.7	8.2
SCERS - Portfolio Master Acct. <sup>2</sup>	80,390																
The Tower at Hollywood Hills	17,586,050	1.4	1.8	3.3	2.6	4.8	8.6	13.6	11.0	6.3	8.0	14.7	11.6	5.7	9.7	15.8	12.4
Investment Total	153,159,710	1.2	1.0	2.1	1.8	3.8	3.0	6.9	5.8	5.0	4.3	9.5	7.9	5.0	6.3	11.6	9.9
BlackRock Separate Account (PM Realty Takeover)																	
Stonefield Apts <sup>1</sup>	0																
Investment Total	0	-21.0	0.0	-21.0	-21.0	-21.3	0.0	-21.3	-21.3	-20.9	-0.1	-20.9	-20.9	-4.7	-11.7	-15.7	-16.1
Cornerstone Separate Account																	
Crescent Park	78,131,563	1.0	0.0	1.1	0.9	3.2	11.6	15.1	14.6	4.4	15.7	20.7	20.0	4.9	11.6	16.9	16.1
Flying Cloud <sup>1</sup>	4,437																
Gateway Corporate <sup>1</sup>	2,021																
Salt Pond <sup>1</sup>	9,488																
Investment Total	78,147,508	1.0	0.0	1.1	0.9	3.2	11.6	15.1	14.6	4.4	15.7	20.7	20.0	4.7	6.7	11.6	10.9
BlackRock High Return Separate Account																	
Block 295	23,184,550	-0.4	3.3	3.0	2.9	-0.5	13.2	12.6	10.4	-0.6	24.1	23.4	21.0				
Investment Total	23,184,550	-0.4	3.3	3.0	2.9	-0.5	13.2	12.6	10.4	-0.6	24.1	23.4	21.0				
Total																	
Total Separate Accounts	254,491,768	1.0	0.9	1.9	1.6	3.2	6.4	9.7	8.7	4.3	9.1	13.7	12.3	4.6	5.2	10.0	8.7
Index																	
NFI-ODCE		1.0	1.2	2.2	2.0	3.2	3.0	6.3	5.6	4.3	3.6	8.1	7.1	4.5	5.3	10.0	9.0

<sup>&</sup>lt;sup>1</sup> This asset has been sold and the market value represents a remaining cash balance.

<sup>&</sup>lt;sup>2</sup> SCERS - Cash account that holds leftover cash from previous sales and used for various expenses.



Returns (%)	Market Value		5 Y	'ear		Ince	otion	TWR Calculation	Net	Equity
Returns (%)	(\$)	INC	APP	TGRS	TNET	TGRS	TNET	Inception	IRR	Multiple
BlackRock Core Separate Account										
1811 Brittmoore	13,154,005	6.2	2.2	8.6	8.0	9.6	9.1	4Q12	9.1	1.5
Forest Pointe <sup>1</sup>	112,519							4Q05	5.2	1.3
Harbour Pointe	39,621,012	5.8	6.2	12.2	9.9	8.5	7.0	4Q05	7.4	1.6
Hillside Village	43,415,030		12.3	17.0	14.3	8.2	6.7	4Q07	4.6	1.4
Lake Washington Park	39,190,704	4.3	7.9	12.5	11.8	3.5	2.8	3Q07	3.5	1.3
SCERS - Portfolio Master Acct. <sup>2</sup>	80,390							2Q01	4.5	1.7
The Tower at Hollywood Hills	17,586,050	5.4	8.9	14.6	11.7	9.3	7.4	1Q08	6.3	1.6
Investment Total	153,159,710	5.3	7.1	12.6	10.6	10.4	8.8	1Q96	10.0	1.4
BlackRock Separate Account (PM Realty Takeover)										
Stonefield Apts <sup>1</sup>	0							1Q03	6.8	1.3
Investment Total	0	-1.3	-3.6	-4.8	-5.3	4.4	3.4	3Q02	8.3	1.4
Cornerstone Separate Account										
Crescent Park	78,131,563	4.9	10.9	16.2	15.4	8.0	7.0	1Q06	6.7	1.9
Flying Cloud <sup>1</sup>	4,437							4Q06	0.1	1.0
Gateway Corporate <sup>1</sup>	2,021							1Q08	-1.4	0.9
Salt Pond <sup>1</sup>	9,488							3Q04	7.2	1.6
Investment Total	78,147,508	5.2	6.9	12.3	11.6	8.4	7.5	3Q04	5.6	1.4
BlackRock High Return Separate Account										
Block 295	23,184,550					19.0	17.7	3Q16	17.6	1.3
Investment Total	23,184,550					19.0	17.7	3Q16	17.6	1.3
Total										
Total Separate Accounts	254,491,768	5.0	6.3	11.6	10.1	10.3	9.0	1Q96	8.9	1.4
Index										
NFI-ODCE	-	4.7	6.5	11.4	10.4	7.3	6.3	4Q86		

 $<sup>^{^{1}}\</sup>mbox{ This asset has been sold and the market value represents a remaining cash$ 

<sup>&</sup>lt;sup>2</sup> SCERS - Cash account that holds leftover cash from previous sales and used



Returns (%)	Market Value (\$)		Qua	arter		Fis	scal Year	2018 (YT	(D)		1 Y	'ear			3 Y	'ear	
	(*/	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET
Core Separate Accounts																	
BlackRock Core Separate Account	153,159,709	1.2	1.0	2.1	1.8	3.8	3.0	6.9	5.8	5.0	4.3	9.5	7.9	5.0	6.3	11.6	9.9
BlackRock Separate Account (PM Realty Takeover)	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cornerstone Separate Account	78,147,508	1.0	0.0	1.1	0.9	3.2	11.6	15.1	14.6	4.4	15.7	20.7	20.0	4.7	6.7	11.6	10.9
Core Separate Accounts	231,307,217	1.1	0.7	1.8	1.5	3.6	5.8	9.5	8.5	4.8	7.8	12.9	11.6	4.9	4.7	9.7	8.4
Total BlackRock Separate Account	176,344,259	1.0	1.3	2.2	1.9	3.3	4.3	7.5	6.3	4.3	6.5	11.0	9.3	4.6	4.9	9.7	8.2
Separate Account Returns by Property Type																	
Apartment	139,245,161	1.1	0.3	1.3	1.1	3.4	8.4	12.0	10.9	4.6	10.6	15.6	14.2	4.8	6.8	11.8	10.3
Industrial	13,154,005	0.8	0.8	1.7	1.6	3.2	0.8	4.0	3.6	5.1	-0.2	4.9	4.5	5.8	-0.1	5.7	6.4
Office	62,381,711	0.6	1.8	2.4	2.3	2.1	5.8	7.9	6.9	2.7	9.4	12.3	11.2	3.3	3.3	6.7	6.0
Retail	39,630,500	1.3	1.7	3.0	2.4	4.0	2.6	6.7	5.3	5.3	6.9	12.5	10.3	5.6	5.2	11.0	8.9
	33,030,300	1.5	1.,	3.0	2	4.0	2.0	0.7	3.3	3.3	0.5	12.5	10.5	3.0	3.2	11.0	0.5
Total Private Portfolio																	
SCERS	822,119,526	1.1	1.8	2.8	2.5	3.6	7.5	11.2	10.0	5.0	10.3	15.6	13.9	5.3	6.8	12.4	10.8
NPI Property Level Returns																	
NPI- Apartment		1.1	0.4	1.5		3.2	1.6	4.9		4.4	1.9	6.4		4.5	3.3	8.0	
NPI- Industrial		1.2	2.0	3.3		3.7	6.3	10.1		5.0	8.2	13.5		5.2	7.8	13.3	
NPI-Office		1.1	0.7	1.8		3.4	1.4	4.9		4.6	1.9	6.6		4.6	3.0	7.7	
NPI-Retail		1.1	-0.4	0.7		3.5	-0.2	3.2		4.7	0.1	4.8		4.9	3.5	8.4	
				***			*	*		***	*	***		***		<del>-</del>	
Indices																	
NFI-ODCE		1.0	1.2	2.2	2.0	3.2	3.0	6.3	5.6	4.3	3.6	8.1	7.1	4.5	5.3	10.0	9.0



Returns (%)	Market Value (\$)		5 Y	'ear			10	Year			Ince	ption		TWR Calculation	Net IRR
	(+/	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	Inception	
Core Separate Accounts															
BlackRock Core Separate Account	153,159,709	5.3	7.1	12.6	10.6	5.3	0.6	6.0	4.8	7.0	3.2	10.4	8.8	1Q96	10.0
BlackRock Separate Account (PM Realty Takeover)	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3Q02	8.3
Cornerstone Separate Account	78,147,508	5.2	6.9	12.3	11.6	5.4	1.4	6.9	6.1	5.5	2.7	8.4	7.5	3Q04	5.6
Core Separate Accounts	231,307,217	5.2	6.0	11.4	9.9	5.3	0.5	5.9	4.8	7.1	3.0	10.3	9.0	1Q96	8.9
Total BlackRock Separate Account	176,344,259	4.9	6.3	11.5	9.7	5.2	0.5	5.7	4.5	7.1	3.2	10.4	9.0	1Q96	9.8
Separate Account Returns by Property Type															
Apartment	139,245,161	4.9	7.7	12.9	11.5	4.7	3.1	7.9	6.8	5.8	2.4	8.3	7.4	1Q96	6.3
Industrial	13,154,005	5.1	4.3	9.6	9.5	5.1	-2.3	2.7	2.4	7.5	3.1	10.8	9.4	3Q96	13.3
Office	62,381,711	4.4	4.2	8.7	7.5	5.2	-2.7	2.4	1.5	7.5	2.4	10.0	8.5	1Q96	8.6
Retail	39,630,500	5.9	6.9	13.1	11.1	6.3	-0.3	6.0	4.8	7.5	3.1	10.8	9.1	4Q99	9.8
Total Private Portfolio															
SCERS	822,119,526	5.4	7.3	13.0	11.3	5.4	1.1	6.5	5.2	4.4	4.7	9.3	8.3	4Q86	8.3
NPI Property Level Returns															
NPI- Apartment		4.7	4.1	9.0		5.0	1.0	6.1		6.2	3.2	9.5		1Q96	
NPI- Industrial		5.5	7.6	13.4		6.0	1.3	7.3		7.2	3.0	10.4		3Q96	
NPI-Office		4.9	4.2	9.2		5.4	-0.5	4.9		6.8	2.5	9.5		1Q96	
NPI-Retail		5.2	5.1	10.5		5.8	1.6	7.5		6.6	3.6	10.4		4Q99	
Indices															
NFI-ODCE		4.7	6.5	11.4	10.4	5.2	-0.1	5.1	4.2	6.8	0.5	7.3	6.3	4Q86	



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Returns (%)	Market Value	20	18	Fiscal Ye	ear 2018 (D)	20	17	20	16	20	15	20	14	20	13	20	12
	(\$)	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core Commingled Funds																	
Jamestown Premier Property Fund	17,283,962	4.5	3.1	17.6	13.2	18.0	14.2	6.6	5.3	22.4	17.3	14.7	11.9				
MetLife Core Property Fund	56,141,376	2.1	2.0	7.6	7.3	8.4	7.9	9.3	8.8	16.9	16.3	17.4	16.9				
Prime Property Fund	56,940,419	2.3	2.0	7.2	6.5	9.9	8.7	10.4	9.2	15.9	14.6	15.5	14.1	3.8	3.6		
Principal U.S. Property Account	43,184,916	2.1	1.9	6.7	5.9	9.1	8.1	10.0	9.0	3.0	2.8						
Prologis European Logistics Fund	38,711,711	7.9	7.1	24.6	21.8	30.5	28.0	2.8	2.4								
Prologis Targeted U.S. Logistics Fund	63,574,107	4.0	3.5	18.3	15.8	24.2	20.3	16.1	14.2	9.1	7.9						
Townsend Real Estate Fund, L.P. <sup>1</sup>	104,936,958	2.2	2.1	7.5	7.3	11.1	10.8	8.4	8.2								
Core Commingled Funds	380,773,449	3.2	2.8	11.2	10.0	14.2	12.8	9.8	8.9	15.7	14.1	13.5	12.4	10.2	9.3	11.1	10.1
Core Separate Accounts																	
BlackRock Core Separate Account	153,159,709	2.1	1.8	6.9	5.8	9.1	7.5	11.3	9.3	15.3	13.9	16.3	12.5	11.8	9.6	13.5	13.0
BlackRock Separate Account (PM Realty Takeover)	0	-21.0	-21.0	-21.3	-21.3	0.6	0.6	-9.6	-10.2	-13.2	-13.9	19.2	18.4	6.7	5.9	10.1	9.5
Cornerstone Separate Account	78,147,508	1.1	0.9	15.1	14.6	21.5	20.8	14.0	13.3	2.4	1.6	14.0	13.2	11.3	10.5	16.2	15.4
Core Separate Accounts	231,307,217	1.8	1.5	9.5	8.5	12.8	11.6	10.0	8.6	7.7	6.6	16.0	13.5	11.0	9.5	14.1	13.5
Total BlackRock Separate Account	176,344,259	2.2	1.9	7.5	6.3	10.6	9.0	8.6	7.0	10.7	9.4	17.0	13.6	10.9	9.0	13.1	12.5
Total Core Portfolio	612,080,666	2.6	2.3	10.6	9.5	13.6	12.3	9.8	8.5	10.4	9.2	15.3	13.2	10.8	9.5	13.3	12.6
Value Added Portfolio																	
AEW Value Investors Fund II <sup>1,2</sup>	45,482																
Allegis Value Trust	15,129,523	-2.8	-2.9	1.8	1.5	8.2	7.8	9.9	9.4	8.6	8.0	10.8	10.2	4.7	4.0	21.8	20.9
Carlyle China Realty	3,821,589	8.3	8.3	11.2	8.6	2.7	0.2										
DRC European Real Estate Debt Fund II <sup>1</sup>	13,340,997	4.6	4.3	13.3	12.3	23.8	22.3	-7.8	-8.9	5.0	3.0	1.4	-2.1				
ECE European Prime Shopping Centre Fund II <sup>1</sup>	11,159,220	5.3	5.1	23.9	23.6	28.7	25.5	27.0	25.9	12.1	11.0						
Hammes Partners II <sup>1</sup>	19,345,615	2.8	2.1	9.6	7.5	12.7	10.0	14.8	8.9	19.4	12.9						
Hines US Office Value Added Fund II <sup>2</sup>	545,685																
NREP Nordic Strategies Fund <sup>1</sup>	19,993,107	3.2	3.0	21.6	20.9	41.2	40.1	23.1	21.7	55.1	50.8						
NREP Nordic Strategies Fund II <sup>1</sup>	23,494,549	4.7	3.7	27.5	22.4	44.9	34.4	10.7	-1.9								
Value Added Portfolio	106,875,767	3.1	2.7	8.6	7.7	24.6	21.8	9.5	7.0	19.1	17.0	15.7	13.7	13.3	10.8	19.6	18.1



## an Aon company

Returns (%)	Market Value	20	18		ear 2018 (D)	20	17	20	16	20	15	20	14	20	13	20	12
	(\$)	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Opportunistic Portfolio																	
BlackRock High Return Separate Account	23,184,550	3.0	2.9	12.6	10.4	24.0	21.7	6.3	6.3								
Carlyle China Project Rome Co-Investment	11,557,740	8.0	8.0	13.1	11.9	4.7	3.6										
CIM Fund VIII <sup>+</sup>	29,688,692	1.7	1.3	2.8	1.6	8.4	6.7	5.8	3.4	16.9	13.8						
KKR Real Estate Partners Americas*	20,174,586	1.7	1.8	6.2	5.6	13.0	10.0	6.5	5.4	17.1	12.5	12.7	6.5				
Och-Ziff Real Estate Fund III	18,557,525	8.6	7.7	33.0	29.6	43.3	38.2	30.0	22.2	33.7	6.9	9.4	-28.3				
Opportunistic Portfolio	103,163,093	3.7	3.5	6.7	6.0	17.5	14.6	10.0	7.5	23.8	13.1	77.7	62.7	11.7	9.4	54.2	38.5
Total Non-Core Portfolio 1Q 2007 Forward	210,038,860	3.4	3.1	13.2	11.7	21.2	18.4	9.8	7.4	20.0	15.6	19.7	16.3	16.7	13.5	34.6	26.9
Total Private Portfolio																	
SCERS	822,119,526	2.8	2.5	11.2	10.0	15.1	13.5	9.7	8.2	12.3	10.5	15.9	13.6	11.4	9.9	16.4	14.7
Indices																	
NFI-ODCE + 35 bps		2.3	2.1	6.5	5.8	8.0	7.0	9.1	8.1	15.4	14.3	12.8	11.8	14.3	13.3	11.3	10.1
NFI-ODCE		2.2	2.0	6.3	5.6	7.6	6.7	8.8	7.8	15.0	14.0	12.5	11.5	13.9	12.9	10.9	9.8
NFI-ODCE + 100 bps		2.4	2.2	7.0	6.3	8.6	7.7	9.8	8.8	16.0	15.0	13.5	12.5	14.9	13.9	11.9	10.8
CPI + 500 bps		1.9		6.2		7.2		7.2		5.7		5.7		6.6		6.9	

<sup>&</sup>lt;sup>1</sup> Preliminary performance, subject to change.

 $<sup>^{2}\</sup>text{This}$  fund is liquidiating and the market value represents a remaining cash balance.



#### an Aon company

Returns (%)	Market Value	20	11	20	10	20	09	20	08	20	07	20	06	20	05	20	04
Returns (70)	(\$)	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core Commingled Funds																	
Jamestown Premier Property Fund	17,283,962																
MetLife Core Property Fund	56,141,376																
Prime Property Fund	56,940,419																
Principal U.S. Property Account	43,184,916																
Prologis European Logistics Fund	38,711,711																
Prologis Targeted U.S. Logistics Fund	63,574,107																
Townsend Real Estate Fund, L.P. <sup>1</sup>	104,936,958																
Core Commingled Funds	380,773,449	16.4	15.5	14.1	13.3	-33.0	-33.6	-13.8	-14.6	15.5	14.5	16.9	15.8	23.5	22.3	36.7	35.2
Core Separate Accounts																	
BlackRock Core Separate Account	153,159,709	17.8	17.4	20.7	19.6	-29.5	-29.1	-13.9	-14.3	21.2	16.8	17.7	13.3	27.1	21.6	9.3	5.1
BlackRock Separate Account (PM Realty Takeover)	0	11.9	11.4	11.5	11.0	-22.7	-23.1	-5.6	-6.5	12.5	10.6	14.4	12.5	55.8	49.3	11.3	10.3
Cornerstone Separate Account	78,147,508	24.9	23.9	21.2	20.2	-31.7	-32.4	-9.4	-10.1	11.9	11.1	11.1	10.2	18.7	17.6	2.9	2.4
Core Separate Accounts	231,307,217	18.7	18.2	18.6	17.6	-28.5	-28.7	-10.5	-11.1	16.3	13.6	15.2	12.1	31.7	26.6	9.8	6.3
Total BlackRock Separate Account	176,344,259	16.1	15.7	17.3	16.4	-26.8	-26.7	-11.1	-11.6	18.5	15.0	16.8	13.1	34.0	28.2	9.9	6.6
Total Core Portfolio	612,080,666	18.2	17.6	17.6	16.7	-29.5	-29.8	-11.3	-12.0	16.1	13.8	15.5	12.7	30.3	25.8	10.6	7.1
Value Added Portfolio																	
AEW Value Investors Fund II <sup>1,2</sup>	45,482																
Allegis Value Trust	15,129,523	15.7	14.7	21.6	20.4	-62.2	-62.8	-21.2	-23.9	38.6	28.4						
Carlyle China Realty	3,821,589																
DRC European Real Estate Debt Fund II <sup>1</sup>	13,340,997																
ECE European Prime Shopping Centre Fund II <sup>1</sup>	11,159,220																
Hammes Partners II <sup>1</sup>	19,345,615																
Hines US Office Value Added Fund II <sup>2</sup>	545,685																
NREP Nordic Strategies Fund <sup>1</sup>	19,993,107																
NREP Nordic Strategies Fund II <sup>1</sup>	23,494,549																
Value Added Portfolio	106,875,767	16.7	14.7	23.2	20.3	-56.4	-57.6	-31.2	-33.5	18.2	5.6	0.8	0.5				

Calendar Year Returns 26



Returns (%)	Market Value	20	11	20	10	20	09	20	08	20	07	20	06	20	05	20	04
Neturns (70)	(\$)	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Opportunistic Portfolio																	
BlackRock High Return Separate Account	23,184,550																
Carlyle China Project Rome Co-Investment	11,557,740																
CIM Fund VIII <sup>+</sup>	29,688,692																
KKR Real Estate Partners Americas	20,174,586																
Och-Ziff Real Estate Fund III	18,557,525																
Opportunistic Portfolio	103,163,093	-10.1	-8.0	42.4	34.2	54.0	43.5	-44.5	-45.4	3.4	2.6						
Total Non-Core Portfolio 1Q 2007 Forward	210,038,860	-0.3	0.4	37.0	30.4	-13.5	-17.8	-33.7	-35.7	18.2	5.6						
Total Private Portfolio																	
SCERS	822,119,526	14.9	14.5	20.6	18.8	-28.1	-28.8	-12.8	-13.5	15.8	13.4	15.5	12.7	30.3	25.8	10.6	7.1
Indices																	
NFI-ODCE + 35 bps		16.3	15.3	16.7	15.6	-29.4	-30.0	-9.7	-10.3	16.3	15.2	16.7	15.6	21.7	20.5	13.4	12.4
NFI-ODCE		16.0	15.0	16.4	15.3	-29.8	-30.4	-10.0	-10.7	16.0	14.8	16.3	15.3	21.4	20.2	13.1	12.0
NFI-ODCE + 100 bps		17.0	16.0	17.4	16.3	-28.8	-29.4	-9.0	-9.7	17.0	15.8	17.3	16.3	22.4	21.2	14.1	13.0
CPI + 500 bps		8.2		6.5		8.0		5.0		9.3		7.7		8.5		8.5	

<sup>&</sup>lt;sup>1</sup> Preliminary performance, subject to change.

 $<sup>^2\</sup>mbox{This}$  fund is liquidiating and the market value represents a remaining cash balance.



Returns (%)	Market Value	20	18	Fiscal Ye		20	17	20	016	20:	15	20	14	201	13	20	12
	(\$)	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core Separate Accounts																	
BlackRock Core Separate Account	153,159,709	2.1	1.8	6.9	5.8	9.1	7.5	11.3	9.3	15.3	13.9	16.3	12.5	11.8	9.6	13.5	13.0
BlackRock Separate Account (PM Realty Takeover)	0	-21.0	-21.0	-21.3	-21.3	0.6	0.6	-9.6	-10.2	-13.2	-13.9	19.2	18.4	6.7	5.9	10.1	9.5
Cornerstone Separate Account	78,147,508	1.1	0.9	15.1	14.6	21.5	20.8	14.0	13.3	2.4	1.6	14.0	13.2	11.3	10.5	16.2	15.4
Core Separate Accounts	231,307,217	1.8	1.5	9.5	8.5	12.8	11.6	10.0	8.6	7.7	6.6	16.0	13.5	11.0	9.5	14.1	13.5
Total BlackRock Separate Account	176,344,259	2.2	1.9	7.5	6.3	10.6	9.0	8.6	7.0	10.7	9.4	17.0	13.6	10.9	9.0	13.1	12.5
Separate Account Returns by Property Type																	
Apartment	139,245,161	1.3	1.1	12.0	10.9	15.9	14.5	12.3	10.6	9.2	7.7	14.7	13.0	13.3	12.0	18.2	17.5
Industrial	13,154,005	1.7	1.6	4.0	3.6	4.8	4.4	8.4	7.7	3.5	6.5	25.9	24.5	9.9	8.4	-0.3	-0.7
Office	62,381,711	2.4	2.3	7.9	6.9	12.4	11.3	4.4	3.9	4.8	4.1	12.7	9.3	9.4	8.6	15.0	14.2
Retail	39,630,500	3.0	2.4	6.7	5.3	11.2	9.2	8.5	6.7	12.2	9.8	22.2	20.1	10.3	6.5	12.4	12.0
Total																	
Total Separate Accounts	254,491,767	1.9	1.6	9.7	8.7	11.6	10.5	10.0	8.5	7.7	6.6	16.0	13.5	11.0	9.5	14.1	13.5
Indices																	
NFI-ODCE + 35 bps		2.3	2.1	6.5	5.8	8.0	7.0	9.1	8.1	15.4	14.3	12.8	11.8	14.3	13.3	11.3	10.1
NFI-ODCE		2.2	2.0	6.3	5.6	7.6	6.7	8.8	7.8	15.0	14.0	12.5	11.5	13.9	12.9	10.9	9.8
NFI-ODCE + 100 bps		2.4	2.2	7.0	6.3	8.6	7.7	9.8	8.8	16.0	15.0	13.5	12.5	14.9	13.9	11.9	10.8
CPI + 500 bps		1.9		6.2		7.2		7.2		5.7		5.7		6.6		6.9	



Returns (%)	Market Value	20	011	20	10	20	009	20	008	20	07	20	06	20	05	20	04
	(\$)	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core Separate Accounts																	
BlackRock Core Separate Account	153,159,709	17.8	17.4	20.7	19.6	-29.5	-29.1	-13.9	-14.3	21.2	16.8	17.7	13.3	27.1	21.6	9.3	5.1
BlackRock Separate Account (PM Realty Takeover)	0	11.9	11.4	11.5	11.0	-22.7	-23.1	-5.6	-6.5	12.5	10.6	14.4	12.5	55.8	49.3	11.3	10.3
Cornerstone Separate Account	78,147,508	24.9	23.9	21.2	20.2	-31.7	-32.4	-9.4	-10.1	11.9	11.1	11.1	10.2	18.7	17.6	2.9	2.4
Core Separate Accounts	231,307,217	18.7	18.2	18.6	17.6	-28.5	-28.7	-10.5	-11.1	16.3	13.6	15.2	12.1	31.7	26.6	9.8	6.3
Total BlackRock Separate Account	176,344,259	16.1	15.7	17.3	16.4	-26.8	-26.7	-11.1	-11.6	18.5	15.0	16.8	13.1	34.0	28.2	9.9	6.6
Separate Account Returns by Property Type																	
Apartment	139,245,161	15.5	14.8	26.6	25.8	-22.2	-22.8	-13.5	-14.0	11.1	9.9	2.6	1.7	22.9	21.3	2.9	1.0
Industrial	13,154,005	17.2	16.8	2.0	1.6	-25.3	-25.7	-8.3	-9.4	28.9	23.3	20.8	17.6	48.5	39.3	13.1	6.8
Office	62,381,711	20.7	20.0	19.1	17.9	-43.6	-43.7	-11.0	-11.3	13.3	11.7	36.1	24.7	39.4	34.1	8.7	4.7
Retail	39,630,500	13.5	13.6	13.4	12.0	-24.5	-23.1	-10.8	-11.7	10.3	7.7	14.2	12.2	20.1	14.9	28.9	23.3
Total																	
Total Separate Accounts	254,491,767	18.7	18.2	18.6	17.6	-28.5	-28.7	-10.5	-11.1	16.3	13.6	15.2	12.1	31.7	26.6	9.8	6.3
Indices																	
NFI-ODCE + 35 bps		16.3	15.3	16.7	15.6	-29.4	-30.0	-9.7	-10.3	16.3	15.2	16.7	15.6	21.7	20.5	13.4	12.4
NFI-ODCE		16.0	15.0	16.4	15.3	-29.8	-30.4	-10.0	-10.7	16.0	14.8	16.3	15.3	21.4	20.2	13.1	12.0
NFI-ODCE + 100 bps		17.0	16.0	17.4	16.3	-28.8	-29.4	-9.0	-9.7	17.0	15.8	17.3	16.3	22.4	21.2	14.1	13.0
CPI + 500 bps		8.2		6.5		8.0		5.0		9.3		7.7		8.5		8.5	



Quarterly Cash Flow Activity (\$)	Beginning Market Value	Contributions	Distributions	Withdrawals	Gross Income	Manager Fees	Appreciation	Ending Market Value	LTV (%)
Core Commingled Funds									
Jamestown Premier Property Fund	21,573,863	201,817	5,145,567	0	193,951	309,646	769,544	17,283,962	36.9
MetLife Core Property Fund	55,072,417	563,682	590,464	0	708,406	66,738	454,073	56,141,376	26.0
Prime Property Fund	55,824,191	550,443	550,443	0	527,338	140,097	728,987	56,940,419	16.9
Principal U.S. Property Account	42,378,231	0	0	0	521,084	100,257	385,857	43,184,916	23.5
Prologis European Logistics Fund	36,550,499	0	424,086	0	546,077	303,657	2,342,876	38,711,711	21.9
Prologis Targeted U.S. Logistics Fund	61,853,273	0	439,494	0	788,315	283,788	1,655,800	63,574,107	23.4
Townsend Real Estate Fund, L.P.	102,779,663	1,027,891	1,027,891	0	1,026,895	58,748	1,189,148	104,936,958	36.6
Core Commingled Funds	376,032,137	2,343,833	8,177,945	0	4,312,066	1,262,931	7,526,285	380,773,449	27.7
Core Separate Accounts									
BlackRock Core Separate Account	151,564,126	221,375	1,313,000	0	1,737,235	524,106	1,474,080	153,159,709	13.8
BlackRock Separate Account (PM Realty Takeover)	25,073	0	21,786	0	-3,287	0	0	0	0.0
Cornerstone Separate Account	77,429,987	0	0	0	800,890	107,250	23,881	78,147,508	33.5
Core Separate Accounts	229,019,186	221,375	1,334,786	0	2,534,838	631,356	1,497,961	231,307,217	21.6
Total BlackRock Separate Account	173,588,605	758,903	1,334,786	0	1,654,022	538,162	2,215,678	176,344,259	12.2
Total Core Portfolio	605,051,323	2,565,208	9,512,731	0	6,846,904	1,894,287	9,024,246	612,080,666	25.5
Value Added Portfolio									
AEW Value Investors Fund II	47,053	0	0	0	-567	0	-1,004	45,482	0.0
Allegis Value Trust	15,574,720	0	0	0	178,459	14,406	-609,250	15,129,523	10.0
Carlyle China Realty	3,527,967	0	0	0	-7,641	0	301,263	3,821,589	0.0
DRC European Real Estate Debt Fund II	13,128,788	316,510	384,467	280,338	103,561	38,565	495,506	13,340,997	0.0
ECE European Prime Shopping Centre Fund II	10,619,314	0	0	0	101,739	27,419	465,587	11,159,220	54.6
Hammes Partners II	17,027,097	2,283,705	296,249	34,566	265,386	122,200	222,442	19,345,615	66.0
Hines US Office Value Added Fund II	539,559	0	0	0	6,126	0	0	545,685	71.0
NREP Nordic Strategies Fund	19,404,276	0	0	0	284,836	37,510	341,504	19,993,107	51.3
NREP Nordic Strategies Fund II	19,013,752	3,670,628	0	0	-172,008	217,915	1,200,092	23,494,549	44.0
Value Added Portfolio	98,882,526	6,270,843	680,716	314,904	759,891	458,015	2,416,140	106,875,767	46.7
Opportunistic Portfolio									
BlackRock High Return Separate Account	21,999,406	537,528	0	0	-79,926	14,056	741,598	23,184,550	0.0
Carlyle China Project Rome Co-Investment	10,698,729	0	0	0	-6,293	0	865,304	11,557,740	0.0
CIM Fund VIII	29,204,469	109,375	0	0	-9,802	109,375	494,025	29,688,692	3.6
KKR Real Estate Partners Americas	20,538,188	200,044	397,841	531,412	397,841	-8,340	-40,574	20,174,586	62.0
Och-Ziff Real Estate Fund III	15,381,497	3,982,827	1,932,443	0	603,809	131,250	653,085	18,557,525	41.0
Opportunistic Portfolio	97,822,289	4,829,774	2,330,284	531,412	905,629	246,341	2,713,438	103,163,093	31.3
Total Non-Core Portfolio 1Q 2007 Forward	196,704,815	11,100,617	3,011,000	846,316	1,665,520	704,356	5,129,578	210,038,860	40.1
Total Private Portfolio									
SCERS	801,756,138	13,665,825	12,523,731	846,316	8,512,424	2,598,643	14,153,824	822,119,526	29.9



Property Type Diversification (%)	Apartment	Office	Industrial	Retail	Hotel	Other
Core Commingled Funds						
Jamestown Premier Property Fund	-	57.2	-	25.9	-	16.9
MetLife Core Property Fund	26.6	38.7	17.6	17.1	-	-
Prime Property Fund	24.0	33.0	17.1	18.1	-	7.8
Principal U.S. Property Account	21.3	41.5	18.4	16.4	1.3	1.1
Prologis European Logistics Fund	-	-	100.0	-	-	-
Prologis Targeted U.S. Logistics Fund	-	-	100.0	-	-	-
Townsend Real Estate Fund, L.P.	42.3	13.4	14.5	11.6	-	18.2
Core Commingled Funds	20.9	21.4	39.2	11.3	0.1	7.1
Core Separate Accounts						
BlackRock Core Separate Account	40.8	24.2	8.1	26.9	-	-
BlackRock Separate Account (PM Realty Takeover)	-	-	-	-	-	-
Cornerstone Separate Account	100.0	-	-	-	-	-
Core Separate Accounts	60.1	16.3	5.5	18.1	-	-
Total BlackRock Separate Account	35.8	33.5	7.1	23.6	-	-
Total Core Portfolio	35.3	19.5	26.8	13.8	0.1	4.5
Value Added Portfolio						
AEW Value Investors Fund II	-	-	-	-	-	-
Allegis Value Trust	-	95.8	4.2	-	-	-
Carlyle China Realty	-	-	100.0	-	-	-
DRC European Real Estate Debt Fund II	-	54.5	-	45.5	-	-
ECE European Prime Shopping Centre Fund II	-	-	-	100.0	-	-
Hammes Partners II	-	-	-	-	-	100.0
Hines US Office Value Added Fund II	-	100.0	-	-	-	-
NREP Nordic Strategies Fund	77.8	1.0	-	21.2	-	-
NREP Nordic Strategies Fund II	18.3	8.1	54.4	11.1	-	8.1
Value Added Portfolio	23.0	23.1	11.2	24.1	0.0	18.6
Opportunistic Portfolio						
BlackRock High Return Separate Account	-	100.0	-	-	-	-
Carlyle China Project Rome Co-Investment	-	_	100.0	_	_	-
CIM Fund VIII	-	28.3	-	10.0	0.0	61.8
KKR Real Estate Partners Americas	15.3	18.5	-	29.5	16.1	20.5
Och-Ziff Real Estate Fund III	3.1	2.9	15.6	3.6	4.1	70.8
Opportunistic Portfolio	3.2	36.6	12.9	9.0	3.6	34.7
Total Non-Core Portfolio	13.9	29.3	12.0	17.2	1.6	26.0
Total Private Portfolio						
SCERS	30.1	21.9	23.2	14.6	0.5	9.7
Indices			40.5	40 =		
NFI-ODCE	24.2	36.0	16.2	19.7	0.4	3.5



Geographic Diversification (%)	North East	Mid East	East North Central	West North Central	South East	South West	Mountain	Pacific	Ex-US
Core Commingled Funds									
Jamestown Premier Property Fund	31.6	30.0	-	-	2.7	-	-	35.7	-
MetLife Core Property Fund	2.3	13.1	11.1	-	18.4	11.6	7.8	35.7	-
Prime Property Fund	21.4	9.2	10	1.7	8.3	12.7	4.3	32.4	-
Principal U.S. Property Account	17.1	8.8	4.3	1.7	8.8	13.2	11.3	34.7	-
Prologis Targeted Europe Logistics Fund	-	-							100.0
Prologis Targeted U.S. Logistics Fund	9.9	6.7	10.5	-	9.5	14.1	2.4	46.9	-
Townsend Real Estate Fund, L.P.	15.5	10.1	17.2	13.1	8.9	1.2	5.9	28.1	-
Core Commingled Funds	12.9	9.7	9.9	3.9	8.9	7.6	4.9	31.1	11.0
core commingica ramas		<b>3.7</b>	3.3	<b>3.3</b>	0.5	7.0		<b>51.1</b>	11.0
Core Separate Accounts									
BlackRock Core Separate Account	-	-				8.1	-	91.9	-
BlackRock Separate Account (PM Realty Takeover)	-	-							
Cornerstone Separate Account	-	-						100.0	-
Core Separate Accounts	_	_				5.5	_	94.5	_
•	=	-				7.1	-	92.9	-
Total BlackRock Separate Account	<del>-</del>	-			=	7.1	-	92.9	-
Total Core Portfolio	8.1	6.1	6.3	2.5	5.6	6.8	3.1	54.4	7.0
Value Added Portfolio									
AEW Value Investors Fund II	-	-							
Allegis Value Trust	18.8	56.3	-	_				24.9	_
Carlyle China Realty	-	-							100.0
DRC European Real Estate Debt Fund II	-	_							100.0
ECE European Prime Shopping Centre Fund II	-	_							100.0
Hammes Partners II	25.7	7.2	18.0	1.7	6.5	17.6	14.3	8.9	-
Hines US Office Value Added Fund II	23.7	-	10.0	1.7	0.5	17.0	14.5	100.0	-
								100.0	
NREP Nordic Strategies Fund	<del>-</del>	-							100.0
NREP Nordic Strategies Fund II	-	-							100.0
Value Added Portfolio	7.1	9.0	3.1	0.3	1.1	3.1	2.5	5.4	68.4
Opportunistic Portfolio									
BlackRock High Return Separate Account	-	-						100.0	-
Carlyle China Project Rome Co-Investment	-	-							100.0
CIM Fund VIII	34.4	1.3	10.7	-	1.0	1.8	5.3	42.2	3.4
KKR Real Estate Partners Americas	12.6	2.3	11.2	1.9	10.4	18.6	-	13.3	29.8
Och-Ziff Real Estate Fund III	15.1	1.8	3.0	0.5	4.2	2.7	7.7	30.9	34.2
Opportunistic Portfolio	15.6	1.1	5.9	0.4	2.8	4.3	2.9	44.6	22.3
Total Non-Core Portfolio	11.0	5.4	4.4	0.4	1.9	3.6	2.7	23.4	47.2
Total Private Portfolio									
SCERS	8.8	5.9	5.8	2.0	4.7	6.1	3.0	47.0	16.7
Indices									
NFI-ODCE	22.3	9.1	7.9	1.2	9.4	9.0	5.4	35.7	-
							·		



#### **Advisory Disclosures and Definitions**

#### Disclosure

Trade Secret and Confidential.

Past performance is not indicative of future results.

Investing involves risk, including the possible loss of principal.

Returns are presented on a time weighted basis and shown both gross and net of underlying third party fees and expenses and may include income, appreciation and/or other earnings. In addition, investment level Net IRR's and equity multiples are reported.

The Townsend Group, on behalf of its client base, collects quarterly limited partner/client level performance data based upon inputs from the underlying investment managers. Data collection is for purposes of calculating investment level performance as well as aggregating and reporting client level total portfolio performance. Quarterly limited partner/client level performance data is collected directly from the investment managers via a secure data collection site.

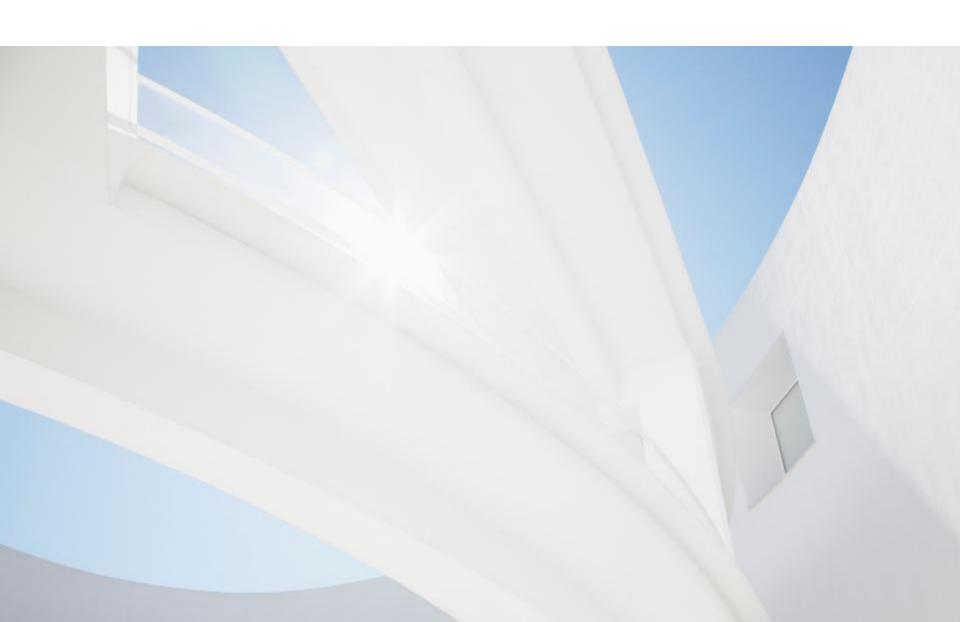
In select instances where underlying investment managers have ceased reporting limited partner/client level performance data directly to The Townsend Group via a secure data collection site, The Townsend Group may choose to input performance data on behalf of its client based upon the investment managers quarterly capital account statements which are supplied to The Townsend Group and the client alike.

#### **Benchmarks**

The potential universe of available real asset benchmarks are infinite. Any one benchmark, or combination thereof, may be utilized on a gross or net of fees basis with or without basis point premiums attached. These benchmarks may also utilize a blended composition with varying weighting methodologies, including market weighted and static weighted approaches.

Disclosure 33

**Exhibit B: Real Estate Market Update 1Q18** 



## **United States Real Estate Market Update (1Q18)**



#### General

- The S&P 500 produced a gross total return of -0.8% during the Quarter, as markets faced headwinds from a potential global trade war and tightening monetary policy. MSCI US REIT index produced a return of -0.8%. REITS performed in line with the broader equities market for the Quarter, but continue to lag by 18.3% over the TTM period. Consumer Sentiment improved during the Quarter, concluding the year at 101.4.
- Macro indicators for U.S. real estate continue to be positive; GDP grew at an annualized rate of 2.3% in the 1st Quarter. With the conclusion of March, the economy has now experienced 90 consecutive months of job growth. As of March 31st, Core CPI rose by 2.1% YoY, near the Fed's 2% target. The Federal Reserve has continued to tighten their policy, in light of improving economic data and continued positive job growth, and, in March 2018, raised base rates to 1.5-1.75%. In 2018, the consensus expectation remains at three rate hikes.

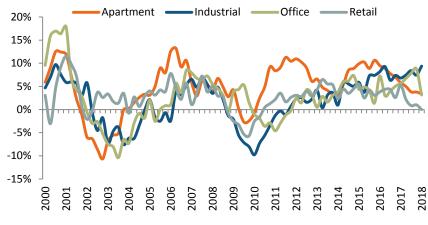
#### **Commercial Real Estate**

- Private Real Estate Market values have remained flat for another quarter. Transaction cap rates (5.65%) on average contracted 22 bps during the 4th Quarter of 2017. At the same time, current valuation cap rates were primarily flat across property sectors, with the exception of industrial cap rates compressing an additional 11 bps to a historic low of 4.88%.
- NOI growth by sector continued to diverge during the Quarter, with retail NOI growth turning negative. The industrial sector, benefiting from e-commerce and global trade growth, has experienced NOI Growth of 9.4% over the last year.
- In the 1<sup>st</sup> Quarter of 2018, \$33bn of aggregate capital was raised by US Real Estate Funds. In 2017, Private Equity Real Estate Funds raised \$111.6bn. Positive momentum was mirrored in the open-ended commingled fund space, which experienced a positive net inflow of \$3.1bn during 2017.
- 10 year treasury bond yields compressed an expanded 33 bps to 2.7% during the quarter and, subsequent to quarter end, have continued to expand. A combination of fiscal stimulus, positive job growth, wage inflation, and tightening from the fed has increased the investors' expectation of inflation.

#### **Current Value Cap Rates by Property Type**



### **Exhibit C: 4 Qtr Rolling NOI Growth**



Source: NCREIF

# **United States Property Matrix (1Q18)**



- As of 1Q18, industrial properties returned 3.3% and outperformed the NPI by 155 bps.
- Net absorption declined to 53 million sqft in 1Q18, comparable to the first quarter of 2017.
   Net absorption as a % of inventory was 1.7%

**INDUSTRIAL** 

- Transaction volumes reached \$16 million, marking a 20% year-over-year increase. Large-scale
  portfolio sales are expected make 2018 the second highest annual volume recorded.
- New deliveries were 57 million sqft for the quarter, with the active pipeline remaining robust at 233 million sqft.
- Continuing the trend, vacancy declined another 20 bps to another all-time low of 4.8%. Strong demand has pushed asking rents up 5.3% year-over-year.

 The apartment sector delivered a 1.5% return during the Quarter, underperforming the NPI by 20 bps.

**MULTIFAMILY** 

- Sales volumes increased 32% compared to the first quarter of 2017, totaling \$34 billion. Transaction volume is 9% higher on an annualized basis.
- Primary market transaction activity represented 45.3% of activity, up from 40.3% in 2017. This helped drive up interest in high-rise product, with transactions increasing 115% when compared to the first quarter of 2017.
- Private investors continue to dominate the investment activity, accounting for 65.4% of transactions compared to the historical average of 55.5%.
- Annual rent growth remained at 2.3% for the fourth consecutive quarter. Vacancy increased a modest 14 bps over the 12-month period ending 1Q18.

OFFICE RETAIL

- The office sector returned 1.8% in 1Q18, 10bps above the NPI.
- Occupancy growth slowed considerably with net absorption totaling only 3.7 million sqft. On an annualized basis, this would represent a 50% decline from 2017.
- Total vacancy remained consistent at 14.8%, though anticipated new deliveries will apply upward pressure for the remainder of the year. Class A CBD vacancy declined by 20 bps to 11.9%, while Class A suburban rose 20 bps to 16.6%.
- Construction activity increased to over 100 million sqft, with NYC, DC and Chicago accounting for 34%. Deliveries are projected to total 53 million sqft in 2018, with the remainder completing by year-end 2019.
- Asking rents increased 1.6% to \$33.78/sqft. This was driven by suburban rent growth of 2.7%, while CBD experienced a slight decline of 0.2%. Concession packages continue to increase, rising 3.5%% and leading to an overall decline in effective rents.

- As of 1Q18, the retail sector delivered a quarterly return of 0.7%, performing 98 bps below the NPI.
- Transaction volumes declined 30.9% quarter-over-quarter to \$11.6 billion. REIT acquisition activity declined 86.7% quarter-over quarter, remaining net sellers divesting non-core assets.
- Despite the continued announcement of store closures, 12-month rental growth was 5.7%, largely driven by grocery-anchored centers.
- Average cap rates remain at 4.3%. Premier assets continue to trade aggressively, driven by foreign demand, while mall and lifestyle centers struggle to agree on terms.
- Vacancy remained stable at 4.6%, having declined 1 basis point over the prior 12-month period. Investors are optimistic about the opportunity to re-tenant power centers caused by continuing bankruptcies in the market.

# **Global Real Estate Market Update (1Q18)**



#### **GLOBAL**

• Global investment activity during 1Q 2018 totaled \$165 billion, representing a 15% increase as compared to 1Q 2017 levels. The first quarter activity marks the highest level since 1Q 2007, despite increasing trade tensions and stock market volatility. Looking forward, global investment volumes in 2018 are expected to soften by 5% - 10% to around \$650 billion as investors continue to seek real estate through non-traditional venues outside of single-asset acquisitions, such as debt financing, M&A activity, and alternative sectors. Tokyo held the top global investment position for the quarter, followed by New York and London in second and third place, respectively.

Direct Commercial Real Estate Investment - Regional Volumes, 2016 - 2018

			% Change % Change				% Change	
\$ US Billions	Q4 2017	Q1 2018	Q4 17 - Q1 18	Q1 2017	Q1 17 - Q1 18	FY 2016	FY 2017	FY 16 - FY 17
Americas	66	69	5%	58	19%	285	249	-13%
EMEA	117	56	-52%	56	0%	245	307	25%
Asia Pacific	52	40	-23%	30	33%	131	149	14%
Total	235	165	-30%	144	15%	661	705	7%

Source: Jones Lang LaSalle, April 2018

#### **EUROPE**

• European investment increased totaled \$56.3 billion in 1Q 2018, in line with 1Q 2017 volume levels. Full-year 2018 volumes are predicted to be 10% lower as compared to 2017. The main drivers in European growth were the UK and Germany, with investment volumes for the UK up 10% y/y. Germany's activity was in line with expectations, finishing the quarter with \$13.7 billion of transactions, which represents an increase of 13% y/y. Central and Eastern Europe started the year strong with investment volumes up 36% y/y. The increase was largely driven by Poland, where volumes grew to \$2.4 billion. Within Benelux, Belgium, investment volumes tripled to \$2.4 billion, as opposed to the Netherlands, which saw a 7% y/y decline.

#### **ASIA**

• Asia Pacific's record-breaking investment volumes continued into 1Q 2018, with y/y activity up 34% to \$40 billion. Demand was strong across the region's major markets, with investment activity in Japan and Hong Kong up 23% and 72%, respectively. Conversely, transaction volumes in Singapore and South Korea declined by 39% and 18%, respectively. Investment in India during the quarter was strong, with volumes reaching \$872 million. The high volumes were due to offshore investors seeking exposure to one of the world's fastest-growing economies. In Australia, investment volumes were at \$4.7 billion for the quarter. The majority of activity was concentrated in Sydney and Melbourne, which represented 86% of total national investment volumes. Transaction volumes in mainland China were up 93% y/y, with the retail sector accounting for 34% of total activity. The 72% y/y increase in Hong Kong was largely driven by record-breaking office transactions. Cross-border investment activity accounted for 34% of total transaction volumes.

### Global Outlook - GDP (Real) Growth % pa, 2017-2019

2017	2018	2019
3.7	3.9	3.7
5.5	5.5	5.2
2.3	2.7	2.6
6.9	6.4	6.0
6.4	7.3	7.0
1.7	1.5	0.9
2.0	2.6	2.6
2.3	2.9	2.5
1.9	3.2	3.7
3.0	2.6	2.1
2.0	1.8	1.9
2.5	2.4	1.8
1.7	1.8	1.6
	3.7 5.5 2.3 6.9 6.4 1.7 2.0 2.3 1.9 3.0 2.0 2.5	3.7 3.9 5.5 5.5 2.3 2.7 6.9 6.4 6.4 7.3 1.7 1.5 2.0 2.6 2.3 2.9 1.9 3.2 3.0 2.6 2.0 1.8 2.5 2.4

<sup>\*</sup>Middle East North Africa

Source: Jones Lang LaSalle (Oxford Economics), April 2018