QUARTERLY REPORT

Attachment A-3 11/17/17



OFFICES OF THE COUNTY EXECUTIVE

Isiah Leggett County Executive Timothy L. Firestine Chief Administrative Officer

November 17, 2017

Members of the Montgomery County Council

I am pleased to present to you the Quarterly Report of the Montgomery County Employees' Retirement System ("ERS") for the quarter ended September 30, 2017. This quarterly report is designed to assist you in understanding the current status of the ERS. This report was prepared pursuant to the provisions of the Montgomery County Code.

History

The Employees' Retirement System was established in 1965 as a cost-sharing multiple-employer defined benefit pension plan providing benefits to the employees of Montgomery County and other agencies or political subdivisions who elect to participate. The System is closed to employees hired on or after October 1, 1994, except public safety bargaining unit employees and employees who elect to participate in the Guaranteed Retirement Income Plan ("GRIP"). There were approximately 5,750 ERS and GRIP active members and 6,530 retirees participating in the ERS as of September 30, 2017.

Performance Results

The total return achieved by the ERS' assets for the quarter was a gain of 2.88%, 20 basis points ahead of the 2.68% gain recorded by the policy benchmark. For the one-year period ending September 30, 2017 the ERS' gross return (before fees) was a gain of 10.45%, 232 basis points ahead of the 8.13% gain recorded by the policy benchmark. The one-year gross return places the ERS' performance slightly below median of the universe of comparable pension funds constructed by the Board's consultant, Wilshire Associates. Our annualized performance of 6.98% for the three-year period and 8.40% for the five-year period ranked at the median of the universe for both time periods. The annualized return for the ten-year period was 6.42%, and ranks in the top 10% of Wilshire's Large Public Funds Universe. The asset allocation on September 30, 2017 was: Domestic Equities 19.6%, International Equities 15.5%, Global Equities 3.1%, Fixed Income 22.8%, Inflation Linked Bonds 11.5%, Public Real Assets 9.6%, Private Equity 7.4, Private Real Assets 4.8%, Private Debt 1.1%, Opportunistic 2.9%, and Cash 1.7%. We estimate that the funded status of the ERS was 95.0% as of September 30, 2017. The actual funded status will be affected by the ERS' membership experience, as well as demographic and economic changes and may be higher or lower when calculated by the actuary during the next valuation.

Major Initiatives

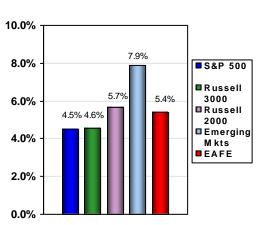
During the quarter, the following commitments were made: \$13 million to Kimmeridge Energy Fund IV, a private real asset fund, and \$19 million to Tailwater Energy Fund III, a private real asset fund.

Capital Markets and Economic Conditions

Economic data reflected that the GDP increased at an annualized 3.0% rate in the third quarter of 2017, beating expectations of 2.5%, despite the disruptions caused by hurricanes Harvey and Irma and only slightly below the 3.1% reported in the previous quarter (which was the strongest growth rate since 2015). Positive contributions from personal consumption expenditures, private inventory investment, non-residential fixed investment, exports, and federal government spending, were offset by negative contributions from residential fixed investment and state and local government spending. Personal

consumption expenditure contributed 1.62% to growth and spending rose 8.3% for durable goods. Fixed investment added 0.25% to growth and investment rose by 8.6%. Meanwhile, exports went up at a slower 2.3% rate (versus 3.5% in Q2) and imports shrank 0.8%, the sharpest decline in three years. The U.S. unemployment rate unexpectedly fell to 4.2% in September and below market consensus of 4.4%. It was the lowest jobless rate since 2001, as the number of unemployed persons declined by 331,000 to 6.8 million. U.S. consumer prices increased 2.2% year-on-year in September 2017, missing market expectations of 2.3%; this was the highest inflation rate since April, as hurricane related production disruptions at oil refineries in the Gulf Coast area boosted energy prices.

Public Equity Markets: U.S. equities continued their strong performance in Q3, advancing to all-time highs as the market continued to be supported by positive economic reports and strong corporate earnings. The market continued to exhibit limited levels of volatility as the global growth picture steadily improved. The weakening U.S. dollar created a supportive backdrop for the Technology sector, which is heavily exposed to international markets, and the commodity related sectors of Energy and Materials. The more



Index Return Qtr - 9/30/17

defensive sectors of Utilities, Consumer Staples, and Real Estate underperformed. During the quarter, small cap outperformed large cap and growth outperformed value. Our combined domestic equity performance was a gain of 4.72%, outperforming the 4.57% gain of the Russell 3000 Index. Active management produced positive attribution in the large cap space but negative in the small cap space.

Developed international and emerging equity markets maintained their momentum relative to U.S. markets as the trade-weighted U.S. Dollar Index dropped by 2.9% during Q3. European equities outperformed Asian equities. Germany, the largest European equity market, posted strong gains for the quarter as Angela Merkel easily won a fourth term as German chancellor. While the economic backdrop in Japan continues to steadily improve, the market underperformed due to political concerns within Prime Minister Abe's

administration. Much like their domestic counterparts, the top performing international sectors were Energy, Materials, and Technology while the more defensive sectors of Health Care, Consumer Staples, Telecom, and Utilities lagged. Emerging markets continued to rally in the quarter led by Brazil and Russia. Brazil performed well following cuts in interest rates and a privatization plan for government held assets. Russia produced strong returns as the price of oil jumped by 10%. Our combined international equity performance was a gain of 5.47%, underperforming the 6.24% gain recorded by the benchmark index. Our global equity allocation returned 4.01%, underperforming the 5.18% gain of the MSCI ACWI benchmark.

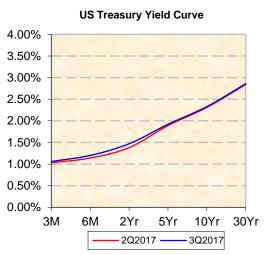
Private Equity: Buyout fund raising fell to \$66 billion from a record \$95 billion in Q2 2017. With a record fundraising quarter in Q2, it was not surprising that momentum did not continue into Q3 as fundraising activity has been historically lower in the third quarter of the year, with many managers choosing to close their funds in the final quarter. Despite the slowdown, 2017 is still on track to see the fundraising level surpass 2016 to set a new post-global financial crisis record. Aggregate capital raised has increased to \$338 billion during Q1-Q3 2017 – it may reach the all-time annual record of \$415 billion set in 2007. Q3 saw 953 buyout deals announced or completed globally, which represents 9% decrease versus the previous quarter. This decline could be attributable to increased asset pricing which makes it difficult for GPs to source attractive investment opportunities. Exit activity fell for a fifth consecutive quarter, with 381 buyout exits in Q3 – this represented the lowest number of exits since Q3 2012. Venture capital fundraising also declined to \$11.2 billion versus \$18 billion in Q2. The 2,369 venture capital financings announced globally in Q3 marked a 6% decline from the previous quarter. Despite fewer transactions, the aggregate value (\$49B) of VC deals in Q3 was the highest since 2010, 59% higher than in Q3 2016. The number of VC deals in North America fell for the 9th consecutive quarter. Meanwhile, private equity dry powder reached a record \$942 billion as of September 2017.

During the quarter, our private equity managers called a combined \$18.6 million and paid distributions of \$26.1 million. Our current allocation to private equity is 7.33%, with a market value of \$292.0 million. From its 2003 inception through June 30, 2017, the total private equity program (including fund-of-funds) has generated a net internal rate of return of 9.9% versus a 12.1% return for the dollar-weighted public market

equivalent (the Russell 3000 Index plus 300 bps). The direct private equity program generated a 18.0% return versus 16.8% for the benchmark since inception (2009).

Opportunistic: Hedge funds, as measured by the HFRI Fund Weighted Composite Index, gained 2.25% in the third quarter. On a sub-strategy basis, the HFRI Event-Driven Index rose 1.38%, the HFRI Relative Value Index gained 1.01%, the HFRI Equity Hedge Index advanced 3.04%, and the HFRI Macro Index was up 0.58%. The opportunistic portfolio returned 1.02% in the third quarter, trailing the 1.77% gain of the HFRI Fund of Funds Index primarily due to underperformance from the portfolio's fund of funds manager.

Fixed Income: The yield curve flattened slightly during the quarter, driven primary by a rise in yields on the short end of the curve. Yields on the curve's long-end were relatively unchanged, as expectations related to global growth and inflation remained stable. On the whole, bond spreads were driven lower during the period. leading to corporate bonds outperforming Treasurities. The yield on the 30-year bond increased by 2 bps during the guarter, and ended the period at 2.86%. The spread between 2-year and 10-year Treasuries, the main gauge of the yield curve, narrowed by 7 bps to 86 bps. For the quarter, the 2-year Treasury yield ended at 1.47%, up by 9 bps from the prior period, while the 10-year Treasury yield rose by 2 bps to 2.33%. For the quarter, the Merrill Lynch High Yield II Constrained Index rose by 2.04%, the Barclays Aggregate was up 0.85%, and the Barclays Long Govt/Credit Index recorded a gain of 1.53%. The fixed income portfolio's performance for the guarter was a gain of 1.87%,



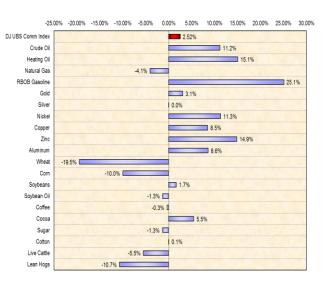
outperforming the custom benchmark by 16 bps. Our global inflation-linked bond portfolio, combined with a portable alpha overlay, recorded a gain of 0.45% for the quarter, outperforming the custom benchmark's gain of 0.18%.

Private Debt: Private debt fundraising in the third quarter saw 24 funds reach a final close, securing a total of \$23 billion in capital commitments from investors. While this was a slight reduction in the pacing of the number of funds that closed compared to the same period in 2016, the average size of the funds raised nearly doubled (\$958 million vs. \$400 million). Direct lending funds made up the largest percentage of funds closed, 44% during the quarter. Geographically, of the 24 funds that closed, 12 were North American based, seven were European focused, and 5 targeted Asia. During the quarter, our private debt managers called a combined \$7.4 million and paid distributions of \$2.5 million. Our current allocation to private debt is 1.09%, with a market value of \$43.2 million. From inception through June 30, 2017, the private debt program generated a net internal rate of return of 12.2% versus a 9.4% return for the dollar-weighted public market equivalent benchmark (BofA Merrill Lynch High Yield Master II Constrained + 300 bps).

Private Real Assets: U.S. real estate returns have continued to remain stable. The NCREIF Property Index (NPI), a measure of private commercial real estate properties in the U.S., gained 1.7% in the third quarter 2017, down from 1.8% from the previous quarter. The 1.7% total return consisted of a 1.1% income component and 0.6% appreciation. The Industrial sector continues to lead performance by property type with total returns of 3.3% in the third quarter. Hotels experienced the second strongest quarterly return by property sector, at 2.3% after reversing a six-quarter depreciation trend. Apartments, Office and Retail returned 1.7%, 1.4% and 1.2% respectively on decelerating capital appreciation. Within the U.S. upstream oil and gas sector, there was a significant drop in total upstream M&A spending due to a lack of transactions in the Permian Basin during the quarter. This quarter's biggest deals involved the STACK formation in Oklahoma and the Williston Basin in North Dakota. During the quarter, our private real assets managers called a combined \$10.5 million and paid distributions of \$10.9 million. Our current allocation to private real assets is 4.8%, with a market value of \$190.6 million. From its 2006 inception through June 30, 2017, the private real assets program (including fund-of-funds) has generated a net internal rate of return of 5.8% versus a 6.6% gain for the long-term benchmark CPI plus 500 bps. Underperformance is primarily due to real estate commitments prior to the financial crisis of 2008 and a private oil and gas fund in 2010.

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Public Real Assets: The Bloomberg Commodity Index gained 2.5% due to strength in the energy and industrial metal sectors. Energy prices rallied on increased demand forecasts and declining inventories. Crude oil priced gained 11% as the International Energy Agency revised its demand estimates upwards concurrently with declines in US crude oil inventories. Industrial metals appreciated on increasing demand stemming from global growth in manufacturing and declining inventories. Zinc led the sector advance as inventories declined to multi-year lows. Grain prices fell, led by wheat which moved lower on sizeable harvest projections. The USDA raised global wheat production forecasts, notably from Precious metals Russia. advanced on increasing geopolitical tensions surrounding the Korean peninsula. Livestock declined due to ample supplies and inexpensive feed costs.



Global listed real estate securities as measured by the FTSE EPRA/NAREIT Developed Index advanced 1.6%, led by strong performance in Hong Kong and most of Europe. Hong Kong real estate continues to do well as new real estate developments are experiencing strong demand at high prices. This strong demand is benefiting developers who have a large inventory of farm land to convert into new projects. Improving European economic conditions, increasing household spending and net immigration are translating into rising office and residential rents and lower vacancies. U.S. REITs were flat as gains in Industrial, Data Centers and Self-Storage were offset by losses in Health Care, Regional Malls, Office and Apartments. Healthcare real estate companies underperformed due to concerns over rising interest rates and vacancies whereas Office and Apartments were negatively impacted by additional supply. Real estate returns in Japan were negative, hurt by geopolitical risks with North Korea.

Master Limited Partners (MLPs), as measured by the Alerian MLP Total Return Index, declined 3.1% due to concerns that continued capital spending will lead to an oversupply of energy infrastructure assets and negatively impact investor sentiment.

For the quarter, the public real asset portfolio advanced 2.21%, outperforming the custom benchmark by 74 bps due to outperformance by our active commodity and MLP managers.

Additions

The primary sources of additions for the ERS include contributions from members and employers and investment income. The following table displays the source and amount of additions for the quarter ending September 30, 2017 and fiscal year-to-date.

Employees' Retirement System Contributions and Investment Income (millions)

	Qtr 9/30/2017		Fiscal YTD	
Employer Contributions Member Contributions	\$	25.2 6.2	\$	25.2 6.2
Net Investment Gain		92.2		92.2
	\$	123.6	\$	123.6

Quarterly Commodity Performance

Deductions

The deductions from the Employees' Retirement System include the payment of retiree and survivor benefits, participant refunds, and administrative expenses.

Employees' Retirement System Deductions by Type (millions)

	Qtr 9/30/2017		Fiscal YTD	
Benefits	\$	58.8	\$	58.8
Refunds		0.6		0.6
Administrative Expenses		0.7		0.7
	\$	60.1	\$	60.1

Outlook

The Federal Reserve kept the federal funds rate unchanged at 1.0% at their September meeting. While the central bank kept rates constant, they also announced that it will begin unwinding its balance sheet starting in October. Each month, the Fed will unload \$10 billion of debt, including \$6 billion in treasury securities and \$4 billion in agency debt. This marks a milestone for the Fed as they have transitioned from buying a significant amount of assets during and following the global financial crisis, to tapering the level of purchases, to finally selling off a portion of the assets in an effort to shrink the balance sheet. The Fed's 2017 growth expectations increased as they expect real GDP to grow 2.4% compared to its previous outlook of 2.2%. Inflation expectations have decreased as the Fed is now projecting core inflation of 1.5% versus their prior projection of 1.7%. The 10-year breakeven inflation rate increased roughly 10bps to 1.84%.

In September, the Bank of England (BOE) kept its benchmark rate unchanged at 0.25% but hinted that a rate hike could come as early as November, which pushed the British Pound to a one-year high versus the U.S. Dollar. The market currently views the chances of a September rate hike to be 50% with the November inflation report likely to influence the rate hike decision. Several members of the BOE will be pushing for a November hike given that GDP is increasing and unemployment has fallen to a 40-year low. The European Central Bank (ECB) left its benchmark interest rate unchanged at 0% during their September meeting, which was expected by market participants. ECB President, Mario Draghi, hinted that interest rates are unlikely to be increased until 2019. The markets are now turning their sights to the October meeting, where the ECB will hold preliminary discussions on how to wind down its bond purchasing program. The Bank of Japan (BOJ) kept its benchmark rate unchanged at -0.1%. BOJ Governor, Haruhiko Kuroda, signaled that the solid economic recovery should gradually accelerate inflation towards its 2% target without any further stimulus.

The domestic economy is likely to continue to grow at a moderate pace in the 2.0-2.5% range over the next year.

Sources: Bloomberg, Northern Trust, MSCI, S&P, T. Rowe Price, FRM, Wilshire Associates, Bridgewater, JP Morgan, BlackRock, Eagle, Gryphon, PE Hub, Private Equity Analyst, Pitchbook, Real Capital Analytics, RE Alert, Schroder, Oil & Gas Investor, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, PwC Deals, NCREIF.

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EMPLOYEES' RETIREMENT SYSTEM STATEMENTS OF FIDUCIARY NET POSITION

September 30, 2017

Assets

Equity in pooled cash and investments		2,720,294
Investments:		
Northern Trust		3,983,996,253
Aetna		894,574
Fidelity - Elected Officials Plan		632,298
Fidelity - DRSP/DROP		8,644,945
Total investments		3,994,168,070
Contributions receivable		4,637,140
Capital assets		900,043
Less depreciation		900,043
Net capital assets		0
Total assets		4,001,525,504
Liabilities		
Benefits payable and other liabilities		4,570,671
Net position restricted for pensions		3,996,954,833

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EMPLOYEES' RETIREMENT SYSTEM STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION September 30, 2017

	Quarter	Fiscal YTD
Additions		
Contributions:		
Employer	\$ 25,182,456	\$ 25,182,456
Member	6,240,841	6,240,841
Total contributions	31,423,297	31,423,297
Investment income	97,194,181	97,194,181
Less investment expenses	5,017,130	5,017,130
Net investment income	92,177,051	92,177,051
Total additions	123,600,348	123,600,348
Deductions		
Retiree benefits	43,669,087	43,669,087
Disability benefits	12,752,251	12,752,251
Survivor benefits	2,412,242	2,412,242
Refunds	596,716	596,716
Administrative expenses	720,630	720,630
Total deductions	60,150,926	60,150,926
Net increase	63,449,422	63,449,422
Net position restricted for pensions		
Beginning of period	3,933,505,411	3,933,505,411
End of period	\$ 3,996,954,833	\$ 3,996,954,833