PARS: County of Contra Costa

First Quarter 2018

Presented by
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CAPITAL MANAGEMENT

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DISCUSSION HIGHLIGHTS

U.S. Economic and Market Overview

It was a tale of two cities in the first quarter. For most of January, a good earnings season, positive revisions to corporate earnings growth, and a continuation of low volatility led to successive daily market highs. The trend reversed sharply in February after an exotic volatility-related ETF plummeted and was eventually liquidated. The ETF was extremely small in comparison to the market, however, algorithmic and quantitative strategies likely accentuated the impact contributing to a spike in overall market volatility. As a result, equities sold off. Shortly thereafter, increased talk of Trump tariffs and the President signing an executive memorandum on up to $60 billion in Chinese imports kept volatility elevated. So far, the S&P 500's peak to trough decline of slightly greater than 10% put the market in correction territory. For the quarter, large cap stocks as defined by the Russell 1000 Index declined -0.69% with Growth outperforming Value by over four percentage points. Technology continued its dominance and was the best returning sector climbing over 3.5%. Consumer discretionary performed well up 3.1% as the consumer remained strong and tax reform contributed to an increase in expected earnings growth. All other sectors declined, with the worst performer, Consumer staples falling by over -7%. Greater inflationary pressures and a lack of top-line growth impacted earnings expectations. Small cap stocks (Russell 2000 Index) outperformed large caps (Russell 1000 Index) as investors favored companies less susceptible to international trade and more leveraged to domestic spending and growth.

The potential impact on the economy from up to $60 billion in tariffs has been estimated to be just a couple tenths of one percent of GDP growth. Conversely, tax reform resulted in earnings estimates for the S&P 500 increasing materially over the past six months. Therefore, the unchanged markets has resulted in a 10% contraction in the market price-to-earnings multiple. While investors may be discounting any number of scenarios including an outright trade war, the rationale for the multiple contraction can be explained by increased tightening by the Fed so far in 2018. For the past few years, the Fed Funds rate has slowly climbed while the Fed balance sheet has stayed relatively constant. The Fed officially began Quantitative Tightening (QT), or reducing the size of its balance sheet, in October of last year. The tightening was very modest until the beginning of 2018 at which point, the Fed began accelerating the reduction in its balance sheet. Although still small relative to the total size of its balance sheet, the quantitative tightening is significant relative to the changes since 2014. While the tariff issues and the ever-present geopolitical uncertainty were factors, the heightened pace of QT and expectations for continued Fed Funds rate hikes were important contributors to market volatility.

Market Overview/Performance Discussion

Total Plan

The County of Contra Costa OPEB Plan returned -1.01% net of investment fees in the first quarter, which slightly exceeded the County's Plan benchmark target of -1.23%. From an attribution standpoint, the Plan benefitted from an overweight to emerging market equities, which was one of the few equity asset classes that posted a positive return in the first quarter. The Plan benefitted by being underweight REIT equities (2.5% allocation vs. 4.0% Plan Policy), with REITs turning in a dreadful -7.5% return as measured by the Wilshire REIT Index. Small cap equities were modestly additive to performance, led by the T. Rowe Price New Horizons Fund (+6.3%). Large cap equity, mid cap equity, global equity, fixed income and alternatives all performed right in-line with their underlying benchmarks, and we maintained no significant under or over weights in these categories.

Domestic Equity

The U.S. stock market gains from January evaporated over the last two months of the quarter on investor worries of rising interest rates and a potential trade war. Growth equities once again outperformed Value for the fifth quarter in a row supported by the only two sectors in the index that registered a positive gain: consumer discretionary (+3.1%) and technology (+3.5%). All domestic equity market indices declined modestly: Russell 1000 Index -0.69%, Russell Mid Cap Index -0.46%, and the Russell 2000 Index -0.08%. While technology was positive for the quarter, there was a reversal in some high profile technology shares. Facebook declined on news that customers personal data was improperly accessed by a British consulting firm. Amazon declined on fears that President Trump would somehow "go after" the company due to the President's belief that the company is not paying a high enough tax rate, and as well, not paying high enough reimbursement rates related to their contract with the U.S. Postal Service.

Rate sensitive sectors performed particularly poorly in the quarter represented by telecommunications (-7.5%), utilities (-3.3%), consumer staples (-7.1%) and real estate (-5%). The Federal Reserve's interest rate hike in March, combined with new leadership in Fed Chairman, Jerome "Jay" Powell, has investors concerned that an overly hawkish Fed may provide headwinds to the bull market in equities. At the most recent FOMC meeting in March, the Fed's dot plot indicated an additional two more hikes to come in 2018, yet some market observers are predicting a fourth hike will be executed before the end of the year. Some of these fears were manifested in the share price performance of these interest rate sensitive sectors.

- **The Plan's large cap equity segment returned -0.65% in the quarter, which was in-line with the Russell 1000 Index return of -0.69%.**
  - The iShares Russell 1000 ETF -0.73% in the first quarter.
  - The Columbia Contrarian Core Fund returned -2.44% in the quarter, which underperformed the benchmark. The Fund ranked in the 87th percentile of the Morningstar Large Cap Blend Universe.
  - The Harbor Capital Appreciation Fund returned 4.35% in the quarter, which exceeded the Russell 1000 Growth Index's return of 1.42%. The Fund ranked in the 20th percentile of the Morningstar Large Cap Growth Universe.
  - The T. Rowe Price Growth Stock Fund returned 3.86% in the quarter, which outperformed the Russell 1000 Growth Index. The Fund ranked in the 26th percentile of the Morningstar Large Cap Growth Universe.
  - The Dodge and Cox Stock Fund returned -1.75% in the quarter, and outperformed the Russell 1000 Value Index's return of -2.83%. The Fund ranked in the 22nd percentile of the Morningstar Large Cap Value Universe.
  - The Vanguard Growth and Income Fund registered a -0.69% return in the quarter, and matched the Russell 1000 Index. The Fund ranked in the 39th percentile of the Morningstar Large Cap Blend Universe.

- **The mid cap equity segment returned -0.49% in the quarter, which was in-line with the Russell Mid Cap Index return of -0.46%.**
  - The iShares Russell Mid Cap ETF returned -0.50% in the first quarter.

- **The small cap equity segment returned 0.16% in the quarter, which exceeded the Russell 2000 Index return of -0.08%.**
  - The iShares Russell 2000 ETF returned -0.08% in the first quarter.
  - The T. Rowe Price New Horizons Fund returned 6.27% in the quarter, and outperformed the Russell 2000 Growth Index return of 2.30%. The Fund ranked in the 8th percentile of Morningstar's Small Cap Growth Universe.
  - The Undiscovered Managers Behavioral Value Fund returned -3.19% in the quarter, and underperformed the Russell 2000 Value Index's return of -2.64%. The Fund ranked in the 68th percentile of Morningstar's Small Cap Value Universe.

Real Estate

For the seventh consecutive quarter, REIT equity was the weakest performing equity segment in the Plan, with the Wilshire REIT Index returning -7.48%. The issues plaguing REITs in 2017 have continued in the new year. One, occupancy headwinds have remained elevated due to store closures in malls, strip centers and outlets. Additionally, retailers have been disposing of lower quality properties in efforts to prune their portfolios – leading to more vacancies. The underlying factor behind this has not been the economy, which is performing well, instead the pressure continues to come from internet retailers, most notably Amazon. A second factor is rising interest rates have made REITs less attractive on a relative basis for investors focused on yield. Thirdly, dollar flows out of REIT investments also have had a negative impact. With this as a backdrop, most REIT sectors declined in the quarter. Retail (-17%) and healthcare (-17%) were the worst performers. Healthcare returns were muted by unfavorable trends in senior housing. Retail REITs were plagued by continuing struggles at brick and mortar retail shops. Self-storage (+2.6%) and lodging and leisure (+4.3%) were relative standouts in this difficult environment.

The Vanguard REIT ETF returned -8.12% which ranked in the 85th percentile.

International/Global Equity

International equity markets were mixed in comparison to domestic equities for the first quarter with the more restrictive U.S. monetary policy having an impact globally. President Trump's trade rhetoric dominated headlines and the implementation of China tariffs led investors to contemplate a more onerous scenario that could eventually imperil global trade. The MSCI-EAFE Developed market index declined by -1.5% and the Emerging market MSCI-EM index was up 1.4% for the quarter. In dollar terms, Japan was marginally higher given continued monetary support. Canada was down partly due to trade rhetoric from President Trump. For the Emerging markets, commodity producers Brazil and Russia were higher on a pick-up in oil prices. Thailand and Malaysia also performed well while Poland declined. In dollar terms, international markets that led were: Brazil (+11.8%), Malaysia (+9.8%), and Thailand (+9.3%).

After sustained improvement over the course of 2017, international economic data modestly softened in the first quarter but remained supportive of growth. In Europe, strong sentiment indicators and output expectations were offset by Purchasing Managers Indexes and Industrial Production data declining somewhat. In addition, financial conditions tightened modestly. China experienced improved domestic private demand and strong consumer confidence. While Beijing has signaled it would gradually tighten monetary and fiscal policy, the strength of the underlying economy should support growth. Japan consumer spending and non-residential investment were strong. Inflation continued to climb and although real wages stagnated, nominal wage growth rose. The country maintained supportive fiscal and monetary policy which is expected to remain in place until 2019.

A significant cause of the uncertainty over the past few months and arguably the culprit for the weak markets is President Trump's tariffs on China with the concern that the "skirmish" could turn into an all-out trade war. Using the President's previous trade issues as proxies for the recent China tariffs, our view is that the most likely outcome is that deals will be reached that will not be adverse to global economic activity. Of four trade issues that the President has addressed including steel and solar tariffs, North American Free Trade Agreement ("NAFTA") and South Korea, the President began with aggressive proposals and over time moderated his policy stance. A second concern has been the tighter U.S. monetary policy and its impact on the international markets. Given continued easy monetary policy in both Europe and Japan, though, our view is that equity markets are simply acclimating to the changing US monetary policy. As volatility will undoubtedly continue, international market valuations remain attractive with supportive earnings growth expectations. As a result, we continue to view international markets favorably.

- **The Plan's international/global equity segment returned -0.29% in the quarter. This return exceeded the MSCI EAFE Index -1.53% and the MSCI ACWI Index return of -0.96%.**
  - The iShares MSCI EAFE Index ETF returned -1.72% in the quarter.
  - The Nationwide Bailard International Equity Fund returned 0.00% in the quarter, which outperformed the MSCI EAFE Index. The Fund ranked in the 18th percentile of the Morningstar Foreign Large Blend Universe.
  - The Dodge & Cox International Stock Fund returned -2.14% in the quarter and underperformed the MSCI EAFE Index. The Fund ranked in the 90th percentile of the Foreign Large Blend Universe as measured by Morningstar.
  - The MFS International Fund returned -1.18% in the quarter and outperformed the MSCI EAFE Index. The Fund ranked in the 76th percentile for foreign large cap growth managers as measured by Morningstar.
  - The iShares MSCI ACWI Index ETF returned -1.00% in the quarter.
  - The American Funds New Perspective Fund recorded a 2.20% return in the first quarter, which outperformed the MSCI ACWI Index and ranked in the 13th percentile within the Morningstar World Stock Universe
  - The MFS Global Equity R6 Fund returned -1.99%, which underperformed the benchmark and ranked in the 76th percentile of the Morningstar World Stock Universe.
  - The Hartford Schroders Emerging Market Equity Fund returned 2.52% during the quarter and outperformed the MSCI Emerging Market benchmark return of 1.42%. The Fund ranked in the 38th percentile of the Morningstar Emerging Market Universe.

Fixed Income

The Federal Reserve raised the funds rate another 25 basis points in the first quarter, to a range of 1.50% to 1.75%, the sixth increase since the Fed first began raising rates over two years ago. Treasury yields continued to follow the fed funds rate higher, increasing an average of 33 basis points for the first quarter and generating negative returns for most fixed income securities for the first time since the fourth quarter of 2016. The Bloomberg Barclays U.S. Aggregate Index returned –1.5% for the quarter while Treasuries returned -1.2%, and investment-grade corporate bonds returned –2.3%, underperforming Treasuries for the first time in more than two years. After nine consecutive quarters of continuous outperformance, during which corporate bond spreads tightened by 80 basis points, spreads reversed course and widened 19 basis points in the first quarter, resulting in –79 basis points of underperformance. Not only corporate bonds, but all non-Treasury sectors underperformed this quarter, including mortgage-backed, asset-backed, and commercial mortgage-backed securities. Although returns were also negative for non-investment grade bonds, they nevertheless outperformed their higher quality counterparts, lagging duration equivalent Treasuries by only –17 basis points.

Fixed Income (Cont.)

After trading in a very narrow range for most of last year, the ten-year Treasury yield began to climb in January, nearly reaching 3% for the first time in four years. Passage of the “Tax Cuts and Jobs Act” in December, which lowers taxes by $1.5 trillion over the next ten years, was followed by a $300 billion spending bill in February, which together will require an additional $1 trillion in new debt this year. When combined with rising entitlement spending for an aging population, federal budget deficits are expected to total more than $7 trillion over the next ten years. As a result, Treasury issuance is expected to nearly double to $1.3 trillion per year in order to fund the spending. Tax cuts and fiscal stimulus combined with 2.9% GDP growth, low inflation, low unemployment, and regulatory relief contributed to a surge in optimism leading to expectations for faster growth and higher interest rates. The NFIB Small Business Optimism Index is currently at its highest level in 13 years, while consumer confidence is at an 18 year high. First quarter corporate earnings are expected to increase 17% from a year ago, one of the largest increases on record. Increases of this magnitude are more likely after a recession when activity rebounds from a depressed level rather than eight years into a recovery, making this gain even more remarkable.

This benign environment gives the Fed room to continue unwinding the emergency measures that were implemented during the financial crisis. In addition to the March rate hike, two more increases are expected this year, and a fourth is a definite possibility. In 2019 and 2020 the market is expecting several more increases until the funds rate reaches 3% to 3.25%, although the continued flattening of the yield curve is warning that tightening much beyond 3% in this low inflationary environment runs the risk of slower economic growth, perhaps even leading to a recession. For now, however, given the trajectory for fed funds, along with expanding budget deficits and increasing supply of Treasuries, the potential for an increase in rates seems greater than the potential for a significant decline, so we will continue to keep the portfolio duration somewhat shorter than the benchmark.

- **The Plan’s fixed income segment returned -1.24% in the quarter, which performed better than the Bloomberg Barclays Aggregate Index return of -1.46%.**
    - The separately managed fixed income portfolio returned -1.31% which exceeded the benchmark. The portfolio would have ranked approximately in the 40th percentile of the Morningstar Intermediate Term Bond Universe.
    - The PIMCO Total Return Bond Fund posted a -1.27% gain in the quarter, which placed it in the 40th percentile of Morningstar’s Intermediate-Term Bond Universe. The Fund outperformed the Index.
    - The Prudential Total Return Bond Fund returned -1.35% in the quarter. This ranked in the 48th percentile of Morningstar’s Intermediate-Term Bond Universe and outperformed the benchmark.

Alternative Investments

The alternative investment segment of the Plan returned -1.06% in the first quarter, which trailed slightly the Wilshire Liquid Alternatives Index -0.99%. The AQR Managed Futures Fund (-3.14%) was negatively impacted by the reversal in global equities that took place in the February-March period. The strong sell off in global stocks, and sudden change in volatility represented a sharp reversal in the established trend in the equity market. Commodity and currency categories also detracted slightly from performance. Within commodities, grains and oilseeds reversed their bearish trends and rallied on warm, dry weather in key growing regions and on lower planted acreage. Within currencies, the Japanese yen reversed its recent bearish trend and detracted from performance across trend horizons as the currency rallied following an early January BOJ announcement that it would curtail purchases of longer-dated bonds. The Eaton Vance Global Macro Fund (+0.42%) generated a slight gain in the quarter with currencies the biggest driver of performance. Long positions in the Columbian Peso, the Egyptian Pound, and the Serbian Dinar all contributed positively to performance. From a regional perspective, Latin America was the top contributor, which was aided by rates and currency exposures. Long interest rate futures investments in Mexico was a positive. The biggest detractors for the Fund was a short position in oil, followed by a long position in the Turkish Lira. The AQR Equity Market Neutral Fund returned -0.08% in the quarter, aided by short positions in real estate, utilities, and other interest rate sensitive sectors. Short positions in the energy sector, combined with select technology holdings were detractors.

- **The alternative investment segment returned -1.06% in the first quarter, which slightly lagged the Wilshire Liquid Alternatives Index return of -0.99%.**
  - The AQR Managed Futures Fund returned -3.14%, and ranked in the 50th percentile of the Morningstar Managed Futures Universe.
  - The Eaton Vance Global Macro Absolute Return Fund posted a 0.42% return, which placed in the 36th percentile of the Morningstar Non-Traditional Bond Universe.
  - The AQR Equity Market Neutral Fund return of -0.08% ranked in the 41st percentile of Morningstar's Market Neutral Universe.

Asset Allocation/Portfolio Transitions

During the quarter we eliminated the Eaton Vance Floating Rate High-Income Fund. The underlying manager's performance met expectations. The decision was based on concerns regarding the bank loan market and the minimal perceived upside within the asset class.

We implemented modest asset allocation moves during the quarter. We decreased REIT equity by -0.5%, and eliminated the floating rate note position (-1% fixed income). We increased our allocation to global equities (+.5%), small cap equity (+.75%), and emerging market (+.25%).

Manager Watch List

Name of Fund	*Date on watch list*	*Date exiting watch list*	*Recommendation*	*Rationale*
AQR Managed Futures Fund	2Q 2017		Maintain on watch	The Fund's absolute return is below expectations.

Asset Allocation
Period Ending March 31, 2018

Asset Allocation	12/31/2017 Market Value	12/31/2017 % of Total	3/31/2018 Market Value	3/31/2018 % of Total	Target Allocation
Large Cap Equities					
Columbia Contrarian Core Z	7,809,662	3.1%	7,619,403	3.0%	--
iShares Russell 1000 ETF	15,496,902	6.1%	15,823,284	6.2%	--
Vanguard Growth & Income Adm	7,878,436	3.1%	7,824,285	3.1%	--
Dodge & Cox Stock Fund	7,557,913	3.0%	7,778,394	3.0%	--
Harbor Capital Appreciation Retirement	2,516,722	1.0%	2,503,579	1.0%	--
T. Rowe Price Growth Stock Fund	2,517,380	1.0%	2,519,604	1.0%	--
Total Large Cap Equities	**$ 43,777,014**	**17.2%**	**$ 44,068,548**	**17.2%**	**17.0%**
		Range		*Range*	*13-32%*
Mid Cap Equities					
iShares Russell Mid-Cap ETF	11,411,352	4.5%	11,529,055	4.5%	--
Total Mid Cap Equities	**$ 11,411,352**	**4.5%**	**$ 11,529,055**	**4.5%**	**6.0%**
		Range		*Range*	*2-10%*
Small Cap Equities					
iShares Russell 2000 ETF	10,084,009	4.0%	10,852,201	4.2%	--
Undiscovered Mgrs Behavioral Value Inst	6,308,240	2.5%	7,716,596	3.0%	
T. Rowe Price New Horizons Fund	3,844,829	1.5%	3,809,796	1.5%	--
Total Small Cap Equities	**$ 20,237,079**	**8.0%**	**$ 22,378,593**	**8.7%**	**8.0%**
		Range		*Range*	*4-12%*
International Equities					
Nationwide Bailard Intl Equities I	7,677,851	3.0%	7,060,408	2.8%	--
iShares MSCI EAFE Index Fund	12,698,056	5.0%	13,532,832	5.3%	--
Dodge & Cox International Stock Fund	3,759,547	1.5%	3,848,252	1.5%	--
MFS® International Growth R6	3,807,825	1.5%	3,863,738	1.5%	--
Hartford Schroders Emerging Mkts Eq Y	5,167,233	2.0%	5,702,970	2.2%	--
Total International Equities	**33,110,512**	**13.0%**	**$ 34,008,200**	**13.3%**	**9.0%**
		Range		*Range*	*4-16%*
Global Equities					
MSCI iShares ACWI Index ETF	10,157,553	4.0%	11,527,711	4.5%	
American Funds New Perspective R6	4,088,322	1.6%	3,811,378	1.5%	
MFS Global Equity FD CL R5 #4818	3,804,668	1.5%	3,858,680	1.5%	
Total Global Equities	**$ 18,050,543**	**7.1%**	**$ 19,197,769**	**7.5%**	**7.0%**
		Range		*Range*	*4-12%*

Asset Allocation
Period Ending March 31, 2018

Asset Allocation	12/31/2017 Market Value	12/31/2017 % of Total	3/31/2018 Market Value	3/31/2018 % of Total	Target Allocation
Real Estate					
Vanguard REIT ETF	7,712,493	3.0%	6,548,909	2.6%	
	$ 7,712,493	**3.0%**	**$ 6,548,909**	**2.6%**	**4.0%**
		Range		*Range*	*0-8%*
Fixed Income					
Core Fixed Income Holdings	69,046,713	27.2%	68,897,199	26.9%	--
PIMCO Total Return Instl Fund	10,738,516	4.2%	10,589,201	4.1%	--
Prudential Total Return Bond Q	10,777,640	4.2%	10,630,746	4.1%	--
Eaton Vance Floating-Rate High Inc	2,450,000	1.0%	--	--	--
Total Fixed Income	**$ 93,012,869**	**36.6%**	**$ 90,117,145**	**35.1%**	**38.0%**
		Range		*Range*	*30-50%*
Alternatives					
AQR Managed Futures I	8,904,222	3.5%	7,566,979	3.0%	--
Eaton Vance Glbl Macro Abs Ret I	8,255,896	3.2%	9,011,895	3.5%	--
AQR Equity Market Neutral I	8,397,706	3.3%	8,961,974	3.5%	--
Total Alternatives	**$ 25,557,825**	**10.1%**	**$ 25,540,847**	**10.0%**	**10.0%**
		Range		*Range*	*5-20%*
Cash					
Money Market	1,240,320	0.5%	3,048,340	1.2%	--
Total Cash	**$ 1,240,320**	**0.5%**	**$ 3,048,340**	**1.2%**	**1.0%**
		Range		*Range*	*0-5%*
TOTAL	**$ 254,110,007**	**100.0%**	**$ 256,437,406**	**100.0%**	**100.0%**

Investment Summary

Period Ending March 31, 2018

Investment Summary	First Quarter 2018	Year to Date 2018
Beginning Value	**254,664,786.12**	**$ 254,664,786.12**
Net Contributions/Withdrawals	4,937,285.25	4,937,285.25
Fees Deducted	-48,303.65	-48,303.65
Income Received	1,039,762.11	1,039,762.11
Market Appreciation	-3,601,344.87	-3,601,344.87
Net Change in Accrued Income	-76,501.69	-76,501.69
Ending Market Value*	**$ 256,915,683.27**	**$ 256,915,683.27**

Investment Summary	First Quarter 2017	Year to Date 2017
Beginning Value	**$ 206,343,794.94**	**$ 206,343,794.94**
Net Contributions/Withdrawals	4,940,125.09	4,940,125.09
Fees Deducted	-46,099.38	-46,099.38
Income Received	912,983.05	912,983.05
Market Appreciation	6,598,356.87	6,598,356.87
Net Change in Accrued Income	-42,252.12	-42,252.12
Ending Market Value*	**$ 218,706,908.45**	**$ 218,706,908.45**

*Ending Market Value differs from total market value on the previous page due to differences in reporting methodology. The above ending market value is reported as of trade date and includes accruals. The Asset Allocation total market value is reported as of settlement date.

Investment Strategy
As of March 31, 2018

Tactical Asset Allocation

Asset Class	Target	Current Portfolio	Over/Under Weighting	Rationale
Cash	1.0%	1.25%	+0.25%	
Fixed Income	38.0%	35.0%	-3.0%	▪ We forecast the Federal Reserve will raise the Fed Funds rate two to three times in calendar year 2018. We expect tightening labor markets, increasing aggregate demand and dwindling excess capacity to produce inflationary pressure that will prompt the Fed to stay on a path of normalization. Our year-end 10-year Treasury forecast calls for a range between 2.75% - 3.25%. In the quarter, we slightly increased our underweight to fixed income.
Alternatives	10.0%	10.0%	-	▪ A gradual withdrawal of monetary stimulus and improving economic conditions have led to a higher likelihood of rising interest rates, thereby creating downside for bond prices. Alternative investments provide superior risk/reward opportunities relative to cash and fixed income given the current low interest rate environment.
Real Estate (REITS)	4.0%	2.5%	-1.5%	▪ Rising vacancy rates for regional malls and shopping centers, rising interest rate pressures on the sector and declining sales trends for a variety of sectors create a negative backdrop for REITs. We slightly increased our underweight to REITs in the quarter.
Global Equity	7.0%	7.5%	+0.5	▪ The U.S. economy is on solid footing with low unemployment and modest, yet improving growth. Economic activity outside of the U.S. is firming after being out of sync with the U.S. for most of the current cycle. We expect the rising tide of economic activity internationally, combined with domestic fiscal stimulus in the form of tax cuts and increased spending to further the duration of the current expansion cycle. We moved to a slight overweight to global equities in the quarter. Protectionist policies in the U.S. may ultimately disrupt the positive trend if a trade war develops. The issue warrants close monitoring, but we expect the saber rattling to subside.
International (Developed)	9.0%	11.0%	+2.0%	▪ The overweight to international equity markets is based on the attractive relative valuations compared to the U.S. equity market and superior earnings growth potential driven by accelerating economic activity. Ongoing ECB and BOJ QE programs are expected to support financial prices.
International (Emerging)	0.0%	2.25%	+2.25%	▪ Emerging markets have performed well from a pick up in global trade and U.S. Dollar weakness. While these factors may soften near-term, valuations are roughly within their long-term average levels which is attractive in comparison to high U.S. market valuations. Sanctions on Russia and the on-going escalation with China/tariffs will be monitored closely.
Total Domestic Equity	31.0%	30.5%	-0.5%	
Large Cap	17.0%	17.25%	+0.25	▪ A recent market correction has brought earnings multiples for domestic stocks back in line with historical averages. Stimulative fiscal policy, low inflation and a stable economy will remain supportive of current valuations. We expect 2018 S&P500 earnings to register between $150 -$155/share
Mid Cap	6.0%	4.5%	-1.50%	▪ The recent market correction finds the Russell Mid-Cap Index trading at a 16.6X forward PE ratio. While more reasonable relative to historical valuations, we would prefer to be overweight large cap and small cap equities.
Small Cap	8.0%	8.75%	+0.75	▪ We moved to a slight overweight in small cap equity. Small caps perform well in inflationary environments. Additionally, small cap equities will be less impacted if trade and tariff issues heat up. Finally, small cap equities are expected to benefit from the Tax and Job Act.

Selected Period Performance

PARS/COUNTY OF CONTRA COSTA PRHCP

Account 6746038001

Period Ending: 03/31/2018

Sector	Year to Date (3 Months)	1 Year	3 Years	5 Years	Inception to Date (86 Months)
Cash Equivalents	.31	.95	.46	.28	.20
Citigroup 3 Month T-Bill Index	*.35*	*1.07*	*.50*	*.31*	*.24*
Fixed Income ex Funds	-1.31	1.29	1.55	1.92	3.27
Total Fixed Income	-1.24	1.69	1.68	1.99	3.39
BC US Aggregate Bd Index	*-1.46*	*1.20*	*1.20*	*1.82*	*2.90*
Total Equities	-.82	14.10	8.46	10.25	9.66
Large Cap Funds	-.65	14.69	10.64	13.19	12.03
Russell 1000 Index	*-.69*	*13.98*	*10.39*	*13.17*	*12.84*
Mid Cap Funds	-.49	12.02	7.25	10.60	10.28
Russell Midcap Index	*-.46*	*12.20*	*8.01*	*12.09*	*12.05*
Small Cap Funds	.16	13.93	9.65	13.11	12.58
Russell 2000 Index	*-.08*	*11.79*	*8.39*	*11.47*	*11.36*
International Equities	-.29	16.97	7.38	7.46	6.09
MSCI AC World Index	*-.96*	*14.85*	*8.12*	*9.20*	*8.14*
MSCI EAFE Index	*-1.53*	*14.80*	*5.55*	*6.49*	*5.32*
MSCI EM Free Index	*1.42*	*24.93*	*8.81*	*4.99*	*3.09*
Alternatives	-1.06	1.29	-.45		
Dynamic Alternatives Index	*-.99*	*2.59*	*-.39*	*1.24*	*-.05*
REIT Funds	-8.59	-3.81	.93	5.83	7.82
Wilshire REIT Index	*-7.48*	*-3.64*	*.97*	*6.13*	*8.50*
Total Managed Portfolio	-1.00	7.97	4.95	6.06	6.29
Total Account Net of Fees	-1.01	7.89	4.86	5.95	6.18
County of Contra Costa Benchmark	*-1.23*	*7.03*	*4.68*	*6.23*	*6.65*

Inception Date: 02/01/2011

* Benchmark from February 1, 2011 to June 30, 2013: 18% Russell 1000 Index, 6% Russell Midcap Index, 8% Russell 2000 Index, 8% MSCI ACWI Index, 10% MSCI EAFE Index, 45% Barclays Aggregate Index, 4% DJ Wilshire REIT Index, 1% Citigroup 3 Month T-Bill Index. From July 1, 2013 to June 30, 2015: 17% Russell 1000 Index, 6% Russell Midcap Index, 8% Russell 2000 Index, 7% MSCI AC World US Index, 9% MSCI EAFE Index, 38% Barclays Aggregate Index, 4% DJ Wilshire REIT Index, 10% HFRI FOF Market Defensive Index, 1% Citigroup 3 Month T-Bill Index. From July 1, 2015: 17% Russell 1000 Index, 6% Russell Midcap Index, 8% Russell 2000 Index, 7% MSCI AC World Index, 9% MSCI EAFE Index, 38% Barclays Aggregate Index, 4% DJ Wilshire REIT Index, 10% Wilshire Liquid Alternative Index, 1% Citigroup 3 Month T-Bill Index

** Dynamic Alternatives Index represents the HFRI FOF Market Defensive Index from 07/01/2013 until 06/30/2015, and then the Wilshire Liquid Alternatives Index from 07/01/2015 forwards.

Returns are gross-of-fees unless otherwise noted. Returns for periods over one year are annualized. The information presented has been obtained from sources believed to be accurate and reliable. Past performance is not indicative of future returns. Securities are not FDIC insured, have no bank guarantee, and may lose value.

COUNTY OF CONTRA COSTA

For Period Ending March 31, 2018

Fund Name	Inception	3-Month Return	Rank	YTD Return	Rank	1-Year Return	Rank	3-Year Return	Rank	5-Year Return	Rank
LARGE CAP EQUITY FUNDS											
Columbia Contrarian Core Inst	(7/13)	-2.44	87	-2.44	87	11.17	75	9.50	45	12.82	33
T. Rowe Price Growth Stock I		3.86	26	3.86	26	25.04	21	13.89	11	17.11	8
Harbor Capital Appreciation Retirement		4.35	20	4.35	20	28.88	7	14.07	9	17.27	8
Dodge & Cox Stock	(10/14)	-1.75	22	-1.75	22	10.76	32	10.88	4	13.34	1
Vanguard Growth & Income Adm	(12/16)	-0.69	39	-0.69	39	13.95	35	10.57	16	13.47	9
iShares Russell 1000 ETF	(3/15)	-0.73	42	-0.73	42	13.83	40	10.26	26	13.03	22
Russell 1000 TR USD		**-0.69**	--	**-0.69**	--	**13.98**	--	**10.39**	--	**13.17**	--
MID CAP EQUITY FUNDS											
iShares Russell Mid-Cap ETF	(3/15)	-0.50	34	-0.50	34	12.02	33	7.83	39	11.90	20
Russell Mid Cap TR USD		**-0.46**	--	**-0.46**	--	**12.20**	--	**8.01**	--	**12.09**	--
SMALL CAP EQUITY FUNDS											
Undiscovered Managers Behavioral Val L	(9/16)	-3.19	68	-3.19	68	7.57	29	9.74	12	12.08	11
Russell 2000 Value TR USD		**-2.64**	--	**-2.64**	--	**5.13**	--	**7.87**	--	**9.96**	--
T. Rowe Price New Horizons I		6.27	8	6.27	8	27.04	11	14.07	6	17.11	3
Russell 2000 Growth TR USD		**2.30**	--	**2.30**	--	**18.63**	--	**8.77**	--	**12.90**	--
iShares Russell 2000 ETF	(3/15)	-0.08	31	-0.08	31	11.80	27	8.43	30	11.52	30
INTERNATIONAL EQUITY FUNDS											
Dodge & Cox International Stock		-2.14	90	-2.14	90	10.96	92	3.76	91	7.26	23
Nationwide Bailard Intl Eqs R6		0.00	18	0.00	18	15.83	45	5.59	55	7.08	27
MFS® International Growth R6		-1.18	76	-1.18	76	21.23	32	8.74	24	7.00	57
MFS® Global Equity R6	(3/15)	-1.99	80	-1.99	80	12.66	63	7.74	49	9.52	45
iShares MSCI EAFE ETF	(3/15)	-1.72	84	-1.72	84	14.52	67	5.43	61	6.36	49
iShares MSCI ACWI ETF	(3/15)	-1.00	59	-1.00	59	15.23	39	8.32	37	9.45	46
American Funds New Perspective R6	(3/15)	2.20	13	2.20	13	20.57	17	10.85	12	12.07	10
MSCI EAFE NR USD		**-1.53**	--	**-1.53**	--	**14.80**	--	**5.55**	--	**6.50**	--
MSCI ACWI NR USD		**-0.96**	--	**-0.96**	--	**14.85**	--	**8.12**	--	**9.20**	--
Hartford Schroders Emerging Mkts Eq Y	(11/12)	2.52	38	2.52	38	28.58	17	10.69	18	5.99	24
MSCI EM Free		**1.42**	--	**1.42**	--	**24.93**	--	**8.81**	--	**4.99**	--

Data Source: Morningstar, SEI Investments

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COUNTY OF CONTRA COSTA

For Period Ending March 31, 2018

Fund Name	Inception	3-Month Return	Rank	YTD Return	Rank	1-Year Return	Rank	3-Year Return	Rank	5-Year Return	Rank
REIT EQUITY FUNDS											
Vanguard Real Estate ETF	(6/17)	-8.12	85	-8.12	85	-4.49	81	0.76	55	5.76	46
Wilshire REIT Index		**-7.48**	**--**	**-7.48**	**--**	**-3.64**	**--**	**0.97**	**--**	**6.13**	**--**
BOND FUNDS											
Core Fixed Income Portfolio		-1.31	40	-1.31	40	1.29	48	1.55	31	1.92	38
PIMCO Total Return Instl		-1.27	40	-1.27	40	2.13	15	1.62	30	1.83	41
Prudential Total Return Bond Q	(5/16)	-1.35	48	-1.35	48	3.37	4	2.62	5	3.16	3
BBgBarc US Agg Bond TR USD		**-1.46**	**--**	**-1.46**	**--**	**1.20**	**--**	**1.20**	**--**	**1.82**	**--**
ALTERNATIVE FUNDS											
AQR Managed Futures	(7/13)	-3.14	50	-3.14	50	-3.14	75	-6.20	81	0.87	48
AQR Equity Market Neutral I	(2/16)	-0.08	41	-0.08	41	4.88	15	8.66	1	--	--
Eaton Vance Glbl Macro Abs Ret	(7/13)	0.42	36	0.42	36	3.14	43	3.13	34	2.51	31
Idx: Dynamic Alternatives		**-0.99**	**--**	**-0.99**	**--**	**2.59**	**--**	**-0.39**	**--**	**1.24**	**--**

Data Source: Morningstar, SEI Investments

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COUNTY OF CONTRA COSTA

For Period Ending December 31, 2017

Fund Name	Inception	2017 Return	Rank	2016 Return	Rank	2015 Return	Rank	2014 Return	Rank	2013 Return	Rank	2012 Return	Rank
LARGE CAP EQUITY FUNDS													
Columbia Contrarian Core Inst	(7/13)	21.70	32	8.64	74	3.02	9	12.92	31	35.73	17	18.67	10
T. Rowe Price Growth Stock I (PRUFX)		33.84	15	1.58	63	10.93	--	8.83	--	39.20	--	18.92	--
Harbor Capital Appreciation Retirement (HNACX)		36.68	5	-1.04	--	10.99	--	9.93	--	37.66	--	15.69	--
Dodge & Cox Stock	(10/14)	18.33	24	21.28	6	-4.49	62	10.40	54	40.55	2	22.01	2
Vanguard Growth & Income Adm	(12/16)	20.80	54	12.12	24	2.03	16	14.16	13	32.74	37	17.05	19
iShares Russell 1000 ETF	(3/15)	21.53	37	11.91	27	0.82	30	13.08	28	32.93	35	16.27	29
Russell 1000 TR USD		**21.69**	**--**	**12.05**	**--**	**0.92**	**--**	**13.24**	**--**	**33.11**	**--**	**16.42**	**--**
MID CAP EQUITY FUNDS													
iShares Russell Mid-Cap ETF	(3/15)	18.32	27	13.58	61	-2.57	30	13.03	8	34.50	46	17.13	43
lid Cap TR USD		18.52	--	13.80	--	-2.44	--	13.22	--	34.76	--	17.28	--
SMALL CAP EQUITY FUNDS													
Undiscovered Managers Behavioral Val L	(9/16)	13.43	11	20.84	81	3.43	1	5.70	26	37.64	38	23.55	4
Russell 2000 Value TR USD		**7.84**	**--**	**31.74**	**--**	**-7.47**	**--**	**4.22**	**--**	**34.52**	**--**	**18.05**	**--**
T. Rowe Price New Horizons I (PRJIX)		31.67	9	7.95	69	4.54	--	6.10	--	49.11	--	16.20	--
Russell 2000 Growth TR USD		**22.17**	**--**	**11.32**	**--**	**-1.38**	**--**	**5.60**	**--**	**43.30**	**--**	**14.59**	**--**
iShares Russell 2000 ETF	(3/15)	14.66	24	21.36	43	-4.33	44	4.94	44	38.85	35	16.39	34
INTERNATIONAL EQUITY FUNDS													
Dodge & Cox International Stock		23.94	72	8.26	2	-11.35	98	0.08	9	26.31	8	21.03	16
Nationwide Bailard Intl Eqs R6 (NWHMX)		24.68	62	-2.13	83	0.93	23	-1.90	15	21.84	--	21.07	--
MFS® International Growth R6 (MGRDX)		32.58	31	2.79	6	0.40	52	-5.01	57	13.94	78	19.77	29
MFS® Global Equity R6	(3/15)	24.04	41	7.43	27	-1.34	48	4.08	33	27.93	34	23.14	--
iShares MSCI EAFE ETF	(3/15)	24.94	58	0.96	47	-0.90	46	-5.04	46	22.62	18	17.22	66
iShares MSCI ACWI ETF	(3/15)	**24.35**	**39**	**8.22**	**21**	**-2.39**	**62**	**4.64**	**28**	**22.91**	**63**	**15.99**	**51**
American Funds New Perspective Fund® Class R-6	(3/15)	29.30	16	2.19	77	5.63	6	3.56	40	27.23	38	21.19	14
MSCI EAFE NR USD		**25.03**	**--**	**1.00**	**--**	**-0.81**	**--**	**-4.90**	**--**	**22.78**	**--**	**17.32**	**--**
MSCI ACWI NR USD		**23.97**	**--**	**7.86**	**--**	**-2.36**	**--**	**4.16**	**--**	**22.80**	**--**	**16.13**	**--**
Hartford Schroders Emerging Mkts Eq Y (HHHYX)	(11/12)	41.10	18	10.53	--	-12.68	--	-4.61	--	-2.28	--	21.73	--
MSCI EM Free Index		**37.28**	**--**	**11.19**	**--**	**-14.92**	**--**	**-2.19**	**--**	**-2.60**	**--**	**18.22**	**--**

Data Source: Morningstar, SEI Investments

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COUNTY OF CONTRA COSTA

For Period Ending December 31, 2017

Fund Name	Inception	2017 Return	Rank	2016 Return	Rank	2015 Return	Rank	2014 Return	Rank	2013 Return	Rank	2012 Return	Rank
REIT EQUITY FUNDS													
Vanguard REIT ETF	(6/17)	4.95	57	8.53	17	2.37	65	30.29	33	2.42	27	17.67	30
Wilshire REIT Index		**4.18**	**--**	**7.24**	**--**	**4.23**	**--**	**31.78**	**--**	**1.86**	**--**	**17.59**	**--**
BOND FUNDS													
Core Fixed Income Portfolio		3.49	59	3.63	37	0.78	14	4.74	70	-1.40	41	5.42	69
PIMCO Total Return Instl		5.13	10	2.60	63	0.73	15	4.69	71	-1.92	60	10.36	12
Prudential Total Return Bond Q	(5/16)	6.71	2	4.83	13	0.09	44	7.25	5	-0.91	28	9.96	14
BBgBarc US Agg Bond TR USD		**3.54**	**--**	**2.65**	**--**	**0.55**	**--**	**5.97**	**--**	**-2.02**	**--**	**4.21**	**--**
Eaton Vance Floating-Rate & Hi Inc Inst	(12/16)	4.63	9	11.55	15	-1.50	57	0.90	33	5.23	50	9.51	38
ALTERNATIVE FUNDS													
AQR Managed Futures Strategy I	(7/13)	-0.97	74	-8.43	81	2.00	31	9.69	40	9.40	6	2.99	5
AQR Equity Market Neutral I	(2/16)	5.84	24	5.85	18	17.60	1	--	--	--	--	--	--
Eaton Vance Glbl Macr Absolute Return I	(7/13)	4.29	47	4.00	61	2.63	7	3.03	18	-0.24	58	4.11	79
Dynamic Alternatives Index		**5.07**	**--**	**2.29**	**--**	**-5.19**	**--**	**6.39**	**--**	**0.54**	**--**	**-1.67**	**--**

Data Source: Morningstar, SEI Investments

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