



# INVESTMENT TIPS AND TECHNIQUES

Ohio Association of Public Treasurers

June 14, 2018

## Presented by

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Cash vs. Core

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## CASH VS. CORE

- Cash Management - “Cash” Portfolio
  - Operating needs for current year
  - Funds with uncertain time horizon
- Investment Management – “Core” Portfolio
  - Time horizon greater than one year
  - Apply investment strategy to maximize earnings

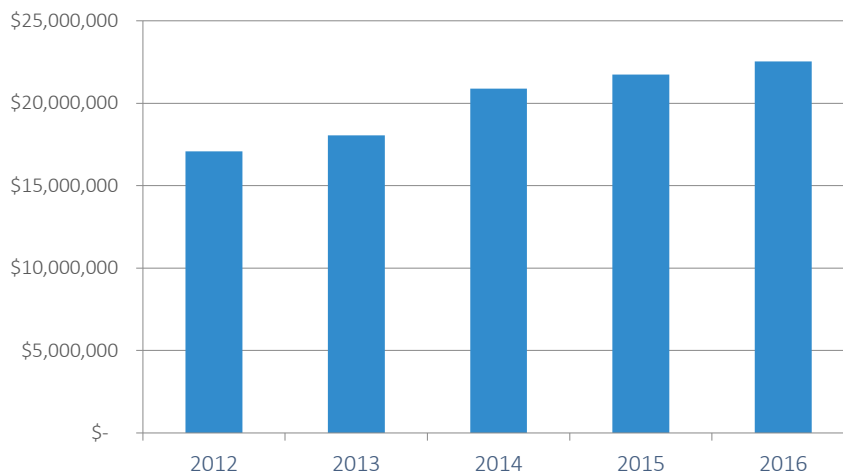


3 (C) (D)

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## CASH VS. CORE

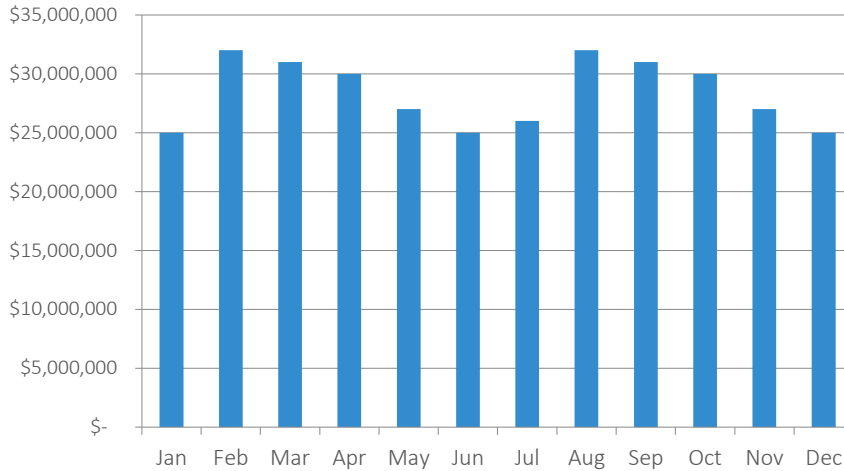
Year-end Balances



4 (C) (D)

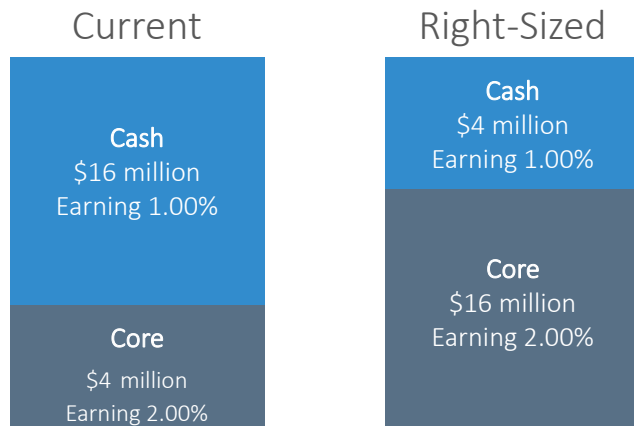
## CASH VS. CORE

Month-end Balances



5 (navigation icons)

## CASH VS. CORE



Projected Additional Interest Income of \$120,000



6 (navigation icons)

## Bank Fees vs. Balances

7 (X)

### BANK ACCOUNT ANALYSIS STATEMENT

#### Local Bank

Average Ledger Balance	\$24,536,865.97
Less Average Float	\$0.00
Average Collected Balance	\$24,536,865.97
Less Reserve Requirement	\$2,453,686.60
Average Available Balance	\$22,083,179.37

8 (X)

## BANK ACCOUNT ANALYSIS STATEMENT

### Local Bank

Cost of Services	Volume	Unit Price	Total Cost
Account maintenance	5	41.80	209.00
Image statement	5	10.00	50.00
Checks paid	2,500	0.19	475.00
ACH credits received	200	0.14	28.00
Analysis maintenance fee	1	29.90	29.90
Total Charge for Services			\$ 791.90



9 (X) (Y)

## BANK ACCOUNT ANALYSIS STATEMENT

### Local Bank

Average Ledger Balance		\$24,536,865.97
Less Average Float		\$0.00
Average Collected Balance		\$24,536,865.97
Less Reserve Requirement		\$2,453,686.60
Average Available Balance		\$22,083,179.37
Earnings Credit Allowance	0.25%	\$4,600.66
Total Charge for Services		\$791.90
Net Charge for Services		\$0



10 (X) (Y)

## BENEFITS OF REDUCING BANK BALANCES

	Existing	Reduced Balances
Average Ledger Balance	\$24,536,865.97	\$4,536,856.97
Earnings Credit Allowance (0.25%)	\$4,600.66	\$945.18
Total Charge for Services	(\$791.90)	(\$791.90)
Alternative Investment Earning (2.00% annually)	\$0	\$33,333.33

INCREASED INTEREST INCOME OF \$400,000 PER YEAR BASED ON INVESTING THE \$20 MILLION TO YIELD 2.00%



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Commercial  
Paper

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## COMMERCIAL PAPER

### OHIO REVISED CODE 135.14

7) Up to **forty per cent** of interim moneys available for investment in either of the following:

(a) Commercial paper notes issued by an entity that is defined in division (D) of section 1705.01 of the Revised Code and that has assets exceeding five hundred million dollars, to which notes all of the following apply:

(i) The notes are rated at the time of purchase in the highest classification established by at least two nationally recognized standard rating services.

(ii) The aggregate value of the notes does not exceed ten per cent of the aggregate value of the outstanding commercial paper of the issuing corporation.

(iii) The notes mature not later than two hundred seventy days after purchase.

(iv) The investment in commercial paper notes of a **single issuer shall not exceed in the aggregate five per cent** of interim moneys available for investment at the time of purchase.

(b) Bankers acceptances of banks that are insured by the federal deposit insurance corporation and that mature not later than one hundred eighty days after purchase.

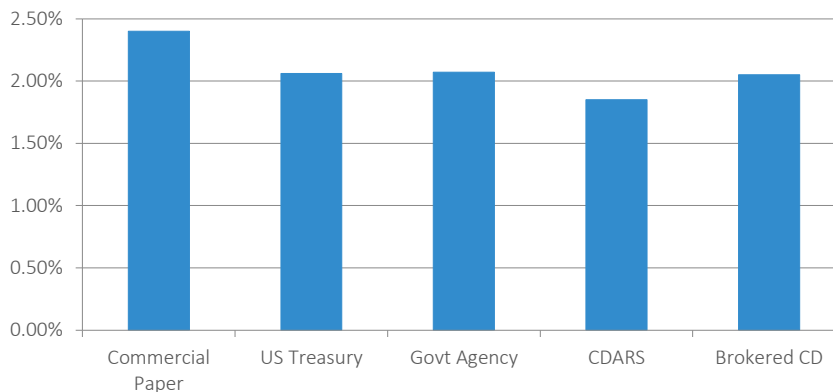
No investment shall be made pursuant to division (B)(7) of this section unless the treasurer or governing board has completed additional training for making the investments authorized by division (B)(7) of this section. The type and amount of additional training shall be approved by the treasurer of state and may be conducted by or provided under the supervision of the treasurer of state.



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## COMMERCIAL PAPER

### RATE COMPARISON



Commercial Paper rates for 270 days. Rates on all other securities for 1 year maturity. Rates as of 3/15/18. For illustration purposes only.



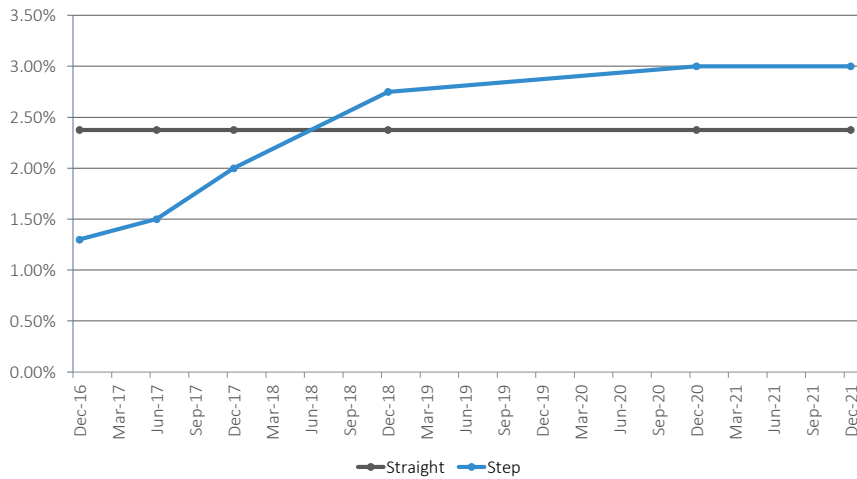
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# Step-up Bonds

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## STRAIGHT CALLABLE VS STEP (INTEREST RATES)

Straight Callable - 3134GAC44 FHLMC 2.375% 12/30/21 vs. Multi Step - 3130AAAN8 FHLB 1.30% 12/16/21

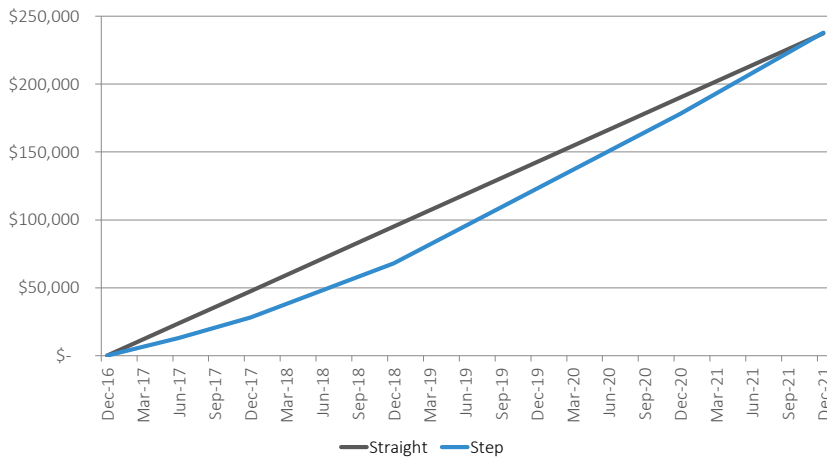


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## STRAIGHT VS STEP (CUMULATIVE INTEREST)

Straight Callable - 3134GAC44 FHLMC 2.375% 12/30/21 vs. Multi Step - 3130AAAN8 FHLB 1.30% 12/16/21



Municipal Securities

## MUNICIPAL SECURITIES

### OHIO REVISED CODE 135.14

(4) Bonds and other obligations of this state, or the political subdivisions of this state, provided that, with respect to bonds or other obligations of political subdivisions, all of the following apply:

(a) The bonds or other obligations are **payable from general revenues** of the political subdivision and backed by the full faith and credit of the political subdivision.

(b) The bonds or other obligations are rated at the time of purchase in the **three highest classifications** established by at least one nationally recognized standard rating service and purchased through a registered securities broker or dealer.

(c) The aggregate value of the bonds or other obligations does not exceed **twenty per cent** of interim moneys available for investment at the time of purchase.

(d) The treasurer or governing board is **not the sole purchaser** of the bonds or other obligations at original issuance.

No investment shall be made under division (B)(4) of this section unless the treasurer or governing board has **completed additional training** for making the investments authorized by division (B)(4) of this section. The type and amount of additional training shall be approved by the treasurer of state and may be conducted by or provided under the supervision of the treasurer of state.



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Brokered CDs

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# CERTIFICATES OF DEPOSIT

## 135.144 Investment of interim moneys in federally insured certificates of deposit.

(A) In addition to the authority provided in section 135.14 or 135.143 of the Revised Code, the treasurer of state or the treasurer or governing board of a political subdivision may invest interim moneys in certificates of deposit in accordance with all of the following:

(1) The interim moneys initially are deposited with an eligible public depository described in section 135.03 of the Revised Code and selected, pursuant to section 135.12 of the Revised Code, by the treasurer of state or the treasurer or governing board of a political subdivision, for interim moneys of the state or of the political subdivision.

(2) For the treasurer of state or the treasurer or governing board of the political subdivision depositing the interim moneys pursuant to division (A)(1) of this section, the eligible public depository selected pursuant to that division invests the interim moneys in certificates of deposit of one or more federally insured banks, savings banks, or savings and loan associations, wherever located. The full amount of principal and any accrued interest of each certificate of deposit invested in pursuant to division (A)(2) of this section shall be insured by federal deposit insurance.

(3) For the treasurer of state or the treasurer or governing board of the political subdivision depositing the interim moneys pursuant to division (A)(1) of this section, the eligible public depository selected pursuant to that division acts as custodian of the certificates of deposit described in division (A)(2) of this section.

(4) On the same date the public moneys are redeposited by the public depository, the public depository may, in its sole discretion, choose whether to receive deposits, in any amount, from other banks, savings banks, or savings and loan associations.

(5) The public depository provides to the treasurer of state or the treasurer or governing board of a political subdivision a monthly account statement that includes the amount of its funds deposited and held at each bank, savings bank, or savings and loan association for which the public depository acts as a custodian pursuant to this section.

(B) Interim moneys deposited or invested in accordance with division (A) of this section are not subject to any pledging requirements described in section 135.18 or 135.181 of the Revised Code.

Amended by 129th General Assembly File No. 67, HB 209, §1, eff. 3/22/2012.

Effective Date: 07-04-2006



# CERTIFICATES OF DEPOSIT

**HOLDINGS > FIXED INCOME**

Description	Symbol/Class Account Type	Quantity	Estimated Price as of 07/01/15	Estimated Current Market Value	Estimated Annual Income	Total Cost Basis	Unrealized Gain (Loss)
BRWA BK NORTH AMER UTAH 0.85000% 03/06/2017 CD FDIC INSURED CPN PMT SEMI-ANNUAL ON SEP 08 MAR 08 Next Interest Payable: 03/08/15 Estimated Yield: 0.84% Accrued Interest \$390.00	0566P7VE CASH	250,000	\$1.001	\$250,250.00	\$7,175.00	\$250,000.00	
	ABYS CASH	250,000	\$1.00087	\$250,217.50	\$7,155.00	\$250,000.00	\$217.50
	FRB CASH	250,000	\$0.99951	\$249,877.50	\$7,155.00	\$250,000.00	\$127.50
051722017 FDIC INSURED CPN PMT SEMI-ANNUAL ON JAN 15 JUL 15 Next Interest Payable: 07/15/15 Estimated Yield: 1.15% Accrued Interest \$126.03 Adjusted Cost Basis	091027HE CASH	250,000	\$0.99279	\$248,197.50	\$7,125.00	\$250,000.00	\$1,802.50

Account carried with National Financial Services LLC, Member NYSE, SIPC



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## CERTIFICATES OF DEPOSIT

### *2014 Ohio Compliance Supplement*

### *Indirect Laws & Statutorily Mandated Tests*

- Any CD's purchased by a broker must be held in the name of the government. Also, the broker cannot be in possession of cash at any time. If we believe a broker has held cash for any length of time, AOS auditors should refer the matter to the Center for Audit Excellence and AOS Legal division for further evaluation. A way to verify compliance is to request monthly statements provided by the public depository located in Ohio. Ohio Rev. Code §135.144(A)(5) requires the initial public depository to provide public offices with a monthly account statement that includes the amount of its funds deposited and held at each bank, savings bank, or savings and loan association for which the public depository acts as a custodian pursuant to Ohio Rev. Code §135.144. If a public office does not have these statements, it may indicate that the money is being held by a broker-dealer in violation of Ohio Rev. Code §135.144.

Collateralization  
of Public Deposits

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## OHIO POOLED COLLATERAL PROGRAM

**Ohio Revised Code 135.182**

- **Effective July 1, 2017**
- Lien perfection required
- Ohio Pooled Collateral System (OPCS)
  - TOS sole regulator and monitor of program
  - Market value of collateral equal to or greater than
    - 102% of uninsured public deposits , or
    - Amount determined by rules adopted by TOS
  - Website access for reporting of collateral to public depositor



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Service Providers

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## WHO WILL HELP YOU INVEST

### Know the Types of Service Providers

STAR Ohio/Plus	Banks	Investment Advisors	Brokers
<ul style="list-style-type: none"> <li>• <b>STAR Ohio</b> <ul style="list-style-type: none"> <li>• Know the investments of STAR Ohio</li> <li>• Look over the annual report</li> </ul> </li> <li>• <b>STAR Plus</b> <ul style="list-style-type: none"> <li>• Understand how program works</li> <li>• Monitor deposit Banks</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Make sure they understand nuances of public entities</li> <li>• Work with banks you know and trust</li> </ul>	<ul style="list-style-type: none"> <li>• Acts as a fiduciary in the client's best interest</li> <li>• Who do they work with?</li> <li>• What are their credentials?</li> <li>• Check them out: <a href="http://www.investor.gov">www.investor.gov</a></li> </ul>	<ul style="list-style-type: none"> <li>• Recommends suitable investments</li> <li>• Who do they work with?</li> <li>• What do they do and how much do they charge?</li> <li>• Check them out: <a href="http://www.finra.org">www.finra.org</a></li> </ul>

Perform the Due Diligence Before Investing



## FED POLICY & INTEREST RATE OUTLOOK



## FOMC STATEMENT HIGHLIGHTS

March 21, 2018



● THE COMMITTEE DECIDED TO RAISE THE TARGET RANGE FOR THE FED FUNDS RATE TO 1.50-1.75%

● "INFORMATION RECEIVED SINCE JANUARY INDICATES THAT THE LABOR MARKET HAS CONTINUED TO STRENGTHEN ALONG WITH ECONOMIC ACTIVITY"

● "ACTUAL PATH OF THE FEDERAL FUNDS RATE WILL DEPEND ON THE ECONOMIC OUTLOOK AS INFORMED BY INCOMING DATA"

● THIS WAS THE FIRST MEETING WITH THE NEW FED CHAIRMAN, JEROME H. POWELL

● "MARKET-BASED MEASURES OF INFLATION COMPENSATION HAVE INCREASED IN RECENT MONTHS BUT REMAIN LOW"

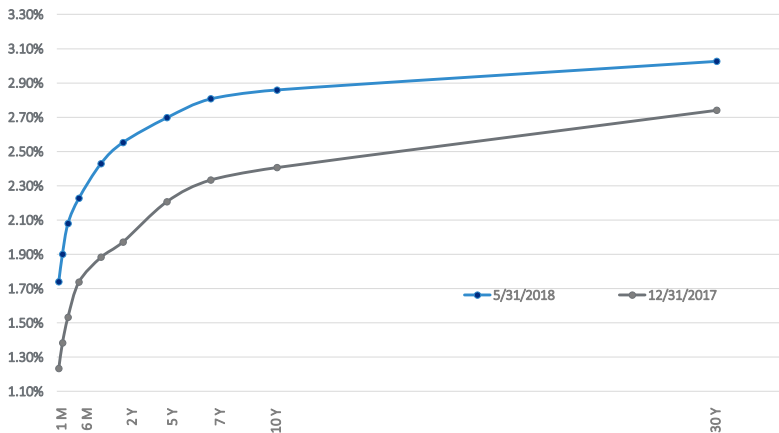
● THEY CONTINUE TO EXPECT INFLATION TO REMAIN MODERATE, ALLOWING THEM TO CONTINUE ON A GRADUAL PATH OF POLICY NORMALIZATION

Source: Federal Reserve



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## YIELD CURVE COMPARISON



Source: Bloomberg



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## GLOBAL BOND YIELDS

	1Y	2Y	3Y	4Y	5Y	7Y	8Y	9Y	10Y	30Y
Switzerland	-0.88%	-0.84%	-0.75%	-0.64%	-0.54%	-0.35%	-0.25%	-0.17%	-0.09%	0.49%
Sweden	-0.80%	-0.64%	-0.49%	-0.29%	-0.14%	0.15%	0.28%	0.40%	0.51%	1.26%
Germany	-0.71%	-0.67%	-0.57%	-0.43%	-0.29%		0.13%	0.25%	0.36%	1.03%
Netherlands	-0.66%	-0.60%	-0.48%	-0.34%	-0.18%	0.12%	0.26%	0.38%	0.48%	1.02%
France	-0.58%	-0.51%	-0.39%	-0.24%	-0.08%	0.21%	0.35%	0.48%	0.60%	1.57%
Finland	-0.62%	-0.53%	-0.40%	-0.23%	-0.07%	0.24%	0.38%	0.50%	0.60%	1.22%
Belgium	-0.62%	-0.55%	-0.41%	-0.24%	-0.07%	0.26%	0.41%	0.55%	0.68%	1.62%
Austria	-0.58%	-0.49%	-0.36%	-0.20%	-0.04%	0.26%	0.39%	0.52%	0.64%	1.41%
Denmark	-0.67%	-0.67%	-0.49%	-0.37%	-0.22%	0.04%	0.17%	0.29%	0.39%	0.92%
Japan	-0.15%	-0.14%	-0.14%	-0.13%	-0.11%	-0.06%	-0.03%	0.00%	0.04%	0.68%
Spain	-0.19%	-0.03%	0.18%	0.40%	0.63%	1.04%	1.22%	1.38%	1.52%	2.61%
Italy	0.89%	1.25%	1.58%	1.89%	2.14%	2.53%	2.67%	2.79%	2.89%	3.35%
Portugal	-0.15%	0.03%	0.26%	0.53%	0.81%	1.35%	1.59%	1.81%	1.99%	3.03%
UK	0.52%	0.61%	0.65%	0.82%	0.95%	1.06%	1.17%	1.28%	1.23%	1.70%
Canada	1.71%	1.92%	2.00%	2.07%	2.11%	2.20%	2.22%	2.24%	2.24%	2.27%
US Treasury	2.23%	2.43%	2.55%		2.70%	2.81%			2.86%	3.03%
Australian	1.86%	2.00%	2.11%	2.23%	0.02%	2.52%	2.58%	2.63%	2.67%	3.20%

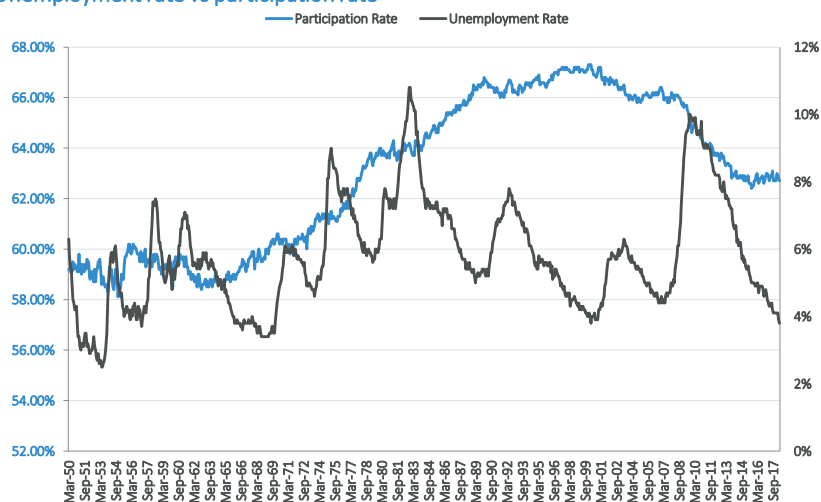
Source: Bloomberg as of 5/31/18



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## UNEMPLOYMENT

Unemployment rate vs participation rate



Source: Bloomberg

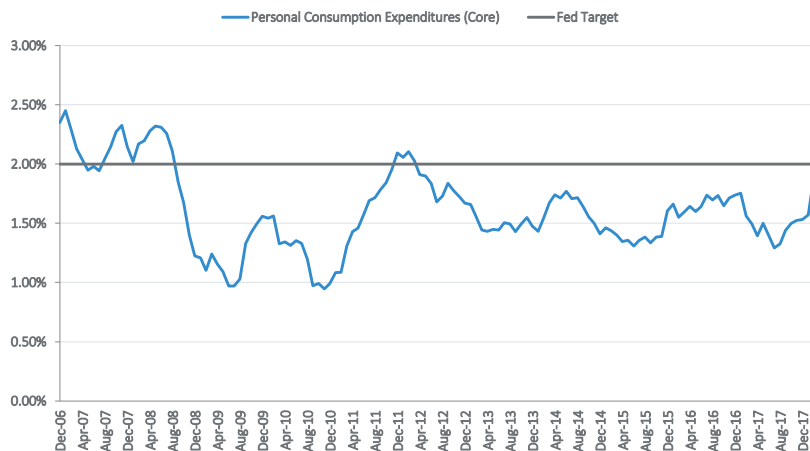


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## INFLATION

### Personal Consumption Expenditures (PCE)



Source: Bloomberg



## INFLATION OUTLOOK

### U.S. 5-Year Breakeven Index

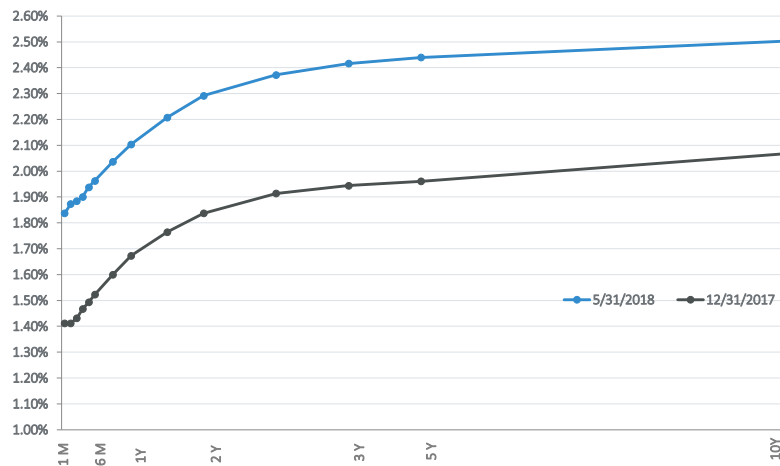


Source: Bloomberg



## INTEREST RATE OUTLOOK

### US Overnight Interest Rate Swaps



Source: Bloomberg



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THANK YOU



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## Disclosure

MEEDER PUBLIC FUNDS (WHICH ALSO DOES BUSINESS AS PRODUCTIVE CAPITAL MANAGEMENT) AND MEEDER ASSET MANAGEMENT (BOTH SUBSIDIARIES OF MEEDER INVESTMENT MANAGEMENT) ARE REGISTERED INVESTMENT ADVISERS WITH THE SECURITIES AND EXCHANGE COMMISSION (SEC) UNDER THE INVESTMENT ADVISERS ACT OF 1940. THE OPINIONS EXPRESSED IN THIS PRESENTATION ARE THOSE OF MEEDER INVESTMENT MANAGEMENT AS OF 1/29/2015. THE MATERIAL PRESENTED HAS BEEN DERIVED FROM SOURCES CONSIDERED TO BE RELIABLE, BUT THE ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

ANY RATES AND YIELDS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. ANY SECURITIES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND SHOULD NOT BE ASSUMED TO BE ELIGIBLE INVESTMENTS FOR YOUR ENTITY. YOU SHOULD REVIEW ANY INVESTMENT'S ELIGIBILITY BASED ON OHIO REVISED CODE AND YOUR ENTITY'S INVESTMENT POLICY.

PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. OPINIONS AND FORECASTS ARE ALL SUBJECT TO CHANGE AT ANY TIME, BASED ON MARKET AND OTHER CONDITIONS, AND SHOULD NOT BE CONSTRUED AS A RECOMMENDATION OF ANY SPECIFIC SECURITY. INVESTING IN SECURITIES INVOLVES INHERENT RISKS, INCLUDING THE RISK THAT YOU CAN LOSE THE VALUE OF YOUR INVESTMENT. THERE IS NO ASSURANCE THAT THE INVESTMENT PROCESS WILL CONSISTENTLY LEAD TO SUCCESSFUL RESULTS. THE INVESTMENT RETURN AND PRINCIPAL VALUE OF AN INVESTMENT WILL FLUCTUATE SO AN INVESTOR'S SHARES OR UNITS, WHEN REDEEMED, MAY BE WORTH MORE OR LESS THAN THEIR ORIGINAL COST.

