

# The Current Economic Environment

How It May Impact Your Credit Union's Liquidity  
&  
Asset Liability Management

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# 2019 ECONOMIC OUTLOOK

How Much Longer Can the Second Longest Economic Expansion on Record Last?

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# UNPRECEDENTED ACCELERATION

RECORD 9 CONSECUTIVE QUARTERS OF YEAR-OVER-YEAR GROWTH ACCELERATING

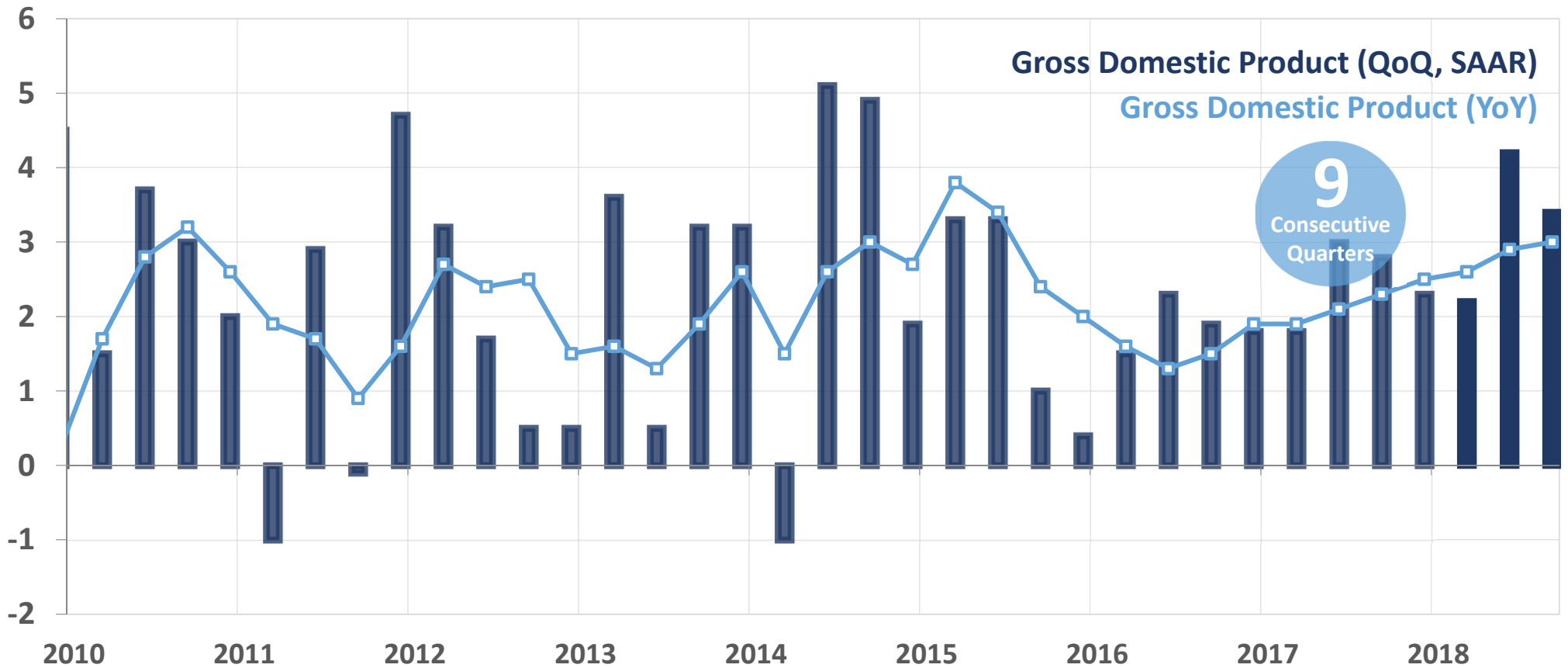
VOLATILE MARKETS

STABLE ECONOMY

MILD INFLATION

ECONOMIC FORECAST

GROWING RISKS



Sources: BEA, Vining Sparks

# HISTORIC JOB GROWTH CONTINUES VINING SPARKS

NONFARM PAYROLLS HAVE NOW EXPANDED FOR 99 CONSECUTIVE MONTHS, A MODERN ERA RECORD

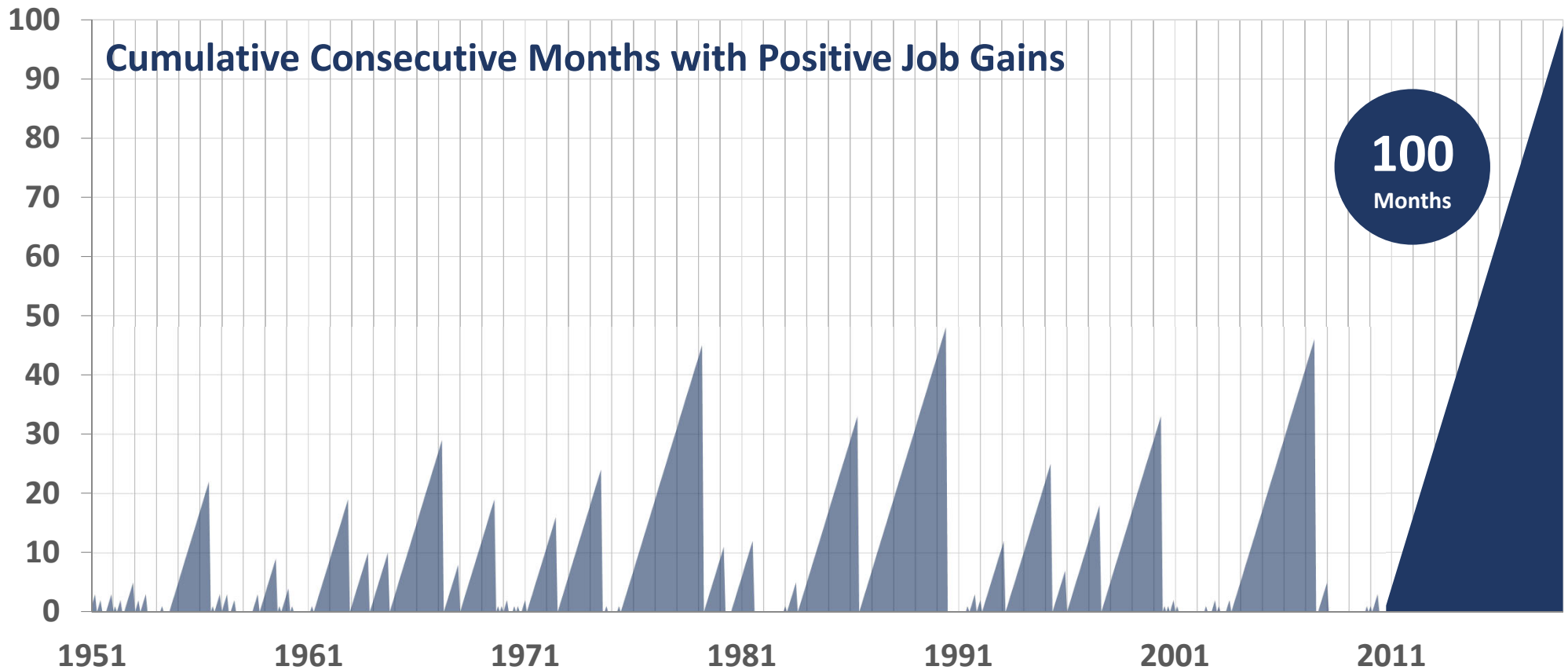
VOLATILE MARKETS

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Sources: BLS, Vining Sparks

# LABOR MARKET REMAINS HOT

PAYROLL GROWTH AVERAGED 220K IN 2018 AND THE UNEMPLOYMENT RATE DROPPED AS LOW AS 3.69%

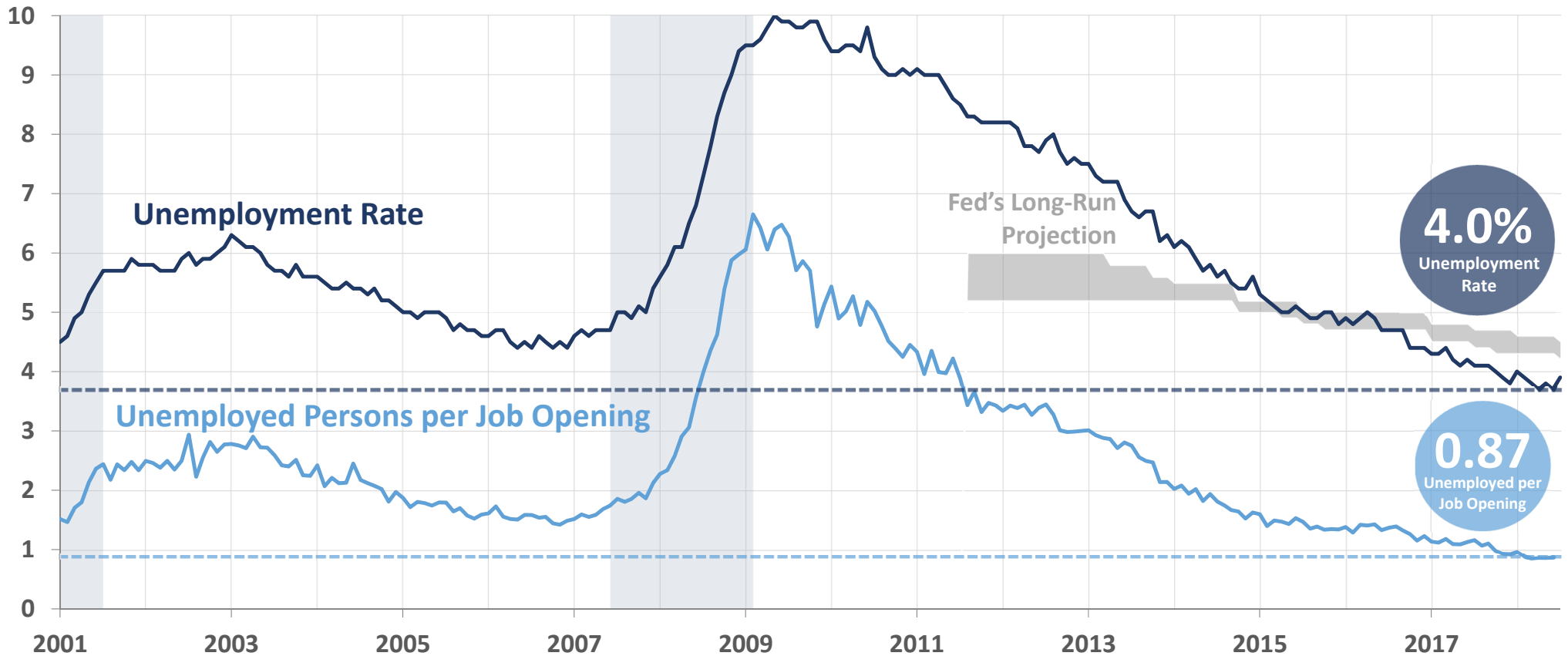
VOLATILE MARKETS

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Sources: BLS, FOMC SEP Projections, Vining Sparks

# GOVERNMENT SPENDING ▲

GOVERNMENT TURNED BACK INTO A POSITIVE ENGINE OF GROWTH IN 2018, PARTICULARLY FEDERAL SPENDING

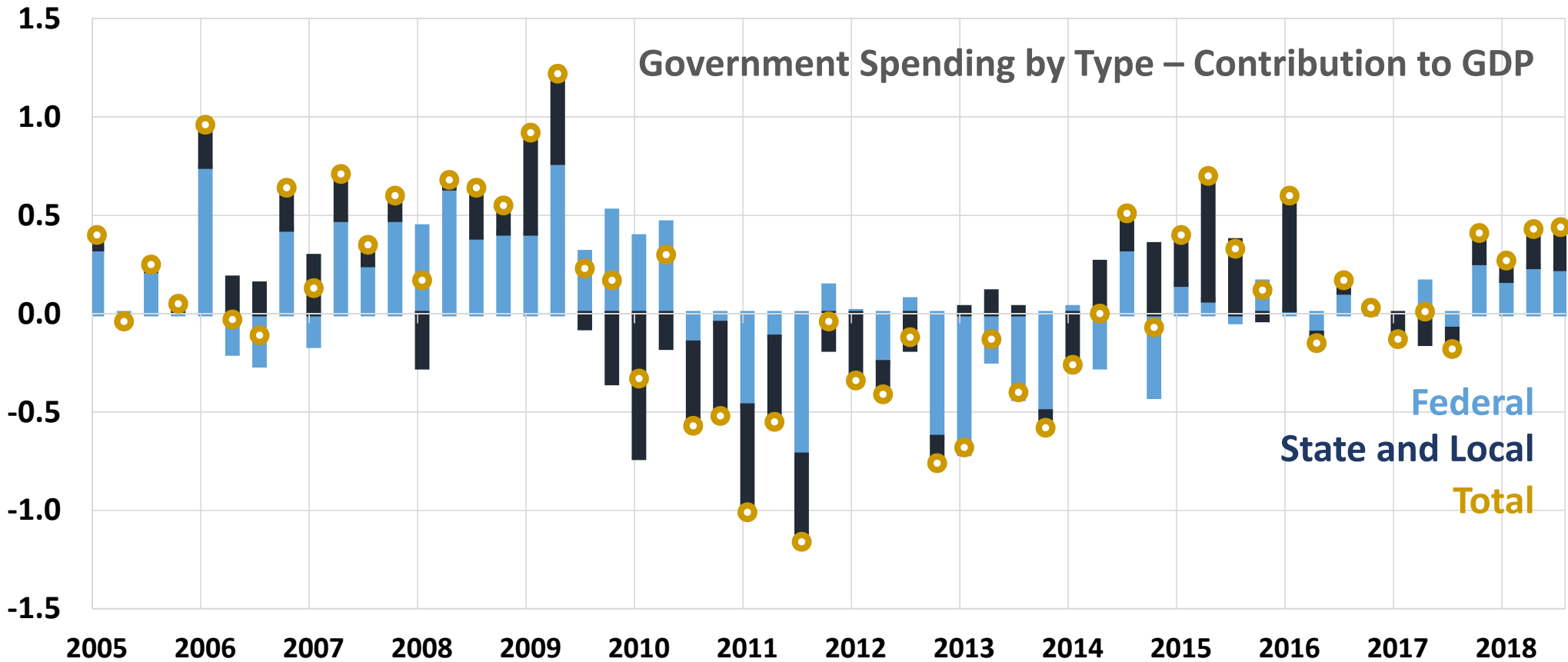
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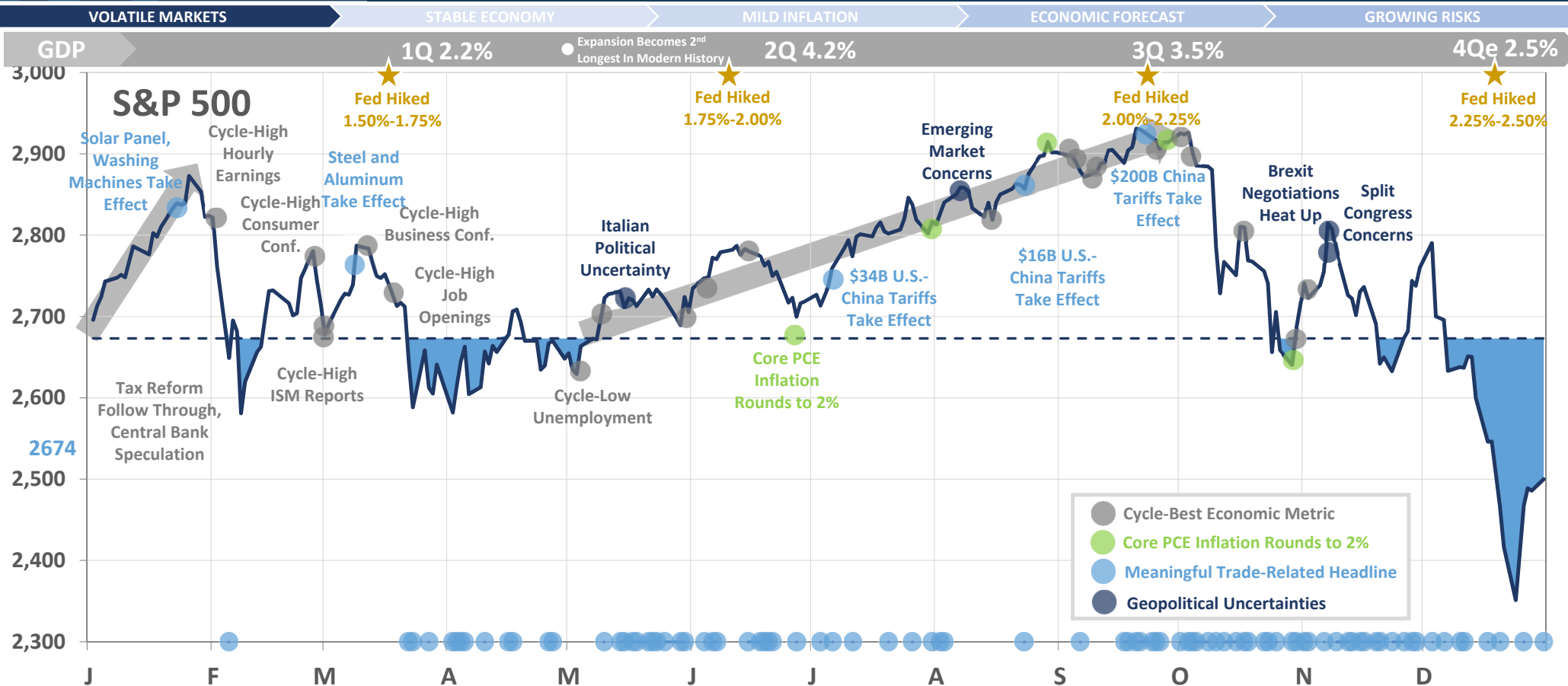
GROWING RISKS



Sources: BEA, Vining Sparks

# STOCKS SLIDE INTO YEAR-END

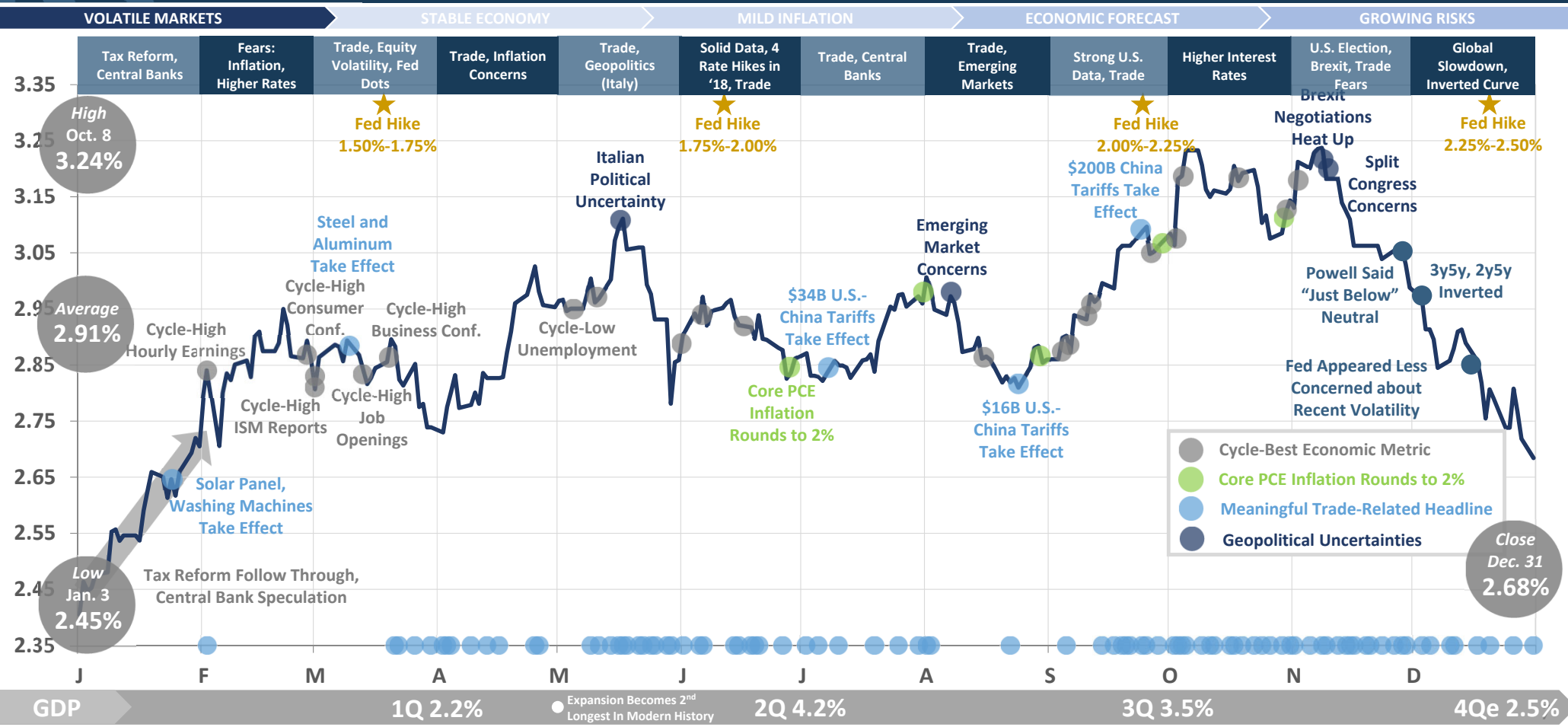
STOCKS SET NEW ALL-TIME HIGHS IN SEPTEMBER BEFORE IMPLODING INTO YEAR-END



Sources: Bloomberg, Vining Sparks

# TREASURY YIELDS GRIND HIGHER

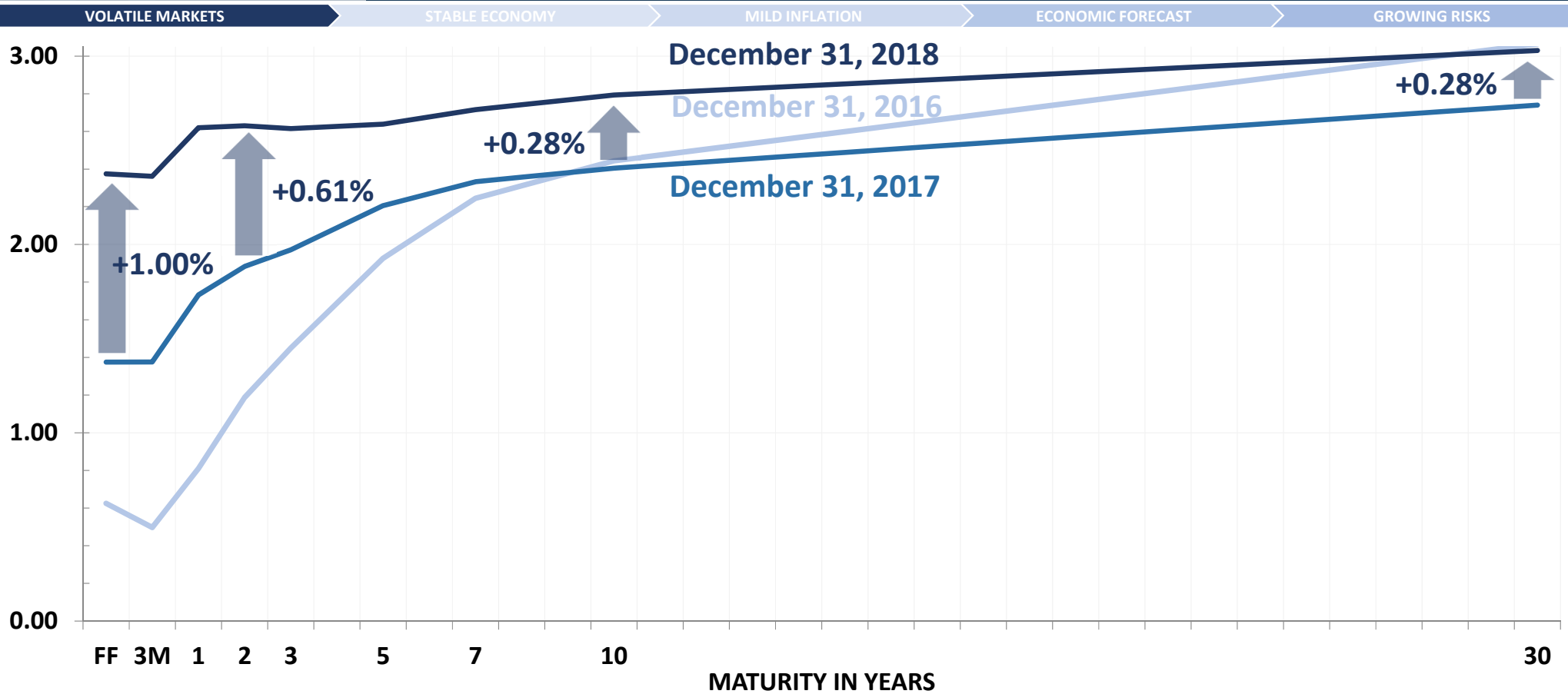
10-YEAR TREASURY YIELD SLOWLY GRINDED HIGHER UNTIL NOVEMBER, WHEN IT CAME PLUNGING BACK DOWN





# YIELD CURVE FLATTENS FURTHER

AFTER YEARS OF FLATTENING, THE 2-YEAR 10-YEAR SPREAD ENDED 2018 AT JUST 19 BPS



Sources: Bloomberg, Vining Sparks

# BUSINESS INVESTMENT SLOWS

DESPITE TAX LAW CHANGES, THE SLOWDOWN IN INVESTMENT WAS ACROSS ALL CATEGORIES, INCLUDING STRUCTURES

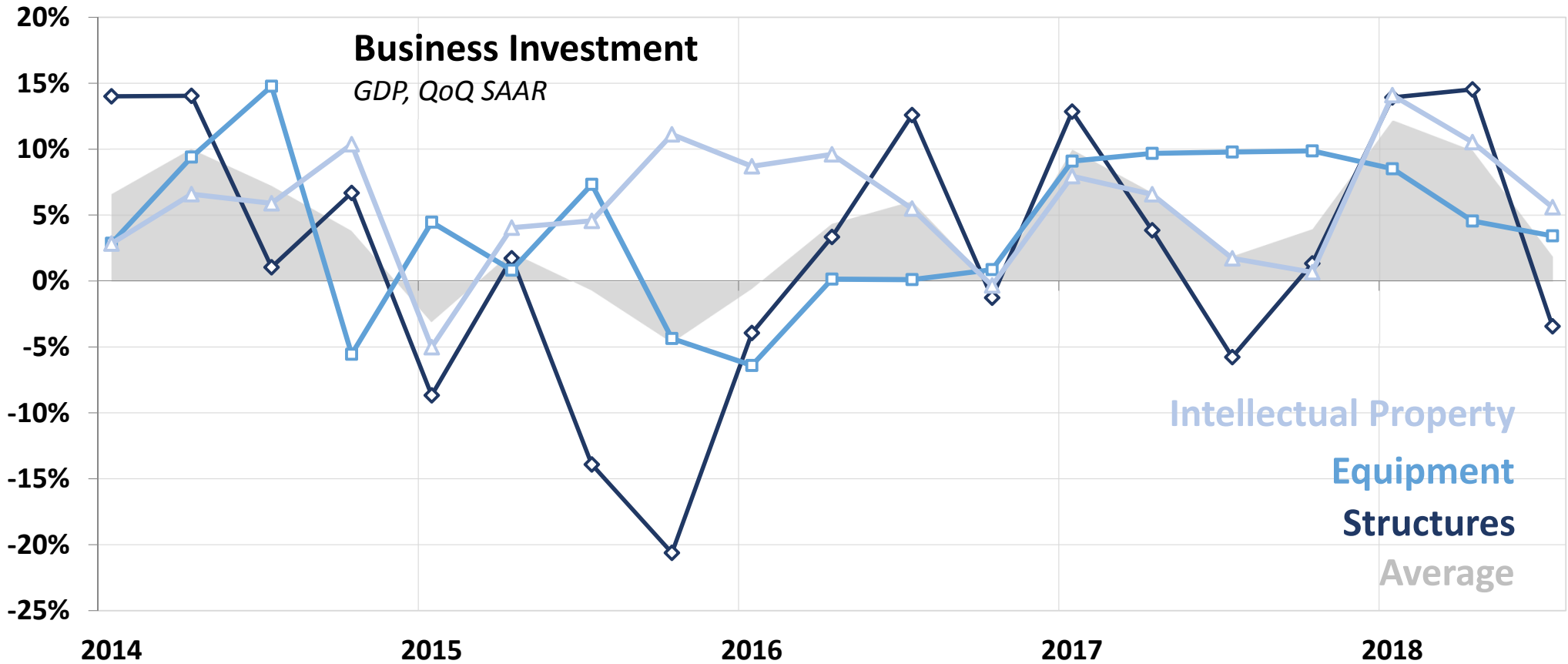
VOLATILE MARKETS

STABLE ECONOMY

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Sources: BEA, Vining Sparks

# TRADE TENSIONS HITTING PMIS

TRADE TENSIONS TOOK A TOLL ON THE MANUFACTURING OUTLOOK FOR EVERY MAJOR ECONOMY

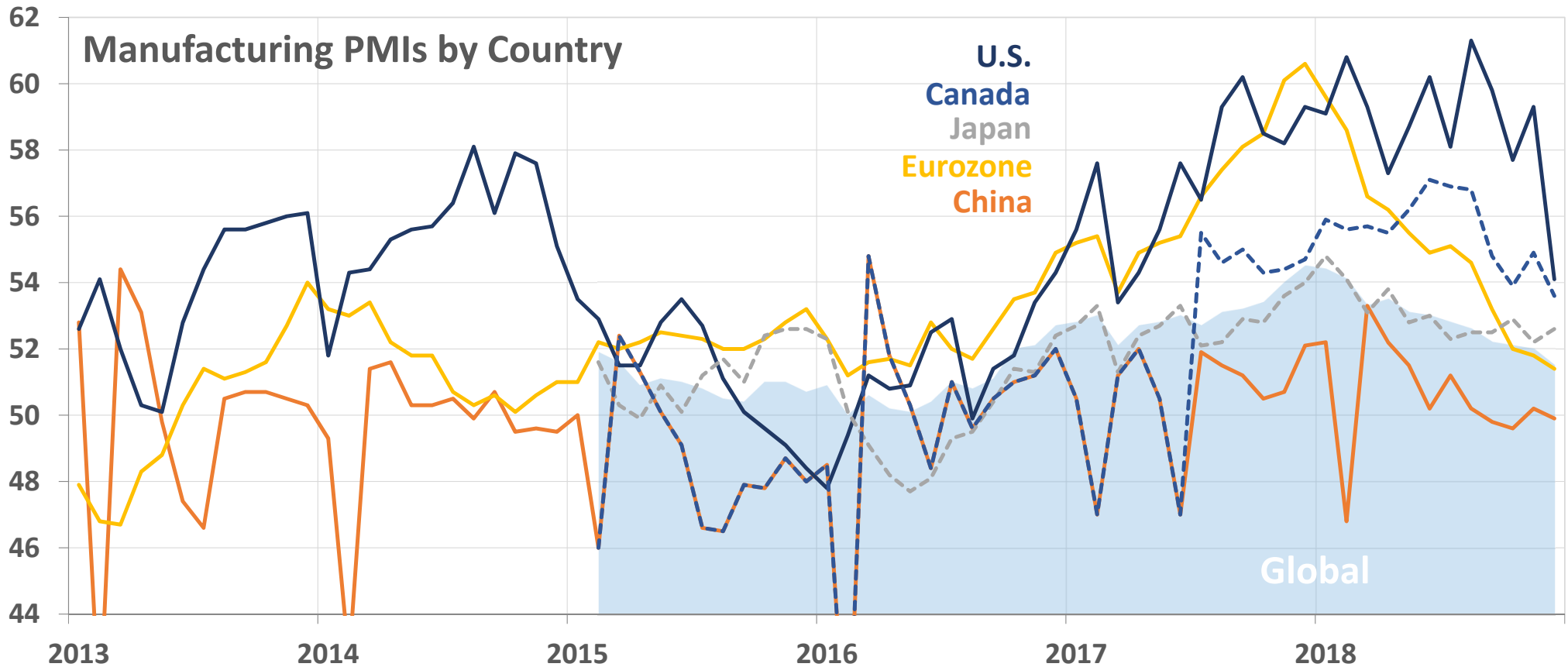
VOLATILE MARKETS

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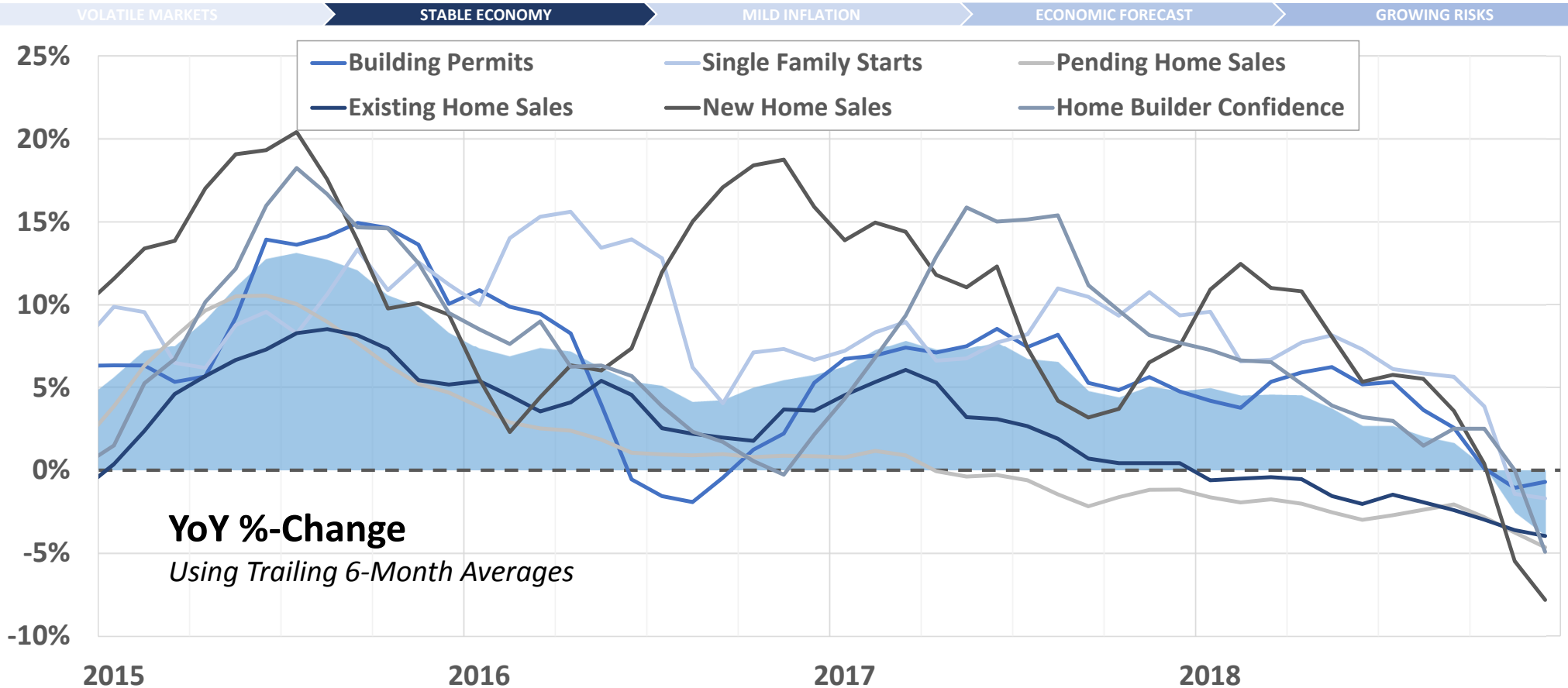
GROWING RISKS



Sources: ISM, Caixin, Markit, Vining Sparks

# HOME SALES HAVE SLOWED

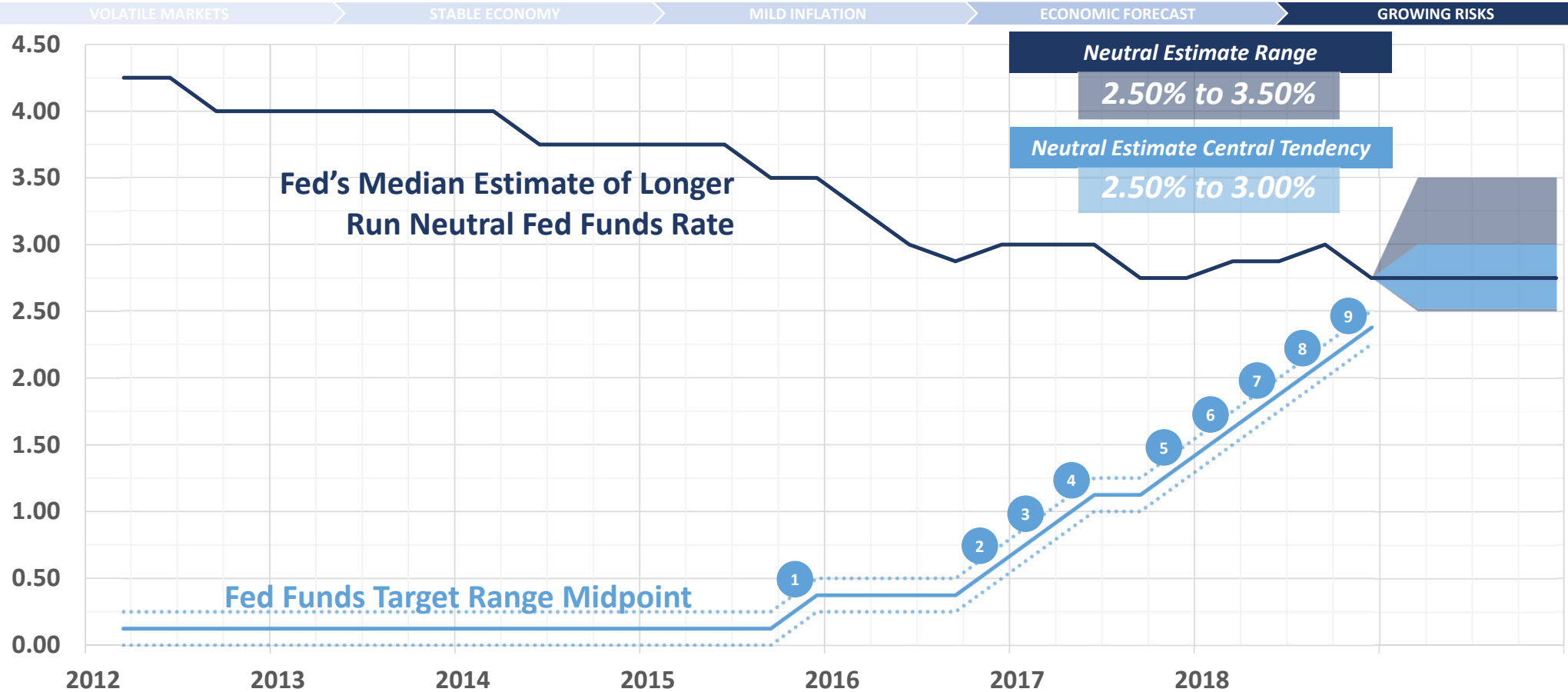
WEAKNESS IN HOUSING HAS BEEN BROAD-BASED AND IMPACTED ALMOST EVERY KEY DATA SERIES



Sources: U.S. Census Bureau, NAR, NAHB, Vining Sparks

# FED POLICY CLOSER TO NEUTRAL

THE 9 RATE HIKES SINCE 2015 HAVE PUSHED THE FED FUNDS RATE UP CLOSER TO NEUTRAL ESTIMATES



Sources: Bloomberg, Federal Reserve December SEP, Vining Sparks

# INFLATION NEAR TARGET

CONSUMER PRICE INFLATION IS NOW RUNNING NEAR 2% BUT IS NOT EXPECTED TO SHOOT MATERIALLY HIGHER

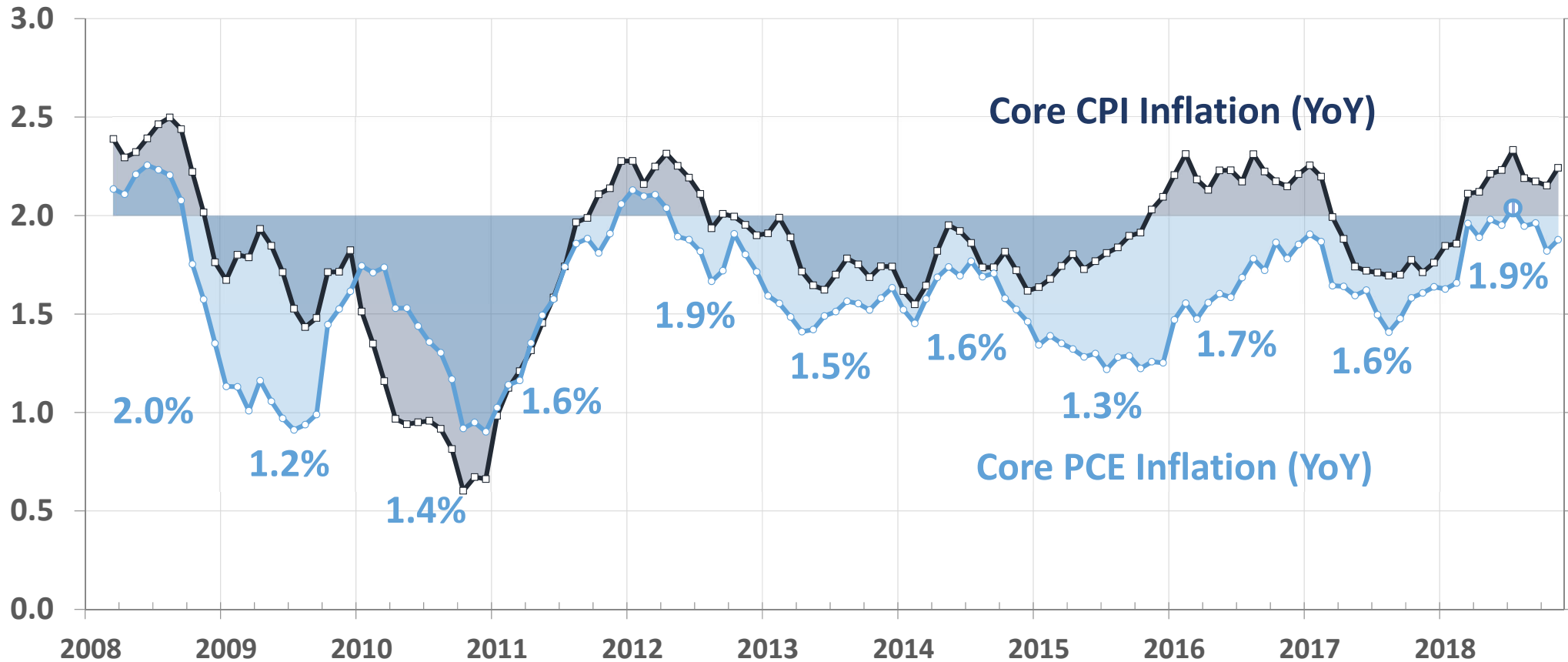
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Sources: BLS, BEA, Vining Sparks

# FED AND FUTURES RATE FORECASTS VINING SPARKS

THERE REMAINS A DIVERGENCE BETWEEN THE FED'S MEDIAN RATE FORECAST AND WHAT MARKETS EXPECT

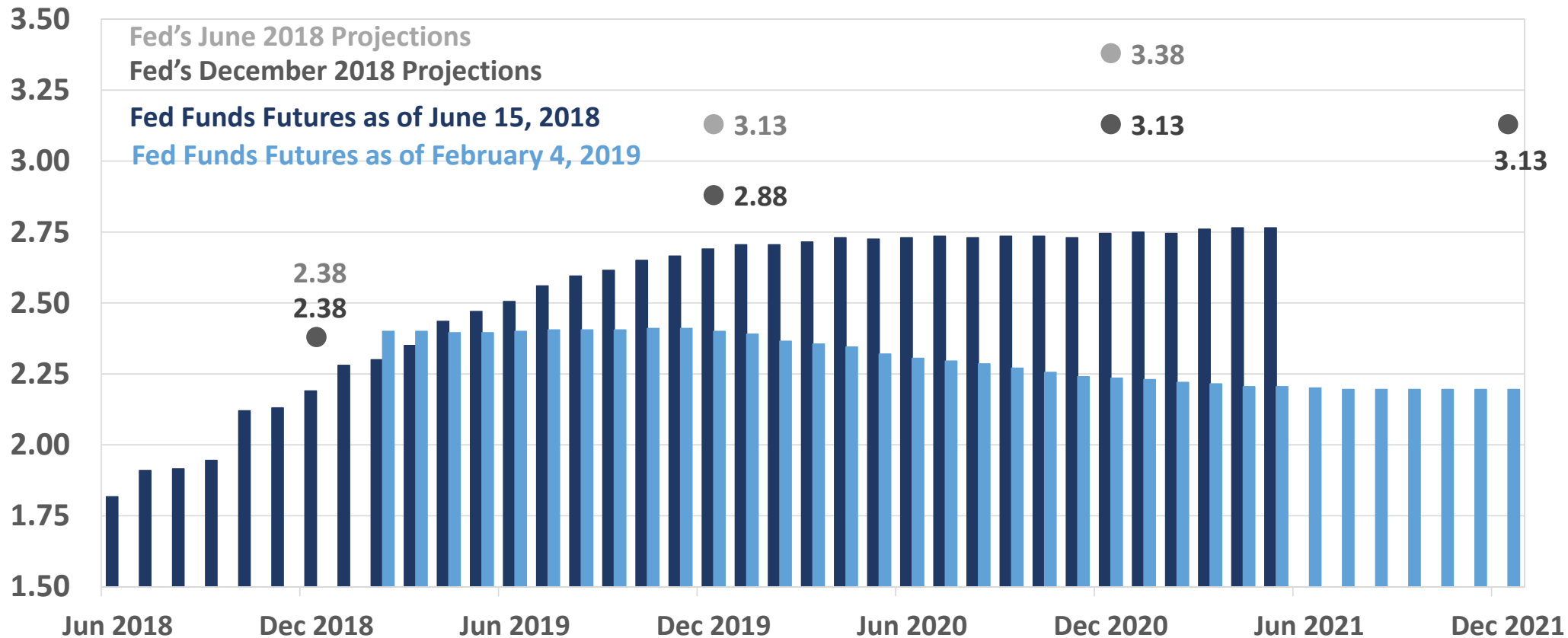
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Source: Bloomberg, Federal Reserve SEPs

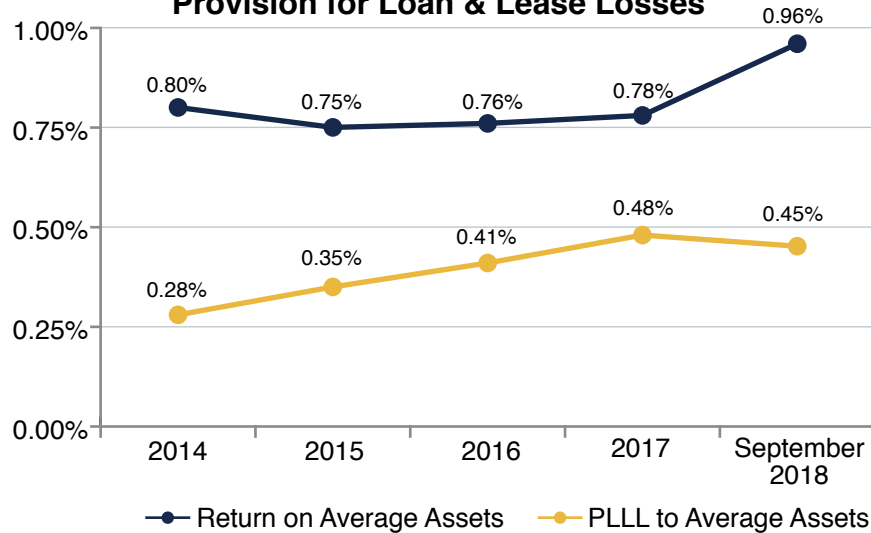
# Loan Yields & Cost of Funds



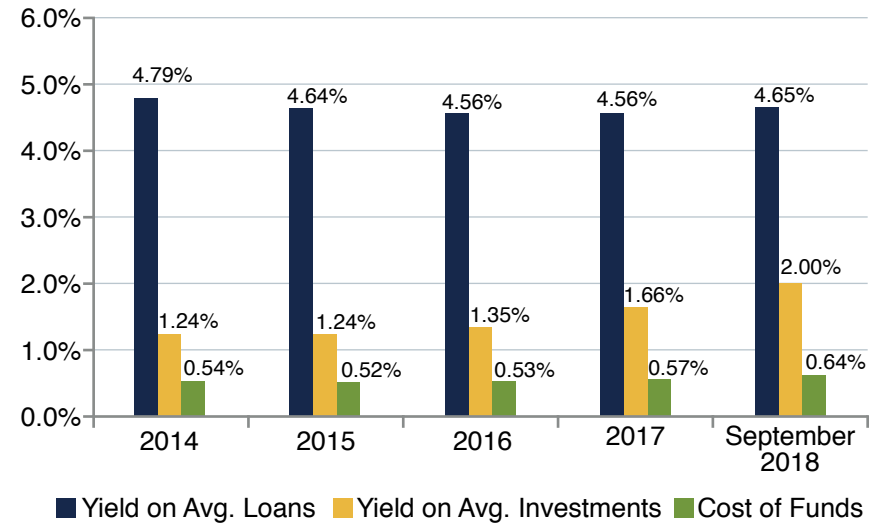


Earnings

Return on Average Assets vs. Provision for Loan & Lease Losses



Yields vs. Cost of Funds

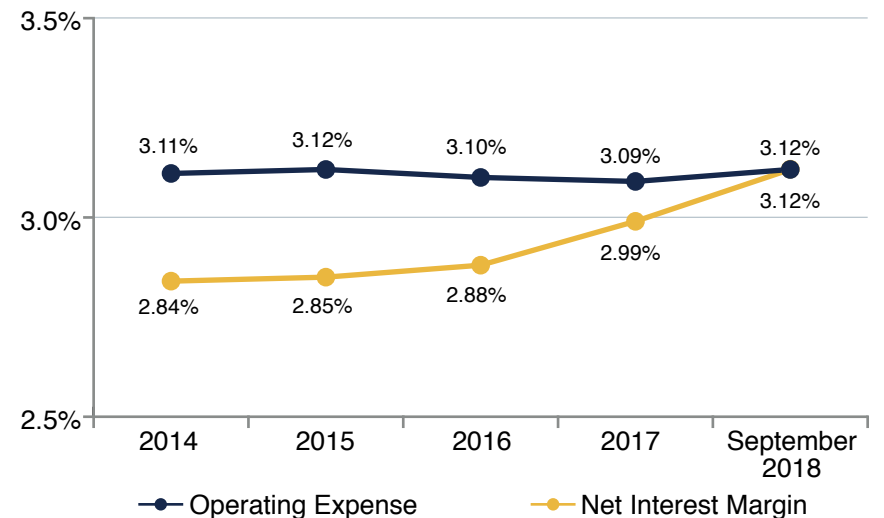


Ratio of Average Assets

Ratio (% of Average Assets)	December 2017	September 2018	Effect on ROA
Net Interest Margin	2.99%	3.12%	0.13 bp
+ Fee & Other Inc.	1.33%	1.38%	0.05 bp
- Operating Expenses	3.09%	3.12%	-0.03 bp
- PLLL	0.48%	0.45%	0.03 bp
+ Non-Operating Income	0.03%	0.03%	0.00 bp
= ROA	0.78%	0.96%	0.18 bp

Numbers may not add up due to rounding.

Operating Expenses vs. Net Interest Margin



# Share Rates Slow to Increase

The beta on share rates has been very low over the last 3 years as the Fed has increased rates 9 times or 225bps. Higher beta sensitivities are expected if the Fed continues raising rates.

Asset Distribution	Sep-18	Sep-15	Change	Cycle Beta
All Credit Unions	<b>0.30%</b>	<b>0.27%</b>	<b>0.03%</b>	<b>1.50%</b>
\$20M to \$150M FL CUs	0.29%	0.28%	0.01%	0.50%
\$20 to \$150M CUs	0.28%	0.26%	0.02%	1.00%
<b>Fed Fund Target</b>	<b>2.25%</b>	<b>0.25%</b>	<b>2.00%</b>	
Asset Distribution	Sep-18	Jun-18	Change	Current Beta
All Credit Unions	<b>0.30%</b>	<b>0.29%</b>	<b>0.01%</b>	<b>4.00%</b>
\$20M to \$150M FL CUs	0.29%	0.28%	0.01%	4.00%
\$20 to \$150M CUs	0.28%	0.27%	0.01%	4.00%
<b>Fed Fund Target</b>	<b>2.25%</b>	<b>2.00%</b>	<b>0.25%</b>	

Share and Loan Ratios	Sep-15	Dec-17	Jun-18	Sep-18
(2) Interest Expense	0.27	0.28	0.29	<b>0.30</b>
(76) Rate on Share Drafts	0.00	0.00	0.00	<b>0.00</b>
(77) Rate on Money Mkt Shares	0.04	0.05	0.05	<b>0.05</b>
(78) Rate on Regular Shares	0.14	0.15	0.15	<b>0.15</b>
(79) Rate on 1yr Share Certs	0.45	0.57	0.70	<b>0.80</b>
(80) Rate on IRA/KEOGHS	0.30	0.32	0.35	<b>0.40</b>

Source: NCUA 5300 Call Report (all CUs)

# Loan Rates Have Not Increased With Prime

Share and Loan Ratios	Sep-15	Dec-17	Jun-18	Sep-18
(67) Yield on Loans	5.38	5.19	5.13	<b>5.17</b>
(81) Rate on Credit Card Lns	8.90	8.99	8.99	<b>9.00</b>
(82) Rate on Unsecured Lns	10.96	10.92	10.97	<b>10.99</b>
(83) Rate on New Vehicle Lns	3.42	3.41	3.50	<b>3.62</b>
(84) Rate on Used Vehicle Lns	4.50	4.50	4.56	<b>4.69</b>

Source: NCUA 5300 Call Report (all CUs)




Share and Loan Ratios	Sep-15	Dec-17	Jun-18	Sep-18
(67) Yield on Loans	5.30	5.14	5.08	<b>5.11</b>
(81) Rate on Credit Card Lns	9.90	9.90	9.90	<b>9.90</b>
(82) Rate on Unsecured Lns	10.86	10.87	10.90	<b>10.90</b>
(83) Rate on New Vehicle Lns	3.41	3.40	3.49	<b>3.58</b>
(84) Rate on Used Vehicle Lns	4.49	4.40	4.50	<b>4.51</b>

Source: NCUA 5300 Call Report (\$20M to \$150M CUs)

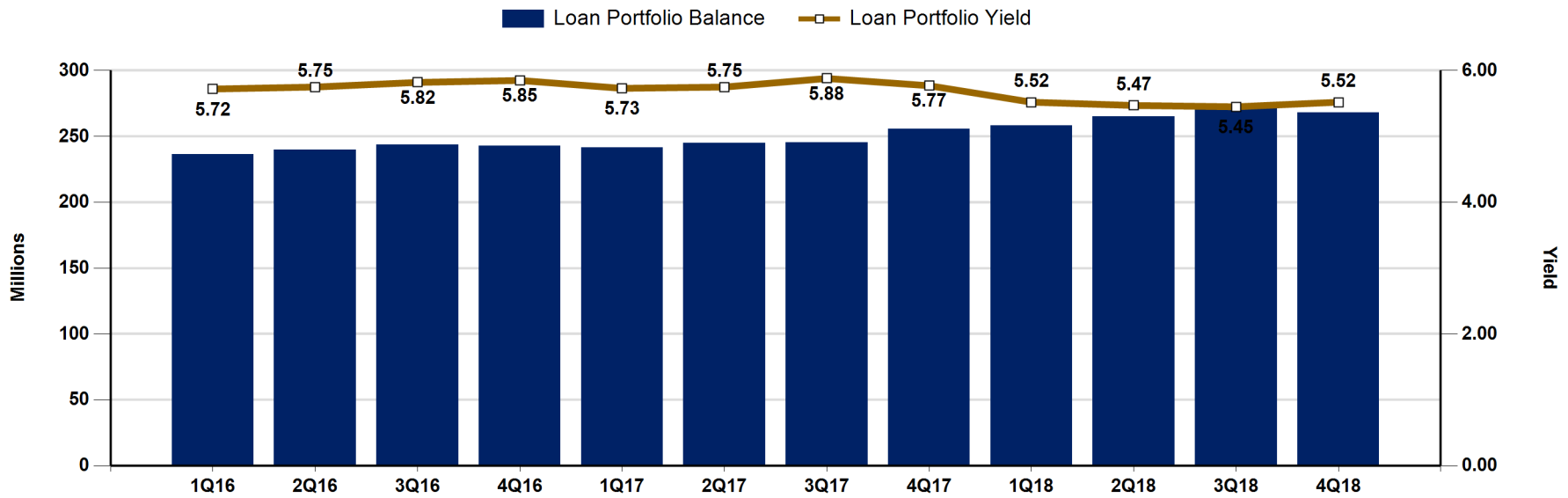
Bankrate

# Best Online Savings Accounts for February 2019

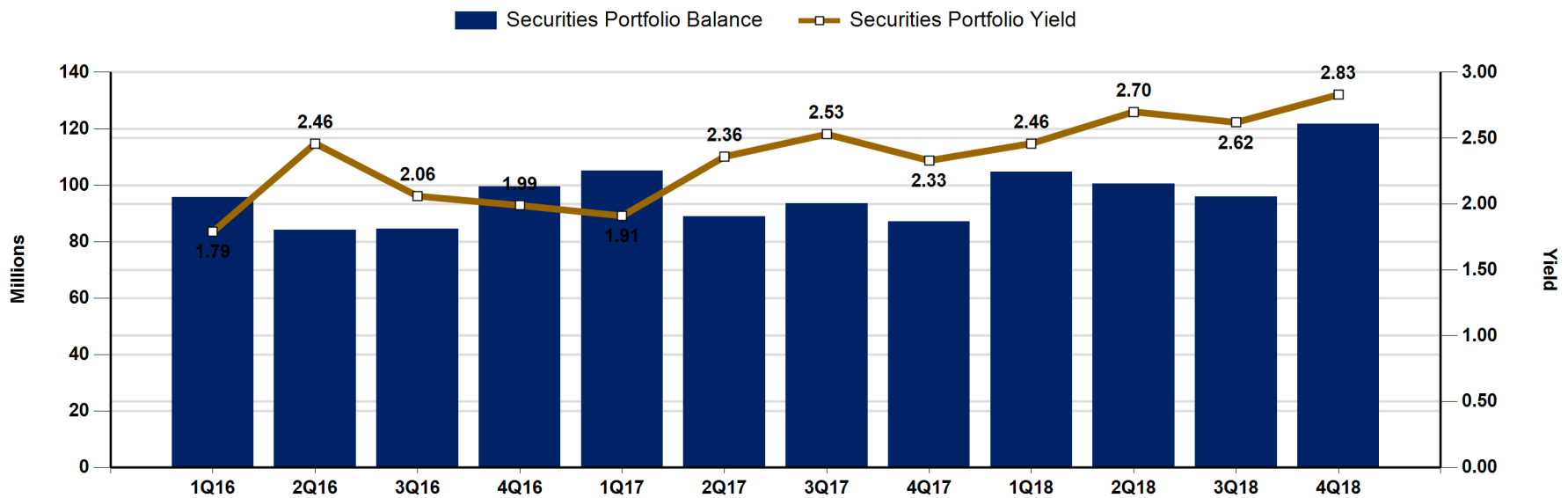
As of Monday, February 4, 2019:

BANK/INSTITUTION ▾	APY ▾	MINIMUM BALANCE FOR APY ▾
<p>PNC Bank SAVINGS   MEMBER FDIC</p> <p>★★★★★</p> <p><a href="#">2.35% Annual Percentage Yield</a></p> <p><a href="#">+ Offer Details</a></p>	<p> <b>2.35%</b></p>	<p><b>\$1</b></p> <p>As of: Thu Jan 31</p>
<p>State Farm Bank MONEY MARKET   MEMBER FDIC</p> <p>★★★★★</p> <p><a href="#">Intro APY, \$1,000 to Open, \$5,000 Min Bal post intro, See Limits</a></p> <p><a href="#">+ Offer Details</a></p>	<p> <b>2.25%</b></p>	<p><b>\$0</b></p> <p>As of: Mon Feb 4</p>
<p>Goldman Sachs Bank USA SAVINGS   MEMBER FDIC</p>	<p> <b>2.25%</b></p>	<p><b>\$1</b></p>

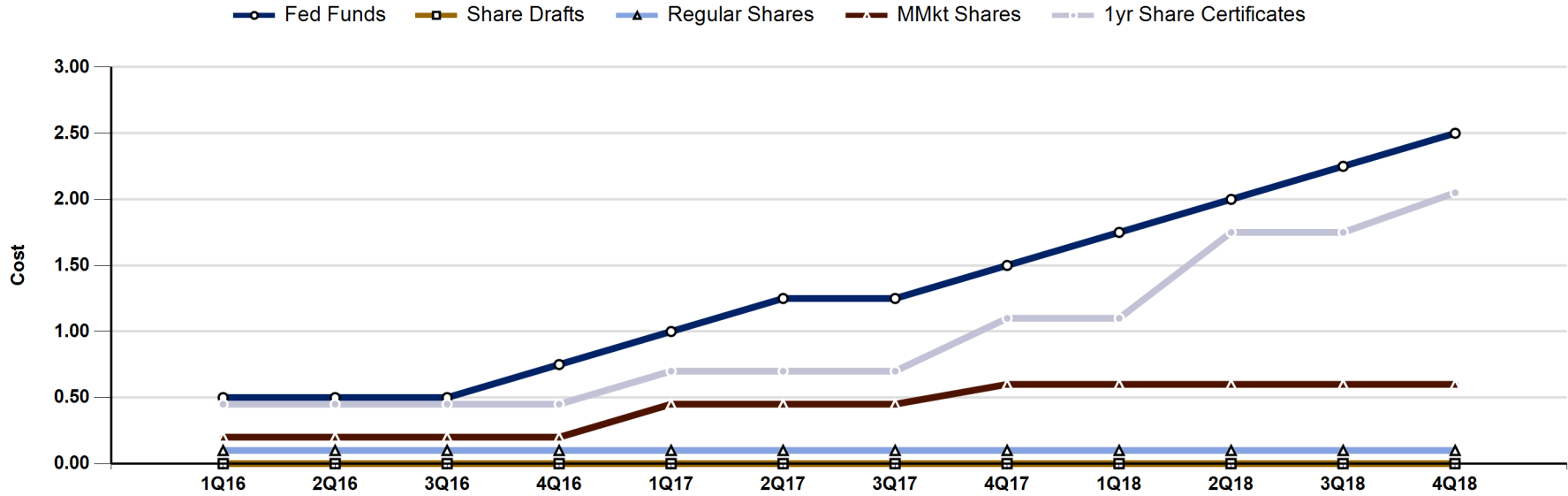
LOAN PORTFOLIO BALANCE AND YIELD



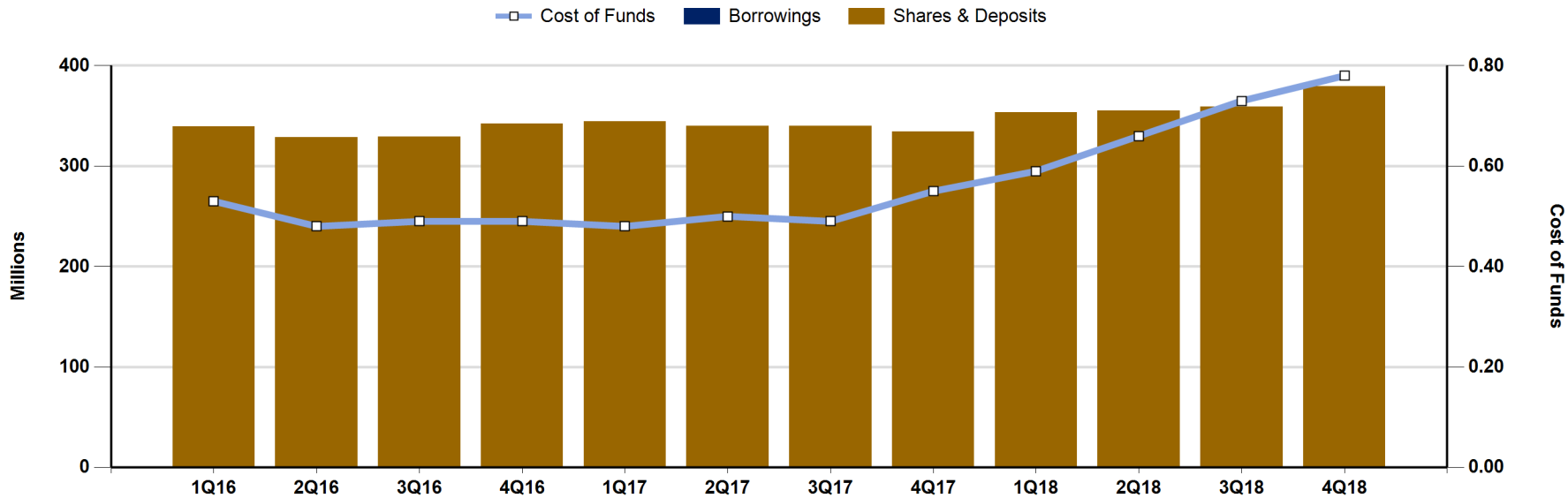
INVESTMENT PORTFOLIO BALANCE AND YIELD



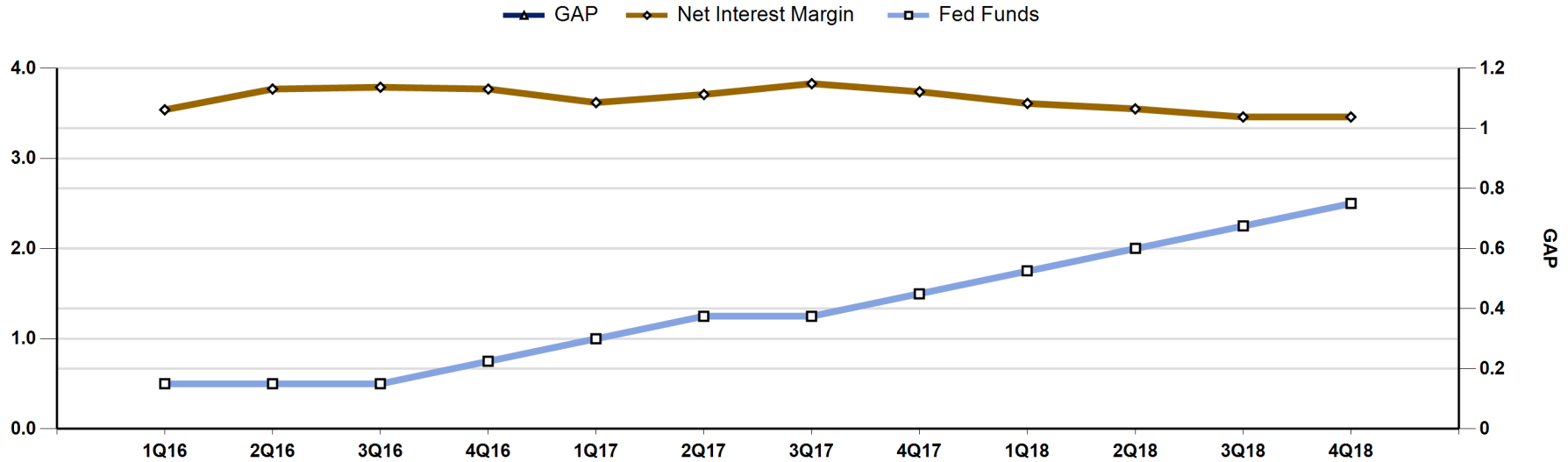
HISTORICAL ACCOUNT COST AND FED FUNDS



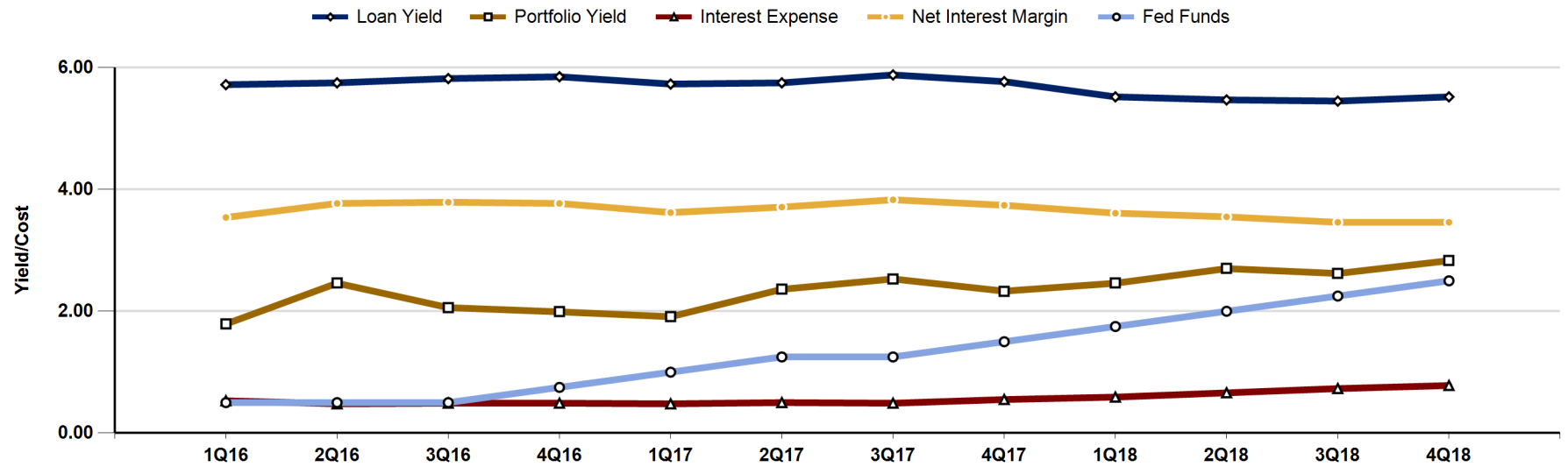
FUNDING BALANCES AND COST OF FUNDS



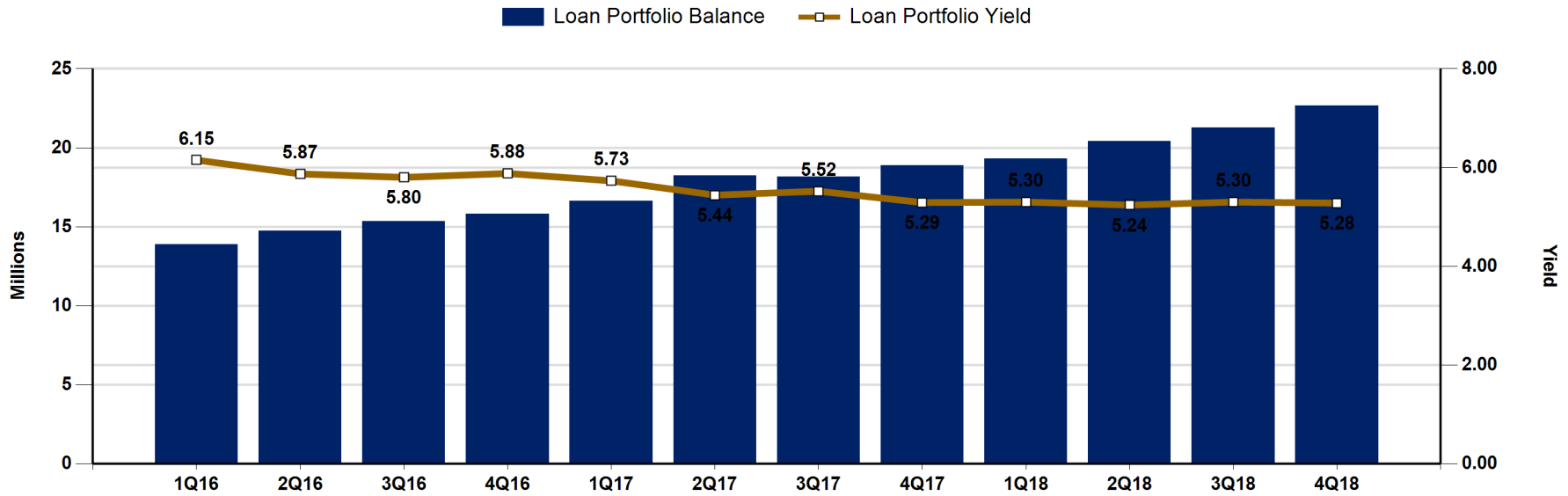
GAP, NET INTEREST MARGIN, AND FED FUNDS



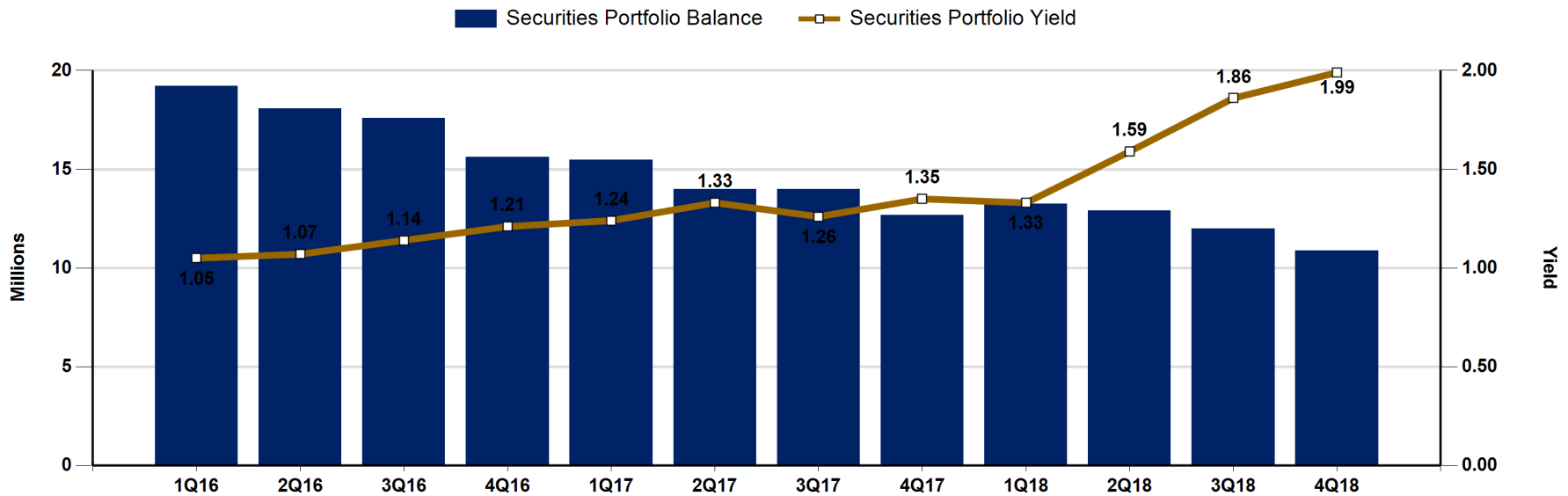
NET INTEREST MARGIN TRENDS



LOAN PORTFOLIO BALANCE AND YIELD

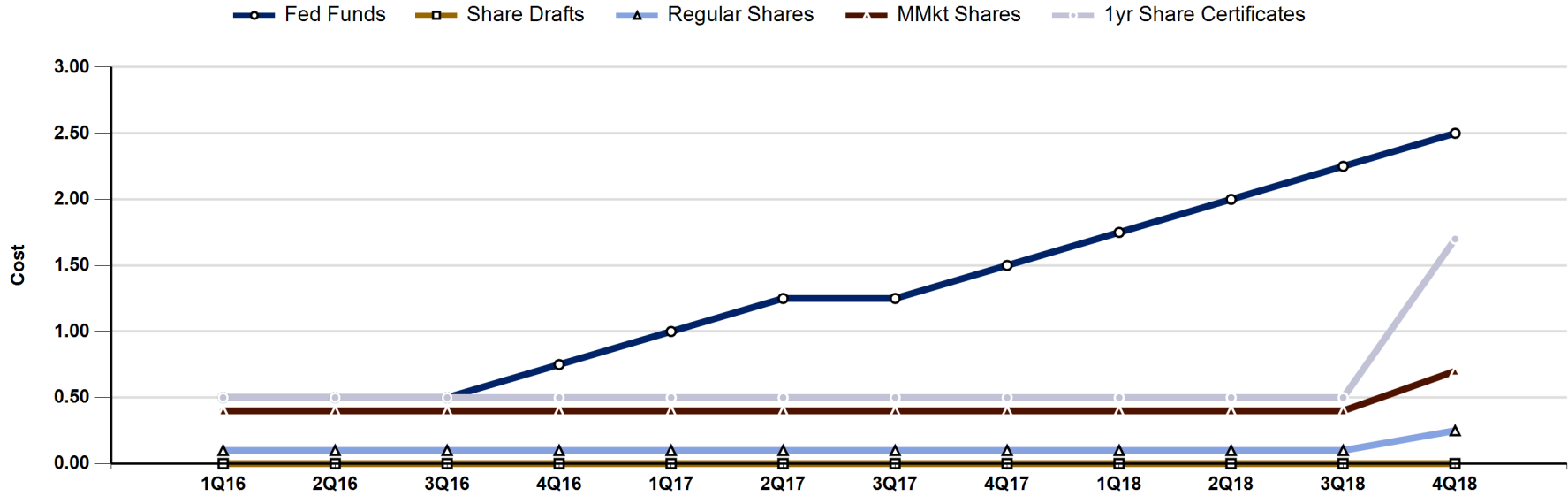


INVESTMENT PORTFOLIO BALANCE AND YIELD

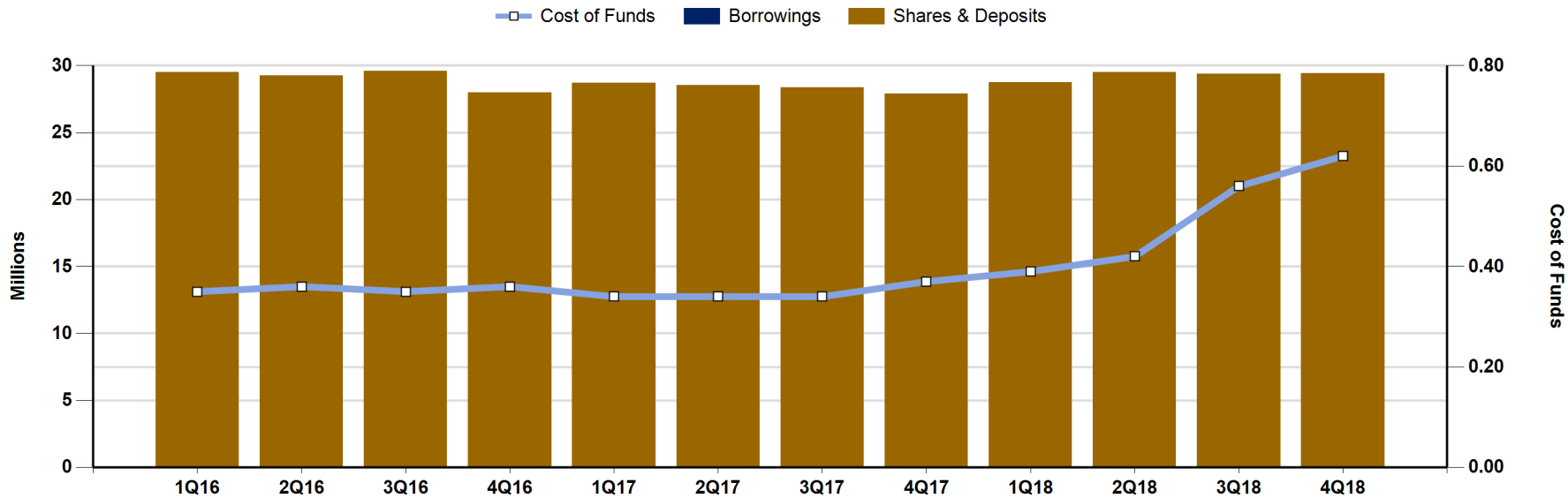




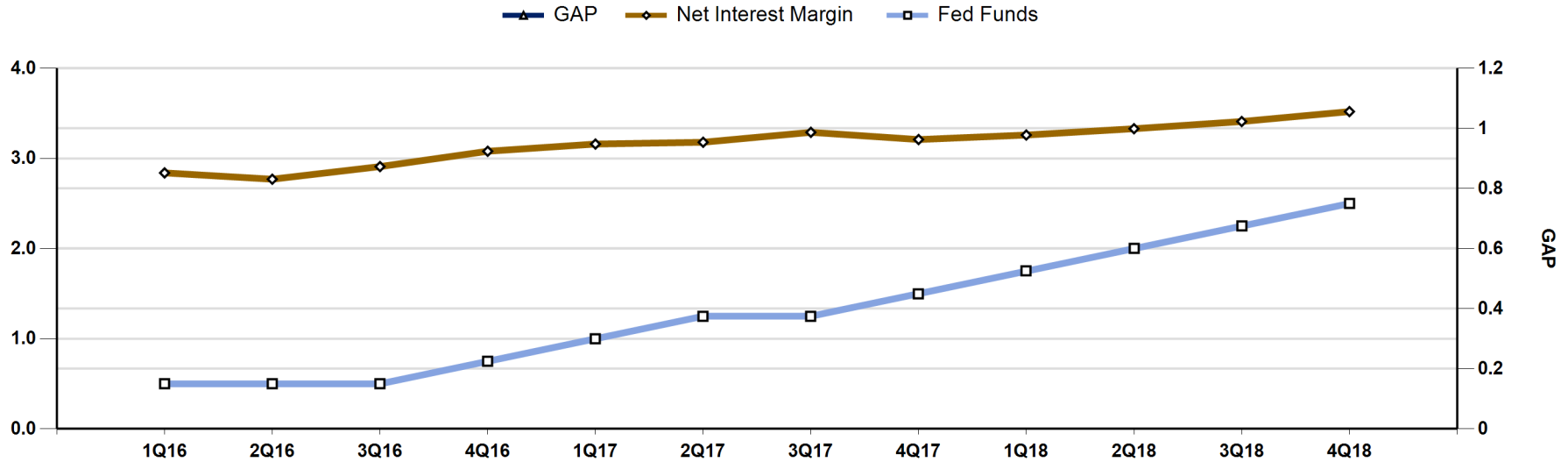
HISTORICAL ACCOUNT COST AND FED FUNDS



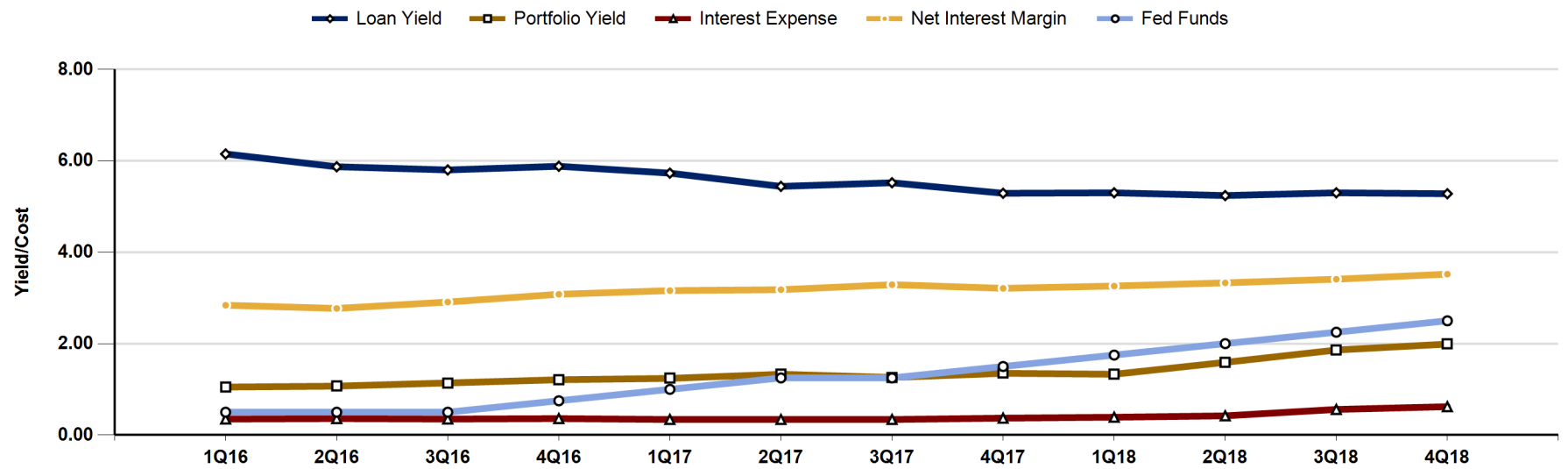
FUNDING BALANCES AND COST OF FUNDS



GAP, NET INTEREST MARGIN, AND FED FUNDS



NET INTEREST MARGIN TRENDS



	Yields Down 100 Basis Points			Yields Up 100 Basis Points		
	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>
	A	B	A X B	A	B	A X B
<b>Rate Sensitive Assets</b>						
<b>Loans</b>						
Fixed Rate	8,786	100%	8,786	8,643	100%	8,643
Floating Rate	183	100%	183	183	100%	183
<b>Fixed-Rate Securities (Principal Cashflows)</b>						
CDs	4,248	100%	4,248	4,248	100%	4,248
<b>Securities (Floating Rate)</b>						
Total Cash on Deposit	841	100%	841	841	100%	841
<b>Total Rate Sensitive Assets</b>	<b>14,058</b>		<b>14,058</b>	<b>13,915</b>		<b>13,915</b>
<b>Rate Sensitive Liabilities</b>	<b>A</b>	<b>B</b>	<b>A X B</b>	<b>A</b>	<b>B</b>	<b>A X B</b>
Share Drafts (48%)	3,410	10%	341	3,410	10%	341
Regular Drafts (42%)	9,126	28%	2,555	9,126	28%	2,555
Money Market Shares (81%)	8,876	52%	4,616	8,876	52%	4,616
Svgs<1yr: Share Certificates (95%)	208	90%	187	208	90%	187
IRA/KEOGH Accounts <1yr (95%)	1,651	80%	1,321	1,651	80%	1,321
Savings: All Other Shares (100%)	1	%	0	1	%	0
<b>Total Rate Sensitive Liabilities</b>	<b>23,272</b>		<b>9,020</b>	<b>23,272</b>		<b>9,020</b>
Rate Sensitive Gap (Assets - Liabilities)	-9,214		5,038	-9,357		4,895
Total Assets	33,754		33,754	33,754		33,754
Gap as a % of Total Assets	-27.3%		14.93%	-27.72%		14.5%
Change in Net Interest Margin (\$)			-50			49
Change in Net Interest Margin (%)			-.15%			.15%
Net Interest Margin (%)			3.52%			3.52%
% Change in Net Interest Margin			-4.24%			4.12%

<sup>1</sup>One Year Balance Sheet gap includes all balances that may change in rate in the next 12 months.

<sup>2</sup>The Earnings Change Ratio estimates the change in rate of a rate sensitive instrument per 100bp move in rates.

<sup>3</sup>In the Liability section, the default ECRs are in parentheses. If changed in column B, custom ECRs were applied.

	Yields Down 200 Basis Points			Yields Up 200 Basis Points		
	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>
	A	B	A X B	A	B	A X B
<b>Rate Sensitive Assets</b>						
<b>Loans</b>						
Fixed Rate	8,865	100%	8,865	8,564	100%	8,564
Floating Rate	183	100%	183	183	100%	183
<b>Fixed-Rate Securities (Principal Cashflows)</b>						
CDs	4,248	100%	4,248	4,248	100%	4,248
<b>Securities (Floating Rate)</b>						
Total Cash on Deposit	841	100%	841	841	100%	841
<b>Total Rate Sensitive Assets</b>	<b>14,137</b>		<b>14,137</b>	<b>13,836</b>		<b>13,836</b>
<b>Rate Sensitive Liabilities</b>	<b>A</b>	<b>B</b>	<b>A X B</b>	<b>A</b>	<b>B</b>	<b>A X B</b>
Share Drafts (48%)	3,410	10%	341	3,410	10%	341
Regular Drafts (42%)	9,126	28%	2,555	9,126	28%	2,555
Money Market Shares (81%)	8,876	52%	4,616	8,876	52%	4,616
Svgs<1yr: Share Certificates (95%)	208	90%	187	208	90%	187
IRA/KEOGH Accounts <1yr (95%)	1,651	80%	1,321	1,651	80%	1,321
Savings: All Other Shares (100%)	1	%	0	1	%	0
<b>Total Rate Sensitive Liabilities</b>	<b>23,272</b>		<b>9,020</b>	<b>23,272</b>		<b>9,020</b>
Rate Sensitive Gap (Assets - Liabilities)	-9,135		5,117	-9,436		4,816
Total Assets	33,754		33,754	33,754		33,754
Gap as a % of Total Assets	-27.06%		15.16%	-27.96%		14.27%
Change in Net Interest Margin (\$)			-102			96
Change in Net Interest Margin (%)			-.3%			.29%
Net Interest Margin (%)			3.52%			3.52%
% Change in Net Interest Margin			-8.61%			8.11%

<sup>1</sup>One Year Balance Sheet gap includes all balances that may change in rate in the next 12 months.

<sup>2</sup>The Earnings Change Ratio estimates the change in rate of a rate sensitive instrument per 100bp move in rates.

<sup>3</sup>In the Liability section, the default ECRs are in parentheses. If changed in column B, custom ECRs were applied.

	Yields Down 100 Basis Points			Yields Up 100 Basis Points		
	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>
	A	B	A X B	A	B	A X B
<b>Rate Sensitive Assets</b>						
<b>Loans</b>						
Fixed Rate	8,786	25%	2,196	8,643	50%	4,321
Floating Rate	183	100%	183	183	100%	183
<b>Fixed-Rate Securities (Principal Cashflows)</b>						
CDs	4,248	100%	4,248	4,248	100%	4,248
<b>Securities (Floating Rate)</b>						
Total Cash on Deposit	841	100%	841	841	100%	841
<b>Total Rate Sensitive Assets</b>	<b>14,058</b>		<b>7,468</b>	<b>13,915</b>		<b>9,594</b>
<b>Rate Sensitive Liabilities</b>	<b>A</b>	<b>B</b>	<b>A X B</b>	<b>A</b>	<b>B</b>	<b>A X B</b>
Share Drafts (48%)	3,410	5%	171	3,410	10%	341
Regular Drafts (42%)	9,126	14%	1,278	9,126	28%	2,555
Money Market Shares (81%)	8,876	26%	2,308	8,876	52%	4,616
Svgs<1yr: Share Certificates (95%)	208	45%	94	208	90%	187
IRA/KEOGH Accounts <1yr (95%)	1,651	40%	660	1,651	80%	1,321
Savings: All Other Shares (100%)	1	100%	1	1	100%	1
<b>Total Rate Sensitive Liabilities</b>	<b>23,272</b>		<b>4,511</b>	<b>23,272</b>		<b>9,021</b>
Rate Sensitive Gap (Assets - Liabilities)	-9,214		2,957	-9,357		573
Total Assets	33,754		33,754	33,754		33,754
Gap as a % of Total Assets	-27.3%		9%	-27.72%		2%

<sup>1</sup>One Year Balance Sheet gap includes all balances that may change in rate in the next 12 months.

<sup>2</sup>The Earnings Change Ratio estimates the change in rate of a rate sensitive instrument per 100bp move in rates.

<sup>3</sup>In the Liability section, the default ECRs are in parentheses. If changed in column B, custom ECRs were applied.

	Yields Down 200 Basis Points			Yields Up 200 Basis Points		
	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>	Balance Sheet Gap <sup>1</sup>	ECR <sup>2</sup>	Income Statement Gap <sup>3</sup>
	A	B	A X B	A	B	A X B
<b>Rate Sensitive Assets</b>						
<b>Loans</b>						
Fixed Rate	8,865	25%	2,216	8,564	50%	4,282
Floating Rate	183	100%	183	183	100%	183
<b>Fixed-Rate Securities (Principal Cashflows)</b>						
CDs	4,248	100%	4,248	4,248	100%	4,248
<b>Securities (Floating Rate)</b>						
Total Cash on Deposit	841	100%	841	841	100%	841
<b>Total Rate Sensitive Assets</b>	<b>14,137</b>		<b>7,488</b>	<b>13,836</b>		<b>9,554</b>
<b>Rate Sensitive Liabilities</b>	<b>A</b>	<b>B</b>	<b>A X B</b>	<b>A</b>	<b>B</b>	<b>A X B</b>
Share Drafts (48%)	3,410	3%	102	3,410	10%	341
Regular Drafts (42%)	9,126	7%	639	9,126	28%	2,555
Money Market Shares (81%)	8,876	13%	1,154	8,876	52%	4,616
Svgs<1yr: Share Certificates (95%)	208	23%	48	208	90%	187
IRA/KEOGH Accounts <1yr (95%)	1,651	20%	330	1,651	80%	1,321
Savings: All Other Shares (100%)	1	50%	1	1	100%	1
<b>Total Rate Sensitive Liabilities</b>	<b>23,272</b>		<b>2,274</b>	<b>23,272</b>		<b>9,021</b>
Rate Sensitive Gap (Assets - Liabilities)	-9,135		5,214	-9,436		533
Total Assets	33,754		33,754	33,754		33,754
Gap as a % of Total Assets	-27.06%		30%	-27.96%		4%

<sup>1</sup>One Year Balance Sheet gap includes all balances that may change in rate in the next 12 months.

<sup>2</sup>The Earnings Change Ratio estimates the change in rate of a rate sensitive instrument per 100bp move in rates.

<sup>3</sup>In the Liability section, the default ECRs are in parentheses. If changed in column B, custom ECRs were applied.

# Performance Profile

Managing the opportunities and risks in an investment portfolio is challenging enough under the current interest rate environment....but, what happens when rates change? A dynamic rate environment can impact not only the current earnings capability of an investment portfolio, it can impact the duration, market value, and liquidity of the portfolio. Lending to the complexity of the challenge, today's investment security offerings are diverse with a variety of structures. We developed the Performance Profile, a detailed report that calculates market risk and expected cash flow for your portfolio under various interest rate scenarios. Benchmarking financial performance versus a customizable peer group is also possible. We believe the Performance Profile is the ideal summary for portfolio managers to review when considering the opportunities and risks inherent in the investment portfolio.

The Performance Profile includes graphs and tables that detail up to date portfolio analytics designed to provide analysis and data for the most pressing portfolio management issues. The analytics are derived using best practice methodologies and industry leading software, including The Yield Book®. Just a few examples include:

## Portfolio Analysis

The Performance Profile summarizes portfolio sector allocations, investment yields at book prices, principal cash flows, average life, duration, and convexity. It also includes the impacts to market value and the preceding metrics when interest rates change.

### PORTFOLIO ANALYSIS - Allocation By Sector and Description

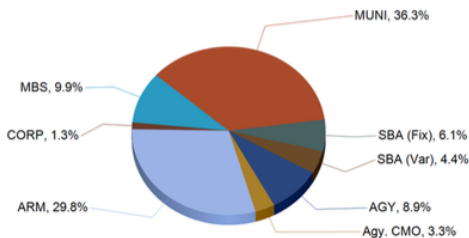
### Portfolio Analysis

#### PORTFOLIO ALLOCATION BY SECTOR AND ASC 320 DESIGNATION

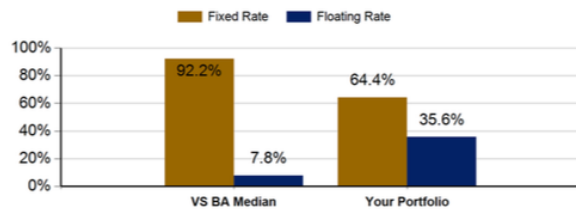
	AFS	HTM	TRAD.	UNDES.	% Port.	Book Value	Market Value	Book Gain/Loss	Book Yield*	Duration	Avg. Life	Px. Vol. +300
Agencies	8.9%	0.0%	0.0%	0.0%	8.9%	10,187,136	10,440,467	253,331	2.85%	3.52	2.43	-15.3%
Agency CMO	3.3%	0.0%	0.0%	0.0%	3.3%	3,837,382	3,860,630	23,247	2.55%	3.56	3.84	-12.6%
ARM	29.8%	0.0%	0.0%	0.0%	29.8%	34,999,651	34,896,689	(102,962)	1.11%	1.06	4.78	-6.2%
Corporates, Other Non-Amortizing	1.3%	0.0%	0.0%	0.0%	1.3%	1,497,295	1,511,807	14,512	2.09%	0.83	2.57	-1.4%
MBS Fixed	9.9%	0.0%	0.0%	0.0%	9.9%	11,632,841	11,643,534	10,694	2.30%	4.71	5.55	-14.3%
Municipals	36.3%	0.0%	0.0%	0.0%	36.3%	41,040,731	42,615,624	1,574,892	4.62%	2.61	3.39	-8.2%
SBA Fixed	6.1%	0.0%	0.0%	0.0%	6.1%	7,040,474	7,116,368	75,895	2.85%	5.01	5.70	-14.7%
SBA Floating Rate	4.4%	0.0%	0.0%	0.0%	4.4%	5,160,768	5,158,153	(2,614)	1.46%	0.84	7.83	-2.3%
<b>Total</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>	<b>115,396,278</b>	<b>117,243,272</b>	<b>1,846,995</b>	<b>2.81%</b>	<b>2.52</b>	<b>4.27</b>	<b>-8.1%</b>

\* Provided by client

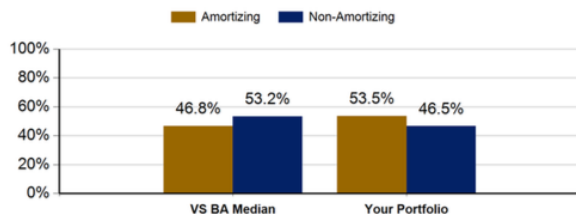
#### PORTFOLIO ALLOCATION BY SECTOR



#### ALLOCATION BY COUPON TYPE



#### ALLOCATION BY PRINCIPAL PAYMENT TYPE



# Performance Profile

## Sector Analysis

Not all sectors exhibit the same amount of risk or return under similar rate environments. This report projects the call expectations and step-up coupon movement in the Agency allocation, plus it reveals potential exposure in the Mortgage allocation by detailing projected yields, coupon concentrations, and prepayment speeds. It segments the reset date, index, and cap structure in the ARM allocation to better review performance. This report also details the ratings, yield analytics, and security types in the Municipal allocation.

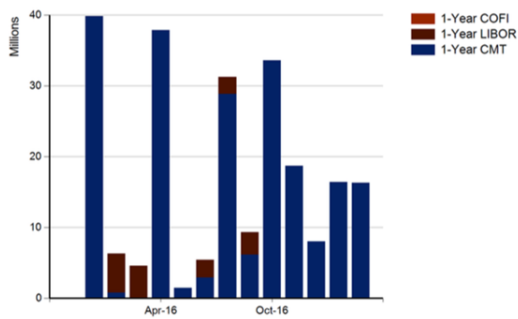
### SUPPLEMENTAL ANALYSIS - ARM Roll Analysis

### Sector Details

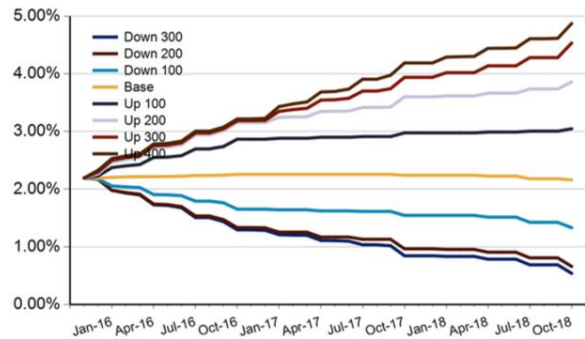
#### ARM PORTFOLIO - PERFORMANCE BY ROLL DATE AND INDEX

	% ARM	Market Value	Projected Yield @ Book										Average Life										% Change in Market Value									
			-300	-200	-100	Base	+100	+200	+300	+400	-300	-200	-100	Base	+100	+200	+300	+400	-300	-200	-100	+100	+200	+300	+400							
<b>By Months-to-Roll</b>																																
0-12 MTR	66.9%	23,332,315	0.37%	0.39%	0.72%	1.33%	2.20%	3.00%	3.68%	4.28%	3.3	3.4	4.4	5.2	5.3	5.5	5.7	5.9	0.2	0.0	0.2	-0.6	-1.6	-3.1	-4.9							
13-24 MTR	6.8%	2,389,821	-0.41%	-0.36%	0.37%	1.08%	1.81%	2.51%	3.13%	3.60%	1.9	1.9	3.2	4.6	5.2	6.0	6.8	7.2	0.0	0.0	0.1	-0.1	-0.4	-0.6	-0.9							
25-36 MTR	14.9%	5,207,739	-0.11%	-0.08%	0.48%	1.06%	1.78%	2.36%	2.93%	3.42%	1.8	1.8	2.7	3.8	4.7	5.3	6.0	6.5	0.1	0.1	0.2	-0.3	-0.8	-1.3	-1.9							
37-60 MTR	8.2%	2,864,198	0.43%	0.45%	0.91%	1.40%	2.03%	2.54%	3.03%	3.46%	1.6	1.6	2.3	3.4	4.7	5.4	6.2	6.9	0.1	0.1	0.1	-0.2	-0.5	-0.8	-1.2							
61-84 MTR	3.2%	1,102,617	1.08%	1.09%	1.26%	1.79%	2.37%	2.74%	3.12%	3.49%	2.4	2.4	3.0	4.1	5.8	6.1	6.3	6.5	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.4							
85-120 MTR																																
<b>By Index</b>																																
1-Year CMT	86.4%	30,143,022	0.19%	0.22%	0.66%	1.25%	2.05%	2.77%	3.39%	3.93%	2.8	2.8	3.8	4.8	5.2	5.5	5.9	6.2	0.6	0.4	0.6	-1.5	-3.7	-6.6	-9.9							
1-Year LIBOR	10.8%	3,754,445	0.87%	0.88%	1.07%	1.84%	2.65%	3.36%	3.99%	4.57%	3.0	3.1	4.0	4.6	5.3	5.6	5.8	6.0	0.0	-0.1	0.4	-1.1	-2.8	-5.1	-7.8							
1-Year COFI																																
<b>By Life Cap</b>																																
<6.00%																																
6.00-7.00%	14.2%	4,951,824	0.17%	0.21%	0.75%	1.33%	2.06%	2.72%	3.32%	3.80%	1.7	1.8	2.9	4.3	4.6	5.3	6.0	6.4	0.1	0.1	0.6	-1.8	-4.6	-8.0	-11.9							
7.00-8.00%	32.3%	11,288,576	-0.24%	-0.20%	0.40%	1.05%	1.80%	2.43%	3.00%	3.48%	2.1	2.1	3.0	4.2	4.9	5.4	6.0	6.4	0.6	0.5	0.8	-1.9	-4.8	-8.2	-12.1							
>8.00%	53.5%	18,656,289	0.61%	0.62%	0.86%	1.42%	2.29%	3.09%	3.77%	4.39%	3.6	3.7	4.6	5.3	5.5	5.6	5.8	5.9	0.5	0.3	0.4	-0.9	-2.4	-4.5	-7.1							
<b>By Period Cap</b>																																
<1.00%	61.8%	21,570,250	-0.01%	0.02%	0.51%	1.13%	1.91%	2.59%	3.19%	3.68%	2.5	2.6	3.6	4.6	5.1	5.5	6.0	6.4	0.7	0.5	0.7	-1.7	-4.3	-7.5	-11.2							
1.00-1.50%	35.3%	12,327,217	0.77%	0.79%	1.05%	1.65%	2.49%	3.27%	3.94%	4.57%	3.3	3.3	4.3	5.0	5.4	5.6	5.8	5.9	0.3	0.1	0.4	-0.9	-2.4	-4.5	-7.0							
1.50-2.00%																																
>2.00%	2.9%	999,222	0.28%	0.29%	0.30%	0.51%	1.49%	2.46%	3.43%	4.40%	4.0	4.3	4.6	4.8	4.8	4.8	4.8	4.8	-0.7	-0.7	-0.1	0.0	0.1	0.1	0.1							
<b>Total</b>	<b>100.0%</b>	<b>34,896,689</b>	<b>0.27%</b>	<b>0.30%</b>	<b>0.69%</b>	<b>1.29%</b>	<b>2.10%</b>	<b>2.82%</b>	<b>3.46%</b>	<b>4.01%</b>	<b>2.8</b>	<b>2.9</b>	<b>3.8</b>	<b>4.8</b>	<b>5.2</b>	<b>5.5</b>	<b>5.9</b>	<b>6.2</b>	<b>0.5</b>	<b>0.3</b>	<b>0.6</b>	<b>-1.4</b>	<b>-3.5</b>	<b>-6.2</b>	<b>-9.4</b>							

ARM SECTOR - PAR AMOUNT RESETTING BY MONTH



ARM PORTFOLIO COUPON RATE SHOCKED (STATIC INSTANTANEOUS SHOCK)



## Cash Flow Analysis

The Performance Profile specifies monthly and annual cash flow for the total portfolio and by sector. In addition, it presents shocked cash flows to gain an understanding of exposure as interest rates change.



# Performance Profile

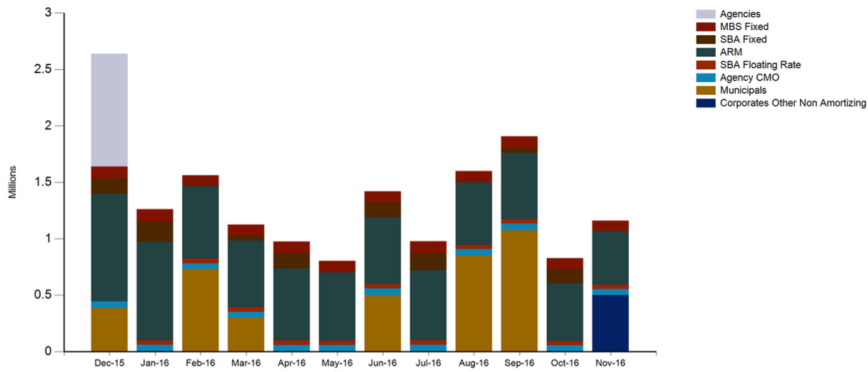
## PORTFOLIO CASHFLOW ANALYSIS - Monthly Basecase

## Portfolio Cashflow Analysis

### MONTHLY CASHFLOWS BY SECTOR (BASECASE)

	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Total	% of Total Portfolio
Treasuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
CDs	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Agencies	1,000,000	0	0	0	0	0	0	0	0	0	0	0	1,000,000	0.87%
MBS Fixed	107,275	109,543	95,223	97,933	104,727	102,824	101,619	104,828	98,773	103,075	96,486	92,614	1,214,826	1.06%
SBA Fixed	133,605	179,466	0	45,696	132,760	0	127,795	152,690	0	44,303	124,052	0	940,369	0.82%
ARM	953,322	873,488	646,978	889,707	639,259	603,178	591,871	620,309	554,412	585,823	511,874	476,718	7,646,944	6.68%
SBA Floating Rate	0	40,056	39,743	39,433	39,124	38,819	38,515	38,214	37,914	37,617	37,323	37,030	423,793	0.37%
Agency CMO	58,879	59,535	50,810	52,932	58,113	57,940	58,860	61,307	57,803	60,601	56,227	54,342	687,354	0.60%
Private CMO	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Asset-Backed, Other Amortizing	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Municipals	385,000	0	730,000	300,000	0	0	500,000	0	850,000	1,075,000	0	0	3,840,000	3.35%
Corporates, Other Non-Amortizing	0	0	0	0	0	0	0	0	0	0	0	500,000	500,000	0.44%
<b>Total</b>	<b>2,638,081</b>	<b>1,262,088</b>	<b>1,562,754</b>	<b>1,125,701</b>	<b>973,983</b>	<b>802,561</b>	<b>1,418,660</b>	<b>977,448</b>	<b>1,566,902</b>	<b>1,906,410</b>	<b>825,062</b>	<b>1,160,704</b>	<b>16,253,286</b>	<b>14.19%</b>
% of Total Portfolio	2.30%	1.10%	1.35%	0.98%	0.83%	0.70%	1.24%	0.85%	1.40%	1.58%	0.72%	1.01%	14.19%	

### MONTHLY CASHFLOWS BY SECTOR (BASECASE)



## Peer Comparison

The Performance Profile offers peer comparisons on multiple fronts. Financial performance can be reviewed by looking at the composition of the income statement, a breakdown of the investment and loan portfolios, and the funding profile. Peer groups can be tailored by region, size and performance. Additionally, the Performance Profile offers an in depth look into the Vining Sparks Bond Accounting Statistics.

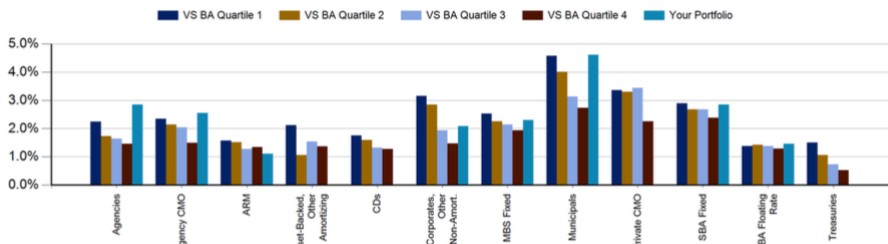
## PEER COMPARISON - Risk (Interest Rate) / Reward Attribution

## Peer Comparison

### YIELD / INTEREST RATE RISK COMPARISON BY SECTOR TO VS BOND ACCOUNTING STATISTICS

	Your Portfolio			VS BA Quartile 1			VS BA Quartile 2			VS BA Quartile 3			VS BA Quartile 4		
	+300 Price	Volatility	Portfolio Allocation	+300 Price	Volatility	Portfolio Allocation	+300 Price	Volatility	Portfolio Allocation	+300 Price	Volatility	Portfolio Allocation	+300 Price	Volatility	Portfolio Allocation
Treasuries	1.50%	-8.00%	0.4%	1.75%	-8.07%	0.8%	1.05%	-7.63%	0.5%	0.73%	-5.57%	0.4%	0.52%	-3.54%	3.7%
CDs	2.30%	-14.32%	9.9%	2.53%	-11.77%	15.6%	2.25%	-12.47%	22.4%	2.15%	-12.49%	34.7%	1.94%	-11.54%	25.1%
Agencies	2.85%	-14.68%	6.1%	2.89%	-14.72%	3.9%	2.68%	-14.47%	3.9%	2.68%	-14.88%	3.3%	2.38%	-15.26%	2.5%
MBS Fixed	1.11%	-6.21%	29.8%	1.57%	-5.74%	5.0%	1.51%	-7.01%	4.5%	1.27%	-6.71%	4.3%	1.34%	-7.76%	16.4%
SBA Fixed	1.46%	-2.33%	4.4%	1.38%	-1.49%	2.4%	1.43%	-1.44%	6.6%	1.37%	-1.12%	2.2%	1.29%	-1.18%	3.9%
SBA Floating Rate	2.55%	-12.61%	3.3%	2.34%	-11.29%	7.9%	2.14%	-12.63%	16.4%	2.04%	-13.13%	16.7%	1.49%	-10.94%	9.9%
Agency CMO	3.37%	-4.24%	1.8%	3.31%	-7.62%	1.5%	3.44%	-15.96%	0.5%	2.25%	-3.04%	0.0%	2.25%	-3.04%	0.0%
Private CMO	2.12%	-0.85%	0.9%	2.12%	-0.85%	0.9%	1.08%	-2.70%	0.4%	1.54%	-3.95%	0.4%	1.36%	-0.50%	0.2%
Asset-Backed, Other Amortizing	4.62%	-8.25%	36.3%	4.58%	-12.70%	48.3%	4.01%	-11.98%	28.5%	3.13%	-12.55%	20.1%	2.73%	-8.21%	8.1%
Municipals	2.09%	-1.39%	1.3%	3.16%	-8.50%	4.2%	2.85%	-9.47%	3.2%	1.94%	-3.89%	4.2%	1.47%	-3.42%	3.0%
Corporates, Other Non-Amort.	<b>2.81%</b>	<b>-9.06%</b>	<b>100.0%</b>	<b>3.44%</b>	<b>-11.57%</b>	<b>100.0%</b>	<b>2.62%</b>	<b>-10.99%</b>	<b>100.0%</b>	<b>2.21%</b>	<b>-11.51%</b>	<b>100.0%</b>	<b>1.64%</b>	<b>-8.97%</b>	<b>100.0%</b>

### SECTOR YIELDS - VERSUS VINING-SPARKS BOND ACCOUNTING QUARTILES



# Performance Profile

## Financial Performance

Take a detailed look at the portfolio independently or within the context of the balance sheet. Measure financial performance by looking at balance sheet component growth, earning trends, and capital levels. The Performance Profile incorporates investment portfolio volatility under a dynamic rate environment to quantify capital value at risk. It includes a review of balance sheet interest rate risk, using a high level income statement gap estimate or the Vining Sparks Risk Manager report. For Risk Manager customers, the report includes Earnings At Risk, Economic Value of Equity, and balance sheet liquidity analytics.

### BALANCE SHEET TRENDS - Growth and Earnings Metrics

#### BALANCE SHEET COMPONENT GROWTH

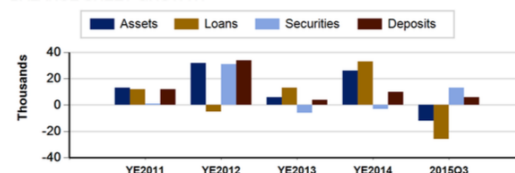
	YE2011	YE2012	YE2013	YE2014	3Q2015
<b>Assets</b>	386,809	419,635	425,644	452,200	464,593
Change in Volume	13,749	32,826	6,009	26,556	12,393
Percentage Change	3.69%	8.49%	1.43%	6.24%	2.74%
<b>Loans</b>	250,788	245,729	259,471	293,075	319,138
Change in Volume	12,403	-5,059	13,742	33,604	26,063
Percentage Change	5.20%	-2.02%	5.59%	12.95%	8.89%
<b>Securities</b>	108,728	140,605	133,827	129,936	116,094
Change in Volume	1,806	31,877	-6,778	-3,891	-13,842
Percentage Change	1.69%	29.32%	-4.82%	-2.91%	-10.65%
<b>Deposits</b>	330,677	365,530	369,923	380,695	373,820
Change in Volume	12,711	34,853	4,393	10,772	-6,875
Percentage Change	4.00%	10.54%	1.20%	2.91%	-1.81%

#### EARNINGS TRENDS

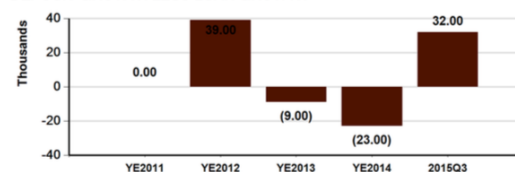
	YE2011	YE2012	YE2013	YE2014	3Q2015
Net Interest Margin	3.65%	3.37%	3.25%	3.34%	3.35%
Return on Avg. Assets	1.15%	1.15%	0.92%	0.96%	0.87%
Return on Avg. Equity	12.68%	12.62%	10.00%	10.14%	8.90%

### Financial Performance

#### BALANCE SHEET GROWTH



#### DEPOSIT GROWTH LESS LOAN GROWTH



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