



PFM Community Bank Investment Index

The PFM Community Bank Investment Index is a national index designed to assess regional and community bank securities portfolios, providing a snapshot of risk versus return and asset allocation.

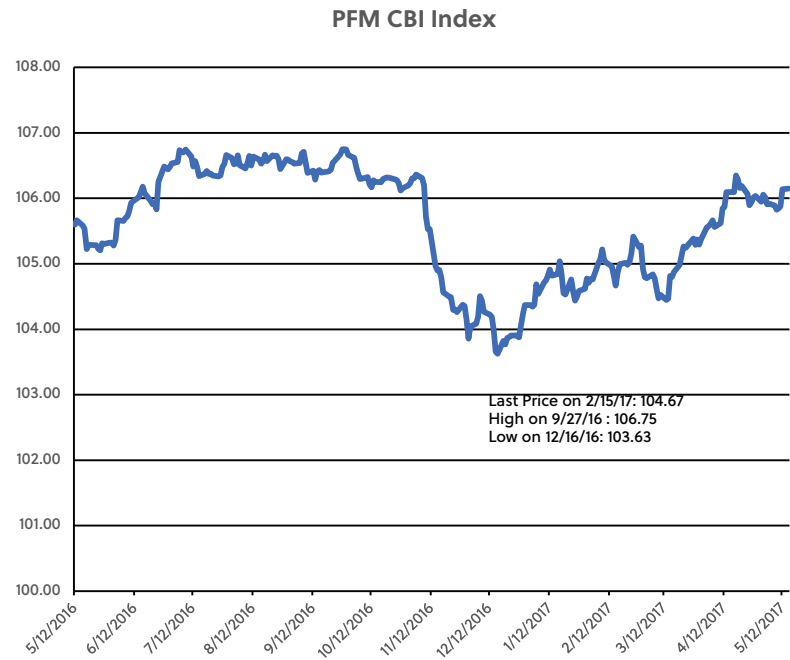
Economic and Index Summary

- The U.S. Treasury yield curve continued to flatten with interest rates for all tenors greater than two years falling, and shorter-term rates increasing. The trend of the curve flattening has been a market theme since February of this year. There have been many market drivers during this period to include the Trump tax reform plan, geopolitical turmoil in Syria and North Korea, the French election, domestic earnings expectations and first quarter GDP growth at its slowest pace since it contracted in Q1 2014.
- For the period ended May 15, 2017, the PFM Community Bank Investment Index (PFM CBI Index) shows community bank portfolio yields trended slightly lower with a Yield to Maturity (YTM) of 2.34% vs. 2.49% a quarter ago, yet still higher over a year ago of 1.86%. Portfolio durations shortened with a modified duration of 4.11 years vs. 4.22 years a quarter ago, yet still longer than a year ago of 3.90 years. While much higher than a year ago, this overall slight downtick in yield and duration is a reflection of the yield curve flattening resulting in banks cautiously positioning themselves on the U.S. Treasury curve.
- The PFM CBI Index shows \$582 billion invested in securities, of which approximately \$495 billion and approximately \$87 billion are classified as Available for Sale and Held to Maturity, respectively. The \$582 billion represents an increase of 0.6% in total dollars invested in bank

Total Investments	Composition			Dollar Change	
	Last Year 3/31/16	Previous Qtr. 12/31/17	Current 3/31/17	\$ Δ Quarter	\$ Δ Annual
Treasury	3.2%	3.5%	3.5%	-0.1%	7.6%
Agency	18.6%	16.9%	17.2%	2.4%	-9.6%
Municipal	24.7%	26.2%	26.1%	0.0%	2.7%
MBS	26.6%	27.0%	26.7%	-0.3%	-2.0%
CMO	14.8%	13.9%	14.0%	1.3%	-7.3%
CMBS	4.0%	4.8%	4.7%	0.3%	14.2%
ABS/Structured	2.2%	1.8%	1.9%	1.9%	-17.6%
Corporate Domestic	4.5%	4.4%	4.4%	2.7%	-2.8%
Corporate Foreign	0.6%	0.5%	0.5%	4.4%	-8.6%
Equity Securities	0.9%	1.0%	0.9%	-5.6%	1.2%
Grand Total	100.0%	100.0%	100.0%	0.6%	-2.5%
Available-for-Sale	3/31/16	12/31/17	3/31/17	\$ Δ Quarter	\$ Δ Annual
Treasury	2.8%	3.2%	3.2%	0.0%	10.2%
Agency	15.6%	14.4%	14.6%	2.4%	-8.5%
Municipal	19.7%	21.1%	21.0%	0.3%	3.7%
MBS	22.7%	23.2%	23.0%	-0.1%	-0.8%
CMO	13.0%	12.2%	12.4%	1.8%	-7.2%
CMBS	3.3%	4.0%	4.0%	0.8%	18.0%
ABS/Structured	2.0%	1.7%	1.8%	1.9%	-12.8%
Corporate Domestic	3.7%	3.6%	3.7%	3.8%	-1.6%
Corporate Foreign	0.5%	0.4%	0.4%	5.8%	-12.0%
Equity Securities	0.9%	1.0%	0.9%	-5.6%	1.2%
Grand Total	84.1%	84.8%	85.0%	0.9%	-1.4%
Held-to-Maturity	3/31/16	12/31/17	3/31/17	\$ Δ Quarter	\$ Δ Annual
Treasury	0.3%	0.3%	0.3%	-0.8%	-12.7%
Agency	3.0%	2.5%	2.6%	2.7%	-15.0%
Municipal	5.0%	5.1%	5.0%	-1.2%	-1.5%
MBS	3.9%	3.7%	3.7%	-1.8%	-9.0%
CMO	1.8%	1.7%	1.7%	-1.7%	-7.7%
CMBS	0.7%	0.8%	0.7%	-2.1%	-3.1%
ABS/Structured	0.2%	0.1%	0.1%	0.6%	-58.4%
Corporate Domestic	0.8%	0.8%	0.8%	-2.4%	-7.9%
Corporate Foreign	0.1%	0.1%	0.1%	-2.7%	14.9%
Equity Securities	0.0%	0.0%	0.0%	0.0%	0.0%
Grand Total	15.9%	15.2%	15.0%	-0.8%	-0.8%



portfolios. The total dollar amount invested in U.S. Treasuries remained fairly flat, while the total dollar amount invested in agencies increased by almost \$2.4 billion. For the quarter, this represents a 2.4% increase in total dollars invested in the sector. We suspect that this uptick in agencies is due to banks' short term positioning in light of anticipated future rate hikes by finding incremental value over U.S. Treasuries in the two to three-year new issue securities. For the quarter, total dollars invested in domestic and foreign corporates increased 7.1%, which represents approximately \$806 million. Corporate bonds represent the largest percentage change in dollars invested for the period. Corporate sector profits and balance sheets remain strong and this uptick in the PFM CBI Index allocation suggests banks are looking for opportunities to enhance yield and manage risk. Corporates are historically less volatile in a rising rate environment than mortgage-backed securities (MBS).



Graph showing daily closing price of the PFM CBI Index over last one year, from 5/13/16 to 5/15/17. Calculation performed on Bloomberg®

- Like always, the bedrock of the investment portfolio are MBS and this asset class posted mixed returns, as a potential reduction in the Federal Reserve holdings of MBS later in the year weighed on the sector. This suggests banks will remain cautious in the MBS sector choosing issues with shorter average lives and less sensitivity to interest rate movements.

Risk and Return Summary

- For the period ending May 15, 2017, the PFM CBI Index price is up 1.41%. This reflects stability in long term rates and a flattening of the yield curve after a marked slowdown in the economy put an active Federal Reserve (Fed) on pause in May after three prior rate hikes.
- As summarized in the Index Summary above, portfolio durations, maturities and yields are slightly lower for the period. These metrics for bank portfolios still demonstrate a significant increase relative to a

Risk and Return	05/13/16	2/15/17	05/15/17	Δ Quarter	Δ Annual
Effective Maturity (years)	4.10	4.76	4.61	(0.15)	0.51
Yield to Worst (%)	1.63	2.30	2.13	(0.17)	0.50
Yield to Maturity (%)	1.86	2.49	2.34	(0.15)	0.48
Modified Duration (years)	3.90	4.22	4.11	(0.11)	0.21
Option Adjusted Duration (years)	3.68	4.30	4.15	(0.15)	0.47
Option Adjusted Spread (basis points)	32.81	30.04	23.49	(6.55)	(9.32)



year ago when the Fed sent strong signals they would raise short term interest rates and the market anticipated higher intermediate and longer term interest rates. Short term rates did rise, but longer term rates have remained steady as the curve has flattened.

- Option-adjusted spreads (OAS), which measure the compensation community banks receive for assuming interest rate and credit risk net of embedded options also fell during this period, a further reflection of portfolio risk reduction.

Stress Test Summary

- A select number of interest rate change scenarios are applied to the PFM CBI Index to demonstrate the impact of market movement on community bank investment portfolios overall, as well as to individual sectors in which banks have invested. The analysis shows Profit and Loss (P&L) per asset class, total portfolio P&L, and P&L Contribution which is the percentage contribution of P&L from each asset class to the total portfolio P&L under each scenario. For example, of the -3.79% overall portfolio loss shown under the +100bps scenario, the MBS sector decreased by 4.05%, but contributed to 28.5% of the amount of the portfolio loss. The “Flattener Short + 50bps” scenario increases the short end of the yield curve by 50 basis points (bps), with no increase at the 10-year point, which is the anchor and a scenario that can be anticipated with an active Fed.

Stress Testing														
	+100 bps		+200 bps		Flattener Short + 50 bps		Lehman Default 9/15/08 to 10/14/08		Equity Market Rebound 3/4/09 to 6/1/09		Debt Ceiling Crisis & Downgrade 7/22/11 to 8/8/11		Greek Financial Crisis 6/22/15 to 7/8/15	
	P&L per Asset Class	P&L Contrib.	P&L per Asset Class	P&L Contrib.	P&L per Asset Class	P&L Contrib.	P&L per Asset Class	P&L Contrib.	P&L per Asset Class	P&L Contrib.	P&L per Asset Class	P&L Contrib.	P&L per Asset Class	P&L Contrib.
Treasury	-2.11%	1.9%	-4.15%	1.8%	-1.07%	2.0%	1.03%	-0.4%	0.19%	0.3%	0.36%	2.3%	0.24%	2.9%
Agency	-4.25%	18.7%	-9.01%	18.8%	-2.06%	18.6%	-1.84%	3.4%	-0.17%	-1.3%	1.37%	41.5%	0.60%	34.5%
Muni	-3.01%	20.7%	-6.01%	19.6%	-1.50%	21.3%	-7.51%	21.5%	1.04%	12.8%	0.42%	19.9%	0.31%	27.9%
MBS	-4.05%	28.5%	-8.74%	29.2%	-1.95%	28.3%	-7.21%	21.1%	-2.48%	-31.4%	1.18%	57.3%	0.23%	21.2%
CMO	-4.88%	18.1%	-11.09%	19.5%	-2.28%	17.4%	-2.15%	3.3%	0.56%	3.7%	1.02%	26.0%	0.27%	13.1%
CMBS	-5.09%	6.4%	-9.81%	5.8%	-2.59%	6.7%	-86.25%	44.8%	48.34%	108.5%	-3.35%	-28.9%	0.30%	4.9%
ABS/ Structured	-1.74%	0.9%	-3.41%	0.8%	-0.88%	0.9%	-5.55%	1.1%	-5.48%	-4.8%	0.20%	0.7%	0.13%	0.8%
Corporate Domestic	-3.54%	4.3%	-6.92%	4.0%	-1.79%	4.4%	-5.25%	2.6%	-1.48%	-3.2%	1.03%	8.6%	0.35%	5.5%
Corporate Foreign	-2.32%	0.6%	-4.55%	0.5%	-1.17%	0.6%	-3.02%	0.3%	-0.14%	-0.1%	0.35%	0.6%	0.13%	0.4%
Equity Securities	0.00%	0.0%	0.00%	0.0%	0.00%	0.0%	-19.65%	2.0%	34.62%	15.1%	-16.70%	-28.0%	-3.64%	-11.6%
Total Portfolio P&L	-3.79%		-7.99%		-1.84%		-9.11%		2.11%		0.55%		0.29%	



- The scenarios with associated historical dates take prevailing rates at the given dates and apply them to the PFM CBI Index to provide a guideline for how community bank portfolios would perform, as currently comprised, in recent stressed scenarios.
- The PFM CBI Index shows the MBS asset class as having the largest contribution to P&L under the traditional scenario shocks of +100 bps, +200 bps, and under the Flattener Short +50 bps scenario. Given current allocations, this scenario analysis shows the commercial mortgage-backed securities (CMBS) sector being the largest contributor to P&L if rates were to move as they did during the period immediately following the Lehman default, or as they did during the equity market rebound of 2009.

Index Methodology and Disclosures

- The PFM CBI Index is a rules-based index where the committee predetermines the primary sector allocations based on observed data from the Federal Deposit Insurance Corporation (FDIC) as provided by community banks nationwide.
- The selection of subsector indices to be used as components must be market accepted and widely available, allowing for a look-through to each component security to enable computation of the risk and return characteristics in aggregate and individually.
- The committee does not select the PFM CBI Index components based on historical performance, value or return.
- Criteria include all Commercial and Savings banks nationwide with the following characteristics:
 - Total assets less than \$10 billion
 - Asset allocation data sourced from regulatory call reports via SNL as of March 31, 2017
 - Analytic data sourced from Bloomberg as of March 15, 2017
- Yields and durations were calculated based on the following Bank of America Merrill Lynch Indexes and the SPDR S&P 500.

Sector	Index Ticker	Index Description
ABS	R010	US Fixed & Floating Rate Asset Backed Securities Index
Agency	G2P0	3-5 Year Federal Agency
Agency	G1P0	1-3 Year Federal Agency
Agency	G3P0	5-7 Year Federal Agency
Agency	G4P0	7-10 Year Federal Agency
CMBS	CMBY	US Fixed Rate Agency CMBS Index
CMO	CMVP	1-5 Year US Agency CMO PAC Index
CMO	CM1Q	0-3 Year US Agency Sequential Index
CMO	CM2Q	3-5 Year US Agency Sequential Index
Corporate & Foreign	C3A0	5-7 Year Corporate Master
Corporate & Foreign	C2A0	3-5 Year Corporate Master
Corporate & Foreign	C1A0	1-3 Year Corporate Master
Equity	SPY	Equity
MBS	M15A	15-Year Aggregate
Tax-Exempt Muni	U4A0	12-22 Year Tax Exempt Muni
Tax-Exempt Muni	U2A0	3-7 Year Tax Exempt Muni
Tax-Exempt Muni	U3A0	7-12 Year Tax Exempt Muni
Tax-Exempt Muni	U1A0	1-3 Year Tax Exempt Muni
Tax-Exempt Muni	U2A0	3-7 Year Tax Exempt Muni
Treasury	G1O2	1-3 US Treasury

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