

Market Value of Equity/Assets and Price-to-Book Analysis

July 2016

1 Introduction

In the below tables, we look at how MVE/assets and PTB evolves for our banks over time. The time periods are: (1) pre-crisis (January 2002-December 2006); (2) crisis (January 2007-January 2010); and post-crisis (February 2010-present). Our data on price and shares outstanding comes from CRSP and is only available up to December 2015. Our price-to-book data is from Bloomberg and is available through May 2016.

For the fifty largest banks (outside of the Big 6) we present the tables two ways – both with data for each individual bank, and then by collapsing the banks into quintiles based on market capitalization in each of our periods. The quintiles move from lowest market capitalization (1) to highest (5).

2 Ratio of Market Value of Equity to Total Assets, Big 6 Banks

Name	Pre-Crisis	Crisis	Post-Crisis	Most Recent (12/31/2015)
Bank of America	0.15	0.03	0.03	0.09
Citigroup	0.16	0.06	0.08	0.09
Goldman Sachs	0.11	0.04	0.05	0.09
JP Morgan	0.08	0.09	0.07	0.10
Morgan Stanley	0.07	0.05	0.04	0.08
Wells Fargo	0.22	0.10	0.16	0.15
<i>Mean</i>	0.13	0.06	0.07	0.10
<i>Median</i>	0.13	0.06	0.06	0.09

3 Ratio of Market Value of Equity to Total Assets, Top-50 Banks (Excluding Big 6)

Name	Pre-Crisis	Crisis	Post-Crisis	Most Recent (12/31/2015)
ALLY FINANCIAL INC.	N/A	N/A	0.08	0.06
AMERICAN EXPRESS COMPANY	0.52	0.26	0.35	0.48
ASSOCIATED BANC-CORP	0.19	0.18	0.12	0.11
BANK OF NEW YORK MELLON CORPORATION, THE	0.24	0.17	0.16	0.12
BB&T CORPORATION	0.23	0.11	0.15	0.13
BOK FINANCIAL CORPORATION	0.17	0.14	0.16	0.13
CAPITAL ONE FINANCIAL CORPORATION	0.26	0.12	0.07	0.12
CHARLES SCHWAB CORPORATION, THE	N/A	0.10	0.19	0.11
CIT GROUP INC.	N/A	N/A	0.10	0.09
CITIZENS FINANCIAL GROUP, INC.	0.16	0.08	0.12	0.11
COMERICA INCORPORATED	0.22	0.16	0.19	0.17
COMMERCE BANCSHARES, INC.	0.25	0.18	0.20	0.14
CULLEN/FROST BANKERS, INC.	N/A	0.16	0.18	0.28
DISCOVER FINANCIAL SERVICES	0.14	0.03	0.08	0.19
E*TRADE FINANCIAL CORPORATION	0.21	0.22	0.15	0.19
EAST WEST BANCORP, INC.	N/A	N/A	0.12	0.10
EVERBANK FINANCIAL CORP	0.36	0.01	0.10	0.12
FIFTH THIRD BANCORP	0.07	0.07	0.08	0.08
FIRST CITIZENS BANCSHARES, INC.	0.23	0.07	0.12	0.13
FIRST HORIZON NATIONAL CORPORATION	0.20	0.21	0.09	0.10
FIRST NIAGARA FINANCIAL GROUP, INC.	0.22	0.17	0.11	0.13
FIRSTMERIT CORPORATION	0.16	0.19	0.17	0.09
HANCOCK HOLDING COMPANY	0.16	0.04	0.08	0.13
HUNTINGTON BANCSHARES INCORPORATED	0.17	0.13	0.14	0.14
IBERIABANK CORPORATION	0.28	0.28	0.15	0.21
INVESTORS BANCORP, INC.	0.14	0.03	0.08	0.11
KEYCORP	0.22	0.10	0.16	0.13
M&T BANK CORPORATION	0.30	0.15	0.13	0.15
NEW YORK COMMUNITY BANCORP, INC.	0.21	0.22	0.15	0.15
NORTHERN TRUST CORPORATION	0.28	0.29	0.12	0.26
PACWEST BANCORP	0.44	0.55	0.17	0.13
PEOPLE'S UNITED FINANCIAL, INC.	0.20	0.07	0.13	0.14
PNC FINANCIAL SERVICES GROUP, INC., THE	0.25	0.25	0.16	0.16
PROSPERITY BANCSHARES, INC.	0.28	0.20	0.18	0.30
RAYMOND JAMES FINANCIAL, INC.	0.16	0.12	0.11	0.10
REGIONS FINANCIAL CORPORATION	0.33	0.30	0.20	0.21
STATE STREET CORPORATION	0.19	0.20	0.11	0.12
SUNTRUST BANKS, INC.	0.14	0.17	0.10	0.11
SVB FINANCIAL GROUP	0.34	0.19	0.15	0.13
SYNCHRONY FINANCIAL	N/A	N/A	0.33	0.32
SYNOVUS FINANCIAL CORP.	0.30	0.12	0.04	0.15
TCF FINANCIAL CORPORATION	0.33	0.09	0.13	0.12
U.S. BANCORP	0.27	0.21	0.18	0.18
UMPQUA HOLDINGS CORPORATION	0.19	0.07	0.12	0.16
VALLEY NATIONAL BANCORP	0.22	0.16	0.11	0.11
WEBSTER FINANCIAL CORPORATION	0.14	0.05	0.07	0.14
WINTRUST FINANCIAL CORPORATION	0.14	0.05	0.08	0.10
ZIONS BANCORPORATION	0.16	0.08	0.11	0.10
Mean	0.23	0.15	0.14	0.15
Median	0.22	0.15	0.12	0.13

4 Ratio of Market Value of Equity to Total Assets, Top-50 Banks (Excluding Big 6) by Quintile

Quintile	Pre-Crisis	Crisis	Post-Crisis	Most Recent (12/31/2015)
Low MVE	0.19	0.13	0.12	0.11
2	0.22	0.16	0.13	0.15
3	0.20	0.13	0.15	0.17
4	0.21	0.15	0.13	0.13
High MVE	0.28	0.22	0.18	0.20
<i>Mean</i>	0.21	0.14	0.13	0.14
<i>Median</i>	0.21	0.15	0.13	0.15

5 Price-to-Book Ratio, Big 6 Banks

Name	Pre-Crisis	Crisis	Post-Crisis	Most Recent (05/24/2016)
Bank of America	2.15	1.05	0.63	0.63
Citigroup	2.31	1.07	0.70	0.64
Goldman Sachs	2.14	1.86	1.04	0.87
JP Morgan	1.42	1.13	0.98	1.05
Morgan Stanley	1.84	1.36	0.83	0.78
Wells Fargo	2.77	1.98	1.44	1.45
<i>Mean</i>	2.11	1.41	0.93	0.90
<i>Median</i>	2.14	1.25	0.90	0.82

6 Price-to-Book Ratio, Top-50 Banks (Excluding Big 6)

Name	Pre-Crisis	Crisis	Post-Crisis	Most Recent (05/24/2016)
ALLY FINANCIAL INC.	N/A	N/A	0.78	0.61
AMERICAN EXPRESS COMPANY	4.17	4.26	3.69	2.92
ASSOCIATED BANC-CORP	N/A	N/A	N/A	N/A
BANK OF NEW YORK MELLON CORPORATION, THE	2.89	1.72	1.05	1.23
BANKUNITED, INC.	N/A	N/A	1.57	1.51
BB&T CORPORATION	2.13	1.38	1.18	1.09
BOK FINANCIAL CORPORATION	1.94	1.67	1.43	1.37
CAPITAL ONE FINANCIAL CORPORATION	2.18	0.75	0.88	0.82
CHARLES SCHWAB CORPORATION, THE	3.73	5.47	3.06	3.15
CIT GROUP INC.	N/A	N/A	0.92	0.59
CITIZENS FINANCIAL GROUP, INC.	N/A	N/A	0.68	0.62
COMERICA INCORPORATED	1.86	1.11	1.04	1.03
COMMERCE BANCSHARES, INC.	2.23	1.96	1.76	2.02
CULLEN/FROST BANKERS, INC.	2.82	1.94	1.62	1.39
DISCOVER FINANCIAL SERVICES	N/A	1.19	2.08	2.11
E*TRADE FINANCIAL CORPORATION	2.13	1.55	0.94	1.29
EAST WEST BANCORP, INC.	3.12	1.15	1.61	1.67
EVERBANK FINANCIAL CORP	N/A	N/A	1.39	1.07
FIFTH THIRD BANCORP	3.31	1.20	1.05	0.86
FIRST CITIZENS BANCSHARES, INC.	1.32	1.15	1.04	1.02
FIRST HORIZON NATIONAL CORPORATION	2.64	1.21	1.24	1.47
FIRST NIAGARA FINANCIAL GROUP, INC.	1.47	1.02	0.81	0.92
FIRSTMERIT CORPORATION	2.19	1.74	1.20	1.28
HANCOCK HOLDING COMPANY	2.30	2.16	1.15	0.84
HUNTINGTON BANCSHARES INCORPORATED	2.06	0.85	1.21	1.28
IBERIABANK CORPORATION	1.83	1.27	1.09	1.00
INVESTORS BANCORP, INC.	1.72	1.69	1.69	1.17
KEYCORP	1.78	1.04	0.96	0.96
M&T BANK CORPORATION	2.17	1.37	1.36	1.22
NEW YORK COMMUNITY BANCORP, INC.	2.06	1.21	1.20	1.23
NORTHERN TRUST CORPORATION	3.21	2.98	1.77	1.93
PACWEST BANCORP	1.78	1.26	1.54	1.09
PEOPLE'S UNITED FINANCIAL, INC.	2.65	1.68	0.92	0.97
PNC FINANCIAL SERVICES GROUP, INC., THE	2.14	1.40	1.06	1.05
PROSPERITY BANCSHARES, INC.	2.20	1.22	1.24	1.02
RAYMOND JAMES FINANCIAL, INC.	1.98	1.76	1.69	1.59
REGIONS FINANCIAL CORPORATION	1.68	0.67	0.72	0.74
STATE STREET CORPORATION	2.99	2.21	1.33	1.29
SUNTRUST BANKS, INC.	1.83	1.00	0.81	0.94
SVB FINANCIAL GROUP	2.45	2.03	1.84	1.57
SYNCHRONY FINANCIAL	N/A	N/A	2.27	1.88
SYNOVUS FINANCIAL CORP.	1.44	0.86	1.01	1.39
TCF FINANCIAL CORPORATION	3.76	2.15	1.34	1.12
U.S. BANCORP	2.66	2.43	1.86	1.76
UMPQUA HOLDINGS CORPORATION	1.78	0.78	0.91	0.87
VALLEY NATIONAL BANCORP	3.59	2.31	1.43	1.11
WEBSTER FINANCIAL CORPORATION	1.64	0.79	1.20	1.48
WINTRUST FINANCIAL CORPORATION	2.33	0.97	0.97	1.15
ZIONS BANCORPORATION	2.02	0.95	0.86	0.82
<i>Mean</i>	2.35	1.61	1.34	1.28
<i>Median</i>	2.17	1.32	1.20	1.16

7 Price-to-Book Ratio, Top-50 Banks (Excluding Big 6) by Quintile

Quintile	Pre-Crisis	Crisis	Post-Crisis	Most Recent (05/24/2016)
Low MVE	1.94	1.26	1.20	1.12
2	2.45	1.72	1.40	1.31
3	2.33	1.24	1.18	1.14
4	2.26	1.39	1.20	1.19
High MVE	2.86	2.61	1.86	1.74
<i>Mean</i>	2.25	1.40	1.25	1.19
<i>Median</i>	2.33	1.39	1.20	1.19