

Long-Term Analysis

November 19, 2016

Beta, Volatility, and Volatility/Market in Earlier Period

Big 6 Beta

<i>Bank</i>	1995-2005	2002-2007	Post-crisis	2015
Bank of America	1.09	0.88	1.79	1.22
Citigroup	1.48	1.19	1.78	1.32
Goldman Sachs	1.24	1.33	1.32	1.21
JP Morgan	1.39	1.35	1.46	1.20
Morgan Stanley	1.63	1.56	1.85	1.40
Wells Fargo	0.97	0.77	1.43	1.04
Mean	1.30	1.18	1.61	1.23
Median	1.32	1.26	1.62	1.22

Big 6 Volatility

<i>Bank</i>	1995-2005	2002-2007	Post-crisis	2015
Bank of America	29.54	19.70	39.02	23.21
Citigroup	34.19	24.51	38.06	21.75
Goldman Sachs	36.71	26.92	28.23	19.35
JP Morgan	34.78	28.01	29.57	20.17
Morgan Stanley	40.60	31.75	37.22	22.60
Wells Fargo	26.29	17.29	28.74	16.94
Mean	33.69	24.70	33.47	20.67
Median	34.49	25.71	33.40	20.96

Big 6 Volatility/Market

<i>Bank</i>	1995-2005	2002-2007	Post-crisis	2015
Bank of America	1.78	1.24	2.21	1.97
Citigroup	2.08	1.48	2.13	1.85
Goldman Sachs	1.88	1.77	1.67	1.64
JP Morgan	2.06	1.68	1.71	1.71
Morgan Stanley	2.42	2.01	2.18	1.92
Wells Fargo	1.63	1.13	1.59	1.44
<i>Mean</i>	1.98	1.55	1.92	1.76
<i>Median</i>	1.97	1.58	1.92	1.78

MVE/Assets in Earlier Period

Bank	1995-2005	2002-2007	Post-Crisis	2015
Bank of America	0.15	0.15	0.06	0.08
Citigroup	0.19	0.16	0.07	0.09
Goldman Sachs	0.12	0.09	0.08	0.10
JP Morgan	0.11	0.10	0.08	0.10
Morgan Stanley	0.10	0.08	0.06	0.09
Wells Fargo	0.24	0.23	0.14	0.16
<i>Mean</i>	0.15	0.14	0.08	0.10
<i>Median</i>	0.13	0.13	0.07	0.09

MVE/Assets Time Series Plots

