

Preferred Stock Results

August 24, 2016

Looking to preferred stock prices both before and after the Great Recession sheds light on the nature of bank risk. Preferred stock is a layer of capital that ranks below debt, whose holders are entitled to a fixed or floating (indexed to LIBOR) dividend whose payment takes priority over dividend payments to common shareholders. Preferred stock has a unique feature in that it can be “called” (meaning its holders can be bought out) if the firm decides that the payout (or stream of future payouts) are large relative to the value of the share. Since preferred stock has debt-like features, we can infer from the price of these shares how the market perceives bank risk has evolved in the aftermath of the Great Recession.

Given that long-term riskless rates have declined substantially since the pre-crisis period, we would expect that, if banks are no riskier today (or even less risky, given the large influx of capital as a result of post-crisis regulation), preferred shares should be selling for substantially more today than they were in the pre-crisis period. We test this theory by looking at preferred stock prices over time for our Big-6 financial institutions. Given that there are over 80 preferred stocks for our six institutions that each have different terms, we choose to present results for the most liquid preferred stock for each institution (in terms of average trading volume) that was available from before the crisis to now.

Our results indicate that preferred shares are selling for more today than they were in the pre-crisis period. Given the decrease in the riskless rate, this result suggests that a corresponding increase in risk premium stemming from the banks’ riskiness is responsible for the high prices for these shares in the post-crisis period.

Note though that our preferred stock analysis is quite preliminary and hampered by the fact that there are relatively few preferred stocks that have been constantly traded since the pre-crisis period. Many were called in the run-up to the Great Recession and thus it is not possible for us to compare price today to pre-crisis price.

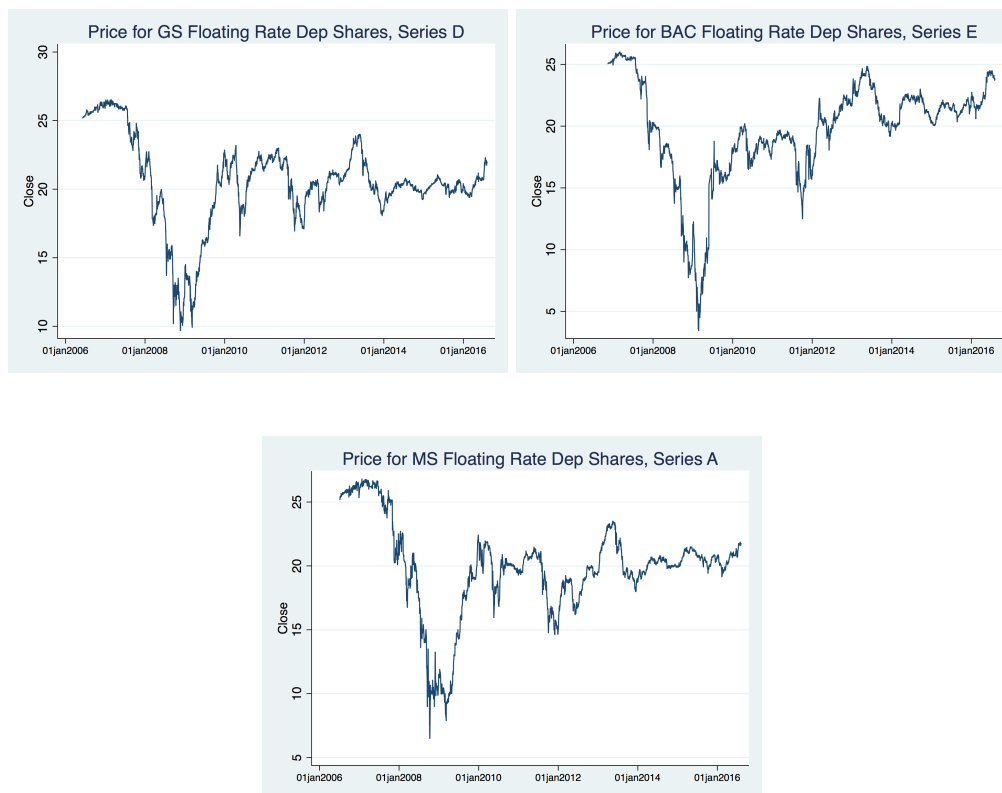
For Goldman Sachs, Bank of America, and Morgan Stanley, we are able to look at floating rate preferreds in the pre- and post-crisis period. Looking to floating rate preferreds is valuable because their pricing is not as reactive to changes in the call likelihood for these preferred shares, as since these shares’ payout is indexed against LIBOR, it is very unlikely that firms will call these shares (and by and large they should be trading for very close to par value).

For Goldman, we look at Series D preferreds which became available in 2005 and which pay the greater of .67% above LIBOR or a minimum of 4.00%; for Bank of America, we look at Series E preferreds which started trading in 2006 and pay a rate per year equal to the greater of the three-month LIBOR plus 0.35% or 4.00% per annum; and for Morgan Stanley we look at Series A preferreds which pay the greater of the three-month LIBOR plus 0.70% or 4%. In all three cases, we see that average price for these shares in the pre-crisis period (2007 and prior) is lower than the pre-crisis price (20.46 vs. 20.11 for Bank of America; 25.12 vs. 20.66 for Goldman Sachs; and 25.36 versus 20.68 for Morgan Stanley). Even comparing the pre-crisis period to the 2015 price, we see that the pre-crisis price is still substantially below than the most recent measure for all three banks. This is a rather surprising result, given that the fact that the riskfree rate has decreased so substantially in this period would, barring any increase in riskiness, have been expected to *increase* price in the post-crisis period relative to these pre-crisis measures. The increase in bank capitalization as a result of regulations like Dodd Frank and Basel III should, theoretically, have served to further inflate the price of these shares relative to the pre-crisis benchmark. The fact that we have seen a decrease in price for these preferreds suggests that risk, at least for these three institutions, has increased over the same period that riskless rates have fallen.

For JP Morgan, Citigroup, and Wells Fargo, we are not able to make the same comparison since there are no preferred stocks for these institutions that date back to before the crisis period. For each institution we

pick the preferred share that has been in existence for the longest period of time and track its price evolution. For Citigroup, this is a fixed rate preferred paying 8.125% dating back to January 2008; for Wells Fargo an 8% share dating back to 2009, and for JP Morgan a fairly recent 5.50% preferred that was first sold in January 2013. While for these three institutions we are not able to meaningfully compare the post-crisis to pre-crisis epoch, we can note that price has not increased much in the aftermath of the crisis by comparing the post-crisis average for these shares to the most recent 2015 measure.

For Wells Fargo, price has not increased substantially since 2013 – the average price in the post-crisis period was around 28.60, slightly above the most recent 2015 measure of 28.54. Both Citigroup and JPM have seen some increase – the 2010-2015 post-crisis average for Citigroup was around 26.81 for this fixed rate preferred relative to the 2015 price of 28.56; and for Citigroup the 2013-2015 price averaged 26.81 relative to the most recent 2015 price of 28.57.



Bank	Date of Most Recent Issue	Par Value	Percent Payout	Annual Payout	Current Price	Curre
Wells Fargo	Jun-16	25	0.055	1.375	26.91	5.
Bank of America	Apr-16	25	0.06	1.5	26.60	5.
Goldman	Apr-16	25	0.063	1.575	27.48	5.
Citigroup	Jan-16	25	0.063	1.575	27.12	5.
JP Morgan	Apr-14	25	0.063	1.575	27.49	5.
Morgan Stanley	Apr-14	25	0.0663	1.65625	27.59	6.