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Bank Asset/Liability Management

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Will Bank Consolidation Continue?

Several weeks ago, I was contacted by a financial reporter who made reference to data that showed a continuing decline in bank failures, merger and acquisition activity, and issuance of new bank charters. He then asked if these factors were an indicator that community banking is stabilizing. My response was that for a number of reasons the consolidation in community banking was likely to continue. The reasons I enumerated were primarily related to more recent events and trends in banking, such as increased regulatory/compliance costs following the economic crisis, the need for greater investment in technology, and the continued low/flat interest rate environment that is placing pressure on net interest margin in all banks.

Then, I began to think about the longer-term consolidation that has been occurring over the past 25-30 years and wondered if the trend really is changing, accelerating or decelerating and why?

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The Long-Term Trend in Bank Consolidation

It is no great secret that the banking industry has undergone a massive consolidation over the past three decades. This has resulted in both a large reduction in the number of banks and a significant shift in the concentration of banking assets. While the consolidation really began in 1986, for this article we will be using the FDIC's historical statistics on banking from the end of 1990 through 2015 (their data is incomplete prior to 1990), that is for the past 25 years.

From the widest perspective, we see that over this period the total number of banks was reduced from 15,158 at the end of 1990 to 6,182 at the end of 2015. This represents a decline of 8,976 banks, which is over 59%, or an annualized rate of decline of about 3.5%.

In order to understand the broad implications of this trend, it is important to look at the underlying changes in banks of different sizes. The FDIC breaks them up into four size ranges: (1) <$100 million; (2) $100 million - $1 billion; (3) $1 billion - $10 billion; and (4) >$10 billion.

In 1990, group (1) - the smallest banks - was comprised of 10,576 banks (70% of all banks) and represented 9.1% of all banking assets. At the same time, group (4) – the largest banks – had 60 members (0.4% of all banks) and controlled 33.6% of banking

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assets. By 2015, group (1) had shrunk to 1,688 banks (a drop of 84%) and represented only 27% of banks and 0.6% of banking assets. Conversely, group (4) now has 107 banks and controls 81.3% of banking assets.

What happened in the other bank groups? Group (2) contracted by 175 banks, from 3,967 to 3,792, a drop of only 4.4%; its share of industry assets, however, was reduced from 22% to 7.5%. Group (3) saw an *increase* in number of 40, from 555 to 595, but its asset share dropped from 35% to 10.5%.

So, in summary, the two smaller-sized groups have dropped in number by a total of 9,063 and in share of bank assets from 31% to 8% while the two larger groups have *increased* in number by 87 and in asset share from 69% to 92%.

For this to occur, there must be significant advantage that accrues to banks that are larger. Let's look at how that advantage manifests itself and whether it looks like it will continue.

Performance Advantage of Larger Banks?

The long-standing key benchmark for bank performance has been Return on Equity (ROE). This in turn is generally seen as a function of a bank's Return on Average Assets (ROA) and its leverage factor. The latter is essentially the inverse of the Equity Capital to Assets ratio. The FDIC data tracks these elements over time, and it shows interesting trends.

First, it is quite clear that the larger banks have a distinct advantage in Return on Equity. In simple terms, this makes it easier for them to convince investors in smaller banks to shift their capital to a larger bank that can provide a better return on investment which, in turn, creates incentive for consolidation. How big is this advantage and where does it come from?

Over the past 25 years, the average annualized ROE's and ROA's by group have been as follows:

Group (1): ROE 7.54% / ROA 0.84%
Group (2): ROE 9.47% / ROA 0.93%
Group (3): ROE 10.36% / ROA 1.00%
Group (4): ROE 11.03% / ROA 0.96%

How do the larger banks end up with such high ROE's when their ROA's are not that much different than the smaller banks? The answer is they have operated with lower levels of equity capital over most of that period; the respective Equity Capital to Assets (ECA) ratios are:

Group (1): 11.40%
Group (2): 9.88%
Group (3): 9.93%
Group (4): 8.97%

As one can see, with a similar ROA the largest banks have created significantly higher ROE's through greater leverage of their equity capital.

Before anyone says, "*But things have changed over the last few years!",* let's look at the more recent picture. If we change our view and look at the last five years instead, we see a change in dynamics but still see a distinct ROE advantage for the two larger bank groups:

Group (1): ROE 5.91% / ROA 0.71%/ECA 12.06%
Group (2): ROE 7.80% / ROA 0.86% / ECA 10.94%
Group (3): ROE 8.88% / ROA 1.05% / ECA 11.82%
Group (4): ROE 9.03% / ROA 1.01% / ECA 11.18%

Even with the greater equity capital requirements that have been placed on the larger banks, they still managed to generate ROE's more than one percent higher than the smaller banks by creating a larger ROA advantage. How have they done this?

Pieces of the Performance Puzzle

Three key elements of ROA are a bank's Net Interest Margin (NIM), its Noninterest Income to Average Assets (NIA) and its Noninterest Expenses to Average Assets (NEA). Historically, the largest banks have had lower NIM than the other groups while the smallest group has had the largest NIM. Yet this has not translated into higher ROA. Why?

The larger banks have higher levels of NIA because they have focused on generating more revenue in the form of fees and they have been successful in maintaining a significant advantage in NEA by operating more efficiently. Here are the 25 -and 5-year levels:

Last 25 years:

Group (1): NIM 4.17% / NIA 1.17% / NEA 3.63%
Group (2): NIM 4.05% / NIA 1.18% / NEA 3.26%
Group (3): NIM 3.95% / NIA 1.68% / NEA 3.23%
Group (4): NIM 3.51% / NIA 2.17% / NEA 3.19%

Over this period, the largest banks were clearly better at generating noninterest income than the other groups, which more than made up for the margin deficit. At the same time, their expenses were only slightly higher than the next two lower groups. The smallest group had the widest margin but had higher operating expenses and not as much noninterest income.

Again, if we look at the most recent five years the dynamics are a bit different, but the end result is the same:

Group (1): NIM 3.72% / NIA 1.06% / NEA 3.47%
Group (2): NIM 3.72% / NIA 1.10% / NEA 3.19%
Group (3): NIM 3.80% / NIA 1.26% / NEA 3.03%
Group (4): NIM 3.19% / NIA 1.82% / NEA 2.82%

All of the groups have seen a loss of NIM, which is no surprise given the low level to which interest rates have fallen, how flat the yield curve has been, and how long these pressures have been maintained. The margin pressure has hit the smaller banks, who are more reliant on NIM, harder.

All groups have also seen reductions in NIA. This has affected the larger banks, for which it has been more important, to a greater degree.

But, the largest banks have been able to control/reduce expenses to a greater extent than the other groups, as indicated by their drop in NEA. This, together with the relatively smaller reduction in NIM, has been a key element in the maintenance of their ROE advantage.

Another trend that indicates the relative efficiency of the larger banks is the continued widening of the gap in the amount of assets that are supported by each employee. The measure is referred to as Average Assets per Employee (AAE) in the FDIC statistics, and is expressed in millions of dollars. Here is the comparison among the four groups, from the end of 1990 to the end of 2015:

	1990	2015	Change
Group (1):	**$1.8**	**$3.7**	**2.1x**
Group (2):	**$2.2**	**$4.3**	**2.0x**
Group (3):	**$2.6**	**$5.8**	**2.2x**
Group (4):	**$2.9**	**$9.0**	**3.1x**

As is clear, the larger the banks in the group, the more assets they have supported with each employee, and the gap between each group has grown larger over time. This is another indicator that larger banks may be able to continue to control noninterest expenses to a greater degree than smaller banks in the future.

In what appears to be a classic Darwinian environment, the trends over the past 25years have favored banks of size. The last five years have continued the advantage, and have also shown the ability of larger banks to adapt. This would lead us to conclude that the consolidation of the banking industry is going to continue.

What Happens Next?

The rate of bank consolidation has averaged 3.5% per year over the last 25years. The rate was faster in the early 1990's when the after-effects of the banking crisis of the late 1980's were still being felt, and slower from 1996 until 2010. During this latter period the rate of consolidation was offset to some degree due to a period of aggressive new bank formation. According to data from SNL Financial there were 1,647 new banks formed between 1995 and 2011. Since the beginning of 2011 there have been two new banks formed, and the rate of consolidation has again averaged more than 4% per year.

Will this be maintained?

If all smaller banks exhibit the relationships described above, it would seem likely that the trend will continue. However, these statistics are based on averages, and to the extent the banks that have more trouble adapting are the first to go, that will leave stronger performers behind. These better- performing banks will be better positioned to compete and determine their own destinies.

—-James Brown
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