

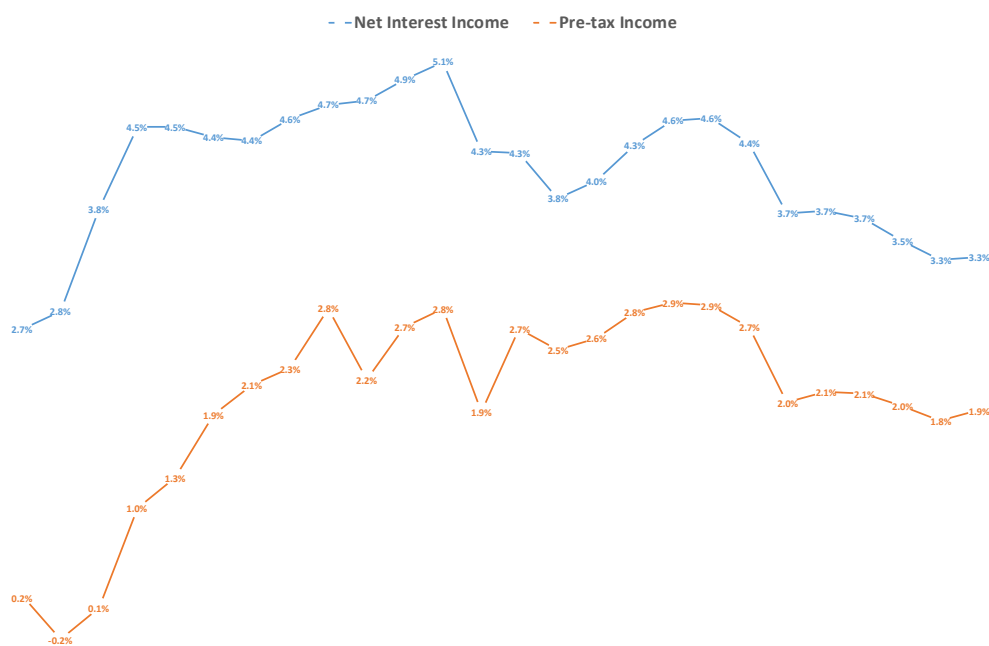
# SINGULAR DILIGENCE



Frost (NYSE:CFR)

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Stock Price: \$61.77



	Price/Earning Assets	Price/Deposits	Price/EBT	Price/Owner Earnings
International Bancshares	0.16	0.20	7.71	7.57
Texas Capital	0.16	0.20	13.14	14.09
Southside Bancshares	0.17	0.21	21.49	12.98
Prosperity Bancshares	0.20	0.22	8.75	7.92
First Financial	0.39	0.46	16.06	13.01
Minimum	0.16	0.20	7.71	7.57
Maximum	0.39	0.46	21.49	14.09
Median	0.17	0.21	13.14	12.98
Mean	0.22	0.26	13.43	11.11
STDEV	0.10	0.11	5.62	3.11
CV	45%	43%	42%	28%
Frost	0.15	0.16	8.41	5.53

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Minimum	Maximum	Median	Mean	Standard Variation		
Net Interest Income	82	81	101	119	135	137	147	173	229	260	289	313	281	296	308	335	389	465	520	517	512	573	615	658	690	792	74	792	296	337	211	63%	
Net Non interest Expense	75	86	98	92	96	79	75	86	91	140	133	138	156	111	111	120	137	170	194	199	239	254	268	286	309	335	68	335	133	153	79	52%	
Pre-tax Income	6	5	3	27	39	58	72	87	139	121	156	175	125	185	198	215	252	295	325	317	274	319	347	372	381	457	5	457	175	183	136	74%	
Short-term Investments	510	283	198	196	256	109	117	139	228	127	84	138	260	259	834	570	527	723	587	227	888	1,994	2,514	1,614	2,867	4,209	84	4,209	283	781	1,010	129%	
Securities	1,153	1,276	1,335	1,417	1,583	1,671	1,557	1,554	1,727	1,930	1,839	1,657	1,758	2,165	2,679	2,959	2,847	2,956	3,288	3,327	4,263	5,214	6,213	8,944	8,895	9,370	761	9,370	1,930	3,124	2,482	79%	
Loans	1,407	1,315	1,149	1,025	1,158	1,332	1,683	2,087	2,917	3,438	3,934	4,353	4,547	4,537	4,497	4,823	5,594	6,524	7,464	8,314	8,653	8,125	8,043	8,457	9,230	10,299	1,025	10,299	4,497	4,684	2,993	64%	
Total Earning Assets	3,071	2,873	2,681	2,637	2,997	3,111	3,357	3,780	4,872	5,495	5,858	6,148	6,565	6,961	8,011	8,352	8,969	10,203	11,340	11,868	13,804	15,333	16,769	19,016	20,991	23,877	2,637	23,877	6,565	8,588	6,133	71%	
Non interest bearing Deposits	542	576	599	666	816	837	865	1,076	1,380	1,627	1,792	1,897	2,187	2,540	3,038	2,915	3,009	3,334	3,524	3,615	4,258	5,024	5,739	7,022	7,658	9,125	498	9,125	2,187	2,821	2,350	83%	
Interest bearing Deposits	2,320	2,291	2,158	2,045	2,267	2,284	2,428	2,825	3,488	3,828	4,057	4,154	4,365	4,354	4,540	4,852	5,124	5,850	6,689	6,916	8,161	9,024	9,484	10,270	11,610	12,928	2,045	12,928	4,354	5,203	3,153	61%	
Total Deposits	2,863	2,868	2,758	2,711	3,084	3,121	3,293	3,901	4,869	5,454	5,849	6,052	6,551	6,894	7,577	7,767	8,133	9,184	10,213	10,531	12,420	14,048	15,223	17,292	19,268	22,053	2,677	22,053	6,551	8,024	5,489	68%	
Equity	179	173	176	206	274	295	341	379	463	513	509	573	595	704	770	822	982	1,377	1,477	1,764	1,894	2,062	2,284	2,417	2,514	2,851	173	2,851	595	992	849	86%	
Return on Earning Assets																																	
Net Interest Income	2.66%	2.82%	3.75%	4.50%	4.50%	4.40%	4.37%	4.57%	4.70%	4.74%	4.93%	5.09%	4.28%	4.26%	3.85%	4.01%	4.33%	4.56%	4.58%	4.35%	3.71%	3.74%	3.67%	3.46%	3.29%	3.32%	2.53%	5.09%	4.28%	4.04%	0.69%	0.17	
Net Non interest Expense	2.45%	2.99%	3.64%	3.48%	3.20%	2.53%	2.23%	2.28%	1.86%	2.54%	2.26%	2.25%	2.38%	1.60%	1.38%	1.44%	1.52%	1.66%	1.71%	1.68%	1.73%	1.65%	1.60%	1.51%	1.47%	1.40%	1.38%	3.64%	1.86%	2.10%	0.65%	0.31	
Pre-tax Income	0.21%	0.18%	0.11%	1.02%	1.30%	1.87%	2.15%	2.29%	2.84%	2.19%	2.67%	2.84%	1.90%	2.66%	2.47%	2.57%	2.81%	2.90%	2.87%	2.67%	1.98%	2.08%	2.07%	1.96%	1.82%	1.91%	0.18%	2.90%	2.08%	1.93%	0.91%	0.47	
Leverage																																	
Earnings Assets/Equity	17.12	16.57	15.22	12.79	10.96	10.53	9.83	9.97	10.53	10.71	11.50	10.73	11.03	9.89	10.40	10.16	9.13	7.41	7.68	6.73	7.29	7.44	7.34	7.87	8.35	8.37	6.73	17.12	10.16	10.46	2.98	28%	
RETURNS																																	
Return on Equity	4%	-3%	2%	13%	14%	20%	21%	23%	30%	24%	31%	30%	21%	26%	26%	26%	26%	26%	21%	22%	18%	14%	15%	15%	15%	16%	-3%	31%	20%	18%	9%	0.49	
GROWTH																																	
Net Interest Income	10%	-1%	24%	18%	14%	2%	7%	18%	33%	14%	11%	8%	-10%	6%	4%	8%	16%	20%	12%	-1%	-1%	12%	7%	7%	5%	15%	-10%	33%	9%	10%	9%	0.90	
Net Non interest Expense	10%	14%	14%	-6%	5%	-18%	5%	15%	5%	54%	-5%	4%	13%	-29%	-1%	8%	14%	24%	15%	3%	20%	6%	6%	7%	8%	8%	-29%	54%	7%	7%	15%	2.03	
Pre-tax Income	1%	-17%	-15%	805%	45%	50%	24%	20%	60%	-13%	30%	12%	-29%	48%	7%	9%	17%	17%	10%	-2%	-14%	17%	9%	7%	3%	20%	-179%	805%	11%	31%	167%	5.33	
Federal Funds	-18%	-45%	30%	-1%	31%	-57%	8%	18%	64%	44%	-34%	63%	89%	0%	222%	-32%	8%	37%	19%	-61%	291%	124%	26%	-36%	78%	47%	-61%	291%	4%	27%	83%	3.03	
Securities	52%	11%	5%	6%	12%	6%	-7%	0%	11%	12%	-5%	-10%	6%	23%	24%	10%	4%	4%	11%	1%	28%	22%	19%	44%	-1%	5%	-10%	52%	8%	11%	15%	1.33	
Loans	-10%	-7%	13%	-11%	13%	15%	26%	24%	40%	18%	14%	11%	4%	0%	-1%	7%	16%	17%	14%	11%	4%	-6%	-1%	5%	9%	12%	-13%	40%	10%	8%	12%	1.51	
Total Earning Assets	4%	-6%	-7%	-2%	14%	4%	8%	13%	29%	13%	7%	5%	7%	6%	15%	4%	7%	14%	11%	5%	16%	11%	9%	13%	10%	14%	-7%	29%	9%	9%	7%	0.85	
Non interest bearing Deposits	9%	6%	4%	11%	23%	2%	3%	24%	28%	18%	10%	6%	15%	16%	20%	4%	3%	11%	6%	3%	18%	18%	14%	22%	9%	19%	-4%	28%	11%	12%	8%	0.67	
Interest bearing Deposits	6%	-1%	-6%	-5%	11%	1%	6%	16%	23%	10%	6%	2%	5%	0%	4%	7%	6%	14%	14%	3%	18%	11%	5%	8%	13%	11%	-6%	23%	6%	7%	7%	0.95	
Total Deposits	7%	0%	-4%	-2%	14%	1%	6%	18%	25%	12%	7%	3%	8%	5%	10%	2%	5%	13%	11%	3%	18%	13%	8%	14%	11%	14%	-4%	25%	8%	9%	7%	0.77	
Equity	2%	-3%	2%	17%	33%	8%	16%	11%	22%	11%	-1%	13%	4%	18%	9%	7%	19%	40%	7%	19%	7%	9%	11%	6%	4%	13%	-3%	40%	10%	12%	10%	0.83	

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# SINGULAR DILIGENCE

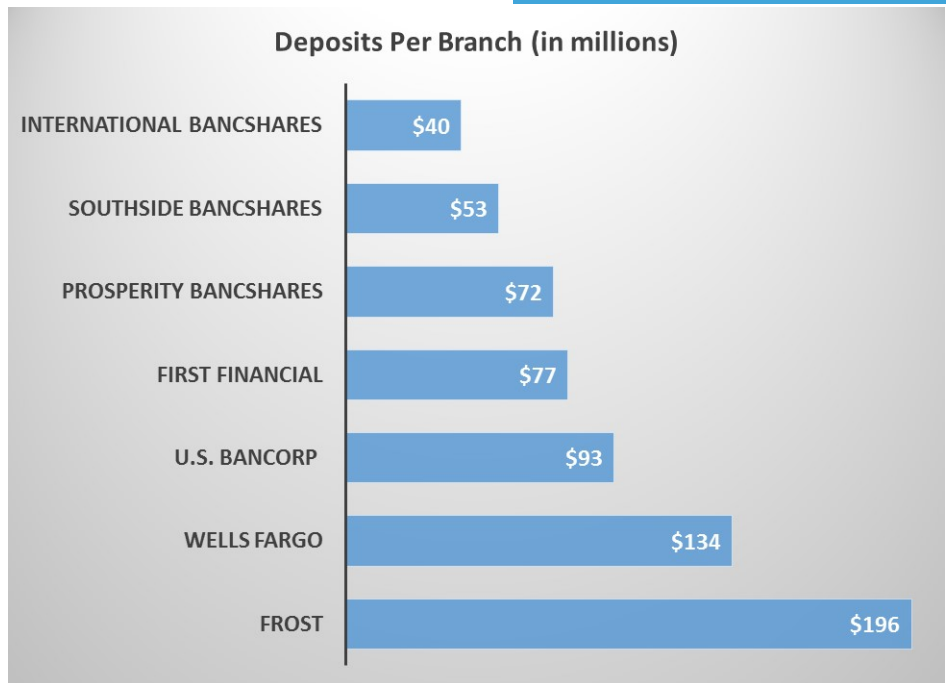
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Frost (NYSE: CFR) is the Best Bank in the U.S. at Gathering Low Cost Deposits

## OVERVIEW

Frost was founded in 1868 by Thomas Claiborne Frost. Thomas Claiborne Frost had served on the Confederate side in the U.S. Civil War during the first part of the 1860s. This service made it illegal for him to return to his career as a lawyer after the war. So, he started a bank instead. Members of the Frost family ran Frost Bank for the next 4 generations. By the 1980s, Frost was one of the biggest banks in Texas.

The 1980s oil boom and bust was the most violent economic environment Texas banks ever experienced. In the early 1980s, banks in Texas made loans backed by raw land. They helped financed the building of new offices, malls, and resorts. Energy was a much bigger percentage of the overall Texan economy than it is today. The price of oil peaked – in nominal dollars – at \$35 per barrel during 1980. By 1986, it had fallen from \$27 to \$10. This is the equivalent of a decline in today’s dollars from \$58 a barrel to \$22 a barrel. Banks – like Frost – that were big lenders to the energy industry were hit first with problem loans. Then the real estate market collapsed. So, banks with large portfolios of real estate loans failed next. In 1988, 100 of Texas’s 1,400 banks failed. Frost is the only one of the top 10 biggest Texas based banks that existed as an independent entity at the time of the Texas oil bust and still exists as an independent entity today. The other 9 biggest Texas based banks of the 1980s all either merged with a larger bank from outside the state or failed.



*Frost has 46% more deposits per branch than Wells Fargo*

Frost lost \$6.5 million in 1986. The bank did not make meaningful earnings again till 1993. So, the entire period from 1986-1993 was focused on survival instead of growth. This 8 year period is the worst run in Frost’s history. However, Frost did survive when other Texas banks failed. Frost is a relationship based bank rather than a transaction based bank. The company makes far fewer loans relative to its deposits than other banks. In the 1980s, Frost’s CEO was Tom Frost. He once said: “I was taught that just because you got deposits, it didn’t mean you had to lend the money.” So, Frost has historically had a larger and more stable base of customer deposits funding its loans than most banks. This extreme liquidity is the most likely explanation for Frost’s survival. Other Texas banks had fewer despots relative to loans. They were less liquid, more leveraged, and had higher interest costs than Frost. In 1991 – which was in the midst of the Texas oil bust – Frost had only \$1.1 billion in loans. That was 39% of total deposits. Frost never uses meaningful amounts of any liabilities other than customer deposits. It also tends to have so much higher deposits than loans that its balance sheet is about 100% funded on the liability side

by customer deposits and 50% loans and 50% securities on the asset side. This is a very liquid and safe matching off of deposits and assets compared to most banks.

From the 1860s to today, Frost has had a total of 5 CEOs. The first 4 CEOs were Frost family members. Then Dick Evans became the first non-Frost CEO in the bank's history. He became Chairman of the Board and Chief Banking Officer (implying he would soon be made CEO) in 1993. The Chief Operating Officer title was added in 1995. Dick Evans was finally made the CEO in 1997. By that time, Frost had been led for about 130 years by 4 members of the Frost family. Dick Evans had been with Frost for 26 years before becoming CEO.

Frost has a conservative lending culture. As mentioned earlier, in 1991 – during the Texas oil bust – Frost's loans were just 39% of deposits. This was not a one off event. As you will see throughout this report – and especially in the data sheet that begins this issue – Frost often has far more deposits than loans. This provides the bank with a lot of liquidity. Frost's customer retention rate is 91%. So, it can generally count on having as much or more money in deposits on hand next year than it has this year. With a lot of money in securities that can be sold – the bank has a stable source of funding on the liability side and a mix of marketable securities and non-marketable (but mostly less than 5-year long) loans on the asset side. Compared to other banks, Frost is very liquid. As will be explained in detail over and over again later in this issue, Frost also has much lower costs than other banks. This high liquidity and low cost comes from the same place. Frost gathers far more deposits than other banks. It now has over \$190 million in deposits per branch. Close to \$120 million of these deposits per branch are either non-interest bearing or very low – a small fraction of the Fed Funds Rate – interest bearing deposits. These are customer deposits where the customer – a Texas small or midsize business or a

Texas household – does not really expect to earn interest on the account. No other banks in the U.S. have anywhere near the level of non-interest bearing deposits per branch that Frost has. Among huge U.S. bank, the closest comparison would be Wells Fargo. However, Frost has higher deposits per branch, more non-interest bearing deposits, and makes fewer loans relative to deposits than even Wells Fargo does.

The combination of good non-interest deposit growth per branch and a conservative lending culture, has made Frost a very safe bank since Texas emerged from its early 1990s oil bust recession. During the 2008 financial crisis – which was less severe in Texas than in other parts of the U.S. – Frost turned down TARP money. Frost had already exited all mortgage lending in 2000. Mortgage lending had become commoditized. Customers of Frost can get mortgages. But, they have to use a partner of Frost's that simply offers loans to these customers to keep them from leaving Frost. Frost does not take any part in mortgage loans to Frost Bank customers. And it is clearly marked on Frost's website – and elsewhere – that this mortgage lending is being done by a third party. Frost never owned securities that were subprime. Charge-offs were low throughout The Great Recession. In 2009, Frost charged off 0.58% of total loans. In 2010, it charged-off 0.52% of total loans. In 2011, it charged-off 0.54% of total loans. Losses at many U.S. banks were 5 times higher during the crisis.

Frost has created a lot of intrinsic value since the 2008 financial panic. The stock market has not realized this because Frost has made very little on its loans and securities due to the Fed Funds Rate being near zero. In 2008, Frost had \$10.5 billion in deposits. Today, Frost has \$24 billion in deposits. Frost's value comes entirely from its non-interest and very low interest bearing deposits. So, the intrinsic value of Frost as a buy and hold forever stock more than doubled from 2008 to today. The stock did not double, because reported EPS barely budged due to the yield on loans and securities being the lowest in history. When the Fed Funds Rate eventually increases from about 0% to 3% or higher – as all members of the Fed expect it will by about 2018 – Frost's reported earnings will double. When Frost's reported EPS doubles, its stock price will double. At that time – when the Fed Funds Rate has been 3% or higher for a year or more – investors will think Frost has become twice as valuable. That is false. Frost more than doubled its intrinsic value from 2008 to 2015, when it more than doubled its free and almost free deposits. A Fed Funds Rate near zero disguised this fact for about 7 years. Frost's value was hidden for the last 7 years. But, Frost's value will be obvious over the next 7 years. Frost is the clearest and best investment idea we have had since starting Singular Diligence in 2013. That fact is not obvious as I write this in 2015 with a Fed Funds rate near zero. It will be obvious in hindsight (in say 2019) with a Fed Funds rate near 3%.

## **DURABILITY**

### *Frost's Durability Depends on its Conservative Lending Culture*

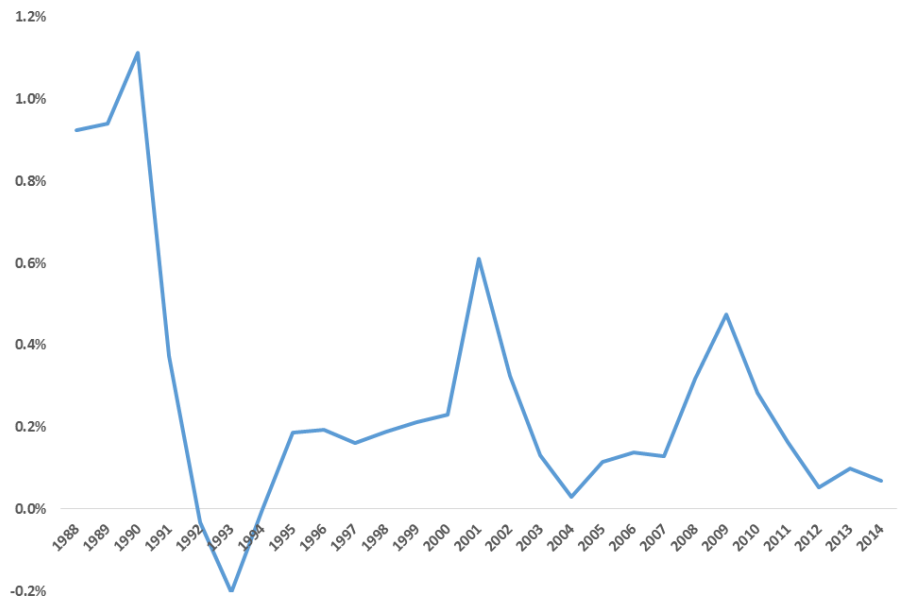
Frost is a durable bank. It will experience some very large paper losses when interest rates rise. However, these losses will not threaten the bank's solvency. As a smaller bank, Frost is exempt from having to treat its other than temporary losses on securities as a capitalization problem that needs to be addressed by raising additional equity. This is important. Frost's securities portfolio is about half the bank's balance sheet. In the next few years, the Fed Funds Rate will likely rise from close to zero percent to about 3 percent. When that happens, the value of bonds will have to decline to provide higher yields. This will cause large losses in the bond portfolios of insurers, banks, and other institutions in the U.S. Frost will have these same losses. But, Frost will not be required to raise additional capital to fill the hole left by these losses. A few years after interest rates rise, Frost will be making much

higher earnings than it does today. Frost will earn itself out of any losses it has. In addition, Frost can hold securities until they mature. Frost's bond portfolio has a shorter duration than the portfolio of some other banks.

Frost has a lot of energy exposure. Energy is 11% of Texas's total economy. Frost only does business in Texas. So you'd expect energy to be at least 11% of Frost's loan portfolio. Energy is actually 16% of Frost's total loan portfolio. About 12% of all loans are in oil production. The other roughly 4% of total loans are in oil services. A small amount is also in the transportation and manufacturing of oil and oil related products.

As a Texas commercial bank, Frost has long been a lender to energy companies. Frost is a conservative lender in general and in energy loans in particular. Frost uses a "price deck" of \$50 a barrel for West Texas Intermediate (WTI) crude oil for 2015 and projects \$70 a barrel by 2019. Frost then uses this price deck to decide how much to lend. For Frost, an energy business's borrowing base is usually two-thirds of the discounted cash flow (DCF) that would result from applying the price deck to that business's operations. So, in 2015, an energy business borrowing from Frost would determine what the discounted value of its future cash flows would be at \$50 a barrel in 2015 rising gradually to \$70 a barrel by 2019 and staying at \$70 a barrel forever and then multiply that number by 0.65. That would give a rough guide as to the amount Frost would allow that business to borrow. When Frost said it was using a \$50 price deck for 2015, oil prices were actually a bit higher than that. It is possible Frost will change this price level as oil prices change. Although the price of oil is now lower than Frost's short-term and medium-term estimates for use in lending, the actual price received by Frost's customers is often still above the spot market price of oil. This is because some of Frost's borrowers are oil producers who have

Frost's Provision for Loan Losses: 1988-2014



*Like other Texas banks, Frost's loan losses in the 1980s oil bust were much worse than its losses over the next two recessions*

locked in higher prices for their output for some time. For example, in 2015, about 41% of Frost's energy borrowers are hedged at an average price of \$89.50 a barrel. For 2016, about 15% of Frost's borrowers are hedged at \$87.25 a barrel. Despite these hedges, Frost applies a two-thirds of DCF based on the bank's price deck which is around \$50 a barrel right now. At the time Frost established its \$50 a barrel price deck for 2015, the market price of oil was about \$52 a barrel. So, Frost simply used a price very close to the then market price.

As a commercial lender focused on Texas, Frost can have a close relationship with its depositors and its lenders. To check the impact of the oil price crash, Frost talked to 90% of its energy industry borrowers. The check they performed with these customers used a stress test of \$37 a barrel oil in 2015 and less than \$50 a barrel oil through all of 2018. Frost found that 7% of its energy loans were exposed to such stressful conditions. However, Frost says that when the borrower's financial capacity – rather than just their ongoing cash flow from oil operations – is considered the actual exposure would be 1% of energy loans. This is because some borrowers who would suffer the most from an oil price between \$37 and \$50 a barrel for the next 3 years actually have cash, access to credit, and assets not involved in oil production.

As a Texas bank, Frost's deposit base is also exposed to energy. For example, Frost acquired a bank that gave the company a meaningful position in the Midland and Odessa market. Frost now gets 6% of all deposits from Midland and Odessa. This is the Permian Basin. It accounts for 57% of all oil produced in Texas. The area has become a boom town in recent years. It can certainly become a bust town if oil were to stay in something like the \$20 to \$40 a barrel range for many years. Recently, oil has been around \$40 a barrel. The ongoing cash costs of Texas oil production is generally pretty low compared to oil production elsewhere in the U.S. At around \$40 a barrel, you can expect fewer wells to be drilled in Texas. However, you may not see as big a shutdown of wells already in operation as you might expect from such a drastic collapse in the price of oil. Regardless of how far the price of oil falls, Texas will not experience anything like the late 1980s through early

1990s recession. Texas is now a diversified economy. It depends far less on energy than it did in the past. Also, the period from the late 1980s to the early 1990s coincided with both a national recession and savings and loan crisis. Texas businesses and households not directly tied to the energy industry will do much better this time around.

Frost has a lot of securities because it has a lot more deposits than it can lend. The bank's management is not overly optimistic about these securities. They simply buy them because they have cash and don't want to keep all of their billions at the Fed earning close to zero percent. Frost buys more (Texas) municipal bonds than other banks tend to. Frost likes municipal bonds because the Fed does not intervene in the municipal bond market in the way it does in Treasuries and mortgage backed securities. The credit quality of Frost's bond portfolio is impeccable. This has often been the case. Frost never bought subprime mortgage backed bonds.

To discuss interest rate risk – which again, is by far the biggest risk insurers, banks, and other U.S. financial institutions will face in the years ahead – we will use the term “duration”. You can think of duration in two ways. One, duration is the number of years it will take to recoup the cost of a bond. Two, duration is the sensitivity – in percentage points – of the bond to a change in interest rates. A 1% change in interest rates can be thought to harm or benefit a bondholder in the form 0.01 times duration equals “paper loss” for the holder. So, a 1% increase in interest rates for a portfolio with an average duration of 5 would be expected to cause a 5% loss in the market value of that bond portfolio.

Frost had historically kept its bond portfolio duration as low as 3 years. Recently, it increased to 4.67. This is an ongoing trend. From 2008 through 2015, the duration of Frost's bond portfolio has continually increased. The bank keeps \$3 billion at the Fed. But, it continues to see deposits grow quickly.

It can't grow loans faster than deposits in a business environment that isn't rapidly leveraging up. Therefore, Frost has had to buy more and more municipal bonds even while the Fed keeps interest rates near zero. So, at the moment, a 3% increase in the Fed Funds Rate (from about 0% to about 3%) would be expected to cause about a 15% decline in Frost's bond portfolio. This is because Frost's duration is a little under 5 and 0.03 times 5 equals 0.15 which is 15%. The expected loss caused by the Fed going from today's low interest rates to a normal interest rate environment would be about \$1.6 billion for Frost. The actual calculation is complicated by several factors. Deposits keep coming in and Frost keeps buying bonds. However, as rates rise these bonds will be bought at different prices than today. Also, as rates rise, the growth of deposits – and especially the growth of deposits relative to the growth of loans – will probably slow.

Frost has the liquidity to handle any mark-to-market losses in its bond portfolio. The bank will stay solvent. Right now, the expected loss in the bond portfolio is about \$1.6 billion. Frost has \$3.7 billion in what are essentially cash deposits (mostly money kept at the Fed) and the bank has been getting \$2 billion to \$3 billion a year in new customer deposits. A \$1.6 billion loss in the bond portfolio – even if it was almost instantaneous, which it won't be – is not a problem for a strict solvency point of view. The only possible problem would be regulatory. A bank like Frost does not need a lot of tangible equity to absorb losses because it has a lot (about 95%) of its assets funded using customer deposits as its liabilities. Frost funds almost all of its balance sheet with customer deposits and close to 60% of its balance sheet with what are essentially free or almost free deposits that pay anywhere from zero percent to a small fraction of the Fed Funds Rate. This money works like an insurer's float. Other banks don't operate this way. The U.S. banking system as a whole gets closer to 50% of its total liabilities from customer deposits while Frost gets 95%. Also, the deposits used by other banks tend to pay higher interest rates. So, Frost's funding is more stable and lower cost than that of banks generally. Overall, Frost probably has the best combination of high stability and low cost deposits of any U.S. bank. The deposits base is split between business customers and households (consumers). So it is diversified. And the Texas economy is both faster growing and less leveraged than the economy of the U.S. generally. Frost is a very liquid bank. It will not have any solvency problems.

But, Frost will need to rely on an exemption under Basel 3 to the requirement that unrealized gains and losses be included in accumulated other comprehensive income. Banks with less than \$250 billion in assets are allowed to ignore this requirement under Basel 3. Frost has far less than \$250 billion in assets. In the company's 10-K reports filed with the SEC, it has consistently said it will use this exemption and not include unrealized losses in its accumulated other comprehensive income. This will keep those losses from triggering capitalization problems. Again, this is purely an accounting issue. Frost will be perfectly solvent whether or not it includes the up to \$1.6 billion in unrealized losses we expect in the bond portfolio. The price of these bonds in the market will decline by \$1.6 billion. But, this will not change the amount of cash Frost has on hand or its need to pay out cash to anyone when the decline occurs. More importantly, once interest rates rise – which is what will cause the big unrealized loss in the bond portfolio – Frost's extreme sensitivity to higher interest rates will cause it to earn more and more in cash each year. This will improve the company's financial position as well as its reported earnings per share.

## **MOAT**

*Frost Has Some of the Lowest Funding Costs of Any U.S. Bank*



Frost's moat comes from its low cost deposits. About 62% of Frost's deposits are free or almost free. This does not seem like much of an advantage now because the Fed Funds Rate is near zero. However, in the future – as in the years prior to 2008 – other banks will have to pay much higher interest rates on their deposits and other liabilities than Frost does. Frost gets 42% of its deposits from non-interest bearing accounts. These are free deposits. The bank gets another 20% from savings and interest checking accounts. These are very low cost deposits. Other banks generally get 30% or less of their deposits from non-interest bearing accounts. Very few banks get anywhere near 42% of deposits from non-interest bearing accounts and 62% of deposits from non-interest bearing and very low interest bearing accounts.

Competition is intense for new business. However, competition is limited for existing business. Frost's customer retention rate is 91% on the deposit side. This is as high as just about any bank in the industry. On the lending side, about 84% of Frost's loans are "relationship based" lending. Many commercial borrowers use Frost as their lender because they already use the bank as the place where they deposit their general operating funds. Four banks hold 52% of all deposits in Texas: Bank of America, Wells Fargo, JP Morgan Chase, and BBVA. Frost is the fifth largest bank in Texas. Frost's market share is highest in its historical hometown market of San Antonio. Frost gets 33% of its total deposits from San Antonio. Frost is the leading deposit gatherer in San Antonio with 27% of all deposits in that city. Frost has very low market share in other cities in Texas. The bank gets 25% of deposits from Dallas where it has just a 3% share of deposits. It gets 17% of deposits from Houston where it has just a 2% share of total deposits. The Midland / Odessa banking market is small. Frost is the leader there with a 15% share of deposits. The largest

sources of Frost's deposits are 1) San Antonio, 2) Dallas, 3) Houston, 4) Austin, 5) Midland / Odessa.

A bank's cost position can be broken down into two parts. One is the funding cost or interest cost. This is interest expense / earning assets. The other is operating cost. This is the result of first subtracting non-interest income from non-interest expense and then dividing that resulting number by earning assets. Frost has low overall costs. But, the bank's funding cost is especially low. Frost gets about half of deposits from consumers and about half of deposits from commercial customers. Commercial customers who deposit with Frost are usually the same or similar customers who borrow from Frost. We can look at the bank's C&I (commercial and industrial) loan portfolio to get an idea of who these customers are. About 53% of Frost's total loans are C&I loans. These borrowers are generally small to medium sized Texas businesses. They tend to have sales of \$10 million to \$100 million a year. Frost's share of this market is probably a little under 15% of all small and mid sized business lending in Texas. It is skewed to the San Antonio market. So, Frost's share of all small and mid sized commercial lending is much higher than 15% in San Antonio and then probably fairly low in big cities like Dallas, Houston, and Austin. It is probably especially low – as is Frost's share of total deposits – in the big business cities of Dallas and Houston.

Before making loans to businesses, Frost usually tries to get a core banking relationship. This core banking relationship includes the small to mid size Texas business's primary deposit account, its credit facility, and 3-4 consumer accounts associated with officers and other key people in the firm. Frost's C&I loans are relationship based loans – they are not transactional at all. This can be seen in the level of C&I loans compared to the level of C&I deposits. Generally, C&I loans might exceed C&I deposits by only about 10%. In this sense, Frost is taking deposits and making loans to C&I customers without relying on deposits from other parts of their customer base – like households. This is not true of commercial real estate loans. Frost's commercial real estate loans are only about 40% backed by deposits from commercial real estate depositors. So, about 60% of the lending for commercial real estate is being taken from deposits unrelated to these kinds of customers. Frost focuses on owner occupied commercial real estate. So, these are business customers that want a mortgage on the property they occupy.

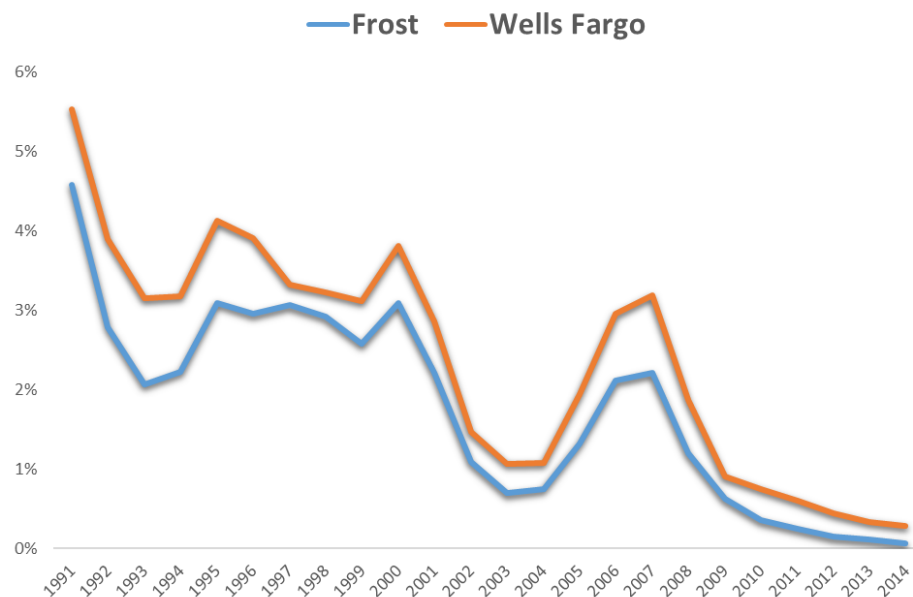
Frost gets about 42% of deposits from totally free non-interest bearing accounts. Another 20% comes from "almost free" accounts. In 2007, saving and interest checking accounts at Frost paid 0.47% a year. When we say that 62% of deposits are "almost free" we really mean it. Interest rates were not low in 2007. Most banks paid a good deal for their deposits. Frost's total cost for those 62% of deposits we consider "free and almost free" was 0.15%. You can check Frost against any U.S. bank you can find of any size. The result will likely be the same. Frost has more free and almost free deposits than any comparison you can come up with. Some big banks have a lot of free and almost free deposits. Wells Fargo is the closest comparison to Frost in this respect. But, its funding cost is still significantly higher than Frost's. For example, we estimate that Frost's funding advantage over banks like Wells Fargo and U.S. Bancorp is about 0.6%. So, Wells and U.S. Bancorp would have to charge a 0.6% higher rate on their loans while having the same charge-offs on those loans to make as much per dollar of deposits as Frost on a net interest basis. Wells is good at making higher interest loans than Frost. And Wells has very low operating costs when you net non-interest expense against non-interest income. However, Frost's deposit base is cheaper and more stable than any other U.S. bank including Wells Fargo.

Frost markets to new deposit customers using two selling points: 1) We're a Texas based bank 2) We offer better customer service than other banks. Both of these

arguments are true. Frost is Texas based. All other banks as big or bigger than Frost are not Texas based. Two, Frost does offer better customer service than just about any U.S. bank. On all points of comparison, Frost outperforms other banks in terms of lower fees and higher benefits. Frost allows larger deposits via mobile phones, it makes money available faster, it charges less for ATM fees, it has real people – in Texas – answer the phones instead of computerized directory assistance, etc. Frost has the second largest ATM network in Texas. There are actually more Frost ATMs in Texas than Wells Fargo ATMs even though Wells Fargo does more business in Texas. This is part of a new marketing push Frost has rolled out in the last few years. Since the financial crisis, Frost has increased the number of ATMs at places like gas station convenience stores as a form of advertising since the ATMs show the Frost logo and Frost has also spent more money on advertising than ever before. This explains a lot of their recent deposit growth. Frost is not good at cross selling. Frost doesn't make mortgage loans and it hasn't historically been as good in insurance, asset management, etc. as some other banks that are more consumer focused.

Frost has very high deposits per branch. Probably the highest of any traditional bank in the U.S. Though this is difficult to prove because there are some banks that have huge deposits from a few giant corporate customers and yet have very few physical branches. If we exclude those banks, it is likely Frost has more deposits per branch – and especially more free and almost free deposits per branch – than any bank in the U.S. You can see this by comparing Frost to some of the best banks in the U.S. at gathering deposits in each branch. The two best known banks at this important activity are probably Wells Fargo and Bank of Hawaii. Frost has more deposits per branch than either of them.

## Cost of Liabilities



*In every single year from 1991 through 2014, Frost had a lower cost of funding than Wells Fargo*

The average Dallas based bank has an operating cost of about 2%. Frost has an operating cost of 1.4%. Non-interest expense at the average Dallas bank is 3.53% of earning assets versus 2.74% at Frost. The interesting comparison is non-interest income (generally account fees of some type). The average Dallas based bank earns 1.56% in non-interest income as a percent of earning assets. Frost earns just 1.34% in non-interest income.

Frost's big advantage is its ability to get commercial and consumer depositors to place money in Frost branches and leave it there without expecting any interest in return. Customers do this because they have a relationship with Frost. They do it because Frost retains customers. And they do it because they prefer good service over higher interest that would require switching banks. Frost is also pretty good at having low expenses relative to these deposits. Frost is poor when it comes to earning enough in fees. Other banks are better at getting more fees per dollar of deposits. This is not a focus at Frost.

Some other Texas banks have lower operating costs than Frost. None have lower funding costs – because Frost has some of the lowest funding costs of any U.S. bank. Examples of Texas banks with lower operating costs than Frost include Prosperity Bancshares and International Bancshares. First Financial has the same operating costs as Frost (1.4% of earning assets). First Financial and Prosperity are both interesting banks. You may see one or both of those banks featured in a future issue of Singular Diligence. However, neither bank has as wide a moat as Frost. Frost has the cheapest deposit base. And because depositors tend to stick with the same bank and increase their deposits over time – having the lowest cost deposits is the most important aspect of banking. Frost has widened its moat by growing deposits per branch at a 4.7% annual rate from 1995 through 2014. Today, Frost has \$196 million in deposits per branch. Wells Fargo has \$134 million in deposits per branch. No other bank we mentioned in Texas has more than \$80 million in deposits per branch.



Having high deposits per branch – and especially high non-interest bearing deposits per branch – is the key to long-term success for an American bank. Economies of scale at the branch level are huge. They're pretty small above the branch level. And they become insignificant once a bank is much bigger than Frost. To give you some idea of the economies of scale in having higher deposits per branch, Frost's occupancy costs – basically rent – declined from 0.63% of earning assets in 1991 to 0.23% in 2014. A large part of the expense of any branch – and really any bank overall – is the combination of employee pay and rent. The best way to reduce employee compensation and rent as a percent of earning assets is simply to attract more customers per branch – and especially more business customers per branch – who will never switch to another bank. Frost is very good at this. Frost has both one of the highest levels of deposits per branch and one of the highest customer retention rates of any U.S. bank. It also has the lowest funding costs. So, Frost is able to keep its deposits longer than other banks do while paying less on the deposits those customers entrust to Frost. Frost depositors are actually more satisfied with less interest. This is the key to Frost's business model. It creates the very high level – almost \$125 million – of free and almost free deposits per branch that will make Frost more profitable than other banks in a normal interest rate environment. Frost's moat is its high level of satisfied depositors per branch.

## QUALITY

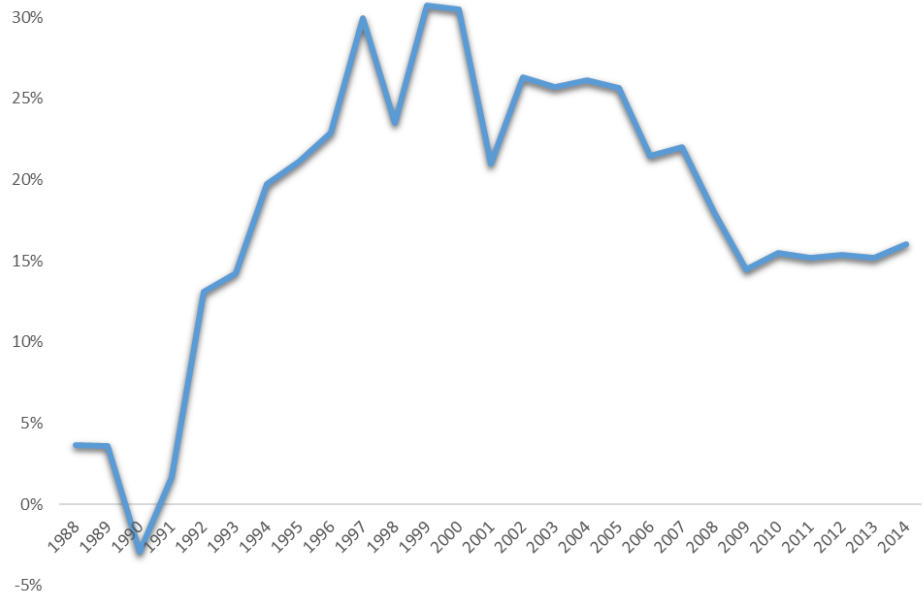
*All of Frost's Quality Comes from the 60% of its Deposits that Pay Little or No Interest*

Frost's profitability depends on cyclical factors. Frost earns money on the spread between its total cost of money – the bank's net operating costs and its funding costs – and the amount this same money can make on loans the bank makes or securities it purchases. Frost's ability to make enough loans is not critical to either the bank's survival or its ability to earn profits. However, a low Fed Funds Rate does not just affect the rates at which money can be loaned out. It affects the rates paid on securities like U.S. Treasury bonds, mortgage backed securities, and even the municipal bonds that Frost prefers to buy. This means that even though Frost's costs are as low as ever – in fact, Frost's costs are lower than they've ever been in the bank's history – profits are low, because revenue is low. For Frost, revenue is determined mostly by the rate paid (the yield) on a certain principal amount of loans or securities. Frost's job as a business is to gather as many dollars in deposits as possible at as low a cost as possible. This is effectively Frost's cost of production in the same way that an oil producer might have a \$35 cost of production per barrel, a miner might measure their costs in cents per pound of copper mined, etc. This is mostly an internal issue. Frost's costs – like that of a mine sitting atop a deposit that will not be exhausted for decades – is determined by the company's own existing assets rather than the market price. Some banks pay the market price for a lot of their money. Overall, the U.S. banking system only gets about half of its money directly from deposits left by customers of the bank. Other sources of money are preferred stock, senior debt, brokered (non-customer) deposits, etc. Frost doesn't use these. Over 95% of Frost's liabilities are customer deposits. And about 60% of the total liabilities on Frost's balance sheet are what we call "free and almost free" money. These are a combination of non-interest bearing customer accounts (usually checking accounts of households and small and midsized Texas businesses) that don't pay any interest at all and accounts (often savings accounts) that pay an extremely low rate of interest relative to what the same depositor could earn elsewhere. In 2007 – when interest rates were fairly high and some banks paid 3% or 4% for money they were getting elsewhere (not from their own customer deposits) – Frost paid a total of just 0.15% on average for these "free and almost free" deposits. This is where Frost's quality comes from. In a normal interest rate environment like 2007, Frost was able to fund 60% of its balance sheet with essentially "free" money that had a funding cost of about 0.15% in interest payments. Today, Frost's operating costs – its non-interest expense minus non-interest income divided by total earning assets – is just 1.4%. One way of thinking of this is that about 6 out of 10 dollars kept at Frost have a total economic cost of deposits for the bank of about 1.55% in a normal interest rate environment. The bank's overall costs are higher, because it gets 38% of its deposits from sources that pay meaningful amounts of interest. But all of the "quality" at Frost comes from the roughly 60% of deposits that cost close to nothing. This isn't obvious today. But, let me illustrate using the Fed's own projections. All members of the Fed project that by 2018 or so the Fed Funds Rate will reach 3%. Projections for a "normal" Fed Funds rate are about 3% to 4%. The Fed Funds Rate was at that level or higher back in 2007 and at many other points in history. Using Frost's deposit base as it exists today, we can say that about 60% of Frost's deposits would have a total cost – that is, both operating costs of running the branches and the bank and the actual interest paid to depositors – of about 1.55%. Frost may pay a little more on interest bearing deposits the higher the Fed Funds Rate is. Generally, there is a correlation between interest paid on customer deposits and the Fed Funds Rate. However, it is a fractional – not a "spread" – correlation. A conservative guess of what the 60% of "free and almost free" money Frost uses to fund its balance sheet with would cost when the Fed Funds Rate is between 3% and 4% would be 1.5% to 2%. That doesn't sound exactly "free" or even "almost free". But, let me explain. In a normal environment, over half of Frost's money has a total cost – including all non-interest costs – of only 1.5% to 2%. Meanwhile, money left at the Fed would earn more like 3% to 4%. In a normal interest rate environment, Frost can make

money on its lowest cost customer deposits simply by leaving that money with the Fed. For the 60% of Frost's balance sheet that is funded by what we call "free and almost free" accounts, Frost can make 1.5% to 2% returns on its assets without either having to lend that money or having to buy long-term bonds. The money is so cheap for Frost to obtain that it can be left in the lowest risk and highest liquidity place – with the Fed – and still earn a good return. The other 40% of Frost's balance sheet is supported by more common types of higher interest paying deposits. There is nothing wrong with this part of Frost's business. However, everything that makes Frost an extraordinarily good business versus other banks – and in a normal interest rate environment, Frost would be among the best banks in the U.S. – comes from the 6 out of 10 dollars worth of Frost's assets that are financed with money obtained at a small fraction of the Fed Fund's rate. In normal times, Frost may be able to get about 60% of its balance sheet funded at a cost equal to half the Fed Funds Rate. For example, in a 3% to 4% Fed Funds Rate environment – we'd expect Frost's "free and almost free" deposits to cost 1.5% to 2%.

Frost is more cyclical than other banks. Frost normally has a "premium" spread over other banks. We can define this as "Frost's Net Interest Margin minus Industry's Net Interest Margin". From 1996 to 2014, this net interest margin advantage over the industry ranged from a low of 0.09% to a high of 1.54%. The median is 0.72%. However, the variation in this figure is quite high. This is because Frost has a tiny advantage over other banks in low interest rate environments. It makes buckets of money in normal and high interest rate times. The best examples of bad relative years for Frost were 2003 and 2010-2014 when Frost had just a 0.25% net interest margin advantage over the industry. In the boom years of 2000 and 2007, Frost had a 1.5% net interest margin advantage over the industry.

**Frost's Pre-Tax Return on Equity: 1988-2014**



*Because Frost has lowered its operating costs, it should be able to earn a higher return on equity in future cycles than it did in the past*

Frost's loan losses are lower than other banks in all environments. This is only true over the last 22 years. Before that, Frost lost money in the 1980s and continued to have loan loss problems through 1992. However, if we take the post Texas bust period of 1996-2014, we can see that the industry has charged off an average of 0.59% of total loans each year while Frost has charged off just 0.23%. This means Frost has a 0.36% advantage even when lending money at the same rate. This was not factored into the net interest margin discussion above. So, Frost's actual profits from lending are higher relative to other banks than the net interest margin would make it appear.

Frost does not have low operating costs relative to the industry. However, Frost has continued to lower its operating costs year after year, while the U.S. banking industry as a whole has now failed to reduce operating costs any further over time. Frost's reduction in operating costs over time has been tremendous. This is most likely due to increasing deposits per branch at a rate of 4.7% a year for the last 20 years. This has a similar economic benefit to a retailer increasing same store sales 4.7% a year for two decades. It reduces all expenses as a percent of sales. Frost's operating costs – which is the result of subtracting non-interest income from non-interest expense and dividing by earning assets – declined from 3.64% in 1991 to 1.40% in 2014. This was clearly achieved on the expense side rather than the fee side. Here is a breakdown of Frost's (gross) non-interest expenses divided by earning assets: 5.77% (1991), 4.78% (1996), 4.87% (2001), 4.02% (2006), 3.33% (2011), and 2.74% (2014). So, Frost has reduced expenses by 3% of earning assets over the last 25 years. This makes the Frost of 2015 a completely different – and much more profitable – bank than the Frost of 1991.

The best way to assess a bank's "quality" and profitability is to use pre-tax return on earning assets. Earning assets are loans and securities that yield something in interest. This is the asset side of the bank. It is what produces revenue. It is funded by liabilities – which in Frost's case are basically all customer deposits. The spread of revenue from earning assets less the total economic cost of liabilities is a bank's

profitability. It must be cyclically adjusted for a normal interest rate environment to be a meaningful figure.

From 1993 to 2014, Frost's median return on earning assets was 2.24% pre-tax. Leverage was historically 10 times (meaning equity was only 10% of total assets). This works out to a pre-tax return on equity of about 22%. So, an after-tax ROE of 15% was normal for 1993 to 2014. However, operating costs have declined for years at Frost. This means pre-tax return on earning assets should be more like 2.65% in the future. At 10 times leverage, this would be just under a 27% pre-tax return on equity. So, a good future estimate of Frost's profitability in normal times is an 18% return on equity after tax.

With earnings that high, Frost could grow as fast as 9% a year. It only needs to retain half its earnings. The other 50% of earnings can be paid out in dividends. So, it is theoretically possible for Frost to grow 9% a year while earning an 18% return on equity and paying a dividend equal to half its EPS. In reality, Frost will likely grow at a somewhat slower rate. A good conservative estimate would be the nominal GDP growth of Texas (which will probably be 5% to 6% a year long-term). In recent years, Frost has grown its deposits much faster than the nominal GDP of Texas. However, doing so in the future would require Frost to continuously increase its market share. This is possible given Frost's unique positioning in the market as a Texas based bank focused on customer service. However, it is best not to count on continued market share gains when judging Frost as a buy and hold investment.

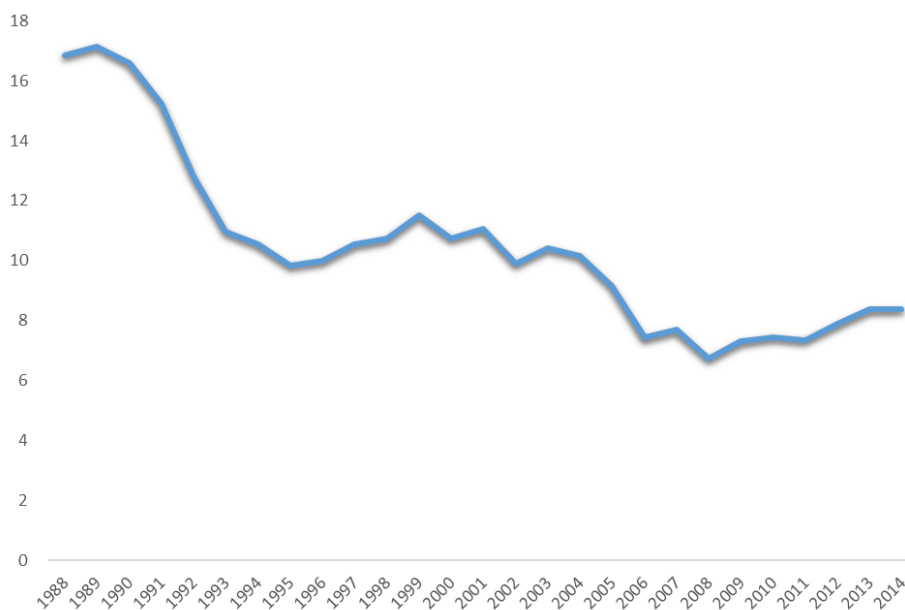
## CAPITAL ALLOCATION

*Frost Pays Out 50% of its Earnings in Dividends – And Buys Other Texas Banks Using its Own Stock*

In a normal interest rate environment, Frost can grow 7% to 9% a year without needing to retain more than about 50% of earnings. Higher growth requires a higher level of earnings retention. And

lower ROEs – mostly caused by abnormally low interest rates – can require higher levels of earnings retention. For example, Frost has earned about a 10% ROE in recent years while the bank should earn an 18% return on equity (or better) in normal years. Frost has grown deposits quickly during this low return on equity

Frost's "Leverage" (Earning Assets/Equity): 1988-2014



*Frost has lowered its leverage over the last 25 years by paying out just 50% of its earnings in dividends*

time period. This makes it harder for the bank to pay out as high a percentage of its earnings in dividends.

Frost generally has both lower yields and lower charge-offs on its loans than other banks. This could be because Frost is a more conservative lender. Or it could be because Frost is more focused on lending to businesses instead of households. Or it could be because Frost is a Texas bank and the Texas economy has often had lower debt and higher growth than the economies of other states. Wells Fargo's yield – defined as interest income divided by earning assets – is often about 1.07% higher than Frost's yield. U.S. Bancorp's yield averages a level 0.66% higher than Frost's yield. Even Texas banks tend to have higher yields than Frost. The average yield of all FDIC insured institutions in Dallas is 0.48% higher than Frost's. Even banks like Southside, Texas Capital, First Financial, Prosperity, and International Bancshares all have averaged higher yields than Frost in the past. Frost's charge-offs are generally as low or lower than most of these banks.

Here is what Frost's loan portfolio looks like. Frost doesn't make mortgage loans. Two-thirds of Frost's loans have variable rates. And 80% of Frost's loans have maturities of 5 years or less. Lending at variable rates, for shorter periods of time, to more cash generative borrowers (like businesses) can make a bank safer.

Frost generally maintains a roughly 50% dividend pay out ratio. The bank tends to have a 10 times leverage ratio. Frost sometimes acquires other Texas banks. Its track record in this area is mixed. The acquisitions have been good in all ways except price. Price is a problem for Frost. We can look at the price of banks Frost acquired in one of three ways. One, we can look at price divided by earning assets. This is the simplest approach. Frost trades at between 0.2 and 0.25 times earning

assets. Frost can earn closer to 3% pre-tax than 2.5% pre-tax on its own earning assets. So, prices at 0.3 times earning assets or higher might be overpaying. Prices at 0.2 times earning assets and lower would definitely be underpaying for the acquisition. And a price of 0.25 times earning assets might be in the roughly fair range.

But, that's misleading. The banks Frost acquires may not have the same leverage ratio as Frost. That's fine – different banks are run differently. But, once acquired by Frost they won't be run differently. They'll be run the same. They'll be part of an organization with one leverage ratio. So, banks that have higher leverage – lower equity relative to earning assets – when Frost acquires them actually have a higher effective price than banks that have the same leverage ratio as Frost. The same principle applies to banks with lower leverage ratios. If Frost pays 0.3 times earning assets for a bank with less leverage than Frost – the effective price is actually less than 0.3 times earning assets, because Frost can make additional loans without retaining additional earnings up to the point where leverage is at the same level it would normally be for Frost as a whole.

From 2002 through 2015, Frost made 5 acquisitions. In 2005, it paid 0.28 times earning assets for Horizon. In 2006, it paid 0.30 times earning assets for Texas Community Bancshares. In 2006, it paid 0.29 times earning assets for Alamo. Also, in 2006 it paid 0.35 times earning assets for Summit Bancshares. And, finally, in 2014 – it paid 0.12 times earning assets for WNB Bancshares. That's unadjusted. Let's look at leverage adjusted prices. Frost paid 0.17 times earning assets for WNB, it paid 0.29 times earning assets for Horizon, 0.31 times earning assets for both TCB and Alamo, and 0.38 times earning assets for Summit. At the time Frost made these purchases, it was earning about 2.8% pre-tax on its assets. So, prices of 0.29 and higher have pre-synergy multiples of 10 times EBIT or more. These are generally not cheap deals. The price paid for Summit

seems clearly too high. The price paid for WNB looks wonderfully cheap. The others are more complicated.

Frost tends to issue shares to make acquisitions. It also repurchases shares. But, what we need to look at here is how expensive the shares of the acquiring bank (Frost) were relative to the bank being acquired. This is key. Because only the relative values matter. The media reports these deals in dollar terms. But, deals done with shares are really being done in terms of the intrinsic value of those shares rather than the market value of those shares.

Frost's price to earning assets was usually the same or higher than the banks it acquired. This is generally a good sign. You never want to see the reverse. Frost was trading at 0.27 times earning assets when it bought Horizon at 0.28 times earning assets. Frost was trading at 0.34 times earning assets when it bought Summit for 0.35 times earning assets. And Frost was trading at 0.22 times earning assets when it acquired WNB for 0.12 times earning assets.

Frost will get much better returns from organic growth than from acquisitions. Frost does a good job of focusing on location and culture at the banks it buys. These are generally commercial lenders in Texas. Frost is a correspondent bank for hundreds of local Texas banks. So, it knows these banks well. Frost is unlikely to make big mistakes in acquisition targets. However, Frost is not really a value investor when it comes to buying other banks. As a result, returns on acquisitions will tend to be mediocre. This is especially true when Frost uses its own stock as currency to do the deals. Frost may be underpriced in the stock market more than the banks it acquires. Frost has actually created a lot of intrinsic value that hasn't shown up in the stock price.

Frost's after-tax ROE was 14% to 17% a year before 2009. It has been 10% to 11% since 2009. Since the crisis, Frost grew earning assets per share (for Frost, this is effectively the same as deposits per share) at a rate of 9.7% a year. It also managed to reduce leverage from 9.13 times in 2005 to 8.37 times in 2014. And Frost did all this while paying out 48% of earnings in dividends. Frost's stock price performance has been adequate instead of excellent when looked at from the long-term only because the stock has been too cheaply priced since 2009. Eventually, the Fed Funds Rate will be 3% or higher. Frost's ROE will be 18% or higher. Earnings will increase a lot. The P/E multiple will not contract at all. That will reveal the value Frost has created over the long-term. The majority of that growth was created organically. Investors shouldn't expect acquisitions to play a big part in Frost's future.

## VALUE

### *If the Fed Funds Rate is 3% or Higher, Frost Could Earn \$9 a Share After 2020*

There are several ways to value Frost. We'll start with the easiest one to understand. What will Frost stock sell for in 5 years? Quan and I think that each share of Frost will trade for about \$135 in 2020. As I write this, the stock price is around \$65 a share. To reach a price of \$135 a share in just 5 years, Frost would need capital appreciation of 16% a year. The dividend yield is over 3% now. So, someone buying today might get a return as high as 19% a year from 2015-2020 if we're right about the stock trading for \$135 in 2020.

The idea that Frost will sell for \$135 a share – and provide returns of as high as 19% a year for the next 5 years – sounds farfetched today. But that is only because of where interest rates are right now. The Fed Funds Rate is close to zero at the moment. Quan and I – and every member of the Fed – expects the Fed Funds Rate to be 3% by 2020. It will take some time for Frost's assets and liabilities to re-price.

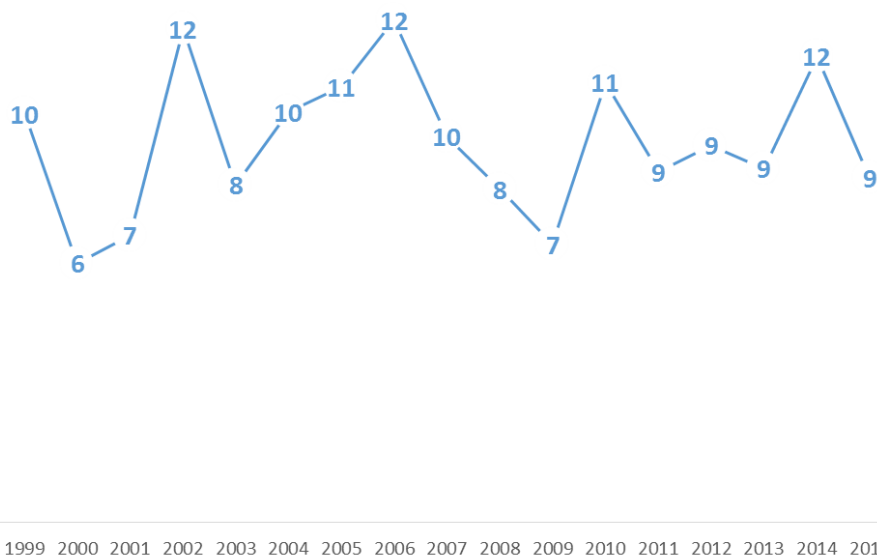


But most of Frost's loans have maturities shorter than 5 years (and some are variable rate loans anyway) and Frost's securities portfolio has a duration of 4.7 years right now. Frost will also grow deposits during this time. Those new deposits will be put to use in the higher yielding securities and higher yielding loans that will be the norm in the higher interest rate environment of the years to come. So, 5 years from now, Frost's forward looking earnings – the "e" part of the P/E on which we expect the market to price Frost stock – will have fully adjusted to a Fed Funds Rate of 3%.

The valuation of Frost at such a high level depends entirely on its earnings in the future. We expect Frost's 2020 earnings per share will be something like \$9 or more. It is nowhere near that today. Frost doesn't need to do anything different to earn \$9 a share in 2020. In fact, our \$9 a share earnings estimate for 2020 is pretty conservative in terms of things like deposit growth at Frost. The company could easily outperform our 5-year estimate. The part that may or may not happen is something Frost can't control – it's the Fed Funds Rate.

The Fed Funds Rate is now close to zero. Frost has a lot of "free" deposits. Frost also funds itself about 93% with deposits. If you divide Frost's deposits by its "earning assets" (which are loans and securities) you get 0.93. That's unusual. Both parts of that situation are unusual. Most banks fund themselves using far fewer deposits than Frost does. They rely on other sources of funding – many of those sources are the ones that dried up during the 2008 financial crisis – instead of relying almost entirely on customer deposits. Also, most banks pay more interest on more deposits than Frost does. These two factors – greater use of all types of customer deposits and a higher mix of free to interest bearing deposits – are what makes Frost far more sensitive to interest rates than almost any other bank. Simply put, Frost makes more

FROST STOCK: LOWEST PRICE / PRE-TAX EARNINGS FOR THE YEAR



*Frost stock has traded around 10 times the most pre-tax earnings regardless of interest rates*

money when the Fed Funds Rate is higher and Frost makes less money when the Fed Funds Rate is lower.

How can we be sure the Fed Funds Rate will be 3% or higher in most future years? We can't. But we can use the past as a guide. It is generally believed that the Fed targets 2% inflation. If that's true – the Fed has done a bad job of hitting that target. There is a clear bias in the past record of the Fed towards higher than 2% inflation. That could be an accident. It could mean the Fed really targets more like 3% inflation. It could mean a lot of things. But, it certainly is not true that if the Fed really wants 2% inflation it has tended to set its rate too high. In fact, we can say that historically the Fed has set its rate too low if the only goal is 2% inflation. That's not the only goal. The other goal is unemployment. But, we can start by saying that the Fed Funds Rate has – in hindsight – tended to be set too low more often than it has tended to be set too high. In fact, the only times where the inflation rate has consistently come in lower than 2% is during the current "Great Recession" from 2008 to today and during periods in which the Fed Funds Rate was set above 3%. The median Fed Funds Rate for 1955 to 2014 was 5%. So, that would suggest a normal year should have a 5% Fed Funds Rate. We don't assume that. We assume 3%. That is higher than the median Fed Funds rate from 1995 to 2014. During that period, the median Fed Funds Rate was 2.6%. We think the period 1995 to 2014 had an unusually low Fed Funds Rate. Note the stock market bubble in 1999, the housing bubble in the 2000s, and the unusually high prices of easily tradeable commodities such as oil and gold. These factors suggest that while wage inflation was very low – that wasn't because the Fed Funds Rate was high enough to stop any sort of inflation. There were probably other factors constraining wages. So, consumer price inflation was muted. But, asset prices were not low at all during this period. And yet, the Fed Funds Rate was 2.6%. Also note that worldwide debt growth was very high during this period. This suggests that the Fed Funds Rate was too low in the U.S. to keep debt growth in line with GDP growth and it was definitely too low for countries that peg to the U.S. dollar.

Right now, inflation is low. And inflation expectations are low. But, inflation in things that can only be provided locally in the U.S. – those that are unaffected by



imports from other countries or credit conditions – already are showing 1.5% to 3.5% nominal price growth. Here we are talking about things like trips to the dentists, the vet, the barber, your trash pick-up payments, etc. Unemployment is also quite low. In fact, it's no higher than it has been historically when the Fed Funds Rate was at 3%. Going by where inflation and unemployment are now – and not considering any other factors – you'd already expect the Fed Funds Rate to be 3%. It's not there yet. We expect it to be there in 2020. Even during the period 1995 to 2014, the Fed Funds Rate was greater than 3% in half of all years. For these reasons, assuming a 3% Fed Funds Rate as "normal" seems correct in the long-run. It may be speculative to assume it will happen at any particular point in time. But, that's not especially important to the valuation of Frost. What matters to Frost is that deposits will continue to grow as fast or faster than nominal GDP and one day the rate earned on those deposits will be the rate earned when the Fed Funds Rate is 3%. The exact timing is only important insofar as it limits how much Frost can pay out in dividends each year (the higher the Fed Funds Rate is the more Frost can pay out in dividends because dividends will simply be 50% of reported earnings).

The best way to estimate Frost's earnings is to use a return on earning assets approach. The historical data shows Frost can make a 2.9% return on its earning assets. We will ignore that approach and choose the somewhat more conservative approach.

Before showing you the calculation for Frost's earning power – we need to explain something that's counterintuitive but correct. We are going to assume that a bank's cost of deposits is a percentage of the Fed Funds Rate and not a "spread" relative to the Fed Funds Rate. In other words, banks pay 0.5 or 0.75 or whatever times the Fed Funds Rate on their interest bearing deposits. They do not pay "one percent less" or "1.5 percent below" the Fed Funds Rate. The

historical data for all banks makes this very clear. If we put aside Frost's "interest checking" which is a very low interest account we see that Frost usually pays about 0.83 times the Fed Funds Rate for its interest bearing deposits.

Net interest spread is very stable. From 1988 to 2014, Frost's median net interest spread was 3.97%. However, there was something called "Regulation Q" in place during most of those years. It prevented banks from paying interest on demand deposits – or at least doing it without some workarounds. In the past, Frost only paid 0.1 times the Fed Funds Rate on interest checking accounts. These are mostly commercial demand deposits (large general operating accounts for the businesses that use Frost). Most banks pay 0.73 times the Fed Fund Rates on money market accounts. It's possible Frost will have to pay more than 0.1 times but less than 0.7 times. My guess would be much, much closer to 0.1 times the Fed Funds Rate than 0.7 times. But, we want to be conservative. So, we are assuming Frost will have to pay 0.5 times the Fed Funds Rate on its commercial demand deposits. This is still lower than funding your bank through money market accounts, CDs, and time accounts, as many other banks do for sometimes as much as half their balance sheet.

So, here are our assumptions for Frost's normal earning power when the Fed Funds Rate is 3%. We expect the cost of interest bearing deposits to be 2.07% (this is 0.69 times the assumed Fed Funds Rate of 3%). We expect commercial demand deposits will cost 1.50% (this is 0.5 times the assumed Fed Funds Rate of 3% - again, this is almost certainly an overly conservative estimate). The rest of Frost's deposits will be non-interest bearing as in the past. We assume the yield on Frost's securities and loans will be 6.04%. This just uses the net interest margin over Frost's entire past history as a guide. It's been very stable at a 3.97% spread. And then we have charge-offs of 0.48%. Over the last 20 years, Frost's average charge-offs were 0.27% a year. So, we are assuming a 0.21% higher rate than history going back to 1994 shows. However, there is a reason for this. The Texas economy was very robust from 1994-2014. The two recessions that the U.S. experienced were not very violent in Texas. The worst recession in Texas was the 1980s recession. That was when charge-offs were highest. It is possible in an oil price bust like the one we see now that Frost – which lends 16% of its portfolio to energy companies, mainly Texas based oil drillers – will see worse charge-offs than it did in the bad national recessions. We might be too conservative here. But, we need to be careful because the last 20 years haven't really stress tested Texas banks at all. From about 1994 to today it has been very, very easy to have low charge-offs if you lend only in the state of Texas. Finally, Frost's operating cost is 1.4%. This is the cost of everything other than interest minus fees Frost earns and then divided by all deposits. It should be stable to slightly declining in the future. It has never risen for very long at Frost – because the dollar amount of deposits per branch increases which drives wonderful economies of scale.

The weighted average return on earning assets using this approach is 2.68% before taxes. That is \$25.91 billion in earning assets times 2.68% equals \$694 million in pre-tax earnings. After a 35% federal corporate tax the bank is left with \$451 million in after-tax earnings. Shares outstanding are 63.18 million. That gives a "normal" EPS of \$7.14 a share. Frost is a great business. The Texas economy is faster growing than the U.S. economy. Frost should easily be able to increase EPS by 6% a year long-term while paying out half of earnings. We actually expect Frost's deposit growth rate to be 8% a year (but again, we're trying to be conservative by assuming Frost's growth won't exceed the nominal GDP growth of Texas). The stock deserves a P/E of 20. And \$7.14 a share times 20 times earnings is \$143 a share. That is our honest appraisal of what we think Frost is worth as a buy and hold stock. It's obviously a lot higher than the current price. Even at 15 times normal future

earnings, we'd be talking about a price of \$107 a share. There is no way to normalize earnings and get anywhere near the current stock price of Frost.

Frost's current stock price only makes sense if you expect the Fed Funds Rate to stay close to 0% forever.

## **GROWTH**

### *Frost Can Grow 7% a Year for a Long Time*

Despite being a bank, Frost is actually a high growth stock. The bank has increased its deposit by between 7% and 9% a year over the long-term. This growth is somewhat cyclical. And earnings growth does not match deposit growth at the same point in that cycle. So, it can appear that Frost has not grown much at all over the past 10 years. But, this is due to the one-time decline in the Fed Funds Rate from over 3% to 0%. That will reverse in the future. Frost's growth should be measured in deposits per share – or earning asset per share, as in Frost's case they are essentially the same thing – rather than earnings per share.

For several decades, the GDP of Texas has grown at least 1% faster per year than the GDP of the U.S. This is due to population growth being high in Texas. A large percentage of the population of Texas was born outside of the state. Some of these people are immigrants – often illegal – who have come through the Mexican border (but may originally be citizens of not just Mexico but other countries in Latin America as well). A great number of the “immigrants” into the state of Texas are actually from other parts of the U.S. This is an important difference between high growth and low growth states in the U.S. Unlike the E.U. the member states of the U.S. are tightly connected and experience convergence in their economic futures. Americans generally move from high cost of living states to low cost of living states. In this way, wages slowly equalize between the states. Texas is a low cost of living state. It's also very hot and sunny

compared to many of the population centers in the U.S. It is easy to predict that for decades to come people will move from expensive, colder, and darker Northern States to less expensive, warmer, and sunnier “sunbelt” states. For example, we can predict that Americans will move to Florida, Texas, Arizona, New Mexico, and Nevada up to the point where these states have wages, house prices, etc. that are similar to the richer states in the U.S. Anything approaching full convergence won't happen for a long time.

Texas still has a lot of raw land. This is critical in keeping down the cost of living. High cost of living areas are generally places where there is a lack of raw land either because the population density is already very high or because strict zoning and permitting rules are in place to preserve land, limit the size of lots, etc. Sometimes the two conditions are present at the same time. Generally, Texas has lower population density and looser zoning and permitting rules than the states people would be leaving. This makes it an attractive place for migration within the U.S. This is the critical factor in Texas's growth. Migration from other countries into the U.S. is a national issue. States that already have populations from those countries certainly attract more foreigners. So, if Mexicans are already clustered in Texas – then new Mexican immigrants will prefer to live in those Spanish speaking clusters rather than randomly distributing themselves throughout the mostly English speaking U.S. That's obvious. And it's something that can't be changed much by the states themselves. But competition for migrants inside the country is different. And Texas should do quite well on this score.

Energy is only 11% of Texas's economy. It is big relative to the United States generally. But, not compared to many other countries. Texas is no longer especially dependent on oil or gas the way it was in the 1980s. Texas has a lot of raw land. Population density is 103 people per square mile. This ranks Texas at 26 of 50 states. It's at about the median level. Some states in the U.S. are 10 times more densely populated than Texas. Americans use a lot of air conditioning and a lot of cars. So, the extremely high temperatures in Texas are no longer an impediment to population growth. High temperatures certainly were an impediment before 1950. From 1950 to 2014, Texas's population grew by 2.3% a year. From 1990 to 2014, Texas's population grew 1.9% a year. Generally, Texas's population can be counted on to grow at a rate that is one full percentage point higher than the rate of the U.S. Texas's job growth – as you'd expect if it's attracting migrants – is also usually 1% higher per year. Estimates are for roughly 2% annual population growth over the next 30 years. Texas also has lower debt at the state level, household level, etc. than other parts of the U.S. In this sense, Texas's position within the U.S. is more of a “developing” rather than most developed state. It has a lower cost of living, lower wages, etc. while also having lower debt and higher population growth.

As a result, it is reasonable to expect that Texas will grow its nominal GDP faster than the U.S. It will grow population faster. It may also grow debt per capita faster. The combination of these two factors will mean that the financial system in Texas will grow faster than the GDP of the U.S. Right now, we might expect U.S. nominal GDP to grow at about 4% to 5% a year (1% population growth plus 1% output per person growth plus 2% to 3% inflation equals 4% to 5% nominal GDP growth). Texas would be expected to grow at least 1% more. The best estimate is probably something like 6% annual GDP growth. This is because the cost of living difference between Texas and other states is likely to shrink rather than widen. That means that the advantage of Texas over other U.S. states in terms of nominal GDP should be greater than the population growth difference. A 6% annual GDP growth estimate for Texas – remember, this is nominal GDP – sounds reasonable. A 5% GDP growth estimate seems almost assured.

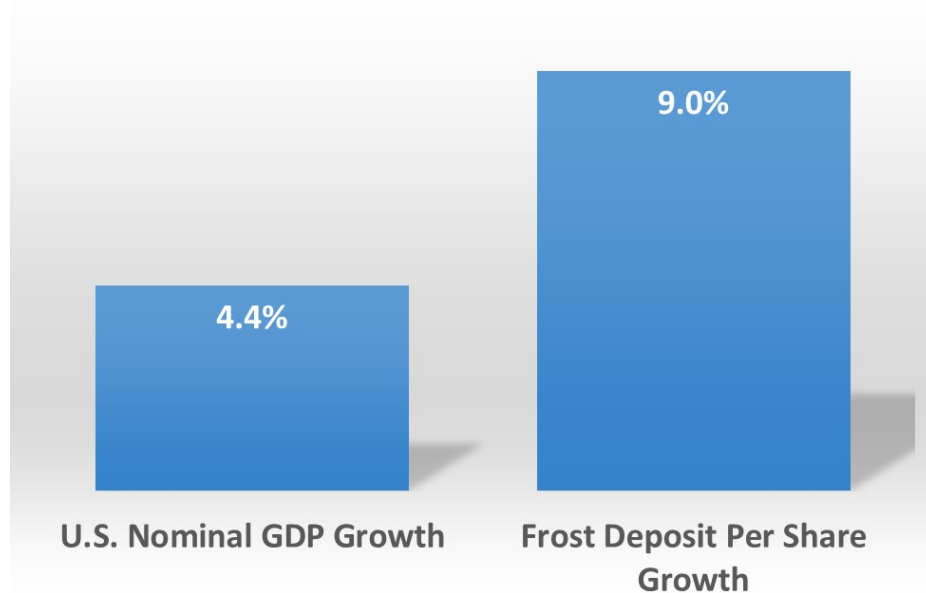
From 1995 to 2014, the total deposits of all FDIC insured institutions grew 6.2% a year in the U.S. So, this is not lower than GDP. In the future, it may be easier for banks individually to grow their deposits than it the past. This is because new banks had been chartered each year in the past. Since the financial crisis, there have been almost no new banks created in the U.S.

There is no reason for Frost to grow its deposits per share slower than Texas's nominal GDP growth. However, there is a chance it might grow deposits per share faster than GDP. Let's consider that now.

To smooth out deposit growth for year-to-year fluctuations caused by acceleration and deceleration of debt growth during the economic cycle – we'll look at 5-year compound annual growth rates for deposits. From 1988 to 2014, we have 22 five year periods to consider. The minimum was 1.7% a year growth. The maximum was 13.4% a year growth. The median was 9% growth. The mean was 8.7% growth. If we were to exclude the periods ending in 1993, 1994, and 1995 – when Frost was emerging from the 1980s oil bust induced financial crisis in Texas – the number would be higher with a 10.6% median and a 9.7% mean. If we use 10 and 15 year figures, we get 8% to 9% means and medians.

But, what matters is not deposit growth for the bank but deposit growth for the shareholder. We want to look at deposit per share growth. This is a different number because Frost issues stock to make acquisitions and also buys back some stock. We'll take the lower of the median and the mean for each of these. Averaging out all the historical 5 year periods we get 8.8%. Averaging out all the historical 10 year periods we get 6.8%. Averaging out all the 15 year periods, we get 8.0%. So, the very lowest of all these figures is the 6.8% average using the 10 year periods. We'll use the bottom of these estimates at about 7% as our estimate. While we may think Frost could

## 1994-2014



*Over the last 20 years, Frost's 9% annual growth in deposits per share has been double the rate of the overall U.S. economy*

potentially get 7% to 9% deposit growth – we'll stick to using 7% deposit growth per share in our estimates. As interest rates rise, deposit growth will actually slow at first. This is because rates rise as economic activity picks up. Deposits tend to move counter-cyclically with economic activity. So, deposit growth is slowest for Frost in the beginning of a boom. And deposit growth is fastest for Frost in the aftermath of a bust.

Our best guess for Frost's long-term future is 7% annual deposit growth per share. The bank would have to retain 50% of its earnings to grow deposits that fast. So, the annual return in the stock would be a combination of deposit growth and dividend yield. The dividend yield right now is over 3%. So, you can see that 7% growth plus 3% yield is a 10% annual return expectation. In reality, the annual return in Frost stock will be much, much higher over the next 5 years or so while interest rates rise. Once interest rates are stable at a normal level, the return in the stock would be the combination of deposit growth and dividend yield. However, during the one time rise from a Fed Funds Rate of zero to a Fed Funds Rate of 3%, earnings per share will grow much faster than deposits per share. This is a one-time boom for Frost. It simply reverses the situation over the last 10 years, where Frost tripled its deposits per share while barely increasing reported earnings at all. Again, that was entirely due to interest rates.

Feel free to disagree with our assumptions and substitute your own. For the record, Quan and I expect a 3% Fed Funds Rate in the long-run combined with 5% U.S. nominal GDP growth, 6% Texas nominal GDP growth, and 7% annual deposit per share growth at Frost. Obviously, we expect Frost to gain market share in the future just as it has in the past.

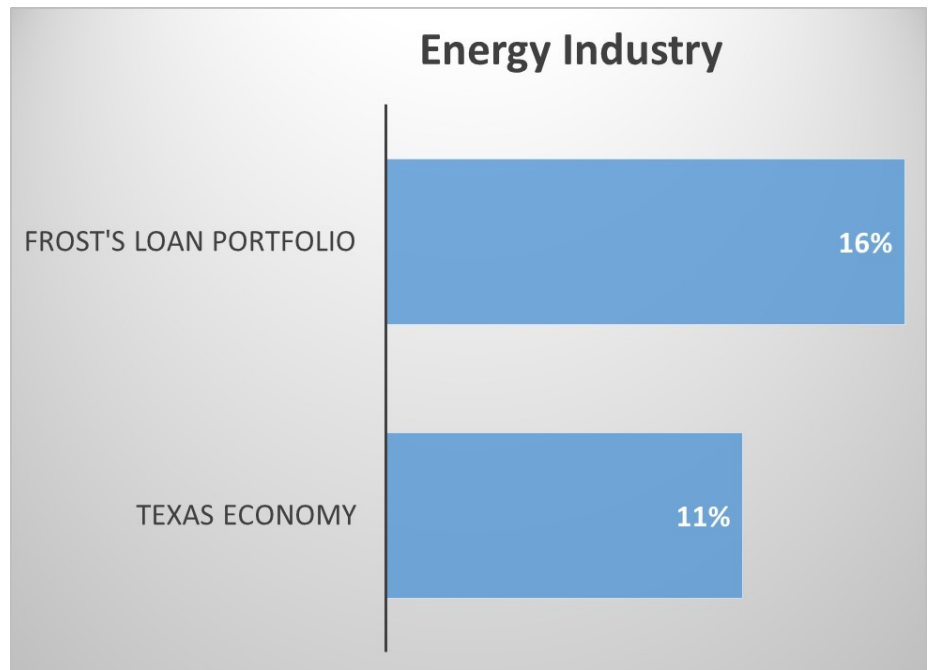
## MISJUDGMENT

*When Rates Rise – Frost Will Have a Large, One-Time "Mark to Market" Loss*

There are few uncertainties about what will happen to Frost in the future. The greatest uncertainty is probably timing. We can know that the Fed Funds Rate will one day be 3%. We can't know what day that will be. Until the Fed Funds Rate rises, Frost's earnings will not rise faster than deposits. They may even rise slower if long-term rates continue to fall. So, there can be uncertainty regarding the performance of Frost stock over the next few years. But it seems unlikely that the Fed Funds Rate would be anywhere near 0% for the entire period from 2015 through 2020. So, an investor who buys Frost today with the plan to hold the stock for at least 5 years, can be fairly certain of their result. It is only an investor who hopes to get in and out of the stock within just a couple years who needs to worry about the uncertainty of timing a rise in interest rates.

The repeal of Regulation Q will hurt Frost more than it will hurt other banks. Regulation Q banned banks from paying interest on commercial demand deposits. It was repealed in 2011. But because the Fed Funds Rate has been close to zero from 2011 through 2015 and because banks pay a fraction of the Fed Funds Rate in interest – the repeal of Regulation Q has had absolutely no impact on Frost or any other banks for the last 4 years. When the Fed Funds Rate rises, there can be an impact.

Frost gets more of its funding from commercial demand deposits than other banks do. Frost gets 25% of deposits from commercial demand deposits. Peers often get only 10% to 15% of their deposits in the form of commercial demand deposits. Frost has generally paid very low rates of interest compared to other forms of funding. For example, in 2007 – when time deposits were going for 3% to 4% – Frost paid 0.47% on its interest checking accounts. Each additional one percentage point that Frost pays on its commercial demand deposits will reduce its funding advantage over



*Energy is 11% of the Texas economy but 16% of Frost's Loan Portfolio*

other banks by 0.1% to 0.15%. For example, if the Fed Funds Rate is 3% and Frost pays 1.5% on its commercial demand deposits – it will have its relative funding advantage over peers decline by as much as 0.23%. Put in different terms – every one percent extra paid on commercial demand deposits should reduce earnings per share by about 60 cents. We have assumed that Frost will pay half of the Fed Funds Rate and the Fed Funds Rate will be 3%. So, Frost will pay 1.5% in a normal interest rate environment for commercial demand deposits. It's very possible this estimate is too conservative. Frost has a 91% customer retention rate. Most of these customers have been keeping their deposits with Frost for years. They haven't been paid interest during the 2009-2015 low interest rate environment. Nor were they paid interest before Regulation Q was repealed. So, they are not used to being paid 1.5% or anything like that on these accounts. Frost is never very hungry for money to loan. So, it tends not to pay especially high rates of interest. But, competitors certainly could choose to do so. Frost wouldn't be able to pay nothing if others are paying say 2% a year on the same sorts of deposits. So, there is no doubt this is a negative for Frost. But, again, we did calculate this negative and include it in the valuation we give for Frost.

For buy and hold investors – and Frost is an especially good buy and hold stock – the real concern is continuation of the lending culture. Frost is a low risk lender. They are conservative. They don't make loans that are "transactional" rather than "relationship based". They stay out of mortgage lending and credit card lending. Those areas are easily securitized. Frost's real estate related loans tend to be things like owner occupied commercial real estate. Again, this is largely relationship based. Frost is not very involved in household or "consumer" lending of any kind. If you look at Frost as a whole, you can see that about half of deposits come from businesses and about half of deposits come from households. However, almost all of the lending goes to businesses. So, in a sense – Frost is part commercial loan portfolio and part securities (municipal bonds) portfolio. The commercial loan portfolio can be thought of as being a small to mid sized business bank that simply takes deposits from businesses and lends to other businesses. However, the household deposits can't be thought of this way. What Frost is really doing in a sense is taking deposits from households and buying municipal bonds with those



deposits. Frost is not taking deposits from some households and then making mortgage, auto, and credit card loans. Some other banks do that. Frost doesn't. So, Frost is a mixed community – or regional – bank in the sense that it gets deposits from both businesses and households. But, it's not a mixed community bank in the sense that it lends to households. It really doesn't. Frost instead diversifies by putting half its deposits in business loans and half in municipal bonds and other securities.

Frost is more exposed to the Texas oil industry than other banks. It has 16% of its loans in energy. Two of the communities it lends in – Houston and Midland/Odessa – are oil related towns. Houston is diversified and includes a lot of “downstream” activities. Midland is not. That area – which Frost entered through an acquisition – is dependent on oil drilling. It has boomed in recent years. In may bust in the future with \$40 oil prices. But, Frost has a long history of making energy related loans. And Frost seems to be conservative in its approach. It's possible to do energy lending right. Both Frost and Bank of Oklahoma have long histories of making a lot of energy loans at very different oil prices per barrel without risking the health of the bank. It's possible to lend in a way where even though oil prices boom and bust and even though borrowers experience extreme cyclicity – the bank's charge-offs in the energy portfolio are tolerable even in the worst part of the cycle. Energy is 16% of Frost's portfolio so every 6.25% charge-off of the entire energy portfolio would result in a 1% charge-off for the entire bank's portfolio (because 84% isn't energy related). It would therefore take charge-offs of close to 20% of the energy portfolio to cause a 3% charge-off rate for the entire bank's portfolio. If charge-offs in the energy portfolio were to get to levels like 20% they'd have a big impact on Frost. But, at levels like 5% they'd be fairly unnoticeable because other parts of the bank's lending portfolio have very low charge-off

rates. The entire bank has averaged a charge-off rate of less than 0.25% over the last 20 years. So, at any point in time – you can expect 84% of Frost's loan portfolio to have a low charge-off rate. This will mask some of the cyclicity of the current oil bust. But it is worth mentioning that Frost did not stress test \$40 a barrel oil. They used \$50 a barrel oil in their assumptions last year.

Frost has more cultural continuity than most banks. It was run by Frost family members from the time it was founded till Richard Evans took over. Richard Evans is 68. Top management at Frost is pretty old. So, new people will have to take the top positions in the years ahead. But, these people will almost certainly be long-term employees of the company. For example, the current CEO joined Frost in 1973. The President of Frost Bank joined in 1985 (and is a Frost family member). And the CFO joined Frost in 1986. Basically, all the top people at Frost have been with the company for at least 25 years. They were present for at least part of the late 1980s through the early 1990s problems, the early 2000s recession, and the 2008 Financial Crisis. There is no evidence Frost would hire people from outside the company to fill top positions. Replacements for the current group of top executives (who are now in the 56 year old to 68 year old age range) should come from internal candidates. U.S. banks are generally more cautious now than they were before the 2008 crisis. Oil prices have already fallen from \$100 to \$40 a barrel. So, there is no reason to believe Frost is behaving any more aggressively now than it would in normal times.

The securities portfolio is overvalued. Frost's management knows this. They will have to take a mark to market loss when interest rates rise. The mark to market loss will be huge. Frost has far more securities than most banks – because it lends out far less of its deposits – so the hit to book value will be greater. But this is a one time event. Frost's earning power is what matters. Tangible equity is only relevant insofar as regulators require it. Like most American banks – except the very, very biggest – Frost is exempted under the latest Basel agreement from counting that mark to market loss for capital level requirements. So, yes, Frost will take a giant one time loss. But, no it will not matter to the value of the stock long-term. Once interest rates are higher, Frost will quickly earn enough to be well capitalized while paying out a good dividend. There is no solvency risk to the bank. It is very liquid. And will earn good returns when rates rise. The only issue is that Frost will have to record a large one-time mark to market loss when rates rise and the market value of municipal bonds plunges. Investors should buy Frost now and prepare themselves psychologically for when that huge loss comes. It does not matter in any way when it comes to future earning power. There will be a loss. But that loss can – and should – be safely ignored, and the stock simply held as rates rise.

## CONCLUSION

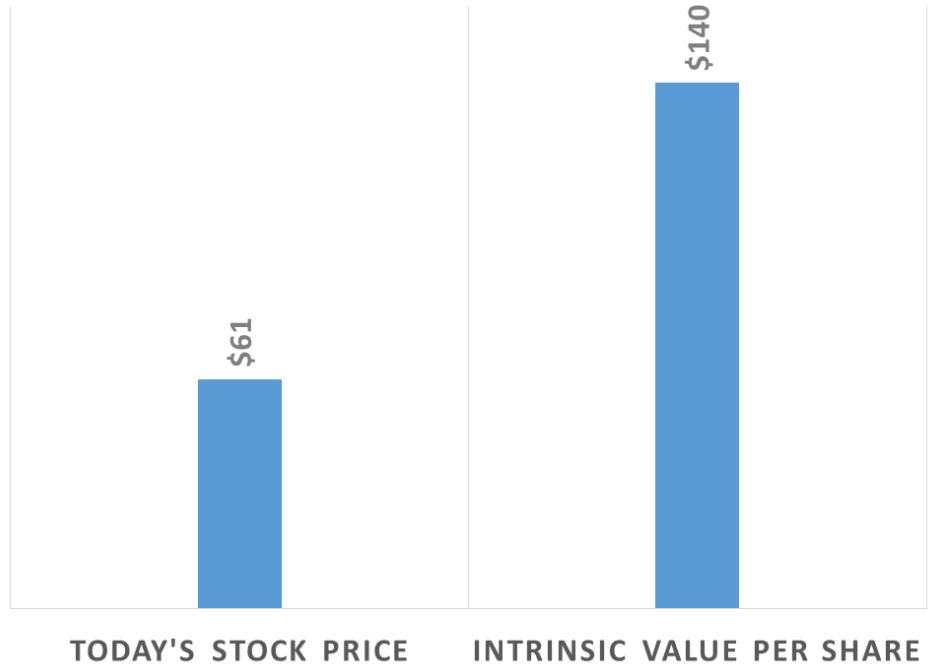
*Frost is the Best Stock We've Ever Picked for Singular Diligence*

Frost is the best stock to buy for the next 5 years. There are other banks that are reasonably – or even cheaply – priced. Among large banks, Wells Fargo also has a lot of low cost deposits. Bank of Oklahoma – BOK – is similar to Frost in several ways. It can also be a good stock to buy. The same is true of Prosperity Bancshares. That bank is based in Texas like Frost. There is also Bank of Hawaii which like Frost is a bank restricted almost entirely to a single state. The state of Texas has certain advantages over the state of Hawaii in terms of long-term growth. And there are greater risks of an asset price – especially a home price – bubble in a state like Hawaii. Bank of Hawaii does more lending to consumers that could be a problem. None of these banks – Wells Fargo, Bank of Oklahoma, Prosperity Bancshares, or Bank of Hawaii – is as clear a choice as Frost. Quan and I like Frost better than any of those banks. However, those banks are also reasonable buy and hold choices for



investors who want to own stocks that can do better than the average – especially the average non-bank – stock over the next 5 years as interest rates rise. We like several of those banks. And some investors might prefer to buy a diversified basket of 5 or more banks. But Frost is a safe and liquid bank. It has as good growth prospects – or better growth prospects – than almost all of those banks. And Frost is a conservative lender. It probably has the clearest future. Of that group of 5 banks – Frost is the best choice for a buy and hold investor.

Frost also has some similarities to a past Singular Diligence pick – Progressive. Progressive is an auto insurer that does not take risks with its investment portfolio. Instead Progressive – unlike almost all other insurers – keeps its “float” in very short-term securities. These yield almost nothing right now. As interest rates rise, Progressive will make a lot more money from investments. Like Frost – Progressive is certain to make more money when the Fed Funds Rate is at 3% than the company is now making with a Fed Funds Rate near zero. Progressive has a similar position among insurers as Frost has among banks in that Progressive is the insurer that will benefit most from rising interest rates. Frost is the bank that will benefit most from rising interest rates. This is because Frost gets more of its funding from no cost or low cost customer deposits than any other bank. Many other banks have a lot of funding tied to the Fed Funds Rate in some way. Households and businesses that have checking accounts with Frost will not demand much higher interest on their deposits in the future even though Frost will make much more money lending out those deposits. Most banks make more use of certificates of deposits and other forms of funding where the interest rate paid is an important part of attracting the funding. This is an inferior business model when interest rates are normal. Frost has the best business model among banks for a normal interest rate



*In a normal interest rate environment, Frost will be worth more than double today's stock price*

environment. Progressive has the best business model among insurers – other than GEICO, which is owned by Berkshire Hathaway – for a normal interest rate environment.

However, Frost is a better stock pick than Progressive. Progressive and Frost both have clear cultures, a low cost advantage operating model, and the ability to gain market share over time. However, banks can grow as fast as the nominal GDP of the areas they operate in. The market for auto insurance will grow slower than nominal GDP. It might grow a lot slower. Even without the adoption of actual “self-driving” cars, the frequency of car accidents will decline in the future as it has in the past. This decline in accident frequency is offset somewhat by car price inflation. Car price inflation causes loss per accident inflation because the severity of accidents in dollar terms increases over time. This has masked some of the decline in accident frequency. But as society moves closer and closer to self-driving cars – the declines in accident frequency each year can become ever greater. This is a real risk. The entire pie that GEICO and Progressive and all other auto insurers share – the premiums that all drivers as a group pay – can shrink over time. It certainly will grow slower than the nominal GDP of the country. Meanwhile, banking can grow as fast as the nominal GDP of the country. And Texas can grow faster than the nominal GDP of the country. And Frost only operates in Texas. So, it is possible for Frost – with just a tiny bit of market share growth – to grow 7% a year long-term. Meanwhile, it can be difficult for Progressive to grow even 5% a year long-term without strong market share gains. Quan and I expect Progressive to have strong market share gains. Most new drivers choose either GEICO or Progressive for their car insurance. So, those two companies will gain a larger and larger price of the overall auto insurance industry pie as old drivers who didn't use the internet to take out their first auto insurance policy die off and young drivers who did use the internet to take out their first auto insurance policy age. Market share gains are almost built into the future for GEICO and Progressive automatically simply because the retention rate for auto insurance is high and GEICO and Progressive dominate the truly new business wins in the industry. These two companies can double their

market share over the decades ahead. But, it's possible that market itself will be very stagnant to even declining. A decline seems unlikely in the near term. But in the very long-term the adoption of self-driving cars would cause a decline in total auto insurance premiums paid each year. Car accidents are overwhelmingly caused by human error. Replacing humans as the drivers of the car can cut accident severity tremendously. And computers can improve each year in terms of reducing accident severity. Humans can't. The skill of human drivers is the one part of the driving experience that can never be "innovative". Replacing humans with computers can allow continuous improvement in accident frequency reductions. So, Progressive is not as high growth a business as Frost. There is no reason for the banking industry to ever grow slower than nominal GDP in the long-run.

There is some risk that banking will grow slower than nominal GDP at certain times because debt growth may be slower than nominal GDP if an economy deleverages. Deleveraging is an unproven concept in the modern – post Gold Standard – era. Since The Great Depression, very few large economies have reduced their ratio of total debt (not just government debt) to GDP. Even in The Great Recession, the U.S. is one of only a very few countries (along with the U.K., Germany, Spain, and Ireland) that deleveraged at all. A few small countries have deleveraged – mostly by exporting more to other, larger countries – for several years in the past. But, even this is pretty rare. The history of economic growth from the end of World War Two till today has been almost a continual increase in the ratio of total debt to GDP with few exceptions. It's possible high levels of debt could cause lower nominal GDP growth in the future. This is speculative. Both the idea of lower growth as a result of higher debt and the idea of deleveraging are really unproven in the modern era of central banks. We have assumed throughout

this issue that U.S. nominal GDP growth will be lower in the future than it was in the long-term past. So, we've said that U.S. nominal GDP growth might be 5% a year but not 6% a year. However, Frost is not a U.S. bank – it's really a Texas bank. We don't expect Texas to grow less than 6% a year. Texas can have population growth of close to 2% a year. Some projections through 2050 actually assume 2% a year population growth for Texas. An economy like Texas with population growth that high – 2% is much higher than what almost all developed and even some developing countries will do each year in terms of population growth – will likely result in 6% annual growth. Historically, U.S. inflation has been in the 2% to 4% range rather than the 0% to 2% range. So, even just population growth plus inflation would increase the need for banking in Texas by probably 5% a year. There will also be some real growth per capita (productivity gains). This can easily bring the total growth in banking needs to 6% a year for a long, long time. Frost has done a good job gaining market share over time. Therefore, Frost should be able to grow its deposits per share – and in so doing, its normal earnings per share – by 7% a year for a long time. This makes Frost a growth stock. It's a very cheap growth stock. Frost trades at less than 7 times normal pre-tax earnings. As I write this, Frost stock is trading for \$64 a share. Quan and I estimate that's about 9 times Frost's normal after-tax earnings.

So, here you have a stock with a "normalized" P/E of 9 and dividend yield of 3% that we think can grow 7% a year with a return on equity of 18% a year. It's a perfect buy and hold stock. It doesn't look that way today. But – in a few years – when the Fed Funds Rate is at 3%, it will be obvious to everyone that Frost was a perfect buy and hold forever opportunity back in 2015.

Frost is the best stock we've ever picked for Singular Diligence.



# Frost (NYSE: CFR)

## Appraisal: \$141.36

Margin of Safety: 57%

Frost Owner Earnings	(in millions)
<b>Earning Assets</b>	
Short-term Investments	\$3,205
+ Securities	\$11,490
+ Loans	\$11,215
= Earning Assets	\$25,910
<b>Return on Earning Assets</b>	
Normal Net Interest Income	4.28%
- 2014 Noninterest Expense	1.40%
- Impact of the repeal of Regulation Q	0.23%
= Return on Earning Assets	2.65%
<b>Pre-tax Owner Earnings</b>	
Earning Assets	\$25,910
* Return on Earning Assets	3%
= Pre-tax Owner Earnings	\$687

### Business Value

Frost's business value is \$8,931 million.

- Pre-tax owner earnings are \$687 million
- Fair multiple = 13x pre-tax owner earnings
- \$695 million \* 13 = \$8,931 million

### Fair Multiple

Frost's business is worth 13x pre-tax owner earnings

- Frost grows deposits per share by 7-9%
  - While maintaining 50% dividend payout rate
  - Investors can make 10% return by paying 20x after-tax earnings
  - 2.5% dividend yield
  - 7-9% earnings per share growth
- 20x after-tax owner earnings equals to 13x pre-tax owner earnings

### Share Value

Frost's stock is worth \$141.36 a share

- Business value is \$8,931 million
- Equity Value = \$141.36/share
  - 63.18 million outstanding shares
  - \$8,931 million / 63.18 million = \$141.36

### Margin of Safety

Frost's stock has a 57% margin of safety.

- Business Value = \$8,931 million
- Market Cap = \$3,845 million
- Discount = \$5,086 million (\$8,931 million – \$3,845 million)
- Margin of Safety = 57% (\$5,086 million / \$8,931 million)

	Price/Earning Assets	Price/Deposits	Price/EBT	Price/Owner Earnings
International Bancshares	0.16	0.20	7.71	7.57
Texas Capital	0.16	0.20	13.14	14.09
Southside Bancshares	0.17	0.21	21.49	12.98
Prosperity Bancshares	0.20	0.22	8.75	7.92
First Financial	0.39	0.46	16.06	13.01
Minimum	0.16	0.20	7.71	7.57
Maximum	0.39	0.46	21.49	14.09
Median	0.17	0.21	13.14	12.98
Mean	0.22	0.26	13.43	11.11
STDEV	0.10	0.11	5.62	3.11
CV	45%	43%	42%	28%
Frost (Market Price)	0.15	0.16	8.41	5.53
Frost (Appraisal Price)	0.35	0.37	19.71	13.00

## ABOUT THE TEAM



### *Geoff Gannon, Writer*

Geoff is a writer, blogger, podcaster, and interviewer. He has written hundreds of articles for Seeking Alpha and GuruFocus. He hosted the Gannon On Investing Podcast, The Investor Questions Podcast, and The Investor Questions Podcast Interview Series. He wrote the Gannon On Investing newsletter in 2006 and two GuruFocus newsletters from 2010-2012. In 2013, he co-founded The Avid Hog (the predecessor to Singular Diligence) with Quan Hoang. Geoff has been blogging at Gannon On Investing since 2005.



### *Quan Hoang, Analyst*

Quan is a stock analyst. Quan won first prize in Vietnam's National Olympiad in Informatics in 2006. He graduated from Manhattanville College in 2012 with a B.A. in finance and a minor in math. In 2013, Quan co-founded The Avid Hog (the predecessor to Singular Diligence) with Geoff Gannon.



### *Tobias Carlisle, Publisher*

Tobias Carlisle is the founder and managing director of Eyquem Investment Management LLC, and serves as portfolio manager of the Eyquem Fund LP and the separately managed accounts.

He is best known as the author of the well regarded website Greenbackd, the book *Deep Value: Why Activists Investors and Other Contrarians Battle for Control of Losing Corporations* (2014, Wiley Finance), and *Quantitative Value: a Practitioner's Guide to Automating Intelligent Investment and Eliminating Behavioral Errors* (2012, Wiley Finance). He has extensive experience in investment management, business valuation, public company corporate governance, and corporate law.

Prior to founding Eyquem in 2010, Tobias was an analyst at an activist hedge fund, general counsel of a company listed on the Australian Stock Exchange, and a corporate advisory lawyer. As a lawyer specializing in mergers and acquisitions he has advised on transactions across a variety of industries in the United States, the United Kingdom, China, Australia, Singapore, Bermuda, Papua New Guinea, New Zealand, and Guam. He is a graduate of the University of Queensland in Australia with degrees in Law (2001) and Business Management (1999).

# SINGULAR DILIGENCE



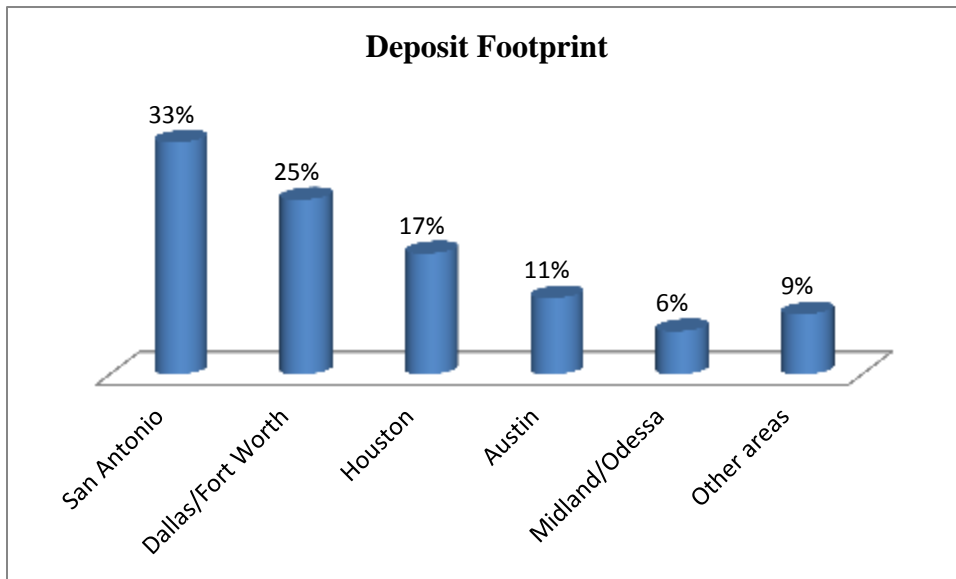
NOTES

Frost (NYSE: CFR)



## Overview

### Frost: A Durable Franchise in a Predictable Industry in a High Growth State



#### ***Frost has presence in all major areas of Texas***

- Frost was founded in 1868<sup>1</sup>
  - o By Colonel Thomas Claiborne Frost
  - o In San Antonio, TX
  - o His service from the Confederate Army legally barred him from resuming his law practice after the Civil War
  - o He saw Texas a place to start fresh
  - o He spent two years running a profitable freight line
    - And put money into his brother's failing general store and auction business
  - o Started as a store credit accounts
    - The equivalent of inventory finance among Texas shepherders
      - Shepherders held out for better prices for their wool
- Frost had become one of the top 10 largest bank in Texas by 1980s
  - o Had been run by 4 generations of the Frost family
- Oil price hikes fueled Texas's economy<sup>2</sup>
  - o Early 1980s
  - o Banks participated in the boom
    - Loans were made to speculators in raw land
    - Office buildings, shopping malls, resorts, etc. were all funded

- Oil prices took a huge hit<sup>3</sup>
  - o Peaked over \$35 per barrel in 1980
    - But in 1986
      - Fell from \$27 to \$10
        - o (equivalent to falling from \$58 to \$22 today)
  - o Banks heavily involved in oil industry lending to a severe blow
  - o Then banks with large real estate exposures
- Texas banks were gobbled up by non-Texas banks
  - o 100 of 1,400 banks failed in 1988 alone
- Frost is the only one of the top 10 largest banks survived
  - o Wasn't taken over by an out-of-state bank
  - o Didn't receive assistance from the federal government
- Frost lost \$6.5 million in 1986<sup>4</sup>
  - o Earnings were meager for the next 6 years
  - o Frost wouldn't start growing again until 1993
- There were five reasons for Frost's survival<sup>5</sup>
  - o Most of assets were in San Antonio
    - Never experienced a great boom
  - o Strong ethnic in selecting the people with whom they did business
  - o Learned lessons from the first oil price bust
    - In 1983
  - o Focus on building and maintaining long-term relationships
    - Didn't hop on the bandwagon to make quick profits on any transaction
  - o "I was taught that just because you got deposits, it didn't mean you had to lend the money."
    - (said Tom Frost, then-CEO of Frost)
    - Frost had only \$1.1 billion outstanding loans in 1991
      - 39% of total deposits
    - Frost maintained great liquidity throughout the Texas banking crisis
      - Hadn't jumped headfirst onto the development bandwagon
- There were 5 CEOs in Frost's history
  - o 4 first CEO was from the family
  - o The current CEO is Dick Evans
    - A non-family CEO
    - But he was considered a Frost by Tom Frost<sup>6</sup>

- "Dick Evans thinks like us, and he has the same principles"
  - "Having Dick Evans here is every bit as good as having family here."
  - Tom Frost was the last CEO from the family
- Dick Evans joined Frost in 1971
  - Worked in
    - Commercial loans
    - Credit
    - Marketing
  - Became
    - President in 1985
    - Chairman of Board and Chief Banking Officer in 1993
    - Chairman of Board and COO in 1995
    - CEO in 1997
  - He spent much of his time in 1980s as "chief workout officer"
- Dick Evans and all other management team members were trained in 1980s
- They learnt a lesson
  - They were too focused on survival in the crisis in 1980s
    - Didn't grow new relationships
  - During the 2008 crisis
    - Frost refused to take TARP money
    - Frost's conservative culture keep them from trouble
      - Exited the mortgage business in 2000
        - The business became a commodity
          - Not relationship-based
      - Frost never hold securities with exposure to subprime mortgage
      - Charge-offs/average loan was much lower than the industry
        - 2009: 0.58%
        - 2010: 0.52%
        - 2011: 0.54%
    - That allowed Frost aggressively build new relationships during the crisis
      - Total deposits more than doubled since 2008
        - 2008: \$10.5 billion
        - Today: \$24 billion

- Frost was considered a “safe haven”
  - Frost is now well positioned to make loans
    - When customers start to expand again
- Frost is now the 5<sup>th</sup> biggest bank in Texas
  - Deposit by regions
    - San Antonio: \$7.4 billion
      - **32.8%** of total deposits
      - **26.9%** market share
      - **#1** player
    - Dallas/Fort Worth: \$5.6 billion
      - **24.7%** of total deposits
      - **2.7%** market share
      - **#6** player
    - Houston: \$3.9 billion
      - **17.1%** of total deposits
      - **1.8%** market share
      - **#8** player
    - Austin: \$2.4 billion
      - **10.8%** of total deposits
      - **7.2%** market share
      - **#4** player
    - Midland/Odessa
      - \$1.4 billion
      - **6.1%** of total deposits
      - **15.3%** market share
      - **#1** player
    - Other areas
      - 8.5% of total deposits
  - About half of deposit is from consumers
    - The other half is from commercial customers
  - Only **11%** of loans are consumer loans
- Frost has great growth potential
  - Texas normally grows 1% faster than the U.S. economy
  - Frost consistently increases market share in Texas
  - 20-year CAGR of deposits was 8.7%
  - The lowest 5-year CAGR of deposits since 1996 was 5.8%

- Frost has only 5% market share of deposit in Texas today
  - There's a lot of room to grow
- Frost's earnings is currently depressed by low interest rates
  - Noninterest-bearing deposits are 42% of total deposits
  - Lower interest rates reduce interest income
    - But doesn't reduce interest expense as much
  - Frost can make 2.65% ROEA when interest rates are normal
    - ROEA = Return on Earning Assets
    - At \$80 per share, the price is 7.36 times pre-tax normal

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<sup>1</sup> “The bank began as an offshoot to a family business. **Colonel Thomas Claiborne Frost**, whose service in the Confederate Army legally barred him from resuming his law practice after the Civil War, saw Texas as a place to start fresh. He'd spent two years running a profitable freight line, and put money into his brother's failing general store and auction business. **What started as store credit accounts, and the equivalent of inventory finance among Texas shepherders holding out for better prices for their wool, evolved into Frost Bank.**” – Strictly by the Book, Steve Cocheo, American Bankers Association Journal, May 2008

<sup>2</sup> “In the early 1980s, the state boasted a strong banking community. Oil price hikes had fueled the state's economy and development was skyrocketing. Banks were more than eager to participate in the boom and loans were made to speculators in raw land.

With oil prices on the rise and the economy booming, there was also a huge upswing in real estate development. Office buildings, shopping malls, resorts, expensive housing developments and more were all funded as if the boom times would last forever.” – *The Texas Bank That Refused to Die; Slater, Robert Bruce, Bankers Monthly*, April 1992

<sup>3</sup> “When the bubble burst and oil prices took a huge hit, expansion of the oil industry came to a halt. **Banks heavily involved in oil industry lending were dealt a severe blow. Later, price drops hurt the entire state economy and banks with large real estate exposures found that they, too, were in deep trouble.**

The battle for the survival of Texas banking was on, and as was the case a century-and-a-half before, the invaders would win. **Texas banks were gobbled up by First Interstate, Banc One, NCNB (now NationsBank), and Chemical**



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**Bank.** Other banks merely failed or had to be bailed out by the FDIC. **Over 100 of the state's 1,400 banks failed in 1988 alone.**

The carnage to the Texas banking establishment was devastating. Yet, unlike the battle of the Alamo, there was a survivor. **Cullen/Frost Bankers, Inc., a \$3.1 billion holding company based in San Antonio, is the only one of the 10 largest Texas banks in 1980 that survived the decade without being taken over by an out-of-state bank or having received assistance from the federal government.** – *The Texas Bank That Refused to Die; Slater, Robert Bruce, Bankers Monthly*, April 1992

<sup>4</sup> “Cullen/Frost did have its problems and there were times when it did not look like there would be any survivors. **After posting declining returns in the mid-1980s, Cullen/Frost lost \$6.5 million in 1986.** Despite hard times for Texas, the bank was able to **return to profitability for the next three years**, although net income was at **meager levels. In 1990, Cullen/Frost lost \$8.2 million or nearly \$1 a share due to a steep provision for loan losses.** In early 1991, the company's stock dropped to a low of \$6.125.” – *The Texas Bank That Refused to Die; Slater, Robert Bruce, Bankers Monthly*, April 1992

<sup>5</sup> “How did Cullen/Frost manage to survive where so many others failed? Tom C. Frost, the 64-year-old chairman and CEO of Cullen/Frost points out five reasons:

\* First, **most of the institution's assets were in San Antonio, which never experienced a great boom or the resulting bust.**

\* Second, **Frost feels that the exercised a strong ethic in selecting the people with whom they did business.**

\* Third, **the bank learned lessons from the first oil price bust in 1983 that helped them through later crises.**

\* Fourth, **the bank concentrated on building and maintaining long-term customer relationships** and didn't hop on the bandwagon to make quick profits on any particular transaction.

\* And finally, fifth, Frost said: **"I was taught that just because you got deposits, it didn't mean you had to lend the money."**

Frost/Cullen has always remained fairly liquid. **At the end of 1991, the bank had only \$1.1 billion in loans outstanding--a mere 39 percent of the institution's**

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**total deposits. Frost retained a great deal of liquidity throughout the Texas banking crisis and this reluctance to jump headfirst onto the development bandwagon probably saved the institution more than any other factor.** The bank simply did not make as many bad loans as its competitors.” – *The Texas Bank That Refused to Die*; Slater, Robert Bruce, Bankers Monthly, April 1992

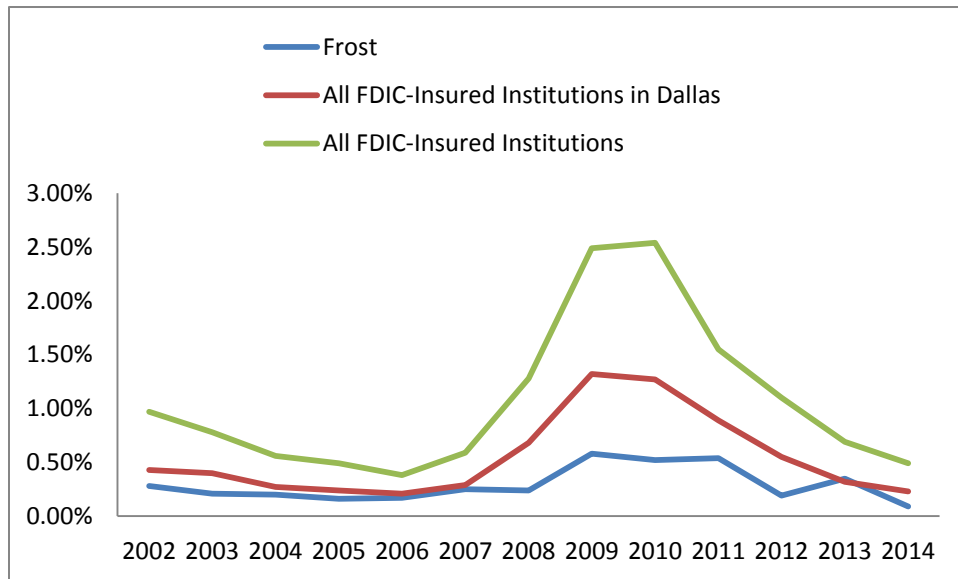
<sup>6</sup> “Although the bank in time went public, until Evans became bank president in 1985, there was always a Frost at the helm.

But Evans is all but considered a Frost by family patriarch Tom Frost, who today is senior chairman. (Four of Frost's sons hold other posts in the Cullen/Frost organization.)

**"Dick Evans thinks like us, and he has the same principles,"** says Frost, 80. **"Having Dick Evans here is every bit as good as having family here."** – *Strictly by the Book*, Steve Cocheo, American Bankers Association Journal, May 2008

## Durability

### Frost Is a Conservative Lender



#### *Frost has lower net charge-offs/average loans than the industry*

##### - **Biggest Negative:**

- The securities portfolio can be overvalued
- The decline in oil price isn't a problem
  - Energy is 11% of Texas economy
  - Low oil price can benefit
    - Consumers
    - Refiners and petrochemical companies<sup>1</sup>
      - Displaced workers are expected to move to East Houston
        - From Energy to petrochemical
  - Frost has more exposure to oil than peers
    - Oil and gas: **16%** of loan portfolio<sup>2</sup>
      - **\$1.8 billion** at 2014 year-end
      - Only **25%** of loans are in services
        - \$1.1 billion in production
        - \$319 million in services
        - \$85.5 million in transportation
        - \$76.7 million in manufacturing
      - Frost's price-deck projection for oil is
        - **\$50** a barrel for 2015

- With some escalation through 2019
      - Topping out at \$70
  - Frost's borrowing base is **65%** of the DCF that results from the price-deck
    - The price of oil used to establish 2015 commitments was \$52
  - Many of customers have hedges in places
    - In 2015, 41% are hedged with an average price of
      - \$89.5 for oil
      - \$4.09 for gas
    - In 2016, 15% are hedged at
      - \$87.25 for oil
      - \$4.01 for gas
    - Some are liquidating their hedge positions
      - And are paying down debt
    - Most hedge counter parties are
      - Money center banks
      - Big regionals and some large Canadian banks
  - Frost performed a stress test
    - Cover 90% of loans
      - Also talked to 90% of oil service customers
    - Assumption
      - The oil price is \$37 per barrel for 2015
        - Remain in sub-fifty through 2018
    - The exposure is **7%**
      - **1%** if considering borrowers financial capacity
        - Liquidity
        - Assets beyond actual production
  - Midland and Odessa: **6.1%** of total deposit
    - Located in Permian Basin
    - Permian Basin accounts for
      - 14% of oil produced in the U.S.
      - 57% of oil produced in Texas
  - Oil price is now stable around \$50-60
- Liquidity is great
  - Deposits are like insurance float
    - Can invest deposits forever if deposits keep growing

- Just need to manage some liquidity
    - Deposits are generally stable
  - Frost's deposits have never declined for the last 22 years
    - Average deposit grew a lot during the Great Recession
      - 2008: 3%
      - 2009: 18%
    - People conserve cash in bad time
    - Frost is seen as a safe haven
      - Especially small business with over \$250,000 deposit
      - Frost didn't take the TARP money in the Great Recession
      - Frost was the only one of the top 10 largest banks survive the energy crisis in 1980s
        - Didn't need government assistance
  - Problems arise only if Frost makes bad loans
    - Loan losses can result in lower capital ratios than requirements
    - FDIC can acquire and sell Frost
  - But Frost is very focused on asset quality
- The securities portfolio is safe
  - **44%** of total earning assets
    - **\$11.5 billion**
      - Municipal bonds: \$6.09 billion
        - **53%** of the securities portfolio
      - U.S. Treasury: \$4.02 billion
        - **35%** of the securities portfolio
      - Mortgage-backed securities (MBS): \$1.33 billion
        - **12%** of the securities portfolio
  - Frost buys securities with very high credit qualities
    - 64.1% of municipals are either guaranteed by either
      - Texas Permanent School Fund
        - Has a "triple A" insurer financial strength rating
      - U.S. Treasury securities via defeasance of debt by the issuers
    - Frost doesn't buy revenue municipal bonds like<sup>3</sup>
      - Hospitals
      - Texas A&M dormitories
    - Mortgage backed securities (MBS) has no subprime exposure
      - (even before the 2008 financial crisis)

- All are insured by U.S. government agencies
  - Frost is aware of securities being overvalued
    - Avoided overvalued MBS or U.S. Treasuries<sup>4</sup>
      - Most U.S. Treasuries have maturities within 5 years
        - Some mature in 5 to 10 years
    - Frost see most value in municipal bonds
      - Example:
        - In 2009, bought from hedge fund that had to liquidate
          - 6-7% yield
      - The Fed doesn't intervene in the municipal bond market<sup>5</sup>
  - Frost keeps duration of the portfolio low
    - Duration is the number of years to recoup the cost
    - Duration also measure sensitivity to interest rate of the bond
      - Duration is the approximate % change in a bond price result from 1% change in interest rate
        - Example:
          - A bond with 5-year duration
          - 1% interest increase => 5% lower bond price
    - Frost maintains duration around 3 years
      - Increased to **4.67** as of the end of 2015 Q1<sup>6</sup>
      - Duration has been expanding for the last 7 years<sup>7</sup>
        - It increased because Frost continued to buy municipals
        - Won't see the same relative increase in duration
        - Don't want to be in the bond business
          - But it's an important asset class
        - Still have \$3 billion in Fed funds
        - Continues to see liquidity roll in
- **Notice**
  - Actual maturities of some bonds are different from contractual maturities
    - Frost tend to buy 15- or 20- year municipal bonds
      - Callable after 10 years
    - These bonds have 5% or 6% coupon
    - Frost bought at a premium
      - Yield is lower than coupon
    - => these bonds are expected to be called

- Otherwise, premium will be amortized longer
        - => yield increase towards coupon
    - There's a huge amount of pre-refunding on the municipal portfolio
      - **Pre-refunding** means issuers decide to call the bond before the date they can exercise the right
  - Higher interest rates can lead to lower value
    - 3% rise in interest rate lead to 14% decline in value
      - =  $4.67 * 3$
    - => \$1.6 billion unrealized loss
  - That's not a problem for Frost
    - Frost can hold to maturities
      - Takes 4.67 years to recoup the cost
      - Liquidity is great
        - \$3.7 billion short-term investment
          - Interest-bearing deposits
          - Federal funds sold and resell agreement
        - Still getting \$2-3 billion new deposits each year
        - Loans are short
          - Most have maturities within 5 years
    - Basel III rules don't require Frost to mark to market
      - Unrealized gains or losses are included in Accumulated Other Comprehensive Income (AOCI)
      - Basel III requires that some AOCI items be included in calculation of regulatory capital ratios<sup>8</sup>
        - But not applicable for banks with less than \$250 billion asset
- The loan portfolio is safe
  - **43%** of earning assets
    - \$11.2 billion
  - **84%** of loans are relationship-based
    - Commercial and Industrial (C&I)
      - **52.7%** of loans
        - \$5.9 billion
      - Customers are small business<sup>9</sup>
        - Have a core banking relationship with Frost
          - The primary deposit account



- Credit facility
      - Banks don't get loans without this relationship
  - Customers are sticky<sup>10</sup>
    - They don't change once they commit the core lending facility with someone
- Commercial real estate (CRE)
  - **36.3%** of loans
    - \$4.1 billion
  - **54%** of CRE loans are owner-occupied<sup>11</sup>
    - (**20%** of loans)
    - Owner-occupied CRE loans are similar to C&I<sup>12</sup>
      - Relationship-based
  - **46%** of CRE loans are transaction-based
    - (**16%** of loans)
    - Customers look for
      - Best price
      - Best terms
- Consumer loans are **11.2%** of total loans
  - Most are
    - Home equity loans
    - Home equity line of credit
    - Consumer installment
  - These loans tend to follow personal banking relationship
    - Less transaction-based than mortgages
- Frost is a disciplined lender
  - Willing to pass on billions of loan opportunities because of
    - Price
    - Terms
  - Loans over \$10 million must come before a credit committee<sup>13</sup>
    - Frost has one credit committee
      - Consist of senior credit officers
    - The CEO signs off every loans over \$10 million
  - => Net charge-offs/average loans is very low
    - About 0.23% from 1991 to 2014
      - Min: -0.16%
      - Max: 1.15%
      - Median: 0.22%

- Mean: 0.31%
  - Standard Deviation: 0.30%
  - Variation: 0.97%
  - Much lower than peers
    - Example:
    - US Bancorp: 1.0%
- Frost has a strong culture
  - Willing to exit business that's not relationship-based
    - Exited credit card
      - In 1980s
      - It became a scale business
        - Dominated by a few money center banks
      - Not a profitable relationship-based business
    - Exited mortgage and indirect auto loans
      - In 2000
      - Became commodity
      - Not relationship-based
  - Focused on maintain the culture
    - Internal promotion
      - Management team all have long tenure
      - Richard Evans
        - CEO
        - Joined Frost in 1973
      - Patrick Frost
        - President of Frost Bank and Director
        - Joined Frost in 1985
      - Philip Green
        - President of Frost
          - CFO From Oct 1995 to Jan 2015
        - Joined Frost in 1980
      - Jerry Salinas
        - Joined Frost in 1986
        - Treasurer from 1997 to Jan 2015
        - CFO since Jan 2015
      - David Beck
        - Chief Business Banking Officer
        - Joined Frost in 1973

- Robert Berman
  - Group Executive Vice President
    - E-Commerce Operations
    - Research and Strategy of Frost Bank
  - Joined Frost in 1989
- Paul Bracher
  - Joined Frost in 1982
  - Chief Banking Officer
    - Since January 2015
- Paul Olivier
  - Joined Frost in 1976
  - Chief Consumer Banking Officer
    - Since May 2001
- William Perotti
  - Joined Frost in 1982
  - Chief Credit Officer
    - From May 2001 to Jan 2015
  - Chief Risk Officer
    - From April 2005 to present
- Recruit people who like Frost's culture<sup>14</sup>
  - Who are interested in making alliance
    - Not just making a living
- Considered the 2008 crisis a good chance to train the next generation<sup>15</sup>
  - All of current management team went through the 1980s crisis
  - Let young people spend time in the workout area
    - During 2008-2009
    - Valuable opportunity to see how things work in good times and bad times

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<sup>1</sup> **"In Houston, refineries are enjoying greater profitability from more favorable spreads and petrochemical plants are expanding as they continue to benefit from low natural gas prices. Many displaced workers are expected to move to east Houston, going from energy to petrochemical.** While job transitions are challenging on an individual basis, skilled workers are becoming available to move to other industries that have gone begging for help,

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including construction, transportation, and engineering-intensive businesses. Having access to that skill base could help accelerate growth across a wide swath of Texas. **Consumers are already benefiting from lower gasoline prices with more disposable income, that eventually will build demand for other sectors of the economy.**” – Dick Evans, Frost’s CEO, 2015 Q1 Earning Transcript

<sup>2</sup> **“Outstanding energy loans represent approximately 16% of our total loans. Energy credits total \$1.8 billion at year-end.**

The largest segment of our portfolio are as follows: **\$1.1 billion in production; \$319 million in service; \$85.5 million in transportation; \$76.7 million in manufacturing.** In regard to our production base borrowers, it is important to note that **our current price-deck projection has oil at \$50 a barrel for 2015 with some escalation through 2019 topping out at \$70.**

**Our borrowing base is 65% of the discounted cash flow stream that results from the price deck.** The price deck for most of 2014 was higher than the current one. However, given our 65% discount to determine the borrowing base, **the 2015 price of oil that we use to establish commitments was \$52.**

**Many of our customers have hedges in place. In 2015, 41% are hedged with an average hedge price of \$89.50 for oil and \$4.09 for gas. In addition, 15% of our customer production is hedged in 2016 at \$87.25 for oil and \$4.01 for gas.**

Some customers are liquidating their hedge positions and are paying down debt. Others are evaluating the merits of such action. A vast majority of the hedge counterparties for our borrowers are money center banks, big regionals and some large Canadian banks.

**We recently conducted a pricing stress test on certain of our customers. In the test, we reduced the price of oil to \$37 in 2015 and maintained a sub-fifty number through 2018.** We recognized the benefit from hedges in place, but did not adjust the borrowers cost structure. **This exercise covered approximately 90% of our year-end outstanding production-based credits which are a little over \$1 billion. The result reveals potential exposure of approximately 7%. When you consider each borrowers financial capacity, such as liquidity and other assets beyond the actual production, that potential exposure is less than 1%.”** – Dick Evans, Frost’s CEO, 2014 Q4 Earning Call Transcript

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<sup>3</sup> **“We really don't buy-- The thing you might be referring to is, let's say you have a revenue bond -- and I don't know anything specific about these examples. Let's say you had a revenue blank in Cotulla, for a hospital or something, to take care, and that they were counting on energy-related revenues.** That might be the kind of thing you're talking about, we don't buy those kinds of things.

**We don't buy revenue bonds, first of all. The only very specific example, like maybe University of Texas dormitories, Texas A&M dormitories, that kind of thing. We're really not in that part of the market.** There could be some issues in some of the smaller markets but we're not there.” – Phillip Green, Frost's CFO, 2014 Q4 Earning Call Transcript

<sup>4</sup> “Well, I think that you are right, we did have some increases in securities during the quarter. We actually averaged, if you just look at total securities, \$3.3 billion in the fourth quarter, we averaged \$3.7 billion in the first quarter, and the things **we've been buying, that we like to buy, primarily, is municipal securities, because that is where you've seen actually real value, and pretty much all we've bought has been PSF insured, Texas school bonds,** and I talked about PSF before and if anyone has any questions on what that is, just ask, but that is truly a guilt edge insured by the state of Texas, security -- with underlying security ratings of A, so this is great credit, and **we're buying a lot of them from hedge funds that want to get rid of them and can't hold them, so we're seeing yields there, I think in the quarter, we saw yields average just below 7% on those, between 6 and 7%, on those bonds.** That's what we like to buy.

We also bought some mortgage-backed securities. But you're looking at yields there of probably 3 and [3.25]% for a similar duration instrument. I will tell you that **we are getting less and less enamored with buying what we feel are overpriced mortgage-backed securities where the Fed, for example, may be in the market, and they're commendably trying to lower mortgage rates but the effect for buyers of those papers is that you end up with a security overpriced and if the Fed moves out at some point, it affects the value of your security.** As a result, and because of the risk/reward we see there, we are planning probably on maintaining more in terms of maybe even treasury securities, short-term, short-term treasury securities for us or Fed funds sold. I know that is an opportunity cost associated with just diving in and let's say buying

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the current mortgage-backed security for 3.50 or 3.75.” – Phillip Green, Frost’s CO, 2009 Q1 Earning Call Transcript

<sup>5</sup> **“Yes, we expect to do more municipal purchases.** We are going to continue to mix, I believe, some of the shorter stuff that we talked about with the barbell approach, doing some longer, say 15 year maturities. **That's really about the only value that we see in the marketplace right now. With the Fed buying everything else, you don't really have any real price discovery with any agency or treasury. And so, knock on wood, so far they haven't been buying municipals,** so you've got a real market there, which kind of helps you see the difference between the actual market and the Fed's created market.

So we will still be there because **that's really where there is the best yield return for the credit. And remember, we are buying just Texas municipals now, and the vast majority of those are [psfin] short. And so, we do have plenty of duration spend within our balance sheet.** And we've got plenty of liquidity to spend. So we're going to do some of it. But we will be doing more of it through the next several quarters.” – Phillip Green, Frost’s CFO, 2013 Q3 Earning Call Transcript

<sup>6</sup> **“As of the end of the first quarter, the entire investment portfolio expected duration stood at 4.67 years, with a tax equivalent yield of 3.91%, and an unrealized gain of approximately \$283 million.”** – Dick Evans, Frost’s CEO, 2015 Q1 Earning Call Transcript

<sup>7</sup> **“Brady Gailey, Analyst:** My question is on the duration of the bond portfolio. **Over the last two to three quarters we've seen that duration move up from 4 years to 4.4 years last quarter, now it's 4.7 years,** which is just a little surprising to see, as we near the time where rates are going to start to increase. Can you just talk about why the duration has been expanding over the last two or three quarters?

**Phillip Green, Frost’s CFO:** Well, Brady, **it's been expanding for the last seven years as we've waited for interest rates to increase. It's increasing because we buy investments in the place in the market where we feel there's value, and we continue to do that in the municipal side.** I think a big thing, though, when you look at last quarter, we had, remember the swap was coming off? We said for a long time that we wanted to replace that with that notional maturity with actual liquidity that we had built up over time into our balance sheet, so we had a fairly sizable increase in our municipal purchases in

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the fourth quarter, as you'll recall, \$700 million or so. And that probably had an impact. Just because of the durations on those things.

So I would say replacing the swap had an impact in that. **I don't think you'll see the same relative increase in duration.** You're going to see some. But it depends on what happens with maturities and all. We're getting a lot of calls on these, and refinancings on these munis. But what I like to not be in the bond market at all, sometimes yes, **I would like to not be in it, but we're in business, we're growing deposits, it's an important asset class to us, and we'll continue to invest over time.**

I think that the thing to keep in mind that we always look at, and it's not just the portfolio, but **we look at what is the duration that we've got available to spend within our balance sheet. And we're still solidly asset-sensitive. We still maintain over \$3 billion in day money in terms of our Fed account. So we'll continue to see liquidity roll in.** And we're keeping an eye on that. And as I said, I don't think that, we're not going to have the same level of municipal purchases this year as we had last year. And hopefully we'll see loan volumes as the economy continues to grow over time, it will take the place of some of these investments.” – 2015 Q1 Earning Call Transcript

<sup>8</sup> “Under capital standards in effect as of December 31, 2014, the effects of accumulated other comprehensive income items included in capital are excluded for the purposes of determining regulatory capital ratios. **Under the Basel III Capital Rules, the effects of certain accumulated other comprehensive items are not excluded; however, non-advanced approaches banking organizations, including Cullen/Frost and Frost Bank, may make a one-time permanent election to continue to exclude these items. Cullen/Frost and Frost Bank expect to make this election in order to avoid significant variations in the level of capital depending upon the impact of interest rate fluctuations on the fair value of the Corporation’s available-for-sale securities portfolio.**” – Frost 2014 Annual Report

<sup>9</sup> “I think that the -- the key word is relationship, and I think you may say, yes, everyone says that. But when you look at -- Andrea, you're familiar with our business model, and we have a very high level of commercial -- **what I call C&I loans, and those loans are people where you have their primary -- many times, most the time, their primary credit relationship. And when you have that, you get the -- what we call the funnel account, or the main deposit, demand deposit, that is associated with that. And if you don't get that, you typically don't make the loan.** There's some exceptions, but there are not

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many.” – Phillip Green, Frost’s CFO, Frost’s Acquisition of Summit Bancshares Conference Call in 2006

<sup>10</sup> “I’m a CFO and I tend to look at the business a lot of times through those eyes. **And I can tell you that when you’re out looking for project financing you’re out mainly looking for terms, availability and pricing. And that’s what I really think of more in terms of the commercial real estate, even though in our case 60% of that represents owner-occupied financing, so it’s maybe a little different.**

**But you don’t wake up on Monday morning and say, "I think I’m going to change banks today." You know? You really do that after you have decided that you’ve got a relationship with someone that you’re willing to commit that core lending facility to.** And then once you commit that core lending facility, you’re going to commit that core deposit facility with them. And that’s really one of the keys to our company. And not to mention the other fee-income-related businesses that will bring to bear.” – Phillip Green, Frost’s CFO, Morgan Stanley 2010 U.S. Financial Conference

<sup>11</sup> **“At March 31, 2015, approximately 54.0% of the outstanding principal balance of our commercial real estate loans were secured by owner-occupied properties.”** – Frost’s 2015 Q1 10-Q

<sup>12</sup> “Now, before I leave this slide, I wanted to mention a couple other things. The green section is commercial real estate loans, and we do a fair amount of that, and you can see it’s a little bit less in the C&I portfolio. **Keep in mind that 60% of those loans are owner-occupied loans, so a lot of them have the character of the C&I loans that we try to develop, and, again, the C&I loans, I think, are the highest form of relationship banking that you can get.**” – Phillip Green, Frost’s CFO, Barclays Capital London Financial Services Conference, 07 May 2009

<sup>13</sup> **“The thing I would say to you, our in-house limit is \$25 million. We’ll go over that depending on the quality obviously, very carefully.** We, as a result of that 01 blip you saw in charge-offs, we run a--prior to that we have run a concurrent system so we have a credit officer matching off as you go up with size of loans. **And once you get to \$10 million as a result of 01 we have--our senior officers have a credit committee and then after they finish, I sign off on everything over that amount.**” – Dick Evans, Frost’s CEO, KBW Regional Bank Conference, 27 February 2008

<sup>14</sup> “For our company today, our focus is to build around four priorities. **First, people and a relationship culture. People who are interested in making**



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**alliance and not just making a living; relationships versus transactions, and a culture philosophy based on values proven to work for our Company 138 years.** Secondly, customer orientation. To bring value to our customers by listening carefully to their needs and matching our sophisticated skills and products so they can accomplish their goals.” – Dick Evans, Frost’s CEO, 2005 Q2 Earning Call Transcript

<sup>15</sup> **Brett Rabakin, Analyst:** And then I'm curious, I know your credit quality is much better than many banks, but I'm just curious if you guys added any workout staff this past quarter or two or kind of what you've done with your credit staff to this year.

**Dick Evans, Frost’s CEO:** We have a great workout staff. As you know, all of us have been around and went through this in the '80s.

**Brett Rabakin, Analyst:** Yes.

**Dick Evans, Frost’s CEO:** So they just try to keep me out of the way. We got a great staff that can work with it and, no, we haven't. You know, I mean, we really haven't increased it.

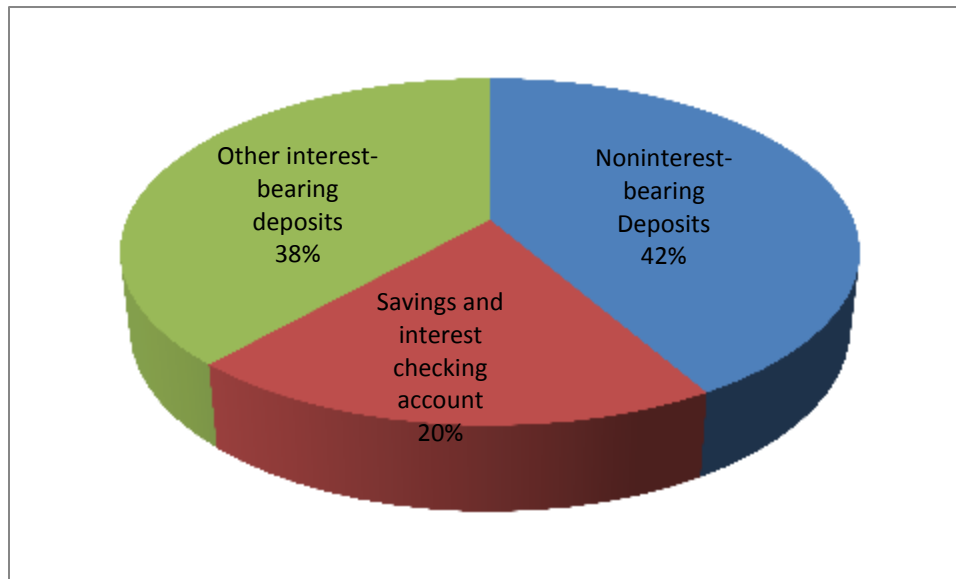
**Phillip Green, Frost’s CFO:** One thing we've done to take advantage of the opportunity is to let some of our younger people actually spend time in the workout area because you learn a lot more in problems than you do just seeing good times.

Obviously they are new and they are inexperienced, but they can help with the resolution process and it also is **a chance to give them really invaluable opportunity to see how things work in good times and bad times.**

**Dick Evans, Frost’s CEO:** Phil has really hit an important factor. **All of us really grew up in the '80s, a whole bunch, more than we ever dreamed we could. And what we see is this is a tremendous opportunity to really train the next generation in our Company by letting them spend some time there.**” – 2009 Q2 Earning Call Transcript

## Moat

### For Frost, Great Services Means Low Cost



### ***About 62% of Frost's deposits are free or almost free***

- **Biggest Negative:**
  - Frost's low funding cost advantage is weakened by
    - Near-zero interest rates
    - The repeal of regulation Q
      - Regulation Q prevented banks from paying interests on commercial demand deposits
- **Michael Porter Questions**
  - **For the industry**
    - Is the threat of new entrants high or low?
      - Low
      - About 1-2% new FDIC charters in 2002-2008
      - Almost no new FDIC charters after 2009
    - Is the bargaining power of buyers high or low?
      - High
      - Borrowers care about rates and terms
    - Is the threat of substitutes high or low?
      - No threat of substitutes
      - Online banking isn't a threat
        - People need physical branches for services

- Is the bargaining power of suppliers high or low?
      - Suppliers of money
        - Low for checking accounts
        - High for CDs
      - Staff costs are 50-60% of noninterest expenses
        - Bankers are generally not unionized
    - Is the rivalry within the industry high or low?
      - High
  - **For the company**
    - Is the threat of new entrant different for this company specifically?
      - No
      - The threat of new entrant is low
    - Is the bargaining power of buyers different for this company specifically?
      - Yes
      - 84% of loans are relationship-based
    - Is the threat of substitutes different for this company specifically?
      - No threat of substitutes
    - Is the bargaining power of suppliers different for this company specifically?
      - The same
    - Is the rivalry within the industry different for this company specifically?
      - The same
- Frost is the 5<sup>th</sup> largest bank in Texas
  - 4 bigger banks hold about 52% of deposits in Texas
    - Bank of America
    - Wells Fargo
    - JP Morgan
    - BBVA
  - Frost has **5.1%** of deposits
- Frost's deposit breakdown by areas
  - San Antonio: \$7.4 billion
    - **32.8%** of total deposits
    - **26.9%** market share
    - **#1** player
  - Dallas/Fort Worth: \$5.6 billion

- **24.7%** of total deposits
    - **2.7%** market share
    - **#6** player
  - Houston: \$3.9 billion
    - **17.1%** of total deposits
    - **1.8%** market share
    - **#8** player
  - Austin: \$2.4 billion
    - **10.8%** of total deposits
    - **7.2%** market share
    - **#4** player
  - Midland/Odessa
    - \$1.4 billion
    - **6.1%** of total deposits
    - **15.3%** market share
    - **#1** player
- There are two kinds of cost
  - Funding cost
    - Defined as Interest Expense/Earning Assets
      - Earning Asset = assets that yield interest income
        - Loans + securities + short-term investments
  - Operating cost
    - (Noninterest Expense – Noninterest Income)/Earning Assets
- Frost has low funding cost
  - 50% of deposits are from consumers
    - 50% from commercial customers
  - Noninterest-bearing deposits: **42%** of total deposit
    - One reason is the focus on Commercial & Industrial loans (C&I)
      - C&I loans: **53%** of total loans
        - Customers are small business<sup>1</sup>
          - Between \$10 and \$100 million revenue
          - Frost had **13%** share of this segment in 2006<sup>2</sup>
            - (skewed more to San Antonio)
            - Probably bigger share today
        - Banks get C&I loans only through a core relationship
        - A core banking relationship include
          - The primary deposit account

- Credit facility, and
    - An average of 3.5 consumer accounts<sup>3</sup>
  - Over **90%** of C&I loans are supported by deposit from commercial customers<sup>4</sup>
    - 40% of commercial real estate loans (CRE) are supported by deposit from CRE customers
      - (Focuses on owner-occupied CRE)
- Private savings and interest checking accounts: **20%** of deposits
  - These deposits are almost free
  - Cost only **0.47%** in 2007
    - (2007 had the highest interest rates since 2001)
    - Money market deposit accounts cost **3.08%**
    - Time accounts cost **4.36%**
- => **62%** of deposits are almost free
  - Cost on average only **0.15%** in 2007
- Takes Wells Fargo for example
  - In 2007
    - Noninterest-bearing deposits are **27%** of total deposits
    - Interest-bearing cost **3.41%** on average
      - Interest-bearing checking cost 3.16%
      - Market rate and other savings cost 2.78%
      - Savings certificates cost 4.38%
      - Other time deposit costs 4.87%
- An average bank has only about 20% free deposit
  - Big banks like Wells Fargo has higher than average free deposit
  - But no banks has as many free deposit as Frost
- => Frost has **30%** more free deposit than most peers
  - If interest-bearing deposit cost 3%
    - => about 0.75% lower Interest Expense/Deposits lower
      - = 3% \* 30% - 0.15%
- Frost's funding cost advantage over peers is
  - = median (each peer's funding cost – Frost' funding cost)
  - First Financial: **0.08%**
  - Prosperity Bancshares: **0.41%**
  - Wells Fargo: **0.59%**
  - U.S. Bancorp: **0.64%**
  - International Bancshares: **0.94%**

- Texas Capital: **0.96%**
  - Southside Bancshares: **1.08%**
- The funding cost advantage is durable
  - Customers are loyal
  - **91%** consumer retention rate
    - Consumers may have several bank accounts
    - But they rarely change their “primary” bank accounts
      - Changing the primary bank account is a big hassle
      - They have to set up recurring payments for
        - Cable or Internet
        - Electricity
        - Insurance
        - Home loans
        - Etc.
      - They have to link the new account to
        - PayPal
        - Amazon
        - Brokerage account
        - Etc.
      - They have to tell their employer to deposit salaries to the new bank account
        - Fill out some form
      - They have to install a new mobile app for the new bank
        - And get used to the new app
    - Bank accounts are lost when customers
      - Move to new place
      - Get married
      - Die, or
      - Have very bad experience with the bank
    - Frost retain customers by great services
      - Onboarding Program
        - Banks normally lose **1/3** of new accounts within 12 months<sup>5</sup>
        - Frost contacts new customers regularly during the first 12 months
      - Help customer change the bank account
        - Created a “switch kit”<sup>6</sup>



- A checklist of things to be done
      - Deposit
      - Set up deposit and payments
      - Download app and use mobile banking
      - Close old accounts
    - Switch specialists assist customers in switching
      - Even fill out forms for customers
  - Use a company called Cornerstone for mortgages<sup>7</sup>
    - Frost doesn't want to make mortgage loans
    - but still want to take care of customers
      - Don't want to get hurt by not doing the business
    - Frost doesn't get paid for that
  - Answer phone calls from customer by person
    - Not by machine
  - 24/7 customer service
  - Don't put holds on checks that customer deposit
  - Extended the deadline for same-day deposits
    - Until 8:00 PM
  - Has the 2<sup>nd</sup> largest ATM network in Texas
    - More than 1,200 ATMS
    - More than Wells Fargo
  - 2 reasons for choosing Frost<sup>8</sup>
    - Texas
    - Services
    - Frost emphasizes these points in their ads
      - 91% retention rate
      - "We're from here"
- Commercial customers are also loyal
  - Small business
    - The bank account is used for everyday transactions
  - Frost strengthen the relationship by selling additional services<sup>9</sup>
    - Treasury management
    - Insurance
    - Asset management
      - Trust
      - 401 (k)

- Also do consumer banking with
      - Owner
      - Treasurers
      - Etc.
  - The biggest risk is the repeal of **Regulation Q**
    - Regulation Q prevented banks from paying interests on commercial demand deposits
      - The Regulation Q was repealed in 2011
    - About **25%** of Frost's deposits are commercial demand deposits
      - About **23%** of earning assets
    - Peers may have only 10-15% of deposits are commercial demand deposits
    - The repeal of Regulation Q hasn't had any impact so far
    - But there can be impact when interest rates are higher
    - The cost of commercial demand deposit will be a fraction of Federal fund rates<sup>10</sup>
    - Frost paid only **0.47%** for interest checking account in 2007
      - When other time deposits cost 3-4%
    - Each additional % Frost and peers have to pay for commercial demand deposit will reduce Frost's relative advantage by **0.1-0.15%**
- Frost has low operating cost
  - Bank in Dallas has on average **1.97%** operating cost
    - (according to FDIC data from 2002 to 2014)
    - **3.53%** Noninterest Expense/Earning Assets
    - 1.56% Noninterest Income/Earning Assets
  - Frost has **1.4%** operating cost
    - 1.34% Noninterest Income
    - **2.74%** Noninterest Expense
  - Some Texas banks have lower cost than Frost
    - Southside Bancshares
      - **2.99%** Noninterest Expense
      - 0.73% Noninterest Income
      - **2.26%** operating cost
    - Texas Capital
      - **2.26%** Noninterest Expense
      - 0.34% Noninterest Income

- **1.92%** operating cost
- First Financial
  - **2.71%** Noninterest Expense
  - 1.31% Noninterest Income
  - **1.40%** operating cost
- Prosperity Bancshares
  - **1.85%** Noninterest Expense
  - 0.69% Noninterest Income
  - **1.16%** operating cost
- International Bancshares
  - **2.64%** Noninterest Expense
  - 1.67% Noninterest Income
  - **0.97%** operating cost
- Four banks have lower noninterest expense than Frost
  - Prosperity Bancshares has the lowest noninterest expense
    - **0.89%** lower than Frost
- Only one bank has more Noninterest Income than Frost
  - International Bancshares: **0.33%** more
- Two banks have lower operating costs than Frost
  - Prosperity Bancshares: **0.24%** lower
  - International Bancshares: **0.43%** lower
- It can be difficult to compare
  - A bank can have lower cost by
    - Charging higher fees
    - Offering fewer services
    - Sell less services
    - Fewer C&I loans
      - Frost makes about 2 times more C&I loans as % of total loans than peers
      - Longer sales cycle<sup>11</sup>
        - It takes months to secure a new relationship
        - => need investments in relationship officers
- There are signs that Frost has low operating cost advantage
  - 3 factors in operating cost
  - **Size: Economy of scale**
    - Based on data of FDIC-insured institutions from 2002

- Noninterest expense was stable over the 2002-2014 period in 4 categories
  - 2002-2014 Median Noninterest Expense/Assets is
    - Banks with over \$10 billion assets: **2.93%**
    - \$1 billion to \$10 billion assets: **3.05%**
    - \$100 million to \$1 billion: **3.19%**
    - < \$100 million: **3.61%**
- Noninterest expense doesn't suggest much cost advantage for banks with over \$1 billion assets
- But larger banks tend to have more Noninterest income
- (Noninterest Expense – Noninterest Income)/Assets shows the advantage clearer
  - Banks with over \$10 billion assets: **0.99%**
  - \$1 billion to \$10 billion assets: **1.79%**
  - \$100 million to \$1 billion: **2.06%**
  - < \$100 million: 2.32%
- => Big banks can have great scale advantage in selling noninterest services
- **Culture**
  - This is hard to judge
  - Frost seems to have good cost control
  - Noninterest Expense/Earning Assets never increased
    - Flat in boom years
      - 1995-2000
      - 2003-2008
    - Declined in almost all other years
  - The CEO and CFO look at any new expense over \$10,000<sup>12</sup>
    - Make sure that business managers are seeing that it's rational to spend that money
- **“Unit-level” economy of scale**
  - Results from
    - High deposit per customer
      - A lot of deposits from C&I customers
    - High deposit per branch
    - High local market share
  - Frost has lower operating cost overtime

- 1991
  - Noninterest expense: 5.77%
  - Noninterest income: 2.13%
  - Operating cost: **3.64%**
- 2014
  - Noninterest expense: 2.74%
  - Noninterest income: 1.34%
  - Operating cost: **1.40%**
- Deposit per branch's annual growth was 4.7% for 20 years
  - 1995: \$79 million
  - 2014: \$196 million
- Deposit per branch is **\$196 million**
  - Much higher than peers
  - Wells Fargo: **\$134 million**
  - Most banks have less than \$100 million
    - U.S. Bancorp: **\$93 million**
    - First Financial: **\$77 million**
    - Prosperity Bancshares: **\$72 million**
    - Southside Bancshares: **\$53 million**
    - International Bancshares: **\$40 million**
- High deposit per branch results in significant scale
  - Occupancy Cost/Earning Assets declined
    - 1991: 0.63%
    - 2014: 0.23%
  - There's also leveraging of other costs
  - Example:
  - Frost's Pre-tax profit per branch is
    - **\$3.7 million** in 2014
    - Would be **\$5.8 million**
      - In a normal interest rate environment
  - JPM makes \$1 million pre-tax profit per retail office<sup>13</sup>
    - Goal:<sup>14</sup>
      - New offices break even after 24 months
      - Ultimately make more than \$1 million pre-tax profit
    - This goal is realistic for most banks
      - Average less than \$100 million deposit

- Average ROA is 1.5%
      - (according to FDIC data)
    - If a branch manager cost \$100,000
      - 10% of JMP's retail branch's pre-tax profit
      - Less than 2.7% of Frost branch's pre-tax profit
  - This advantage keeps widening
    - Frost keeps advertising the brand in Texas
      - Radio, print, broadcast, Internet, Cable TV...
      - 10 million non-Frost customers use Frost ATM each year
        - They'll see the signage
      - Frost has specially outfitted "switch vans"<sup>15</sup>
        - Across the state
        - A staff of specialists explain people how easy it can be switch to Frost
    - Frost keeps adding new commercial customers
      - Example:
      - Frost did a research in 2007<sup>16</sup>
        - Based on Frost's commercial customers
          - Stayed with Frost for 25-30 years
      - Identified a list of 25,000+ prospects<sup>17</sup>
      - They're more likely to appreciate relationship style of banking
        - 6 times higher chance to get these prospects than other prospects
      - Relationship managers works through the list
- Frost has no advantage on the lending side
  - Have to pass on opportunities some times
    - Because of price and terms
  - But about 84% of loans are "captive"
    - Relationship-based
    - Don't have to compete

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<sup>1</sup> "I think that the -- the key word is relationship, and I think you may say, yes, everyone says that. But when you look at -- Andrea, you're familiar with our business model, and we have a very high level of commercial -- **what I call C&I loans, and those loans are people where you have their primary -- many**



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times, most the time, their primary credit relationship. And when you have that, you get the -- what we call the funnel account, or the main deposit, demand deposit, that is associated with that. And if you don't get that, you typically don't make the loan. There's some exceptions, but there are not many.” – Phillip Green, Frost’s CFO, Frost’s Acquisition of Summit Bancshares Conference Call in 2006

<sup>2</sup> “The reason why we have, you know, rather than as I've talked about for almost a year about the competition, there's not anything I can do about it. In fact I'd a lot rather than in Texas than anywhere else in the U.S. because it's a great market. And the reason we have spent a great deal of time on research and identifying the specific markets and the opportunities which I pointed out to you, you know, **25 or 30,000 prospects that are not doing business with us, we have, 13% penetration of this middle market, 10 to a \$100 million in sales, there's no question that plenty of opportunity.**” – Dick Evans, 2007 Q2 Earning Call Transcript

<sup>3</sup> “Turning to the business side, with respect to new relationships, we turned in an outstanding quarter. Year to date, we have acquired 141% more new relationships than the same period last year. These new relationships have excellent breadth and depth. **On an average, each of these new relationships includes 3.5 individual customers and over 60% of them have chosen to use all three of our major banking product groups, loans, deposits, and fee services. This means we are servicing the needs of both the business and the individuals who own and run these businesses.** More important is this increased potential, these relationships will provide when the economy recovers. This is very strong, especially considering the customers are hesitant to move in such uncertain times. This speaks to our discipline in targeting and pursuing new customers and to the reputation we enjoy as a safe haven.” – Dick Evans, Frost, CEO, 2009 Q2 Earning Call Transcript

<sup>4</sup> “One thing that we did a while back was to take a look at what is the deposit support characteristics of these various loan segments. **And when you looked at the green section, you looked at our commercial real estate officers, they supported about 40, a little over 40% of the outstandings that they had in loans were supported by deposit balances that were associated with those officers.** And I don't think that is very bad, that is pretty good.

**When you look down at the commercial side, it was about 100%. It was just high 90% in terms of deposits that fund those outstandings. So just to I**

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**think give some more insight into why our deposit base looks like it does.”**  
– Phillip Green, Frost’s CFO, Merrill Lynch Banking & Financial Service  
Conference, 16 November 2006

<sup>5</sup> “We’ve also put more emphasis on programs to build new business. One of these programs is called **Onboarding, which is focused on those accounts in the first year where banks normally lose about one-third of their accounts, and through better communications with this program in year one in our branches and calls from our call center and direct mail, we will improve retention of these customers.** Another program is Bank At Work. We’re calling on commercial relationships and signing up groups of employees, and always better referrals through all relationships.” – Dick Evans, Frost’s CEO, 2005 Q2 Earning Call Transcript

<sup>6</sup> “At Frost, we know that when you’re ready to switch banks, you’ve got a lot to consider. That’s why we’ve created this Switch Kit, containing everything you’ll need to make your transition to Frost as simple as possible after you’ve opened your new Frost Personal account.

If you’d like someone to help you, **we’ll assign a Switch Specialist to walk you through the entire process. We’ll be happy to help you figure out what needs to be done, such as moving over critical transactions like direct deposits and automatic payments/withdrawals to your new account. If you’d like, we’ll even fill out and send in the forms for you.**” – Frost Bank’s Switch Kit

<sup>7</sup> “**Unidentified Audience Member:** Just really quick, I was curious whether the recent disruption has changed your mind at all about the residential mortgage business and if not what might?

**Dick Evans, Frost’s CEO:** Now we haven’t. We have no desire to, I mean, if you look at it, I also not being in it, we got out in 2000, as you know. **We are able to take care of our customers. We use a Company called Cornerstone out of Houston. So somebody comes in, in our deal, we don’t get paid for it, but we have an agreement. We want everything else the customer does financially and we’ll give them the mortgage loan.** And it works pretty well. So the customer, it’s not like we just said we don’t want to make mortgage loans. We still take care of the customer.

I think if you look at the compliance issues, which are worse today than they were in 2000, you got just a few people control the whole thing. **There is -- there**

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are just a lot of reasons, we believe to stay out of that and we're not getting hurt by not doing it. And it was a tough decision at first because a relationship like our bank, you got the corporate treasurer, I mean the corporate CEO, or the treasurer, and whatever big commercial customer. And they want to buy a new house, they being he and his wife, or she and her husband or whatever. And so, **are we going to lose the business? We haven't, we haven't lost it, we took care of them in fact, they'd probably get a better deal the way we're doing it.**" – KBW Regional Bank Conference, 24 February 2010

<sup>8</sup> Some quotes from consumers' comments on why they bank with Frost in the website:

***"Best customer service, makes you feel at home and will always work to help you out when needed!"*** – Valerie Bomer

***"The Best customer service. 16 yrs with this bank and I have never been disappointed."*** – Debra Garcia

***"Because of the customer service and hometown feel. You always get to talk to a real person."*** – Lorena Hendrix Roberts

***"Best customer service always welcome you with a smile and help you with any situation. Then banking with Frost for the past 25 years no complaints what so ever!!!"*** – Delma Romero Macias

***"My Parents banked with Frost their whole lives they opened an account for me when I was 14 that was over 30 years ago"*** – MJ Scarsdale

***"I have been a frost customer since my dad opened a savings account for me when I was a small child. In that time I have never had any issues, I have always been treated well, I have never seen where Frost was being taken over or investigated, and my money has always been secure. I have been a customer for almost 40 years and I plan to remain a customer."*** – Alma G. Castaneda

***"Trust. No scandals, take overs, or concerns whether Frost will here tomorrow. Rates might be 'better' other places, but trust far outweighs."*** – Bonnie Stimson

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**“For me it is Customer Service. Josh at the Bryant Irvin Branch in Fort Worth go above and beyond. He goes out of way to make sure I am taken care of. Frost Bank is the Best Bank in Texas.”** – Kent Bell

**“Our family has been banking with you since 1967, when we moved to San Antonio. In good times, we rejoiced together. In bad times, you helped us out, remembering that we were faithful to you. We would never change banks!”** - Mimi Shepard

**“Because I am an average account holder with not millions in the bank and I get treated like a billionaire. Frost has the best customer service ever.”** – Angelo Peña

**“Their customer service is awesome. They don't rush you and are willing to help in any way. In addition, they are super friendly, treating each person as if they have known you for years!”** – Debra Waddell Schneider

**“The best service I have ever had with a bank. Excellent customer service, professional employees, and they treat everyone like you have millions in their bank.”** – Michelle Moffitt Simon

<sup>9</sup> **“And then last but not least, I would say to you that this prospecting activity, while the prospects are there, while we have great staff, while we have identified them and we will be more focused it does require time. You don't build the kind of relationships that we want and that bring profitability to this company, which means not just a loan transaction, but a relationship with a customer that has the checking accounts and where we can broaden the base with that customer, 401(k)s or selling insurance and all the things we do, that's the kind of bank we are. But it does take time, it takes consistency, and it takes discipline to nurture these”** – Dick Evans, Frost's CEO, 2007 Q2 Earning Call Transcript

<sup>10</sup> **“Always when I have talked to people about it, I say look it's a fairly linear relationship. You can choose what percentage of Fed funds you think you will pay on that demand deposit. Pick a portion of the demand deposits that you think subject to that rate and apply fairly basic arithmetic, and you can see what the impact of that would be on a higher or even lower rate environment. That's one thing I will say about sensitivity.”** – Phillip Green, 2013 Q2 Earning Call Transcript

<sup>11</sup> **“For Frost, a new banking relationship means we have the customer's primary operating account. It takes months of hard work to secure a new customer relationship and a good deal of hard work after to produce new**

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financial product pipelines.” – Dick Evans, Frost’s CEO, 2008 Q4 Earning Call Transcript

<sup>12</sup> “Certainly the way we look at expenses is from a strategic power, it’s always a commitment of ours to reduce unnecessary expenses. But as he said, we are going to stay with our model of continue to give outstanding service. **I don’t think you’ll find this Company wastes money in any way. We -- you who have known us know that Phil and I personally look at any new expense over \$10,000. That’s not to play a government game, but mainly it is to make sure that the business managers are seeing that it’s rational to spend that money.** We approve. So, I think we’ve got good expense control and it’s really a compliment to our staff and the culture in which we have.” – Dick Evans, 2011 Q2 Earnings Call Transcript

<sup>13</sup> “That said, and despite slight reductions in profit due to an abnormal interest rate environment, **our average retail branch still earns approximately \$1 million a year.** And the right type of branch in the proper location is profitable not only on its own but is enormously beneficial to the rest of the company. We believe interest rates and spreads will return to normal levels, and we are building our branches accordingly.” – Jamie Dimon’s 2011 Letter to Shareholders

<sup>14</sup> “**New branches typically break even by the end of the second year, and, when fully established, which takes several more years, each branch ultimately should earn more than \$1 million in profits a year.**” – Jamie Dimon’s 2010 Letter to Shareholders

<sup>15</sup> “We know changing banks is a hassle for most people, so our personal bankers have been helping people move accounts and set up bill payments, direct deposits and automatic payments. **We have even added specially outfitted switch vans across the state, with a staff of specialists who can explain how easy it can be to switch to Frost.**” – Frost’s 2011 Annual Letter to Shareholders

<sup>16</sup> “Fourth is the focus on growing new customer relationships by effective prospecting. **I reported to you before that we began a process of identifying high quality business prospects for our relationship managers and they are working through a list of 25,000 plus prospects that are more likely to appreciate cross relationship style of banking.**” – Dick Evans, Frost’s CEO 2007 Q4 Earnings Call Transcript

<sup>17</sup> “Looking forward, we engage [Greenwhich] research in 2006 and because of that research it gave us confidence there is an opportunity for improved growth, but it does require sales staff to be very disciplined and focused. To be more

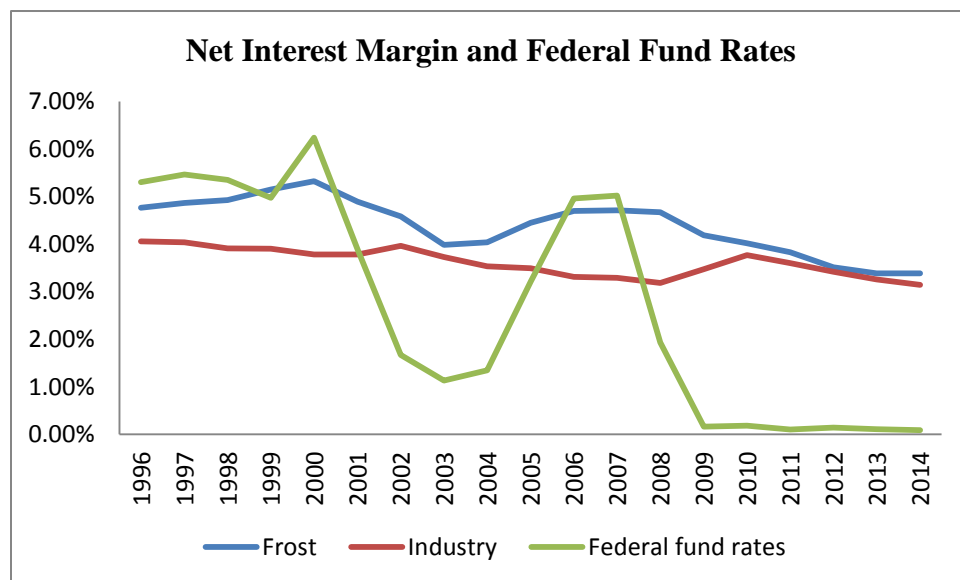
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specific about the opportunity, **there are a million companies in Texas with annual sales of over a million dollars. 650,000 are in our footprint. Maintains a market penetration of 13 % of the Texas middle market businesses. These are businesses with sales of \$10 million to a \$100 million. This 13% is in our footprint.** And if you look closer at different markets the highest concentration or highest penetration is in the San Antonio market followed by Austin and Fort Worth, then the smaller percentage of penetration is in the Houston and Dallas market.

Now, we need to remind ourselves that the smaller the percentage is also the greatest opportunity. **For companies not doing business with Frost we are identifying those companies that are attracted to our brand,** who share our core values, and companies with whom we have traditionally done well with for many years. **We estimate that this select group to be 25 to 30,000 prospects in the state. Based on our analysis it would appear that we should be six times more successful with this select group of prospects than the market as a whole.** Even with all this analysis prospecting activity requires time, consistency and discipline in nurturing the relationship.” – Dick Evans, Frost’s CEO, 2007 Q2 Earning Call Transcript

## Quality

### Frost's Earnings Are Sensitive to Interest Rates



### Low interest rates cause Frost's Net Interest Margin to decline more than the industry

- **Biggest Negative:**
  - o Capital intensive
  - o High leverage
- **Michael Porter Questions**
  - o For the industry
    - Can the industry charge a high price?
      - The industry charge a stable "Net Interest Margin" over cost of money
    - Does the industry have low costs?
      - Banks have lowest cost of money
        - o Lower than pension funds, bond funds, etc.
    - Does the industry have low need for assets?
      - The industry is capital-intensive
        - o Rely on high leverage
        - o Leverage depends on regulatory capital ratios
  - o For the company
    - Can the company charge a higher or lower price than the industry?



- Consumer loans are just 11% of total loans
  - Consumer loans have higher yield than commercial loans
  - For commercial loans
    - Frost focuses on relationship-based loans
      - Less price competition
  - Does the company have higher or lower cost than the industry?
    - Yes
    - Frost has lower cost of money than the industry
    - Frost also have low operating cost
      - Thanks to
        - High deposit per branch
        - Bigger and bigger size
  - Does the company have more or less need for NTA than the industry?
    - The same
- The industry is very predictable
  - Deposit growth is about 5-6%
    - Match GDP growth
  - Total deposits of all FDIC-insured institutions grew **6.2%**
    - 1995: \$3,769 billion
    - 2014: \$11,764 billion
  - Total deposit of all FDIC-insured institutions in Dallas grew **4.6%**
    - 2002: \$438 billion
    - 2014: \$752 billion
- Bank leverage is different from other business
  - Deposits are like perpetual loans
    - Other business must pay debts
      - According to the terms
  - Deposits are like “float” of an insurer
    - Can invest deposits forever if deposits keep growing
      - Just need to manage some liquidity
      - Deposits are generally stable
        - Bank run is rare
        - Banks are insured by FDIC
  - The biggest problem is that results of bad decisions are magnified
    - Conservatism is a must
- Frost is more sensitive to interest rates than peers

- Frost's Net Interest Margin has a wider band than the industry
    - Net Interest Margin = (Interest Income – Interest Expense)/Earning Assets
    - From 1996 to 2004
      - Net Interest Margin of the industry was about 3.6%
        - (all FDIC-insured institutions)
        - Min: 3.14%
        - Max: 4.06%
        - Median: 3.6%
        - Mean: 3.61%
        - Standard Deviation: 0.30%
        - Variation: 0.08%
          - Very stable
          - Yields adjust to cost of money
            - (federal fund rates)
      - Frost's Net Interest Margin was
        - Min: 3.38%
        - Max: 5.32%
        - Median: 4.58%
        - Mean: 4.39%
        - Standard Deviation: 0.59%
        - Variation: 0.13%
- That's because Frost has more noninterest-bearing deposits than peers
- Low interest rates hurt Frost more than other banks
  - Frost's cost of money doesn't decline as much as other banks
  - Earning power is depressed more when interest rates are low
- **Frost Premium** = Frost's Net Interest Margin – Industry's Net Interest Margin
- Frost Premium is low when interest rates are low
  - From 1996 to 2014
    - Min: 0.09%
    - Max: 1.54%
    - Median: 0.72%
    - Mean: 0.78%
    - Standard Deviation: 0.5%
    - Variation: 0.64
  - Frost Premium was low in

- 2003: 0.25%
    - 2010 – 2014: less than 0.25%
  - Frost Premium was high in
    - 2000: 1.54%
    - 2007: 1.49%
- **Notice:**
  - Frost Premium understates Frost's advantage over the industry
  - Frost Premium doesn't include "allowance for loan losses"
  - Frost has lower charge-offs/average loans than the industry
    - Thus lower allowance for loan losses/average loans
  - Charge-offs/average loans
    - Frost: 0.23%
    - The industry: 0.59%
  - Allowance for loan losses/average loans
    - Frost: 0.19%
    - The industry: 0.50%
- There's chance for margin expansions
  - The industry's operating cost is relatively flat
    - Operating cost = (Noninterest expense – Noninterest income)/Earning assets
    - Operating cost of all FDIC-insured institutions from 2002 to 2014
      - Min: 0.93%
      - Max: 1.54%
      - Median: 1.20%
      - Mean: 1.22%
      - Standard Deviation: 0.18%
      - Variation: 0.15
        - Stable
    - Operating cost of banks with more than \$10 billion assets
      - From 2002 to 2014
      - Min: 0.61%
      - Max: 1.36%
      - Median: 0.98%
      - Mean: 0.96%
      - Standard Deviation: 0.23%
      - Variation: 0.24

- Stable
    - Operating cost was about 0.85% from 2002 to 2007
    - Operating cost was about 1.12% from 2008 to 2014
    - Noninterest expense/earning assets was stable across the two periods
      - But Noninterest income/earning assets declined
- Flat operating cost may explain the industry's stable Net Interest Margin
  - If operating cost of the industry declines
    - Competition may pass the benefit on to customer
      - => Lower Net Interest Margin
- Net Interest Margin is like gross margin
  - Determined by the industry
  - The one has lower cost than the industry enjoy higher margin
- Operating cost is like SG&A
  - This item is company-specific
  - Frost has been able to reduce operating cost
    - Higher local market share overtime
    - Higher deposit per branch overtime
      - Grew about 4.7% for 20 years
      - 1995: \$79 million
      - 2014: \$196 million
  - Noninterest expense/Earning assets declined consistently
    - 1991: 5.77%
    - 1996: 4.78%
    - 2001: 4.87%
    - 2006: 4.02%
    - 2011: 3.33%
    - 2014: 2.74%
  - Operating cost has also declined consistently
    - 1991: 3.64%
    - 1996: 2.28%
    - 2001: 2.38%
    - 2006: 1.66%
    - 2011: 1.60%
    - 2014: 1.40%

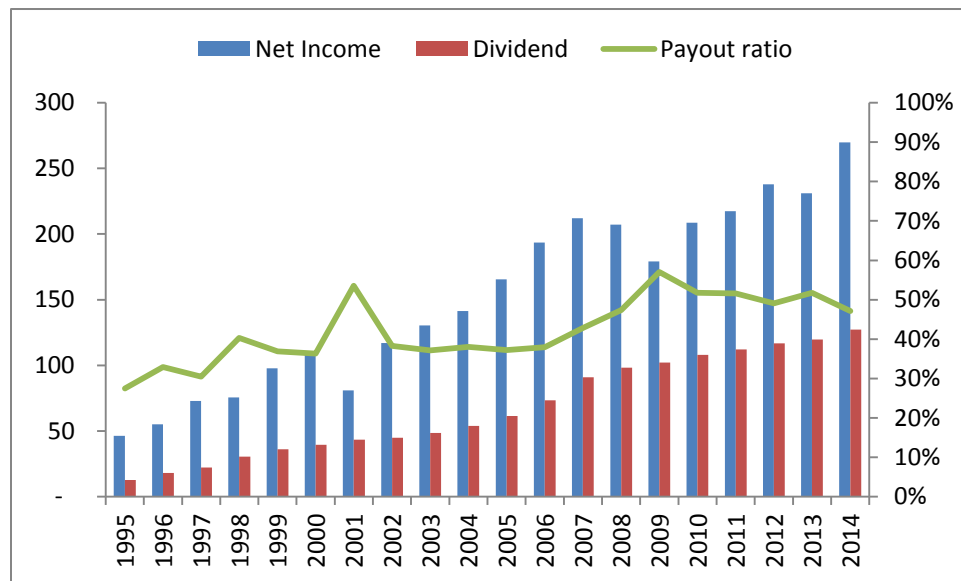
- Stable Net Interest Margin and lower operating costs result in margin expansion
  - Meaning higher Pre-tax Profit/Earning Assets
- Pre-tax ROE is about 20-30%
  - The industry has very low return on asset
    - A profitable bank like Wells Fargo earns about 3% return on earning assets
    - 15x leverage results in “only” 45% pre-tax ROE
      - 29% after-tax ROE
    - In fact, Wells Fargo has only 10x leverage
      - 30% pre-tax ROE
      - 20% after-tax ROE
  - Leverage is limited by
    - Company’s policy
    - Regulatory capital ratios
  - Frost’s Earning Assets/Equity was about 10x historically
    - Well above current and future regulatory capital ratios
  - Pre-tax income/Earning Assets was about 2.24% historically
    - Based on 22-year data from 1993 to 2014
      - In early 1990s Frost was just going out of the energy crisis
    - Min: 1.30%
    - Max: 2.90%
    - Median: 2.24%
    - Mean: 2.31%
    - Standard deviation: 0.44%
    - Variation: 0.19
      - Stable
  - => about **22%** pre-tax ROE
  - But operating cost has been declining
    - Net interest income/Earning assets was about **4.28%** historically
    - The repeal of Regulation Q has a negative impact
      - Commercial demand deposits are 25% of total deposits
        - 23% of earning assets
      - 1% rates will reduce Net Interest Income/Earning Asset by **0.23%**
    - Operating cost is **1.4%**
    - => 2.65% normal Pre-tax Income/Earning Assets

- => about 26.5% normal pre-tax ROE
    - 17% after-tax ROE
- 8 dimensions of quality
  - Relative size
    - Great relative to customers
      - Frost focuses on small and middle-sized business
    - Great size relative to suppliers of money
      - Consumers
      - Commercial customers
  - Focus
    - Frost is very focused on relationship-based banking
    - Willing to exit business that's not relationship-based
      - Mortgage loans
      - Indirect auto loans
    - No plan to expand outside of Texas
  - Customer engagement
    - Frost engage customers more proactively than other banks
      - Example:
      - Onboarding programs
      - Help customers switch accounts
  - Cross-selling
    - Frost is focused on growing noninterest income
      - Put wealth advisors and insurance producers into branches
    - No longer call themselves "Frost bank"
    - Financial centers are now "Banking, Investments, Insurance"
  - Retention
    - 91%
  - Words of mouth
    - Anecdotally high
  - Reinvestment rate
    - Spent \$215 million in advertising, promotions, and public relations
      - Since 2001
    - Advertising expense has accelerated recently
      - 2001: \$7 million
      - 2006: \$11 million
      - 2010: \$15 million
      - 2014: \$29 million

- Stock's popularity
  - Short interest: 7.9%
  - Share turnover: 325%
    - 3-month average daily volume: 812 thousand shares
    - Float: 63 million shares

## Capital Allocation

### Frost Needs to Retain 50% Earnings to Support 7-9% growth



### *Frost maintains about 50% dividend payout ratio*

#### - **Biggest Negative:**

- Acquisitions have lower return than organic growth
- Frost has conservative lending practice
  - o Frost has lower yield than peers
    - Yield = Interest Income/Earning Assets
    - Median of (peers' yield - Frost Yield) was
      - Wells Fargo: 1.07%
      - U.S. Bancorp: 0.66%
      - All Dallas FDIC-insured institution: 0.48%
      - Southside Bancshares: 0.32%
      - Texas Capital: 0.31%
      - First Financial: 0.21%
      - Prosperity Bancshares: 0.08%
      - International Bancshares: 0.06%
  - o That's perhaps because Frost's assets have lower risk
    - Example:
    - Frost makes few consumer loans
      - No mortgage loans
      - Consumer loans have higher yield than commercial loans



- Frost's MBS portfolio has no exposure to subprime mortgage
  - Frost pass on \$ billions of loan opportunities each year
    - 50% because of price (rates)
    - 50% because of structure (terms, covenants)
  - **2/3** of Frost's loans have variable rates
  - Only **20%** of Frost's loans have maturities longer than 5 years
- Frost maintain a **50%** dividend payout ratio<sup>1</sup>
  - 50% dividend payout ratio is sustainable
  - Frost is currently making 10% after-tax ROE
  - Frost can make 18-20% after-tax ROE if interest rates are normal
  - => Frost needs to retain only 50% of earnings to support a high single digit **organic** growth in asset
    - While maintaining about 10x leverage
- Acquisitions require more capital than organic growth
  - Frost has to pay a multiple of tangible equity
  - Acquired banks tend to have higher leverage
  - => the True price is higher than the price paid
    - True price includes
      - Price paid
      - Additional equity added for the acquired entity to have 10x Earning Asset/Tangible Equity
    - True price = Price paid + Earning Assets/10 – Acquired Tangible Equity
  - Frost has two criteria for acquisitions
    - Culture
      - The target must have a focus on relationship banking
      - This is a “must”
      - Frost only consider the second criterion if the culture fits
      - Frost tends to look at
        - C&I loans/Total loans
        - Noninterest-bearing Deposits/Total Deposits
        - How much of commercial real estate loans are owner-occupied
      - Example:
        - Frost acquired Summit Bancshares in 2006
        - Frost had known Summit for many years<sup>2</sup>
          - Strong cultural affinity

- Emphasis on relationship banking
    - High ethical standards
    - Similar customer base<sup>3</sup>
  - Summit had similar lending focus<sup>4</sup>
    - C&I loans: **35%** of total loans
      - Frost's was 45%
    - Commercial loans: 33%
      - Frost: 24%
      - **2/3** of Summit's commercial loans were owner-occupied
  - **29%** of Summit deposits were non-interest bearing<sup>5</sup>
    - **36%** of Frost's deposits were non-interest bearing
  - Frost reviewed 1/3 of Summit's portfolio during the due diligence process<sup>6</sup>
- There's little risk that Frost acquires the wrong company
  - Frost knows most banks in Texas<sup>7</sup>
    - Has a correspondent banking business
      - Bank with over 300 banks
      - A hundred-year-old business
  - Frost is an aggressive looker<sup>8</sup>
    - Knows everything that's selling in Texas
    - But Frost is a conservative buyer
- Price
  - Frost said the second criteria is price
  - But it's unclear about how Frost looks at price
  - Frost has made 5 acquisitions of banks since 2002
    - Price/Earning Assets was
      - Horizon: **0.28**
        - In 2005
        - Earning assets: **\$384 million**
        - Price paid: \$109 million
      - Texas Community Bancshares: **0.30**
        - In 2006
        - Earning assets: **\$108 million**
        - Price paid: \$32 million
      - Alamo: **0.29**

- In 2006
    - Earning assets: **\$303 million**
    - Price paid: \$88 million
  - Summit Bancshares: **0.35**
    - In 2006
    - Earning assets: **\$1,071 million**
    - Price paid: \$370 million
  - WNB Bancshares: **0.12**
    - In 2014
    - Earning assets: **\$1,705 million**
    - Price paid: \$199 million
- True Price/Earning Assets was
  - Horizon: **0.29**
  - TCB: **0.31**
  - Alamo: **0.31**
  - Summit: **0.38**
  - WNB: **0.17**
- Frost was making about 2.8-2.9% Pretax-earning/Earning Assets
- Considering full synergies, the price paid was fair for
  - Horizon
  - TCB
  - Alamo
- The price paid for Summit was expensive
- The price paid for WNB was great
- Frost sometimes issued shares to make acquisitions
  - Mainly to maintain a conservative leverage level
    - Issued **1.4 million** shares in 2005<sup>9</sup>
      - At \$43.86 per share
      - For **\$61 million**
      - To acquire Horizon
    - Issued **3.8 million** shares in 2006
      - At \$56.38 per share
      - For **\$215 million**
      - To acquire Summit
  - Frost issued 2 million shares to acquire WNB in early 2014
    - At \$74.85 per share

- For \$150 million
- But Frost had repurchased 2.2 million shares in 2013
  - At \$62.6 per share
- Frost's Price/Earning Assets was similar or higher the price paid
  - 0.27 when acquiring Horizon
    - Paid 0.28
  - 0.34 when acquiring Summit
    - Paid 0.35
  - 0.22 when acquiring WNB
    - Paid 0.12
- Acquisitions can result in a mediocre return
- But Frost mainly grew organically
  - Earning Asset has increased by almost \$18 billion since 2000
    - Acquisition contributed less than \$3.6 billion
    - => less than **20%** of growth
- Frost capital allocation created great value
  - Over the last 10 years
  - ROE was depressed because of low interest rates
    - After-tax ROE was 14-17% before 2009
      - Was about 10-11% after 2009
  - Earning Assets per share still grew 9.7% annually, meanwhile
    - Leverage declined
      - 2005: 9.13
      - 2014: 8.37
    - Total income was \$2,123 million
    - Total dividend was \$1,010 million
      - **48%** payout ratio

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<sup>1</sup> **Emlen Harmon, Analyst:** Okay, got it. As a follow-up, could you talk about just capital deployment priorities at this point? You did talk about M&A a little bit. But I would be curious -- it sounds like you're being conservative there, but just curious to hear your thoughts on where the dividend goes from here and whether you're thinking about buy backs at all.

**Phillip Green, Frost's CFO:** First of all, I would say with regard to dividend, we said before that **our level of payouts is pretty much in line with where we**

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think it ought to be. Which is roughly half, about 50%. I wouldn't expect anything dramatic with regard to the dividend.

With regard to buy backs, I think the thing that we've said also over time is we've been careful with the amount of capital that we are maintaining as they roll out these capital rules. Basel III, we've gotten some more insight on where that's going. One aspect of it, I think that for all banks, is really a serious issue is there's a decision to include the OCI [Other Comprehensive Income] impact from unrealized securities gains and losses in capital and if they really do follow through with that. I think that what it means is even more capital for the industry, particularly community banks, but also the larger banks. Or a smaller investment portfolio.

As we -- but there's a long way to go, I think, before we finally decide what happens with those rules, so we are going to be watching those very closely to see what the impact will be. That's something that we need to be mindful of as we consider any buy backs in the near-term. I think what our expectations are is we are going to continue to husband capital and watch these developments and once they finally shakeout, it will give more clarity in terms of what our response can and should be on the capital.” – 2011 Q2 Earning Call Transcript

<sup>2</sup> “I'm pleased to announce the merger of Summit Bancshares of Fort Worth, Texas into Cullen/Frost Bankers Inc. **This is an organization that we have known for many years** and also the people involved in that organization and have a high mutual respect for each other. The transaction is first based on a **strong cultural affinity**. As you might expect, as you know, at **Cullen/Frost, culture is number one in any acquisition we make. In this particular case, both organizations have an emphasis on relationship banking and high ethical standards, and we have a similar customer base and lending practices** that expands our presence in an attractive market. Tarrant County or Fort Worth demographics are more attractive than Dallas Metroplex and Texas as a whole. It creates a strong number 4 market position in Tarrant County with 10.7% market share, it increases the market position in the Metroplex to number 7 and it improves Cullen/Frost's position to number 4 more state-wide.” – Dick Evans, Frost's CEO, The Acquisition of Summit Bancshares Conference Call, 03 July 2006

<sup>3</sup> “A little bit about Summit. Summit is traded on the NASDAQ under the symbol SBIT. It was founded in 1975 in Fort Worth. **They operate 12 locations throughout Tarrant County, and it's a traditionally commercially oriented community bank with a focus on C&I and commercial real estate lending.**

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**On the commercial lending, real estate lending, that is primarily for owner-occupied real estate transactions.** And, they have a strong core deposit base. They operate several other businesses, **relatively new trust business**, also investment services, which certainly will fit into our \$18 billion 85-year-old trust and investment operation. On the **insurance brokerage products** they sell and we will add that to our \$28 million-plus revenue operation in the insurance business.” – Dick Evans, Frost’s CEO, The Acquisition of Summit Bancshares Conference Call, 03 July 2006

<sup>4</sup> “If you take a look at the composition of the loan portfolio, I think it's a good story here. These two companies have a very similar lending philosophy and lending focus. **We have, for example, at Cullen/Frost, C&I of about 45% of our portfolio. Summit has about 35% of their portfolio in C&I loans. Commercial mortgages -- we run 24%, they run 33. I think importantly, just like us, most of their commercial real estate tends to be owner-occupied. I believe about two-thirds of their numbers is owner-occupied,** and that is essentially a C&I fairly relationship-based loan when you're doing an owner-occupied deal and fits well with what we have done. I think importantly, if you look at the combined company, our C&I percentage goes from 45% down to only 44%. Our commercial mortgages, for example, goes from 24% to 25%. And so we're really not seeing a change in our company's loan portfolio mix of any substantial amount as a result of the Summit acquisition because we are so similar.” – Philip Green, Frost’s CFO, The Acquisition of Summit Bancshares Conference Call, 03 July 2006

<sup>5</sup> “I think if you look at the deposit mix of both companies and how they fit together, I think this is another good story. **We as you know run a very high percentage of non-interest-bearing demand deposits, about 36%. Summit runs a high number, just under 30, at 29%, and that the combined company pro forma deposit composition would be 36% non-interest-bearing at -- just like it stands today.** So we are similar enough that it does not change what is a very strong funding base composition for our company, so another example of how well we fit together.” – Philip Green, Frost’s CFO, The Acquisition of Summit Bancshares Conference Call, 03 July 2006

<sup>6</sup> “We have completed obviously our due diligence work, focusing on credit, legal, accounting and reviewed a substantial portion of the portfolio. **In fact, I believe we've reviewed about a third of the portfolio. And what I would say really for all our due diligence is it just in our minds showed what a quality organization this is.** Their reputation has been extremely good over the years and everything that we found was just complementary to that. And again, in our minds, **it just shows how well a fit it is between our organizations where we like to believe we focus on quality as well.** And we just feel very good about

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it.” – Philip Green, Frost’s CFO, The Acquisition of Summit Bancshares Conference Call, 03 July 2006

<sup>7</sup> **“Jennifer Demba, Analyst, Sun Trust Robinson Humphrey:** Thank you. I was wondering if you could give us some background on how long you have known Horizon and background of the transaction.

**Dick Evans, Frost’s CEO:** We have known Horizon -- as we know most all the banks in the state because our corresponding banking relationship -- I do not even know how long. **Certainly we have known the people and got to know their culture and understand those people for over a year.** Obviously been very impressed with who they are and how they represent themselves. We're happy to have them as a part of our family.” – 2005 Q1 Earning Call Transcript

<sup>8</sup> **“At the same time, I will tell you that we are aggressive lookers. We feel responsible to be sure we know everything that's selling in Texas, for whatever reason, and what might sell. And, obviously, we've been there a while, 142 years.**

**We have a correspondent banking business that has over 300 banks that bank with us. It's a hundred-year-old business.** Any of you that know a little bit about correspondent banking, **it's a pretty good network to know what's going on beyond the facts.** And so I think we have a pretty good pulse of what's happening in the market and **we're aggressive lookers and conservative buyers.**” – Dick Evans, Frost’s CEO, Sterne, Agee & Leach Financial Services Symposium, 09 February 2010

<sup>9</sup> **“Adam Keller, Analyst, Kershell Investment Management:** Can you talk about why the horizon transaction was structured as a combination stock and cash deal as opposed to an all cash transaction?

**Phillip Green, Frost’s CFO:** It was a number of things. **We think that utilizing stock in the transaction helps on a tax basis for the horizon people,** so there is an advantage over there. **Including stock in the transaction also helps us with our capital ratios so that it cushions the impact of the intangibles that are on our books. We also think that our stock has done fairly well and it is a good investment.** It is not thrown around a lot, so when we do, we think it is an advantage for us. The cash, given the fact we are generating a lot of capital and we have utilized in fact we generate some much we're utilizing buybacks at times. There is sufficient cash to throw into the deal to add a little bit of leverage

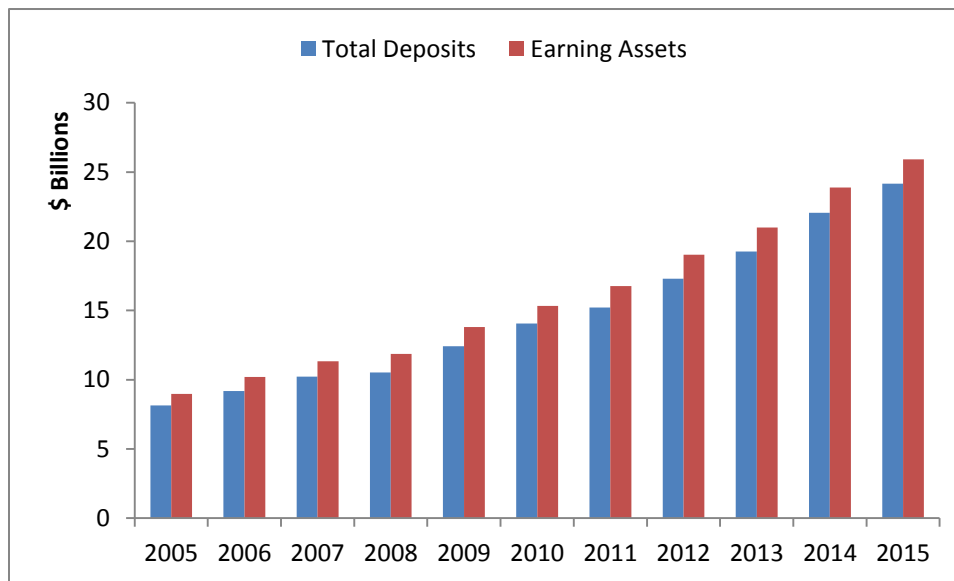
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to help returns our returns for our shareholders so that's some of the general thinking.” – 2005 Q1 Earning Call Transcript



## Value

### Frost's Value Depends on Total Deposits and Earning Assets



#### *Total deposits has almost tripled since 2005*

- **Biggest Negative:**
  - o No one knows when interest rates will rise
- Key inputs
  - o Share price: **\$80** per share
    - (actually \$73, but \$80 gives some margin for movement)
  - o Outstanding shares: 63.18 million
  - o Market cap: \$5,054 million
  - o Short-term investments: \$3,205 million
  - o Securities: \$11,490 million
  - o Loans: \$11,215 million
  - o Earning Assets: \$25,910 million
  - o Deposit: \$24,150 million
- Pre-tax Owner Earnings is **\$695 million**
  - o Two approaches
  - o Historical data shows Frost can make 2.88% ROEA
    - Net Interest Income/Earning Assets was **4.28%** in the past
      - From 1988 to 2014
        - o Min: 2.53%
        - o Max: 5.09%

- Median: 4.28%
  - Mean: 4.04%
  - Standard Deviation: 0.69%
  - Variation: 0.17
    - Stable
- Current Net Interest Income/Earning Assets is far below normal
  - **3.32%**
  - Frost is more sensitive to interest rates than most banks
    - Has a bigger portion of noninterest-bearing deposits
- Net Interest Income/Earning Assets was cyclical
  - Above 4.28% in
    - 1992-2001
      - Min: 4.28%
      - Max: 5.09%
    - 2005-2008
      - 2005: 4.33%
      - 2006: 4.56%
      - 2007: 4.58%
      - 2008: 4.35%
  - Below 4.28% in
    - 1988-1991
    - 2003-2004
    - 2009-2014
- Operating cost has declined consistently
  - Will have lower operating cost in the future
    - Higher deposit per branch
    - Higher local market share
    - Higher company size
  - Operating cost was **1.40%** in 2014
- => 2.88% return on earning assets (ROEA)
  - = 4.28% - 1.4%
- Total Earning Assets is \$25,910 million
  - => **\$746 million** normal EBT
    - = \$25,910 \* 2.88%
- The second approach is more conservative
  - Based on normal interest rates
    - And future costs

- Normal Federal Fund Rates (FFR) can be around **3%**
  - Median FFR was:
    - 1955-2014: 4.97%
    - 1975-2014: 5.33%
    - 1995-2014: 2.57%
  - FFR was mostly higher than 3%
    - 1955-2014:
      - 60 years in total
      - 45 years when FFR > 3%
      - => **75%** of the time
    - 1975-2014:
      - 40 years in total
      - 30 years when FFR > 3%
      - => **75%** of the time
    - 1995-2014:
      - 20 years in total
      - 10 years when FFR > 3%
      - => **50%** of the time
  - The Federal Reserve cares about
    - Inflation
    - Unemployment
  - FFR was over 3% in 2005-2007
    - 2005: 3.21%
    - 2006: 4.96%
    - 2007: 5.02%
    - (inflation was high during this period)
  - Notice
    - The Federal Reserve always targets 2% inflation
    - Actual inflation was always higher than 2% since 1966
      - Except for
        - 1986: 1.9%
        - 1998: 1.5%
        - 2002: 1.6%
        - 2009-today
    - This happened when FFR > 3% most of the time
  - Inflation will eventually increase
    - Economists talk about velocity of money

- $M \cdot V = P \cdot Y$ 
  - M = money supply
  - V = velocity of money
  - P = Price
  - Y = real GDP
- If V decreases, inflation can stay low despite low interest rates
  - (M increase but V decreases)
- V depends on
  - Productivity
  - Credit
    - Or debt level
  - Demand
    - Confidence
    - Population growth
- Long-term population growth is stable about 1%
  - Composed of
    - Low growth from long established families
    - High growth from new immigrants
      - And their first generation
  - Recent 0.5-0.6% growth is just a result of the recession
    - Not a long-term trend
- Productivity growth tend to be stable
- => V can be influenced the most by
  - Debt
  - Confidence
    - Confidence reduces demand
    - Confidence also reduces population growth in near term
- => inflation was low in recent years due to
  - U.S. households and businesses have deleveraged
  - Lower confidence
- But V can't decrease forever
- Inflation is picking up now
  - Services inflation is now 1.5-3.5%
  - House Price Index increased by 5.5%

- Jan 2013 – Jan 2014: 5.3%
    - Apr 2013 – Apr 2014: 6.0%
    - Jul 013 – Jul 2014: 5.8%
    - Oct 2013 – Oct 2014: 5.6%
    - Jan 2014 – Jan 2015: 5.5%
  - House Price Index only 7% below the peak level
    - Peak: 378
      - In Jan 2007
    - Jan 2015: 352
- Higher FFR will increase
  - Interest income
    - Higher yield on earning assets
  - Interest expense
    - Higher cost of interest-bearing deposits
    - Let's call the % cost Frost pay for interest-bearing deposits as **“cost of deposit”**
- Interest income will **move along** with FFR
  - Loans tend to have a spread over benchmark rates
  - Yield's premium over FFR was 3.27%
    - From 1991 to 2014:
      - Min: 1.81%
      - Max: 4.65%
      - Median: 3.27%
      - Mean: 3.09%
      - Standard deviation: 0.80%
      - Variation: 0.26 (quite stable)
        - Premium shrinks when FFR increases
- Cost of deposits tend to be a % of FFR<sup>1</sup>
  - This is counterintuitive
  - We expect banks look at the spread between FFR and cost of deposits
  - But cost's discount to FFR wasn't stable
    - From 1998 to 2007, (FFR – Cost of deposit) was
      - Min: -0.16%
      - Max: 1.93%
      - Median: 1.00%
      - Mean: 0.87%

- Standard deviation: 0.62%
  - 0.71 (very unstable)
- We didn't include the 2008-2014 period
  - This period is too special
  - Cost exceeded the near-zero FFR
- Cost as a % of FFR was very stable
  - From 1998 to 2007, cost as a % of FFR was
    - Min: 48%
    - Max: 96%
    - Median: **69%**
    - Mean: 70%
    - Standard deviation: 13%
    - Variation: 0.18 (stable)
  - Excluding interest checking, cost as a % FFR was even more stable
    - (Frost usually pays less than 10% of FFR for interest checking deposits)
    - Min: 60%
    - Max: 104%
    - Median: **82%**
    - Mean: 83%
    - Standard deviation: 11%
    - Variation: 0.13% (very stable)
- Peers shows similar relationship between cost and FFR
  - (FFR – Cost of deposit) is very unstable
    - Variation is
      - Wells Fargo: 0.96
      - US Bancorp: 0.99
      - BOK Financial: 1.47
      - Prosperity Bancshares: 1.06
      - Texas Capital: -2.83
      - First Financial: 0.87
      - International Bancshares: 1.00
      - Southside: 1.57
  - Cost as a % of FFR is stable
    - Wells Fargo
      - Median: **74%**

- Variation: 0.23
    - (1991-2007)
  - US Bancorp
    - Median: 77%
    - Variation: 0.24
    - (1989-2007)
  - BOK Financial
    - Median: 82%
    - Variation: 0.30
    - (1993-2007)
  - Prosperity Bancshares: 74%
    - Median: 74%
    - Variation: 0.33
    - (1996-2007)
  - Texas Capital
    - Median: 104%
    - Variation: 0.26
    - (1999-2007)
  - First Financial
    - Median: 75%
    - Variation: 0.25
    - (1992-2007)
  - International Bancshares
    - Median: 83%
    - Variation: 0.23
    - (1993-2007)
  - Southside
    - Median: 81%
    - Variation: 0.32
    - (1993-2007)
- Net Interest Spread is very stable
  - Net Interest Spread = Yield on Earning Assets – Cost of Funding
  - Net Interest Spread was about 3.97%
    - From 1988 to 2014
      - Min: 2.78%
      - Max: 4.58%
      - Median: **3.97%**

- Mean: 3.89%
  - Standard deviation: 0.47%
  - Variation: **0.12** (very stable)
- The repeal of Regulation Q has a negative impact
  - Regulation Q prevented banks from paying for commercial demand deposit
  - The Regulation Q was repealed in 2011
  - Commercial demand deposits are 25% of total deposits
    - About \$6 billion
  - Frost may have to pay 50% of FFR for commercial demand deposits
    - Cost of interest checking was less than **10%** of FFR
    - Cost of money market accounts was **73%** of FFR
      - From 1988 to 2007
        - Min: 56%
        - Max: 88%
        - Median: 73%
        - Mean: 71%
        - Standard deviation: 9%
        - Variation: 0.13 (very stable)
    - Other banks pays about 75-80% of FFR for interest-bearing deposits
      - Money market accounts
      - CDs
      - Time account
    - Commercial demand deposits should be similar to interest checking
      - But commercial customers have high balance
      - Frost may have to pay a competitive rates
        - but lower than for money market accounts
    - **50%** is a conservative estimate
- Input for calculation (see the Appraisal page)
  - Earning assets: \$25,910 million
  - Consumer demand deposit: \$3,995 million
  - Commercial demand deposit: \$6,037 million
  - Interest-bearing deposits: \$14,118 million
- **Assumptions**



- We can make safe assumptions about
    - Cost of interest-bearing deposit: **2.07%**
      - 69% of FFR
      - Very stable as a % of FFR
    - Cost of demand deposits: 1.50%
      - 50% of FFR
      - This is a conservative assumption
    - Net interest spread: **3.97%**
      - Very stable over a 26-year period
    - Yield: 6.04%
      - = 3.97% + 2.07%
    - Charge-offs: 0.48%
      - Median was 0.23%
      - Mean was 0.48%
        - But mean was only 0.27% over the last 20 years
      - 0.48% is a conservative number
        - Charge-offs was just 0.58% in 2009
    - Operating cost: 1.4%
- The formula for ROEA is
  - $ROEA = Yield - Cost\ of\ funding - Charge-offs - Operating\ Cost$
- But Frost has 3 main sources of funding with different cost
  - Free funding: 22%
    - 0% cost
  - Commercial demand deposits: 23%
    - Potentially 1.5% cost
  - Interest-bearing demand deposits: 54%
    - 2.07% cost
- => each source of funding results in a different ROEA
- Weighted average ROEA is **2.68%**
- **Notice**
  - Higher FFR and higher cost of interest-bearing deposits will result in higher weighted average ROEA
  - 2 reasons
  - Interest-bearing deposits give stable ROEA
    - Because net interest spread is stable
  - Free funding gives higher ROEA than interest-bearing deposits

- The gap is exactly the cost of interest-bearing deposits
  - 2.68% ROEA results in **\$695** million pre-tax earnings
    - = \$25,910 \* 2.68%
- Frost's current valuation is
  - P/Deposit: **0.21**
  - P/2014 EBT: 11.06
  - P/Normal EBT: **7.27**
- Peer valuation
  - We picked 5 Texas banks that have the most years of financial data
  - Prosperity Bancshares (PB)
    - PB grew through acquisitions
      - Deposit CAGR was 27% from 1996 to 2014
        - 1996: \$236 million
        - 2014: \$16,690 million
    - PB issued a lot of shares
      - 1996: 7 million shares
      - 2014: 70 million shares
    - => deposit per share growth was about 12%
    - PB is an active real estate lender: **57.1%** of loans
      - Commercial real estate: 32.8% of loans
      - 1-4 family residential loans: 24.3% of loans
    - Commercial and Industrial: **19.5%** of loans
    - PB's loan losses were very low
      - Median provision for loan losses was **0.06%**
        - Max was 0.38%
      - Median charge-offs/average loans was **0.06%**
        - Max was 0.41%
    - Net Interest Income/Earning Assets was **3.74%**
      - (From 1996 to 2014)
      - Min: 3.39%
      - Max: 4.02%
      - Median: 3.74%
      - Mean: 3.73%
      - Standard Deviation: 0.19%
      - Variation: 0.05
        - Very stable
    - Has consistently reduced operating cost like Frost

- 1.16% in 2014
  - => **2.58%** ROEA
  - PB's current valuation is
    - Share price: \$55.73
    - Market Cap: \$3,904 million
    - P/Deposit: **0.22**
    - P/2014 EBT: 8.75
    - P/Normal EBT: **7.92**
      - Using **2.58%** ROEA
- First Financial Bancshares (FFIN)
  - FFIN tend to have 30-40% market share in very small markets
  - FFIN has very similar cost profile to Frost
    - Similar funding cost
    - Similar operating cost
      - Similar Noninterest Expense/Earning Assets
  - Net Interest Income/Earning Assets was **4.41%**
    - (From 1992 to 2014)
    - Min: 4.11%
    - Max: 4.68%
    - Median: 4.41%
    - Mean: 4.43%
    - Standard Deviation: 0.14%
    - Variation: 0.03
      - Extremely stable
  - Operating cost is about 1.4%
  - => 3.01% ROEA
  - FFIN's current valuation is
    - Share price: \$34.56
    - Market Cap: \$2,217 million
    - P/Deposit: **0.46**
    - P/2014 EBT: 16.06
    - P/Normal EBT: **13.01**
      - Using **3.01%** ROEA
- Texas Capital (TCBI)
  - TCBI has a different business models than other peers
  - TCBI doesn't rely on a large branch network<sup>2</sup>

- Offers
  - 13 banking centers
    - Over \$1 billion deposit per branch
    - They have one branch in Caymay Island
      - Serve U.S.-based customers
  - Courier services
  - Online banking
- Has only 12 ATMs
  - ATMs don't accept deposits
- TCBI was founded in 1998
  - With \$80 million capital
    - The largest in U.S. history at that time
- TCBI calls themselves "The Best Business Bank in Texas"
- **81%** of deposits are originated out of TCBI's Dallas metropolitan banking centers
- TCBI has a small number sources of deposits<sup>3</sup>
  - A significant volume of demand deposits is from
    - Financial service companies
    - Mortgage finance customers
  - Over half of deposits is from customers whose balances exceed \$250,000
- TCBI grew mostly organically
- Deposit grew 22% annually from 2001 to 2014
- But TCBI issued a lot of shares
  - 2002: 18.5 million shares
  - 2014: 45.7 million shares
- Deposit per share grew about 14%
- TCBI's problem is high funding cost
  - about **0.96%** higher than Frost
- TCBI wasn't able to reduce operating cost as they grew
- Median ROEA was 1.17%
  - Only 14% pre-tax ROE using 11x leverage
- FFIN's current valuation is
  - Share price: \$61
  - Market Cap: \$2,792 million
  - P/Deposit: **0.20**
  - P/2014 EBT: 13.14

- P/Normal EBT: **14.09**
    - Using **1.17%** ROEA
- Southside Bancshares (SBSI)
  - Southside's disadvantage is high funding cost
    - About **1.08%** higher than Frost
  - Southside wasn't able to reduce operating cost
    - Like Frost or First Financial
  - => ROEA is just 1.3%
  - Southside uses high leverage to achieve a high ROE
    - 14x leverage
    - => 19% pre-tax ROE
  - Southside's current valuation is
    - Share price: \$28.84
    - Market Cap: \$731 million
    - P/Deposit: **0.21**
    - P/2014 EBT: 21.49
    - P/Normal EBT: **12.98**
      - Using **1.30%** ROEA
- International Bancshares (IBOC)
  - IBOC is an inferior peer
  - 10-year CAGR of deposits was only 2.3%
  - IBOC has about **0.94%** higher funding cost than Frost
  - But IBOC has a strong focus on noninterest income
  - => only about **1.12%** operating cost
  - Noninterest Income has declined significantly
    - Due to recent changes in regulation
    - Noninterest income was
      - 2010: \$219 million
      - 2014: \$178 million
  - IBOC can makes 2.16% return on pretax income
  - IBOC's valuation is
    - Share price: \$26.69
    - Market Cap: \$1,773 million
    - P/Deposit: **0.20**
    - P/2014 EBT: 7.71
    - P/Normal EBT: **7.57**

- Using **2.16%** ROEA
  - Frost is cheaper than peer
    - Two most useful metrics are
      - P/Deposit
      - P/Normal EBT
    - Frost trade at similar P/Deposit to peers
      - Frost: 0.21
      - Southside: 0.21
      - International Bancshares: 0.20
      - First Financial: 0.46
      - Texas Capital: 0.20
      - Prosperity Bancshares: 0.22
    - But Frost makes higher ROEA than all except for First Financial:
      - Frost: 2.65%
      - Texas Capital: 1.17%
      - Southside: 1.30%
      - International Bancshares: 2.16%
      - Prosperity Bancshares: 2.58%
      - First Financial: 3.01%
    - First Financial has higher ROEA
      - But also much higher P/Deposits
    - Of all peers
      - First Financial is the most comparable peer
      - SBSI, IBOC and TCBI are inferior peers
      - Prosperity Bancshares is hard to compare
        - Has almost the size of Frost
        - Has very low noninterest expense
        - Has a bit lower ROEA
        - Is the biggest peer
          - \$19 billion earning asset
        - But isn't a strong franchise like Frost
          - Not a big consumer brand
          - Isn't big with C&I customers
            - Only 19.5% of loans
- Historical price was between 14x and 20x P/E
  - About 9-13x EBIT from 1999 to 2014
  - Yet Frost outperformed S&P over the last 20 years

- Frost's share price increased: 579%
  - S&P increased 273%
  - This understated Frost's outperformance
    - Frost is undervalued today
    - S&P is overvalued today
  - => Frost must have a higher multiple than in the past to have a similar return to S&P
- Frost deserves **13x EBT**
  - 13x EBT is equivalent to 20x P/E
    - 5% yield
  - 7-9% deposit growth per share is a certainty
  - Frost need to retain only 50% of earning to grow 7-9%
    - => 2.5% dividend yield
  - => investors can make 10% return by buying Frost at 13x EBIT
- Buying Frost today can result in over **14%** annual return over 5 years
  - How much earnings can Frost make **in 2020**?
    - It's safe to expect 3% FFR in 2020
      - Most Fed members expect 3-4% FFR after 2017
  - Frost won't make \$695 million pre-tax earnings immediately when interest rates rise
    - Frost and peers tend to neutralize asset's sensitivity to interest rates
      - Asset re-price more quickly than deposits
        - Loans tend to have floating rates
      - => asset's sensitivity
      - Offset asset's sensitivity by having fixed rates assets
        - Some fixed rates loan
        - Fixed-rates securities
        - => these asset re-price more slower than interest-bearing deposits
          - Creating liability's sensitivity
            - Offset asset's sensitivity
    - But both assets and liabilities will re-price in 5 years
      - Most loans have shorter than 5-year maturities
      - Securities portfolio have 4.67-year duration
  - In 5 years, Frost will also grow deposit per share by **5%** per year
    - We expect 8% long-term growth

- But higher interest rates can have some impact on growth of non-interest bearing deposits
- Pre-tax earnings in 2020 would be \$887 million
  - = \$695 million \* 1.05<sup>5</sup>
- After-tax earnings in 2020 would be \$577 million
  - = \$887 \* 65%
- EPS in 2020 would be \$9.13
  - = \$577/63.18
- Historical price was 14-20x P/E
- At 15x P/E
  - Share price is \$137
  - **11.4%** annual increase from \$80 per share
  - Dividend yield is 2.7%
  - => about **14%** annual return

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<sup>1</sup> “Always when I have talked to people about it, **I say look it's a fairly linear relationship. You can choose what percentage of Fed funds you think you will pay on that demand deposit. Pick a portion of the demand deposits that you think subject to that rate and apply fairly basic arithmetic**, and you can see what the impact of that would be on a higher or even lower rate environment. That's one thing I will say about sensitivity.” – Phillip Green, 2013 Q2 Earning Call Transcript

<sup>2</sup> “We compete for deposits by offering a broad range of products and services to our customers. While this includes offering competitive interest rates and fees, the primary means of competing for deposits is convenience and service to our customers. However, **our strategy to provide service and convenience to customers does not include a large branch network. Our bank offers thirteen banking centers, courier services and online banking. BankDirect, the Internet division of our bank, serves its customers on a 24 hours-a-day, 7 days-a-week basis solely through Internet banking.**” – Texas Capital’s 2014 Annual Report

<sup>3</sup> “**Our bank sources a significant volume of its demand deposits from financial services companies, mortgage finance customers and other commercial sources, resulting in a larger percentage of larger deposits and a smaller number of sources of deposits than would be typical of other banks in our markets. In recent periods over half of our total deposits have been attributable to customers whose balances exceed the \$250,000 FDIC insurance limit.** Many of these customers actively monitor our financial condition

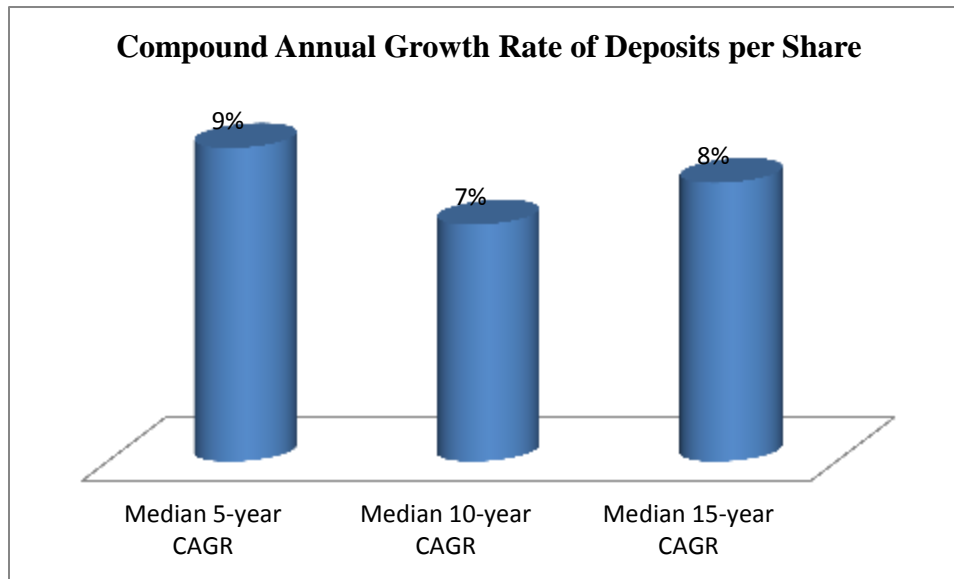


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and results of operations and could withdraw their deposits quickly upon the occurrence of a material adverse development affecting our bank. **One potential source of liquidity for our bank consists of “brokered deposits” arranged by brokers acting as intermediaries, typically larger money-center financial institutions.** We receive deposits provided by certain of our customers in connection with our delivery of other financial services to them or their customers which are subject to the regulatory classification of “brokered deposits” even though we consider these to be relationship deposits and they are not subject to the typical risks or market pricing associated with conventional brokered deposits.” – Texas Capital 2014 Annual Report

## Growth

### Frost Will Keep Gaining Market Share in Texas



### *Frost grows deposits by 7-9% annually in most 5-, 10-, and 15-year periods*

- **Biggest Negative:**
  - Higher interest rates can reduce deposit per account
    - Result in flat to low single digit deposit growth in the near term
- Texas has 1% higher growth than the U.S.
  - A diversified economy
    - Energy is just 11% of the economy
  - 11<sup>th</sup> largest economy in the world
    - \$1.6 trillion GDP
  - Texas is a pro-business state
    - No state tax
  - Texas has great infrastructure<sup>1</sup>
    - A lot of raw land
      - Population density is 103.1 people per square mile
        - Ranks 26 in the U.S.
    - Easy access to the cities
    - Didn't have a housing bubble<sup>2</sup>
      - The % of homes were affordable to median income families
        - In Los Angeles
          - 1999: 64%

- 2006: 2%
    - In Dallas
      - 1999: 66%
      - 2006: 64%
  - Texas population is 27 million in 2014
    - Has grown **2.34%** annually since 1950
      - 7.7 million in 1950
    - Has grown **1.94%** annually since 1990
      - 17 million in 1990
    - About **1%** higher than the U.S.
      - Job growth has been 1% higher than the U.S. for 30 years
  - The population is projected to double by 2050<sup>3</sup>
    - To 54 million
    - => about **2%** growth
  - => Texas's economic growth continues to outpace the U.S.
- The banking industry should match GDP growth in the long run
  - Total deposits of all FDIC-insured institutions grew **6.2%**
    - 1995: \$3,769 billion
    - 2014: \$11,764 billion
  - FDIC-insured institution with over \$10 billion grew the fastest
    - Grew **7.7%** annually
      - 2002: \$3,606 billion
        - 106 institutions
      - 2014: \$9,419 billion
        - 107 institutions
  - Total deposit of all FDIC-insured institutions in Dallas grew **4.6%**
    - 2002: \$438 billion
    - 2014: \$752 billion
- Frost has been gaining market share in Texas
  - On the commercial side
    - Keep calling and adding new relationships
    - Texas has more than 1 million small business with over \$1 million revenue<sup>4</sup>
      - Frost targets business with \$10-100 million revenue
        - Had **13%** market share in 2006
        - Probably has 17% market share today
          - Frost doubled deposit since 2006



- Variation: 0.41
- Excluding the 5-year periods ending in 1993, 1994, and 1995
  - Frost was still going out of the crisis in this time
  - => no 5-year periods had CAGR lower than 5.8%
  - Min: 5.8%
  - Max: 13.4%
  - Median: **10.6%**
  - Mean: 9.7%
  - Standard deviation: 2.7%
  - Variation: 0.27
    - Quite stable
- 10-year CAGR of deposits
  - We have 18 10-year periods
    - Min: 6.1%
    - Max: 10.5%
    - Median: **8.1%**
    - Mean: 8%
    - Standard deviation: 1.3%
    - Variation: 0.16
      - Stable
- 15-year CAGR of deposits
  - We have 12 15-year periods
    - Min: 6.9%
    - Max: 10.2%
    - Median: **8.8%**
    - Mean: 8.6%
    - Standard deviation: 1.1%
    - Variation: 0.12
      - Very stable
- 5-year CAGR of **deposits per share**
  - We have 17 5-year period
    - Min: 3.8%
    - Max: 13.7%
    - Median: **9.0%**
    - Mean: 8.8%
    - Standard deviation: 3.3%

- Variation: 0.38
  - The min 5-year CAGR was in the period ending in 2006
    - Frost issued shares for 2 acquisitions
      - Horizon in 2005
      - Summit in 2006
    - Share count increased 15%
      - 2004: 52 million
      - 2006: 60 million
  - But CAGR of deposit per share the period from 2005 to 2014 was **8.9%**
- 10-year CAGR of **deposits per share**
  - We have 13 10-year period
    - Min: 4.8%
    - Max: 9.5%
    - Median: **6.8%**
    - Mean: 7.1%
    - Standard deviation: 1.6%
    - Variation: 0.23
      - Stable
- 15-year CAGR of **deposits per share**
  - We have 7 15-year period
    - Min: 7.6%
    - Max: 9.1%
    - Median: **8.0%**
    - Mean: 8.2%
    - Standard deviation: 0.6%
    - Variation: 0.07
      - Very stable
- Frost has only **5%** market share today
  - There's still a lot of room to grow
  - Future growth should be similar to past growth
    - It's very safe to expect **7-9%** deposit per share growth
  - But near-term growth will be low
    - Higher interest rates can lower deposit per account
      - Example:
      - Low interest rate resulted in 13.6% deposit growth
        - 2001: \$7,098 million

- 2003: \$8,069 million
    - But deposit growth was flat in 2004
      - 2004: \$8,106 million
  - But that'll be offset by new accounts
    - => flat to low single digit growth in near term
- There can be “margin expansion”
  - Lower Noninterest expense/Earning Assets overtime
  - => higher Pre-tax Income/Earning Assets overtime
  - => EPS growth can outpace deposit growth per share

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<sup>1</sup> “I think we're pretty fortunate to be in Texas. If you will look, **we don't have the escalation that the rest of the nation, particularly East and West Coast, and it's really from the simple fact that we have more raw land and it's easily accessed. You can commute easily into the big cities.** So that's helped hold the costs down.” – Dick Evans, Frost’s CEO, 2006 Q1 Earning Call Transcript

<sup>2</sup> “To give you an idea of home affordability in Texas versus other areas of the country, **in Los Angeles in 1999, 43% of the homes were affordable to median income families, but only 2% at the end of 2006. Comparing that with Texas and Dallas in 1999, 64% of the homes were affordable. By 2006, the percentage had barely slipped to 62%.** In Austin, home prices actually became more affordable over this period of time in contrast to the U.S. as a whole. At this time, we don't see any other trends and homebuilders appear to be manageable.” – Dick Evans, Frost’s CEO, 2008 Q1 Earning Call Transcript

<sup>3</sup> “Texas' population is projected to double by 2050, **according to a report from Texas' Office of the State Demographer.**

According to the report, **Texas' population, currently estimated to be 26,230,098 residents, will grow to 54,446,355 residents by 2050.** - *Texas to see explosive growth: Population to double by 2050*, Michael Theis, Austin Business Journal, 06 March 2015

<sup>4</sup> “Looking forward, we engage [Greenwhich] research in 2006 and because of that research it gave us confidence there is an opportunity for improved growth, but it does require sales staff to be very disciplined and focused. To be more specific about the opportunity, **there are a million companies in Texas with annual sales of over a million dollars. 650,000 are in our footprint. Maintains a market penetration of 13 % of the Texas middle market**

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**businesses. These are businesses with sales of \$10 million to a \$100 million. This 13% is in our footprint.** And if you look closer at different markets the highest concentration or highest penetration is in the San Antonio market followed by Austin and Fort Worth, then the smaller percentage of penetration is in the Houston and Dallas market.

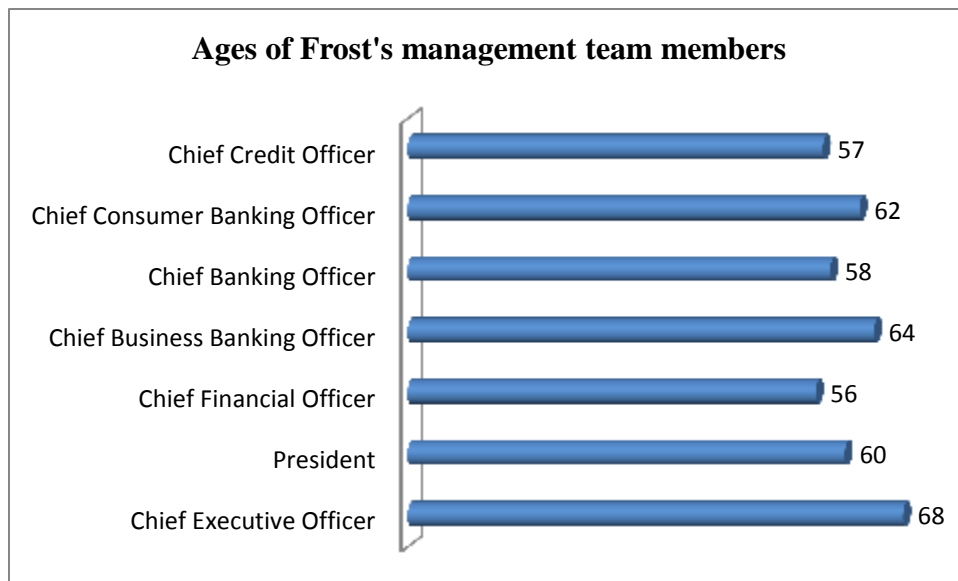
Now, we need to remind ourselves that the smaller the percentage is also the greatest opportunity. **For companies not doing business with Frost we are identifying those companies that are attracted to our brand,** who share our core values, and companies with whom we have traditionally done well with for many years. **We estimate that this select group to be 25 to 30,000 prospects in the state. Based on our analysis it would appear that we should be six times more successful with this select group of prospects than the market as a whole.** Even with all this analysis prospecting activity requires time, consistency and discipline in nurturing the relationship.” – Dick Evans, Frost’s CEO, 2007 Q2 Earning Call Transcript

<sup>5</sup> “I -- you know it's not more complicated, Charlie, than this discipline that we have in our sales processes as I talked about on consumer accounts. **We truly are an industry leader in retention and customer service.** I will tell you that we can do better in cross sell and we will. As you know, when you get into cross sale of accounts, you can also push it -- like any of these things, it's a balancing. You can push it too far to where you push the customers too much that they get irritated with you but we can do a better job in cross sell. **As I stated on an acquisition standpoint, we don't have the money the big guys do, but we've got a lot of focus, we've got some good programs like Bank at Work where we sign up commercial accounts** and we have some products in our real estate where we have some one time close on construction loans that we cross sell. We also can do a better job of -- you know that we have a partnership with GMAC Mortgage which when a customer comes to us, that um, we make a mortgage, they make the mortgage loan and we get the accounts and we'll be more focused on that and certainly just continue to do internal referrals. We're doing a good job. **I would probably rate us on cross sell and acquisition a B or B minus.** So we've got some improvement to do but it's, this -- it isn't accidental that the deposits are growing and as you know, our focus is on long-term core deposits and, I would tell you I think it's working.” – Dick Evans, Frost’s CEO, 2005 Q4 Earning Call Transcript



## Misjudgment

### How Durable Is Frost's Culture?



### Frost's management team averages about 60 years old

- **Biggest Negative:**
  - Uncertainty about the impact of the repeal of Regulation Q
- What is the impact of the repeal of Regulation Q?
  - Regulation Q prevented banks from paying interests on commercial demand deposits
  - Regulation Q was repealed in 2011
  - There has been no impact
    - But this is a near-zero interest rates period
  - There would be some impact if interest rates are high
  - The impact on moat would be low
    - About **25%** of Frost's deposits are commercial demand deposits
      - About **23%** of earning assets
    - Peers may have only 10-15% of deposits are commercial demand deposits
    - The cost of commercial demand deposit will be a fraction of Federal fund rates<sup>1</sup>
    - Frost paid only **0.47%** for interest checking account in 2007
      - When other time deposits cost 3-4%

- Each additional % Frost and peers have to pay for commercial demand deposit will reduce Frost's relative advantage by **0.1-0.15%**
          - Reduce by 0.3% at most
            - 2% cost of commercial demand deposit
            - This is an extreme case
      - The biggest impact will be on profitability
        - Without the impact, ROEA is 2.88%
          - ROEA = Return on Earning Assets
        - Each % cost of commercial demand deposits reduce ROEA by about **0.23%**
          - \$0.61 earnings per share
- It may take longer than expected for interest rates to rise
  - Although all Fed members expect 3-4% Federal fund rates after 2017
- An investment in Frost depends on the continuity of Frost's culture
  - Banks have very high leverage
    - Each mistake will be magnified
  - The only protection is a strong culture
  - Frost has a very strong culture
  - Willing to exit business that's not relationship-based
    - Exited credit card
      - In 1980s
      - It became a scale business
        - Dominated by a few money center banks
      - Not a profitable relationship-based business
    - Exited mortgage and indirect auto loans
      - In 2000
      - Became commodity
      - Not relationship-based
  - Focused on maintain the culture
    - Internal promotion
      - Management team all have long tenure
      - Richard Evans
        - CEO
        - Joined Frost in 1973
        - 68 years old
      - Patrick Frost

- President of Frost Bank and Director
- Joined Frost in 1985
- 54 years old
- Philip Green
  - President of Frost
    - CFO From Oct 1995 to Jan 2015
  - Joined Frost in 1980
  - 60 years old
- Jerry Salinas
  - Joined Frost in 1986
  - Treasurer from 1997 to Jan 2015
  - CFO since Jan 2015
  - 56 years old
- David Beck
  - Chief Business Banking Officer
  - Joined Frost in 1973
  - 64 years old
- Robert Berman
  - Group Executive Vice President
    - E-Commerce Operations
    - Research and Strategy of Frost Bank
  - Joined Frost in 1989
  - 52 years old
- Paul Bracher
  - Joined Frost in 1982
  - Chief Banking Officer
    - Since January 2015
  - 58 years old
- Paul Olivier
  - Joined Frost in 1976
  - Chief Consumer Banking Officer
    - Since May 2001
  - 62 years old
- William Perotti
  - Joined Frost in 1982
  - Chief Credit Officer
    - From May 2001 to Jan 2015

- Chief Risk Officer
    - From April 2005 to present
  - 57 years old
- Some of the factors considered for CEO's annual bonus are
  - Leadership
    - Setting a philosophy
    - Make the philosophy
      - Well understood
      - Widely supported
      - Consistently applied
      - Effectively implemented
  - Human Capital Management and Development
    - Effective recruitment of a diverse workforce
    - Consistent retention of key employees
    - Ongoing motivation of all staff
    - Offers personal involvement in recruiting process
      - Provides feedback
  - Communications
    - Serves as chief spokesperson for Frost
- Recruits people who like Frost's culture<sup>2</sup>
  - Who are interested in making alliance
    - Not just making a living
- Over half of relationship officers are grown through Frost University<sup>3 4</sup>
  - Frost prefer to train officers itself
    - Doesn't have to change somebody who're already set in their ways
- Considered the 2008 crisis a good chance to train the next generation<sup>5</sup>
  - All of current management team went through the 1980s crisis
  - Let young people spend time in the workout area
    - During 2008-2009
    - Valuable opportunity to see how things work in good times and bad times
- The current management team is quite old
- But there would be minimal change in Frost's culture

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<sup>1</sup> “Always when I have talked to people about it, **I say look it's a fairly linear relationship. You can choose what percentage of Fed funds you think you will pay on that demand deposit. Pick a portion of the demand deposits that you think subject to that rate and apply fairly basic arithmetic**, and you can see what the impact of that would be on a higher or even lower rate environment. That's one thing I will say about sensitivity.” – Phillip Green, 2013 Q2 Earning Call Transcript

<sup>2</sup> “For our company today, our focus is to build around four priorities. **First, people and a relationship culture. People who are interested in making alliance and not just making a living; relationships versus transactions, and a culture philosophy based on values proven to work for our Company 138 years.** Secondly, customer orientation. To bring value to our customers by listening carefully to their needs and matching our sophisticated skills and products so they can accomplish their goals.” – Dick Evans, Frost’s CEO, 2005 Q2 Earning Call Transcript

<sup>3</sup> “**Michael Rose, Analyst, Raymond James & Associates:** Just wondering if you could touch a little bit on your hiring plans over the next couple of quarters. I know you have expressed that one of the mistakes made in the late 1980s/early 1990s was not being aggressive enough in going after business. I know you guys are cognizant of that, but could you talk about that and what that means going forward?

**Dick Evans, Frost’s CEO:** Sure, Michael. First of all, we have got a great staff and a good base of relationship officers. And secondly, we have made great progress in what we refer to as our team selling. We're crossing lines of business and everybody is helping each other sell all the different things that we do. So you get a certain amount of leverage and efficiency in that.

Secondly, I would say to you that **we're always looking for outstanding people, and people that appreciate the way we do business and have an appreciation for our culture.** So that never changes over years and years, and certainly as those opportunities come up, we'll take advantage of it.

And last, but not least is that **we run a wonderful training program for our young people, and that is what we call our Frost University.** We have run over the last few years a wonderful base of young people that as I see this is a tremendous opportunity for them, because they have been well-trained. They have had obviously different levels of experience. Some just graduated last

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March and some graduated two years ago. But that group is in the inflow of coming forward. And so in fact, we have been really growing our own people out, I would say, in round numbers, and it's always dangerous to make a generalization -- **probably 50% come from growing our own people and 50% from outside.**

So I don't see -- I think that is the other thing about our company. We don't have to jerk and react. We're proactive in continually building through the different economic cycles.” – 2009 Q3 Earning Call Transcript

<sup>4</sup> “I think we -- we're always growing. We grow -- **we now have over half of our relationship officers we've grown ourselves and we run them through our Frost University. So we prefer to do that, that way you don't have to change somebody that's already set in their ways or hiring somebody from another bank,** but I think we're very consistent in what's happening.” – Dick Evans, Frost's CEO, 2011 Q4 Earning Call Transcript

<sup>5</sup> **Brett Rabakin, Analyst:** And then I'm curious, I know your credit quality is much better than many banks, but I'm just curious if you guys added any workout staff this past quarter or two or kind of what you've done with your credit staff to this year.

**Dick Evans, Frost's CEO:** We have a great workout staff. As you know, all of us have been around and went through this in the '80s.

**Brett Rabakin, Analyst:** Yes.

**Dick Evans, Frost's CEO:** So they just try to keep me out of the way. We got a great staff that can work with it and, no, we haven't. You know, I mean, we really haven't increased it.

**Phillip Green, Frost's CFO:** One thing we've done to take advantage of the opportunity is to let some of our younger people actually spend time in the workout area because you learn a lot more in problems than you do just seeing good times.

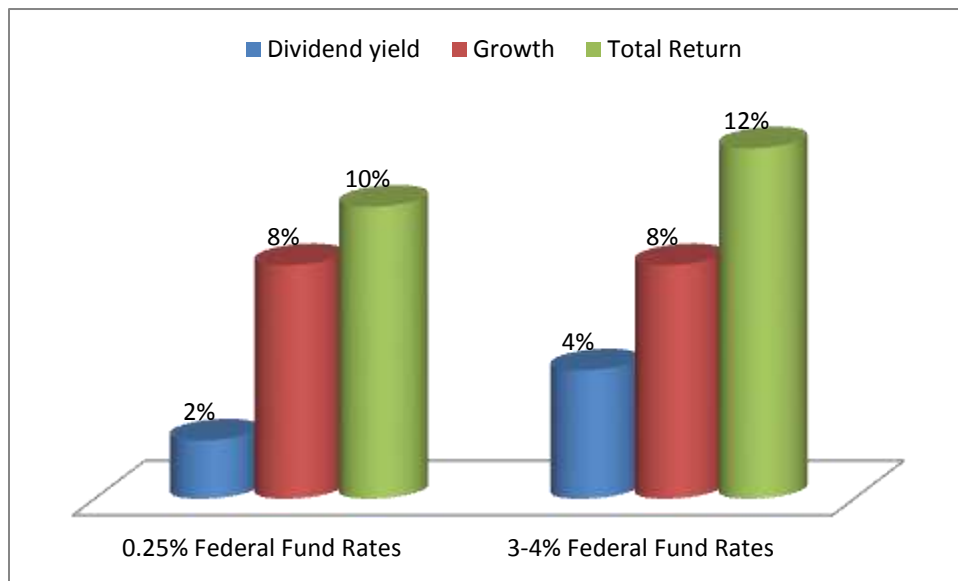
Obviously they are new and they are inexperienced, but they can help with the resolution process and it also is **a chance to give them really invaluable opportunity to see how things work in good times and bad times.**

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**Dick Evans, Frost's CEO:** Phil has really hit an important factor. **All of us really grew up in the '80s, a whole bunch, more than we ever dreamed we could. And what we see is this is a tremendous opportunity to really train the next generation in our Company by letting them spend some time there.**" – 2009 Q2 Earning Call Transcript

## Conclusions

### Frost Is the Best Hedge against Interest Rates



***At \$80 per share, Frost can give investors 10-12% buy-and-hold return***

- Frost is better than Progressive
  - o Both have similarly strong culture
  - o Both have low-cost advantage
  - o Both will gain market share
  - o But banks have industry tail wind
    - Auto insurance industry faces head win caused by technology
      - Lower accident frequency
  - o Frost is in an attractive State
    - Texas grows 1% faster than the U.S.
- Frost's economics isn't as good as advertising agency
  - o Doesn't have infinite ROE
  - o Has only 10-20% ROE
  - o Must retain 50% of earnings to grow
- Frost is the type of stock that Warren Buffett would buy
  - o Very predictable business
    - The industry is very predictable
    - Texas grows 1% faster than the U.S.
  - o Frost has 10-20% ROE
  - o 7-9% deposit growth per share is a certainty



- Frost is more simple than peers
  - Focus on building brand with
    - Consumer
    - Small businesses
  - => keep widening its moat
- Buffett owns several banks
  - Wells Fargo
  - US Bancorp
- Frost is the best hedge against interest rates
  - If interest rates return to the normal level
    - Frost can make \$687 million earnings before tax (EBT)
    - => 7.36 P/EBT
  - If interest rates remain low
    - 2014 ROEA was only 1.91%
      - ROEA = Return on Earning Assets
    - 10x leverage results in 19% pre-tax ROE
      - 12% after-tax ROE
    - => Frost has to retain 60-70% of earnings to grow 7-9%
      - Pay about 1/3 of earnings in dividend
    - Current price is 17x 2014 earnings
      - => **2%** dividend yield is sustainable
      - 7-9% growth results in **9-11%** total return
        - Will significantly outperform S&P
        - S&P can make only 5-6% if interest rate remains low
          - And the multiple remains high
    - It's easily to justify a 25x P/E for Frost in a low rate environment