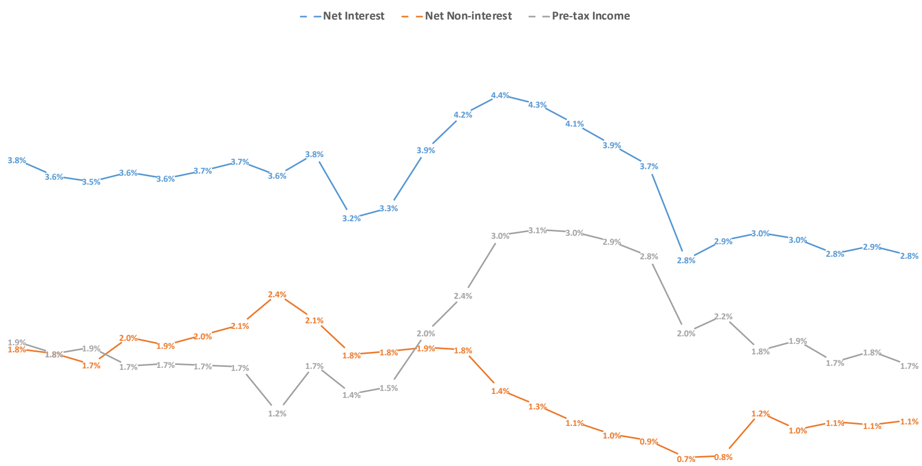
SINGULAR DILIGENCE

Bank of Hawaii

NYSE: BOH

Bank of Hawaii (NYSE: BOH)

Stock Price: $73.99



	EV/ Earning Assets	EV/ Deposits	EV/ EBT	EV/ Owner Earnings
Frost	0.16	0.17	8.59	5.56
BOK	0.14	0.19	9.15	5.15
Commerce	0.20	0.24	11.36	6.98
UMB Financial	0.15	0.18	14.98	6.68
Central Pacific Financial	0.15	0.16	9.47	8.17
Minimum	0.14	0.16	8.59	5.15
Maximum	0.20	0.24	14.98	8.17
Median	0.15	0.18	9.47	6.68
Mean	0.16	0.19	10.71	6.51
Standard Deviation	0.02	0.03	2.60	1.20
Variation	16%	16%	24%	18%
BOH	0.20	0.22	12.04	7.52

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Minimum	Maximum	Median	Mean	Standard Deviation	Variation
Net Interest Income	383	395	422	429	413	460	494	493	515	414	386	359	366	401	403	393	380	359	306	352	380	386	369	396	405	306	515	395	402	47	12%
Net Non-interest Expense	188	197	201	232	218	249	275	329	288	233	214	172	159	129	118	105	95	89	82	91	151	134	145	147	162	82	329	162	176	67	38%
Pre-tax Income	195	197	221	197	196	211	219	164	226	181	172	186	207	271	285	288	286	271	223	261	229	252	224	249	243	164	288	223	226	37	16%
Short-term Investments	1,358	1,664	1,286	865	730	845	563	579	487	259	870	1,314	390	275	46	21	90	99	697	395	384	267	225	321	487	21	1,664	487	581	446	77%
Securities	2,323	2,695	3,611	3,546	3,171	3,380	3,685	3,672	3,516	3,234	2,768	2,341	2,630	2,904	3,069	3,016	2,969	2,962	4,161	6,008	6,719	6,983	6,909	6,900	6,505	2,323	6,983	3,380	3,987	1,605	40%
Loans	6,484	6,602	6,991	7,394	7,655	8,354	8,930	9,422	9,445	9,544	8,125	5,623	5,640	5,876	6,195	6,458	6,650	6,631	6,246	5,563	5,441	5,775	5,978	6,481	7,481	5,441	9,544	6,602	6,999	1,298	19%
Total Earning Assets	10,165	10,961	11,889	11,805	11,556	12,578	13,177	13,673	13,447	13,038	11,763	9,277	8,660	9,055	9,310	9,495	9,708	9,692	11,105	11,966	12,545	13,025	13,113	13,702	14,473	8,660	14,473	11,805	11,567	1,726	15%
Non-interest bearing	1,135	1,232	1,325	1,386	1,403	1,566	1,781	2,098	2,088	2,011	1,886	1,556	1,754	1,929	1,973	1,950	1,892	1,742	1,994	2,240	2,596	3,024	3,389	3,688	4,040	1,135	4,040	1,929	2,067	748	36%
Interest-bearing Deposits	7,496	7,186	6,208	5,909	5,633	6,617	7,467	7,452	7,228	6,994	6,181	5,044	5,292	5,493	5,793	5,781	5,996	6,110	7,115	7,270	7,356	7,911	8,008	8,434	8,885	5,044	8,885	6,994	6,754	1,024	15%
Total Deposits	8,631	8,418	7,532	7,295	7,037	8,182	9,248	9,550	9,315	9,005	8,067	6,600	7,046	7,422	7,767	7,731	7,888	7,851	9,108	9,509	9,952	10,935	11,397	12,122	12,925	6,600	12,925	8,418	8,821	1,635	19%
Equity	683	785	893	971	1,026	1,071	1,109	1,161	1,210	1,235	1,344	1,184	900	761	731	696	730	783	877	1,013	1,020	1,023	1,018	1,052	1,084	683	1,344	1,018	974	184	19%
Return on Earning Assets																															
Net Interest Income	3.76%	3.60%	3.55%	3.64%	3.58%	3.66%	3.75%	3.61%	3.83%	3.18%	3.28%	3.87%	4.23%	4.43%	4.33%	4.13%	3.92%	3.71%	2.75%	2.94%	3.03%	2.96%	2.81%	2.89%	2.80%	2.75%	4.43%	3.61%	3.53%	0.50%	0.14
Net Non-interest Expense	1.85%	1.80%	1.69%	1.97%	1.88%	1.98%	2.09%	2.41%	2.14%	1.79%	1.82%	1.86%	1.84%	1.43%	1.27%	1.10%	0.98%	0.92%	0.74%	0.76%	1.20%	1.03%	1.10%	1.07%	1.12%	0.74%	2.41%	1.69%	1.51%	0.48%	0.32
Pre-tax Income	1.92%	1.80%	1.86%	1.67%	1.69%	1.68%	1.66%	1.20%	1.68%	1.39%	1.46%	2.01%	2.39%	3.00%	3.06%	3.03%	2.94%	2.79%	2.01%	2.18%	1.83%	1.93%	1.71%	1.82%	1.68%	1.20%	3.06%	1.83%	2.02%	0.54%	0.27
Leverage																															
Earning Assets/Equity	14.89	13.97	13.31	12.16	11.26	11.75	11.88	11.78	11.11	10.56	8.75	7.84	9.62	11.90	12.73	13.64	13.29	12.38	12.66	11.82	12.30	12.73	12.88	13.02	13.35	7.84	14.89	12.30	12.06	1.59	13%
RETURNS																															
Return on Equity	29%	25%	25%	20%	19%	20%	20%	14%	19%	15%	13%	16%	23%	36%	39%	41%	39%	35%	25%	26%	22%	25%	22%	24%	22%	13%	41%	23%	24%	8%	0.32
GROWTH																															
Net Interest Income		3%	7%	2%	-4%	11%	7%	0%	4%	-19%	-7%	-7%	2%	9%	1%	-3%	-3%	-6%	-15%	15%	8%	2%	-4%	7%	2%	-19%	15%	2%	1%	8%	14.43
Net Non-interest Expense		5%	2%	16%	-6%	15%	10%	20%	-12%	-19%	-8%	-19%	-8%	-19%	-8%	-11%	-9%	-7%	-7%	11%	66%	-11%	8%	1%	10%	-19%	66%	-6%	1%	18%	25.76
Pre-tax Income		1%	12%	-11%	-1%	8%	4%	-25%	38%	-20%	-5%	9%	11%	31%	5%	1%	-1%	-5%	-17%	17%	-12%	10%	-11%	11%	-2%	-25%	38%	1%	2%	15%	7.64
Federal Funds and Other Deposits		23%	-23%	-33%	-16%	16%	-33%	3%	-16%	-47%	235%	51%	-70%	-29%	-83%	-56%	335%	10%	606%	-43%	-3%	-30%	-16%	42%	52%	-83%	606%	-16%	36%	153%	4.18
Securities		16%	34%	-2%	-11%	7%	9%	0%	-4%	-8%	-14%	-15%	12%	10%	6%	-2%	-2%	0%	40%	44%	12%	4%	-1%	0%	-6%	-15%	44%	0%	5%	16%	2.89
Loans		2%	6%	6%	4%	9%	7%	6%	0%	1%	-15%	-31%	0%	4%	5%	4%	3%	0%	-6%	-11%	-2%	6%	4%	8%	15%	-31%	15%	4%	1%	9%	8.70
Total Earning Assets		8%	8%	-1%	-2%	9%	5%	4%	-2%	-3%	-10%	-21%	-7%	5%	3%	2%	2%	0%	15%	8%	5%	4%	1%	4%	6%	-21%	15%	3%	2%	7%	4.11
Non-interest bearing Deposits		9%	8%	5%	1%	12%	14%	18%	0%	-4%	-6%	-17%	13%	10%	2%	-1%	-3%	-8%	14%	12%	16%	16%	12%	9%	10%	-17%	18%	9%	6%	9%	1.55
Interest-bearing Deposits		-4%	-14%	-5%	-5%	17%	13%	0%	-3%	-3%	-12%	-18%	5%	4%	5%	0%	4%	2%	16%	2%	1%	8%	1%	5%	5%	-18%	17%	2%	1%	9%	8.01
Total Deposits		-2%	-11%	-3%	-4%	16%	13%	3%	-2%	-3%	-10%	-18%	7%	5%	5%	0%	2%	0%	16%	4%	5%	10%	4%	6%	7%	-18%	16%	4%	2%	8%	4.05
Equity		15%	14%	9%	6%	4%	4%	5%	4%	2%	9%	-12%	-24%	-15%	-4%	-5%	5%	7%	12%	15%	1%	0%	0%	3%	3%	-24%	15%	4%	2%	9%	3.92

SINGULAR DILIGENCE

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Bank of Hawaii (NYSE: BOH) s One of the Biggest Players in the Best Banking Market in the U.S.

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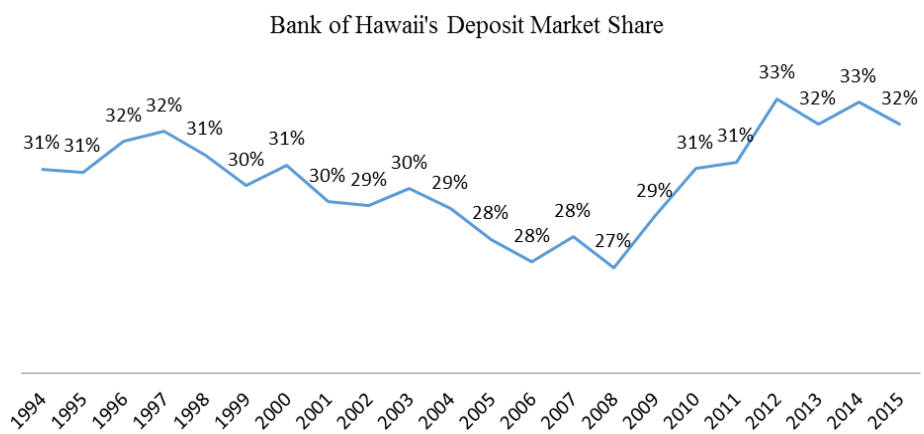
OVERVIEW

Bank of Hawaii is the second largest bank in the island state of Hawaii. From 1994 through 2015, Bank of Hawaii's deposit share in that state ranged from about 27% (on the eve of the 2008 financial crisis) to 32% today. Generally, Bank of Hawaii has had a deposit share of about 30%. In most U.S. states, no bank has anywhere near 30% of all deposits. Hawaii's banking industry is much more consolidated than the banking industry in other U.S. states.

Bank of Hawaii was founded in 1893. It opened its first branch in Kauai in 1903. Over the next 90 years, Bank of Hawaii acquired many other Hawaiian banks. For example, it bought First Bank of Hilo – a four branch Hawaiian bank – in 1922. It bought Amalgamated Bank of Maui in 1930. By 1995, the company was called Hawaii Bancorporation. It had 31% deposit share in Hawaii. The bank as it exists today is very similar to what it looked like 20 to 25 years ago. The big difference is that Bank of Hawaii sold off its non-Hawaiian assets.

During the 1980s and 1990s, Hawaiian Bancorporation grew outside the state of Hawaii. At the peak of its expansion, the bank had branches in the U.S. mainland states of California, Arizona, and New York. It also had foreign (that is, non-U.S.) branches in 8 different South Pacific nations. It even had 6 locations in Asia. Hawaii has the closest ties to Asia of any U.S. state. Much of Hawaii's population are descendants of Chinese immigrants. Hawaii is also a popular destination for Japanese tourists. During the 1990s, Bank of Hawaii couldn't grow its revenue the way mainland banks could. It already had 30% of the Hawaiian market. And Hawaii was no longer an especially fast growing economy. So, Bank of Hawaii started buying loans outside of Hawaii. The company's 1997 name change from Hawaiian Bancorporation to Pacific Century Financial is indicative of management's focus on external growth.



Over the last 22 years, Bank of Hawaii has consistently held a 27% to 33% share of all deposits in Hawaii.

That focus came back to bite BOH. The late 1990s were a boom time for U.S. banks. And especially for U.S. bank stocks. But not for Bank of Hawaii – or Pacific Century Financial as it was then named. Net charge-offs to loans were 0.34% in the year Bank of Hawaii made the name change to Pacific Century. They rose from there. In 1998, net charge-offs were 0.70%. They rose to 0.78% in 1999. Then 0.94% in 2000. And then 1.57% in 2001. The period 1997-2000 was hardly a trying time for the U.S. economy. So, that was a lousy loan loss trend. Bank of Hawaii's stock performed badly. In 2000, it was the only big U.S. bank stock trading below book value. The Chairman of the company resigned. And Michael O'Neil – the former Vice Chairman and CFO of Bank of America – was made both Chairman and CEO. He was given the task of turning the company around.

Michael O'Neil re-focused Bank of Hawaii on its core business. In 2002, Pacific Century Financial changed its name to Bank of Hawaii. It sold off non-Hawaiian assets and closed branches. The bank actually shrank itself by choice. In 2000, Bank of Hawaii had $14 billion in total assets. In 2004, it had just $9.7 billion in total assets. So, the bank shrank at a rate of about 10% a year for four straight years. That really is a disciplined approach to focus. Bank of Hawaii's best deposits had always been in Hawaii. It had a relatively small number of branches with a relatively high amount of very low cost deposits per branch. This was the bank's real franchise. So, cutting away all of the non-Hawaiian business really helped the bank's expense situation. A bank's efficiency can best be measured not as analysts like to focus on in terms of expense as a percent of revenue – but instead in terms of expenses relative to deposits. Banks don't control their revenues. Most banks make a lot of money off interest. Well, the Fed sets interest rates – banks don't set interest rates. So banks don't have control over revenue in the form of interest. What banks do have complete control over is their net operating expense. This is non-interest expense less non-interest income. In the long-run, this is the number that matters. Bank of Hawaii had net operating expenses of 1.79% of earning assets in 2000. In 2007, net operating expense at a percent of earning assets was just 0.98%. That made Bank of Hawaii one of the best banks in America.

Bank of Hawaii is still one of the best banks in America. Not in terms of growth potential. And not in terms of loan losses. But in terms of deposits. Bank of Hawaii has one of the very best deposit bases you'll find anywhere in the world. Right now, Bank of Hawaii is funded 91% by deposits. And 91% of these deposits are what are called "core deposits". So, about 83% of Bank of Hawaii's balance sheet is supported by core deposits. Core deposits are sticky. Customer retention is 90% or higher at many banks. They also tend to be cheap. For example, 31% of Bank of Hawaii's deposits (which is 28% of the bank's balance sheet) is interest free. Customers receive no interest on these accounts. Since we know Bank of Hawaii's net operating expense is less than 1% of deposits – an account that doesn't pay interest, costs Bank of Hawaii less than 1% in total. The U.S. government can't borrow long-term – remember, customers tend to leave their money with the same bank for 5 to 10 years – at less than 1%. You don't have to be a very good lender to make money if your funding is cheap and sticky.

Hawaii is the best banking industry in the country. Hawaiian banks tend to have the highest liquidity – they have high customer deposits relative to their total balance sheet – and the lowest cost of deposits of banks in any U.S. state. Bank of Hawaii has the lowest cost of funding among Hawaiian banks. In fact, it has one of the lowest costs of funding of any bank in the country. There are some banks with lower costs of funding. Warren Buffett owns Wells Fargo. Wells has a very low cost of deposits. And we wrote about Frost – it's still our favorite bank – in a past issue of Singular Diligence. So, yes, there are a few banks with a lower cost of funding than Bank of Hawaii. But there are literally a few thousand banks with a higher cost of funding. Every other Hawaiian bank has a higher cost of funding than BOH. As a rule, Bank of Hawaii obtains its deposits at two-thirds the cost of the average Hawaiian bank and half the cost of the average mainland bank. BOH's net operating expense divided by total earning assets is usually less than 1%. Other U.S. regional banks – which are about the same size as BOH – have net operating expenses in the 1.5% to 3% range.

This obviously means BOH has higher returns on equity. Let's use the boom period of 2004 to 2007 as an illustration. We can't use the 2008-2016 period, because interest rates were so low as to be meaningless. When analyzing banks, we have to use some sort of "normal" interest rate level. Here, we'll treat 2004 to 2007 as normal. From 2004 through 2007, Bank of Hawaii generated a pre-tax return on earning assets of 3%. It had 14 times leverage. By this we mean earnings assets were 14 times shareholder's equity. So, the pre-tax return on shareholder's equity was 14 times 3% which is 42%. This translates into an after-tax return on equity of 27%. Lately, the bank's return on equity has been nowhere near this level. For example, in 2015, BOH's pre-tax return on earning assets was 1.7% instead of the 3% it earned in 2004 to 2007. This is because BOH is hurt by lower interest rates. Remember, BOH doesn't pay interest on 30% of its deposits – but it receives interest on all of its assets. So, low interest rates benefit borrowers at the expense of a lender like BOH. In the medium-term, BOH will have very strong earnings growth. This growth will be a one-time event caused by the Fed raising interest rates. BOH's return on earning assets can increase from about 1.7% to 3%. But, this will only happen once. After that, BOH will grow no faster than the nominal GDP of Hawaii. Hawaii can't have high population growth in the future. It doesn't have enough available land. It's simply too crowded to grow as fast as a sparsely populated state like Texas. So, BOH will never be able to grow faster than 3% to 4% a year. This is why Quan and I much prefer Frost over BOH. Both have great deposit bases. Frost can grow its base quickly for a long time. BOH can't. However, BOH can use 80% to 90% of its earnings to buy back stock and pay dividends while still growing 3% to 4% a year. That doesn't sound amazing. For example, BOH trades for 18 times earnings right now. That's an earnings yield of 5.6% (1/18 = 5.6%). Let's take 80% of that. That's 4.5%. That's all BOH can pay out in dividends and use for buy backs right now. And then it can grow 3% to 4% a year. Let's say 3%. That's only a 7.5% return in the stock. Is that better than what the S&P 500 will do? Maybe. But not a lot better. However, there are two points to consider. One, BOH is under earning its true potential. Interest rates aren't normal right now. It doesn't matter what BOH earns when the Fed Funds Rate is between 0% and 1%. What matters is what BOH will earn when the Fed Funds Rate is between 3% and 4%. So, while it looks like BOH is trading at a P/E of 18 – and it is, if interest rates stay where they are forever – Quan and I actually think BOH is trading at a "normalized" P/E of just 11. So, imagine you have a stock with a P/E of 11 paying out 80% of its earnings in dividends and share buybacks and growing 3% a year. That's not a bad stock. You're talking about something yielding more like 7% of your purchase price in a combination of dividends and buybacks plus growing that yield by 3% each year. You've found yourself a stock that can return 10% a year for the long-run. That's what BOH should look like in a normal interest rate environment. On top of that, BOH has an incredibly wide moat. Banking is a predictable business. Customers rarely ever switch banks. And market share doesn't change much at all. In Hawaii, market share shifts are very small. It's an incredibly concentrated market. From 1994 through 2015, the same four banks – First Hawaiian Bank, Bank of Hawaii, American Savings Bank, and Central Pacific Financial – have always controlled between 90% and 92% of the state's deposits. As a group, their deposit share almost never varies. In fact, the actions of all other banks in Hawaii really don't matter. What matters are just two pairs of banks. The big two are: First Hawaiian Bank (36% deposit share) and Bank of Hawaii (32%). The medium two are: American Savings Bank (12%) and Central Pacific Financial (11%). Bank of Hawaii is very insulated from competitor actions. It is in the banking industry which already has sky high customer retention – this minimizes rivalry among firms. And then the banking industry in Hawaii – unlike most other states – is an oligopoly. So, you have an oligopoly where each of the oligopolists has a very, very loyal customer base. Hawaii's population growth is low. So, new branches are rarely opened in the state. In fact, Bank of Hawaii has shrunk its number of branches even while increasing its amount of deposits. So, it's a wide moat stock. If interest rates never rise, it's a wide moat stock that would be on a trajectory to return 7% a year. If interest rates increase, it'll then be a wide moat stock on a trajectory to return 10% a year. And if you buy the stock today and then hold the stock while the Fed raises interest rates – you'll get a one-time boost in reported earnings. Bank of Hawaii will be an acceptable but not especially profitable investment if the Fed never raises interest rates. Once the Fed does raise rates, it'll be a good long-term investment from that point on. And in the medium-term – say from 2016 through 2021 – Bank of Hawaii is an excellent speculation on higher interest rates. The stock should provide excellent annual returns during the 5-year period where interest rates increase at the fastest pace. That time may be now. That part is speculative. But it adds to the stock's appeal.

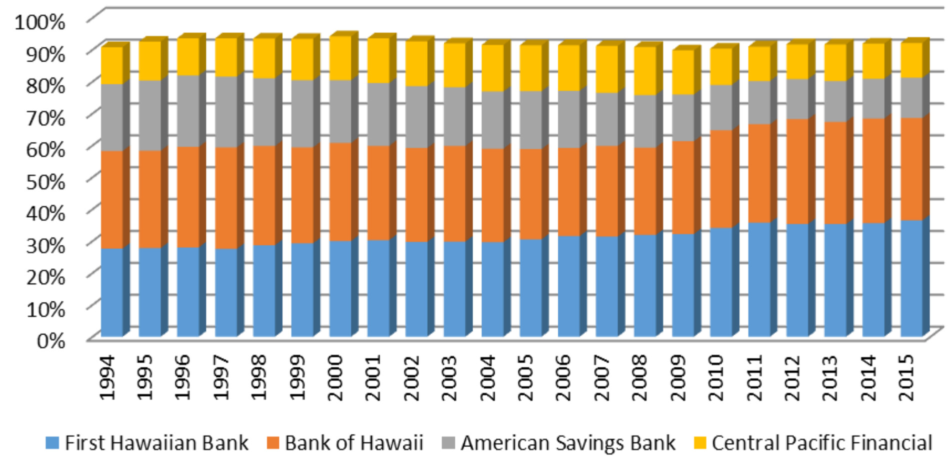
DURABILITY

Bank of Hawaii has a Perfectly Durable Competitive Position and Low Cost of Funding – However, its Leverage Ratio and Loan Losses are Only Good, Not Great

There are four big banks in Hawaii: First Hawaiian Bank (37% market share), Bank of Hawaii (32%), American Savings Bank (13%), and Central Pacific Financial (11%). The toughest test of their survival came in the 2007-2008 financial crisis. First Hawaiian, BOH, and American Savings Bank all did fine. Central Pacific was essentially wiped out. Shareholders lost about 95% of their money during the crisis. So, when testing the durability of a Hawaiian bank we will be looking at the recent financial crisis. There was an earlier crisis in Hawaii – it was tied to the crash in Japanese asset values (both land and stocks) in the late 1980s. And BOH itself had a harder time in the late 1990s and early 2000s than it did in the financial crisis of 2007-2008. But that was due to self-inflicted wounds. BOH "di-worsified" into loans and securities outside of Hawaii. Central Pacific's collapse in the financial crisis had a similar di-worsification aspect to it. So, let's start with that collapse now.

In 2007, CPF had $1.2 billion in construction loans. That was 30% of its loan portfolio. This is a very, very high portion of a bank's overall portfolio to put in construction loans. Many banks make almost no construction loans. CPF had made the additional mistake of lending a lot of money in California instead of Hawaii. In 2007, CPF had 25% of its total loan portfolio in California. Most of the loans in California were construction loans. In fact, a full 15% of CPF's total loan portfolio was made up just of Californian construction loans. Concentrating that much in construction is unusual. Concentrating that much in a single state is unusual. And – probably the worst part – concentrating that much of your lending in a state where you are not headquartered is especially unusual. In 2008 and 2009, CPF charged off more than $600 million from a total loan portfolio of only about $4 billion. Banks are built to lose well over 10% of their total loan portfolio. Bank of Hawaii is a fairly conservative bank. It has very low cost funding. So, it is generating decent pre-loss provision earnings right now. In a normal interest rate environment, BOH would be earning really excellent pre-loss provision earnings. But, even BOH would start reporting net losses if it wrote off around 4.5% of its total loans or more in a single year. CPF charged off more like 15% of its loan portfolio in just 3 years. Now, that was one of the worst financial crises in history. So, it is a good test of what the worst case for a Hawaiian bank can look like. Even then, CPF's losses were largely the result of lending in California and lending in construction. BOH is unlikely to do this. Let's take a moment to explain why.

This is what BOH's then CEO said in 2008: "Our credit philosophy is to stay within our market. I think to understand a little bit about what's important to Bank of Hawaii and why we might approach this a little bit differently (it) would be good to return just briefly in history (to) 2000…the Bank of Hawaii was suffering from some pretty poor financial performance…What happened to us is when we grew beyond our natural markets, we inevitably lost money. When we purchased loans outside of our marketplace, we had a hard time figuring out how to make any profit for our shareholders on that business…So making sure we stay with proven products, making sure we have appropriate underwriting standards and monitoring processes are an important part of our credit culture and avoiding what we call mistakes of the past."



The same four banks have held more than 90% of all deposits in Hawaii in each of the last 22 years.

Bank of Hawaii is not the most conservative bank in Hawaii. It had higher loan loss charge-offs than some competitors. However, BOH's residential real estate lending – which is a big part of the business – has fairly conservative lending standards compared to mainland banks. More importantly, BOH is locally focused. The bank's loan portfolio is 91% Hawaii, 5% Guam, and just 3% U.S. mainland. There is more competition among lenders – and more lending done by banks with lax standards – on the mainland than there is in Hawaii. The Hawaiian bank oligopoly where two banks have almost 70% of the market and 4 banks have 90% of the market puts less pressure on local banks to make bad loans. This can be seen in BOH's mortgage lending. If we look at the second quarter of 2007 – this is close to the point where lending would have been laxest during the crisis – BOH's residential mortgage portfolio had a 60% loan to value ratio. The average FICO score was around 750. BOH had solid loan to value and FICO score standards in both its mortgage lending and its home equity loans. However, the home equity loan portfolio had much higher charge-offs than the mortgage portfolio. We don't have a perfect explanation for why this would be. However, Hawaiian real estate is expensive compared to the rest of the country and also compared to the income and spending levels of homeowners in Hawaii. In other words, the equity in a Hawaiian home is a bigger potential piggy bank for its owner than say a similar home in Missouri. In 2006, the market value of the median single family home in Oahu (which is BOH's biggest market) was $644,000. By the end of 2008, BOH's average home equity loan would have been backed by a FICO score of about 770 (which is quite good) and a loan to value ratio of about 70% (which is adequate though not excellent). The potential for Hawaiians to comfortably borrow anywhere from half to two-thirds of the value of a home that is worth more than $600,000 means that Hawaiians would often be tempted to tap into something like $300,000 to $400,000 of purchasing power. During the housing boom, prices were rising pretty quick in most parts of the country. A 10% increase in the value of a Hawaiian home could provide an additional borrowing opportunity of more than $30,000 quite easily. This is what makes home equity loans a lot more tempting when you live in a $650,000 home than when you live in a $250,000 home. The higher the value of your home relative to the amount of your annual income – the higher the additional borrowing potential in a rising housing market will be versus what you are accustomed to spending each year. This is probably the explanation for BOH's problems in home equity during the crisis. They weren't unusual. Everyone had problems in this area.

BOH's loan losses for the crisis were 0.24% in 2007, 0.43% in 2008, 1.43% in 2009, 0.94% in 2010, and then 0.40% in 2011. Commercial and industrial had a bad 2009-2010. Losses in that area were 2.74% in 2009 and 2.49% in 2010. These basically coincide – with the typical lag in loan losses to actual adverse events – with the recession itself. BOH's losses were exacerbated by airline loans. It also had some construction loan charge-offs in 2009 that looked real bad – but most of those charge-offs were actually reversed in 2010 and BOH had no net losses in this area in 2011. So, the actual period 2009-2011 turned out – in retrospect – to not have been that bad in BOH's construction lending. This wasn't obvious to the bank's management in 2009 though. BOH charged off nearly 7% of its construction loan portfolio in that one year. BOH's construction loans were never more than 4% of the bank's portfolio. So loan losses – no matter how large – in construction could never threaten the bank's overall health. The two key lending areas for BOH are residential mortgage and commercial and industrial lending in Hawaii. Most other categories are too small to be relevant. And no other state is remotely relevant to BOH's performance.

I've spent almost all of this section discussing the possibility of loan losses because there are no other risks to BOH's durability. The company's securities portfolio is high quality and liquid. And the bank's funding sources are sticky, low-cost – and frankly, among the best deposit bases in the country. BOH funds 83% of its earning assets (that's loans plus securities) with core deposits. The vast majority of BOH's $13.5 billion in total deposits come from sticky customer deposits like savings accounts ($5.2 billion), non-interest bearing checking ($4.3 billion), and interest-bearing checking ($2.8 billion). Basically, checking accounts provide $7.1 billion and savings accounts provide $5.2 billion. That's $12.3 billion in what are really bank customer (either household or business) funds. These are sticky. They aren't like time deposits (CDs) or borrowings from other financial institutions. Total earning assets are $14.8 billion. So, only $2.5 billion of that is in the form of any kind of money – CDs and other borrowings – that could disappear during a financial crisis. Bank customers aren't going to abandon their bank even in a 2007-2008 type situation. BOH's security portfolio is also liquid. About 67% of securities mature within five years and 97% of the portfolio matures within 10 years. The annual cash flow coming off this portfolio is $1.4 billion. BOH doesn't need to access the market to get more than $100 million a month turning to cash from this portfolio. The bank is very liquid. Its deposit base is excellent. So, the only potential problem is bad lending in the form of self-inflicted wounds. BOH's own history is a good example of what can go wrong. The bank got itself into trouble by 2000, despite having a deposit base and competitive position in Hawaii that was very similar to what it is today. All BOH changed from 2000 to today is its lending practices and its diversification outside of Hawaii. Improving lending standards and focusing completely on Hawaii is really all it took to change a bank that was perceived to be low quality in 2000 to one that is perceived to be especially high quality today.

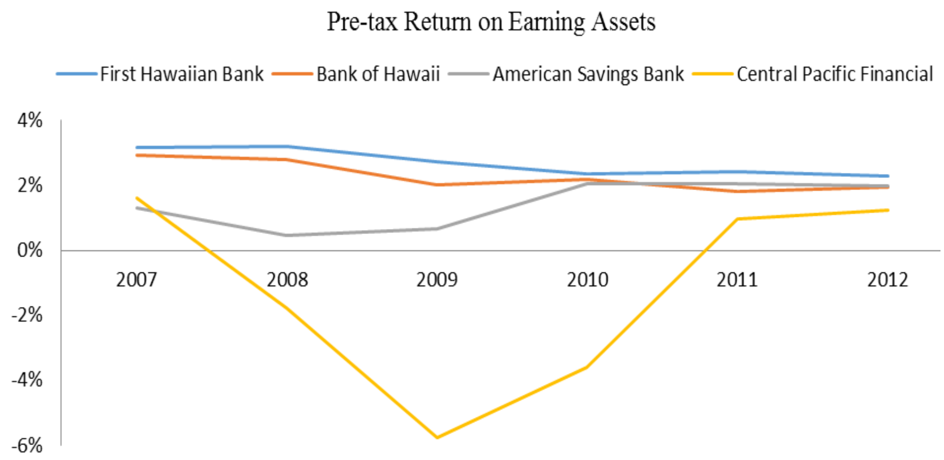
MOAT

Except When They Make Bad Loans, All Hawaiian Banks Generate Above Average Returns

Bank of Hawaii has a wide moat. An oligopoly of four banks – First Hawaiian, Bank of Hawaii, American Savings Bank, and Central Pacific – control 90% of the Hawaiian market for banking deposits. These same four banks have held between 90% and 92% of total deposits in every year for the last 22 years. So, this is a stable monopoly. Bank of Hawaii is the second largest bank in Hawaii. However, it has the strongest competitive position by several measures. As mentioned earlier, bank of Hawaii funds about 83% of its earning assets with customer deposits. Most of these deposits are sticky transaction accounts. They are relationship based accounts that aren't sensitive to interest. About 50% of deposits are from households, 40% are from businesses, and 10% are from governments and other institutions. More than 50% of Hawaiian households have an account with Bank of Hawaii. And almost 65% of Hawaiian household use some sort of Bank of Hawaii product – deposit, investment, or borrowing of some sort. Meanwhile, Bank of Hawaii's penetration rate among Hawaiian businesses is even higher. More than 70% of Hawaii's large businesses have a banking relationship with Bank of Hawaii. These relationships tend to be sticky. Banks generally have retention rates in the 80% to 90% range for deposits. In other words, if a bank wins 100 new household depositors in 2016, it will still have about fifty of those accounts with the bank in 2021 at even a bank that is only so-so in terms of customer retention. At banks that are excellent at customer retention – like Frost in Texas – winning 100 new household depositors in 2016 will result in the bank still having more than 50 of these accounts in 2026. It's not unusual for a depositor to stay with the same bank for between 5 and 10 years. These are long-term relationships. And competition in Hawaii is lower than it is on the mainland. Bank of Hawaii faces only 3 real competitors. No mainland bank competes in Hawaii anymore. Bank of America made an acquisition to enter the Hawaiian market several years ago. However, BofA failed to successfully integrate the acquisition and it closed the business down entirely within 5 years of making the acquisition. There are 3 banks – First Hawaiian, American Savings, and Central Pacific – headquartered in Hawaii that compete with Bank of Hawaii. There are also many credit unions. However, all 100 or so credit unions taken together have less than 8% market share. So, they aren't relevant to the competitive situation.

Despite being the second largest bank in Hawaii – Bank of Hawaii has the best competitive position in the Hawaiian retail banking market. Bank of Hawaii has the lowest cost of deposits of any Hawaiian bank. This is because the bank has more basic checking and savings accounts that are used for working capital purposes for households and businesses. These types of accounts tend to be sticky. And the customer is not usually focused on how much interest the account pays. In fact, Bank of Hawaii tries to focus on service rather than interest rates. In general, BOH pays the lowest rate of interest on each type of account versus its competition. However, BOH is the most convenient bank. BOH has the most branches and ATMs in Hawaii. It is the ATM leader by far. BOH has 70 branches and 456 ATMs. The next two biggest banks in Hawaii – First Hawaiian (the biggest by assets) and American Savings have 300 ATMs and 130 ATMs respectively. So, Bank of Hawaii has more ATMs than its two largest competitors combined. Bank of Hawaii has more ATMs because it has exclusive relationships with McDonalds, Costco, Safeway, and CVS on Hawaii. Bank of Hawaii is the number one or number two bank almost everywhere in the state. For example, there are 45 zip codes in the state of Hawaii. In 82% of those zip codes, BOH is either the number one or number two in terms of deposit share. Bank of Hawaii is also the largest bank in the state in terms of core deposits. Quan and I consider the cost of core deposits – and especially household and business checking and savings accounts – to be the key determinant of a bank's funding advantage and therefore its earning power relative to the industry. BOH has 12% more core deposits than First Hawaiian. It has 50% more core deposits than the #3 (American Savings) and #4 (Central Pacific) Hawaiian Banks combined. For the years 2002 through 2015, we have direct funding cost comparisons for Bank of Hawaii, American Savings Bank, and Central Pacific. Bank of Hawaii has a forty basis point (0.40%) funding advantage over Central Pacific and a thirty-four basis point (0.34%) funding advantage over American Savings Bank. Even more remarkable, Bank of Hawaii had a 0.21% lower cost of funding than Wells Fargo from 2002 through 2015. Wells Fargo is one of the lowest cost of funding banks in all the United States. These may sound like small advantages, but if Bank of Hawaii has a 0.5% funding cost advantage over the average bank with more than $10 billion in assets and it leverages its deposits 10 to 1 relative to shareholder's equity (as many banks do) that is a 5% difference in pre-tax return on equity. Even after taxes, that is the difference between a bank that returns say 10% a year and a bank that returns 13% a year. It's a big difference caused by nothing other than a funding cost difference. And the numbers I just gave you could vastly understate BOH's advantage in normal times. The period 2002-2015 included many years (2008-2015) with near zero rates. In 2007, BOH's funding cost advantage was 0.34% over American Savings, 0.65% over Central Pacific, 1.06% over Wells Fargo, and 1.39% over all banks with more than $10 billion in assets.

BOH's operating cost advantage is even better. This isn't surprising. BOH is in the best market – Hawaii – for generating high amounts of deposits per branch. And then BOH has the best deposit base among the 4 banks that make up Hawaii's banking oligopoly. As a result, BOH's average deposits per branch are $185 million. This is among the highest total for any bank



The four big Hawaiian banks often generate pre-tax returns on assets of 2% to 4% a year.

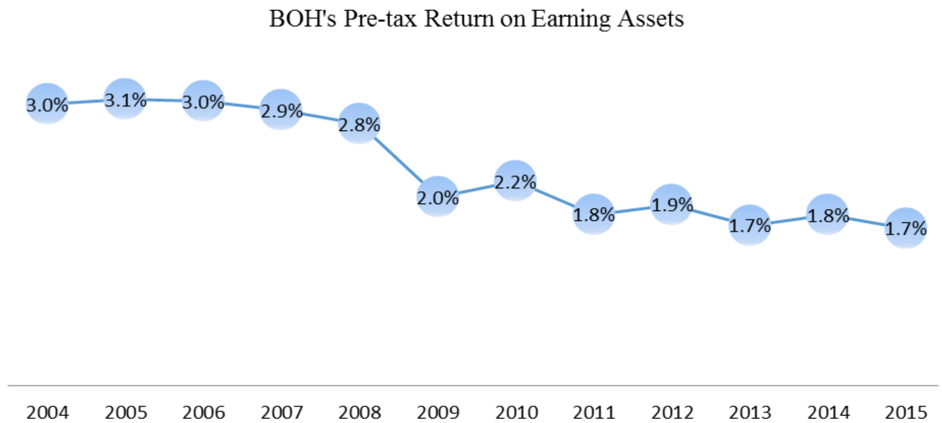
anywhere in the U.S. It is probably more than 3 times the amount a normal bank in a normal part of the country would have. First Hawaiian has a terrific operating cost position. In fact, First Hawaiian's non-interest expenses relative to deposits are often lower than BOH's. But American Savings and Central Pacific each have about double the level of expenses per deposit that bank of Hawaii does. Overall, BOH has averaged a 1% ratio of net non-interest expenses to earning assets from 2005-2015. During this same time period, most regional banks in the country had operating expense levels in the 1.6% to 3.3% range. So, BOH has a sixty basis point (0.6%) operating cost advantage over even some of the best run regional banks on the mainland. Again, consider what leverage does. A ratio of 10 deposit dollars for 1 equity dollar turns a 0.6% operating cost advantage into a 6% pre-tax return on equity advantage. This would lead to more than a 4% advantage in after-tax return on equity. Coupled with BOH's funding cost advantage, we are talking about a bank that can easily earn a 17% return on equity in a year during which the average very well run mainland regional bank earns just a 10% return on equity. BOH's moat is near perfect. There are no major mainland competitors for Hawaiian deposits. The last real incursion was Bank of America's acquisition of HonFed in the early 1990s. Five years later, BofA exited the Hawaiian market. There is essentially no growth in the Hawaiian banking industry. In fact, not only have there been no new competitors. There have also been no net new branches added by existing competitors. Hawaii had 305 bank branches in 2000, in 2005 it was down to 285 branches, in 2010 the total was 284 branches, and today the state has just 279 branches. So, there is no threat of entry by new companies and no threat of branches being added by existing banks. Bank of Hawaii has perhaps the widest moat of any U.S. bank. That is the good news. The bad news is that BOH's penetration rate in the state of Hawaii is so high that it is now almost impossible for BOH to add new customers. No Hawaiian bank has taken much market share from its competitors over the last 20-25 years. So, BOH's moat is nearly perfect while its opportunity for customer growth is nearly zero.

QUALITY

When Interest Rates are Normal, Bank of Hawaii Can Generate Returns of Equity Between 15% and 30%

Bank of Hawaii is a high-quality bank. However, it is interest rate sensitive. With the Fed Funds Rate near zero, Bank of Hawaii is now earning less than it would earn in normal times. For example, Bank of Hawaii's pre-tax return on earning assets fell from 3.1% in 2005 to just 1.7% last year. From 2004 through 2008, BOH's pre-tax return on assets ranged from 2.8% to 3.1%. In the 7 years since the Fed slashed rates (2009-2015), BOH's pre-tax return on assets ranged from 1.7% to 2.2%. Which is the better gauge of BOH's normal earning power? Is it the 2004-2008 period where BOH generated pre-tax return on assets of about 3%? Or is it the 2009-2015 period during which BOH generated a pre-tax returns on assets of about 2% or less? Quan and I think that while the truth may be something in between – the 2004 to 2008 period is a much better approximation of "normal" than the 2009 to 2015 period. Why?

Let's look at the net interest margin. Net interest margin is the yield on a bank's earning assets – loans and securities – less the interest cost of funding those assets. So, if a bank pays you 1% to get $100,000 of deposits from you and then it turns around and lends those $100,000 of deposits to a local business at a rate of 4% a year – the net interest margin would be 3%. Historically, banks have made money because they have a lower relative cost of funding than any other organizations. Banks don't need to make loans at higher rates than other firms do. Nor do they have to get better returns on their bonds than pension funds, insurance companies, etc. make on those investments. All banks have to do is have a lower cost of funding than the holders of the same assets – loans and bonds – that they choose to own. If we look at the U.S. banking industry overall – it has had a net interest



Over the last 11 years, Bank of Hawaii's pre-tax return on earning assets has ranged from 1.7% to 3.1%.

margin of about 3.6% from 1996 through 2014. This is the interest margin only. It's not the economic margin. This is an important distinction. Because net interest margin tends to be incredibly stable – but operating cost isn't so stable. This means that a bank with really low operating costs – non-interest expense less non-interest income as a percent of total earning assets – will be squeezed during a period of low interest rates. In fact, the best banks in the country might be at their relative worst during a period of near zero interest costs. Bank of Hawaii is one of the best banks in the country. But that is less obvious today – when interest rates are near zero – than it was in the 2004-2008 period and then it will be again a few years after the Fed raises rates.

BOH's net yield is mediocre. Net yield is the interest a loan pays less the charge-offs associated with those loans. So, one bank can have a higher net yield than another bank if it has some combination of charging more on its loans or taking lower losses on those loans. BOH doesn't charge a lot for its loans. From 2002 through 2015, BOH had a 0.53% lower gross yield than Central Pacific (the Hawaiian bank that went under during the crisis) and 0.28% lower gross yield than American Savings Bank. However, BOH's net yield was somewhere between American Savings Bank and Central Pacific. Overall, BOH has been a better lender than Central Pacific – which was a terrible lender that caused its own demise – and a worse lender than American Savings Bank. American Savings Bank is quite a good lender. BOH has no advantages as a lender over American Savings Bank. All of BOH's advantages come from its deposit gathering rather than from its lending.

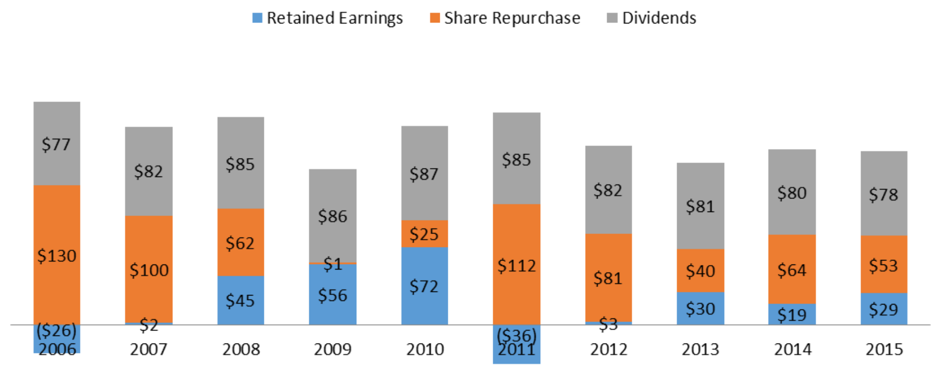
Bank of Hawaii's interest bearing demand deposits – so, basically household and business checking accounts that pay interest – are very low cost sources of funding. From 2003-2008 the rates BOH paid ranged from 0.21% to 1.01%. In general, BOH paid rates that were 0.2 times the Fed Funds Rate. In other words, when the Fed Funds Rate was 1%, BOH tended to pay these depositors 0.2%. And then when the Fed Funds Rate was 5%, BOH tended to pay these depositors 1%. Obviously, these checking customers cared very little about the amount of interest BOH was paying. Other banks in the country paid more than BOH for deposits. Customers could have moved to other banks or put their money in CDs if their goal was simply to get the most interest on their money. This isn't the main objective for most BOH customers. The customers are obviously more concerned about things like convenient access to their money in Hawaii. Savings rates at BOH pay a higher rate relative to the Fed Fund Rates. BOH pays about 0.5 times the Fed Funds rate on its savings account. This is in line with U.S. Bancorp (0.4 times Fed Funds) and Wells Fargo (0.54 times Fed Funds). Finally, BOH has some time deposits (CDs) and other borrowings. These generally cost a bank about 110% of the Fed Funds Rate. They are a very bad form of funding. No bank can be high quality while funding itself using a lot of time deposits and other borrowings. BOH uses relatively little funding from such sources. Overall, BOH's weighted cost of funding is about 0.4 times the Fed Funds Rate. In other words, when the Fed Funds Rate is at 1%, BOH is paying 0.4% for its funding. When the Fed Funds Rate is 2%, BOH is paying 0.8%. At 3% Fed Funds, BOH would be paying 1.2%. At 4% Fed Funds, BOH would be paying 1.6% for its funds. And at a 5% Fed Funds, BOH would be paying 2%. Quan and I probably consider a "normal" Fed Funds Rate to be about 3% plus or minus 2%. In other words, a "normal" interest rate cycle might have a 1% Fed Funds Rate at the bottom of the bust and a 5% rate at the top of the boom. Obviously, the Fed Funds Rate has been lower than 1% at times and much, much higher than 5% at other times. But, when you're looking at a bank it makes sense to think about the Fed Funds being maybe 2%, 3%, or 4%. Not 0% or 6%. Not normally. We are talking in absolute terms here. We can switch to relative terms if that's easier to imagine. So, instead of saying the Fed Funds would normally be 3% and BOH's cost of funding would normally be 1.2% – we can simply ask how big BOH's funding cost advantage is over other banks. That's easy to answer. BOH tends to have a 0.9% lower cost of funding than other banks. When you leverage this up at 10 times deposits per dollar of shareholder's equity – you get a 9% higher return on equity at BOH than at other banks. This is from funding costs alone. It does not consider difference in lending or in operating costs. BOH is a mediocre lender. It is an extraordinarily good operator. BOH gets a full 1% relative cost advantage over other banks in the form of non-interest costs. Over the last 10 years, BOH has had a 1% net non-interest expense ratio. First Hawaiian has had a 0.91% non-interest cost. Actually, if you look at BOH and First Hawaiian as top tier competitors in Hawaii and American Savings and Central Pacific as bottom tier competitors – you see a pattern. Together, BOH and FHB have 68% market share and 0.9% to 1% operating costs. American Savings and Central Pacific combine for 24% market share and have 2% to 2.25% operating costs. The biggest banks in Hawaii benefit from economies of scale. Economies of scale – at both the branch level and the corporate level – are very important in having a low operating cost. BOH's economies of scale at the branch level are among the very, very best in the country. Bank of Hawaii has $185 million in deposits per branch. The average bank on the U.S. mainland is happy to have even $60 million in deposits per branch. In other words, BOH has 3 times more deposits per branch than most banks do. Most of BOH's tremendous earning potential comes from this simple fact.

BOH's actual return on equity depends on how much deposits it has relative to equity. Deposits are relatively fixed – customers decide how much to leave with BOH. What BOH can change is the amount of equity it allows to build up without paying out dividends to shareholders or buying back stock. BOH is not especially conservative in this regard. Generally, BOH has used a 7% tangible equity ratio. This is equivalent to having 14 dollars in deposits – that is, $14 of customer money – for every 1 dollar of owner money. As a result, BOH has tended to earn between 23% and 42% in pre-tax return on equity. This translates into about a 14% to 28% after-tax return on equity. I think that's a reasonable ROE to expect in the future. So, you can assume BOH will earn about a 20% after-tax ROE. It can do this even when the average bank in the U.S. earns much closer to a 10% return on equity. BOH is the best bank in Hawaii. Hawaii is the best banking market in the U.S. And the U.S. is probably the best – or very, very close to the best – banking market in the world. So, BOH is among the very best banks in the world. This is only in terms of profitability. BOH can easily earn a 20% ROE year after year. It can't easily grow.

CAPITAL ALLOCATION

Bank of Hawaii Buys Back its Own Stock and Pays a Dividend

Bank of Hawaii has a very high return on equity combined with very little potential for growth. As a result, the bank chooses to pay out almost all of its earnings in stock buybacks and dividends. From 2006 through 2015, BOH paid out 88 cents of each dollar it earned in either share buybacks or dividends. BOH does have some share dilution that these buybacks need to overcome. Gross dilution is about 1.1% a year. However, net dilution – which includes the effect of share buybacks funded through the use of proceeds from the exercise of stock options – is more like 0.5% a year. So, BOH's buybacks start from a position of needing to offset 0.5% in dilution each year. The bank does this easily. So, it has been buying back more than 0.5% of its shares each year for a long time. The result is a constantly declining share count. As a result, EPS grows faster than net income. BOH has an executive compensation plan that is mostly based on three metrics: 1) Return on equity, 2) Stock price-to-book ratio, and 3) The bank's Tier 1 Capital Ratio. Tier 1 Capital is basically a leverage ratio. It isn't much different from using tangible shareholder's equity as a percent of total assets. If you think about what drives return on equity, the stock's price to book ratio, and the tier 1 capital ratio – it's really all return on assets. Return on equity is simple to understand. Price to book for a stock tends to be higher the higher that stock's return on equity is. This is because the P/E ratio is often more stable than the P/B ratio. Highly leveraged and troubled stocks may have lower P/B ratios than stocks with little leverage. And then finally you have the tier 1 capital ratio. That is a measure where the higher equity is relative to assets – the better the measure will be. Taken together, the one driver that really improves all 3 of these measures is having the highest possible ROA. So, I'm not sure how different BOH's compensation plan would be if it simply used a pure ROA target.



Over the last 16 years, Bank of Hawaii bought back 46% of its shares outstanding.

Now, in reality, BOH's management may not run the bank purely to target the highest possible compensation for themselves. They may not be that rational about their own interests. They may rely more on rules. For example, BOH tends to always have a ratio of about 7 cents of tangible equity for every 1 dollar of total assets. This seems like following a rule. And it makes sense to do that because the compensation plan is somewhat contradictory in this regard. It includes higher Tier 1 capital as a good thing but then it includes – at twice the weight – a return on equity measure. ROE benefits from higher leverage. Tier 1 benefits from lower leverage. But, the compensation plan weights ROE more highly than Tier 1 capital. As a result, the plan encourages rather than discourages leverage. Yet, BOH keeps a fairly normal ratio of 7% tangible equity to assets. In fact, I'd say 7% is the normal ratio for a regional bank like BOH. Let's take a second to compare BOH's capital levels to that of other banks. BOH keeps its tangible equity levels extraordinarily stable. That is why I say that it seems the management is just following a rule by rote here. From 2005 to 2015, tangible equity ranged from just 6.46% to 7.48% of assets. The coefficient of variation was 0.04. That's unbelievable low variation in a variable you aren't targeting for complete stability. You should accidentally have more wobble in your capital levels than that. So, I think BOH just asks itself how much cash it has beyond the amount needed to keep a 7% tangible equity ratio at the end of the year and then it just earmarks the rest for dividends and buybacks. What kind of levels do other banks keep? Frost had a tangible equity ratio of roughly 7% from 2002-2007. That was pre-crisis. Frost and BOH are very, very similar in terms of funding. They both have incredibly high deposits per branch, very low interest costs, and very stable pools of customer deposits. In theory, these banks could have some of the lowest tangible equity ratios and still be safe as long as they used those deposits to buy safe, short-term securities. The liability side of their balance sheet is perfect. The risk is just on the asset side. Prosperity – another bank in Texas – is more aggressive. It targets a tangible equity ratio between 4.5% and 7%. This is because Prosperity acquires other banks. A 7% tangible equity ratio will often result in a Tier 1 Capital Level of between 10% and 15%. This isn't guaranteed. But, as a general rule, if you're comparing Tier 1 Capital Levels (which banks sometimes mention) to the measure Quan and I use instead (tangible equity to total assets) a 7% tangible equity ratio is like a 10% to 15% Tier 1 Capital Ratio.

BOH has no capital allocation risk related to acquisitions – because it just doesn't make any acquisitions. There aren't any acquisition targets in Hawaii. Mainland acquisitions would be a mistake. There are really only 3 other banks BOH could acquire in a synergistic way. And there would be regulatory concerns with any of the big 4 Hawaiian banks – which control 90% or more of the state's banking industry – from merging with each other.

Before the 2007 financial crisis, BOH returned essentially 100% of earnings. Its rule was a 40% dividend payout ratio and then it would dedicate about 50% of earnings to share buybacks. BOH really doesn't need more than 10% of its earnings from the year to support what little incremental growth in deposits it experiences each year. There is some evidence that BOH's capital allocation in recent years is a response to the crisis. In other words, when Quan and I say that BOH returns like 85% or more of its earnings each year – we're perhaps underestimating the future situation. BOH used to always return 90% to a little over 100% of earnings each year. Most banks de-leveraged since the crisis.

One huge difference between BOH and other banks is how much of its own stock it buys back each year. From 2000 through 2015, BOH bought back 46% of its shares outstanding. This is a 4% annual decline in share count. The bank can continue this indefinitely. It doesn't time share buybacks. So, what is happening here is just that half of all earnings are being used to buy back stock. So, assume BOH has a 40% dividend payout rate and a 90% to 100% earnings payout ratio. That means the bank will tend to use 50% to 60% of its earnings to buy back stock each year. There is that 0.5% drag in employee stock options I mentioned at the start of this section. So, the only other question is what BOH's P/E ratio is. Let's say the P/E ratio is 15. That's about a 6.67% earnings yield. Let's say half of EPS is used to buy back stock. That's 6.67% less drag of 0.5% equals 6.17%. Half of that translates into a 3.08% net share reduction per year. Mathematically, the impact on EPS growth is always slightly greater than the rate of reduction in the shares. For example, a 1% share reduction causes a 1.1% EPS boost (1/0.99 = 1.011 not 1.01). So, let's just pretend a P/E of 15 is normal for BOH and that a constant share reduction rate of around 3% a year will cause about a 3% a year growth in EPS beyond net income. This is a bit conservative. But, it's a reasonable approximation. Your return in the stock will then be Net Income Growth + Dividend Yield + 3%. As I write this, the dividend yield on the stock is 2.7%. A 3% annual EPS boost from stock buybacks from now till forever is reasonable. So, 2.7% + 3% equals a 5.7% return from dividends and buybacks. So, to decide whether or not you should buy BOH stock you would just take your own personal hurdle rate – what you want to get from a buy and hold forever stock – and then subtract 5.7% and ask yourself whether BOH can grow net income by that amount.

So, assume your hurdle rate is 8% a year. You take 8% minus 5.7% and you get 2.3%. Can BOH grow companywide net income by at least 2.3% a year forever? Yes. What if your hurdle rate is 10% a year? You take 10% minus 5.7% and you get 4.3%. Can BOH grow companywide net income by 4.3% a year? This question is easy to model. BOH is part of a stable oligopoly. Financial services doesn't really shrink as a percent of GDP. So, the question is whether Hawaii will have nominal GDP growth – that's productivity growth plus population growth plus inflation – of 4.3% a year? That sounds reasonable. Growth of less than 3% a year is unreasonable. Growth of more than 6% a year is also probably unreasonable. Growth in the 4% to 5% a year range seems achievable even if BOH doesn't benefit from any economies of scale that cause net income to grow faster than earnings. So, if you have a hurdle rate in the 10% to 11% a year range for a buy and hold investment – BOH is right on that hurdle rate. This does not address the issue of the Fed Funds Rate. This is the investment portion of the decision only. There's also a speculative component. You might have a big one-time gain if the Fed Funds Rate goes from less than 1% to something more like 3%. BOH is interest rate sensitive. We'll discuss this more in the value section of the issue. But, for now – just know that even without the benefit of a higher Fed Funds Rate, it is reasonable to buy BOH if you want a roughly 10% a year return out of a buy and hold forever investment. That's about what BOH is priced to return.

VALUE

Bank of Hawaii is Fairly Priced Based on Current Earnings and Cheap Based on Normal Earnings

Bank of Hawaii is trading at between 7 and 8 times our estimate of normal pre-tax earnings. However, it is trading at about 12 times last year's pre-tax earnings. Why is the difference so big? Because of the Fed Funds Rate. For example, last year – BOH had a yield of 4% on its loans. But at a 3% Fed Funds Rate, the yield on the loan portfolio would be about 6%. Likewise, the yield on BOH's securities portfolio would be about 4% in normal times. It was 2.2% last year. So, it is the yield side of the earnings picture that changes depending on the Fed Funds Rate.

There is another way to think about normal earnings. We can pick a different period in time and ask how much Bank of Hawaii actually earned in those years. For example, we know that BOH earned a 3% pre-tax return on assets (so 2% after-tax) during the boom years of 2004 through 2007. This 3% return was pretty stable. It was 3% exactly in 2004, 3.06% in 2005, 3.03% in 2006, and then 2.94% in 2007. Those were the boom years though. Quan and I have assumed BOH will earn just a 2.6% pre-tax return on its earning assets in normal times. That is a little under $400 million in pre-tax profits. At today's price, that works out to a stock price of about 12 times today's pre-tax earnings but only about 7 times our estimate of normal pre-tax earnings.

How is BOH priced versus peers? It is more expensive than Frost – one of the two biggest banks in Texas. BOH also has worse growth prospects than Frost – mainly because Hawaii has worse growth prospects than Texas. So, if you have to choose between buying BOH or buying Frost – buy Frost. Frost is priced at about 10 times last year's pre-tax profit but less than 7 times our estimate of normal pre-tax earnings. It's a little cheaper than BOH. And Frost has much, much better growth prospects. BOK Financial is another stock Quan and I wrote about. It is the leading bank in Oklahoma. It also has a big presence in Texas. BOK has much better growth prospects than Bank of Hawaii – because unlike Bank of Hawaii, BOK is a big acquirer. It likes to start new businesses and to enter new states. It has often been successful doing this. The culture at BOK Is very different from the culture at BOH. And, as a result, BOK has grown deposits by 11% a year over the last 22 years, 10% a year over the last 15 years, and 8% a year over the last 10 years. This makes BOK a growth stock even though it is mostly in the rather slow growing – compared to Texas – state of Oklahoma. BOK is a big energy lender. It has 19% of its loans in the energy category. And energy loans account for 11% of total earning assets. Obviously, there was an oil price crash recently. So, this is a concern for some investors. Quan and I aren't very concerned. Even if BOK wrote off half of its energy loans – and over the previous 20 years, it wrote off something tiny like 0.2% a year or less of all loans in this category – it would only destroy about 5% of total earning assets. That would destroy the bank's earnings for a time. But it wouldn't cause the bank to fail. BOK is pretty cheap. It trades for about 5 times normal pre-tax earnings and about 9 times last year's pre-tax earnings. So, BOK is a smidge cheaper than either BOH or Frost. However, BOK is riskier. It makes more energy loans. And its growth potential comes from entering new product lines and making acquisitions.

Commerce is a Missouri based bank. Missouri is a slow growing state. It is comparable to Hawaii in that way. This makes Commerce a good peer for BOH and a bad peer for Frost. Commerce's deposit growth was just 5% a year over the last 23 years. The bank is high quality. It's also cheap. Commerce shares are priced at

Bank of Hawaii trades for 18 times today's after-tax profits and 10-12 times normal after-tax profits.

about 11 times last year's pre-tax profit and only about 7 times normal pre-tax profit. These are all good, cheap banks we are talking about. I think Commerce is probably the best direct comparison to BOH. Quan probably likes Commerce a little more than BOH. I probably like BOH a bit better than Commerce. They are priced similarly. And they have similar growth prospects.

UMB is another Missouri based bank. It gets most of its deposits from Kansas City. Kansas City is also a really big market for Commerce. UMB grew deposits by 6% a year over the last 25 years. Again, this is pretty slow growth for a bank. It means UMB grows at only about the rate of nominal GDP growth. To be fair, Missouri's nominal GDP might have lagged U.S. GDP by a little bit – so UMB certainly kept pace with the economy of Missouri. It didn't shrink relative to the market it operates in. But, UMB is not a growth stock.

Central Pacific is the most obvious peer for BOH. Central Pacific is a publicly traded bank stock under the ticker "CPF". It's the fourth largest bank in Hawaii with 11% deposit share (so BOH is almost 3 times the size of CPF). Like I said, CPF is an obvious peer. But it's not actually a good peer. CPF went belly up during the financial crisis. It participated in TARP. That participation required it to grant the government 10-year warrants to purchase a ton of shares at less than $13 a share despite CPF stock starting that same year (2007) at around $40 a share. CPF raised even more funds in a 2011 private placement. The simple way of looking at what Quan and I classify as CPF's 'going belly up' despite the bank never being seized by the FDIC is that its share price declined by more than 95% from the start of 2007. Losing 95% of your shareholder's wealth is basically the same thing as failing. So, CPF pretty much failed during the crisis. The stock is quite cheap on a price to earning assets value. That's an important number. And Quan and I use it a lot when comparing one bank to itself. It's a little trickier when comparing BOH to CPF – because BOH can always earn a lot more on each dollar of deposits than CPF can. For example, Quan and I use 1.8% as the normal pre-tax return on earning assets for CPF and 2.6% a year for the normal pre-tax return on assets for BOH. This means that CPF is actually priced higher than BOH in terms of normal earnings. So, CPF is more expensive than BOH despite being a lower quality business. CPF has an inferior competitive position.

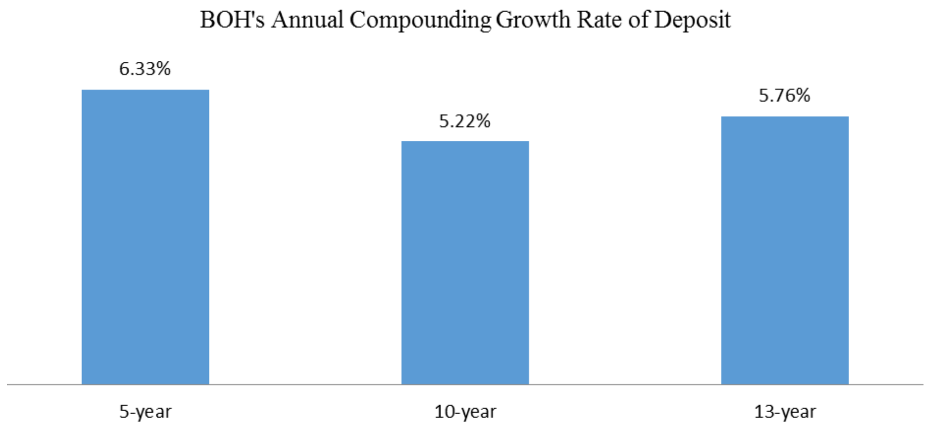
Frost is a better bank than BOH. It has a lower funding cost and a slightly higher (1.4% versus 1.1%) operating cost than BOH. But, Frost has much greater growth. Historically, deposit growth at Frost has been in the 9% to 10% range while deposit growth at BOH was in the 3% to 4% range. This is a huge difference. It's an especially huge difference in valuation for these two banks because of how high their ROE is. Growth is very, very valuable for shareholders at both BOH and Frost because it requires so little retention of earnings. BOK is a good bank. But it has risks BOH doesn't. So, we'll set it aside as a possible higher risk. Frost is clearly superior to BOH. CPF is an inferior peer. Yes, CPF is another Hawaiian bank. But, it's a much worse bank. That leaves the two Missouri banks – UMB and Commerce – as the best peers for BOH. Commerce and BOH have similar growth prospects and similar returns on earning assets. Quan thinks Commerce deserves a slightly higher valuation than BOH. I think BOH deserves a slightly higher valuation than Commerce. Let's split the difference and say BOH and Commerce should be priced exactly the same.

What's the right price? Banks are higher return businesses than firms in other industries. There's really no reason for a bank with the kind of ROE that BOH has to be priced below an average stock. Historically, an average stock in the U.S. was priced at 15 times after-tax earnings. BOH can grow between 3% and 4% a year. It can return at least 80% of its earnings in dividends. At a normal type P/E of around 15, BOH would have a dividend yield plus stock buyback rate of at least 5% a year. It would also grow at least 3% a year organically. So, that's a return of at least 8% a year. This figure could rise to closer to 10% a year depending on the exact estimates you make. But, 8% a year is an adequate return for a fairly valued stock. So, 15 times normal earnings is a good appraisal level to pick for BOH. Quan and I think the bank's earning power is around $400 million in normal times. Fifteen times after-tax earnings is the same thing as ten times pre-tax earnings. So, a pre-tax earning power of about $400 million a year deserves an enterprise value of about $4 billion for the company. Right now, the company's market cap is around $3 billion. So, BOH is trading at about 75% of what it should be worth in a normal interest rate environment.

GROWTH

Hawaii is a Slow Growing Economy

Over the last 13 years, Bank of Hawaii grew its deposits by 5.8% a year. This is a decent growth rate for a bank. However, Hawaii is not a fast growth state. Hawaii's GDP has grown in line with U.S. GDP from 1997 through today. Population growth has also been close to the U.S. national average. The state's population is forecast to grow a little over 0.7% a year over the next 25 years. So, assume real GDP growth per capita of say 0.8% to 1.2% or so – basically, 1% a year plus or minus a bit – and inflation of say 2% to 4% a year. You can have a range of nominal GDP growth rates for Hawaii starting at about 3.5% a year (0.7% population growth plus 0.8% real GDP per capita growth plus 2% inflation). The top end of the range would be something like 6.9% using these numbers (4% inflation plus 1.2% real GDP per capita growth plus 0.7% population growth). In other words, nominal GDP growth is unlikely to be less than 3% a year or more than 7% a year. Deposit growth can be a little higher or a little lower than nominal GDP growth depending on whether financial services is growing as a percent of total GDP. This can depend on things like asset values. If houses and stocks and bonds are all expensive – then borrowing capacity can be high relative to income and the actual physical output of a place. In other words, very low interest rates can mean very high asset prices which can mean very high indebtedness which can mean bigger bank balance sheets. Bank of Hawaii's compound annual growth rate in deposits was 4% a year from 1994 through 2015. I think this is the best estimate of future growth for the bank. A conservative estimate would be 3% a year. It's very unlikely deposits will grow less than 3% a year. BOH has not gained or lost much market share. It has had market share of between 31% and 33% of all deposits in Hawaii in each year of the last 20 years. So, if Hawaii grows deposits by 4% a year – Bank of Hawaii will also grow deposits by 4% a year. There could be some slight economies of scale at Bank of Hawaii. So, net income growth could be a bit higher than deposit growth. In fact, that has almost always been the very long-term trend for big banks in the U.S. This is mainly due to increased fee income and economies of scale at the branch level. The greater the amount of deposits per branch, the lower the bank's operating cost per deposit. In fact, Hawaii has fewer branches today than it did in the past. And Bank of Hawaii has said its branches are too big. The average branch is 4,200 square feet. Management believes branches of just 3,000 square feet are ideal. Having more ATMs and higher use of ATMs, mobile banking, etc. by customers can help reduce the need for square footage and employees at the branch level. These are the two big expenses for a bank. How many deposits do you have per square foot? How many deposits do you have per branch employee? The more the better. I think there are some long-term economies of scale in this area for Bank of Hawaii specifically and for the banking industry generally. So, I don't think net income will grow any slower than deposits – and I think it might grow faster. For that reason, I don't think it makes sense to assume net income growth of any less than 4% a year at Bank of Hawaii.



In the past, Bank of Hawaii grew its companywide deposits by 5% to 6% a year.

Let's look at what that means for the value of this stock. Bank of Hawaii can make a 25% after-tax ROE in a normal year. It can even make a 15% ROE in a bad year. Quan and I think the bank can pay out somewhere between 80% and 85% of all earnings through a combination of dividends and share buybacks. Employee compensation in the form of stock options creates a 0.5% a year drag on the stock. Actual stock options are higher than this. However, proceeds from the exercise of options can – and are – put back into buying the stock. So, only the net impact matters. The net result is a 0.5% annual drag on the stock. So, what will your total return in BOH stock be? We start from a 0.5% a year annual hole. That is what would happen if the bank neither increased earnings nor paid stock options or dividends. It would shrink 0.5% a year in per share value. But I think net income will grow 4% a year. So, we go from a 0.5% a year hole to an immediate 3.5% a year total return. Now, the rest of your total return in Bank of Hawaii depends entirely on the price multiple you buy the stock at. We can put this in the form of an equation if you want. Total return is 3.5% plus 0.8 times earnings yield. So, 3.5% is the constant growth rate of the company's net income growth less stock options as a dilutive expense. And 0.8 is the constant rate at which BOH uses earnings to pay dividends and buyback stock. So, what matters is how much you pay per dollar of normal earnings. Let's say you buy BOH stock at 15 times normal after-tax earnings. Can we restate that as an earnings yield? Yes. One divided by 15 equals 6.67%. And then BOH will retain up to 20 cents of each dollar of earnings. So, you only get the other 80 cents per dollar of EPS paid out in dividends and buybacks. That means

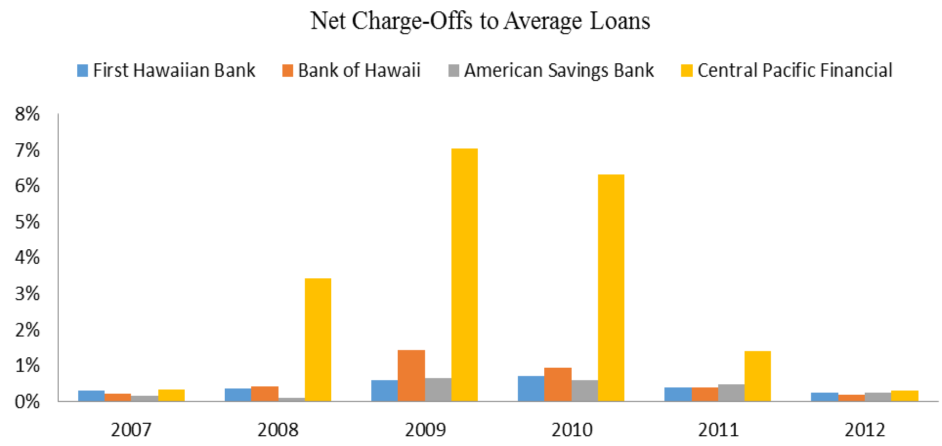
6.67% times 0.8 equals 5.33%. Let's round that off to 5.3%. And then add that to the net income growth less options dilution of 3.5% a year. We get 8.8% a year in total return if you buy BOH at 15 times normal earnings. That's not the stock's price though. Fifteen times normal after-tax earnings is 10 times pre-tax earnings. Right now, BOH is trading at about 7 times "normal" pre-tax earnings. Seven times pre-tax earnings is about 11 times after -tax earnings. And 11 times after-tax earnings works out to an earnings yield of 9.09%. So, the equation now would look more like 3.5% plus 0.8(9.09%). If we multiply 9.09% by 0.8 we get 7.27%. So, add 3.5% to 7.3%, and you get 10.8% a year. That's a good estimate of your total return in BOH. But only if the Fed Funds Rate was already 3% at this moment. It's not. So, BOH can't return anything like 10.8% a year till the Fed Funds Rate is raised to a "normal" level. Let's imagine it never is. Instead BOH stock trades for a P/E of like 18. One divided by 18 is 5.55%. And 5.55% times 0.8 equals 4.44%. So, our equation would now be 3.5% plus 4.4% equals 7.9%. If the Fed never raises interest rates – you'll make between 7% and 8% a year in BOH stock. If the Fed starts raising interest rates immediately – and/or if you hold BOH stock virtually forever – then you will make more like 10% to 11% a year. It's hard to imagine a long-term buy and hold return here of less than 7% a year no matter how low interest rates are for how long. And it's hard to imagine a long-term buy and hold return of more than 11% a year no matter how quickly the Fed raises rates. I think you could – speculatively, as a trade – make a lot more than 11% a year on BOH if you buy it today and hold it through a series of Fed Funds increases over several years and then sell at a higher point in the interest rate cycle. But this is a buy and hold newsletter. If you buy BOH stock today, I feel pretty sure you'll make more than 7% a year and less than 11% a year if you hold it forever. Returns in the 8% to 10% a year range seem most likely. This is a wide moat stock. It's in an oligopoly. It is tied to interest rates in the opposite way of most of the stocks in your portfolio (unless you own a lot of banks and insurers). So, BOH is an excellent diversifier. I think it'll return 8% to 10% a year. And I think the S&P 500 will definitely not return as much as 8% to 10% a year if you buy it at today's price. So, BOH can benefit your portfolio by adding higher returns and more diversification. If you don't own Frost – I'd buy that stock first. But, I would suggest BOH as a good buy and hold forever stock for just about any portfolio.

MISJUDGMENT

Bank of Hawaii is Not an Especially Conservative Lender

Bank of Hawaii is not the most conservative lender in Hawaii. During the financial crisis, there were four major banks in Hawaii. Central Pacific Financial essentially failed. It lost 95% of its market value as a stock. And it had to take TARP funds from the government. The other three Hawaiian banks – American Savings, First Hawaiian, and Bank of Hawaii – all survived without needing bailout money. Of those three banks, Bank of Hawaii had the highest loan losses during the crisis. However, it is not like any of the three other banks had losses that came remotely close to Central Pacific's losses. Bank of Hawaii's worst years had charge-offs in the 1% to 2% range – which was not especially bad compared to mainland banks – and Central Pacific had losses of just under 7%. Also, Bank of Hawaii is diversified in terms of both its lending portfolio specifically and its earning assets generally. Bank of Hawaii doesn't normally have more than 60% of its assets in actual loans. The other 40% of assets are securities. These are mostly rather short-term bonds. Almost all of them are high quality bonds that mature within the next 10 years. So, when Bank of Hawaii has loan losses of say 2% a year that translates into only something like 1.2% of earning assets (2% times 0.60 equals 1.2%). Bank of Hawaii is also diversified in the sense that it's about half a business bank and half a household bank. The 2008 and 2009 period was unusual in that both households and businesses were creating loan losses at the same time. Very often this is not the case in a recession. So, you have a housing bubble burst at a different time from losses on commercial and industrial loans. Quan and I don't think BOH is a high-risk lender. It used to be when it operated outside of Hawaii. It's very dangerous for a bank to spread out over a large geographic area. And it's very dangerous for a bank to make loans far from home. Bank of Hawaii is now focused entirely on Hawaii (and to a very small extent Guam). The bank's loans are basically just rather plain vanilla loans made to Hawaiian households and businesses. And then the securities portfolio is unrelated to Hawaii specifically.

The worst year for Hawaiian banks was 2009. Bank of Hawaii had charge-offs of 1.43% while American Savings charged off just 0.66% of loans and First Hawaiian charged off 0.61% of loans. So, there is no doubt that both American Savings and First Hawaiian had far lower loan losses than Bank of Hawaii. I don't want to present Bank of Hawaii as an especially conservative bank. It's not. The bank has acceptable – but not especially low – levels of leverage (tangible equity is a bit higher relative to assets than at some banks) and loan charge-offs (the bank's losses peaked at just 1.43% during the crisis). But American Savings and First Hawaiian are more conservative lenders. Bank of Hawaii is very, very safe on the funding side. It doesn't need access to other people's money. The bank can be run using just sticky customer deposits from local Hawaiian households and businesses. Such funding is safe and reliable even in the worst moments of a financial crisis. So, Bank of Hawaii is an average bank on the lending side and a very safe bank on the funding side. Overall, I consider it above average in safety. But, this above average safety comes purely from the bank's funding position and from its focus on Hawaii. Bank of Hawaii also makes fewer loans than some banks. For example, First Hawaiian's loans to earning assets ratio was around 63% these last 5 years.



In 2009 and 2010, Bank of Hawaii had higher net charge-offs than both First Hawaiian Bank and American Savings Bank.

Meanwhile, Bank of Hawaii has only had loans of about 50% of total earnings assets during the years 2010 through 2015. This is probably due to low loan growth relative to deposit growth in the Hawaii market. The same thing has happened on the mainland. So, unless a bank makes a special effort to grow loans – it would have a declining ratio of loans to earning assets for the 2010-2015 period relative to the 2004-2008 period. That's what happened at BOH. Bank of Hawaii was lending out close to 70% of available funds in the 2004-2008 boom. But it has only lent out about 50% of available funds in the 2010-2015 bust. First Hawaiian's loan mix is a little different from Bank of Hawaii. First Hawaiian does more lending outside Hawaii. It also makes more consumer loans and slightly more commercial loans than BOH. Bank of Hawaii makes more mortgage and home equity loans. That might have hurt BOH disproportionately during the financial crisis. Normally, residential mortgage loans have very, very low charge-offs. But, BOH had a lot of charge-offs on its residential mortgage loans during the financial crisis – because that crisis was the result of a housing boom. BOH had very good underwriting results in residential mortgage and home equity relative to mainland banks. The areas with the worst losses for BOH during the crisis were commercial and industrial loans (charge-offs of 2.74% in 2009 and 2.49% in 2010) and consumer loans (charge-offs of 3.19% in 2009 and 2.60% in 2010). Residential mortgage charge-offs were 0.29% in 2009 and 0.50% in 2010. That's excellent. Home equity loans were a bit worse – but not at all bad relative to home equity losses at most mainland banks. BOH had home equity charge-offs of 1.26% in 2009 and 1.56% in 2010. So, BOH's own results in the crisis were hurt most by problem loans in commercial and industrial and consumer loans. Those are short-term loans. They don't benefit from government involvement the way the residential mortgage market does. So, they were very susceptible to a credit crunch for those two years. BOH kept reporting positive earnings even through the financial crisis. During the next recession, the bank will have charge-offs in both commercial and industrial and consumer loans. But these two categories together will only be at most 25% to 33% of Bank of Hawaii's total earning assets. Most of BOH's loans are mortgages (residential or commercial). And – depending on the year – anywhere from 30% to 50% of BOH's available funds are put into securities instead of loans. So, losses in commercial and industrial and consumer loans will be manageable. Whenever Hawaii has a recession, BOH will have a bad year in those areas. But these charge-offs will simply appear for a year or two and then go down to manageable levels for the next 5 years or so – along with the macroeconomic cycle on Hawaii. These are normal cyclical losses. They aren't a problem for a bank with BOH's diversification in assets, strong funding position, and reasonable tangible equity levels.

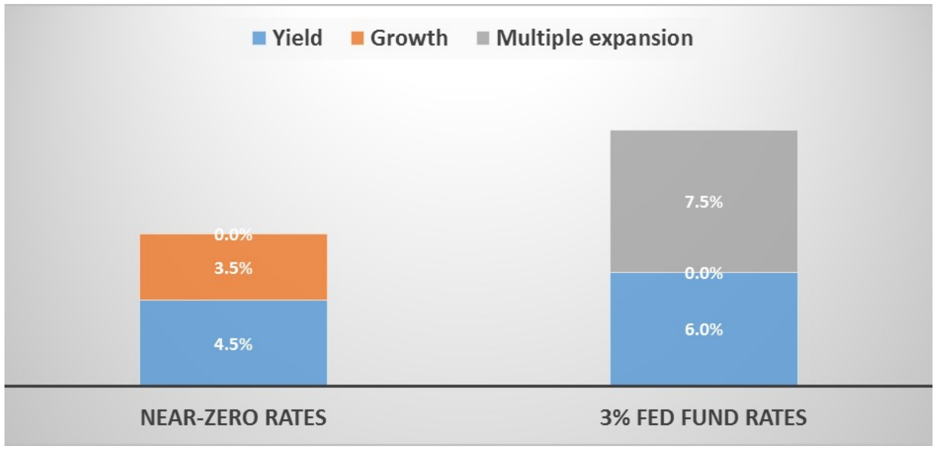
The single biggest potential risk to BOH is a Hawaiian housing bubble. Land is scarce in Hawaii. Homes are already much, much more expensive than on the mainland. A very long period of low interest rates combined with interest in buying land by people from the U.S. mainland, Japan, etc. can cause a bubble in land prices. It happened before. The real price of a Hawaiian home doubled in value from 1981 to 1991. But then the real price of a Hawaiian home declined ever so slightly for the full period of 1991 to 2001. That's shocking. A ten-year decline of any kind in the real value of homes is unusual. It happens as a result of a bubble. So, you have a doubling in real value – more like a tripling in nominal value – from 1981 to the peak in 1991 and then a flattening out in real value from the period 1991 to 2001. It was a twenty-year boom and bust cycle. That can happen. This most recent decline in housing prices was modest by Hawaiian standards. We have the same situation here with Bank of Hawaii's history as we do with Frost's history in Texas. For Hawaii, the 2007-2009 financial crisis was not the worst economic moment in decades the way it was for most of the U.S. Hawaii had an early 1990s period – in the wake of the Nikkei bubble in Japan – that was worse. Texas's worst period followed the oil bust of the 1980s that came about as a result of the energy crisis induced oil bubble in the 1970s. So, you had an oil bubble in Texas in the 1970s and 1980s. And you had a land bubble in Hawaii in the 1980s and 1990s. Those are the best tests of banks in those states. Bank of Hawaii made it through Japan's asset price bubble and then it made it through America's asset price bubble. Look at the bank's results in these two periods. They are a better gauge of BOH's resiliency than any hypothetical future scenario I could create. My one suggestion would be to watch for a serious housing bubble in Hawaii. If Hawaii has a 1980s-style housing bubble – you may want to consider selling BOH. Otherwise, Bank of Hawaii is a stock to buy and hold forever.

FUTURE

Bank of Hawaii Will Be a Good Enough Stock if Rates Stay Low and a Great Stock if the Fed Raises Rates

Bank of Hawaii's five-year future depends on what the Federal Reserve decides to do with interest rates. If the Fed Funds Rate is near zero in 2021, Bank of Hawaii may only return something like 8% a year over the next 5 years. However, if the Fed Funds Rate is as high as 3% a year in 2021, Bank of Hawaii could return something closer to 13% a year. Why?

How much Bank of Hawaii earns depends on the level of interest rates. While BOH might not change its dividend very much depending on how much it earns – it will change how much it spends on share buybacks. So, BOH's earnings at the end of the five-year period will be different depending on interest rates. But, BOH's share count will also be different depending on what interest rates look like. The more BOH earns, the more it will spend on share buybacks. Right now, BOH is trading at about 18 times its current earnings. This is a 5.5% earnings yield. However, BOH is only trading at 11 to 12 times its normal earnings. So, that's an earnings yield of more like 8%. BOH doesn't need to retain any earnings when it doesn't grow. Quan and I have assumed that BOH's deposits will not grow at all between now and 5 years from now if the Fed Funds Rate rises to at least 3% by then. Rising interest rates will tend to move some deposits from non-interest bearing to interest bearing. An economy that is 'running hot' will also tend to limit deposit growth. It's conservative to assume BOH won't grow deposits. But, we know that if BOH doesn't grow deposits – it certainly won't retain any earnings. BOH doesn't want to have a higher ratio of tangible equity to total assets than it does right now. The only way not to de-leverage when deposits aren't growing is to pay out every cent of earnings in either dividends or share buybacks.



Over the next 5 years, Bank of Hawaii stock might return anywhere from 8% and 13% a year.

Let's put aside share buybacks for a moment. Quan and I think BOH would – simply through the increase in the Fed Funds rate – increases its earnings to almost $400 million pre-tax by 2021. At a P/E of 15, Bank of Hawaii stock would be fairly valued around $100 a share. Going from about $70 a share to about $100 a share in price over five years results in a 7% return. So, stock price appreciation alone can drive 7% annual returns at BOH. Dividends and share buybacks would add another 6% or so in returns. So, the total return in BOH would be about 13% over 5 years in a constantly rising interest rate environment.

What if interest rates stay near zero? A lot of things change. Bank of Hawaii would grow its deposits faster. Quan and I think deposit growth would be in the 3% to 4% range if interest rates don't rise at all. When BOH grows, it does need to retain some earnings to keep leverage from increasing. For example, if deposit growth is in the 3% to 4% range – Bank of Hawaii would probably retain 80% to 85% of its EPS. Everything else would be paid out in dividends and share buybacks. Today's price is 18 times earnings. BOH has some drag due to employee compensation in the form of stock options. Once we net that out, we get a combination of dividends plus a reduction in the share count that is equivalent to a 4.5% payout to shareholders. The whole company would be growing 3% to 4% a year though. So, you have 4.5% plus 3% to 4%. That gives you a total return of 7.5% to 8.5%.

It's possible to come up with a scenario where BOH stock returns as little as 7% a year over the next 5 years. It's also possible to come up with a scenario where BOH stock returns as much as 14% a year over the next 5 years. It's very difficult to come up with ways the stock could do worse than 7% a year or better than 14% a year. So, if you buy BOH today and hold the stock through 2021 – you can expect a total return in the 7% to 14% range. Quan and I think this is better than what the S&P 500 offers. In fact, we'd say that the bottom end of BOH's range of reasonably possible returns is higher than what the S&P 500 is priced to return. It's unlikely the S&P 500 will return 7% a year or better over the next 5 years. This is simply because interest rates are very, very low right now and the S&P 500 is very, very expensive on a price-to-normal earnings basis. If interest rates rise, the earnings multiple on the S&P 500 is likely to decline. Unlike BOH, there is no offsetting mechanism in place for non-financial stocks to grow the 'E' part of the P/E ratio at the same time higher interest rates are putting pressure on the 'P' part. Higher interest rates will benefit BOH stock. Those same higher interest rates will hurt most other stocks. So, BOH – along with other interest rate sensitive banks like Frost – are an excellent diversifier. They are likely to rise in price while all the other stocks in your portfolio are falling in price. That's why Quan and I would say that if you don't already own a bank stock – you should go out and buy Frost right now. If you already own Frost –

you should add BOH to your portfolio. Frost and BOH are both very interest rate sensitive. They benefit from rising interest rates. Most of your net worth – whether it is in the form of non-financial stocks, bonds, or a house – will be hurt by higher interest rates. So, if there is a wide moat business that is helped rather than hurt by rising interest rates – you should add that to your portfolio. Frost is a better stock than Bank of Hawaii. But Frost and Bank of Hawaii are both wide moat banks that benefit from rising interest rates. So, both bank stocks belong in your portfolio. What the Fed does matters. But, don't obsess about whether the Fed raises rates this month, next month, or the month after that. Just worry about what interest rates look like today and what interest rates are likely to look like in five years. Don't buy into BOH or Frost planning to hold them for less than five years. But do buy into both BOH and Frost. These stocks provide the diversification you need. Your portfolio is badly exposed to the risk of higher interest rates. These two banks will zag when the rest of your portfolio zags. BOH is likely to outperform the S&P 500 over the next 5 years. And it's certain to perform differently from the S&P 500. That's a big benefit. So, BOH is – despite not having as bright a future as Frost does – a bank stock I would recommend to literally any investor. The one caveat is the same caveat we always make in a Singular Diligence issue. We are recommending BOH as a five-year investment – not as a five-month trade. Don't buy this stock unless you commit to holding it through 2021.

Bank of Hawaii (NYSE: BOH)

Appraisal Value: $97.15

Price-to-Appraisal: 76%

Bank of Hawaii Owner	(in millions)
Earning Assets	
Short-term Investments	$691
+ Securities	$6,229
+ Loans	$7,940
= Earning Assets	$14,860
Funding	
Free Funding	$2,796
+ Interest-bearing Demand	$4,876
+ Savings	$5,138
+ Time	$1,208
+ Other Borrowings	$843
= Total Funding	$14,860
Funding Mix	
Free Funding	19%
+ Interest-bearing Demand	33%
+ Savings	35%
+ Time Deposits	8%
+ Other Borrowings	6%
= Total Funding	100%
Assumptions	
Yield on Earning Assets	5.20%
Fed Funds	3.00%
Cost of Interest-bearing	0.60%
Cost of Savings	1.50%
Time Deposits	3.30%
Cost of Other Borrowings	3.30%
Weighted Average Cost of	
Free Funding	0.00%
+ Interest-bearing Demand	0.20%
+ Savings	0.52%
+ Time Deposits	0.27%
+ Other Borrowings	0.19%
= Cost of Funding	1.17%
Return on Earning Asset	
Yield on Earning Assets	5.20%
- Cost of Funding	1.17%
- Net charge-offs	0.29%
- Operating Costs	1.12%
= Return on Earning Assets	2.62%
Pre-tax Owner Earnings	
Earning Asset	$14,860
* Return on Earning Assets	2.62%
= Pretax Owner Earnings	$389

Business Value

BOH's business value is $3,890 million.

- Pre-tax owner earnings are $389 million
- Fair multiple = 10x pre-tax owner earnings
- $389 million * 10 = $3,890 million

Fair Multiple

BOH's business is worth 10x pre-tax owner earnings

- 10x pre-tax owner earnings is equivalent to 15x after-tax earnings
- Paying 15x after-tax earnings can result in 8.33-9.66% total return
  - BOH can grow 3-4% while returning 80-85% of earnings
  - 15x after-tax earnings implies yield between 5.33% and 5.66%
  - Adding 3-4% result in total return between 8.33% and 9.66%

Share Value

BOH stock is worth $97.15 a share

- Business value is $3,890 million
- Preferred stock: $0 million
- Equity Value is $3,890 million
- Equity Value = $97.15/share
  - 40.04 million outstanding shares
  - $3,890 million / 40.04 million = $97.15

Margin of Safety

BOH is trading at 76% of its value.

- Business Value = $3,890 million
- Enterprise Value = $2,927 million
- $2,927 million / $3,890 million = 75%

	EV/ Earning Assets	EV/ Deposits	EV/ EBT	EV/ Owner Earnings
Frost	0.16	0.17	8.59	5.56
BOK	0.14	0.19	9.15	5.15
Commerce	0.20	0.24	11.36	6.98
UMB Financial	0.15	0.18	14.98	6.68
Central Pacific Financial	0.15	0.16	9.47	8.17
Minimum	0.14	0.16	8.59	5.15
Maximum	0.20	0.24	14.98	8.17
Median	0.15	0.18	9.47	6.68
Mean	0.16	0.19	10.71	6.51
Standard Deviation	0.02	0.03	2.60	1.20
Variation	16%	16%	24%	18%
BOH (Market Price)	0.20	0.22	12.04	7.52
BOH (Appraisal Value)	0.26	0.29	15.81	10.00

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

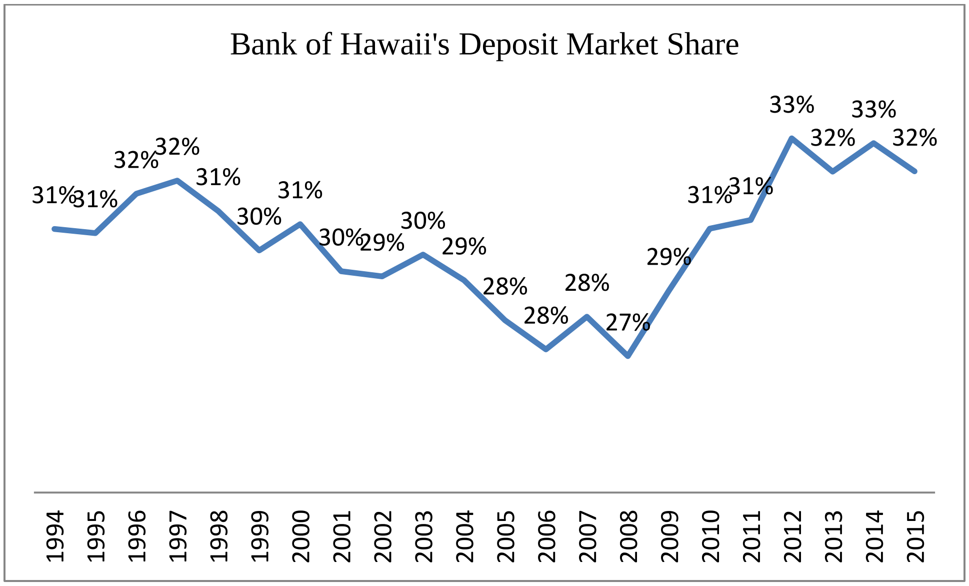
NOTES

Bank of Hawaii

NYSE: BOH

Overview

Bank of Hawaii: A Durable Franchise in an Isolated Island



Bank of Hawaii holds about 30-32% of total deposits in Hawaii over the last 22 years

- BOH was founded in 1893
    - By
        - Charles Montague Cooke
        - Joseph Ballard Atherton
            - Cook's brother-in-law
        - Peter Cushman Jones
            - Cook's business partner
    - The bank opened its first branch in Kauai
        - In 1903
    - Acquired First Bank of Hilo
        - In 1922
        - First Bank of Hilo had 4 branches
    - Amalgamated Bank of Maui
        - In 1930
    - Through acquisitions and organic expansion, it became Hawaii Bancorporation
        - The biggest bank in Hawaii
        - Had 31% deposit market share in Hawaii
            - In 1995

- Hawaii Bancorporation pursued growth outside of Hawaii
    - In the 1980s and 1990s
    - The bank had operations in
        - California
        - Arizona
        - New York
        - 8 countries across the South Pacific
        - 6 Asian locations
    - BOH faced with virtually no revenue growth in Hawaii[1]
        - BOH entered syndicated lending
        - => Entered syndicated lending
            - Built a $3 billion portfolio at some point
    - BOH bought loans outside of Hawaii[2]
    - The outward-looking expansion strategy was reflected by the name change to Pacific Century Financial[3]
        - In 1997
- Loan losses started increasing
    - Net charge-offs were
        - 1997: 0.34%
        - 1998: 0.70%
        - 1999: 0.78%
        - 2000: 0.94%
        - 2001: 1.57%
- In 2000, BOH was the only U.S. bank that was trading below book value
    - BOH's chairman resigned
    - Michael E. O'Neill was named Chairman and CEO of BOH
        - O'Neill was the former Vice Chairman and CFO of Bank of America
- The new management embarked on a turnaround program
    - With a focus on "avoiding mistake of the past"
    - Refocused on the Hawaii market
        - The name was changed to Bank of Hawaii
            - In 2002
        - Sold assets and closed branches outside of Hawaii
        - Total assets reduced
            - 2000: $14 billion
            - 2004: $9.7 billion
    - Reduce operating costs

    - Net operating cost/Earning assets
      - 2000: 1.79%
      - 2007: 0.98%
- BOH became one of the most profitable banks in the U.S.
  - BOH has one of the lowest funding costs base among U.S. banks
    - Deposits represent 91% of BOH's total earning assets
    - 91% of BOH's deposits are core deposit
    - 31% of BOH's deposits are noninterest-bearing
    - Hawaii is a service-based economy
      - Tourism: 15-17%
        - Some estimated tourism and related businesses account for 1/3 of the economy[4]
      - Defense: 8-10%
        - Hawaii is in a strategic location
          - In the middle of the pacific ocean
      - Tourism and defense represent about 25% of the economy
    - => strong liquidity in the economy
      - Hawaii is a deposit-rich market
      - Traditionally, Hawaii has been the lowest cost of deposits in the country[5]
    - BOH has the lowest funding cost among Hawaiian banks
      - Has the most core deposits
      - Has the most number of branches
      - Has the most number of ATMs
        - More than the next two competitors combined
    - BOH's cost of deposits is generally **1/3** less than local competitors'[6]
      - Less than **½** that of mainland competitors
    - Only Frost has lower cost of funding than BOH
  - BOH has low operating cost
    - Net operating/earning assets is about 1%
    - Small Hawaiian banks has more than 2% net operating cost/earning assets
    - Most U.S. regional banks has net operating cost between 1.6 and 3% of earnings assets
  - Was able to make **3%** pre-tax return on earning assets
    - During 2004-2007
    - With 14x leverage, pre-tax ROE is 42%

            - After-tax ROE is **27%**
- In 2015, BOH made only 1.68% pre-tax return on earning assets
    - BOH's cheap funding make it sensitive to interest rates
    - BOH may benefit from higher interest rates
- BOH's weakness is growth
    - Hawaii is a low-growth state
    - Realistic expectation: 3-4% growth
- BOH's attractions
    - BOH can return 80-90% of its earnings
        - While growing 3-4%
    - BOH has a wide moat
        - 4 banks in Hawaii hold 90-92% since 1994
        - Current deposit market share
            - First Hawaiian Bank: 36%
            - BOH: 32%
            - American Savings Bank: 12%
            - Central Pacific Financial: 11%
        - BOH is the second largest bank
            - But has the most core deposits
- BOH is currently trading at about 18x earnings
    - $68 per share
    - BOH can be a good bet on higher interest rates

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[1] "The company's recent credit problems have been a disappointment to investors, particularly in light of the progress Bank of Hawaii appeared to be making with a cost-saving and revenue enhancement program that will have been Mr. Johnson's last major initiative.

When asked whether, if he had to do it all over again, he would **push the bank to enter syndicated lending**, a business that caused credit blips at many large banks last quarter, Mr. Johnson suggested that **the bank did not have that much of a choice. "We were faced with virtually no revenue growth from our primary market, Hawaii**," he said. This pressure caused the bank to take advantage of opportunities that included "a degree of risk that was unacceptable," he said.

But the choice was clear. **"If we hadn't done that, we probably would have been acquired."**" – Bank of Hawaii Chairman to Quit, True to His Word, Laura Mandaro, American Banker, 23 August 2000

[2] "**Our credit philosophy is to stay within our marke**t. I think to understand a little bit about what's important credit to Bank of Hawaii and why we might approach this a little bit differently would be good to return just briefly in history -- **in 2000, when Cindy and I and a number of the management joined the bank, the Bank of Hawaii was suffering from some pretty poor financial performance. In fact, at that time, we were the only bank in the country that was selling for less than book value**, and we embarked on a turnaround program.

The most important and significant part of that turnaround program was the correction of an elevated credit risk. And the point of going into that is that we all remember how hard it is, how it hurts your reputation. We know that you can't defy gravity or the marketplace, but within that you can do better or worse, and we have a team that is focused on, as we say, "**Avoiding the mistakes of the past**."

What happened to us is when we grew beyond our natural markets, we inevitably lost money. When we purchased loans outside of our marketplace, we had a hard time figuring out how to make any profit for our shareholders on that business. When we took large risks, when our portfolio lacked granularity, or when we got into unproven trends -- what do you call them -- sale in, lease out transactions -- silo transactions. We've still got a little bit of that legacy in our portfolio, we're pretty well reserved for it, but building those reserves was pretty painful.

So making sure we stay with proven products, making sure we have appropriate underwriting standards and monitoring processes are an important part of our credit culture and avoiding what we call the mistakes of the past." – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 27 February 2008

[3] "Mr. Johnson, 60, is leaving a company that -- despite its best efforts at a turnaround -- has been beset by one series of problems after another since the 1997 Asian financial crisis.

Over the last three decades Bank of Hawaii has grown from a community bank seeking to expand in its local market of Hawaii, where it now holds the No. 1 market position, to a company with a string of branches and alliances across the South Pacific and Pacific Rim.

Much of that expansion occurred when Mr. Johnson held senior management roles. **He presided over the expansion on the U.S. mainland with the 1997 acquisition of CU Bancorp of Encino, Calif., and in Guam with the acquisition of First Federal**

Savings and Loan Association of America. **He also forged several alliances with foreign financial institutions in the Pacific.**

To reflect its increasingly outward-looking expansion strategy, the holding company **traded in its Bancorp Hawaii Inc. name for Pacific Century Financial in 1997**." – *Bank of Hawaii Chairman to Quit*, True to His Word, Laura Mandaro, American Banker, 23 August 2000

[4] "Unidentified Audience Member: What is the sensitivity on the economy in Hawaii relative to the tourism?

Peter Ho, BOH's CEO: Well, you saw up on the slide that **it's 16% of the overall economy, but the estimate is that the multiplier effect to that is significantly greater. So tourism and the related businesses I think I have seen estimates as high as a third of the overall economy pivots with that industry.**" – Merrill Lynch Banking and Financial Service Conference, 11 November 2009

[5] "Customer loyalty is another dynamic, it's a bit different in our marketplace versus what you find in the boarder markets here in the mainland. **The likelihood to recommend their bank to others higher in Hawaii than the national average, length of time or loyalty to their primary institutions**. As you see in this chart, significantly different than what you find in the national marketplace.

I think the real reason behind this is Hawaii is less of a transient population base than what you would find in certainly a number of the Western states here in the mainland. Take all of these attributes, put them together and what you find in Hawaii is that **the Hawaii Banks as a group have a substantial cost of funding advantage over the US mainland**." – Peter Ho, BOH's CEO, Sandler O'Neill & Partners, 06 March 2012

[6] "One of the great underpinnings of our banking market in Hawaii is the deposit cost advantage that we have versus the broader US mainland. Here you see that both currently and historically, **the Hawaii banks have a distinct deposit cost advantage over our mainland brethren, and in fact, Bank of Hawaii of has an advantage over the local marketplace in Hawaii.**

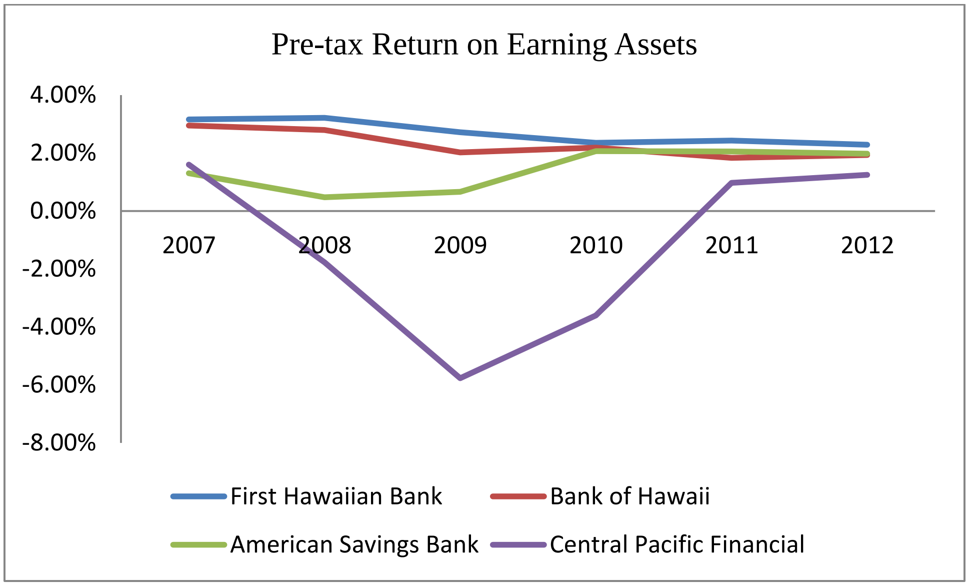
We generally have deposits that are about a third less in cost than our local competition, and a little bit less than half that of our mainland competitors.

We do that by focusing our brand on safety, on convenience, and on community. From a convenience standpoint, you see here that we lead the marketplace in terms of total number of branches, the most in the state. **There are 45 ZIP codes in the state of Hawaii. If you look at all 45 of those, Bank of Hawaii has the number one or number two market share position in 82% of those ZIP codes**.

Convenience wise, **we're also the market leader in terms of the number of ATM machines by a pretty wide margin you'll see there on that bar chart. Perhaps more importantly is the strategic relationships that we have built in terms of ATM placement with companies of the like of Safeway, McDonald's and Long's CVS**. I'd also mention that we very recently entered into a three-year agreement with a company called China Union Pay. China Union Pay is the Chinese equivalent of Visa. They have 2.1 billion cards in circulation, 300 million of which are active, and they have taken an interest in Hawaii and came to us, basically, to see if we could partner in supporting each other in our respective markets. An interesting transaction that I think should bear fruit for us in off into the future." – Peter Ho, BOH's CEO, Credit Suisse Small- and Mid-Cap Conference, 15 September 2010

Durability

Hawaiian Banks Are Generally Conservative



Of the top 4 banks, only Central Pacific Financial failed during the Great Recession

- **Biggest Negative**:
  - BOH had higher charge-offs than First Hawaiian Bank and American Savings Bank
- BOH is durable thanks to
  - Current financial position
  - Conservative lending
  - Industry structure
- BOH is very safe for the next 5 years
  - BOH gets most of its funding from stable, sticky core deposits
    - (As of March 31, 2016)
    - Total deposits: $13.5 billion
      - Noninterest-bearing demand: $4.3 billion
      - Interest-bearing demand: $2.8 billion
      - Savings: $5.2 billion
      - Time: $1.2 billion
    - Other borrowings: $0.8 billion
    - Total earning assets: $14.8 billion
    - So, core deposits represent
      - **91%** of total deposits

            - **83%** of earning assets
        - There's only **$2 billion** of less sticky liabilities
            - Time deposit
            - Other borrowings
    - Earning assets are safe
        - Investment portfolio: **$6.3 billion** (**43%** of earning asset)
            - Duration: **3.4** years
            - Most of the portfolio has contractual maturities within **5 years**
                - 1-5 years: $4.3 billion
                    - **67%** of the portfolio
                - 5-10 years: $1.8 billion
                    - 29% of the portfolio
                - Over 10 years: $0.2 billion
                    - 3% of the portfolio
            - Annual cash flow running off the portfolio: **$1.4 billion**
            - The investment portfolio has low credit risk
                - Mortgage-backed securities: 63% of the portfolio
                    - ($4 billion)
                    - Issued by U.S. government agencies
                    - Mostly comprised of securities issued in 2008 or later
                    - Credit ratings of these MBS were all AAA-rated
        - Loan portfolio: **$8.1 billion** (**55%** of earning assets)
            - Commercial: $3.3 billion (**40%**)
                - Commercial and Industrial: $1.2 billion (**15%**)
                - Commercial Mortgage: $1.7 billion (**21%**)
                - Construction: $0.2 billion (**2%**)
                - Commercial lease financing: $0.2 billion (**2%**)
            - Consumer: $4.8 billion (**60%**)
                - Residential mortgage: $2.9 billion (**36%**)
                - Home equity: $1.1 billion (**14%**)
                - Automobile: $0.4 billion (**5%**)
                - Other: $0.3 billion (**4%**)
            - **86%** of the loan portfolio is from
                - Commercial and Industrial
                - Commercial Mortgage
                - Residential mortgage
                - Home equity

        - Most of the loans are in Hawaii
            - Hawaii: 91%
            - Guam: 5%
            - Other Pacific Islands: 1%
            - U.S. Mainland: 3%
        - BOH's lending practice is conservative, as discussed below
- BOH has conservative lending practice
    - BOH's securities portfolio has high credit quality
        - Never had exposure to subprime mortgage or Alt-A securities
        - Invests in AAA-rated securities
        - Example:
        - As of Q2 007
            - Non-agency MBS portfolio: $337 million[1]
                - **11%** of the securities portfolio
                - AAA-rated jumbo prime paper
                - Average loan to value: 65%
                - Weighted average FICO score: 740
        - As of Q2 2008, BOH had $3 billion investment securities portfolio[2]
            - **86%** of the portfolio were securities issued by
                - Fannie Mae
                - Freddie Mac
                - Ginnie Mae
                - All are senior debts
            - Non-agency portfolio: $309 million
                - Loan-to-value: 54%
    - BOH's credit philosophy: stay within Hawaii[3]
        - In 2000: BOH was suffering from pretty poor financial performance
            - The only bank selling for less than book value
        - => Embarked on a turnaround program
            - Correction of an elevated credit risk
                - Focused on "avoiding the mistakes of the past"
                    - Grew beyond its natural market
                        - Bought loans outside of its marketplace
    - The main types of loans BOH makes are
        - Commercial and Industrial: currently **15%** of the loan portfolio
        - Commercial Mortgage: **21%**
            - About ½ is owner-occupied

        - Residential mortgage: **36%**
        - Home equity: **14%**
    - Loan decisions are based on
        - Loan-to-value ratio
            - Commercial mortgage: < 75%[4]
            - Residential mortgage: < 80%[5]
                - Residential mortgage loans are mostly fixed-rate loans concentrated in Hawaii[6]
                - No subprime or Alt-A loans
            - Home equity: < 80%
        - Debt-to-income ratio
        - Debt service coverage ratio
            - >= 1.2x for commercial mortgage loans
        - Credit score
        - BOH is far less concerned about losing one borrowing customer than about maintaining credit quality[7]
    - BOH is very selective on construction loans
        - The book is typically kept below $250 million[8]
            - Under $100 million in a down cycle
        - Strong construction activities only have an indirect impact on BOH
            - More consumer loans
            - More C&I loans
            - More residential mortgage loans
        - When BOH makes construction loans, it makes sure LTV to stay low
            - Example:
            - As of 2007 Q2[9]
                - BOH had about $250 million construction loans
                - 50% of construction portfolio is exposure to home builders
                    - Weighted average loan to value: 60%
    - BOH has low charge-offs in mortgage loans
        - Since 2001, net charge-offs/average loans were
            - Commercial mortgage
                - Min: -0.56%
                - Max: 0.27%
                - Median: -0.01
                - Mean: -**0.02%**
                - Standard deviation: 0.20%

- Variation: -8.86
- Residential mortgage
  - Min: -0.11%
  - Max: 0.50%
  - Median: 0.01%
  - Mean: **0.08%**
  - Standard deviation: 0.17%
  - Variation: 2.18
- Home equity
  - Min: -0.12%
  - Max: 1.56%
  - Median: 0.08%
  - Mean: 0.40%
  - Standard deviation: 0.55%
  - Variation: 1.37

- BOH is focused on mortgage loans in Oahu
  - 80% of the economic value of the state is headquartered or located in Oahu
  - 2 segments for real estate in Hawaii[10]
    - Resort residential market
      - Mainly on the neighbor islands
        - Kauai
        - Maui
        - The Big Island
      - Buyers are out-of-town buyers
        - Second home type buyer
      - There was a good amount of building over the 2003-2007 period
    - Traditional middle-market clientele
      - Predominately on Oahu
      - Predominantly Hawaii-based buyers
        - Supply is constrained by building permits
        - => there wasn't a development bubble
  - Residential real estate price declined from peak to bottom[11]
    - In Oahu: 12%
      - Median single family home price in Oahu
        - 2006: $644,000

        - Bottomed at $580,000-$590
      - In the neighbor islands: more than 20%
      - Declined more than 20% on the neighbor islands
- BOH maintained low LTV and high FICO score
  - Example:
  - As of Q2 2007:
    - Residential mortgage portfolio[12]
      - $2.5 billion in mortgages
      - Manage $5 billion
        - Retain $2.5 billion
        - Sells $2.5 billion
      - 90% of the portfolio was in the state of Hawaii
        - The rest in the Pacific Island division
          - Most of that in Guam
      - Have avoided some market temptations, irrational exuberance
      - Have stuck with traditional offering products
        - Underwritten to the Fannie Mae guidelines
        - Very high weighted average FICO scores
      - The weighted average loan-to-value: **61%**
    - Secondary mortgage[13]
      - Home equity portfolio is a prime portfolio strategy
      - Booked through BOH's retail channels
      - $938 million outstanding
        - $2 billion in commitments
      - 14% of total loan portfolio
      - Weighted average FICO score: **755** at origination
        - Monitoring score: 770
      - **80%** having FICO scores greater than 720
      - Combined loan-to-value of the portfolio is **69%** at origination
  - As of Q3 2007:
    - The weighted average FICO scores were[14]
      - Mortgage: **755**
      - Home equity: **748**
    - **94%** of residential mortgage portfolio has a loan to value ratio of **80%** or less

        - As of Q4 2008
            - **96%** of first mortgages have loan to values below **80%** based on origination values[15]
                - Weighted average monitoring FICO score: **757**
            - Home equity:
                - Monitoring FICO score: **770**
                - Combined loan to value: **69%**
        - As of Q2 2009
            - Commercial mortgage outstanding: $788 million[16]
                - $317 million in owner-occupied mortgages
                    - Average $990,000
                    - Weighted average loan to value: **72%**
                    - Average current debt service coverage: **1.3**
                - $471 million in investor exposure
                    - Emphasize on cash flow to loan debt service requirements
                        - After considering vacancy, property expenses and stressing interest rates
                    - Average loan to value: **57%**
                    - Average current debt service coverage: **1.4x**
        - As of Q4 2009
            - Commercial mortgage outstanding: $841 million[17]
                - Owner-occupied: $316 million
                    - Average: **$1 million**
                    - Weighted average LTV: **72%**
                    - Average current debt service coverage: **1.3x**
                - Investor loans: $525 million
                    - Average: **$1.5 million**
                    - Weighted average LTV: **57%**
                    - Average debt service coverage: **1.4x**
    - BOH's peak net charge-offs/average loan was
        - 2007: 0.24%
        - 2008: 0.43%
        - 2009: 1.43%
        - 2010: 0.94%
        - 2011: 0.40%
    - The main problems were

- Commercial and Industrial:
  - Net charge-offs/average loans
    - 2007: 0.20%
    - 2008: 0.61%
    - 2009: 2.74%
    - 2010: 2.49%
    - 2011: 0.72%
    - 2012: -0.04%
  - The high level of charge-offs was likely due to airline exposure[18]
- Construction loan
  - Net charge-offs/average loans
    - 2007: 0.00%
    - 2008: 1.11%
    - 2009: 6.92%
    - 2010: -5.29%
    - 2011: 0.00%
  - Construction loan was always less than 4% of the loan portfolio
  - Most of charge-offs in 2009 were recovered in 2010
    - Perhaps thanks to BOH's focus on low LTV
- Home Equity
  - Net charge-offs/average loans
    - 2007: 0.08%
    - 2008: 0.24%
    - 2009: 1.26%
    - 2010: 1.56%
    - 2011: 1.17%
    - 2012: 0.70%
    - 2013: 0.43%
    - 2014: 0.00%
  - It's unclear why home equity loans performed much worse than residential mortgage loans
- Auto
  - Net charge-offs/average loans
    - 2007: 0.08%
    - 2008: 0.24%
    - 2009: 1.26%
    - 2010: 1.56%

        - 2011: 1.17%
        - 2012: 0.70%
        - 2013: 0.43%
        - 2014: 0.00%
      - Auto loans were less than 7% of the loan portfolio
      - There was weakness in automobile loans
      - Weakness in automobile loans[19]
        - Dealers in Hawaii have faced double-digit sales declines
          - For the last 2 years
          - => more aggressive on sales
            - BOH supported a little bit of their bad habit
        - BOH is tightening
          - Visiting with its dealers
          - Letting them know BOH is concentrating on top-tier sectors
            - Regardless of the volume
            - Dealers always argued that if you don't take the lower-quality paper, they won't be able to share the high-quality with you
  - BOH performed well in 2009 despite **1.43%** net charge-offs
    - Net charge-offs/average earning assets: **0.80%**
    - pre-charge-offs profit/average earning assets: **3.41%**
    - => pre-tax return on average earning assets: **2.61%**
    - 1.43% net charge-offs/average loans is better than the industry's average of **2.49%**
- Hawaii's banking landscape is safe
  - 4 banks hold over **92.1%** market share
    - First Hawaiian Bank (FHB): 36.5%
    - BOH: 32.1%
    - American Savings Bank (ASB): 12.6%
    - Central Pacific Financial (CPF): 10.9%
  - FHB and ASB are conservative
    - FHB's strategy is very similar to that of BOH[20]
    - Net charge offs/average loans of these banks were lower than BOH's
      - FHB
        - 2007: 0.32%
        - 2008: 0.36%

        - 2009: 0.61%
        - 2010: **0.73%**
        - 2011: 0.41%
        - 2012: 0.25%
        - 2013: 0.10%
      - ASB
        - 2007: 0.17%
        - 2008: 0.11%
        - 2009: **0.66%**
        - 2010: 0.61%
        - 2011: 0.49%
        - 2012: 0.24%
        - 2013: 0.09%
  - Only CPF had problem
    - It made a lot of construction loans
      - $1.2 billion in 2007
      - **30%** of the loan portfolio
    - It made a lot of loans in California
      - Net loan and leases in California was $1 billion in 2007
        - **25%** of its loan portfolio
      - Of the loans in California, **$625 million** were construction loans
        - **15%** of the loan portfolio
    - CPF went belly up during the 2008-2009 financial crisis
      - Total net charge-offs were over $600 million from 2008 to 2011
        - For a loan portfolio of about $4 billion
    - Since early 2007, CPF's shareholders lost over **95%**
  - The pressure for banks to do the wrong thing is low in Hawaii
  - The risk of residential real estate development bubble is low
    - Land is limited in Hawaii
    - But supply is constrained due to building permits
    - Residential real estate price declined only 12% from peak to bottom in Oahu
- BOH currently make **1.69%** pre-loan-loss pre-tax return on earning assets
  - Made **3.11%** pre-loan-loss pre-tax return on earning assets in 2004-2009
  - BOH now has **1.31%** allowance for loan losses/period-end loans
    - Or **0.68%** of earning assets
  - For BOH to lose money, net charge-offs/earning asset must exceed **2.37%**

- Or net charge-offs/loans must exceed **4.59%**
    - **3.2** times higher net charge-offs/loans in 2009

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[1] "Our Non-Agency mortgage-backed security holdings is **$337 million** in Non-Agency MBS. It's about **11%** of our total portfolio. **They are all AAA rated jumbo prime paper. The average loan to value is just over 65%, and the weighted average FICO score is 740.**" – Dan Stevens, BOH's former CFO, Lehman Brothers Global Financial Services Conference, 12 September 2007

[2] "**The investment securities portfolio, $3 billion. We have Fannie Freddie, Ginnie. 86% of the portfolio would be those three issuers. We -- they're all senior debt**. We don't -- as I mentioned, we don't have any subordinated debt or preferred stock or any stock and those entities. **We do have a non-agency portfolio that's $309 million. It would be AAA mortgage backed securities with a loan-to-value of 54%.**" – Kent Lucien, BOH's CFO, Lehman Brothers Global Financial Services Conference, 08 September 2008

[3] "**Our credit philosophy is to stay within our marke**t. I think to understand a little bit about what's important credit to Bank of Hawaii and why we might approach this a little bit differently would be good to return just briefly in history -- **in 2000, when Cindy and I and a number of the management joined the bank, the Bank of Hawaii was suffering from some pretty poor financial performance. In fact, at that time, we were the only bank in the country that was selling for less than book value**, and we embarked on a turnaround program.

The most important and significant part of that turnaround program was the correction of an elevated credit risk. And the point of going into that is that we all remember how hard it is, how it hurts your reputation. We know that you can't defy gravity or the marketplace, but within that you can do better or worse, and we have a team that is focused on, as we say, "**Avoiding the mistakes of the past**."

What happened to us is when we grew beyond our natural markets, we inevitably lost money. When we purchased loans outside of our marketplace, we had a hard time figuring out how to make any profit for our shareholders on that business. When we took large risks, when our portfolio lacked granularity, or when we got into unproven trends -- what do you call them -- sale in, lease out transactions -- silo transactions. We've still got a little bit of that legacy in our portfolio, we're pretty well reserved for it, but building those reserves was pretty painful.

So making sure we stay with proven products, making sure we have appropriate underwriting standards and monitoring processes are an important part of our credit culture and avoiding what we call the mistakes of the past." – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 27 February 2008

[4] "Commercial mortgages and construction loans are offered to real estate investors, developers, builders, and owner-occupants primarily domiciled in Hawaii. **These loans are secured by first mortgages on real estate at loan-to-value ("LTV") ratios deemed appropriate based on the property type, location, overall quality, and sponsorship. Generally, these LTV ratios do not exceed 75%**. The commercial properties are predominantly developments such as retail centers, apartments, industrial properties and, to a lesser extent, more specialized properties such as hotels. Substantially our entire commercial mortgage loans are secured by properties located in our primary market area.

In the underwriting of our commercial mortgage loans, we obtain appraisals for the underlying properties. Decisions to lend are based on the economic fundamentals of the property and the creditworthiness of the borrower. **In evaluating a proposed commercial mortgage loan, we primarily emphasize the ratio of the property's projected net cash flows to the loan's debt service requirement. The debt service coverage ratio normally is not less than 120% and it is computed after deducting for a vacancy factor and property expenses as appropriate**. In addition, a personal guarantee of the loan or a portion thereof is sometimes required from the principal(s) of the borrower." – BOH 2015 10-K

[5] "We offer a variety of first mortgage and junior lien loans to consumers within our markets with residential home mortgages comprising our largest loan category. These loans are generally secured by a primary residence and are underwritten using traditional underwriting systems to assess the credit risks and financial capacity and repayment ability of the consumer. **Decisions are primarily based on LTV ratios, debt-to-income ("DTI") ratios, liquidity, and credit scores. LTV ratios generally do not exceed 80%, although higher levels are permitted with mortgage insurance**. We offer variable rate mortgage loans with interest rates that are subject to change every year after the first, third, fifth, or seventh year, depending on the product and are based on the London Interbank Offered Rate ("LIBOR"). Variable rate mortgage loans are underwritten at fully-indexed interest rates. We do not offer payment-option facilities, sub-prime or Alt-A loans, or any product with negative amortization. We will selectively offer interest-only mortgage loans through our Private Banking channel.

Home equity loans are secured by both first and second liens on residential property of the borrower. **The underwriting terms for the home equity product generally permits borrowing availability, in the aggregate, up to 80% of the value of the collateral property at the time of origination**. We offer fixed and variable rate home equity loans, with variable rate loans underwritten at fully-indexed interest rates. Our procedures for underwriting home equity loans include an assessment of an applicant's overall financial capacity and repayment ability. Decisions are primarily based on LTV ratios, DTI ratios, and credit scores. We do not offer home equity loan products with reduced documentation." – BOH 2015 10-K

[6] "The consumer loan and lease portfolio is comprised of residential mortgage loans, home equity lines and loans, indirect auto loans and leases, and other consumer loans including personal credit lines, direct installment loans, and rewards-based consumer credit cards. **These products are generally offered in the geographic markets we serve. Although we offer a variety of products, our residential mortgage loan portfolio is primarily comprised of fixed-rate loans concentrated in Hawaii**. We also offer a variety of home equity lines and loans, usually secured by second mortgages on residential property of the borrower. Automobile lending activities include loans and leases secured by new or used automobiles. We originate automobile loans and leases on an indirect basis through selected dealerships. Direct installment loans are generally unsecured and are often used for personal expenses or for debt consolidation." – BOH 2015 10-K

[7] "As you can tell from Dan's comments, we have been very disciplined about our approach to residential lending. **We have been just as disciplined in our approach to commercial lending, especially when it comes to land and construction lending, where our Bank's ancient history has not been as successful as we would like to have our future be**.

We have maintained very prudent underwriting standards, conservative loan-to-value ratio requirements, including cash equity, as well as sponsorship and guarantees. We expect binding presales contracts, and we prequalify buyers who participate in the residential for-sale projects.

I would tell you that we are far less concerned about losing one borrowing customer than we are about maintaining our credit quality. So if you have listened to our reports for the last few quarters, **we have talked openly about pruning our credit users from our portfolio**. And I will tell you that that will continue as we go through uncertain times. But frankly, we have very few borrowers that we have concerns about the stability or the repayment capability from." – Allan Landon, BOH's former CEO, Lehman Brothers Global Financial Services Conference, 12 September 2007

[8] "Our construction lending book is probably our smallest commercial book. **So we will flex in a down cycle under $100 million in construction loans, but we will only**

flex up to $200 million, $250 million. So construction doesn't have that meaningful of an impact into that loan category for us, but **it has an impact for us because of the way that it helps to stimulate the economy**.

So what we see is when the construction sector is healthy in Hawaii, we see more consumer loans, we see more C&I lending. We see, obviously, residential mortgages coming on the backside of these construction residential projects. And that is really where we see the impact." – Peter Ho, BOH's CEO, KBW Boston Regional Bank Conference, 25 February 2015

[9] "**About 50% of our construction portfolio is exposure to home builders. It is very solid, the weighted average loan to value is about 60%**. The profile of the portfolio includes some national builders as well as some large local builders. **In terms of exposure to what I'd call the higher risk segment, which is kind of high-end luxury second homes, we have about 25 million in outstanding among the five borrowers**." – Marry Sellers, BOH's Chief Risk Officer, 2007 Q2 Earnings Transcript, 23 July 2007

[10] "**For us it's really two segments for the state of Hawaii. The resort residential market, which exists predominantly on the neighbor islands so that would be Kauai, Maui, and the Big Island**, has been challenged probably similar to what you see in other Western markets on mainland US. **That buyer is predominantly an out-of-town buyer, a second home type buyer. In that area there was a good amount of building over the past five-plus years**.

The other segment is what we would consider to be the more traditional middle-market clientele, predominately on Oahu, predominantly Hawaii-based buyers. In that segment prices have remained reasonably stable, down call it single digits, because **there simply wasn't the availability of inventory over this last cycle to create any kind of supply bubble**. So it really depends on which market you are talking about.

For the Bank of Hawaii the predominant marketplace that we play in is in the kind of nuts and bolts basic Oahu residential home buyer. We have a small exposure on the commercial construction lending sign on the neighbor islands to those resort developments and a small exposure on the residential mortgage side to that product as well." – Peter Ho, BOH's CEO, Merrill Lynch Banking and Financial Service Conference, 11 November 2009

[11] "**On balance, residences in Hawaii, Oahu is where most of the people are, 70% of the people are there and 12% has been peak to bottom the depreciation in**

residential real estate. **On the neighbor islands, where the population is smaller**, we have a larger percentage that have been impacted by investors. And so **we have a larger depreciation percentage there in excess of 20%.**" – Allan Landon, BOH's Former CEO, Macquarie Securities Small- and Mid-Cap Conference, 15 June 2010

[12] "Our residential mortgage portfolio, which is a big part of our business, we have about $2.5 billion in mortgages on our balance sheet. We manage $5 billion, we take about $2.5 billion of those mortgages and put them through a conduit into the secondary market; we retain about $2.5 billion on our balance sheets; and we service all $5 billion of those mortgages.

We believe that these are very high-quality. **90% of the portfolio was in the state of Hawaii, with the rest in the Pacific Island division, and most of that in Guam. We believe we have avoided some market temptations, irrational exuberance in the residential portfolio**, and we have stuck with traditional offering products, which are underwritten to the Fannie Mae guidelines. And our portfolio loans, as you can see, have very high weighted average FICO scores, both on an originating basis and a monitoring basis.

In addition to monitoring the FICO scores of our borrowers, we also track current loan to value. **And the entire portfolio was weighted at 61%, including the 2000, 2006 and 2007 vintages, which are the most current**." – Dan Stevens, BOH's former CFO, Lehman Brothers Global Financial Services Conference, 12 September 2007

[13] "Our secondary mortgage also has a high-quality portfolio. **Our home equity portfolio is a portfolio that is a prime portfolio strategy, not a subprime strategy, and it's basically booked through our retail channels that we have in the Hawaiian Islands**. We currently have $938 million outstanding, about $2 billion in commitments, and it represents about 14% of our total loan portfolio. And the geographic mix mirrors our residential mortgages, with 90% in the state of Hawaii, 10% in our West Pacific islands.

The weighted average FICO score for the entire portfolio is 755 at origination, so better, which you would expect, than the residential, our first mortgages. And the weighted average monitoring score is 770 today. The quality of our originations continues to be strong, with 80% having FICO scores greater than 720, so very, very strong ratings. Utilization rates are low, about 45%. **On a combined loan-to-value of the portfolio is 69% at origination**." – Dan Stevens, BOH's former CFO, Lehman Brothers Global Financial Services Conference, 12 September 2007

[14] "**The two largest consumer portfolios, mortgage and home equity, have weighted average credit scores of 755 and 748 respectively. 94% of our residential mortgage portfolio has a loan to value ratio of 80% or less** and both portfolios have nominal delinquency and loss rates, and as a reminder, **the bank has not offered payment option adjustable rate mortgage loans for loans of negative amortization**." – Dan Stevens, BOH's former CFO, 2007 Q3 Earnings Conference Call, 22 October 2007

[15] "Our loan portfolio is diversified and reflective of our strong market position and longstanding customer relationships. Residential mortgages are the largest single component of our consumer portfolio. We offer our customers traditional products underwritten conservatively to their financial repayment capacity. **96% of our first mortgages have loan to values below 80% based upon origination values and the weighted average monitoring FICO score was 757 at the end of December. Similarly, the weighted average monitoring FICO score for our home equity portfolio was 770 and the combined loan to value was 69%.**" – Mary Sellers, BOH's Chief Risk Officer, Sandler O'Neill & Partners Financial Services Conference, 03 March 2009

[16] "Commercial mortgage outstandings were $788 million as of the end of the quarter, and included $317 million in owner occupant mortgages and $471 million in investor exposure. The average owner occupant commercial mortgage is $990,000, **with the current weighted average loan to value of 72% and average current debt service coverage of 1.3 times**. These loans are underwritten based upon the cash flow of the business, given the real estate asset is utilized in the business operation with the real estate evaluated as a secondary repayment source. **Investor commercial mortgage loans are underwritten based upon the economic viability of the property and the overall financial wherewithal of the borrowers**. Emphasis is placed on the ratio of the cash flow to the loans debt service requirements after considering vacancy, property expenses, and stressing interest rates. **Our average commercial investor mortgage is $1.4 million with a current weighted average loan to value of 57% and average current debt service coverage of 1.4 times**." – Marry Sellers, BOH's Chief Risk Officer, 2009 Q2 Earnings Conference Call, 27 July 2009

[17] "Commercial mortgage outstandings were $841 million at the end of the quarter up $64 million on a link quarter basis and $101 million year-over-year, due in large part to the par purchase of $47.5 million in season loans in December. These loans are all to borrowers in our markets. Commercial mortgage out standings include $316 million in owner occupant loans and $525 million in investor loans. **The average owner occupied commercial mortgage loan is $1 million with a current weighted average loan to value of 72% and average current debt service coverage of 1.3 times**. These loans render it based upon the cash flow of the business given the real estate is utilized in the business operation, with the real estate evaluated as a

secondary source of repayment. **Investor commercial mortgage loans** are under written based upon the economic fundamentals of the property and the overall financial where with all of the borrower. Emphasis is placed on the ratio of cash flow to the loan debt service requirements after considering vacancy, property expenses, and stressing the interest rates. **Our average commercial mortgage investor loan is $1.5 million with a current weighted average loan to value of 57% and average debt service coverage of 1.4 times.**" – Marry Sellers, BOH's Chief Risk Officer, 2009 Q4 Earnings Conference Call, 25 January 2010

[18] "Given very low levels of internally classified assets in our C&I portfolio, we have no specific concerns at this time. These portfolio outstandings total $482 million. **The risk component in this portfolio is primarily airline exposure, which we've discussed in detail in the past**." – Marry Sellers, BOH's Chief Risk Officer, 2007 Q4 Earnings Call Transcript, 28 January 2008

[19] "The one area that we talk about is having some weakness in automobile loans, **the dealers in Hawaii have faced double-digit sales declines for the last two years. That has forced them to be more aggressive on sales, and, unfortunately, I think we supported a little bit of their bad habit.** So that elevated our charge-offs through 2007. It's going to continue into 2008. Our forecast, since this is a consumer area, look pretty much, for the four quarters of '08, likely looked in the fourth quarter of 2007.

We are tightening one more time and going around visiting with our dealers about the mix of paper that we purchase from them, letting them know that we're going to be concentrating on top-tier sectors, regardless of the volume, which is always their argument if you don't take the lower-quality paper, then we won't be able to share the higher-quality with you, and if that's the deal we have to make, that's the deal we'll make." – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 27 February 2008

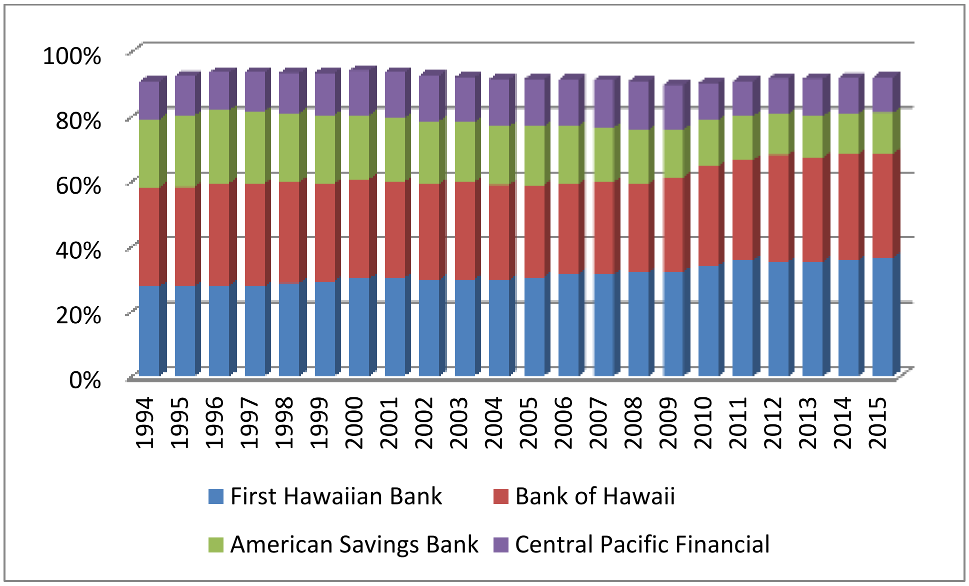
[20] "Let me now turn to the banking market in Hawaii. Four major competitors in the Hawaii market. Ourselves**, First Hawaiian Bank, which is a little bit larger than us. Full service organization, strategy very similar to that of our own**. Owned by BNP Paribas through their US subsidiary BancWest Corp. **American Savings Bank is number three in the market place, they are roughly half our size, operate using a thrift charter, and are own by HEI Industries, which is the local electric utility in Hawaii. The fourth player in our market is Central Pacific Bank, which similar to us, is publicly owned and traded on the NYSE**. The market is split amongst these four players. On this pie chart here you that see ourselves and First Hawaiian Bank hold about two-thirds of the market share in deposits for banks in Hawaii, the balance

of the third is controlled or managed by Central Pacific Bank and ASB, American Savings Bank.

Delinquencies in Hawaii, at least on least on the mortgage line, have performed substantially better than that of the US average, and our own delinquencies have performed even better than that. **Generally a pretty conservative culture with respect to credit in Hawaii. One of the great underpinnings of our banking market in Hawaii is the deposit cost advantage that we have versus the broader US mainland. Here you see that both currently and historically, the Hawaii banks have a distinct deposit cost advantage over our mainland brethren, and in fact, Bank of Hawaii of has an advantage over the local marketplace in Hawaii.**" – Peter Ho, BOH's CEO, Credit Suisse Small- and Mid-Cap Conference, 15 September 2010

Moat

The Banking Industry in Hawaii Is a Stable Oligopoly



Four banks hold about 90-92% market share in Hawaii for the last 22 years

- **Biggest Negative**:
  - No negative
- **Michael Porter Questions**
  - (-) means low
  - (=) means medium
  - (+) means high
  - **For the industry**
    - Is the threat of new entrants high or low?
      - **(-)** The number of bank offices in Hawaii have declined
        - 2000: 305
        - 2005: 285
        - 2010: 284
        - 2015: 279
    - Is the bargaining power of buyers high or low?
      - **(+)** Borrowers care about rates and terms
    - Is the threat of substitutes high or low?
      - **(-)** No threat of substitutes
      - Online banking isn't a threat
    - Is the bargaining power of suppliers high or low?

        - **(=)** Suppliers of money
            - Low for checking accounts
            - High for CDs
    - Is the rivalry within the industry high or low?
        - **(+)** banks compete aggressively for loans
- **For the company**
    - Is the threat of new entrant different for this company specifically?
        - **(-)** the threat is lower in Hawaii than in the U.S. mainland
    - Is the bargaining power of buyers different for this company specifically?
        - **(-)** BOH focus more on relationships
            - Makes few construction loans
    - 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?
        - **(-)** Time deposit is just 9% of total deposits
    - Is the rivalry within the industry different for this company specifically?
        - Competition is less intense in Hawaii than in the U.S. mainland
        - BOH focuses more on relationship-based banking
            - Focus on core deposits
            - Doesn't compete on rates

- **Customer retention: Core deposit customers are sticky**
    - Core deposits represent **91%** of total deposits
        - **83%** of earning assets
        - About 50% of deposits come from the consumer side
            - 40% of deposits are from the commercial side
            - The rest is from institutional and government deposits
    - Core deposits are relationship-based
        - Most of commercial and consumer deposits are relationship-oriented[1]
            - Day-to-day type stuff
            - Just working capital for families and small businesses
                - Isn't impacted by interest rates
    - Hawaiian customers are stickier
        - Taking customers from other banks isn't easy in Hawaii[2]
        - The consumer community in Hawaii is reasonably conservative[3]
            - A very high Asian percentage

- => attractive deposit market for BOH
- Word-of-mouth and customer stickiness are higher in Hawaii than in the U.S. mainland[4] [5]
  - Hawaii is less of a transient population base than in other states
  - => Hawaii banks as a group have as substantial cost of funding advantage

- **Customer acquisition: not important for BOH**
  - BOH has great penetration
    - Touch over 50% of all of the households in Hawaii on a deposit basis[6]
      - 2/3 of all of the households from a total product basis
        - Deposit
        - Investment, or
        - Borrowing
    - Over 70% of Hawaii's large businesses have relationship with BOH[7]
    - Gathering new consumer households is challenging[8]
      - BOH has such a large penetration
      - => concentrate on existing customers
        - Expand those relationships
- **Margin protection: BOH has low funding cost and operating cost**
  - BOH has the lowest funding cost
    - BOH typically has 1% lower cost of funding than the average U.S. mainland bank[9]
      - BOH has more demand deposits
        - And is the pricing leader
    - BOH got the lowest cost of deposits in Hawaii[10]
      - A significant amount of transaction accounts
      - Position as the pricing leader
      - Emphasize service over rate
      - Focus on getting on savings and demand deposits
        - (Called transaction accounts)
    - BOH is the lowest payer of interest[11]
      - Value proposition:
        - Convenience
          - More locations
          - More ATMs
          - More ways to access BOH
        - Dependability

- Ways to generate BOH's funding advantage[12]
    - Terrific market positioning
        - 56% of total retail households
        - 70% of the small businesses in Hawaii
        - There are 45 zip codes in Hawaii
            - BOH has the #1 or #2 market share position in 82% of those zip codes[13]
    - Convenience
        - Largest branch network
            - 70 branches
            - In good locations
        - Has the largest ATM network
            - More ATMs than the next 2 competitors combined
                - BOH: 456
                - First Hawaiian Bank: 300
                - American Savings Bank: 130
            - Also has advantage in partnerships
                - Exclusive ATM alliances with
                    - McDonald's
                    - Costco
                    - CVS
                    - Longs
                    - Safeway
- BOH has the biggest core deposit market share
    - Example:
    - As of 2013 Q2
        - BOH has 12% more core deposit than First Hawaiian Bank
        - BOH has 50% more core deposit than Central Pacific Bank and American Savings Bank combined
- BOH's funding cost advantage over peers
    - = median (each peer's funding cost – BOH' funding cost)
        - (since 2002 – the year BOH refocus on Hawaii)
    - American Savings Bank: 0.34%
    - Central Pacific Financial: 0.40%
    - U.S. Bancorp: 0.51%
    - Wells Fargo: 0.21%
    - All banks with more than $10 billion assets: 0.51%

            - All banks between $1 billion and $10 billion assets: 0.80%
        - In 2007, BOH's funding cost advantage over peers was
            - American Savings Bank: 0.34%
            - Central Pacific Financial: 0.65%
            - U.S. Bancorp: 1.23%
            - Wells Fargo: 1.06%
            - All banks with more than $10 billion assets: 1.39%
            - All banks between $1 billion and $10 billion assets: 1.24%
        - BOH's deposit cost advantage would come under threat only if somebody in the marketplace did something dumb[14]
            - The last time: 2000
                - BOH was far more aggressive then
                - The last guy that screwed it up was BOH
    - BOH has low operating cost
        - BOH's average deposit per branch: **$185 million**
        - Net non-interest expense/Average earning assets
            - BOH
                - 10-year average: **1.00%**
                - 2015: 1.12%
            - First Hawaiian Bank
                - 10-year average: **0.91%**
                - 2014: 0.51%
            - American Savings Bank
                - 10-year average: **2.00%**
                - 2015: 1.84%
            - Central Pacific Financial:
                - 10-year average: **2.24%**
                - 2015: 2.01%
        - Most regional banks have between **1.6%** and **3.3%** in net operating cost
            - (Based on a sample of about 50 publicly trade local banks)
- Moat evaluation
    - Barrier to entry: High
        - There's no major mainland competitors in the deposit gathering arena in Hawaii
        - Bank of America entered the market in early 90s[15]
            - By acquiring the old HonFed
                - (an S&L)

            - The acquisition was challenging
                - It wasn't a contiguous acquisition
                - No cost synergies
                - No marketing synergies
                - Significant time difference
            - Bank of America exited after 5 years
        - The number of bank offices in Hawaii have declined
            - 2000: 305
            - 2005: 285
            - 2010: 284
            - 2015: 279
        - The competitive landscape is stable[16]
            - 4 major banks hold about 92% of deposit market share
                - Since 1994
            - About 100 credit unions
    - Impact of new entrant
        - Little
    - Rivalry among existing firms
        - Much lower than in the U.S. mainland
        - 4 banks hold about 92% of deposit market share
            - Since 1994
        - The Hawaii market is rationally competitive[17]
            - None of the mainland's deposit-gatherers active in Hawaii
- **Conclusion: BOH has a wide moat**

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[1] "I think that **the consumer deposits are probably the stickiest, because a lot of that money is just working capital for families and small businesses, and that obviously doesn't -- is not as impacted by rate, if you will**. A portion of our commercial deposits are at slight risk, obviously, because there's just so much in corporate coffers right now. So there's an element to that. But by and large, **most of our deposits, both consumer as well as commercial, are pretty relationship-oriented, pretty kind of day-to-day type stuff. So we feel good about that.**" – Peter Ho, BOH's CEO, Barclays Global Financial Services Conference, 10 September 2014

[2] "And then this is a great time for us to deepen our customer relationships. We have a good share of the market. **Taking customers from other banks isn't as easy maybe in Hawaii. We found that there's a great stickiness that's rather surprising almost, how much loyalty customers show to our banks. At least if you've banked on the**

mainland, it's surprising in Hawaii. So making sure that we reinforce that characteristic of our customer base is important for us." – Allan Landon, BOH's former CEO, DA Davidson & Co Financial Services Conference, 08 May 2008

[3] "You'll see from this chart that ourselves and Bank of Hawaii have about two-thirds of the marketplace. We are the leader in terms of core deposits. **We have a 20% advantage over First Hawaiian in core funding and a 40% advantage over Central Pacific and American Savings Bank combined.** We've been able to attract good deposit growth since the financial crisis. **Hawaii has a good amount of liquidity, a number of the businesses there are service-oriented, a number of them cash-oriented businesses because of the visitor industry**.

The consumer community is reasonably conservative, a very high Asian percentage, so an attractive deposit market for us. We've been able to comp favorably with our deposit product versus the number of the money market products. And finally, I'd say that our brand is playing quite nicely into the current environment." – Peter Ho, BOH's CEO, KBW Regional Bank Conference, 24 February 2010

[4] "Customer loyalty, a bit different in Hawaii than what you find in the broader US mainland market. **Likelihood to recommend their bank to a friend, higher in Hawaii. Likelihood to stay with their primary bank, higher -- significantly higher in Hawaii than the national average.** I think, for the most part, the reason behind this is **Hawaii is a bit less of a transient market than what you'd find in many parts of certainly the western states of the United States**.

Bring all of this together to generate a very attractive cost of funding base for all of the participants in the state of Hawaii, including ourselves." – Peter Ho, BOH's CEO, KBW Regional Bank Conference, 01 March 2012

[5] "Customer loyalty is another dynamic, it's a bit different in our marketplace versus what you find in the boarder markets here in the mainland. **The likelihood to recommend their bank to others higher in Hawaii than the national average, length of time or loyalty to their primary institutions**. As you see in this chart, significantly different than what you find in the national marketplace.

I think the real reason behind this is Hawaii is less of a transient population base than what you would find in certainly a number of the Western states here in the mainland. Take all of these attributes, put them together and what you find in Hawaii is that **the Hawaii Banks as a group have a substantial cost of funding advantage over the US mainland**." – Peter Ho, BOH's CEO, Sandler O'Neill & Partners, 06 March 2012

[6] “**We touched in excess of 50% of all of the households in the State of Hawaii on a deposit basis. More like two-thirds of all of the households in the state from a total product basis**. I have got a great staff, long-standing staff well versed in Hawaii as well as a lot of great technical expertise.” – Peter Ho, BOH’s CEO, Sandler O’Neill & Partners Financial Services Conference, 06 March 2012

[7] “Commercial banking is another important segment. Here we have large share of the market. **Over 70% of Hawaii's large businesses have relationships with Bank of Hawaii.**” – Allan Landon, BOH’s former CEO, Fox-Pitt, Kelton Small & Mid-Cap Conference, 17 June 2019

[8] “It's a real fundamental area of focus for us in terms of trying to deepen the shared wallet with our existing customers. **We have such a large penetration in the market that gathering new consumer households is a bit challenging for us, and so we concentrate on our existing customers and do what we can to expand those relationships**. And we've seen slow but steady growth in terms of customer relationships over the past few years, and we're going to continue focusing on that.” – Dave Thomas, BOH’s former COO, 2006 Q1 Earnings Conference Call, 24 April 2006

[9] “**The chart that's on the screen goes back -- I guess it covers almost 10 years here, and shows a comparison --the yellow line is sort of the national average of costs of banks' deposit-based funding**. That contrasts with the two other lines. The blue line is the Hawaii market, and the green line is Bank of Hawaii. **We have a mix that is a little bit heavier weighed toward demand deposits, plus we're the pricing leader, which helps us keep our advantage of funding about 100-plus basis points, lower than the average bank**. We may have one of the lower costs of funding -- deposit funding in the country.” – Allan Landon, BOH’s former CEO, KBW Regional Bank Conference, 27 February 2008

[10] “**We've got the lowest cost of deposits in Hawaii right now, owing in large part to a significant amount of transaction accounts, demand deposit accounts, non-interest bearing accounts, as well as our position as sort of the pricing leader. So we are the low rate deposit institution. We emphasize service over rate**.

Our focus on growth is going to be to continue to concentrate on savings and demand deposits. What I'll call transaction accounts rather than time accounts. We're going to see a natural migration. We've built, like most other banks, a customer self-selection model that allows customers to move pretty fluidly into time deposits. Those have value to us compared to our other sources of funding, but not as significant a value as our traditional savings and demand deposit accounts.

So with our delivery channel, **we're going to continue to emphasize that focus on growing demand and savings accounts, use time deposits then as sort of the balancing mechanism between our transaction deposit funding base and our wholesale deposit base, or our wholesale funding base**." – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 28 February 2007

[11] "**We are the low payer of interest, the lowest interest rates you get in Hawaii. Our value proposition is convenience and dependability**, so the more locations, the more ATMs, the more ways to access us." – Allan Landon, BOH's former CEO, DA Davidson & Co Financial Services Conference, 08 May 2008

[12] "We generate our funding advantage in a number of ways. Convenience obviously is an important part of our overall brand strategy. **We also have terrific market positioning with 56% of total retail households and 70% of the small businesses in Hawaii**. In terms of convenience, **we have the largest branch network**. Not only that we have the most branches, but I'd mention that we have branches in the real estate locations that you'd want to be in. **From an ATM perspective, we also are the market leader in convenience there, and there not only do we have a quantity advantage, but also an advantage in partnerships. We're the exclusive provider for McDonald's, Costco, CVS, Longs and Safeway**. This slide here gives you a sense for our brand awareness in the marketplace, you see that we're at least by this study advantaged versus the competition." – Peter Ho, BOH's CEO, KBW Regional Bank Conference, 24 February 2010

[13] "From a convenient standpoint, you see here that we are best in market in terms of the total number of branches. **We have 72 branches in the State of Hawaii. From a market position standpoint, there are 45 neighborhoods of [goods] in the State of Hawaii. So, if you take a look at those 45 and go by deposit position, Bank of Hawaii has a number one or a number two market position in 82% of those neighborhoods**. So, a good performance across a broad base of the community in Hawaii.

Our convenience advantage extends over to the electronic side. **We have a pretty significant lead in terms of the total number of ATMs in Hawaii versus our competitors. We also have exclusive alliances with some pretty important retailers, exclusive ATM alliances with the likes of Safeway, McDonald's and Longs CVS**." – Peter Ho, BOH's CEO, Macquarie Securities Small- and Mid-Cap Conference, 15 June 2010

[14] "<u>Unidentified Audience Member</u>: Is there any reason to think that you're a deposit cost advantage in the Hawaii system, would any time come under threat?

Allan Landon, BOH's former CEO: I think **the only way that that would happen is if somebody in the marketplace really did something dumb. The last time that that happened was back in 2000, and Bank of Hawaii was far more aggressive then. The last guys that screwed it up was us**. (Laughter) We have no interest in doing that again. As I mentioned, **we're fortunate not to have any mainland deposit gatherers in the islands right now**, so we would have to see some intrusion from outside or some imbalance. You saw First Hawaiian is growing their deposits. They have a very conservative loan to deposit ratio too." – Lehman Brothers Global Financial Services Conference, 08 September 2008

[15] "I guess the **last time one of the large banks entered into our marketplace was mid-'90s, call it, when BofA acquired the old HonFed**, which was an S&L, and operated that for several years. And I think **had a difficult time dealing with the overwater considerations**. So I think it's -- all mergers and acquisitions are somewhat challenging. I think that the fact that **you simply can't see a contiguous acquisition in Hawaii because of the overwater considerations make things soft**.

So things like marketing synergies that you might get from moving from one spot to another spot contiguously here in the Western part of the United States doesn't play it easily, and significant time difference changes, just span of control issues, I think. And in many ways, that plays in the opposite way as we work abroad, right. **It's just challenging to manage operations 2,500 miles away with not a lot of contiguous opportunity** to make those operations closer is what we found and ultimately decided to abandon." – Peter Ho, BOH's CEO, Sandler O'Neill & Partners Financial Services Conference, 08 March 2011

[16] "It is a marketplace literally surrounded by 2,300 miles of ocean. So we are a bit isolated. We basically run the marketplace with four major banks. So ourselves, First Hawaiian, $14.5 billion; First Hawaiian, 17-point-something billion; ASB and CPV, about half that size. Right?

So First Hawaiian and Bank of Hawaii hold about two-thirds of the deposit market share; ASB and CPV hold the other third. If you put the credit unions in, they would be more aligned to ASB and CPV in size. In total, there are about 100 credit unions in Hawaii. Okay.

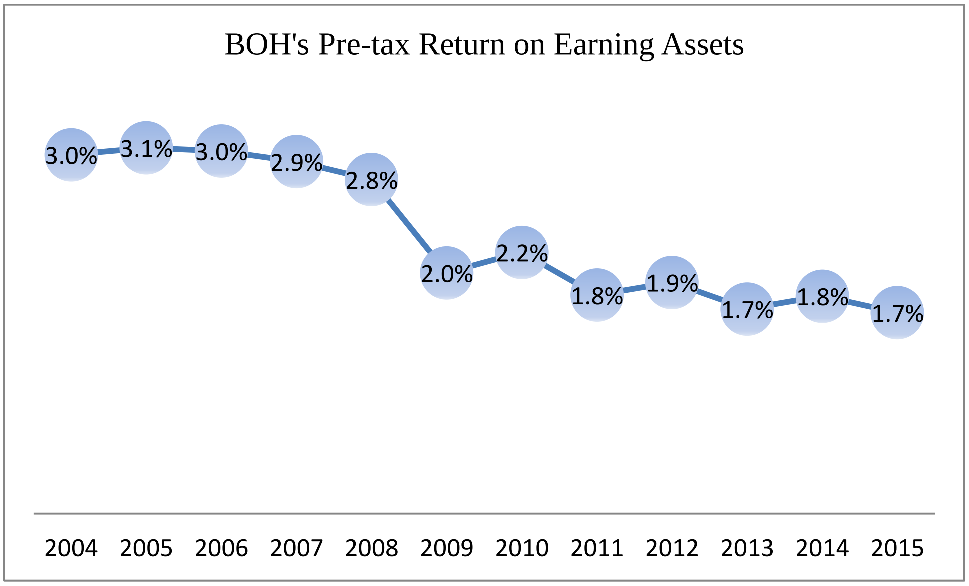
So obviously that is a pretty cozy competitive set. It is a competitive set that has battled with each other for decades. Not too much in the way of mergers and acquisitions, given the marketplace, the changed dynamics there. So the competitive side, the supply side is -- has been pretty stable for a number of years.

On the demand side, **the population base is growing slowly, so about 1% a year**; a very high percentage of wealth in the islands for various reasons. So, a good amount of demand for banking services and products. **Deposits have always grown at a rate higher than that of loans in the islands. And so that in some ways has really put a buffer on deposit pricing to begin with**. So you put all of that together and you get the -- how shall I term this? -- **the most attractive deposit market for the industry in the country.**" – Kent Lucien, BOH's CFO, KBW Boston Regional Bank Conference, 25 February 2015

[17] "**The Hawaii market is competitive, but I would tell you rationally competitive. One of the unique features of Hawaii is that we have none of the mainland's deposit-gatherers active in Hawaii**." – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 27 February 2008

Quality

The Focus on Low-Cost Funding Makes Bank of Hawaii Sensitive to Interest Rates



BOH's profitability declined by almost 50% since 2004

- **Biggest Negative**:
    - BOH's profitability is sensitive to interest rates
- **Michael Porter Questions**
    - (-) means low
    - (=) means medium
    - (+) means high
    - **For the industry**
        - Can the industry charge a high price?
            - **(=)** The industry charge a stable "Net Interest Spread" over cost of money
        - Does the industry have low costs?
            - **(-)** Banks have the lowest cost of money
                - Lower cost of money than pension funds or bond funds
        - Does the industry have low need for assets?
            - **(+)**The industry is capital-intensive
                - Rely on high leverage
                - Leverage depends on regulatory capital ratios
    - **For the company**

        - Can the company charge a higher or lower price than the industry?
            - **(=)** BOH's yield on earning assets is mediocre
        - Does the company have higher or lower cost than the industry?
            - **(-)** BOH has lower cost than the industry
                - Low cost of funding
                - Low operating cost
        - Does the company have more or less need for NTA than the industry?
            - **(-)** BOH maintains 7% Tangible Equity to Earning Assets ratio
- The industry's net interest margin is very stable
    - Net interest margin = yield on earning assets – cost of funding earning assets
    - Based on data of all FDIC-insured institutions
    - Net interest margin was about 3.6% in the 1996-2014 period
        - Min: 3.14%
        - Max: 4.06%
        - Median: **3.60%**
        - Mean: 3.61%
        - Standard deviation: 0.30%
        - Variation: 0.08 (very stable)
    - NIM is stable because the industry have lower cost of money than competitors
        - Banks can get funding from
            - Non-interest bearing deposit
                - free
            - Time deposit
                - Cost less than Fed funds
            - Other borrowings
        - Bank's average net operating cost is
            - Banks with assets over $10 billion: **1.1%**
            - Banks between $1 billion and $10 billion: **1.83%**
        - => Banks total cost of money is about **1-2%** more than Fed funds
            - Not far from risk-free rates
            - 1954-2014 Median (10-year treasury yield – Fed funds) is **1.06%**
        - => Banks have lower costs than competitors
            - Bond funds
            - Pension funds
            - Etc.
- BOH's net yield on earning asset is mediocre
    - Net yield = (interest income – charge-offs)/average earning assets

- Based on the average difference in net yield on earning assets since 2002
  - BOH's net yield is
    - **0.33% lower** than American Savings Bank
    - **0.34% higher** than Central Pacific Financial
      - Mainly because CPF had big losses in crisis years
    - **0.11% higher** than all FDIC-insured institutions
    - **0.33% higher** than FDIC-insured institutions with more than $10 billion assets
- Based on the average difference in yield since 2002
  - BOH's loan yield is
    - **0.28% lower** than American Savings Bank
    - **0.53% lower** than Central Pacific Financial
  - BOH's net loan yield is
    - **0.47% lower** than American Savings Bank
    - **0.54% higher** than Central Pacific Financial

- BOH's quality comes from its low cost of funding
  - Deposits are **91%** of total liabilities
  - Low-cost core deposits are **91%** of total deposits
    - **83%** of total earning assets
  - BOH's funding sources as a % of average earning assets
    - (as of March 31, 2016)
    - Noninterest-bearing deposits, liabilities, and equity: **33%**
    - Interest-bearing demand deposits: **18%**
    - Savings: **35%**
    - Time deposit: **8%**
    - Other borrowings: **6%**
      - Mostly repos
  - Interest-bearing demand deposit and savings have low costs
    - Interest-bearing demand deposit
      - Rates were
        - 2003: 0.21%
        - 2004: 0.22%
        - 2005: 0.61%
        - 2006: 0.98%
        - 2007: 1.01%
        - 2008: 0.33%
      - Cost less than **20%** of Federal fund rates (FFR)

        - 2003: 18% of FFR
        - 2004: 17% of FFR
        - 2005: 19% of FFR
        - 2006: 20% of FFR
        - 2007: 20% of FFR
        - 2008: 17% of FFR
    - Savings
      - Rates were
        - 2003: 0.58%
        - 2004: 0.45%
        - 2005: 0.70%
        - 2006: 1.41%
        - 2007: 1.97%
        - 2008: 1.02%
      - Cost less than **50%** of Federal fund rates (FFR)
        - 2003: 51% of FFR
        - 2004: 33% of FFR
        - 2005: 22% of FFR
        - 2006: 28% of FFR
        - 2007: 39% of FFR
        - 2008: 53% of FFR
    - Many banks pay about 50% of FFR for these types of deposits
      - U.S. Bancorp: 40% of FFR
      - Wells Fargo: 54% of FFR
  - Time deposit and other borrowings cost slightly more than Fed funds
    - About **110%** of FFR
  - => BOH's cost of funding is less than **40%** of FFR
    - = 18% * 20% + 35% * 50% + 14% * 110% = 36.5%
  - The industry's liabilities consist of
    - (Based on McKinsey report in 2012)
    - Free funding: **22%**
      - Noninterest-bearing deposit
      - Equity
    - Interest-bearing deposits: **37%**
      - On average cost about 75-80% of fed funds
    - Other liabilities: **41%**
      - Cost much more than fed funds

        - => the industry's cost of funding would exceed **70%** of fed funds
            - 22% * 0% + 37% * 75% + 41% * 100% = 69%
    - => BOH's funding cost advantage is more than 30% of FFR
        - 3% FFR results in more than **0.90%** cost advantage
        - Other things equals, 0.90% cost advantage results in ROE of about **9%** higher than average
    - Example in 2005
        - Average FFR: 3.21%
        - BOH's cost of funding: 1.07%
        - Banks with more than $10 billion assets: 2.30%
        - => **1.23%** cost advantage for Commerce
- Low funding sources make BOH more sensitive to interest rates than the industry
    - Example:
        - Net interest margin = yield on earning assets – cost of funding
            - (NIM)
        - BOH's NIM:
            - 2006: 4.25%
            - 2014: 2.85%
            - 2015: 2.81%
        - All FDIC-insured institutions
            - 2006: 3.31%
            - 2014: 3.14%
        - Banks with more than $10 billion assets:
            - 2006: 3.12%
            - 2014: 3.01%
    - There's not much room for BOH to reduce its cost of low-cost funding
        - Interest expense/Earning assets were
            - 2006: 1.79%
            - 2015: 0.26%
    - BOH's yield on earning assets declined more sharply as FFR declined
        - Example:
            - C&I
                - 2006: 7.36%
                - 2015: 3.18%
            - Commercial Mortgage
                - 2006: 6.73%
                - 2015: 3.79%

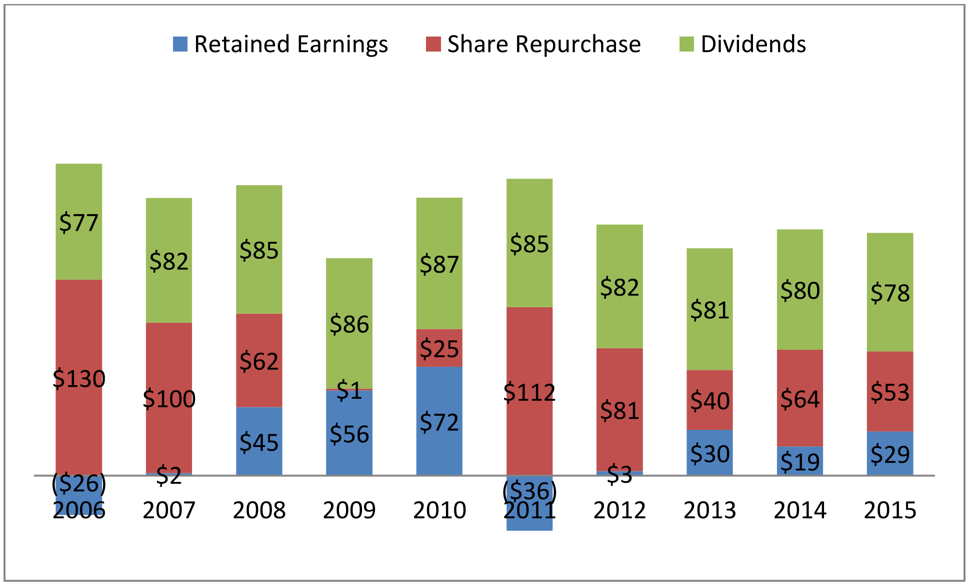
            - Residential Mortgage
                - 2006: 5.97%
                - 2015: 4.10%
            - Home Equity
                - 2006: 7.42%
                - 2015: 3.62%
        - Similarly, yield on the securities portfolio declined
            - 2006: 4.83%
            - 2015: 2.19%
        - Commerce is interest rate neutral in the short run
            - 48% of its loan portfolio have fixed rates
            - 90% of its securities portfolio have fixed rates
            - => 63% of earning assets have fixed rates
    - This can reverse as FFR increase
- Low operating cost gives BOH another **1%** advantage
    - BOH
        - 10-year average: **1.00%**
        - 2015: 1.12%
    - First Hawaiian Bank (FHB)
        - 10-year average: **0.91%**
        - 2014: 0.51%
    - American Savings Bank (ASB)
        - 10-year average: **2.00%**
        - 2015: 1.84%
    - Central Pacific Financial (CPF)
        - 10-year average: **2.24%**
        - 2015: 2.01%
    - BOH + FHB = 68% market share
    - ASB + CPF = 24% market share
    - => BOH + FHB enjoy more than 1% operating cost advantage over the rest of the market
- BOH was able to make good ROE
    - Made **1.65%** return on earning assets (ROEA) in its worst year
        - 2015
    - Made **3%** ROEA in 2004-2007
    - BOH maintain about 7% tangible equity to total assets ratio
        - Equivalent to a leverage ratio of more than 14

        - Results in
            - 23% pre-tax ROE in its worst year
            - 42% pre-tax ROE in a normal year
- 8 dimensions of quality
    - Relative size
        - Great relative size to depositors and borrowers
    - Focus
        - BOH is focused on Hawaii
    - Customer engagement
        - BOH has a deeper level of relationship than peers
        - 10-year average noninterest income
            - BOH: $219 million
            - First Hawaiian Bank: $172 million
            - American Savings Bank: $62 million
            - Central Pacific Financial: $51 million
        - 10-year total noninterest income/10-year total earning assets
            - BOH: 1.84%
            - First Hawaiian Bank: 1.38%
            - American Savings Bank: 1.19%
            - Central Pacific Financial: 1.13%
    - Cross-selling
        - BOH tries to sell more products to existing customers
    - Retention
        - Very high
    - Words of mouth
        - Possibly good
    - Reinvestment rate
        - BOH has the most branches and ATMs in Hawaii
        - BOH has the highest level of noninterest expenses
            - 10-year average noninterest expenses
                - BOH: $339 million
                - First Hawaiian Bank: $283 million
                - American Savings Bank: $166 million
                - Central Pacific Financial: $150 million
    - Stock's popularity
        - Short-interest: 10.82%
        - Share turnover: 141%

- 3-month average daily volume: 236 thousand shares
- Float: 42 million shares

Capital Allocation

Facing Low Growth, Bank of Hawaii Returned Most of its Earnings to Shareholders



Over the last 10 years, BOH returned 88% of its earnings to shareholders

- **Biggest Negative**: No negative
- Annual share dilution is about **0.45%**
    - Over the last 10 years
        - Gross dilution: 1.12% annually
        - Net dilution: 0.45% annually
            - Include the effect of share buyback using proceeds from exercises of stock options
- Compensation include
    - Base salary
    - Short-term incentive compensation
        - Paid by cash
        - The CEO and other NEOs participate in the Executive Incentive Plan
            - (EIP)
        - EIP provides for a maximum incentive pool of 3% of BOH's net income
        - At the beginning of each year, each executive is allocated a maximum % of the incentive pool
            - For 2015
                - Peter Ho, CEO: 30%

            - Kent Lucien, CFO: 12%
            - Mary Sellers, CRO: 12%
            - Mark Rossi, Chief Administrative Officer: 12%
            - Wayne Hamano, Chief Commercial Officer: 8.5%
        - Target award for the CEO: 100% of base salary
            - Minimum payout: 50%
                - Achieved only if the company is in the third quartile of peer performance
            - Maximum payout: 250%
        - Performance metrics include
            - Return on equity (30% weight)
            - Stock Price-to-Book Ratio (30% weight)
            - Tier 1 Capital Ratio (20% weight)
    - Long-term Incentive Compensation
        - Paid by performance shares
            - Restricted stock grants
            - Restricted stock units
        - Based on 3-year performance
        - Performance metrics include
            - Return on equity (40% weight)
            - Stock Price-to-Book Ratio (40% weight)
            - Tier 1 Capital Ratio (20% weight)
        - To achieve full payout
            - Top quartile performance in all 3 metrics must occur
        - To achieve any payout
            - Top two quartile performance must occur
- BOH is very much a return-oriented company[1]
    - ROA and ROE are important
    - Of the 3 performance metrics, ROE and Tier 1 Capital Ratio are controllable
        - These 2 ratio has inverse relationship
            - Higher Tier 1 Capital ratio means lower leverage
            - => reduce ROE
        - ROE has higher weight
    - It's unclear why BOH include P/B in its compensation decision
        - P/B is uncontrollable
- BOH maintains **7%** tangible equity to total assets
    - Don't see a great deal of benefit from operating at a lower ratio[2]

- From 2005 to 2015
    - Min: 6.46%
    - Max: 7.48%
    - Median: 6.98%
    - Mean: 6.95%
    - Standard Deviation: 0.29%
    - Variation: 0.04 (extremely stable)
  - **7%** tangible equity to total assets is adequate
    - Similar to Frost's level in 2002-2007
    - Prosperity: between **4.5%** and **7%** tangible equity to total assets
    - 7% tangible equity to total assets can result in **10-15%** tier 1 capital ratio
- BOH doesn't make any acquisition
  - No acquisition inside Hawaii
    - Likelihood of in-market acquisitions seems an outlier to BOH[3]
      - Hawaii is already a pretty concentrated market
  - No acquisition outside of Hawaii
    - BOH wants to have competitive advantage in the market it enters
    - The lack of contiguity is a challenge for BOH to expand in the mainland[4]
    - It's hard to justify acquisitions outside of BOH's market[5]
      - High risks
      - BOH is far more interested in making sure it operates efficiently
    - Cheap acquisition isn't always a great value[6]
      - No competitive advantage by managing a Mainland business from Honolulu
- Return almost 100% of earnings
  - In 2007
    - BOH returned more than 90% of earnings[7]
      - 40% dividend payout ratio
      - 50% of generated capital is available for share repurchases
  - BOH's formula before the financial crisis[8]
    - Add earnings to its capital
    - Subtract a little bit to cover growth
    - Return the rest in the form of
      - Dividends, or
      - Share repurchase
    - BOH returned almost 100% of income to shareholders[9]

- BOH stopped its share repurchase in September 2008
  - (but still maintained dividends)
  - To improve capital ratio
  - BOH reinitiated the share repurchase program two years later
    - During Q3 2010
- BOH returned 83% of total earnings over the last 3 years
  - Despite depressed margins
  - Total income: $474 million
  - Total cash return: $395 million
- BOH returned 88% of total earnings over the last 10 years
  - Total income: $1,685 million
  - Total cash return: $1,490 million
- Historically return about half-half, dividends and share repurchases[10]
  - 40-50% dividend payout rate
  - The rest is share repurchase
- BOH doesn't time share repurchase
  - Since 2000, BOH repurchased 46% of its outstanding shares
  - The number of outstanding shares declined 4% annually
    - 2000: 79,612,178 shares
    - 2015: 43,282,153 shares

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[1] "Andrea Jao, Analyst, Cowen: Peter, could you remind us what -- in terms of your long-term strategy, what profitability metrics you are targeting versus the current metrics that you're showing right now?

Peter Ho, BOH's CEO: Andrea, I'm going to take a stab at your first question, and then I'll ask Kent to talk about the sizing issue. As you know and as I think most of you know, **we are very much a return-oriented company. So the metrics that are meaningful to us are a return on assets, return on shareholders equity is an important metric to us**. We are going to do everything within our capacity, within the environment that we find ourselves in, to maximize those objectives." – BOH 2010 Q3 Earnings Conference Call, 25 October 2010

[2] "**The 7% turned out to work pretty good for us**, Fred, as you recall, that was kind of an interim level that we set, and **we have evaluated different alternatives to operate at a lower level, and in the end, we didn't see a great deal of benefit from trying to do that**, and we like the capital levels we have right now. We have spent some time talking with our Board about it.

And so for the basis of this plan, **we think the 7% level is just about where we want to be. We may vary up or down a few basis points off of that**, just because it's a balance between with a we do in the repurchase market, and as you'll see here, January 1st, some accounting entries, that's kind of where we are planning to stay." – Allan Landon, BOH's former CEO, 2006 Q4 Earnings Conference Call, 22 January 2007

[3] "Brett Rabatin, Analyst: Well, you had good results relative to the environment so everybody is off trying to figure out who is getting the TARP, I guess. Speaking of that, I guess I'm very surprised you guys are -- you're buying stock back here recently. I know you haven't done any. A., as you are evaluating that, is that a function of potential acquisitions? I can't imagine. I'm not sure why you would be too gung-ho to be getting involved in the TARP. And then secondly, just, you are going to grow your capital ratios. Aside from any government involvement, do you have a target now? A new target?

Allan Landon, BOH's former CEO: No, we haven't set a specific target. **We're going to continue to let the ratios go up as we slow our repurchase. We stopped in the middle of September with repurchase**, and I think you did a very nice job of summarizing what we're considering as we look at the capital purchase program. But I'm thinking that there are sort of macro factors that are involved, and we've got watch those, too. From just our bank standpoint, right now we feel pretty comfortable with our capital plan and strategy. And as you know, **Hawaii is a pretty concentrated market already, so the likelihood of in-market acquisitions seems to be sort of an outlier to us.**" – BOH's 2008 Q3 Earnings Conference Call, 27 October 2008

[4] "We take a look regularly at ways to expand our business and expanding organically in a moderate growth economy does require exactly that careful attention to detail that Mike mentioned. **When we look at expanding beyond our current market territory, we look at it at about four levels. We start with assessing the markets and their individual attractiveness**. **So, we have to have an attractive market, we have to have a market where Bank of Hawaii can be competitive**. Our brand is rather unique, our name is rather unique. There are we believe mainland markets where that will -- the brand will work quite well**. So, when we find an attractive market and one where we compete, the third criteria is a reasonable price of entry and in the current environment**, we have not found an opportunity where that would work for us very well. **And then, the first criteria and long-term the one I think probably most important to shareholders is the ability to integrate and operate efficiently and we have got to develop our people a little more, our technology a little more**. **We have the handicap of 2,500 miles of ocean between us and any market. So that lack of contiguity is a little bit of a challenge for us**. So, requires us to be especially

careful when we look at off-island expansion as we call it." – Allan Landon, BOH's former CEO, Sandler O'Neill & Partners Financial Services, 06 March 2007

[5] "Erika Penala, Analyst: And I guess -- another question is if the opportunities for Bank of Hawaii to buy banks out of receivership presents itself, would you care to go back Mainland or given that your concentration in Hawaii from a deposit standpoint? Or is that a nonstarter? [laughter]

Allan Landon, BOH's former CEO: It is a pretty interesting question. You know for us, it is about building value. And we try to keep a focus shareholders first, but then balance that with community and customers and employees. **And when we look at the risks associated with going outside of our market in an expansion, especially an acquisition, it just seems hard right now to justify that**.

In fact, I'll go one step further. As you look at the quarterly results and you see the good will impairments showing up, I think it really has to question whether it has ever made a whole lot of sense to try to grow aggressively that way. So we have always left that as an option, if it builds value. We will give consideration to it. We know that there are going to be lower price, and probably some institutions under stress.

We have got a strong solid, well-prepared management team. So could there be some place where our brand works, in combination of attractive pricing and good market? I guess we wouldn't rule it out. But I will tell you, **we are far more interested in making sure that our bank operates efficiently, and we got the workforce aligned, and the market and the program set for our markets right now.**" – BOH's 2008 Q4 Earnings Conference Call, 26 January 2009

[6] "Unidentified Audience Member: Kind of on a different vein, but you did a terrific job of avoiding the temptation of coming back over to the Mainland when some of your competitors took the other route. Is there a period of time or an economic incentive that would, with all things going on with the FDIC and whatnot, that would lead you to consider kind of branching back over stateside?

Allan Landon, BOH's former CEO: Sure. We pay attention to possible opportunities. **We remind each other that cheap isn't always a great value**. So we use the same forecasts that we used when the economy was healthy. **First of all, it has to be an attractive market**. At one time, Las Vegas looked like a very attractive market. That has revealed itself to be a little bit different right now and there may be an interim zone there.

Our Bank of Hawaii brand needs to work. To have any leverage, you need to be able to move in with Bank of Hawaii and have some appeal. **I mentioned Las Vegas earlier because there are 100,000 people who have Hawaii connections who live in the greater Las Vegas area. That is the largest concentration outside of Hawaii**.

You have to be able to enter at a reasonable price we think and as I said, free may not be a good value in some cases. And then you have to be able to manage it from Hawaii in our view and that is a particular challenge. I can think of no competitive advantage by managing a Mainland business from Honolulu. You may be able to overcome the hurdles with the right team being integrated with a local team.

Right now, **it just seems like that is too far to stretch and it just is difficult for us to see anything that is going to generate value for shareholders out of that approach**. So I have tried to never say never because you don't know what opportunities will come your way and we do watch for them, but we have no plans right now and we are going to continue to apply those tests maybe even more rigorously now than we did before." – Fox-Pitt, Kelton Small & Mid-Cap Conference, 17 June 2009

[7] "We expect to continue our capital management program in 2007. We plan to maintain a simple leverage ratio of about 7%. We have been at that level for about the last year now. **We expect to use 90% or more of our generated capital to pay dividends and to repurchase common stock. We expect our dividend payout ratio to be approximately 40% annually. That means that about 50% of our generated capital or possibly more is available to be returned through share repurchases**." – Allan Landon, BOH's former CEO, Sandler O'Neill & Partners Financial Services Conference, 06 March 2007

[8] "That fact primarily drives our decision to stay a little bit more focused on the risk management or disciplined side of the business. We keep our liquidity high. If you saw the statistics there, our investment portfolio is about the same size as our loan portfolio now, at least if you put cash in short-term investments in there. Shift a little bit from credit risk to investment risk, **we've continued to increase our capital. Years ago we would tell people that our formula was to add our earnings to our capital, subtract a little bit to cover growth and return the rest in the form of dividends or share repurchase program. As the crisis became obvious, we suspended the share repurchase program and we've been off of that now for about 18 months.**" – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 24 February 2010

[9] "Our capital management strategy has been to -- the last couple of years has been to increase capital during the crisis. It's all internal generation. **So, we've not issued**

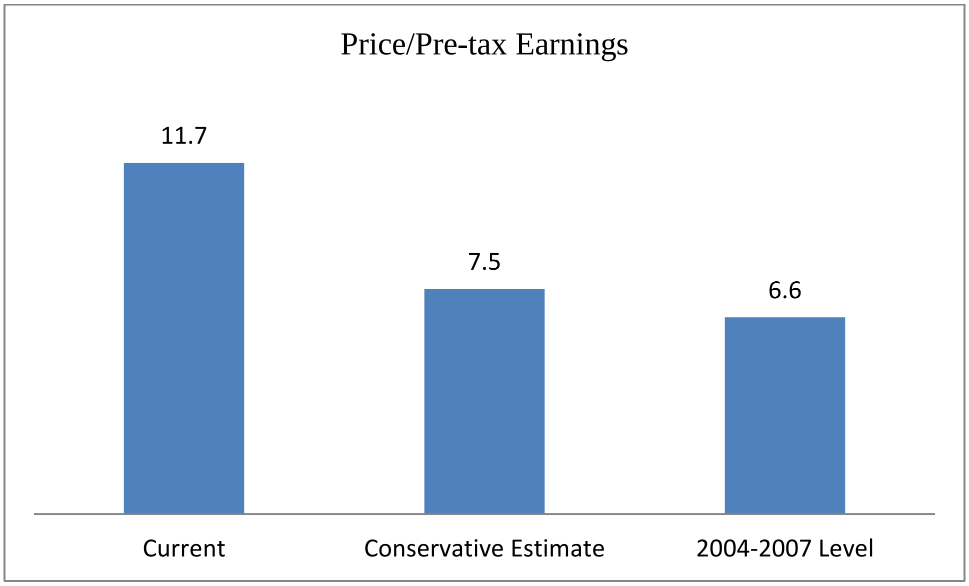
capital, and as I mentioned earlier, we did not participate in the Troubled Asset program from the government. We had a formula of returning about 100% of our income to shareholders through dividends and share repurchases. 2008, we suspended our share repurchase program, we've maintained our dividend $0.48 -- $0.45 per quarter throughout that entire period as we have maintained our profitability. So, we had no quarters where we had a loss. All of our capital is common equity. Only $37 million, a small amount is in goodwill. So, it is essentially all tangible, no hybrids, no preferred or trust preferred stock." – Allan Landon, BOH's former CEO, Macquarie Securities Small- and Mid-Cap Conference, 15 June 2010

[10] "While as you mentioned, capital and the deployment of capital and the return of capital are critically important elements of our strategy. And so, as Peter had mentioned, **we have a very healthy dividend and the policy is 40% to 50% of earnings. And at this point, everything else that we are earning is being returned to shareholders in the form of share repurchases**.

In fact, we are going beyond our current earnings such as right now, **we are at about 125% of earnings. That particular kind of repurchase activity is not forever sustainable obviously. But we can go awhile at that pace. Longer term, approaching a 100%, is not impossible, it can't be literally 100% but close to it**. **There is no particular metric that would represent a floor for us. We would like to look at tangible common to risk weighted as a relevant measurement** and it's a little bit under 18%. So we think we have plenty of capital for this purpose and it's likely to be an important part of the strategy going forward." – Kent Lucien, BOH's CFO, Sandler O'Neill & Partners Financial Services Conference, 06 March 2012

Value

Bank of Hawaii is Cheap Based on Normal Earnings



Bank of Hawaii is trading at around 7 times pre-tax normal earnings

- **Biggest Negative:**
  - Low growth makes BOH's high ROE less valuable
- Key inputs
  - Share price: **$68** per share
  - Outstanding shares: 43.04 million
  - Market cap: $2,927 million
  - EV: $2,927
  - Short-term investments: $691 million
  - Securities: $6,229 million
  - Loans: $7,940 million
  - Earning Assets: $14,860 million
  - Deposit: $13,335 million
    - Noninterest-bearing demand: $4,227 million
    - Interest-bearing demand: $2,762 million
    - Savings: $5,138 million
    - Time: $1,208 million
  - Other borrowings: $843 million
- Normal pre-tax earnings is at least **$389 million**
  - Assumption

        - Fed fund rates (FFR): 3%
        - Cost of interest-bearing demand deposits: 0.60%
            - Or 20% of Fed funds
            - Interest-bearing demand deposits cost less than **20%** of Federal fund rates (FFR)
                - 2003: 18% of FFR
                - 2004: 17% of FFR
                - 2005: 19% of FFR
                - 2006: 20% of FFR
                - 2007: 20% of FFR
                - 2008: 17% of FFR
        - Cost of savings: 1.5%
            - Or 50% of Fed funds
            - Savings cost less than **50%** of Federal fund rates (FFR)
                - 2003: 51% of FFR
                - 2004: 33% of FFR
                - 2005: 22% of FFR
                - 2006: 28% of FFR
                - 2007: 39% of FFR
                - 2008: 53% of FFR
        - Time deposit and other borrowing cost about 3.3%
            - 110% of FFR
        - At 3% FFR, 50% of noninterest-bearing demand deposits may turn into interest-bearing demand deposits
            - => $2,114 million noninterest-bearing demand deposits
            - Slightly higher than the $1.9 billion level BOH had in 2004-2007
    - => funding mix is
        - Free funding: $2,796 million
            - 19%
        - Interest-bearing demand deposits: $4,876 million
            - 33%
        - Savings: $5,138 million
            - 35%
        - Time deposits: $1,208 million
            - 8%
        - Other borrowings: $843
            - 6%

- Cost of funding is **1.17%**
  - 0.6% * 33% + 1.5% * 35% + 3.3% * 8% + 3.3% * 6% = 1.17%
- When FFR is 3%, BOH can make at least **5.2%** yield on earning asset
  - Yield was 5.44% in 2005
    - FFR was 3.21% in 2005
    - Yield in 2005 were dragged down by low FFR in previous year
      - 2002: 1.67%
      - 2003: 1.13%
      - 2004: 1.35%
  - At 3% FFR, BOH can easily make
    - 6% yield on loan
      - Yield on loan in 2015 was 4.02%
        - FFR: 0.09%
    - 4% yield on securities
      - Yield on securities in 2015 was 2.19%
      - Duration of the securities portfolio: 3.4 years
    - If loan is 60% of earning assets
      - Average yield is 6% * 60% + 4% * 40% = 5.2%
    - Loan/earning assets were between 65% and 68% in 2003-2008
- 25-year average net charge-offs/earning assets: 0.29%
  - Net charge-offs/earning assets is likely to stay low in near future
- Net operating cost: 1.12%
  - This is the number in 2015
  - 10-year average is only 1.00%
  - There are cost cutting opportunities
    - Example:
    - Reducing branch size[1]
      - BOH's branches average 4,700 square feet today
        - 72 branches
        - Total 340,000 square feet
      - The management think this is too big
      - They can bring down to 3,000 square feet per branch
    - Transition from analog to physical
      - Deploying envelope free deposit taking ATM machines
      - Can migrate 50% of branch depositors to ATM machines
  - To be conservative, we still use 1.12% net operating cost
- Pre-tax return on earning asset is **2.62%**

    - 5.2% - 1.17% - 0.29% - 1.12% = 2.62%
  - This is a low estimate
    - BOH made about 3% return on earning assets in 2004-2007
      - 2004: 3.00%
      - 2005: 3.06%
      - 2006: 3.03%
      - 2007: 2.94%
  - 2.62% pre-tax ROEA results in **$389** million pre-tax normal earnings
- BOH’s current valuation
  - EV/2015 EBT: **12**
  - EV/Normal EBT: **7.5**
- Peer comparison
  - Frost (CFR)
    - Frost is a strong franchise in Texas
    - Frost grew deposits by **9-10%** annually
      - For over 20 years
    - Frost has the lowest funding cost
      - Has a lot of noninterest-bearing deposits
        - **41%** of total deposits
    - Frost’s current valuation
      - Share price: $63
      - Market Cap: $3,905 million
      - Preferred stock: $144 million
      - EV: $4,050 million
      - EV/Earning Assets: **0.16**
      - EV/Deposit: **0.17**
      - EV/2015 EBT: 8.59
      - EV/Normal EBT: **5.56**
      - Using **2.81%** ROEA
  - BOK Financial (BOKF)
    - BOK is leading regional peer in Oklahoma
      - Deposit breakdown by states
        - Oklahoma: 54%
        - Texas: 25%
        - Colorado: 7%
        - New Mexico: 6%

            - Arizona: 4%
            - Kansas City: 3%
            - Kansas: 1%
    - BOK has a strong focus on fee-based business
        - Fee incomes are 50% of revenue
            - Brokerage & trading: 10% of revenue
            - Mortgage banking: 10% of revenue
            - Transaction card: 10% of revenue
            - Trust fees: 9% of revenue
            - Service charges: 7.1%
            - Other: 3.6%
    - BOK also sees fee-based businesses as a key to getting banking customers
    - Deposit grew **10.5%** annually over the last 22 years
        - 9.8% over the last 15 years
        - 8.2% over the last 10 years
    - There's big concern about BOKF's energy portfolio
        - 19.2% of total loan outstanding
        - 10.6% of total earning assets
    - BOK's current valuation
        - Share price: $60.31
        - Market Cap: $3,990 million
        - Preferred stock: $0 million
        - EV: $3,990 million
        - EV/Deposit: **0.19**
        - EV/2015 EBT: 9.15
        - EV/Normal EBT: **5.15**
        - Using **2.71%** ROEA
- Commerce Bancshares (CBSH)
    - Commerce operates in
        - Missouri: 8.64% market share
            - **13.76%** market share in Kansas City
            - **8.45%** market share in St. Louis
        - Kansas: **5.28%** market share
        - Central Illinois
            - 0.30% market share

            - Tulsa, Oklahoma
                - 1.55% market share
            - Oklahoma City
                - 0.15% market share
            - Denver, Colorado: 0.25% market share
        - Commerce has a strong focus on fee-based business
            - Mortgage banking
            - Trust
            - Card processing
        - Fee incomes are 40% of revenue
            - Higher than most banks
        - Commerce also see fee-based businesses as a key to getting banking customers
        - Deposit grew **5.3%** annually over the last 23 years
            - 4.8% over the last 15 years
            - 6.2% over the last 10 years
        - Commerce's current valuation
            - Share price: $47.55
            - Market Cap: $4,591 million
            - Preferred Stock: $145 million
            - EV: $4,736 million
            - EV/Deposit: **0.24**
            - EV/2015 EBT: 11.36
            - EV/Normal EBT: **6.98**
            - Using **2.91%** ROEA
    - UMB Financial (UMBF)
        - UMB gets 63% of its deposits from Kansas City
            - Has **18.7%** market share in this market
                - #1
                - Next top players are
                    - Commerce: 13.04%
                    - Bank of America: 9.71%
                    - U.S. Bancorp: 6.14%
        - UMB lends very conservatively
            - Its net charge-offs in its worst year was just 0.57%
        - Deposit grew **5.94%** annually over the last 25 years

        - 4.75% over the last 20 years
        - 5.93% over the last 15 years
        - 9.81% over the last 10 years
    - UMB's current valuation
        - Share price: $55.45
        - Market Cap: $2,744 million
        - Preferred stock: $0 million
        - EV: $2,744 million
        - EV/Earning Assets: **0.15**
        - EV/Deposit: **0.18**
        - P/2015 EBT: 14.98
        - P/Normal EBT: **6.68**
        - Using **2.28%** ROEA
- Central Pacific Financial (CPF)
    - CPF is the 4th largest bank in Hawaii
        - 11% deposit market share
    - CPF went belly up during the 2008-2009 financial crisis
        - Total net charge-offs were over $600 million from 2008 to 2011
            - For a loan portfolio of about $4 billion
        - Had to participate in TARP
            - In January 2009
            - Sold 135,000 shares of the TARP preferred stock
                - And a 10-year warrant to purchase up to 1,585,748 shares
                    - Exercise price: $12.77 per share
                        - Share price was about $40 in 2007
        - Had to raise $325 million through a Private placement
            - In February 2011
    - Since early 2007, CPF's shareholders lost over **95%**
    - CPF's current valuation
        - Share price: $22.91
        - Market Cap: $712 million
        - Preferred stock: $0 million
        - EV: $712 million
        - EV/Earning Assets: **0.15**
        - EV/Deposit: **0.16**

            - P/2015 EBT: 9.47
            - P/Normal EBT: **8.17**
            - Using **1.82%** ROEA

- Among peers
    - Frost is the superior peer
        - Lower funding cost
        - Slightly higher operating cost
            - Frost: 1.40%
            - BOH: 1.12%
        - Greater growth
            - Frost: 9-10%
            - BOH: 3-4%
        - Frost is cheaper
    - BOK has higher risk
        - Higher energy exposure
        - Higher upside
            - Greater growth
            - Cheaper
    - UMB and Commerce are close peer
        - These are both leading banks in low growth states
        - BOH and Commerce has close ROEA profile
            - Since 2002
                - BOH's funding cost **advantage** over Commerce
                    - Median: 0.03%
                    - Mean: 0.12%
                - BOH's net yield disadvantage to Commerce
                    - Median: 0.18%
                    - Mean: 0.03%
            - BOH has slightly higher operating cost
                - BOH: 1.12%
                    - 10-year average: 1.00%
                - Commerce: 1.03%
            - Our assumption of ROEA
                - BOH: 2.62%
                - Commerce: 2.91%
                - This gap is bigger than the gap in operating cost
                    - Main reason: we're more conservative on BOH

- We assume a lower yield for BOH
  - BOH: 5.2%
  - Commerce: 5.5%
- EV/Deposit can be a better comparison tool for this pair
- Commerce's potential growth is higher than BOH
  - Commerce: 4-5%
  - BOH: 3-4%
- Commerce deserve a higher EV/Deposit than BOH
  - Current EV/Deposit
    - Commerce: 0.24
    - BOH: 0.22

- Central Pacific Financial is an inferior peer
  - CPF has higher funding cost
    - About 0.30% higher over the period since 2002
    - 0.65% higher in 2007
  - CPF has higher operating cost
    - 2015
      - BOH: 1.12%
      - CPF: 2.01%
    - 10-year average
      - BOH: 1.00%
      - CPF: 2.24%
  - CPF has higher charge-offs
    - Failed in 2008-2011
  - BOH is cheaper than CPF
    - EV/Normal EBT
      - BOH: 7.52
      - CPF: 8.17

- BOH deserves 15x earnings
  - BOH can grow 3-4%
    - While returning 80-85% of earnings
  - 15x earnings implies yield between 5.33% and 5.66%
    - Adding 3-4% result in total return between **8.33%** and **9.66%**

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[1] "I think the -- well a number of the expenses that we were able to take out of the Bank over the past several years admittedly were somewhat lower hanging pieces of fruit.

So, yes, it does get tougher. But what we are looking at moving forward are whole system changes which have the -- that are, one, expensive, and two are challenging. I mean it's tough to do these things.

But three, if we can do it we end up with a better product, a product that the consumer will like even more at lower cost. **So we are talking about our branch footprint today is 340,000 square feet, 72 branches, that is 4,700 square feet per branch, that is way too big per branch, okay**. And that is not even an optimal environment to be serving people out of.

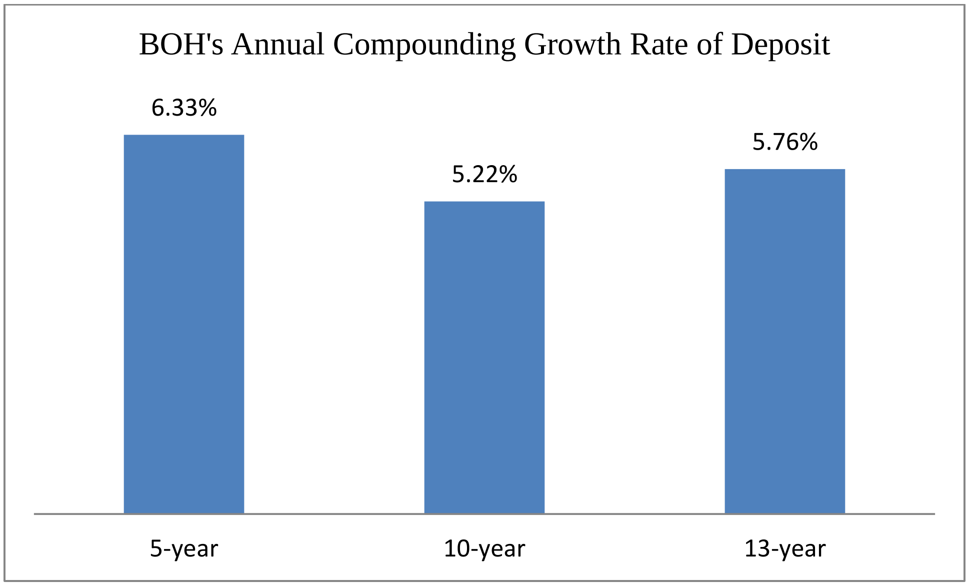
Now fortunately for us we have -- most of those 72 branches are on leases and we have this normal distribution of leases rolling off kind of off into the future and **so the opportunity to bring down expenses through bringing that 4,700 down to 3,000, 3,000-plus, saving money, creating a more efficient footprint for our people to be working in, so saving FTE cost, providing a nicer experience for our customers, so improving our brand**.

Those types of things have the ability to generate tremendous cost savings off over the next several years. **The transition from physical to virtual, the transition from analog to digital is another big opportunity. So we are I guess in the past six months begun deploying envelope free deposit taking ATM machines**.

So something -- **a phenomenon that is actually been obviously this mainland -- this larger mainland market for quite some time has been successful. We are actually introducing that into the Hawaii market**. And when you consider the fact that potentially **you can migrate 50% of branch depositors to those machines versus to tellers**, that is a big capacity build for us and a big potential cost savings/capacity rework to more revenue producing types of activities." – Peter Ho, BOH's CEO, Merrill Lynch Banking and Financial Services Conference, 18 November 2015

Growth

Bank of Hawaii Can Grow its Deposits by 3-4% Annually



Bank of Hawaii grew its deposits by about 5-6% annually

- **Biggest Negative**:
  - Hawaii is a low-growth economy
- Hawaii economy
  - Hawaii's total personal income breakdown by counties
    - The city and county of Honolulu: 76%
    - Hawaii: 10%
    - Kauai: 4%
    - Maui and Kalawao: 10%
  - Tourism and defense make up about 25% of Hawaii's GDP
    - Tourism: 15-17%
      - Some estimates tourism and related businesses account for 1/3 of the economy[1]
      - Share of total visitor expenditures
        - (in 2014)
        - U.S. West: 33.4%
        - U.S. East: 25.0%
        - Japan: 16.0%
        - Canada: 7.2%
        - Others: 17.2%

            - U.S.'s share of visitor expenditures have consistently declined
                - U.S. West
                    - 2004: 38.0%
                    - 2014: 33.4%
                - U.S. East
                    - 2004: 29.1%
                    - 2014: 25.0%
            - Japan's share of visitor expenditures stayed around 16%
            - Other countries' share of visitor expenditures have increased
                - Canada
                    - 2004: 4.1%
                    - 2014: 7.2%
                - Others
                    - 2004: 10.5%
                    - 2014: 17.2%
        - Defense: 8-10%
            - Hawaii is in a strategic location
                - In the middle of the pacific ocean
            - Hawaii would benefit from the U.S.'s increased focus on the Asia-Pacific region
    - Annual population growth is forecast to grow at **0.77%** annually
        - Population was
            - 1970: 762,920
            - 1980: 967,710
            - 1990: 1,113,491
            - 2000: 1,213,519
            - 2010: 1,363,731
            - 2014: 1,419,562
            - 2040: 1,718,900 (expected)
                - According to forecast by Department of Business, Economic Development and Tourism (BDEDT)
        - Annual growth rate was
            - 1970-1980: 2.41%
            - 1980-1990: 1.41%
            - 1990-2000: 0.86%
            - 2000-2010: 1.17%

            - 2010-2014: 1.01%
            - 2010-2040: 0.77% (expected)
                - According to a forecast by BDEBT
                    - The population of active-duty military personnel decrease gradually from its 2010 level to the 2000-2010 average level
                    - Projected annual population growth rate
                        - Honolulu: 0.4%
                        - Hawaii County: 1.6%
                        - Maui County: 1.4%
                        - Kauai County: 1.1%
                    - Neighbor Island population as % of the state total
                        - 2010: 29.9%
                        - 2040: 36.4%
                    - Assumption
                        - The fertility rate stays at the 2007-2009 level
                        - The survival rate improves
    - Hawaii's GDP growth was in line with U.S. GDP growth
        - Hawaii outperformed the U.S. GDP up until the late 80s[2]
            - Driven by
                - The development of the visitor industry
                - A good amount of growth in military and defense
        - But underperformed in the 90s
            - There was a Japanese capital inflow bubble and burst
            - There was deflation in house price
                - House price index in Hawaii was
                    - 1991: 259.09
                    - 2000: 231.89
                - Consumer price index in Honolulu was
                    - 1991: 148.0
                    - 2000: 176.3
        - Hawaii's GDP/U.S. GDP was stable since 1997
            - 1997: 0.43%
            - 2000: 0.39%
            - 2003: 0.41%
            - 2006: 0.44%

        - 2009: 0.45%
        - 2012: 0.44%
        - 2014: 0.43%
      - Compounding annual growth rate was
        - Since 1997
          - Hawaii: **4.2%**
            - 1997: $37.9 billion
            - 2014: $76.2 billion
          - U.S.: **4.2%**
            - 1997: $8,788 billion
            - 2014: $17,616 billion
        - Since 2000
          - Hawaii: **4.5%**
            - 2000: $164 billion
            - 2014: $284 billion
          - U.S.: **3.78%**
            - 2000: $10,472 billion
            - 2014: $17,616 billion
    - Hawaii's deposit growth is consistent with its GDP growth
      - CAGR of deposits since 1994: **3.9%**
        - 1994: $17.1 billion
        - 2015: $157 billion
      - CAGR of deposits since 2001: **5.3%**
        - Hawaii: 5.3%
          - 2001: $18.6 billion
          - 2015: $157 billion
    - BDEBT forecast Hawaii's real GDP to grow at 1.7% in the 2010-2040 period
      - This can be a conservative estimate
        - BDEBT assumed only 1% tourism growth in real terms
        - Population is expected to grow at 0.77% annually
    - Hawaii's nominal GDP may grow at 3-4%
      - 1-2% real GDP growth
      - 2% inflation
    - Total deposit in Hawaii may grow at 3-4%
- It's hard for BOH to gain market share
    - BOH's market share has been around 31-33% for 20 years
- BOH's past deposit growth was

- 2002-2007: **3.63%** annually
  - 2002: $6,600 million
  - 2007: $7,888 million
- 2007-2015: **6.37%** annually
  - 2007: $7,888 million
  - 2015: $12,925 million
  - Strong growth over this period was driven by
    - Market share gain
      - 2007
        - First Hawaiian Bank: 31%
        - BOH: 28%
        - American Savings Bank (ASB): 17%
        - Central Pacific Financial (CPF): 15%
      - 2015
        - First Hawaiian Bank: 36%
        - BOH: 32%
        - American Savings Bank: 13%
        - Central Pacific Financial: 11%
    - Low interest rates
      - ASB has been losing market share consistently
        - 1994: 21%
        - 1999: 21%
        - 2004: 18%
        - 2009: 15%
        - 2015: 13%
      - CPF market share stayed within 11-15% range
        - Had higher market share when interest rates were high

- **3-4%** long-term growth is a realistic expectation for BOH
  - BOH can make 25% after-tax ROE in a normal year
    - 15% after-tax ROE in a bad year
  - => can return **80-85%** of earnings to shareholders

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[1] "Unidentified Audience Member: What is the sensitivity on the economy in Hawaii relative to the tourism?

Peter Ho, BOH's CEO: Well, you saw up on the slide that **it's 16% of the overall economy, but the estimate is that the multiplier effect to that is significantly greater. So tourism and the related businesses I think I have seen estimates as high as a third of the overall economy pivots with that industry.**" – Merrill Lynch Banking and Financial Service Conference, 11 November 2009

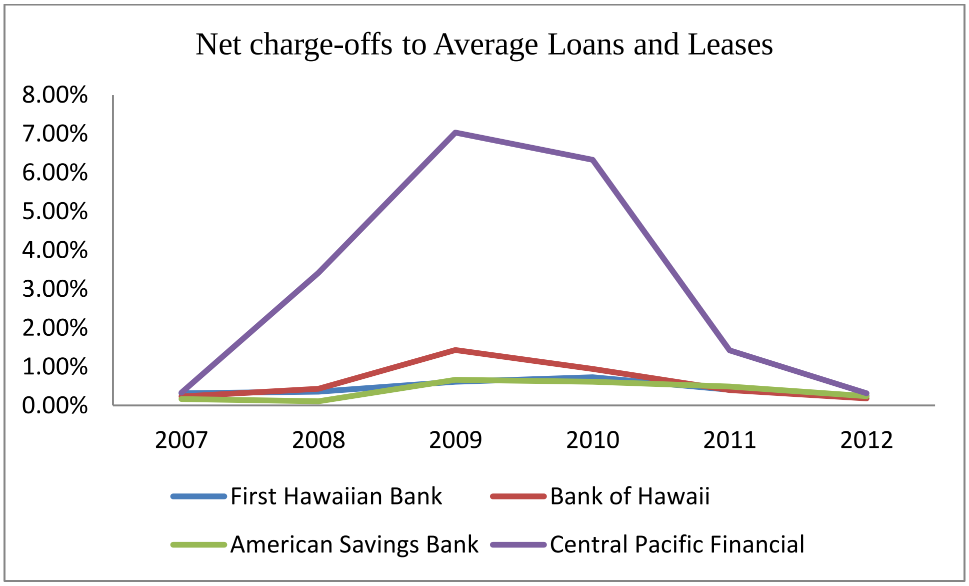
[2] "**So the history, if we go way back, the big macro view is that until the late 80s, the State grew at a premium to gross national product. And that was really driven in part by the development of the visitor industry, which really kicked in in the late 50s, as well as by a good amount of growth in military and defense**. Because Hawaii -- the basic attributes of the marketplace are just an awfully beautiful place, very good hospitality inventory, stock, and a very safe place to be. So on the visitor side that's the case.

On the military side, it's all of that. So it's a pleasant place to be, as well as just an awfully strategic place to be, because we're literally smack in the middle of the Pacific, the number one industrial zone, or economic zone, in the world today, and we're US soil. We're the 50th state.

So up until the 80s, late 80s, growing in excess of GDP. Nineties was a different story; 90s was a retrenchment. There was a Japanese capital inflow bubble that burst, and we had to live through that. And so, 90s was not so good. **But, really, post-9/11 we've continued to grow in excess of national GDP**. And a lot of that is **a resumption of the visitor industry and being perceived as a safe place. And I think a lot of that is built up in military resources, with the global war on terror**." – Peter Ho, BOH's CEO, KBW Boston Regional Bank Conference, 26 February 2014

Misjudgment

Is Bank of Hawaii Less Conservative than Peers?



Bank of Hawaii had higher net charge-offs than First Hawaiian Bank and American Savings Bank in 2009 and 2010

- **Biggest Negative**:
  - BOH had higher net charge-offs than FHB and ASB
- The biggest risk is that BOH expands outside of Hawaii
  - BOH pursued growth outside of Hawaii in the 1980s and 1990s
  - BOH was in[1]
    - California
    - Arizona
    - New York
    - 8 countries across the South Pacific
    - 6 Asian locations
  - BOH faced with virtually no revenue growth in Hawaii[2]
    - BOH entered syndicated lending
    - => Entered syndicated lending
      - Built a $3 billion portfolio at some point
  - BOH bought loans outside of Hawaii[3]
  - Loan losses started increasing
    - Net charge-offs were
      - 1997: 0.34%

        - 1998: 0.70%
        - 1999: 0.78%
        - 2000: 0.94%
        - 2001: 1.57%
  - BOH was the only U.S. bank in 2000 that were trading below book value
  - The current management team has no intention to expand outside of Hawaii
    - BOH hasn't acquired any bank since 2000
      - Despite available opportunities during the Great Recession
    - Current CEO, Peter Ho, is still young
      - Only 50 years old
- BOH has higher net charge-offs than First Hawaiian and American Savings Bank
  - 2007
    - BOH: 0.24%
    - FHB: 0.32%
    - ASB: 0.17%
  - 2008
    - BOH: 0.43%
    - FHB: 0.36%
    - ASB: 0.11%
  - 2009
    - BOH: 1.43%
    - FHB: 0.61%
    - ASB: 0.66%
  - 2010
    - BOH: 0.94%
    - FHB: 0.73%
    - ASB: 0.61%
  - 2011
    - BOH: 0.40%
    - FHB: 0.41%
    - ASB: 0.49%
  - 2012
    - BOH: 0.19%
    - FHB: 0.25%
    - ASB: 0.24%
  - FHB makes much more loans than BOH
    - Both had near 70% Loan to Earning Assets ratio in 2004-2008

        - Since 2010, FSB's Loan to Earning Assets were around 63%
            - BOH's Loan to Earning Assets were less than 50%
        - In 2014
            - FSB had
                - $10 billion loans
                - $5 billion securities
            - BOH had
                - $6.5 billion loans
                - $6.9 billion securities
        - BOH's typical loan mix
            - Commercial loans: 20%
            - Commercial real estate: 20%
            - Residential real estate: 50%
            - Consumer loans: 10%
        - FHB's typical loan mix
            - Commercial loans: 25%
            - Commercial real estate: 23%
            - Residential real estate: 35%
            - Consumer and other loans: 17%
        - FHB does make loans outside of Hawaii[4]
        - FHB relies on time deposits than BOH
        - These signs indicate that BOH is more conservative
            - But the charge-offs numbers say the other way around
    - The big difference between BOH and ASB is in loan mix
        - ASB makes much more residential mortgage loans
            - And less home equity loan
        - In 2007
            - BOH
                - Residential real estate: 38%
                - Home equity: 15%
                - Consumer loan: 11%
                - Commercial real estate: 13%
                - Commercial loan: 23%
            - ASB
                - Residential real estate: 75%
                - Home equity: 5%
                - Consumer loan: 2%

            - Commercial real estate: 7%
            - Commercial loan: 11%
    - BOH's real estate loan had the lowest charge-offs
        - In 2009
            - Commercial mortgage: 0.27%
            - Residential mortgage: 0.29%
            - Home equity: 1.26%
            - C&I: 2.74%
            - Consumer loan: 3.19%
        - In 2010
            - Commercial mortgage: 0.24%
            - Residential mortgage: 0.50%
            - Home equity: 1.56%
            - C&I: 2.49%
            - Consumer loan: 2.60%

- It's surprising that real estate loans are the safest loan category
    - Land is scarce in Hawaii[5]
        - 6,400 square miles of land
            - Only 26% of Oahu is zoned urban
    - House price is very high in Hawaii
        - Median single family home price in Oahu
            - 2006: $640,000
            - 2014: $675,000
        - Starter home in Oahu is about $500,000
        - Median sales price for condominium is $350,000
    - One may expect BOH is vulnerable to real estate bubble
        - Happened in 1980s
            - Home price index more than tripled
                - (Source: Federal Reserve Bank of St. Louis)
                - 1981: 83.95
                - 1991: 259.09
            - Adjusted for inflation, home price index doubled
                - 1981: 51.54
                - 1991: 98.56
        - Then there was home price deflation in 1990s
            - Home price index declined slightly
                - 1991: 259.09

      - 2001: 251.35
    - Adjusted for inflation, home price index declined almost 20%
      - 1991: 98.56
      - 2001: 79.32
  - Home price index more than doubled from 2001 to 2007
    - 2001: 251.35
    - 2007: 534.86
  - Adjusted for inflation, home price index almost double
    - 2001: 79.32
    - 2007: 137.19
- One may expect a deep decline after 2007
  - But home price index bottomed at 442.54
    - Less than 18% decline from the peak
- It's unclear why there wasn't a steeper decline
- Possible explanations
  - Hawaiian banks were conservative
    - Home price increases weren't driven by credit
    - Hawaiian banks didn't make much more residential real estate loan during 2002-2007 period
      - BOH's residential mortgage
        - 2002: $2,334 million
        - 2007: $2,488 million
      - American Savings Bank
        - 2002: $2,347 million
        - 2007: $3,065 million
      - Central Pacific Financial
        - 2004: $711 million
          - (no comparable data for 2002 because CPF merged with CB Bancshares in 2004)
        - 2007: $1,238 million
  - Supply is constrained in Oahu
    - 2 segments for real estate in Hawaii[6]
      - Resort residential market
        - Mainly on the neighbor islands
          - Kauai
          - Maui
          - The Big Island

            - Buyers are out-of-town buyers
                - Second home type buyer
            - There was a good amount of building over the 2003-2007 period
        - Traditional middle-market clientele
            - Predominately on Oahu
            - Predominantly Hawaii-based buyers
                - Supply is constrained by building permits
                - => there wasn't a development bubble
    - Residential real estate price declined from peak to bottom[7]
        - In Oahu: 12%
        - In the neighbor islands: more than 20%
        - Declined more than 20% on the neighbor islands
    - Median single family home price in Oahu bottomed at $580,000-$590,000
- Can BOH gain market share?
    - The top 4 banks hold about 90-92% market share since 1994
    - First Hawaiian Bank has been gaining market share consistently
        - 1994: 28%
        - 1999: 29%
        - 2004: 30%
        - 2009: 32%
        - 2015: 36%
    - American Savings Bank has been losing market share consistently
        - 1994: 21%
        - 1999: 21%
        - 2004: 18%
        - 2009: 15%
        - 2015: 13%
    - Central Pacific Financial market share stayed within 11-15% range
        - Had higher market share when interest rates were high
    - BOH gained market share over the last 10 years
        - BOH's market share was stable about 30-31% from 1994-2003
        - Declined to 27% in 2008
            - BOH tend to pay low rates for interest-bearing deposit[8]
                - Focus on getting core deposits

                - BOH’s weak deposit growth during 2004-2008 was due to higher interest rates
        - Increased market share to 32% in 2015
            - Central Pacific Financial failed
                - This is the only aggressive bank
                - Its market share declined
                    - 2008: 15%
                    - 2015: 11%
- BOH and FHB have significant advantage over ASB and CPF
    - Lower funding cost
    - Lower operating cost
        - About 1% advantage
    - BOH may have chance to gain market share
        - Just like FHB

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[1] “A little bit more background to put our bank in perspective. It's useful, I think, to look back a little bit. In 2000, the Bank of Hawaii was an underperformer. We changed management and changed philosophies. **We were the only bank in the country at that time that was selling below book value**.

So we put together a plan to address that. We realigned our strategy to focus on our core markets in Hawaii and the Pacific islands I mentioned. We look at the attractiveness of the markets and our ability to compete in those markets as the selection points for where we want to do business.

We also changed our culture of risk and capital management to focus on a far more disciplined approach to credit risk and other risks, be very thrifty in the use of capital and return it where we can't deploy it effectively, and to focus on efficiency.

The chart we have got up now shows our operating performance for the period 2001 through '03. This included a period of divesting unproductive assets. **We were in California, Arizona, New York, eight countries across the South Pacific, and six Asian locations that we said goodbye to during that period of time. Shrunk our balance sheet from 15 billion down to 9 billion in assets**. And you can see improved our earnings per share -- our growth rate was nearly 20% during that three-year period. And turned around our anemic equity return, which was 8.8% in 2001, getting it up to at least in average of 15%, and, importantly for us, turning into positive operating leverage.” – Allan Landon, BOH’s former CEO, Lehman Brothers Global Financial Services Conference, 12 September 2007

[2] “The company's recent credit problems have been a disappointment to investors, particularly in light of the progress Bank of Hawaii appeared to be making with a cost-saving and revenue enhancement program that will have been Mr. Johnson's last major initiative.

When asked whether, if he had to do it all over again, he would **push the bank to enter syndicated lending**, a business that caused credit blips at many large banks last quarter, Mr. Johnson suggested that **the bank did not have that much of a choice. "We were faced with virtually no revenue growth from our primary market, Hawaii**," he said. This pressure caused the bank to take advantage of opportunities that included "a degree of risk that was unacceptable," he said.

But the choice was clear. **"If we hadn't done that, we probably would have been acquired."**” – Bank of Hawaii Chairman to Quit, True to His Word, Laura Mandaro, American Banker, 23 August 2000

[3] “**Our credit philosophy is to stay within our marke**t. I think to understand a little bit about what's important credit to Bank of Hawaii and why we might approach this a little bit differently would be good to return just briefly in history -- **in 2000, when Cindy and I and a number of the management joined the bank, the Bank of Hawaii was suffering from some pretty poor financial performance. In fact, at that time, we were the only bank in the country that was selling for less than book value**, and we embarked on a turnaround program.

The most important and significant part of that turnaround program was the correction of an elevated credit risk. And the point of going into that is that we all remember how hard it is, how it hurts your reputation. We know that you can't defy gravity or the marketplace, but within that you can do better or worse, and we have a team that is focused on, as we say, "**Avoiding the mistakes of the past**."

What happened to us is when we grew beyond our natural markets, we inevitably lost money. When we purchased loans outside of our marketplace, we had a hard time figuring out how to make any profit for our shareholders on that business. When we took large risks, when our portfolio lacked granularity, or when we got into unproven trends -- what do you call them -- sale in, lease out transactions -- silo transactions. We've still got a little bit of that legacy in our portfolio, we're pretty well reserved for it, but building those reserves was pretty painful.

So making sure we stay with proven products, making sure we have appropriate underwriting standards and monitoring processes are an important part of our credit culture and avoiding what we call the mistakes of the past." – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 27 February 2008

[4] "Harrison acknowledges that First Hawaiian does, indeed, have clients on the mainland. "**Do we do anything in France or in Europe? No. Do we have some stuff on the mainland? The answer is yes**. We do some loans for customers that are here and have operations on the mainland and for some of the big national chains that have business here in Hawaii. **But if you look at the growth in our commercial loan portfolio over the last several years, the vast majority of that was right here in Hawaii." Even in 2012, he says, most of that 31 percent growth was local business**." – *First Hawaiian Bank and Bank of Hawaii Share More Differences than Similarities*, Dennis Hollier, Hawaii Business, August 2013

[5] "I should make one other point, and that is, share with you something that you already know, and that is that **Hawaii is a very small place, 6,400 square miles of land, made even smaller by a number of attributes, the topography of the location, as well as the fact that much of the ocean-front land in Hawaii is either conservation or owned privately by large landed estates**.

…

I talked about real estate being scarce in the Islands. Here, this chart here, gives you a sense for just how much scarcity of real estate there is. Well, if **you look at the red zones in here, that represents all of the urban zone land in the State of Hawaii**. So if you take an already confined location like Hawaii, and apply the zoning that's been put in place what **you end up with is an acreage of about 26% available for development.**" – Peter Ho, BOH's CEO, Morgan Stanley Financials Conference, 11 June 2013

[6] "**For us it's really two segments for the state of Hawaii. The resort residential market, which exists predominantly on the neighbor islands so that would be Kauai, Maui, and the Big Island**, has been challenged probably similar to what you see in other Western markets on mainland US. **That buyer is predominantly an out-of-town buyer, a second home type buyer. In that area there was a good amount of building over the past five-plus years**.

The other segment is what we would consider to be the more traditional middle-market clientele, predominately on Oahu, predominantly Hawaii-based buyers. In that segment prices have remained reasonably stable, down call it single digits, because **there simply wasn't the availability of inventory over this last cycle to create any kind of supply bubble**. So it really depends on which market you are talking about.

For the Bank of Hawaii the predominant marketplace that we play in is in the kind of nuts and bolts basic Oahu residential home buyer. We have a small exposure on the commercial construction lending sign on the neighbor islands to those resort developments and a small exposure on the residential mortgage side to that product as well." – Peter Ho, BOH's CEO, Merrill Lynch Banking and Financial Service Conference, 11 November 2009

[7] "**On balance, residences in Hawaii, Oahu is where most of the people are, 70% of the people are there and 12% has been peak to bottom the depreciation in residential real estate**. **On the neighbor islands, where the population is smaller**, we have a larger percentage that have been impacted by investors. And so **we have a larger depreciation percentage there in excess of 20%.**" – Allan Landon, BOH's Former CEO, Macquarie Securities Small- and Mid-Cap Conference, 15 June 2010

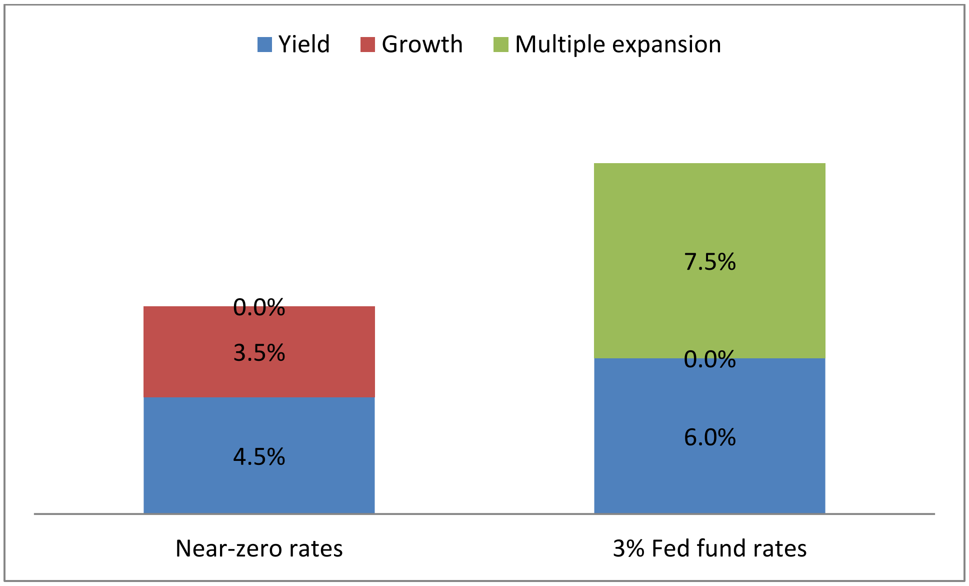
[8] "**We've got the lowest cost of deposits in Hawaii right now, owing in large part to a significant amount of transaction accounts, demand deposit accounts, non-interest bearing accounts, as well as our position as sort of the pricing leader. So we are the low rate deposit institution. We emphasize service over rate**.

Our focus on growth is going to be to continue to concentrate on savings and demand deposits. What I'll call transaction accounts rather than time accounts. We're going to see a natural migration. We've built, like most other banks, a customer self-selection model that allows customers to move pretty fluidly into time deposits. Those have value to us compared to our other sources of funding, but not as significant a value as our traditional savings and demand deposit accounts.

So with our delivery channel, **we're going to continue to emphasize that focus on growing demand and savings accounts, use time deposits then as sort of the balancing mechanism between our transaction deposit funding base and our wholesale deposit base, or our wholesale funding base**." – Allan Landon, BOH's former CEO, KBW Regional Bank Conference, 28 February 2007

Future

Bank of Hawaii Can Give Good Return on Investment in all interest rates scenarios



Bank of Hawaii promises potential return of 8% to 13.5% over the next 5 years

- **Biggest Negative**:
  - Interest rates may stay low longer than expected

- Expectation for the next 5 years
  - BOH will stay within Hawaii
    - And maintain a wide moat
  - Demand for loan will increase
    - Securities portfolio is still 43% of earning assets
    - BOH's yield on earning asset will improve as it makes more loans
  - BOH will have lower growth than other banks that we analyzed
  - BOH will return all excess cash to shareholders
    - There would be no change in leverage
    - Tangible common equity to asset is now 7.03%
      - BOH's normal level is 7%

- if Federal fund rates is **3%** in 2021
  - BOH's total deposit may not grow
    - Similar to the 2004-2008 period
      - Total deposit

            - 2004: $7,422 million
            - 2008: $7,851 million
        - Noninterest-bearing deposit
            - 2004: $1,929 million
            - 2008: $1,742 million
        - Interest-bearing deposit
            - 2004: $5,493 million
            - 2008: $6,110 million

  - BOH can return 100% of its earnings
    - Current price is about
      - 18x current earnings
        - 5.5% yield
      - 11.6x normal earnings
        - 8.6% yield
    - Earnings will improve as interest rates increase
    - => yield on cash distribution will improve from 5.5%
    - Let's assume it add **6%** to total return

  - BOH can make $389 million EBT
    - At 15x P/E, share price will be $97.15
      - (before the impact of share buyback)
    - The appreciation in share price creates **7.4%** annual return
      - From current price of $68 per share
  - => total return is **13.4%** over the next 5 years

- If Federal fund rates stay near zero for the next 5 years
  - BOH's total deposit will growth about 3-4%
    - In line with Hawaii's nominal GDP growth
    - Or BOH can grow faster if it can gain market share
      - Like it did since 2008
        - Annual deposit growth was 7.4%
          - 2008: $7,851 million
          - 2015: $12,925 million
  - BOH can return 80-85% of earnings while growing 3-4%
    - Current price is 18x current earnings
      - Implies yield con cash distribution between **4.4%** and **4.7%**

- Multiple may not shrink
  - If FFR stay near zero, 18 P/E isn't a high price
- Adding 3-4% growth => total return is between 7.4% and 8.7%

- Conclusion
  - BOH isn't as attract as Frost at current price
  - But BOH has the widest moat