

## Bank of America – A Coiled Spring

June 2016

Bank of America is a coiled spring of profitability and value creation with a stock price poised to more than double in the coming years. So what has caused today’s extreme pessimism, with the company trading for a fraction of book value and even well below tangible book value? And what are the sources of our long term optimism?

Bank of America has been wracked with subpar profitability, declining revenues and bloated expenses since the financial crisis. In fact, they have charged off over \$200 billion in the last six years from crisis related legacy costs. But even against these massive charge offs, they have still grown tangible book value per share by 40% over those six years portending much stronger value creation now that headwinds are abating.



These crisis era losses along with the revenue pressures associated with persistently low interest rates have caused tremendous investor fatigue and blinded many to the earnings power that exists within the company. Investor apathy has also blinded many to the remarkable changes in its business and balance sheet which have dramatically enhanced the strength and durability of the company, while significantly reducing its risk profile.

Before diving deeper into the earnings power of Bank of America, consider the scale of change in the capital and liquidity levels at the bank. Capital levels have more than doubled as a percentage of assets since before the crisis and liquidity now stands above \$525 billion, which is 25% of total assets. These historically high levels of both capital and liquidity serve as a strong foundation and allow for the bank to withstand even the most severe economic crises.

It is also crucial to recognize the health and durability of the banking system beyond just Bank of America. As the crisis laid bare, problems in one institution can quickly infect others. But the story of Bank of America has played itself out across the banking system. Capital levels system wide are at their highest levels since the 1930s. And system wide liquidity is at levels never seen before. One data point highlights the massive change in liquidity across the financial system. First, note that large banks hold much of their cash at the Fed. Before the crisis, the banking system as a whole would hold about \$50 billion in cash on deposit at the Fed on any given day. Today, the banking system holds roughly \$2.5 trillion on deposit at the Fed on any given day. That is an astonishing high level of liquidity and a sea change from before the crisis. Additionally, there is essentially no short term wholesale funding in the banking system today, a dramatic departure from a very risky form of financing.

To further solidify their strong foundations, all the major banks including Bank of America have simplified their businesses with a return to the more traditional forms of banking moving away from much of the risky activities and financings that contributed to the crisis.

Each year the Fed conducts an annual stress putting the large banks through a hypothetical multi year economic crisis to ensure they have sufficient capital and liquidity to withstand such an event. The tests are draconian to say the least and much worse than our recent crisis including GDP declines above 6%, unemployment above 10%, home price declines in excess of 25% and stock market declines approaching 60%, amongst other factors. Impressively, Bank of America has capital that covers more than 8x its annualized losses in such a depression-like economic environment.

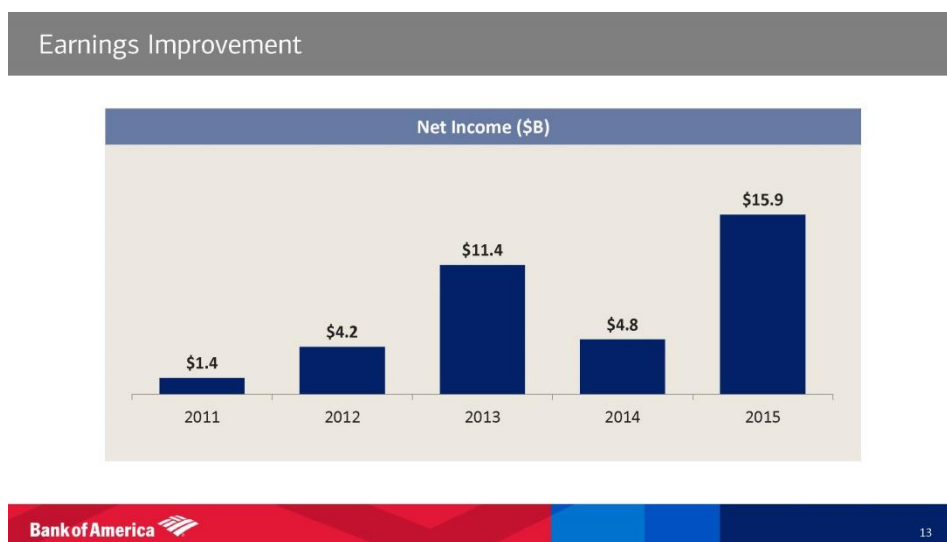
Capital Covers More Than 8x Annualized Stressed CCAR Losses <sup>1</sup>



It is hard to overstate how much stronger and more durable the banking system and Bank of America have become since the crisis.

So let's now consider the earnings power of Bank of America. To begin, the company's medium term target of a 1% return on assets which corresponds to a 12% return on tangible common equity would yield roughly \$2 per share of earnings. A historically reasonable 12x multiple of this \$2 per share would yield a share price of roughly \$24, well above current levels of \$13. But this is really just the beginning of the bank returning to more normalized earnings and normalized valuations.

It is constructive to think about how far Bank of America has gone just getting to its still subpar results in 2015. Earnings have been low and erratic in recent years which have certainly contributed to investor fatigue and frustration, but we can start to see the early green shoots of normalization in 2015. Much of the earnings pain has come from the crisis era charges we discussed earlier and those charges are now largely behind the company which will enable more of its earnings power to shine through.

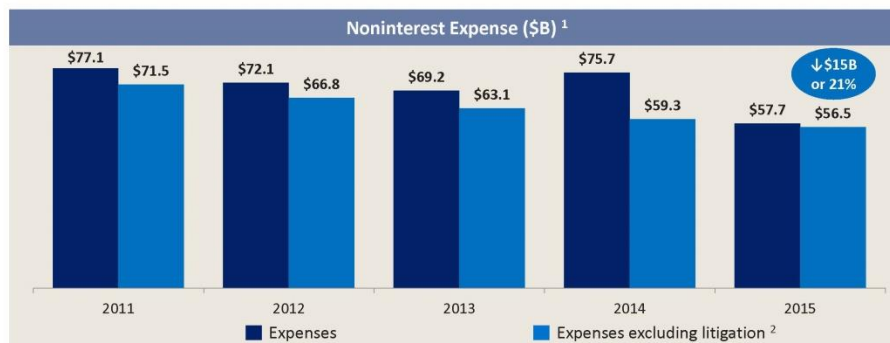


The company has also experienced revenue pressures from persistently low interest rates and a generally anemic banking environment, which has further contributed to frustratingly low earnings. Roughly half of the bank's revenue comes from net interest income which is the spread between what they pay for deposits and other funding sources and what they charge borrowers. Net interest income has consistently declined in recent years both from low rates and a repositioning of the balance sheet towards more cash and short term, liquid investments. This repositioning reduces the company's risk profile while also providing for much higher revenue as interest rates rise to more normal levels, with the greatest impact coming from increases in at the shorter end of the rate structure.

Against all these revenue pressures, Bank of America has been hard at work drastically reducing its expense base which positions the company as a coiled spring of profitability as it returns to revenue growth. The company has already taken over \$15 billion in costs out of the business in the last four years with more to come. There is tremendous and largely underappreciated operating leverage inside the bank and this will become clearly evident as the

smaller base of operating expenses and higher revenue lead to much great earnings power than what is being shown today.

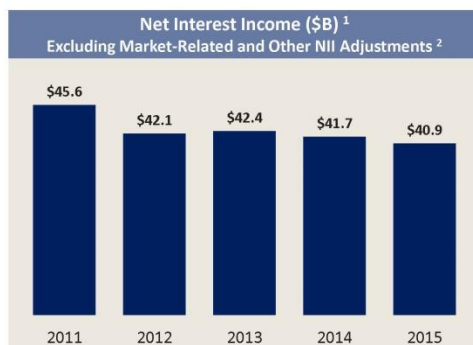
### Significant Progress in Reducing Expenses



<sup>1</sup> Excludes goodwill impairment of \$3.2B in 2011, which represents a non-GAAP financial measure. Reported noninterest expense was \$80.3B in 2011. For important presentation information, see slide 47.  
<sup>2</sup> Represents a non-GAAP financial measure. Litigation includes the \$1.1B provision for the Independent Foreclosure Review (IFR) acceleration agreement in 4Q12.

As just one example of the bank's operating leverage, a 100 basis point parallel shift in the interest rate yield curve would yield incremental net interest income of \$6 billion in the first 12 months alone, with greater impacts thereafter. This incremental revenue carries essentially no incremental costs other than taxes so roughly \$4 billion would fall to the bottom line.

### Low Interest Rates Weighing on Revenue, Positioned to Benefit as Rates Rise



- NII impacted by lower rates and balance sheet transformation
- Well positioned for NII to benefit as rates move higher
- +100 bps parallel shift in interest rate yield curve is estimated to benefit NII by \$6.0B over the next 12 months as of 1Q16 <sup>3</sup>

<sup>1</sup> FTE basis. Reported NII was \$44.6B, \$40.7B, \$42.3B, \$39.8B and \$39.1B for 2011, 2012, 2013, 2014 and 2015, respectively.  
<sup>2</sup> Adjusted to exclude market-related and other NII adjustments (see note A slide 45), which represents a non-GAAP financial measure. For important presentation information, see slide 47.  
<sup>3</sup> NII asset sensitivity excludes the impact of trading-related activities.

But a rise in rates is not needed for the investment to work. Bank of America today trades for roughly 60% of book value whereas through time banks have often traded for as much as 2x book value. While higher levels of capital and liquidity will bring down returns from pre crisis levels, a multiple of 1.5x book value is more than reasonable as earnings return to more normal levels. It should also be noted Bank of America today trades below even tangible book value. And both book value and tangible book value have grown in the recent challenging years and these sources of underlying value are poised to grow even faster moving forward.

While we believe more is possible, if we just assume Bank of America grows tangible book value per share at the same 8% it did in 2015 we can see tangible book value per share approaching \$20 at the end of 2018. Applying a medium term target return of 12% would bring earnings of \$2.40 and a 12x multiple would yield a share price of roughly \$29. But if rates rise modestly and the economic environment continues to slowly improve, it is not at all unreasonable to consider a 14% return on tangible equity. This is still well below historic levels and on par with what some of Bank of America's large bank brethren are posting today. This would yield 2018 earnings of \$2.80 per share and that same 12x multiple would bring a share price just over \$33. This \$33 stock price would also correspond to about 1.6x tangible book value per share, again below historic levels.

With Bank of America trading near \$13 and value in the coming years exceeding \$30 it is clear that substantial upside exists with our investment in Bank of America. More importantly however, we are investing with incredible margins of safety paying fractions of book value for a business set upon an incredibly strong and durable balance sheet.

Now, lets be sure we do not lose the forest for the trees. Bank of America has one of the largest and lowest cost deposit franchises in the world and a low cost deposit franchise is a clear differentiator in banking and lending over the long term. Bank of America has global scale and global reach. Bank of America has dominant franchises in Merrill Lynch and US Trust. Bank of America has an undeniably strong balance sheet with much more earnings power in front of it than behind it. And we are buying this coiled spring for fractions of book value.

Many investors have continued to avoid the large money center banks and their valuations reflect such avoidance, with Bank of America even more so than the others. Do these low valuations reflect the turbulences of yesterday, or tomorrow? I would argue rear view mirror assessment on the headline inducing challenges facing Bank of America is too prevalent and does not properly account for the earnings power of the franchise.

### **Who's Playing the Long Game?**

What dynamics can give rise to the above average return potential we see? Our driving advantage is an ability to look years rather than quarters into the future. Many view the banks as stuck in a low activity, hyper regulated, hyper litigated, ultra-low rate environment. And while that certainly holds true today, we must ask what the longer term holds. Is it reasonable to assume when thinking out three to five years or even longer that many of the headwinds in the business will abate and that there may actually be tailwinds in parts of the business? Will the banking business be forever stuck in low gear?

Most choose not to look this far forward and remain stuck in what the business has been in recent years since the financial crisis. This creates our opportunity.

I do not expect a return to the 30+% returns on equity that were generated by many large financial institutions but I also find it reasonable to consider that the management teams and shareholders will demand higher levels of returns than are being posted today. An improving

environment may come to the collective aid and forestall dramatic changes to the business, but over time, shareholders will demand appropriate levels of return so either the environment or the business will have to change.

What remains in any range of scenarios is a foundation of value in a strong deposit franchise that generates ultra-low cost and highly competitive funding (a must for long term success in the banking business), substantially higher levels of capital and liquidity and franchises that have historically proven to generate substantial earnings. It is impossible to know when those factors will coalesce into higher stock prices but I don't find it reasonable to believe that Bank of America will trade substantially below book value forever. It does however take a willingness to look beyond the next few quarters to see this greater value.

There are many paths to determining a fair price for Bank of America and none can be done with perfect precision so we will speak to a number of different methods and outcomes. But all of the valuation scenarios allow for a wide margin of safety with significant upside given today's \$13 price.

And while Bank of America has significant earnings power, those earnings will be lumpy and thus difficult for more short sighted investors. For those with a long term perspective however, the opportunity to buy Bank of America at today's prices remains highly compelling.

**Bank of America: World Class Franchise. Significantly Discounted Valuation.**

**Seeking Understanding Through the Noise:**  
**Our Defining Characteristics**

- ***Perspective*** that moves past the noise of the day
- ***Patience*** to think and invest with a long horizon
- ***Temperament*** to withstand emotions and volatility
- ***Passion*** for deep intensive research
- ***Conviction*** to our best ideas

## What Matters in Banking?

While there are countless variables in the banking business, we will touch on a few that will have outsized impact in long term value creation: deposits, scale, reach and diversity. We will also touch on the recurring aspect of most bank revenues which provides underappreciated stability in revenues while also discussing the sea change in capital and liquidity levels throughout the banking system which now provide an undeniably strong foundation to invest upon. We will also touch on a couple risks to pay particular attention to in this low rate, low growth environment.

### Deposits

Deposits are a key fuel source for value creation in banking.

Deposits show up, appropriately, on the liability side of a bank's balance sheet. In contrast to their accounting however, the business reality is that a low cost deposit franchise is a bank's single greatest asset, not a liability. It is a liability in the accounting sense but a tremendous asset when it comes to franchise value.

The cost and stability of funding is the most significant long run differentiator in the banking business. No other funding source comes close to the long run advantages of having a low cost and stable deposit franchise. It is often stated (most recently in a Wall Street Journal article about Goldman Sachs' new forays into traditional banking) that online lenders "can" give consumers higher deposit rates because they lack the costs associated with a branch banking system. This is a total misrepresentation of what it means to have a high cost versus a low cost deposit franchise. Those that provide higher deposit rates do so because *they have to* in order to attract deposits. High deposit rates are a sign of deposit franchise weakness, not strength. And being able to attract and grow deposits while paying essentially nothing is a sign of great franchise strength.

Using Bank of America as an example, their deposits have increased *\$225 billion*, or 23%, since 2009. That growth in deposits alone would have been the seventh largest deposit franchise in the United States. And even more importantly, all those deposits have been attracted while the cost of those deposits have come down to just 0.07%, a sure sign of the deposit gathering strength of Bank of America. Similar stories could be told for JP Morgan and Wells Fargo, two other large banks with best in class deposit franchises that have grown dramatically in recent years even while offering less to attract such deposits.

In a world of near zero interest rates, the value of best in class deposit franchises is not "seen" in reported results or bank valuations. With rates low across the spectrum and financing markets highly accommodative, investors are blinded to the intrinsic value of strong deposit franchises. But just because their value is not "seen" today does not mean that the value is not

there. There is substantial long term intrinsic value in the best deposit franchises and, in time, this value will regain appearance in the minds of investors.

## **Scale**

Scale brings significant unit cost advantages to banking. Scale brings the resources needed to fully accommodate the costs and complexities of technological and regulatory change. And regulation, over the long run, tends to favor scale and incumbency, even if that is the opposite of its original intent. By elevating the basic cost structure needed to operate and compete, regulation creates wider barriers to entry.

Who today can either start from scratch or combine existing businesses to form a new national or global banking giant? I would argue this cannot and will not happen for the foreseeable future. The largest franchises operating globally, even nationally, are protected by collective aversion to any new forms of bigness. In fact, the universe of globally capable banking franchises keeps getting smaller year by year. Formerly global giants are retracting towards home and pulling back from many of the products and services needed to fully satisfy a large multinational client. The universe of banks able to service global businesses across products and services has shrunk to a very small number creating a distinct long term advantage for those who remain.

It is also increasingly costly to be relevant to consumers and corporate clients, particularly from a technology perspective. The cost to compete for ease of use when it comes to consumer or commercial banking has risen dramatically in recent years. Consumers demand seamless technology that allows for in branch and branchless banking including full mobile banking services such as deposits and money transfers. Corporate technological demands are even greater. Only the largest banks have the scale and resources to drive better banking experience through technology. It is no accident that the largest banks have grown in size and market share in recent years. They have the scale and resources to meet experience expectations while doing so with unit costs that do not forsake profitability.

And we must not forget that the importance of scale must rest on a foundation of low cost deposits. It matters who holds the money. And holding money via deposits provides the lowest cost, most stable form of funding, which ultimately is the great differentiator in banking. Much of the rest including technological and business process advances can be replicated by those with sufficient scale and resources, but it is nearly impossible to recreate a best in class deposit franchise.

## **Reach**

As economies and businesses continue to globalize, there will be increasing competitive advantages to offering a full suite of products, services and geographies served.



If a multinational company wants to move money, store money, raise capital, manage risk and execute M&A across every major market in the world in every major currency around the world and wants to do it all with one bank, there are less than a handful of financial institutions that can serve those needs. Having that full suite of capabilities has become a distinct competitive advantage even if the subpar banking environment blinds us to that substantial underlying value. The universe of banks that can fully service those multinational clients has shrunk significantly since the crisis and continues to shrink as more and more global banks further retrench from certain products, services and geographies. The powerful competitive positioning of those who have maintained and grown their franchise is not readily apparent today given headwinds faced in the banking business but the power of these globally dominant franchises will ultimately shine through.

Now consider the small to midsized manufacturer who has a lending need. It would not be uncommon for as many as twenty lenders to be able to service that business ranging from a one branch community bank all the way to the local branch of a large money center bank with every iteration in between including credit unions, local banks and regional banks. Many bank executives have gone on record to say that a middle market loan is not a profitable loan unless it is packaged with a range of other services a customer may need. Part of the lack of attractiveness in that market stems from the low level of interest rates but much of the challenge also lies in the enormous number of potential lenders vying for a largely commoditized loan. To earn proper returns, a full suite of products and services must be provided to the middle market. And in much the same way, a retail consumer is much more profitable and also more likely to remain a client when an institution serves their checking account, savings account, credit cards, mortgage, investment advisory and maybe even their small business banking needs.

Great reach and scale bring the resources needed to stay at the forefront of bringing to bear all the technology and services small and large customers will increasingly demand. How can a one branch bank or even a large local bank keep pace over the longer term with the scale of dollars being spent on payments technologies, new state of the art ATMs, mobile banking, mobile deposits, digital banking, increased cybersecurity, increased controls, branch refurbishing, and all the new offerings that we have not even considered today? Scale matters for cost competitiveness and for keeping pace with business, technological and regulatory change. And a full breadth of products, services and geographies brings further competitive advantages in a world where many financial institutions are pulling back.

## **Diversity**

Large banks are more diverse and more stable than appreciated.

An underappreciated benefit to a global banking business is the diversification that comes from providing a wide range of products and services to a wide range of customers and industries across a broad dispersion of geographies. A large money center bank should not carry undue exposure to any one industry or to any one geography. Large, deposit based franchises are better able to withstand geographic or industry specific challenges than those lenders with

outsized concentration towards a city, town, state or region or any particular industry that will inevitably face their own economic cycle. Large banks also have exposure to a wide range of fee based businesses that ebb and flow at different times, and much of this fee based revenue is recurring in nature.

### **Stable, Recurring Revenues**

Large bank revenues are more diverse and more stable than appreciated.

JP Morgan detailed an analysis of its fee based revenues in recent years showing how remarkably stable this more “volatile” half of its revenue has been. The net interest income half of their business has long been thought of, correctly, as very stable. But there is underappreciated stability in the fee based revenue streams that are often thought of as highly volatile. The Q&A portion of any large bank earnings call or conference presentation always runs into an often market moving discussion about the quarter’s trading revenue. There is an unhealthy obsession with FICC trading revenue that stands in contrast to the generally stable results of fee revenue in aggregate.

The large amount of fee based revenue (roughly 50% of revenue on average) adds to the stability of both revenue and underlying returns for the large banks. These fees include account fees, lending and deposit fees, credit card fees, treasury management fees, asset management fees, mortgage fees, investment banking fees, and trading revenue amongst many other fee sources. This inherent stability has been masked by the significant legal and crisis era charges that have marred banking results in recent years but will be increasingly apparent as results normalize.

### **Capital and Liquidity**

As described above, it is hard to understate the dramatic change that has occurred with bank balance sheets. Capital levels are at their highest levels since the 1930s and liquidity levels are at levels never seen before.

These substantially higher levels of capital and liquidity across the banking system create a strong foundation for investment and provide a wide margin of safety against the inevitable unforeseen economic and financial disruptions.

In many cases, liquid assets comprise as much of 25% of total assets. Combining these enormous levels of liquidity with essentially no short term wholesale funding removes much of the shorter term liquidity risk that caused much of the initial disruptions of the financial crisis. We have moved from a system that required new funding nearly every single night to a system where the banking system has sufficient liquidity to last for years without any new funding.

It is hard to overstate how much more durable the large banks and the banking system have become in recent years.

## **Asset Sensitivity**

The low rate environment has caused tremendous challenges for all banks. Revenue, earnings and returns have been under constant pressure from prevailing low rates.

The important question at this point is how has each individual bank reacted to these pressures? Have they extended duration risk in order to increase earnings or have they maintained asset sensitivity so as to not take undue interest rate risk? From our perspective, the only course of action is to lessen the risk to rising rates even while that hampers earnings and returns in the present.

Most banks report their asset sensitivity on a quarterly basis and, while overly simplified and laden with assumptions, these disclosures present important information about the tolerance for interest rate risk. We, as long term investors, are willing to endure lesser results today in order to reduce generationally high interest rate risk while also being positioned for much stronger results as rates begin to normalize. In just one example, Bank of America's net interest income would increase by \$6 billion if rates across the curve were to increase by 100 basis points, with most of that positive impact coming from the short end of the curve. This incremental net interest income carries essentially no incremental cost other than taxes, providing an example of the significant operating leverage that exists inside most banks. As our title implies, Bank of America is a coiled spring of profitability for those willing to take a longer term perspective.

## **Credit Box**

The highly challenging banking environment has caused many lenders to reach for yield by adding duration creating risk described in the Asset Sensitivity section. But lenders have also reached for yield and growth by expanding their credit box, or the credit parameters and risks they are willing to take in making new loans.

A tough interest rate, banking and general economic environment has created pressure to find growth and earnings. The best course of action however is to accept the environment for what it is, recognizing the lower level of earnings that implies. It is far better to not reach for greater earnings by putting the institution at significant duration and/or credit risk.

Shareholder pressure is strong so it is imperative to carry heightened sensitivity to these risks given the difficult environment by monitoring credit disclosures throughout company filings and executive presentations. It is particularly important to be mindful of those lenders that are not heavily scrutinized by strong third party groups, including regulators. In a low rate, low growth world it is those banks posting superior growth that should raise alarm bells.

## The Business of Bank of America

Bank of America is one of the leading global financial services firms with businesses including Consumer and Business Banking, Global Wealth and Investment Management, Global Banking, Global Markets and Consumer Real Estate Services. Bank of America has been a large holding since URI Capital Partners opened in August 2012 and continues to be a large holding today. Bank of America has risen in price from around \$8 at our initial purchase to roughly \$13 today.

As described earlier, at medium term target return levels, Bank of America has near term earnings power of \$2 per share which, at a 12x valuation, would yield a share price of \$24. This current estimate of intrinsic value is markedly higher than the current share price and provides strong return potential with a wide margin of safety.

Historically high levels of capital and liquidity add further to our margin of safety. It is important not just to create value through the earnings power of the franchise but also to protect the franchise with strong levels of capital and liquidity. The balance sheet of Bank of America has undergone a radical transformation since its acquisition of Merrill Lynch. Since that acquisition, the bank's liquidity has more than doubled to \$525 billion while the total value of the balance sheet has shrunk from \$2.7 trillion to \$2.2 trillion. Also since the acquisition, tangible common equity has more than doubled from \$70 billion to \$167 billion. These substantially bolstered levels of capital and liquidity serve to protect the Bank of America franchise.

This summary also describes tangible book value per share approaching \$20 by 2018 (roughly 8% annualized growth). The Company's medium term return targets of a 1% return on assets equates to a return on tangible equity around 12%. Moving towards 2018 and making a few reasonable assumptions shared by management, we can see returns on tangible equity moving to 14%. This would imply 2018 earnings power of \$2.75. Valuing 2018 earnings power at 12x which would yield a share price of \$33. Thought of in a different way, it is not out of line with historic norms for a bank to trade at or above 2x tangible book value which would imply a share price above \$39 in 2018.

*Note: It is actually not out of line for banks to trade at or above 2x book value rather than tangible book value. In fact, Bank of America's average price to book value from 1996 to 2007 (12 years before the financial crisis) was roughly 2.2x. We however will discuss tangible book most often for purposes of conservatism.*

*Part of the reason to use tangible book for purposes of valuation today beyond conservatism is that current regulatory constraints on leverage, and thus the ability to generate higher returns on equity, are tied to measures more closely aligned with tangible book value.*

For now, and with the above metrics in mind, let's use \$33 as our 2019 target valuation. With the stock recently trading around \$13, a medium term valuation of \$33 allows for a more than doubling of your money over the next three years.

Most of the major banks, including Bank of America, remain much maligned by the investing public thus allowing for the possibility of these strong future returns.

### **How is Value Created?**

There are two primary sources of revenue for Bank of America: fee income and net interest income. Fee income includes lending and deposit related fees, investment banking fees, asset management fees, card fees and market making fees, amongst others. Net interest income is simply the spread revenue generated from lending money at higher rates than what BAC pays for that money (largely in the form of deposits but also short and longer term borrowings and equity capital). Net interest income (traditional banking) comprised roughly 48% of total revenue in 2015 while fee income represented the other 52% (by way of comparison, in 2015 Wells Fargo's net interest income was 53% of revenue while fee income was 47% of revenue).

Bank of America operates across five main businesses: Consumer and Business Banking, Global Wealth and Investment Management, Global Banking, Global Markets, and Consumer Real Estate Services.

Consumer and Business Banking provides banking, credit and investment products and services to consumers and small and medium sized businesses. In more general terms, this is your neighborhood bank with a national footprint. Global Wealth and Investment Management predominately comprises the Merrill Lynch Global Wealth Management and US Trust businesses, both first class advisory and wealth management businesses. Global Banking provides a global platform of banking and investment banking services to large multinational firms. Global Markets provides sales and trading services to institutional clients across all asset classes. Consumer Real Estate Services comprises the mortgage related businesses of the bank including mortgage servicing and legacy exposures.

### **How is Value Protected?**

Beyond an ability to generate earnings, a bank must protect its franchise from unforeseen events. Strong capital and liquidity serve to protect a bank in difficult times.

The capital and liquidity levels of the broader financial system certainly did not allow for prudent risk management leading up to the financial crisis. And the relative short term rearview of many investors has caused that pain from the crisis to be an ever present dynamic in their views on financial institutions and their value as productive long term investments.

The reality of today however paints a very different picture than those days leading up to the financial crisis. The banking system is better capitalized and more liquid than it has been in the past 60 years. Relating to capital levels, the average amount of equity to assets across the entire banking systems is at the highest levels since the 1930s.

In addition to historically strong capital levels, the banking system is also incredibly liquid. At the end of 2007, the banking system had \$6.7 trillion of deposits, \$6.8 trillion of loans and roughly \$21 billion on deposit at the Fed. Today, the banking system has \$10 trillion of deposits, \$7.6 trillion of loans and \$2.6 *trillion* on deposit at the Fed. Bank balance sheets are incredibly liquid and in many ways substantially underutilized.

While the above figures paint a strong story in regards to the capital levels and liquidity of the banking system, this summary is specifically about Bank of America. The broader banking system remains important however as weaknesses can transmit through the banking system from the bad apples to the good apples in certain adverse circumstances.

Bank of America itself has experienced dramatic growth in its capital levels and liquidity in recent years just as with the banking system broadly. As described earlier, since the acquisition of Merrill Lynch, tangible common equity has more than doubled from \$70 billion to over \$167 billion today while the total balance has shrunk from \$2.7 trillion to \$2.2 trillion over that same period of time.

Additionally, global excess liquidity has roughly doubled since the Merrill Lynch acquisition. The company has \$525 billion in global excess liquidity moving its time to required funding to 36 months. This \$525 *billion* comprises safe and highly liquid assets should the company need cash in a crisis situation while time to required funding indicates the number of months the parent company can continue to meet its unsecured obligations using only its global excess liquidity, without issuing any new debt or accessing any additional liquidity sources. That is an incredibly large amount of liquidity relative to the total size of the balance sheet and, when combined with the higher capital levels of the company, bolsters the fortress balance sheet to withstand times of great financial stress.

While this topic will be covered in greater detail when talking about the earnings power of the business, part of this liquidity is in place to manage the asset sensitivity of the company. The asset base of the company is short in duration so as to not take undue interest rate risk. In fact, the company is positively levered to rising rates and has purposely not taken on as many longer term assets as it would in a more normalized rate environment. Another way of saying the same thing is that Bank of America is intentionally making less money today so as not to be exposed to the risk of higher rates.

In an attempt to measure a bank's ability to withstand severe economic downturns, the Federal Reserve conducts annual stress tests. These tests comprise depression like scenarios (GDP declines over 6%, unemployment above 10%, equity market declines near 60% and home price declines of almost 26%). The Federal Reserve's stress test results were just released and in the dire scenario painted, Bank of America maintained a Basel III Tier I Common Equity Ratio of 7.8% at its minimum point which is well above required minimum ratios. Tier I leverage ratios also exceeded required minimums by a healthy margin in the severely adverse scenario. Additional stress test information is contained in Appendix A.

In short, Bank of America has substantially more capital per dollar of assets along with significant amounts of available liquidity which serve to protect the franchise in even the most

dire scenarios. All of this enhanced capital and liquidity has caused many to believe that the large banks including Bank of America are now too safe to grow in any material way. They would argue they have regulated into utility-like businesses. Such an argument about the enhanced levels of risk management that pervade these companies including Bank of America is entirely correct. The enhanced risk management does not in and of itself preclude growth however. And valuation questions are raised if the large banks are truly becoming more “utility” like.

### **Earnings Power Well Above Current Levels**

It is clear Bank of America’s earnings power is well above current levels. Even against the substantial progress that has been made up to and including in 2015, returns remain far below even highly conservative assessments of normalized returns. Headwinds abound. And while rates are the most significant and most discussed headwind, they are just one of many.

Bank of America earned roughly \$16 billion in 2015, which was a substantial improvement over recent years. This equates to a return on tangible common equity of just over 9%. While moving in the right direction, this is clearly not acceptable in the eyes of management or shareholders.

The Company has a medium term return target of 1% return on assets which corresponds to a roughly 12% return on tangible common equity. This would also equate to the \$2 per share of current earnings power that we have discussed. But even a 12% return on tangible equity is not what we would consider normalized. We can anticipate, as we move closer to a normalized environment, that 14% returns on tangible equity are achievable and, when combined with continued growth in tangible book value per share, will drive higher earnings per share. We should also bear in mind that 14% returns on tangible equity remain well below historic levels (recognizing the substantial increases in capital and liquidity levels) and still below many peers.

The current lower rates of return paint a picture of a very challenging environment for the banking business. There are significant headwinds in nearly all aspects of its business. Think first about their mortgage business. Beyond the legacy issues we have discussed, the mortgage business has been near cyclical lows for some time with the housing market and in particular the home mortgage business still struggling with historically low volumes. The Global Markets business is also operating at cyclically low levels with particular pressure in the trading business.

These however are not nearly the biggest challenge Bank of America and other banks are facing today. As described earlier, roughly half of Bank of America’s revenue comes from net interest income. Generating net interest income is a spread business and the spread of what BAC pays for its money relative to the rate at which it lends (called net interest margin, or NIM for short) is at historic lows. This holds true for all banks; not just Bank of America, but it is certainly painful for Bank of America. With half of their revenue generating subpar returns, it is difficult to post the returns management and investors expect. To paint just one example of how

rates can act like a coiled spring for a bank with a large and strong deposit (ie. low cost) franchise, we can look to their disclosures on their interest rate sensitivity. As of Q1 2016, a 100 basis point parallel shift in the interest rate curve (long and short rates going up by 1%) would yield \$6 billion in additional net interest income. There would be little to no incremental expense associated with this higher level of revenue and thus the after tax benefit would be around \$4 billion. To put such a move in perspective, short rates moving from near zero to around 1% would still leave them well below historic norms. And using the 10 year Treasury as a proxy for longer rates, a move from well below 2% to still well below 3% would still leave long term rates well below historic norms as well.

*Before moving on, I want to talk briefly about the value of strong deposit franchises. Banks funded by low cost deposits have a distinct cost advantage to those institutions funded by other means. Deposits tend to be low cost and very sticky in relation to other short and long term sources of funding. In today's low rate environment, this funding advantage is masked by the relative low cost of funding across the spectrum. As rates rise, the real value of a low cost deposit franchise will shine through. In effect, the most important advantage of successful deposit gathering franchises is covered up or not seen in today's environment. The enduring long term competitive advantage of a strong deposit franchise still exists, even if it cannot be "seen" as well today.*

We can think about the bank's interest rate sensitivity (often called asset sensitivity) in another way. We talked above about the enormous liquidity that Bank of America has built in recent years. Beyond the purpose of providing a buffer against a liquidity crisis, the large amounts of liquidity is also serving to manage the bank's interest rate exposure. Much of the liquidity is low duration and thus earning low rates of return. The bank has intentionally invested in low rates of return to not take the significant risk of loss if and when rates rise from today's historically low levels. They could be investing in longer dated, higher current returning assets but have chosen not to take the associated risk of higher losses with those assets as rates rise. Put more simply, Bank of America is purposefully making less money today by maintaining their strong asset sensitivity.

As this example illustrates, Bank of America is positively levered to higher interest rates. The example also understates the longer term impact of a more normalized rate environment. As mentioned, this 100 basis point parallel shift example still leaves rates well below historic norms. While not discussed as often as with other businesses, there is tremendous operating leverage inside a bank. The vast majority of any revenue benefit resulting from higher rates is likely to fall to the bottom line. It takes just as many bankers to loan money at 4% versus 6%. So an eventual return to more normalized rates should portend substantially higher earnings power and rates of return on equity and tangible equity (we will return to a discussion on returns shortly).

There is also operating leverage in the makeup of the individual business units. The operating leverage of the Global Markets was highlighted on a recent earnings call. As many are aware, the Markets business has been in a slump not just for Bank of America but for the industry in



general. The low levels of sales and trading activity makes it difficult to earn reasonable returns on the unit's allocated capital and adds to the challenges posed by low rates, low mortgage volumes and the generally highly subdued banking environment. As described by Brian Moynihan, the Markets business has a certain level of fixed costs and he detailed that the business can generate quarterly earnings of around \$300 million on \$2.5 billion in quarterly revenue. Beyond \$2.5 billion in revenue the fixed costs have largely been overcome and the incremental cost of revenue is ultimately driven down to about 20% which accounts for the variable compensation costs. While this is obviously an overly simplified version of the business, it paints a clear picture of operating leverage and the dramatically positive results that can come with higher activity levels in the Markets business.

As described in part above, in almost every business line, Bank of America is a coiled spring poised for much greater levels of profitability going forward. Legacy and core expenses have declined dramatically in recent years and will continue to decline as Bank of America remains a self-help story of continued expense reductions as they drive to normalize returns. Often overshadowed by the dramatic overall expense declines from the reduction of crisis related costs, expenses exclusive of litigation and LAS expenses have declined from \$55.8 billion in 2012 to \$52.4 billion in 2015, with more to come in 2016 and beyond.

The challenging banking environment has forced a rethink of their expense base so the bank can return to better rates of return even if the difficult environment continues. In effect, the bank is working on self-help measures not wanting to wait for a return to higher rates, higher markets volumes, higher mortgage volumes and other factors that will ultimately help the bank post higher earnings. While this difficult environment can be frustrating for investors, this time of rationalizing the business will serve long term investors well. There will come a time when the revenue environment for Bank of America improves and the more efficient businesses will be able to post higher returns than if today's challenging environment had not caused a significant rationalization of the underlying expense base. ***Today's belt tightening and tough earnings environment plant the seed for eventual higher levels of profitability.***

To paint the whole picture more succinctly, Bank of America is not firing on any of its cylinders largely due to legacy and environment related factors. And while the same can be said for much of the banking industry, the large legacy issues pervading Bank of America further cloud the underlying earnings power of the franchise.

### **How Should Bank of America Be Valued?**

Part of the challenge in valuing and in some ways understanding Bank of America stems from its breadth of businesses. Is Bank of America a traditional bank? An investment bank? An asset manager? Merrill Lynch Wealth Management? The short answer is all of the above and therein lies part of the complication.

What is a fair multiple or earnings to pay? The multitude of businesses inside Bank of America makes this already difficult question even more difficult than usual. To paint the extremes of its

business from a valuation perspective, we should be willing to pay a much higher multiple of earnings for the recurring and reasonably steady earnings from asset management when compared to the more volatile investment banking business. We must start somewhere however and ascribing a 12x multiple to the entire franchise seems a reasonable start and a discount to historic norms.

Using the 12x multiple of earnings brings a current intrinsic value of \$24 assuming \$2 per share in current normalized earnings and a \$33 share price in 2018 as normalized earnings move to \$2.75 per share.

#### Range of Projected 2018 Per Share Earnings Power

		Assumed Growth in Tangible Book Value Per Share					
		5.0%	6.0%	7.0%	8.0%	9.0%	10.0%
<b>Returns on Tangible Common Equity</b>	<b>12.0%</b>	\$2.10	\$2.19	\$2.27	\$2.36	\$2.44	\$2.54
	<b>13.0%</b>	\$2.28	\$2.37	\$2.46	\$2.55	\$2.65	\$2.75
	<b>14.0%</b>	\$2.46	\$2.55	\$2.65	\$2.75	\$2.85	\$2.96
	<b>15.0%</b>	\$2.63	\$2.73	\$2.84	\$2.94	\$3.06	\$3.17
	<b>16.0%</b>	\$2.81	\$2.91	\$3.03	\$3.14	\$3.26	\$3.38

#### Range of Projected 2018 Per Share Franchise Values

		Projected 2018 Per Share Earnings Power					
		\$ 2.00	\$ 2.25	\$ 2.50	\$ 2.75	\$ 3.00	\$ 3.25
<b>Range of 2018 P/E Multiples</b>	<b>10.0x</b>	\$ 20.00	\$ 22.50	\$ 25.00	\$ 27.50	\$ 30.00	\$ 32.50
	<b>11.0x</b>	\$ 22.00	\$ 24.75	\$ 27.50	\$ 30.25	\$ 33.00	\$ 35.75
	<b>12.0x</b>	\$ 24.00	\$ 27.00	\$ 30.00	\$ 33.00	\$ 36.00	\$ 39.00
	<b>13.0x</b>	\$ 26.00	\$ 29.25	\$ 32.50	\$ 35.75	\$ 39.00	\$ 42.25
	<b>14.0x</b>	\$ 28.00	\$ 31.50	\$ 35.00	\$ 38.50	\$ 42.00	\$ 45.50

Another interesting way to think about Bank of America is as a collection of individually great franchises. The most obvious example is the private wealth and asset management business of Merrill Lynch. There is a Consumer and Business Banking business in addition to the Global Banking and Global Markets businesses. We have talked about a normalized 12x earnings multiple for Bank of America. But when thinking about the individual businesses, several would likely be valued higher on a standalone basis. The most obvious example would be the largely recurring revenue streams from the private wealth and asset management businesses which would likely carry a much higher value than the whole if it was a standalone business. The point is not to create a traditional sum of the parts valuation as there is value in the breadth and scope of what the full Bank of America can offer. It is rather to point that the entirety of the business is not a volatile trading business. In fact, most of the business and revenue streams

would be better described as largely recurring and even mundane. This is not so apparent today with the surrounding clouds of large litigation charges, low rates, increased regulation and mortgage headwinds but these sources of higher value will eventually be seen. And they may be seen when all the earnings headwinds we have discussed have turned to tailwinds.

## **Downside Scenarios**

The most extreme downside scenario for any company but particularly for a leveraged institution is losses that exceed accumulated equity levels causing a permanent loss of capital. While this has occurred for large and small financial institutions (many small lenders, Lehman Brothers, etc.), the conditions leading to those problems are much less prevalent today. Most importantly, the substantially higher levels of both capital and liquidity provide a much wider margin of safety for the business than has existed in the past.

In addition to the much higher levels of capital and liquidity, Bank of America and other large financial institutions are much less reliant on short term funding. Given how problems can quickly move from one institution to another in the financial services industry, the added capital and liquidity and reduction in short term funding on a system wide basis serve to better protect Bank of America along with the financial system more broadly.

Bank of America (and all other large banks and financial institutions) are much more heavily regulated than in recent memory. While this has certainly slowed their path to higher returns, it also serves as another check on overly aggressive behavior. Large banks are incredibly complex and it is impossible for an outsider to know the nuances of each loan that is made but the heightened scrutiny of bank balance sheets and the more conservative lending practices bring greater confidence in the durability of these businesses, including Bank of America.

It is hard to know exactly when Bank of America will return to a more normalized level of earnings relative to the size of its franchises. A much longer path to normalization may be hard for investors to stomach. We however have as much patience as is needed assuming the value of the franchise (as distinct from current reported earnings) continues to expand. So while the long path may not be appropriate for some, the long path works just fine for us.

It is also important to note the share price of Bank of America remains well below book value (\$23.12 per share Q1 2016) and even below tangible book value (\$16.17 per share Q1 2016). These more conservative measures of worth, which for the most part do not account for the enduring value of the company's various franchises, serve as a floor to value.

## **Questions and Risks:**

The questions and risks with a large money center bank can be miles long. In that regard, I would point you to their filings which detail and capture many of the risks inherent in their business (importantly, you should not invest without fully studying their business and SEC filings

including Risk Factors, footnotes, etc.). Interestingly, you can also capture some of the risks in the banks simply by reading the paper as they are often in the headlines for legal issues, regulatory issues, trading losses, and on and on. My more substantive point is that a bank is a highly leveraged business (even if less so today than in recent memory) and thus is much more prone to risk than buying a stable cash generator like a Coca Cola or Proctor and Gamble. Banks require a truly deep dive and a larger margin of safety before investing.

Beyond what is generally discussed above, I do want to point out risks not generally discussed in regards to the large money center banks including Bank of America.

**Cybersecurity Risk:** It is hard to imagine what would happen if we collectively, and the banking system in particular, could not access all the information that is stored electronically. A truly disruptive cyber-attack that would stop banks, companies and individuals from getting their money would create real panic and it is hard to imagine the knock on effects from such an event. We “see” our assets electronically and not being able to “see” them would affect the psyche of the world in untold and unknown ways. Most banks have systems and backups in place but the risk remains. This risk would not be isolated to the banking industry but the long term effects could be enormous.

**Master Netting Agreements:** A master netting agreement is an agreement between two counterparties who have multiple derivative contracts with each other that provides for the net settlements of all contracts, as well as cash collateral, through single payment, in a single currency, in the event of default or termination of any one contract. Bank of America has trillions of dollars of notional derivatives outstanding which get netted down through master netting agreements and collateral agreements. The netting and collateral agreements help manage the notional derivative exposure in a significant manner but such agreements have not been materially tested in times of great market turmoil.

## **Conclusion:**

Many investors have continued to avoid the large money center banks and their valuations reflect such avoidance, with Bank of America even more so than the others. Do these low valuations reflect the turbulences of yesterday, or tomorrow? I would argue rear view mirror assessment on the headline inducing challenges facing Bank of America is too prevalent and does not properly account for the earnings power of the franchise.

Bank of America currently generates a tremendous level of core earnings power largely masked by legacy issues and a subpar operating environment set against a heavily discounted valuation all with significant upside earnings potential as the banking environment normalizes. Bank of America is great value today and even greater as we look forward.

**Bank of America: World Class Franchise. Significantly Discounted valuation.**

***Disclaimer:*** *The opinions in this document are for informational and educational purposes only and should not be construed as a recommendation to buy or sell the stocks mentioned or to solicit transactions or clients. Past performance of the companies discussed may not continue and the companies may not achieve the earnings growth as predicted. The information in this document is believed to be accurate, but under no circumstances should a person act upon the information contained within. We do not recommend that anyone act upon any investment information without first consulting an investment adviser as to the suitability of such investments for his specific situation. A comprehensive due diligence effort is recommended.*

## **Appendix A – Summary of March 2015 Dodd-Frank Act Stress Test (DFAST) Results**

On March 5, 2015, the Federal Reserve released the results of its most recent annual stress test for 31 of the largest US banks. The test aims to ensure the largest banks have enough capital and liquidity to withstand severe recessions. A summary of the key assumptions for this year's test are below:

- Maximum quarterly (annualized) rate of GDP decline of 6.1%
- Peak unemployment rate of 10.1%
- Maximum home price decline of 25.7%
- Maximum equity market decline of 57.9%
- Trough ten year US Treasury yield of 0.9%

Additionally, severe instantaneous global market shocks were included and focused on four key areas: government and sovereign yield curves, emerging markets sovereigns and corporates, Euro-area credit-themed crisis, and other asset classes.

The stress test measures changes in capital and leverage levels over the course of a nine quarter period experiencing the ranges of stresses above. In the severely adverse scenarios contemplated for the test, Bank of America maintains capital above required regulatory minimums in all baseline and stress scenarios under both Basel I and Basel III rules.

The two metrics most focused upon in the testing are: Common Equity Tier I Capital Ratio (often called CET1) and Tier I Leverage Ratio.

For the Common Equity Tier I Capital Ratio, the bank began the hypothetical test period using its actual ratio at 9/30/14 of 12.0%. At the end of the hypothetical nine quarter stress on 12/31/16, Bank of America has a CET1 ratio of 8.1%, well above the required 5% minimum. The CET1 ratio hits a minimum ratio of 7.8% during the nine quarter period.

For the Tier I Leverage, ratio, the bank began 9/30/14 at a ratio of 7.9%. The ratio moved down to 6.1% at the end of the nine quarter period on 12/13/16 while hitting a minimum ratio of 5.9% during the hypothetical test period. As can be seen, the ratio stayed well above the Federal Reserve's minimum ratio of 4% throughout the duration of the stress period.

It should be noted the ratios above are derived from internal Bank of America testing. The Federal Reserve also conducts their own stress testing using the same assumptions and arrives at different ratio levels. The Federal Reserve's testing shows Bank of America's CET1 ratio hitting a minimum of 7.1% which is above the 7.8% as calculated by BAC but still well above required minimum levels. Similarly, the Federal Reserve calculated a minimum leverage ratio of 5.1%, which is lower compared to BAC's internal calculation of 5.9% but still well above required levels. Each of the 31 banks tested by the Fed saw discrepancies between Federal Reserve and internal calculations with internal calculations generally showing better results. Of the five

largest banks (BAC, JPM, C, GS, MS), Bank of America's calculations were closest to those of the Federal Reserve.

As described in the investment summary, problems with one or more banks can migrate and affect others in times of stress. It is thus important for not only Bank of America to perform well under stress scenarios, but also for the other large banks to successfully withstand a stressed environment. The nation's largest banks covered by the stress test performed very well. In aggregate, the 31 banks showed a minimum CET1 ratio of 8.2% through the hypothetical stress period which was well above the aggregate ratio of 5.5% measured in early 2009 (another period of high stress) and well above the Fed's 5% required minimum. ***In short, the banking system broadly, and Bank of America specifically, are well positioned with much higher levels of capital and liquidity to withstand future severe recessions and economic shocks.***

The Comprehensive Capital Analysis and Review (CCAR) comprises the second step of the stress tests and those results are released the week following the release of the quantitative measures discussed above. CCAR has two main components: (1) an assessment of the qualitative measures a bank has in place for risk management and (2) an approval or rejection of a bank's capital plan. While the Federal Reserve is requesting improvements in certain of Bank of America's capital planning processes, the Federal Reserve conditionally approved the bank's capital request which includes a continued \$0.05 dividend per quarter along with a \$4 billion share repurchase program. The dividend level remains the same from the prior year's process while the repurchase is an increase in capital return as Bank of America was not previously permitted to buy back shares. An improvement plan to accommodate the Fed's concerns must be submitted and approved by September 30, 2015 in order to continue with its conditionally approved capital plan.



**Seeking Understanding Through the Noise:**  
***Our Defining Characteristics***

- ***Perspective*** that moves past the noise of the day
- ***Patience*** to think and invest with a long horizon
- ***Temperament*** to withstand emotions and volatility
- ***Passion*** for deep intensive research
- ***Conviction*** to our best ideas

**Brian E. Pitkin: Managing Member, URI Capital Management**

Brian E. Pitkin founded URI Capital Management to follow his long time passion for deep business analysis and long term value investing. Brian began his career in Investment Banking at Merrill Lynch in Chicago, and then joined The Edgewater Funds, a Chicago private equity firm. Brian ultimately returned to family-owned Ulrich Chemical, a Midwest chemical distributor where he helped accelerate both top and bottom line growth, including a near tripling of the company's bottom line. He then negotiated and executed the sale of Ulrich to Brenntag, a global chemical distributor, before leaving to start his own ventures, now dominated by managing the fund URI Capital Partners. His background in both investing and managing businesses has contributed to his understanding of what makes for a successful business and thus a successful long term investment, while faith and family provide a strong foundation for the entirety of his life.