5-2013

Does Going Green Mean Losing Green? Bank of America vs JPMorgan Chase

Heather Goldstein

University at Albany, State University of New York

Follow this and additional works at: https://scholarsarchive.library.albany.edu/honorscollege_accounting

Recommended Citation

https://scholarsarchive.library.albany.edu/honorscollege_accounting/6

This Honors Thesis is brought to you for free and open access by the Honors College at Scholars Archive. It has been accepted for inclusion in Accounting by an authorized administrator of Scholars Archive. For more information, please contact scholarsarchive@albany.edu.
Does Going Green Mean Losing Green?
Bank of America vs JPMorgan Chase

An honors thesis presented to the
Department of Accounting,
University at Albany, State University Of New York
in partial fulfillment of the requirements
for graduation with Honors in Accounting
and
graduation from The Honors College

Heather Goldstein
Research Advisor: Raymond K. Van Ness, Ph.D.
May 2013
Abstract

This research thesis is an investigation into whether companies implementing a “going green” strategy will compromise their financial performance. The primary focus was on two large financial institutions, one clearly committed to going green and the other less interested in doing so: Bank of America and JPMorgan Chase. The assessment centered on specific financial measurement points for the fiscal years of 2010 and 2011. Concern for health and wellbeing of the earth is growing exponentially, however, in order to sustain the movement it is imperative that companies join the green initiatives. Nevertheless, companies must achieve specific thresholds of financial performance and the question is whether “green initiatives” compromise these critical points of performance. If they do, corporate management may lose shareholder support and be forced to change strategies. This study determined that Bank of America, the “Going Green” firm did not perform as well as JP Morgan Chase in multiple measurement categories. However, it did maintain a stronger relationship between debt and assets, suggesting the potential for future improved performance. This thesis also reveals a comprehensive discussion of findings, details study limitations, and offers suggestions for future research.
Acknowledgements

I would like to thank Dr. Van Ness, my research advisor, for all of his time and attention in guiding me in writing this thesis. Without his support I would not have been able to do this. His dedication and hard work for his students does not go unrecognized.

I also would like to thank my parents for never giving up on me and supporting me in everything that I do, and pushing me to do my best. Without them I would not be where I am today.
## Table of Contents

Abstract ........................................................................................................................................... 2  
Acknowledgements ...................................................................................................................... 3  
Introduction .................................................................................................................................... 5  
Literature Review ........................................................................................................................ 6  
Research Questions ...................................................................................................................... 10  
Hypotheses .................................................................................................................................... 11  
Results .......................................................................................................................................... 12  
Discussion/Summary .................................................................................................................... 16  
Limitations of Research and Recommendations for Future Research ...................................... 18  
Works Cited .................................................................................................................................... 19
**Introduction**

The first big impact on the modern day environmental movement started in 1970 with the United States’ first Earth Day on April 22nd. The book that started it all was Rachel Carson’s *Silent Spring*. Carson’s book made the realities of pesticide pollution’s detrimental effects on the lives of birds and other animals well-known. As a result of the news of this widespread environmental pollution, over 20 million Americans gathered for the first Earth Day. “Groups that had been fighting against oil spills, polluting factories and power plants, raw sewage, toxic dumps, pesticides, freeways, the loss of wilderness, and the extinction of wildlife suddenly realized they shared common values.” Today, the environmental movement is not just centralized in the United States, but has become a global cause to help maintain the planet.

*(Earth Day: The History of A Movement. Author unidentified)*

Carbon emissions are a major issue in that they are causing the phenomenon of global warming. Since records of yearly temperatures begin in 1895, 2012 is the hottest year on record. The previous record was set in 1998, but 2012 surpassed it by one full degree Fahrenheit. *(Gillis, 2012)* This demonstrates that our efforts are not enough from the cumulative effects of years before people realized the damages they were causing. This is why many companies are putting forth the notion to “go green” and help the environment before many of the natural surroundings are no longer around, such as the polar ice caps and the polar bears.

Currently, many businesses as well as personal residences have taken a stance to “go green”. Many of these efforts include reducing water pollution, using less gas for vehicles by using hybrid vehicles, using solar panels, and various other means to help reduce carbon footprints. Few would argue that “going green” is initially perceived as “losing green.” The question, of course, is whether the perception is congruent with reality.
The purpose of this study is to pursue the question of whether going green actually means losing green. In order to dig deeper into the issue, two well-known banks, Bank of America and JPMorgan Chase were selected for analysis. Bank of America has a recent history of winning awards for its going green efforts, whereas JPMorgan Chase has yet to appear on the radar in terms of awards, although they have made some modest efforts in green direction. Two of Bank of America’s top awards included being ranked second overall among the world’s top financial institutions and was ranked the number one U.S.-based global financial company in the Bloomberg Markets magazine’s “Greenest Banks” report of 2012. (Bank of America Ranked Second “Greenest Bank” Globally by Bloomberg Markets Magazine. Author unidentified.) The two firms were compared using a number of accounting and market measures to determine if one was outperforming the other. While there is no absolute guarantee that going green or failing to do so can be immediately translated into quantitative measures, the study at least stands as an initial argument that greening or lack thereof can be associated with firm financial performance.

**Literature Review**

Previous research on whether or not going green will benefit banks financially shows that going green is a quintessential move the company must make in order to stay a top competitor among other banks. By going green these banks, companies, and consumers will be better off in the end with the banks’ efforts.

In the study entitled, “Making Green While Going Green: A Changing World for Financial Institutions” Plante Moran company discusses the ways in which financial institutions can go green while still earning green. One of the ways in which a bank can go green is by developing a Document Management System (DMS), which is an automated system that tracks
and stores electronic documents and/or images of paper documents. By using this system employees are able to access paperwork more easily while also seeing a reduction in operating costs through a reduction in administrative and lender labor, decreased use of physical folders, and the elimination of travel for loan review. The second way in which the financial institutions can go green is through the use of e-signatures that allow the institution to go fully paperless. With using e-signatures it eliminates the process of printing, physically signing, and scanning in application documentation making the process simpler and less time-consuming as well. Lastly, a few different ways that many banks have already implemented as a way to go green include online banking and mobile banking that allows customers to do activities such as transferring money, deposits, paying bills, and obtaining account balance information. (Funke, Trotta, Taggart, Miller)

In a study by Aite Group, they found that many banking institutions are gearing their environmental efforts towards consumers and not concentrating enough on its corporate customers. One of the ways that Aite Group suggested banks can help its corporate customers is by having online account statement analysis as a means to save paper, postage (saving money for the bank), and faster time to correct any errors that may have accidently occurred on the statements. In addition, Aite Group stated that if corporations were to convert 10% of their paper checks to electronic ones they would save a lot of money and various resources. The savings would include over 2.3 million pounds of paper; 283,815 tons of greenhouse gases, over 29.2 million gallons of gasoline, and more than 22.5 million gallons of waste water prevented from discharging into rivers and lakes. Overall, if banks are able to attract more corporate customers as well as consumers, both the bank and the corporation will be able to go green and do well financially. (Barry, Murchie, 2009)
Furthermore, an article written by Brian O’Connell describes how the two banks I will be concentrating on, Bank of America and JPMorgan Chase, are putting their efforts towards going green. The article states that JPMorgan Chase and Bank of America are charter members of the PayItGreen Alliance, which is a consortium of 11,000 financial institutions that promotes the use of electronic bank transactions over paper-based ones. The PayItGreen Alliance’s goal is to get 10% or more of Americans to switch from paper statements and bills to online ones. “With this 10% increase (or about 11.4 million U.S. homes) the alliance estimates that going green would save 75,469,808 pounds of paper, 905,638 trees and avoid producing 1.96 million pounds of greenhouse gases (the equivalent of taking 162,861 cars off the road).” (O’Connell, 2010) This demonstrates the positive effect on consumers’ ease of use of these online banking offers and the benefit for the planet by saving all of the paper and production of greenhouse gases.

An example of a bank that has done well financially after going green is the PNC Bank. The bank’s way of going green is by installing building materials certified to NSF International sustainability standards. “A study by two professors at Notre Dame found that PNC Bank locations that were LEED certified experienced higher deposits than non-LEED locations.” In addition, the research states that by having a greener and cleaner building more employees are less likely to take sick days. Thus, the US Building Council estimates that companies with “green buildings” can save $58 billion of sick time per year as well as $180 billion in increased worker productivity annually. Also, when employees know that their company cares about the environment just as much as they do it promotes a good work environment overall. To demonstrate, PNC found that one of its LEED certified buildings boasted employee retention and satisfaction rates that were 50% higher than its traditional facilities. (Bruursema, 2012)
In addition, another bank, e3bank, offers services to environmentally-aware corporate and retail customers. By having an environmentally friendly financial institution every decision the bank makes must be done with both financial and environmental considerations in mind. The way the bank intends to do this is by providing loans to retail customers for costly environmentally-friendly equipment such as solar paneling, providing mortgages to firms which choose to build environmentally-friendly real-estate, as well as offering carbon credit trading. The firm's chairman Sandy Wiggins has said, “This makes tremendous sense for us as a bank, because we know those buildings are better risk propositions for us to lend against and that because of the reduced energy costs an environment-sensitive building incurs, cash flow for the business owner is higher, and thus the loan repayment to the bank is that much faster.” (Harrison, 2009) This is a prime example of how banks can take the notion of going green to their whole business plan, while still being able to make a profit.

Going green is not just a major concern for the United States, but it is becoming a prominent business venture internationally, especially in China. In China, they are undergoing a South-to-North Water Diversion project that aims to divert water from the Yangtze River system to the arid North. “Environmentalists fear that irreparable harm may be done to the ecology and to river-dependent communities the Yangtze’s hydrology is dramatically altered.” To assist with this fear there are numerous banks loaning money to this project as a way to protect the environment as well as the river’s surrounding people. These banks loaned anywhere from $500 million to $21.3 billion to show their financial support for environmental efforts. In addition, the China Export Import Bank has issued a loan of $387 million to the Merowe Dam on the Nile in Sudan. It is one of the largest hydropower projects in Africa and with a capacity of 1,250 megawatts, the project's power plant will roughly double power generation in Sudan. (Chan-
Fishel, 2007) This demonstrates that banks are making decisions to help finance these environmental projects for the greater good of the Earth, and not always for receiving a profit.

**Research Questions**

Since conventional wisdom suggests that firms that win awards for going green are likely to incur additional expenses, it is widely assumed that they will render a poorer financial performance. The investigative questions of this research project are related directly to two large financial institutions, Bank of America which has made significant strides in going green and JPMorgan Chase which appears less interested in “green initiatives.”

This research investigates (1) three dimensions of profit, (2) a key measure of leverage, and (3) two market interpretations of management strategies in years 2010 and 2011.

1. How strong was Bank of America’s Return on Revenue (ROS) when compared to JPMorgan Chase’s? This is an indirect measure of the relationship of costs to revenue and may indicate one firm has disproportionally higher costs when compared to the benchmark firm.

2. How strong was Bank of America’s Return on Equity (ROE) when compared to JPMorgan Chase’s? This is a measure of the strength of profits credited to investments by shareholders.

3. How strong was Bank of America’s Return on Assets (ROA) when compared to JPMorgan Chase’s? This is a measure of the effective allocation of assets at returning profits.
4. How leveraged are the assets of Bank of America (D/A ratio) when compared to JPMorgan Chase? This is a measure of relative debt level. It is possible that a firm engaged in going green activities might have a slightly higher debt level.

5. How does the stock price to earnings ratio of Bank of America compare to JPMorgan Chase? This is often considered a measure of market confidence in the future performance of a firm. Generally speaking, individuals prefer a company that engages in “green” activities but are they willing to back their position with their investments?

6. How does the Beta of Bank of America compare to that of JPMorgan Chase? The Beta is a measure of a stock’s volatility and can suggest many different things. One possibility is that a stock with a high Beta might indicate less sturdy confidence in the long term performance of the firm.

**Hypotheses**

H1: Financial data for Bank of America will reflect a lower Return on Revenue (ROS) when compared to JPMorgan Chase.

H2: Financial data for Bank of America will reflect a lower Return on Equity (ROE) when compared to JPMorgan Chase.

H3: Financial data for Bank of America reflect a lower Return on Assets (ROA) when compared to JPMorgan Chase.

H4: Bank of America will have a higher Debt to Asset Ratio (D/A) when compared to JPMorgan Chase.
H5: Bank of America will reflect a lower stock price to earnings ratio (P/E) compared to JPMorgan Chase.

H6: Bank of America will reflect a higher Beta (stock volatility) than JPMorgan Chase.

Results

Hypothesis 1 was supported. It was found that in 2010, Bank of America had a ratio of -0.017 to a decrease of 0.013. Comparatively, JPMorgan Chase had a ratio of 0.15 in 2010 and an increase to 0.171 in 2011.

Hypothesis 2 was supported. It was found that Bank of America’s Return on Equity was -0.01 in 2010 and increased slightly to 0.006 in 2011. While, JPMorgan Chase’s Return on Equity was 0.099 in 2010 and increased to 0.103 in 2011.
Hypothesis 3 was supported. It was found that Bank of America had a net income to total asset ratio (ROA) of -0.001 in 2010 and increased to 0.001 in 2011, compared to JPMorgan having a net income to total asset ratio of 0.008 in both 2010 and 2011.
Hypothesis 4 was not supported. It was found that Bank of America’s total debts to total assets (D/A) ratio was at 89.9% in 2010 and decreased to 89.2% in 2011 as compared to JPMorgan’s ratio being 91.7% in 2010 and slightly increasing to 91.9% in 2011.

Hypothesis 5 was supported. It was found that Bank of America started with a price-earnings (P/E) ratio of -35.8 years in 2010 to get its money back, which means that the company never would get its investments back to a ratio of 554 years in 2011, which still means it will never get its money back because nobody will be alive for 554 years. Comparatively, for 2010 JPMorgan had a price-earnings ratio of 10.1 years and decreased down to 7.2 years.
Hypothesis 6 was supported. It was found that Bank of America has a Beta (stock volatility) of 1.78 and JPMorgan Chase has a Beta of 1.61.
Discussion/Summary

Hypothesis 1 regarding Bank of America having a lower Return on Revenue (ROS) may be attributed to the additional costs incurred by Bank of America as it pursued its numerous green initiatives, including solar power introduction programs as well as decreasing levels of greenhouse gas emissions. Bank of America has demonstrated the willingness to sacrifice some profitability for the good of the planet. JPMorgan Chase’s business strategies appear geared more toward maximizing profits and may be the reason they are lagging behind Bank of America’s initiatives in going green. Time will reveal whether Bank of America’s strategy of investing in the green initiatives will result in improved returns.

Hypothesis 2 suggesting Bank of America would have a lower Return on Equity (ROE) was supported. Bank of America recorded a negative .01 in 2010 and a meager .006 in 2011. However, JPMorgan Chase’s return on equity was not remarkably higher in that they were .099 in 2010 and .103 in 2011. The reason JPMorgan Chase’s Return on Equity was modestly higher may be due to the fact that customers feel more comfortable investing in a company that is not making as many risky investments, as Bank of America is doing with its numerous green projects. These projects are aimed to help the environment and strengthen the company over time, but it does not produce immediate returns.

Hypothesis 3 on the Return of Assets (ROA) ratio was supported with the results of Bank of America having a negative ROA in 2010 to having a slightly higher 0.001 ROA in 2011 as compared to JPMorgan Chase’s ROA of 0.008 in both years. The reason for the discrepancy between these two banks’ ROA may be due to the fact that the majority of the assets Bank of America is investing in are not geared toward earning a profit, but for the sole purpose of going
green. Comparatively, JPMorgan Chase is able to concentrate on assets that will allow the company to earn a higher profit, producing a higher ROA ratio.

Hypothesis 4 about the Total Debt to Total Asset Ratio was not supported from the fact that Bank of America had about 2% less than JPMorgan Chase in both 2010 and 2011. This is a surprising result because one would think that with all of the new investments that Bank of America is putting forth to go green that it would have a larger amount of debt, but that is not the case. Bank of America’s strategy may be one of less financial risk and commitment to operating on less financial leverage.

Hypothesis 5 regarding Bank of America having a lower Price/ Earnings Ratio than JPMorgan Chase. Although Bank of America initially had a negative PE Ratio in 2010 and increased to a positive number in 2011, that number was extraordinarily high at 554 years. On the other hand, JPMorgan Chase had a timeframe of about 10 years to get their money back in 2010 and decreased to about 7 in 2011. With these results it demonstrates that Bank of America investors will never make back their money with the way the bank is performing currently. This may be due to the numerous green investments the bank is making and causing it to not earn a profit to keep the business operating efficiently. This also displays that investors are not confident that Bank of America will do well in the future and as previously stated investors want to invest in a company where they can see the results now not in the future, which is why many are investing in JPMorgan Chase instead of Bank of America.

Hypothesis 6 concerning the Beta of Bank of America being lower than the Beta of JPMorgan Chase was supported. Although the financial crisis can be somewhat to blame for both companies’ higher than wanted Betas, Bank of America still has a higher Beta. This entails
that the bank is a riskier investment than JPMorgan Chase would be, thereby deterring some investors from investing in the company. These risks that customers are taking into consideration when purchasing stock include the numerous green initiatives that Bank of America is investing in, and in many cases is the deciding factor as to why they would invest in JPMorgan Chase instead of Bank of America. Overall, many investors believe that JPMorgan Chase is a more stable company by not partaking in many risky investments as compared to Bank of America.

**Limitations of Research and Recommendations for Future Research**

One limitation on this research is that I only studied two banks, Bank of America and JPMorgan Chase. In the future this research can be applied to numerous banks in the United States, and may even be expanded to include global financial institutions in the research. In addition, this research on the financial performance of these two banks can be done during a time when these banks are not going through a financial crisis. The financial crisis may have affected these banks’ financial performance for reasons other than going green, and this topic of going green can be more closely examined during a better financial period.
Works Cited

Author Unidentified, "Bank of America Ranked Second “Greenest Bank” Globally by Bloomberg Markets Magazine." BankofAmerica.com

Author Unidentified, “Earth Day: The History of A Movement”, Earth Day Network

Bruursema, T., (2012) “Evaluating the ROI in Going ‘Green’”, Environmental Leader


Funke, R., Trotta, J., Taggart, C., Miller, K., “Making green while going green”


O’Connell, B., (2010) “How Banks Are Going Green” Main St