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MBA WHITE PAPER

BANK OF AMERICA: THE BANK OF CLIMATE OPPORTUNITY?

WHITE PAPER PREPARED BY MBA STUDENTS AT THE UNIVERSITY OF NORTH CAROLINA'S KENAN-FLAGLER BUSINESS SCHOOL

BANK OF AMERICA: THE BANK OF CLIMATE OPPORTUNITY?

Authors
Kristel A. Dorion (UNC EMBA 2008)

Abstract
In March 2007, Bank of America announced it will commit $20 billion to climate change initiatives in an effort to develop the new carbon constrained economy. CEO Ken Lewis has announced the creation of an Environmental Products Group and urged for cap-and-trade regulations in the U.S. These moves highlight Bank of America's focus on climate change as a strategic opportunity.

This paper summarizes Bank of America's current climate change position and products, and analyzes the bank's climate change strategy using Porter's Five Forces strategy framework. The biggest challenge facing Bank of America, as well as all other banks, is how to address market needs, lower environmental liability, and simultaneously optimize shareholder value. The paper concludes with a summary of risks/opportunities and a list of recommendations for the bank in furthering its climate change strategy.

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> "There are a lot of great ideas out there… this fact creates a huge risk management challenge for banks ... as a financial backer of new technologies; the bank is in the position of picking winners and losers."
>
> *Ken Lewis, Bank of America CEO, in a speech about the bank's involvement in climate change at the Institute for Emerging Issues forum, held at North Carolina State University in Raleigh on February 13, 2008.*

Executive Summary

In March 2007, Bank of America dedicated $20 billion to climate change in an effort to develop the new carbon constrained economy. On Feb. 13, 2008, Ken Lewis announced the creation of a new Environmental Products Group and urged for cap-and-trade regulations in the U.S. These moves highlight Bank of America's focus on climate change as a strategic opportunity. The bank has identified opportunities in new and uncertain U.S. carbon neutral markets and is developing a cadre of products to help clients finance and reduce greenhouse gas (GHG) emissions. This paper summarizes the bank's current climate change position, footprint and green products and analyzes the bank's climate change strategy. The biggest challenge facing Bank of America, as well as all other banks, is how to address market needs, lower environmental liability and simultaneously optimize shareholder value.

Bank of America's Current Climate Change Position

In March 2007, Bank of America, the second-largest U.S. bank, announced a $20 billion commitment to climate change to create services for environmentally-conscious clients, obtain LEED (Leadership in Energy & Environmental Design) green building certifications for the bank's new offices and branches, donate money to charitable environmental organizations and upgrade the bank's current offices. The bank is also finishing its New York office (Figure 1) which will be the world's greenest skyscraper.

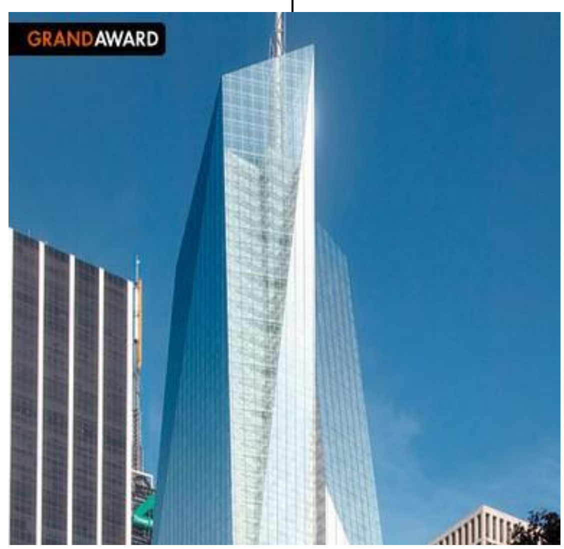

Figure 1: Bank of America Tower at One Bryant Plaza in NY. The 54 story tower has earned Popular Science's award for the most ambitious eco-friendly building. It is filled with environmental technologies, including on site natural gas power generation, which will supply 70% of the building's power needs, waterless urinals, and rain-water collection systems for toilets. The Green Building council expects to award a Platinum rating, its highest, to the building.
Source: Popular Science, 2005

In February 2008, Bank of America created an environmental banking group with the purpose of reducing greenhouse gas (GHG) emissions and promoting environmental conservation. Although the bank has not made any firm commitments, it claims to soon begin assessing the costs of carbon in underwriting loans, evaluating business models,[1] limiting risk and investing in change when appropriate[2].

With such bold moves, Bank of America is positioning itself as the climate friendly U.S. bank. A climate change position paper published on the bank's website states the organization's vision as an agent of change in elevating the public and private sector's commitment and approach to addressing climate change[3].

Anne Finucane, Global Marketing and Corporate Affairs Executive and chair of the bank's Environmental Council restates the bank's climate position:

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[1] Stempel, J, Bank of America Creates Environmental Team, Feb12, 2008. Retrieved Feb 23, 2008 from http://www.reuters.com/article/companyNewsAndPR/idUSN1225091020080212.
[2] Pew Center, Retrieved Feb 23, 2008, from http://www.pewclimate.org/companies_leading_the_way_belc/company_profiles/bank_of_america.
[3] Ceres, Profile of U.S. Banks, January 2008, www.ceres.org and www.bankofamerica.com.

> We, at Bank of America, recognize that climate change and atmospheric pollution represent a risk to the ultimate stability and sustainability of our way of life. Bank of America is committed to addressing climate change issues even more so today; when we believe we can set real and achievable targets for greenhouse gas reductions in both our operations as well as investment opportunities.[4]

Besides stating environmental policy positions, Bank of America has led the financial industry in the environmental sector through the following moves:

- First bank to join EPA's climate leaders.
- Publicly support cap-and-trade system.
- First bank to set GHG emission reduction targets (see Table 1) for both own and portfolio investments.
- Change in portfolio mix: adding renewable energy investments, low carbon investments and tracking all of them.
- Advertise position and build partnerships to work on solutions with customers, government and other stakeholders. Utilize position as community and industry leader to serve as an agent of change in elevating the public and private sector's commitment and approach to addressing climate change.
- Promote associates' action in personal lives: $3,000 hybrid vehicle reimbursement program
- Reduction of 42% in paper use per person since 2000.
- Commit $1.4 billion to achieve LEED green building certification in all new construction of office facilities and banking centers.
- Donate $50 million from the Bank of America Charitable Foundation to support non-profit organizations focused on environmental activities.
- Invest $100 million in energy conservation measures at its facilities.[5]

Table 1: GHG Emission Targets for Bank of America. *Source: Ceres, 2008*

	Reduction Targets	Baseline Year	Target Year	Region
Total Emissions	9%	2004	2009	All internal operations
Lending Emissions	7%	2004	2008	Energy & utility portfolio

On February 6, 2008, just a week before CEO Ken Lewis' cap-andtrade and Environmental Group announcement, Bank of America pulled out of a $25 million joint venture (JV) with the Climate Exchange, owners of the Chicago Climate Exchange (CCX). This JV was intended to help the bank develop, market and execute new environmentally focused products utilizing Climate Exchange plc (CLE) -linked offsets, which are credits used by individuals and corporations to reduce total carbon footprint. As part of its CCX membership, joint venture and minority investment stake, Bank of America had committed to expand its GHG emission reduction target, provide liquidity to CCX, European Climate Exchange (ECX) and Chicago Climate Futures Exchange (CCFE), purchase a minimum of 500,000 tons of offsets over a three-year period and treat CLE exchanges as preferred providers for exchange-traded environmental product execution[6]. Bank of America said it pulled out of the JV because it no longer needed to offset carbon emissions.[7]

This move may suggest a change in the bank's climate change strategy since the $20 billion commitment a year earlier—not away from climate change but towards the bank's own control. The

[4] http://www.bankofamerica.com/environment/index.cfm?template=env_clichangepos
[5] Ceres, Profile of U.S. Banks, January 2008, www.ceres.org and www.bankofamerica.com
[6] Bank of America Joins Climate Exchange, makes strategic investment in Climate Exchanged PLC, July 25, 2007 PRNewswire. Retrieved February 23, 2008 from http://newsroom.bankofamerica.com/index.php?s=press_releases&item=7841
[7] Will, Chris and Bowker, John, Feb 6, 2008, Bank of America pulls out of Climate Exchange deal, www.reuters.com

bank is gambling with its exposure and risk as it moves into unchartered territory: trying to be the first mover in the uncertain U.S. policy and market environments.

Table 2: Bank of America's current emissions and footprint for 2006, United States Emissions, GHG Protocol

Emissions Total (CO_2e MT)	1,466,584
Scope 1	1,380,000 (aggregate Scope 1 and Scope 2)
Scope 2	
Scope 3	386,584 (Global business air travel)
Accounting methods	Bank of America defines its organizational boundaries using the Operational Control Approach under the U.S. EPA Climate Leaders program
Third party certification	A verification component is included in the EPA Climate Leaders GHG Inventory Protocol. Additionally, an inventory review will be completed by Econergy International, contracted to develop Bank of America's Inventory Management Plan (IMP).
Certification year	2006
Renewable Energy Use (2006)	0%
Energy Efficiency Savings	4%

The majority of the bank's emissions come from its own office and investment portfolio. The bank has been diligent in tracking its own investments—and a forerunner in tracking its investment emissions. Whether the bank is receiving accurate information on its utility and energy investments remains an answer for the future.

Bank of America's Green Products

The North American Task Force of the United Nations Environment Program (UNEP) Finance Initiative has identified several products used by financial institutions to address the growing demand for sustainable financial products and services[8]. See Table 3 for a comparison of Bank of America's product offering with those existing around the world.

Table 3: Bank's green product line.
Source: www.unepfi.org/fieladmin/documents/greenprods_01.pdf

Product Category	Potential Green Products	B of A Green products	B of A Product Description
Retail Banking	Home Mortgages	The Green Mortgage Program	-Homebuyers receive a reduced interest rate or $1,000 back for each home-purchase mortgage meeting ENERGY STAR specifications.
	Commercial Building Loans	Commercial Real Estate Banking	-Customized solutions for clients who are developing and implementing sustainable designs -Real estate projects with LEED certification, improvements in energy efficiency, brownfield redevelopment -Promote smart growth, and energy-related tax credits.
	Home Equity Loans	Environmental Home Equity Program	-If home equity line used, annual donation to non-profit environmental organization
	Auto & Fleet Loans	EPA SmartWay Transport Program	Small Business Administration SBA Express loans with no collateral and flexible terms to small and mid-sized trucking companies to finance fuel efficient technologies
	Credit & Debit Cards	Brighter Planet credit card	-1% of spend used towards carbon offsets -One ton CO_2 offset for every $1,000 cardholders spend
	Personal Accounts		

[8] UNEP FI, 2008, Green Financial Products and Services, www.unepfi.org

Product Category	Potential Green Products	B of A Green products	B of A Product Description
	Green Sale & Travel Money Products		
Corporate & Investment Banking	Project Finance		- Financing and advisory services to clients participating in emissions offsets markets, developing energy-efficient or low-carbon technologies and helping private/public sector entities adopt green and low-emissions technology
	Securitization		
	Venture Capital & Private Equity Indices		
	Carbon Commodity Products and Services	Carbon Emissions Trading	-The bank will launch the ability to trade carbon emissions credits in order to enable clients to achieve carbon emission neutrality through existing and emerging market mechanisms.
Asset Management	Fiscal Funds		
	Investment Funds	Timberland Investment Solutions	-Evaluating proprietary investment management solutions that incorporate forest conservation principles consistent with those defined by the Forest Stewardship Council
	Carbon Funds		
	Cat Bond Funds		
Insurance	Auto Insurance		
	Home & Business Insurance		
	Carbon Insurance		

Strategic Issues

According to Eileen Claussen, president of the Pew Center on Global Climate Change, "Bank of America is getting out on the front end of this issue—developing innovative products and services that will flourish in a developing green economy while helping households, investors, and businesses cut greenhouse gases."

In order to analyze the bank's climate change strategy, this paper will use Porter's five forces model as a framework. This framework includes Environment, Architecture, Competence, Strategy, and Performance. Performance is the only influence not analyzed in this paper, as many of Bank of America's products and strategies are too new to evaluate.

Business Environment

The banking industry, as well as most other major industries, is beginning to transition into a more environmentally conscious industry. As the carbon-neutral economy begins to take hold, those banks that have positioned themselves in this new economy will be able to not only protect themselves from a changing marketplace but also benefit by launching new products and services that meet new market needs. An important factor in the changing landscape is European leadership in the development of a green economy in which banks showcase available consumer options. Another important factor is the recognition that banks can no longer ignore environmental liability—as public outrage and pending disclosure regulations have the power to significantly damage brands and reputations.

The United Nations Environmental Program Financial Initiative has identified the following emerging trends[9]:

[9] Ibid.

- ***Increased Environmental Knowledge and Coverage***: Climate change information and understanding has become main stream. It has moved out of the realm of the scientist and into the realm of the everyday, helping shape consumer demand for new products and services.

- ***Improved Environmental Awareness and Public Opinion***: A poll conducted by Yale in 2007 revealed that "75% of respondents acknowledge their own behavior can help reduce global warming; 81% feel it is their responsibility to take action against environmental challenge. These results suggest that many Americans want greener products and are prepared to spend money to try new technologies that will help reduce GHG emissions"[10].

- ***Environmental Regulations***: European legislation had created consumer options and U.S. pending legislation means banks and industry will have to be prepared to respond.

Architecture

Bank of America describes itself as: "one of the world's largest financial institutions, serving individual consumers, small and middle market businesses and large corporations with a full range of banking, investing, asset management and other financial and risk-management products and services. The company provides unmatched convenience in the United States, serving more than 55 million consumer and small business relationships with more than 5,700 retail banking offices, through more than 17,000 ATMs and award-winning online banking with more than 21 million active users. Bank of America is the No. 1 overall Small Business Administration (SBA) lender in the United States and the No. 1 SBA lender to minority-owned small businesses. The company serves clients in 175 countries and has relationships with 98 percent of the U.S. Fortune 500 companies and 80 percent of the Global Fortune 500."[11]

Competence

The descriptor above highlights the bank's strengths: retail banking and business and consumer relationships. This space sets the bank apart from investment banks such as Citibank, Merrill Lynch and JP Morgan. Since the majority of the bank's operations involve retail banking, and at the same time consumer demand is shifting towards carbon neutral products, the bank is well positioned to serve this new demand as an extension of its current products (see Table 3) without having to change its existing business architecture.

Strategy

Bank of America is using climate change friendly products as part of its overall strategy. Because of its retail capabilities and the changing landscape, the bank is making serious efforts to work on branding, product line and perception.

Citigroup, Morgan Stanley and Merrill Lynch received criticism for supporting $11 billion of financing for TXU Energy's coal-fired plants. Bank of America, in contrast, declined to participate in financing TXU Energy[12] and utilized this opportunity to separate itself from the investment banks. This strategic move serves several purposes—among them, to position the brand as a "bank of the people" who listens to people's desires. This position is easy to take because investment banking does not occupy the bulk of Bank of America's portfolio, as it does for the other investment banks. According to Valerie Smith, Citibank's VP of Environmental Affairs, Citibank's position is that if Citi does not take the business, another bank will and there will be no net reductions in GHG emissions[13]. However, Bank of America's decision not to participate in TXU Energy shows Bank of America is clearly differentiating itself from the Citibanks of the world and taking every available opportunity to increase it brand image among the new climate-conscious consumers. It is an easy

[10] Yale Daily News 2007 in UNEP 2007.
[11] Bank of America, www.bankofamerica.com/environment.
[12] CSRNews from Innovest Corporate Advisors, Feb 1, 2007, Larkin, Greg.
[13] Smith, Valerie. Presentation to MBA 831 B on Feb 12, 2008.

position to take (whether by design or not) when Bank of America's GHG emissions amount to 1.5 million tons versus Citigroup's 22 million tons.[14]

Although there is brand consideration in the positioning described above, Greg Larkin of Innovest states that Bank of America has forecasted more intense and costly carbon regulation and it is placing itself as the trend leader. "It understood that to reactively adapt to it or to merely handle carbon emissions as a 'headline risk' would be too costly and too risky," states Larkin[15].

Risks, Challenges and Opportunities

Risks and Challenges

As a forerunner in the climate change finance arena, Bank of America is faced with several first-mover advantages and challenges. The advantages the bank earns include increased customer loyalty, capitalization on the new green product trend and reduced liability in investments. The challenges the bank faces include the ability to measure investment portfolio's GHG emission performance, lack of regulation in the U.S. and monetization of a new suite of products. Will the bank make enough money on the new green line of products to warrant their continuation? Will new federal legislation help or hinder the bank's strategic position? For now these questions will remain unanswered until the U.S. climate change setting becomes more established.

Among the risks the bank faces is continued support from such nongovernmental organization (NGO) groups as Rainforest Action Network, which attacked the bank for financing coal-intensive utility and energy projects. This risk can be mitigated by properly measuring the investment portfolio's emissions and meeting the targets. A good publicity campaign showing the transparency of the portfolio performance will also help.

Opportunities

As mentioned in the strategy discussion above, the bank is well positioned to take advantage of a more climate-friendly financial marketplace. UNEP's Financial Initiative has divided potential areas of growth into the following groups[16]:

Emerging Opportunities

Green Commercial Real-Estate: develop products targeted to the rapidly growing green building sector, which has grown to 6% of U.S. non-residential construction market. Since Bank of America has already entered this space, it can benefit from increased credibility, reputation and expertise.

Carbon Market: Even though the U.S. market is still uncertain, European and Japanese banks have developed the carbon market, thereby allowing the U.S. banks to learn from that experience. All banks who want to trade carbon must learn to quantify forward revenue streams from carbon projects. Carbon market services include carbon trading, derivatives off carbon assets, weather derivatives, identifying and mitigating the bank's footprint and Kyoto trading are expected to be mainstream products in Europe and Japan within the next two years. As in real estate above, banks will benefit from credibility, reputation and expertise.

Clean Technology: develop innovative financial products for this rapidly growing segment. Investment capital in clean technologies and projects amounted to $7.1 billion in 2006, up from $4.4 billion the previous year and some predict that global clean tech investment will reach $100 billion by 2010.

First-Mover Opportunity

Carbon Neutrality: banking is the only sector connected to all other sectors—enough to help all industries lower GHG emissions. First movers will benefit from media and a good reputation.

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[14] Ceres, 2008
[15] CSRNews from Innovest Corporate Advisors, Feb 1, 2007, Larkin, Greg
[16] UNEP FI, 2008, Green Financial Products and Services, www.unepfi.org

Stakeholder Alignment Opportunities

Manufacturers: banks can partner with contractors to understand their entire value chain, allowing banks to develop green products that meet contractors' financial and green goals.

Government: align with local and federal policies to help design products that allow policies to succeed. An example is special financing for the Million Dollar Roof Initiative.

Non-Government Organizations: collaborate with organizations in helping design products.

Marketing and Strategy Opportunities

Green Branding: green branding will help establish customer loyalty and acquisition and help overcome perception barriers of green products.

Employing traditionally successful product features: keep existing successful features such as virtual access, flexibility, and bundles in addition to green benefits.

Dismantling Barriers: identify barriers to green products, and educate employees and customers on how to overcome them.

Stakeholder Research: continuously perform market research on green products.

Stakeholder Outreach and Marketing: use creative marketing to overcome green product barriers.

Recommendations

Although Bank of America has done well in launching climate friendly products, following are areas where the bank could improve even more:

- **Board Action**: ensure that the board of directors is personally involved.[17]
- **Better Disclosure**: all the goodwill generated through the bank's climate friendly strategy must be communicated to stakeholders in a clear and transparent manner. This includes market risks, disclosing footprint information and carbon cost management in decisions.[18]
- **Target Setting**: continue with carbon reduction targets in both the bank's footprint as well as in its portfolio.
- **Product Expansion and Performance**: continue growing and measuring green product line.
- **Continuous Education**: become experts in deciphering the cost of carbon in future cash flows and clients' needs in a climate volatile world (insurance and weather derivatives, for example).
- **Don't Lose Ground**: be flexible enough to adapt to new U.S. and global regulations.

Conclusion

After evaluating Bank of America's climate change position, products and service offerings, it is clear that the bank is positioning itself as a first mover in the green and climate friendly retail banking space. The bank is creating a series of products that help promote clean technologies, green investing and customer GHG management. Bank of America is not only the forerunner in a green economy, it is boldly advertising it by setting GHG emission limits and building the greenest sky scraper in the world. Although it is too early to judge whether the new green strategy will translate into financial success, Bank of America is earning customer loyalty from consumers and businesses that want to reduce their carbon footprint.

[17] CSRWire.com, Jan 11, 2008

[18] Ibid.