MALK
Sustainability Partners

White Paper

The Bottom Line of Green Banking

Why has Citibank pledged to invest $50 billion in climate change solutions?

Why does Bank of America offer a Visa card with points that support The Nature Conservancy?

Why does Union Bank have a substantial dedicated environmental stewardship team?

Why does Comerica have a dedicated energy officer?

Executive Summary

"[We consider] climate change to be a long-term influencing factor in the development of group strategy. This is both because of the potential for climate change to disrupt our own activities and those of our clients and also because the shift to a low-carbon economy requires finance which presents an opportunity to HSBC."

- HSBC Holdings

Environmental issues, ranging from climate change to pollution abatement to developing new sources of energy, are crucial challenges facing the financial services sector. Banks provide capital to nearly all sectors of the economy and as environmental sustainability issues increasingly affect more businesses, they will similarly affect lending decisions, underwriting criteria, government relations, facilities management, and brand management.

In many cases, "going green" represents a major opportunity. A recent study by Accenture and Barclays identified a capital requirement of over $4 trillion for the developed world to collectively transition to a lower carbon business model through upgrades such as smarter electrical generation, greener buildings, and cleaner transportation infrastructure.[1] At the same time, environmental issues represent a distinct and growing risk which must be understood and mitigated. The United Nations Environmental Programme has estimated that lost value, as a result of climate change, could total $1 trillion annually by 2040—a frightening figure for banks that finance vulnerable assets.[2]

Leading banks are already addressing the opportunities and risks stemming from evolving environmental dynamics. To be clear, doing so is not philanthropy; it is corporate strategy. HSBC Holdings recently stated that, "[We consider] climate change to be a long-term influencing factor in the development of group strategy. This is both because of the potential for climate change to disrupt our own activities and those of our clients, and also because the shift to a low-carbon economy requires finance which presents an opportunity to HSBC."[3]

Executive Summary *(continued)*

Climate change and other environmental issues are shaping the business world of tomorrow. HSBC and most other leading banks understand that they must carefully weigh the risks and skillfully harness the opportunities of financing a greener future. Any financial institution that wants to follow their example must begin by defining a sustainability strategy tailored to the banking sector and its organization in particular. An important first step is to examine the reasons why leading banks consider environmental issues to be strategic, the actions taken, and the benefits realized. This leads to a deeper understanding of the opportunities inherent in financing a greener future, new approaches to risk management, and cost-saving benefits of cutting environmental footprints, inside and outside a bank's walls. These actions enable the financial services sector to profitably harness the power of environmental sustainability.

Lending	Underwriting	Operations
Bank of America has lent $2.7 billion in equipment financing to renewable energy projects since 2007.	In 2010, Comerica's Environmental Risk Management Group reviewed roughly 800 transactions, valued at $3.7 billion.	HSBC reported annual savings of $1,000,000 after implementing PC power management systems across its operations in 2009.
In 2010, Wells Fargo launched construction, direct lease, and home equity loan financing products to enable customers to develop clean energy resources.	4,000 Citi employees have received ESRM training since the policy was developed in 2003.	PNC seeks to reduce annual energy use by 30% by 2020. Through cost-saving energy retrofits, electricity usage was reduced 8% in the first year."
At the end of 2009, Union Bank's waste and recycling niche lending group had 43 core industry relationships totaling $791 million in credit commitments.	In 2008, JPMorgan Chase began applying the Enhanced Diligence Process of The Carbon Principles to transactions that finance coal-fired power plants for investor-owned utilities.	US Bank established a strategic supply chain team to begin reviewing how to integrate environmental performance into supply chain management.

[1] Carbon Capital: Financing the Low Carbon Economy
[2] Insuring for Sustainability
[3] CDP 2010 Financials Sector Report

Environmental Strategy™ for Banks

At Malk Sustainability Partners, we collaborate with our clients to create sustainability programs built around a concept we refer to as Environmental Strategy™. Environmental Strategy™ is an approach to business which leverages environmental stewardship to accomplish the organizational mission and improve the bottom line while preserving the planet.

Why banks? At first blush, it may be tough to see how this concept relates to the financial services sector. Banks do not operate factories or power plants releasing pollutants into the air, nor do their supply chains require copious amounts of materials which have large environmental footprints. In fact, the perceived sum of a bank's impacts might simply be the resources used in their offices, retail branch locations, and IT facilities.

We've heard the joke that money is already green. A bank's environmental program requires only a few recycling bins, offering customers paperless billing, and having a reserved parking space for hybrid vehicles. Or does it?

Actually, environmental sustainability for banks is a core business issue, one which can affect lending decisions, underwriting criteria, facilities management, government relations, and brand management. It is an approach which allows them to manage risk, capture new markets, and build their brands.

Sustainability has been closely correlated with stronger financial performance. In an iconic study by strategy firm A.T. Kearny, experts looked at bank performance during the global economic crisis of 2008-2009 found that financial services providers focused on environmental sustainability outperformed their peers by 25% in terms of their market capitalization over a 6 month period.[4]

So what makes a comprehensive environmental strategy for a bank? There are several key components:

- Green Lending
- Environmental Underwriting Criteria
- Green Operational Programs

Leading banks and their smaller counterparts are already leveraging these concepts to boost the bottom line. A serious look at the decisions made by these banks can provide great value to others in the financial services industry.

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[4] A.T. Kearny, Green Winners

Green Lending: Financing the Future

Financial institutions ranging from global giants like Citi, which has made a $50 billion capital commitment to addressing climate change, to regional banks like Comerica, which has a unit dedicated to monitoring climate-related business opportunities, view environmental sustainability as an emerging paradigm in lending.

By far the biggest impact banks have on the environment, and on the world, is through the lending decisions they make. Simply put, financing turns dreams into reality, whether that dream is purchasing a home, expanding a small business, or creating a more environmentally sustainable future. Successful banks turn a profit by helping people, companies, and societies realize their dreams. Savvy banks are already focused on creating a greener future.

Many of the finance opportunities of the future will be driven by the investment demands of low carbon development. In other words, capital is needed to finance clean energy, less-polluting cars and buildings, next-generation public infrastructure, and many other green assets. Leading lenders, investment banks, and research institutions ranging from Goldman Sachs to the United Nations Environmental Programme are closely watching demand growth. They are striving to predict where future capital flows will need to go – and where the future profits of financial institutions will come from.

These market watchers see an enormous need for green capital. For example, a recent study by Accenture and Barclays found that global capital demand for transitioning to a lower carbon economy will top US $4.1 trillion in the coming years and concluded that "financing low carbon technology represents a unique opportunity for banks to benefit from significant growth of the low carbon technology sector whilst demonstrating a positive contribution in tackling climate change".[5]

Green Lending: Financing the Future *(continued)*

Visionary banks, both large and small, see the opportunity in capturing the green market. Bank of America, for example, has pledged to invest $20 billion by 2020 into environmentally preferable investments such as cleaner energy and green real estate. These investments are not corporate philanthropy nor are they motivated just by of corporate social responsibility. As Bank of America CEO Brian Moynihan recently remarked on his bank's green capital commitment, "This initiative is far more than doing good for its own sake – it has proven to be a long-term, compelling business opportunity for our clients, our company and our shareholders."[6]

Bank of America is not the only bank focusing on this issue. Financial institutions ranging from global giants like Citi, which has made a $50 billion capital commitment to projects addressing climate change, to smaller banks like Comerica, which has a unit dedicated to monitoring climate-related business opportunities, view environmental sustainability as an emerging paradigm in lending. There are even start-up banks that lend exclusively to green sectors, such as New Resource Bank.

One very reasonable question you may have in looking at these commitments is 'What exactly is green lending?'

At this point there is not an industry-endorsed definition or certification of what is a green loan. The definition varies slightly from bank to bank depending on the mix of products, markets of operation, and the positions of key stakeholders. However, it is generally fair to say that green lending is making return-driven investments which finance assets that mitigate humanity's environmental footprint or help people to adapt to human induced climate change.

Under this definition, green lending might include, among other things:

- Clean electricity generation projects such as wind, solar, or (under some definitions) combined cycle natural gas
- Green real estate projects that meet criteria such as the US Green Building Council's LEED certification requirements or certain thresholds under the US Environmental Protection Agency's Energy Star Program
- Pollution or emissions mitigation projects such as landfill methane capture projects, which generate tradable carbon credits Small business loans to green businesses which receive special incentives under current Small Business Administration regulation

These are just a few examples, but in each case the asset or asset class would be desirable even without categorizing it as green. Green buildings, for instance, are high performing properties that are proven to achieve and maintain better occupancy than traditional buildings. Green building projects also move through the permitting process faster. In each case, the green asset is a lower risk to the bank and therefore a more desirable investment.

Green Lending: Financing the Future *(continued)*

The same applies to energy. Power producers are under increasing scrutiny from the federal government as well as state and municipal regulators to monitor and mitigate their impacts on our planet. Some banks are already limiting their exposure to these risks by avoiding lending on coal-fired power plants Choosing to invest in cleaner energy projects is a choice to invest in lower regulatory risk assets in a growing market segment. Between 2005 and 2010, the solar market grew 36% while the wind power market grew by 31%.[7]

Banks have every reason to consider the opportunities emerging from low carbon development, in their pursuit of product innovation and broader market penetration. A number of industry-oriented tools have been developed to aid in doing so. These tools include lending protocols such as the Equator Principles and vast libraries of resources from thought leaders such as the UN Environmental Programme Finance Initiative and the Coalition for Environmentally Responsible Economies.

However, green lending commitments and policies are not uniform across financial institutions. Every bank must design its green lending programs the same way in which it designs its other products – by looking at where it is particularly positioned for success and creating offerings which allow the institution to profit from turning dreams into reality.

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5 https://microsite.accenture.com/sustainability/research_and_insights/Pages/Carbon-Capital-Financing-the-Low-Carbon-Economy.aspx
6 BOA Environmental Progress Report 2010
7 https://www.acg.org/assets/10/documents/Cleantech_Trends_June_21_2011_with_comments.pdf

Environmental Underwriting Criteria: Reducing Risk for You & Your Clients

From coal, to real estate, to small business lending, environmental, social, and governance underwriting criteria are a critical tool for banks to reduce risk and enhance profitability for themselves and their business partners.

As the underwriters of projects and organizations across industries and geographies, financial services providers have a distinct need to understand how changing environmental conditions and expectations will affect their investments. As noted above, climate change could cause $1 trillion in annual damage by 2040.

In the near term, consider how BP's market capitalization plummeted by more than 50% while its credit rating fell from AA to BBB after the disastrous Deepwater Horizon oil spill in 2010.[8] Such a massive blow to a company's financial standing is certainly something that entities holding debt (not to mention equity) wish to avoid.

Environmental underwriting criteria are a means for banks to apply the precautionary principle in engaging clients to understand and improve their environmental performance.

Investment underwriting criteria that consider environmental, social, and governance (ESG) issues are tools to identify more profitable opportunities. The United Nations Environmental Program Finance Initiative (UNEP FI) explains this in a report entitled "Show Me the Money: Linking Environmental Social and Governance Issues to Company Value." The UN body states that "Seeking good investments under [this] lamp post, as well as looking at more familiar factors, can often give excellent insight into a company's quality of management and corporate governance. Clues are often seen to large unpleasant surprises [sic]…as well as undervalued opportunities in day-to-day management of environmental, social, and governance factors."[9]

It is possible to quantify the effect that strong environmental management has on how credit risk is viewed. A 2010 study by Drs. Rob Bauer and Daniel Hann of Maastrich University found that, across industries, a record of strong environmental management helped borrowers reduce their borrowing rates by up to 64 basis points.[10]

Environmental Underwriting Criteria: Reducing Risk for You & Your Clients *(continued)*

Banks are becoming acutely aware of the relationship between ESG factors and credit risk, and have moved to develop ESG underwriting criteria. Citi, for example, adopted its Environmental and Social Risk Management Policy in 2003, and has since provided training to over 3,600 of its loan officers on managing such risks. The bank was instrumental in the creation of the Equator Principles and the Carbon Principles, two widely referenced credit risk management frameworks for determining, assessing and managing environmental and social risk in project finance transactions.

How do ESG criteria affect lending? Consider coal power, which accounts for over 50% of electricity generation in the United States. Coal is the most carbon intensive fossil fuel and, correspondingly, is an energy source facing increasing regulatory challenges related to its greenhouse gas emissions and other environmental issues. Leading banks such as Citi, Bank of America, Wells Fargo, JP Morgan Chase, and Credit Suisse understood that this increased regulatory risk represents a tangible risk to project finance in coal powered electricity generation. In response, each of these banks adopted the Carbon Principles, which is an enhanced due diligence process aimed at providing a consistent approach for banks and their US power clients to evaluate and address carbon risks in the financing of electric utility projects.[11]

Such enhanced diligence does not prevent doing business in any given sector, but rather helps both financiers and their borrowers to better qualify and mitigate risks. This leads to greater profitability for both parties in the long run, which is why utilities like American Electric Power, NRG Energy, and Sempra Energy have endorsed the Carbon Principles.

From coal to real estate to small business lending, environmental, social, and governance underwriting criteria are vital tools for banks to reduce risk and enhance profitability for themselves and their business partners.

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8 And Now BP's Market Cap Has Been Halved

9 Show Me the Money: Linking Environmental, Social and Governance Issues to Company Value

10 Corporate Environmental Management and Credit Risk

11 http://carbonprinciples.org/

Operational Green Programs: Cutting Your Footprint and Your Costs

While a bank's biggest contribution to a more sustainable future is realized through its lending decisions, green programs focused on what takes place inside your company's four walls can result in lucrative OPEX savings and energize corporate culture. Green operational programs is a large topic in its own right, here we highlight two significant operational sustainability initiatives for financial services providers:

Shrinking Greenhouse Gas Emissions Footprints

Greenhouse gas emissions, generally measured in kilograms of carbon dioxide equivalent or CO_2e, are the most common metric for measuring an organization's environmental footprint. Monitoring and reducing CO_2e emissions is a proven means to cut operating expenses. Take Citi, which has staff dedicated to monitoring, managing, and reporting its global energy use and greenhouse gas emissions. The bank has already achieved a goal of reducing its GHG emissions 10% between 2005 and 2010

and has gone on to set a follow-on goal of reducing its footprint 25% by 2015.

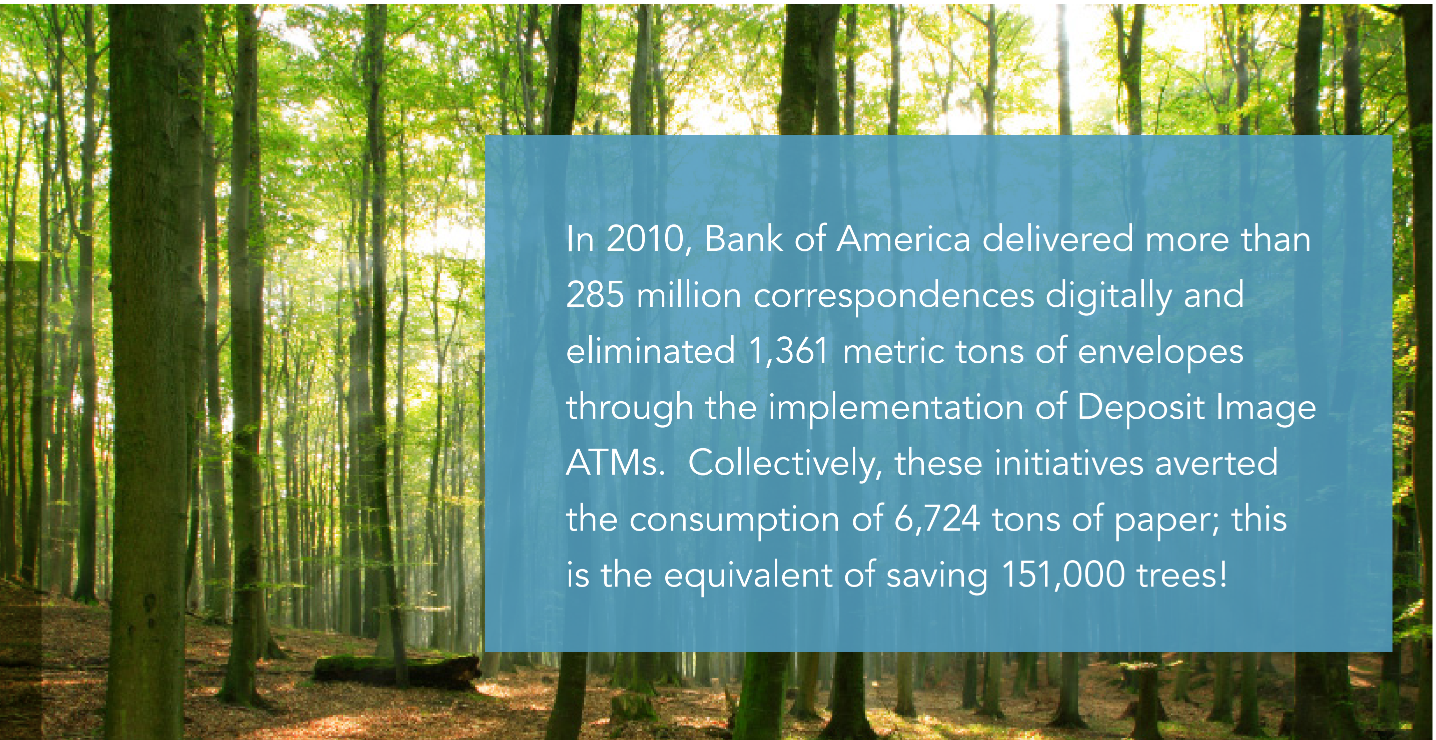
These goals are accomplished through aggressive energy saving and green building efforts in Citi's offices, branches, and IT infrastructure and have resulted in significant cost savings. Citi is saving over US $1 million per year in power and cooling just from server efficiency programs in North America alone. Savings from other green IT efforts, the bank's 170 certified green buildings, employee energy training, and other initiatives are saving Citi many millions of dollars more.

These initiatives are not reserved only for the world's largest banks. In 2010, Union Bank introduced an energy saving program entitled Powered by You which engaged its branch employees to save hundreds of thousands of dollars in energy costs. Similarly, Comerica leveraged a focus on reducing its emissions to develop a comprehensive branch energy auditing program which helped it to realize $800,000 in annual savings across its roughly 450 branches.

Paper Saving

Banks consume tons upon tons of paper in the form of loan documents, forms, and statements. This consumption represents not only an operating cost, but also a significant environmental impact. Banks large and small are addressing this reducing paper use across their operations. The most common approach to reduce paper use is to encourage customers to switch to electronic statements and correspondence. In 2010, for example, Bank of America sent more

Operational Green Programs: Cutting Your Footprint, and Your Costs *(continued)*



than 285 million correspondences digitally and eliminated 1,361 metric tons of envelopes through the implementation of Deposit Image ATMs. Collectively, these initiatives averted the consumption of 6,724 tons of paper; this is the equivalent of saving 151,000 trees![12]

Print consolidation and rationalization can result in even greater savings. Many multi-branch businesses still rely on a local supply of printed material for purposes of turnaround time and local support. A careful review of print services often reveals document redundancies and overprinting which can be avoided through centralized print management and rationalization, saving 25-30% in print costs.

The above is by no means an exhaustive list of bank operational green initiatives. Other programs which shrink footprint and costs include cloud computing, videoconferencing, reduction of corporate travel, and employee energy saving competitions, among many others.

Business leaders have discovered that cost management and environmental management are increasingly convergent. Banks are starting to leverage this convergence to drive profitability.

[12] BOA 2010 Sustainability Report

Conclusion: What Comes Next?

Environmental Strategy™ is a potent tool to capture new market opportunities, reduce risk, and cut costs. In the financial services sector, savvy banks, large and small, have adopted environmental sustainability strategies to capture growing market opportunities in green lending, reduce risk for themselves and their clients, and realize operational savings. Financial institutions that do not consider the environment in a meaningful way now risk being left behind.

If your organization is not already leveraging this emerging business driver, or if you could derive additional value from your environmental initiatives, we encourage you to consider whether the strategy components we have described above could benefit your company.

Environmental strategies are most effective when they are prioritized at the top, with senior management asking how 'going green' fits in with their corporation's values and mission. At Malk Sustainability Partners, we specialize in engaging business leaders on this issue and have taken great pride in working with our financial services clients to build profitable environmental strategies.

Contact us any time to explore this issue in more detail – we are always happy to discuss how your bank can harness the power of environmental sustainability.

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Malk Sustainability Partners is a management consultancy focused on partnering with corporations to develop profitable environmental strategies; more information is at www.malksp.com.

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