

Catalyzing Capital Towards the Low-Carbon Economy



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The Copenhagen Climate Council's Thought Leadership Series are inspirational, concise and clearly argued essays from leading investors, scientists, urban planners, entrepreneurs, experts, CEOs and policymakers on elements important to the development of a new global climate treaty. Communicating potentials and opportunities inherent in tackling climate change, the Thought Leadership Series aims to enhance public and political awareness of solutions promising significant impact on global emissions growth.

These essays will input into the World Business Summit on Climate Change on 24-26 May 2009 that will send a strong message to the 2009 UN Climate Change Conference (COP15) in Copenhagen. The message will include how to remove barriers and create incentives for implementation of new solutions in a post-Kyoto framework. This event is hosted in cooperation with the following key partners: UN Global Compact, World Business Council for Sustainable Development, World Economic Forum, 3C and Climate Group.



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At a crossroads

Capitalism is at a crucial juncture

The sustainability challenges we face - the climate crisis, water scarcity, extreme poverty, shifting demographics - are unprecedented and require an urgent response. Failure to address these challenges will put at risk our ability to create prosperity in the long term. The current state of the global economy compounds these challenges; in fact, the financial crisis has only underscored our conviction that sustainability will be a critical driver of economic and industrial change over the next twenty-five years.

In the case of the climate crisis, significant capital needs to be mobilized towards low-carbon solutions that span sectors and borders. This mobilization poses a tall yet manageable order as ours is not a problem of capital, but one of capital *flow*. The global community has the money, the policy insights, and many of the technologies needed to modify our emissions trajectory. Fundamentally, the challenge ahead is about capital reallocation and timing: How do we steer capital away from high-carbon investments and channel them towards the low-carbon economy? And, above all, how do we mobilize this capital at the pace required to avoid dangerous climate change?

In the face of converging financial and environmental crises, the context for business most certainly has changed. We can capitalize on an opportunity to lay the foundation for a sustainable future, both financially and environmentally. Businesses are seeking new strategies to adapt to a new landscape of risk and opportunity. Governments are facilitating investments in low-carbon infrastructure to boost jobs and economic growth. Unthinkable only a few years ago, today the case for a green recovery of the economy continues to gain traction around the world. The stimulus package in the United States, for instance, incorporates provisions seeking to deploy capital toward low-carbon assets. The business community is lining up to call for a consistent price signal on carbon to help guide long-term investments. Around the world, governments have already allocated billions in fiscal stimulus to climate-related investments. These commitments are just the first installment in what

could ultimately be a long-term government policy to use low-carbon growth as a key lever for economic recovery¹.

The financial industry is also adjusting to a new reality. Investors are recalibrating their risk and reward expectations; investment committees, boards of directors and shareholders are adjusting their concept of how to secure sustainable returns. Investors are finding longer-term horizons and investments in tangible low-emissions infrastructure more appealing than in past years.

There has never been a more appropriate time to return to fundamentals. Long-term investment strategies, in particular, will play a pivotal role in the transition to a low-carbon economy. So, how much capital will be needed to avoid dangerous climate change?

¹ HSBC Global Research (2009). *A Climate for Recovery: The Colour of Stimulus Goes Green.*

A manageable challenge

Investments towards a low-carbon economy must enable reductions in emissions of greenhouse gases sufficient to avert a catastrophic rise in global average temperatures. The investment decisions made in the next ten years will play a critical role in defining our long-term emissions trajectory as the infrastructure we finance today will lock in technology for decades to come. We need to finance infrastructure that will allow atmospheric concentrations of CO₂ equivalents to stabilize at the levels the scientific community deems safe.

Many studies have provided clarity regarding the costs of action (and inaction) to avoid dangerous climate change. While these studies differ in the specifics, their core message is consistent: Addressing the climate crisis is technically feasible and the investment required is considerable but manageable.

- The Stern Review, commissioned by the British government, estimated that the annual global investment needed to avoid the worst impacts of climate change could be limited to around 1 percent of global GDP each year if action starts now. By contrast, the report estimated the costs of inaction would be equivalent to losing at least 5 percent of global GDP each year. While scientific consensus since the Stern report was published has suggested that climate change is occurring faster than was anticipated at that time, the estimates by Stern remain a useful starting point in conceptualizing the scale of this challenge².
- According to McKinsey & Company, pursuit of the most economically rational emissions abatement opportunities would result in total upfront investment in addition to business-as-usual capital expenditures of €530 billion each year in 2020 and €810 billion each year in

² Nicholas Stern, *Stern Review on the Economics of Climate Change* (2006). Global GDP in 2007 was circa US\$ 54 trillion. That reduction would allow limiting concentrations of CO₂e to 550 ppm by 2050.

2030. This sum corresponds to 5-6 percent of business-as-usual investments in fixed assets in each respective year. In addition, much of this investment could be recovered through future energy savings, bringing the total investment to €200-350 billion annually by 2030, less than 1 percent of forecasted global GDP in 2030³.

- According to the UNFCCC, tackling climate change in the next quarter century will require “major changes to patterns of investment and financial flows.” The UN study estimated that US\$ 200-210 billion worth of additional investment and financial flows would be necessary to return greenhouse gas emissions to current levels⁴.

Other studies have estimated the investment needs in specific sectors:

- The International Energy Agency estimates that additional investments in energy infrastructure equal to 0.6 percent of global GDP in 2030 are needed to maintain a 450 parts-per-million concentration⁵. New Energy Finance and the World Economic Forum estimate that at least US\$ 515 billion needs to be invested annually in clean energy over an extended period to keep carbon emissions from reaching a level deemed unsustainable by scientists.”⁶
- According to the Eliasch Report on Financing Global Forests commissioned by the British government, the finance required to halve emissions from the forest sector to 2030 could be around \$17-33 billion per year⁷. In the very short term, 40 forest nations will need roughly US\$ 4 billion to fund capacity building efforts over five years.

These studies provide further insight into why the challenge ahead is manageable. If we are able to capture all costs-savings accruing from abatement measures, many investments could produce net benefits: in many cases, the up-front

³ McKinsey & Company, *Pathways to a Low-Carbon Economy* (2009). Version 2 of the Global Greenhouse Gas Abatement Cost Curve. This is the most optimistic scenario – all of the most economically rational technologies are pursued to their full potential.

⁴ United Nations Framework Convention on Climate Change, *Investment and Financial flows to Tackle Climate Change* (2008).

⁵ International Energy Agency. *World Energy Outlook 2008*. This estimate corresponds to their 450 ppm scenario (2008).

⁶ New Energy Finance and World Economic Forum, *Green Investing: Toward a Clean Energy Infrastructure* (2009).

⁷ UK Office of Climate Change, *Climate Change: Financing Global Forests* (2008).

capital investment could be recovered over time thanks to energy savings. According to McKinsey, approximately 11 of the 38 gigatons of abatement opportunity in 2030 could have a net economic benefit by enabling the savings in the future to outweigh their upfront investment⁸.

Another key insight from research to date is that the vast majority of abatement will need to occur in emerging economies. Therefore, a core challenge ahead will be to tackle the barriers to investments in these countries.

Numerous studies have also shed light on the need for prioritizing policy tools. Since most global greenhouse gas emissions are energy-related (power plants, buildings, transport and industry), much of the required capital will have to flow into energy solutions - both towards de-carbonizing the supply of energy, and reducing demand. These solutions require urgent attention as many of these technologies (such as stricter building codes and fuel efficiency standards) are readily available, yet need public policy support to provide the long-term framework investors require. New capital and financial flows are also needed to limit the destruction of critical carbon sinks, particularly since land-use changes account for roughly 20 percent or more of global greenhouse gas emissions.

Some of the barriers to low-carbon investing are behavioral and sector-specific, such as addressing the agency problems that property owners face to make building efficiency investments. For example, building owners lack the incentives to make the upfront payments to retrofit buildings because the benefits, in the form of energy savings, accrue to tenants and not to them. In other cases, barriers are institutional: almost all of the investment needed to tackle deforestation will have to be deployed in emerging economies that may lack appropriate institutional infrastructure to make investors feel sufficiently comfortable. Many governments, NGOs and multilateral agencies, along with private investors, are working proactively to address the needed infrastructure, monitoring, and compliance to ensure national emissions reductions. Globally, the efforts to address deforestation must be scaled dramatically.

⁸ See note 3.

Principles and catalysts

Dealing with systemic climatic risks will require systemic shifts in capital allocation. Given the technologies we currently have and the need to act swiftly, what tools will enable this shift in allocation patterns? Because risk-reward expectations drive investors to deploy capital toward some assets but not others, we need to lower the risk associated with low-carbon solutions to make them attractive to investors. Investors must recognize that carbon assets, not just subprime mortgages, are toxic.

Guiding principles

We need new approaches to manage systemic risks that build upon three core principles:

1. Long-term perspective
2. Good governance and transparency
3. Cooperation

Solid adherence to these principles over time will need to coexist with adaptive flexibility in the implementation of the ideas suggested below.

Principle one: Long-term perspective

Most investors and governments face limited incentives to use the long-term as their compass for decision-making. Investment performance is judged and rewarded based on quarterly results while governments can be defeated if they are deemed not to have delivered within a short time horizon. Encouragingly, there is a growing movement against short-termism; the current financial crisis is a dramatic example of what can happen when it goes unchecked.

To deploy capital at the scale required, investors will need policy signals that are Long, Loud and Legal: long-term oriented, clearly defined, and written into law. Establishing decarbonization mandates along a pre-defined and long-term horizon is the most critical enabler of low-carbon investing. With such mandates in place, policy uncertainty will no longer erode the returns and valuation of these assets. Governments need to implement a regulatory framework that will provide a solid foundation for investors.

1. Long-term financial products: Sweden's green bonds

Responding to a demand by Scandinavian institutional investors, Swedish Bank SEB (Skandinaviska Enskilda Banken) and the World Bank have launched “green bonds” to raise funds for mitigation and adaptation projects. The bonds are 2.7 billion Kroner, have a maturity of six years, and are World Bank Aaa/AAA-rated. The interest rate payable annually is 0.25 percent above Swedish government bond rates and SEB is the sole lead manager. A special “green account” will be used for proceeds from these green bonds and funds will be deducted from this account at the end of each quarter. Funds will then be added to the World Bank's lending pool in an amount equal to that quarter's new, green disbursements to support eligible projects.

So far, the bonds have raised circa US\$ 350 million via Swedish institutional investors, and will support mitigation projects in several sectors (energy, transportation, waste and forestry) and adaptation activities that will include protection against flooding, food security and sustainable forestry⁹.

⁹ <http://go.worldbank.org/LFS55Z7LL0>

In the absence of long-term credible policy signals including a price on carbon, low-carbon investments will fail to reach the scale needed. The global market for carbon credits - dominated by the EU Emission Trading Scheme and Clean Development Mechanism markets - has grown steadily in size in recent years to a value of US\$ 110 billion in 2008¹⁰. Although this market has succeeded in establishing a market-driven price for carbon, this price signal has proven insufficient to catalyze low-carbon investment on the scale that policymakers expected and investors require.

The uncertainty about the post-2012 climate regime has created volatile price signals that have failed to guide long-term investment decisions. The price signal from the EU Emissions Trading Scheme, for example, has not resulted in fundamental changes to the energy footprint of participating European utilities. In the future, the market is expected to provide reliable guidance to the private sector as it grows to include new parts of the world - the United States, China, India and Brazil in particular - and larger parts of the global economy such as aviation and forestry. In the meantime, we need a broader set of catalysts to unlock investments in low-carbon solutions at the scale and pace required.

Because the de-carbonization of infrastructure is at the center of the climate crisis, new financial products and strategies are needed to encourage pension funds and retail investors to invest in climate solutions. Governments could help develop funding schemes modeled upon the “War Bond” philosophy - using savings bonds to help fund a collective effort against a common adversary (see box 1). For example, “Climate Bonds” could be state-backed debt instruments with ring-fenced proceeds going directly into green infrastructure projects. Products like these could raise money from retail investors and pension funds and would guarantee that the proceeds go to climate solutions.

The need for modern grid infrastructure in the United States and EU illustrates where private capital must be mobilized alongside government infrastructure spending. New “smart grid” infrastructure could cost up to \$400 billion over

¹⁰ New Energy Finance Note. “Carbon market to break \$100 billion in 2008”

10 years in the U.S. alone¹¹. Government expenditure and green stimulus will likely help mobilize private investment through the multiplier effects that government expenditures have on the wider economy.

In addition to new products, momentum is building to create a specialized facility geared toward long-term investments in low-carbon infrastructure, offering loan guarantees, lines of credit, equity investments and insurance (see Box 2). This idea is gaining support in the U.S. where the 2009 federal stimulus package included billions to support loan guarantees for renewable energy and electrical transmission technologies¹².

Finally, at the household level, many of the investments in energy efficiency for buildings involve investment decisions by millions of homeowners, creating a need for new financing strategies for individuals. In particular, large-scale deployment of “green mortgages” could provide household loans to help finance the additional upfront capital required to enhance the energy efficiency of a house, enabling homeowners to pay over time with the energy savings that accrue in the years which follow.

2. Towards a clean energy bank and federal fund in the United States

In 2008, the U.S.-based Council on Competitiveness called for the creation of a US\$ 200 billion clean-energy bank for the U.S. to be modeled after the U.S. Export-Import Bank and Overseas Private Investment Corporation. The bank would provide long-term financing (loan guarantees, lines of credit, equity investments and insurance) in order to drive commercial investment toward clean energy solutions and support low-carbon infrastructure investments¹³.

¹¹ David Talbot, “Lifeline for Renewable Power” Technology Review, January/February 2009

¹² American Recovery and Reinvestment Act of 2009 (February 2009), Energy Section.

¹³ www.compete.org/about-us/initiatives/

Principle two: Good governance and transparency

The implementation of measures to price externalities, such as CO₂ emissions, requires strong institutions. The specialized agencies at the core of the global economy - including the World Trade Organization, International Monetary Fund and World Bank - arose from the efforts of governments in the post-World War II era to develop the institutional architecture required to facilitate global trade, financial stability and economic development. Today, the joint financial and climate crises underscore the need for a similar multinational effort to revise and update this institutional architecture. The global economy has indeed entered a post-Bretton Woods era, and we must now reform our international institutions for trade, finance and development - first envisioned over 60 years ago - in order to address today's financial and environmental challenges and respond to the linkages between these two spheres. Climate governance at the global level calls for new institutional arrangements. Several global mechanisms have been proposed ranging from a global carbon fund to a global trust for ecosystems and forestry. These proposals have different emphases but share a philosophy: long-term orientation, multilateralism, and protection of the "global commons."

Good governance and transparency are mutually reinforcing. We will need to increase non-financial disclosures to further shift capital allocation away from carbon-intensive assets. Greater disclosure of climate risks will allow investors to uncover hidden climate risks and opportunities in their portfolios. Possible ways to mandate stricter listing requirements of climate-risk disclosure among public companies as well as requirements for better disclosure, both qualitative and quantitative, of climate risks in annual financial reports also merit further exploration.

A concerted effort to gauge and manage carbon data around the world needs to complement a global institutional anchor for climate finance. Carbon analysis should no longer rely on data collected for other purposes (e.g. fossil fuel consumption or transport data). Just as labor and financial flows are carefully and officially tracked around the world, carbon also needs its own centralized and international data management facility.

Global fund

To catalyze and scale up capital toward low-carbon solutions, a global fund could be created with the sole purpose of financing projects that protect the global commons. Such a facility would operate along the logic of a federal reserve, ensuring that we have enough liquidity to invest in carbon reduction - and that the economy does not deviate from a safe emissions trajectory. Funding would come from governments, and the agency would operate as a multilateral body. It would set rules and facilitate financial emission-reduction transactions, and could also provide “rescue packages” in critical situations.

Because forests are in particular danger and a key element of any solution, a global fund could provide financing to governments that seek to avoid deforestation. Forestry trusts or ecosystem endowments could be put in place that would allow host governments to sell forests to the global carbon fund in exchange for certain guarantees, and the fund could be a means of delivering foreign aid in exchange for the preservation of important carbon sinks.

The Catalyst Project, which aims to rapidly accelerate the world’s response to climate change, has explored the creation of a “carbon bank” to help boost the Clean Development Mechanism (CDM) under the Kyoto Protocol. Such a global system would require developed countries to buy credits at their market (marginal) cost from the “carbon bank,” which would then use the proceeds to buy credits in developing countries at a price close to the incurred (average) costs. The carbon bank would use the proceeds from any difference between sale and purchase prices to enhance and fund domestic mitigation and/or adaptation efforts in developing countries, in a way similar to the current CDM levy¹⁴.

¹⁴ <http://www.catalystproject.info>

We need reliable emissions data that is as timely and relevant as the data investors already receive on GDP, non-farm payrolls, consumer price indexes, industrial production and house prices.

Principle three: Cooperation

In the coming years, we are unlikely to make progress in tackling climatic and financial risks without a significant increase in collaboration. The concurrent financial and environmental crises will likely demand a level of cooperation not seen since the Second World War. Given the existential threat we face, cooperation will be akin to self-preservation. The natural world offers examples of animals choosing to cooperate as a mechanism to survive. Communities of species that exhibit collaborative behavior tend to outperform communities where competition is the only option¹⁵.

In the past 20 years, we may have put too much emphasis on the benefits of competition and paid insufficient attention to the long-term benefits of cooperation; in the face of current problems, we need both. Competition enables the very innovation in technologies, products, and services that are critical for the transition to a low-carbon future, but it must be complemented by a collaborative philosophy.

For example, collaboration is necessary for the development of financing strategies that scale up the retrofitting of buildings¹⁶. According to McKinsey, many of these upfront investments could pay for themselves in about ten years by delivering equivalent energy savings. The main obstacle to these investments being made, however, is a combination of the initial upfront payment, agent and principal problems, and inertia.

To resolve these issues, some foundations and non-profits are working together with banks to offer solutions, including strategies that allow the owner of a building to implement a retrofit without disbursing the initial capital expenditure. Instead, the owner retains one hundred percent of the energy cost savings from their projects. These savings can be used to repay loans used to finance home

¹⁵ D.S. Wilson and E.O. Wilson 2007. Survival of the Selfless. New Scientist. November.

¹⁶ J. Oppenheimer, E. Beinhocker, and D. Farrell (2008) Not Sky-High. Newsweek International. Nov. 15, 2008

improvements or can be kept by the owner, depending on the scheme (see Box 3). Major multi-stakeholder collaborative efforts are also needed to implement strategies to de-carbonize at the city-level, which calls for joint efforts to define long-term planning directives that guide appropriate investments towards cleaner infrastructure.

Governments will also have to radically bolster the way they cooperate to ensure consistency and foster progress. Among those requiring coordination, few projects will demand more collaboration to successfully deploy capital than those tackling deforestation. Since land-use-related abatement opportunities are mostly in emerging economies, the challenge must command the engagement of those governments with the foreign reserves, sovereign wealth, and economic strength to offer assistance.

3. Collaborative financing for building retrofits

Multi-stakeholder model:

The Clinton Foundation Climate Change Initiative's Energy Efficiency Building Retrofit Program has brought together banks, energy services companies, cities, and building owners to perform energy efficiency retrofits that guarantee energy- and cost-savings¹⁷.

Chicago's Climate Change Plan:

One of the most ambitious in the United States, Chicago based its financing on the Clinton Foundation's program. This plan seeks to retrofit 9,200 high-rises and factories as well as 400,000 homes in the next 12 years as part of an overall plan to reduce carbon emissions from 1990 levels by 25 percent by 2020 and 80 percent by 2050¹⁸.

Performance-based home retrofit program:

The National Resources Defense Council in the U.S. has proposed a system that would allow consumers to receive a rebate for 40 to 60 percent of the costs of energy efficiency improvements¹⁹.

¹⁷ <http://www.clintonfoundation.org>

¹⁸ "Chicago Goes Green Future". By Josh Boak. Scientific American Earth 3.0. Vo.1.18, No. 5 Dec. 2008

¹⁹ <http://www.nrdc.org/energy/unlocking.pdf>

Many of the ecosystem services that forests provide are crucial for maintaining life and livelihoods: roughly 1.6 billion people depend on them for their welfare and income²⁰. To build trust, countries with the capacity to help will need to not only honour their own commitments to reduce emissions, but collaborate with those receiving assistance to achieve climate goals. A new platform for cooperation will require the use of performance-based criteria to build confidence that the projects are delivering expected reductions. Norway's collaborative approach with Brazil to combat deforestation illustrates this approach (See Box 4).

Cooperation is also critical because systemic changes in our geopolitical landscape are underway. We are moving toward a multi-polar context in which large emerging economies command a stronger voice in global affairs. In this new context, we need to creatively move beyond sterile technology-transfer prescriptions that fail to account for new realities. The breakdown of the world into "developed" and "developing" categories is quickly losing currency. A dynamic wealth creation process is occurring in large emerging economies and cooperation will be needed to continue building trust with these countries. Much of this collaboration can be channeled toward creating stronger institutions in the emerging world that will allow more investment to flow into low-carbon infrastructure. Many of these countries will require new and larger infrastructure in the coming years and their technological choices will lock the world into a particular emission trajectory in the future.

Finally, a successful approach to addressing the climate crisis will require innovation and collaboration to address other fundamental challenges facing our society, such as energy security, water scarcity, demographic changes, and extreme poverty and disease. These challenges are deeply interrelated and will require joint action on many fronts to manage complexity and encourage synergetic solutions, such as infrastructure projects that incorporate climate change and water-related considerations, while simultaneously creating employment and economic prosperity²¹.

²⁰ See note 3.

²¹ For a technical discussion of these linkages, see IPCC (2008) Climate Change and Water.

4. Performance-based cooperation with the Amazon Fund

Brazil's Amazon Fund:

In 2008, Brazil created a fund to shore up conservation of the Amazonian forest. In total, the country hopes to attract US\$ 21 billion in international donations to protect the Amazon. Norway was the first country to pledge funds, and has committed a conditional US\$ 1 billion²².

Norway's donation and criteria:

Norway's donations will be contingent upon confirmation that Brazil is stopping deforestation, including "clear documentation that deforestation is being reduced." In 2008, Norwegians gave Brazil US\$ 21 million and \$210 million is planned for 2009. In 2009, Norway and Guyana announced they were launching a similar cooperative approach to stop deforestation²³.

²² <http://news.mongabay.com/2008/0917-brazil.html>

²³ www.pointcarbon.com/news/1.1050278

PRINCIPLES AND CATALYSTS

Principle one: Long-term perspective

Catalysts:

- Legislation that establishes de-carbonizing mandates over decades not years but also provides flexibility in implementation.
- New financial products and strategies that engage institutional as well as retail investors seeking to invest in climate solutions over the long-term.
- A specialized facility geared toward long-term carbon investment.
- New financing strategies for individuals to help cover up-front investments and enable low-carbon choices.

Principle two: Good governance and transparency

Catalysts:

- A global governance platform for carbon that provides the institutional architecture needed in this post-Bretton Woods era. Such a global platform would be long-term, multilateral, and protect the “global commons.”
- A global fund to protect natural resources, such as ecosystems and forests.
- Better disclosure of climate risk and why this risk is material. Increasingly, boards of directors will need to have experts in sustainability - on climate risk in particular.

- A concerted effort to gauge and monitor carbon concentrations around the world, to help facilitate accurate carbon analysis. In particular, the creation of an international entity in charge of collecting and processing carbon data (just as is done with labor, trade and energy statistics).

Principle three: Collaboration

Catalysts:

- A new platform for low-carbon cooperation to develop financing strategies that scale up the retrofitting of buildings.
- Collaboration to successfully deploy capital to tackle deforestation and meet other financing needs in emerging economies (e.g. creating an aggregator in the carbon market).
- Deeper trust among global players to ensure a low-carbon trajectory for countries whose economic development is less advanced.
- Systemic approaches to the complex inter-linkages between climate change and other global challenges.

Final remarks

With the world planning to invest €10 trillion in fixed-asset investments in the next ten years we must avoid locking capital into outdated technology and infrastructure. If this amount of capital flows toward traditional high-carbon investments, we will have put the economy on the wrong footing for several generations. Yet it is possible to change course.

We have a tall order ahead of us: the deployment of hundreds of billions of dollars every year toward climate solutions. But it is a manageable challenge because we already have most of the solutions that we need to reduce emissions to the levels that scientists consider safe. We also know enough about the kind of policy tools required to encourage investment in abatement options. Policy - in the areas of climate, energy, and finance - will succeed if it fundamentally alters how we manage systemic risks. If carefully conducted, governmental intervention could help spur the right policies - Long, Loud, and Legal - to increase the scale and pace of the capital flowing toward climate solutions.

Ultimately, the required reallocation of capital toward climate solutions entails a systemic shift in emerging economies in particular – one that enables these regions to grow and prosper along low-carbon lines. Without such a shift, we will be unable to create prosperity and stability in the long-term. This extraordinary challenge will command equally extraordinary ideas and leadership, and require unprecedented collaboration. Perhaps the most important recognition is that collaboration will be the hallmark of any successful response to the climate crisis.

The crises in finance and the environment provide new impetus for advancing novel ideas and business models. Those of us working at the intersection of finance, policy, and sustainability need to seize and shape this opportunity. With the right reform, finance will return to its original purpose - as an enabler of prosperity. But ultimately, it must be society who defines the road to wealth creation. And the current crisis has reminded us that science, not finance or economics, should guide us in assessing the systemic risks we can afford to take along the way.

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About the Copenhagen Climate Council

The **Copenhagen Climate Council** is an international initiative that brings together leading authorities on climate change, including the world's most renowned scientists, business leaders and diplomats, who are dedicated to turning the challenges of climate change into new opportunities.

The goal of the **Copenhagen Climate Council** is to create a constructive and positive global dialogue based on effective solutions to climate change. The recommendations of the Council are delivered directly to the Danish government, which will take them forward to the United Nations Climate Change Conference in December 2009. This gives business a voice at the negotiating table and the opportunity to help build an effective framework to tackle climate change.

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Monday Morning, the **leading independent think tank in Scandinavia** and founder of the Copenhagen Climate Council, facilitates the ongoing work of the Copenhagen Climate Council.

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