The world had high hopes for the Copenhagen Climate Change Conference, as many of the legal structures and initiatives set forth in the Kyoto Protocol will expire in 2012. These structures and initiatives gave rise to some market-based mechanisms for achieving the emission targets suggested in Kyoto—for example, emissions trading schemes (“cap-and-trade” systems) and the Clean Development Mechanism (CDM) arose directly out of Kyoto.

The European Climate Exchange is the most active cap-and-trade emissions trading system established after Kyoto. After commencing trading in 2005, exchange volume grew at a compounded annual growth rate of greater than 175%. European corporations exceeding emissions targets are required to purchase credits, while those who reduce emissions below their targets are allowed to sell credits. Pricing of emission credits has been volatile, as the balance of supply and demand has been uncertain. For a cap-and-trade system to be successful at reducing emissions, the number of available credits should decline over time and combine to an allowable emissions total at or below the target amount.

No such cap-and-trade system has been formally adopted in the United States (US). All trading on the Chicago Climate Exchange has been voluntary, with volume of less than 0.3% of European levels. Should the US ratify a cap-and-trade system, investment in emissions reductions projects are likely to grow as rapidly as those initiated by Europeans over the last five years?

Source: Chicago Climate Exchange

Development of Strategies

A number of other more traditional investment products have been developed to profit from trends in climate change. Public equity investors can invest in companies in industries such as low-carbon energy production; energy efficiency and management; and water, waste, and pollution control. Firms comprising 4% of the world’s market capitalization earn greater than 10% of revenues from climate change-related activities (HSBC 2009). Venture capital investors can invest in firms working toward breakthroughs in clean technology, while private equity investors may participate in clean energy projects in emerging markets. The economics improve when the project is certified to earn credits from the United Nations Clean Development Mechanism. Hedge funds are offering investments in carbon futures trading and long-short equity funds designed to take advantage of the shifting fortunes of various climate change industries.

Some asset managers have committed substantial resources to the area of climate policy analysis. This focus comes from the realization that shifts in policy and the availability of governmental stimulus funds can make or break investment projects. After Kyoto, the European market had a stable regulatory regime, which led to a substantial increase in investment activity and carbon futures trading.

In the US, however, regulatory certainty has not yet arrived. The emissions cap-and-trade scheme narrowly passed by the US House of Representatives in 2009 is currently stalled in the Senate. Passage of this bill, or similar legislation, would mandate carbon trading nationwide as well as serve to officially adopt the post-Copenhagen US target for a 17% decline in greenhouse gas (GHG) emissions by 2020. Rather than waiting for a single bill to pass that outlines a comprehensive climate solution for the US, Congress might make more progress by passing more targeted bills that focus on specific issues such as approving the proposed reduction in US emissions. Revenues from a cap-and-trade system could be used to fund the US commitment to providing subsidies for emission-reducing projects in developing countries.

For now, climate change projects in the US are largely in a holding pattern, as Copenhagen did not remove the substantial uncertainty in the investment environment. Due to this uncertainty, carbon futures trading and installations of climate change projects in the US have been experiencing slower growth. These sectors, however, continue to attract significant investments in Europe and emerging markets. Without a nationwide climate policy in the US, investments to date have been driven by corporate initiatives or localized solutions, such as the Regional Greenhouse Gas Initiative where ten northeastern states and three Canadian provinces have built a regional cap-and-trade framework. Corporations are investing in projects that seem profitable given today’s environment, with the hope of additional profits when regulations change as anticipated.

Collaboration is Key

In spite of this uncertainty, institutional investors continue to investigate the investment risks and opportunities associated with climate change. The scope of the challenge requires a collaborative response—from asset owners, asset managers, and asset consultants. At EnnisKnupp, we address this challenge by creating a cross-functional research team, which includes analysts covering private equity, real estate, public equity, and hedge fund strategies. This research team provides education and advice on the climate change investment landscape to field consultants and clients. The objective of this internal collaboration is to leverage resources and ultimately help clients develop a comprehensive understanding of climate-related investment risks and opportunities.

For example, say the private equity team is performing due diligence on a venture capital manager who has an explicit focus on clean tech. In the course of their research, the manager reveals that her investment thesis is founded upon a significant development in a regional cap-and-trade initiative that positively impact her investment decisions. The collaborative structure encourages and rewards the sharing of this information, potentially helping the hedge fund research team vet long/short equity managers and carbon managers and benefiting the real estate team in its assessment of the risks and opportunities associated with developers in the identified region. Working together allows the teams to leverage their collective knowledge, make more informed decisions, and ultimately better serve clients.

Investments in the US real estate sector are growing following the adoption of a set of standards—the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. The growth in the real estate sector shows the potential for investment growth in the US once regulatory certainty, or at least a consistent standard of evaluating projects, is achieved.

For investors looking to profit from climate change investments, regulatory uncertainty makes it difficult to allocate funds to projects that might be unnecessary or uneconomic in a future regulatory regime. For energy companies and utilities, especially, projects might continue to be delayed until emissions reductions are required by law, further increasing the likelihood of additional GHG emissions. Understandably, investment dollars have been attracted to the regions with the greatest regulatory certainty. Until US industry sees the stability of the regulatory climate that Europeans enjoy, the US will continue to struggle to reach significant adoption of investment projects designed to slow climate change. But it is critical that asset owners and their consultants rigorously monitor and prepare for this expected clarity in policy and the possible investment risks and opportunities that will certainly follow.

References

Biography

Keith Black leads consulting relationships for a select number of Ennis, Knupp & Associates, Inc., retainer and project clients. Keith is also a senior member of the firm’s opportunistic strategies investment management research group.

Keith’s notable activities include:

· Presented research on hedge funds and commodity investments at the EnnisKnupp client conference
· Serving on the retained speakers’ bureau of the CFA Institute, where he presents on alternative investment topics, including hedge funds, infrastructure and 130-30
· Working with Ennis, Knupp clients on education and manager selection in the opportunistic strategies space
· Visiting and evaluating hedge fund managers including long-short equity, global macro, multi-strategy, event driven, commodities, managed futures, and fund of funds

Prior to joining EnnisKnupp in 2007, Keith taught at the Illinois Institute of Technology as an Assistant Professor and Senior Lecturer for the past eight years on several subjects, including investments, equity valuation, portfolio management, mutual funds, economics, hedge funds, global investment strategy, finance, and enterprise formation (venture capital). He has also authored a book entitled, “Managing a Hedge Fund: A Complete Guide to Trading, Business Strategies, Risk Management and Regulations,” that was published by McGraw Hill in 2004, and has written several published research articles on issues facing hedge funds.

Keith holds a B.A. degree from Whittier College in mathematics/computer science and economics, and an M.B.A. degree from Carnegie Mellon. He is a CFA charterholder and also holds the Chartered Alternative Investment Analyst designation.
Sometimes investment opportunities result from patents, or ownership of land or natural resources. In the rest of this chapter, we outline the plan of the book and give a flavor of some of the important ideas and results that emerge from the analysis.

4.A A Few Introductory Examples. The general ideas about "real options" expounded above are simple and intuitive, but they must be translated into more precise models before their quantitative significance can be assessed and their implications for firms, industries, and public policy can be obtained. Chapter 2 starts this program in a simple and gentle way. This uncertainty has a significant impact upon economic conditions, such as the cost of inputs (work, resources) and customer behavior. But it can also threaten business continuity: the simple ability for firms to carry out their daily activities. This assessment can differ depending on the industry (uncertainty around economic conditions might threaten business continuity for some industries more than others) and on the firm (some organizations can better predict and respond to uncertainty than others). In the case of growing markets, firms are likely to have both the opportunities and the resources to be more aggressive in their reaction to uncertainty. Two strategies for steady or declining markets. This article studies the impact of regulatory uncertainty on an incumbent’s incentives to undertake the socially optimal investments in NGA networks. Thus, a regulatory non-commitment setting in which the regulator sets the access price after the deployment of the NGA network is used. In particular, it is assumed that the regulator sets the access price at the marginal cost of providing the access with some probability and gives an access markup, which equals the average cost of the investments, with the complementary probability.