The Business of Climate Change: Investing and Managing in a Changing Environment

B Term Spring Semester 2017.

A half-semester MBA elective taught by Patrick Bolton, Kent Daniel, Geoffrey Heal and Elke Weber.

For better or worse, climate change is already affecting American and global business. Some industries will be transformed by climate change and the policies that respond to it. For example, the coal industry, a mainstay of advanced economies since the start of the industrial revolution, is already collapsing. The oil and gas industry will be radically transformed and reduced in scale. The automobile industry will be transformed, with the growth of electric vehicles leading to the entry of new players in both vehicle production and component production for the first time in half a century. Construction and real estate will also be transformed. Tourism and many other leisure activities will undergo profound changes, and agriculture is already experiencing major challenges.

This course will provide a framework for thinking about climate change and its consequences for business. The perspective taken will be that of senior executives or CEOs in industries affected by climate change. The course is intended for students who are interested in consulting careers, who are likely to encounter these issues as they move between companies and industries. It is also relevant for students interested in corporate strategy, which in many cases will be affected by the issues in the course. And for students going into fund management, who will need to think about the challenges that climate will pose for the firms that they invest in and to analyze which companies will be well-placed to cope with these. The course is also relevant for students interested in impact investing, green investing/SRI, and careers that have a direct relationship to environmental issues. It will also be of relevance to those seeking careers in the investment, consulting, or even general management area, where there will be issues relative to a firm’s or investor’s social responsibility, or to project choice in the face of environmental impacts, that even mid-level managers will have to worry about.

The course will be taught by Patrick Bolton, Kent Daniel, Geoffrey Heal and Elke Weber. The last two sessions will be given over to student presentations and class discussions: earlier sessions will be mainly lectures with some discussion topics.

Prerequisites are managerial economics, capital markets and strategy, or instructor's permission.

The twelve sessions will be organized as follows:
1. **Scientific background** – what do we know and what is uncertain about the future climate and its social and economic consequences.

2. **The psychology of climate change risk perception and action**: homo economicus vs. homo sapiens. How does the public perceive the issue, how does that translate into political will, formulation and implementation of mitigation and adaptation policies, and private sector action?

3. **What are the policies that can respond to climate change?** A review of mitigation and adaptation policies. Cap and trade, carbon taxes, renewable subsidies. What has the international community committed to?

4. **Case studies** of the European Union's Emissions Trading System, the California cap and trade system, the North East States Regional Greenhouse Gas Initiative.

5. **Climate and Capital Markets**

6. **The Divestment Movement**

7. **The future of the energy, transport and infrastructure.**

8. As above

9. As above

10. As above

11. **Case studies** – Tesla/SolarCity/Sun Edison/a coal company/energy storage (student group presentations)

12. **Synthesis** (student group presentations)

**Reading.**

**Session 1: Scientific Background**


Trevor Houser, Solomon Hsiang, Robert Kopp and Kate Larsen *The American Climate Prospectus* - report funded by Bloomberg, Paulson and Steyer on impact of climate change on the US economy. [This is probably the best single reading. Read chapters 4 through 11]


**Session 2: Reactions to Climate Change**


**Sessions 3 & 4: Policy Responses**


**Session 5. & 6 Capital Markets**


Sessions 7, 8, 9 & 10: Energy, Transportation and Infrastructure


Christopher Knittel “Reducing petroleum consumption from transportation” Journal of Economic Perspectives Winter 2012 Vol 26 No 1 pp 93-118


Session 11: Case studies: to be written.