UBS Investment Bank

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King's Comment
A model for low carbon growth?

Quarterly Bulletin from Professor Sir David King, Senior Scientific Advisor to UBS

"How can we achieve the stringent measures we need while allowing the global economy to flourish?"

There was good news from the G8 meeting at the beginning of July, as the world's richest nations finally pledged that industrialized countries would reduce their greenhouse gas emissions by 80% by 2050. This is an ambitious goal, but a necessary one if we are to have any chance of staving off climate catastrophe. But is it even possible? While the G8 countries were meeting, my institute—the Smith School for Enterprise and the Environment—invited 200 senior policy makers, industrialists and academics to a World Forum. Their brief was to address this question of how we can achieve the stringent measures we need, while still allowing the global economy to recover and flourish. In other words: is there a model for low carbon growth?

For two days, our delegates wrestled with ways to achieve low carbon economic growth, from the point of view of institutional and behavioral change, global governance, economic activities and infrastructure.

Lord Browne of Madingley gave the first of many important views from the private sector. He emphasized that reducing emissions is less expensive than many people fear—and can even save costs. Companies that are threatened by the low carbon revolution, he said, need to find ways to turn it into an opportunity.

Dr Ulrich Von Deessen, BASF's Climate Protection Officer (and former Chief of Staff to the Company's Chairman) showed how this can be done. He explained how BASF became the world's largest chemical company not in spite of its activities to reduce emissions, but because of them. BASF's experience shows that the key to profiting from becoming greener is an openness to new technology, and the ability to see reducing emissions as an opportunity to reduce costs. This is an excellent example of the sort of institutional change that we need to see in the private sector, and makes a salutary contrast with the troubles of General Motors, which refused to adapt to the new climate and is now on its knees.

On the issue of global governance, Lord Anthony Giddons from the London School of Economics pointed out that, just as the global economy has become more interdependent, institutions such as the United Nations have grown weaker—mainly because of lack of leadership from the US. This is a particular concern when it comes to enforcing compliance with the UN's climate objectives. Lord Giddons warned that the agreement to be thrashed out later this year at the UN's crucial meeting in Copenhagen may end up having too little bite.

However, he and many other delegates felt that our expectations for reaching international agreement about reducing emissions should also encompass bilateral and trilateral agreements between the major players. As the US develops its approach to dealing with climate change through the Waxman-Markey Bill, now passed by Congress, it could reach out to China to negotiate a joint agreement between the world's two largest emitters. Such bilateral agreements are more likely to be binding than one between 192 nations that has few compliance features built in.

This does not mean that the Copenhagen meeting doesn't matter. It will of course be vital to reach some form of fully global agreement if we are to solve this global problem—and prevent the next tier of rapidly developing nations from stepping up to the podium to become the world's next largest emitters.

In fact, the issue of how to engage all the players, not just the major ones, occupied Professor Laurent Mermet from AgroParis Tech in France. He urged the meeting to avoid falling into the trap of using the word "we" without defining who this really means. "We" could be the G8 leaders, sitting at one table, or the G77 leaders sitting at another. Professor Mermet emphasized the importance of determining exactly which stakeholders are being left out of the discussion and how they can be fully engaged in the process.

In this regard, the conference noted that the failure to date by the largest economic powers to mitigate their own emissions has greatly exacerbated the risk that developing countries are now facing. Early in the meeting we heard from several heads of state who had sobering messages. President Mohamed Nasheed from the Maldives told us that if the world fails to solve climate change "my people will die". His voice will be a crucial one at the UN meeting in Copenhagen later this year, not because of the size of his country but because it is an icon of what will happen if we don't manage this problem.

But we also heard from President Paul Kagame of Rwanda, who has instigated a program of greening and terracing the formerly deforested slopes of his hilly country. Kagame is no tree hugger. Thanks in part to the environmental policies he has put in place, he has presided over economic growth of 10% per year for more than a decade. His plea for dealing with climate change is a hard-headed one. Rwanda has learned to recognize the economic power of ecosystem services.

To enable other developing nations to harness this economic power, we will need a slew of financial mechanisms to support developing countries in both adapting to the climate change that is already inevitable, and in mitigating their emissions. We will also need to rethink the architecture of our current financial institutions. The World Bank, for example, can no longer fund old high-carbon infrastructure with its right hand, while attempting to encourage the path to a low carbon world with its left.

When it comes to economic activities, it is clearly not just possible but imperative to seek models of low carbon growth. Some essential features of this will include an urgent halt to deforestation, and the effective decarbonizing of all the world's energy usage: electricity, transport and heat.

To achieve this, we will need a balance of intelligent planning and effective pricing. The EU's Emission Trading Scheme has provided some useful lessons about how to set a price on carbon through developing a new market in carbon trading. However, it only extends to 2020. Companies need longer-range confidence in a carbon price to make the investments the world needs.

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Neil Carson, the CEO of Johnson Matthey, explained the beneficial role that new technologies can play in achieving this. His company spotted the opportunity for creating a new technology to reduce smog-related emissions in cars back in the 1980s and has profited considerably as a result. Now, Johnson Matthey is turning to technologies that can control greenhouse emissions, and greening itself in the process.

The Chairman of Arup's Global Infrastructure business, David Singleton, also told the conference how critical infrastructure will be for saving energy and reducing emissions. Arup is another company that sees many business opportunities in the low carbon economy.

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On the subject of infrastructure, both the challenge and the opportunity are immense. The world is facing a profound choice. Some 70% of the world's power supply for 2030 is yet to be built. Will we choose new low carbon power or fall back into the old, high-carbon trap? In the next few decades a billion people will urbanize in a one-off transition that is unique in the history of mankind. Will they be living in sustainable housing, or in wasteful debilitating slums? Today, 30% of the world's population is suffering chronic water insecurity. By 2030, if we get our choices wrong, this will rise to a staggering 70%.

We can get our infrastructure right, if we choose to. The transformation will not be smooth, or tidy, but that is probably as it should be. We can achieve it by radically improving our energy efficiency and use of land in a series of "no regrets" strategies that are in the interest of all the actors. We will need to build our options more aggressively to be able to respond to the uncertainty we face. We will also need to use information more intelligently, including using pricing as a way to send the right signals.

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All of these actions will be animated by leaders, entrepreneurs, the public, private and non-profit sectors—those players who will come forward to take risks for their own benefit, which will in turn benefit the rest of the world.

At the close of the meeting, Vice President Al Gore set out his own vision for low carbon growth. For him, this is a problem of consciousness. The threat of climate change is very real, to business as much as to the public as a whole. Now we need to respond with the urgency that this threat deserves.

In this regard, Vice President Gore pointed out that China is already putting the US to shame. Each year, he said, China now plants more than twice as many trees as the rest of the world together. It has already overtaken the US as the nation with the biggest installed wind capacity. Their approach shows us the interconnectedness, not just between the problems we face, but between the solutions we can choose to follow.

Vice President Gore told us that "we can be pleasantly surprised by how quickly things can change."

That is a message that I know myself very well. When I left my native South Africa, involuntarily, in 1963, I couldn't imagine that it would ever be a non-racial country. When I visited Berlin in the 1980s, it seemed as though Germany would be forever divided. The dramatic change in Russia presided over by President Gorbachev (with whom I am now working on new approaches to global governance) took most people by surprise.

The overall message is clear. We can make the transition to a new model of low carbon growth, within the next few decades. The public appetite for this is certainly growing, and the political will cannot be too far behind.

Next year, it will be the job of this invitation-only conference, a meeting of entrepreneurial minds from the science, government and the private sectors, to build on the framework established in July 2009. This forum of the Smith School is unique in being, in one fell swoop, think tank and potential incubator of social enterprise. Within the membership of this group are people potentially equipped to help unleash the combined power of technological innovation, socio-economic planning, and markets. In 1959, in the same city, Sir Martin Wood founded Oxford Instruments, a company whose ideas and inventions over half a century have generated unsung economic value world wide, transforming people's lives. As Al Gore has said, deciding to be part of the solution is critical.

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In April 2008, UBS announced the appointment of Professor Sir David King as our Senior Scientific Advisor. Formerly the UK Government's Chief Scientific Advisor and Head of the Government Office for Science, Sir David advises UBS on all scientific matters with particular emphasis on global climate change and the challenges it poses to sustainable economic growth. He is also currently Director of the Smith School of Enterprise and the Environment at the University of Oxford.

'A model for low carbon growth?' is the third issue of 'King's Comment', a quarterly series of science-focused bulletins by Sir David King.

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