Delivering Energy for Sustainable Growth
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Thank you for inviting me to speak. It is a great pleasure to be here.

I join you in what have been extraordinary times. When I was in Beijing last time, which was in Aug, I came for the Olympics. I spent three weeks with my family. The oil price was 150 dollars and people thought that the financial crisis was behind us. How little did they know. It's clear that the oil price keeps moving in ways that none of us are able to predict. The financial crisis has spread from the banking sector into the world's economies. No one can doubt that the world economy is now integrated. And, I suppose one of the biggest changes of all is the election of a new president in the United States.

There are two themes that I'd like to address today. Firstly, oil price. I certainly don't intend to predict what it will be in six months time or in six days time. And also that of climate change. But before I do that, I thought I should say a few words about the current economic situation which is the focus of so many peoples' attention at the moment. The OECD countries in the developing world are experiencing the sharpest slowdown in economic growth for many decades. Growth has begun to slow in other countries as well. This is a consequence of both economic cycloid work and the fallout from the recent financial crisis.

Up to last year, we saw the strongest five year period of global growth since early 1970s, with an increasing share coming from the world outside the OECD. This help pull up the prices of commodities including oil and many other assets. And on the back of the boom, the OECD has seen increased growing --- a strong growth leveraged into derivative financial instruments. Some of those derivatives were based on sub-prime mortgages taken out by people who couldn't afford to pay them when house prices started to fall.

And now, as it always has and always will, the cycle has turned. The bubble has burst, and we have a financial crisis. This one, however, is much worse from that which we used to. It's an international crisis which now raises a threat of widespread defaults or deflation as asset prices come down. The adjustment to a post-bubble world will be painful, but not catastrophic. Governments across the world are taking coordinated action to manage the economic impacts of the financial crisis, and lessen the pain of economic adjustment. I believe that over the next few years, we'll see globally economic growth recover, driven by continued industrialization here in China and emergence from recession of, first, America and then Europe.

So what does this all mean for oil prices? Despite the recent price decline, 2008 will be the seventh consecutive year in which oil prices have increased. I'm frankly we've never seen anything like that. BP has records going back to 1861, the time of the American civil war. And in all those years, we've never seen prices going up for more than five years in a row. Not very long ago, when I was staying here in the summer, people were predicting the price could hit $200 a barrel in the near future. Just a few months later, as you know, the price is close to $50 a barrel.

Three things have happened. First, years of high prices have an impact on oil demand. Oil demand growth in OECD started to slow down in 2006 and 2007, when prices moved up rapidly, long before anyone was worried about the financial crisis and the global recession. The impact is most clear in the U.S.. Over the first 9 months of this year, US oil consumption declined by 1.2 million barrel a day, the largest fall since 1980/81.

Second, OPEC members, most notably Saudi Arabia, had increased production significantly in 2008 before implementing new cuts in Sep and Oct in the face of falling prices.

Third, the economic slowdown following the financial crisis has started to take hold. That has accelerated the first trend of falling demand, with global growth expected to be below 1% in 2009.

So in short, the growth in demand for oil is slowing and cutting deal contracts next year.

However, a word of caution: it's always better to look past the short-term fluctuations and keep an eye on the fundamentals. In the long run, the big question is, how tight is the continuing balance between supply and demand.

That hasn't just suddenly changed. We are in the middle of the most significant industrialization in human history as one third of the world's population moves from a rural way of life to an urban way of life.

The developing economies will account for all of oil demand growth this year and in recent years have accounted for 90% of the growth in energy demand. Nearly half a billion people will cross the $5,000 a year income threshold between 2005 and 2020. Half of them will live in China and India. In my lifetime the world's population has doubled to more than 6 billion people. And at the current rate, it will exceed 9 billion people by the year 2050.

The situation in China is, of course, the best example of the speed of change. After 30 years in which the average GDP growth has been 10%, China is already the third largest economy in the world. Income per head has grown by twenty seven times in thirty years.

This growth in oil demand presents a huge problem for supply. I think the most important thing we can say about this is that the problem is a human problem, not a geological problem.

It is not true to say that we are running out of hydrocarbons. There are nearly 42 years of proved oil reserves left in the ground and 60 years of natural gas. The world has so far produced 1 trillion barrels of oil. We have reserves of a

further trillion barrels of oil and we know where is another trillion barrels of oil which we have yet to approve.

On top of all of that, there are vast quantities of unconventional hydrocarbons including oil sands, heavy oil and unconventional gas. And there are major hydrocarbon basins such as the Arctic which have yet to be explored.

So it's pretty clear that, when it comes to producing more oil, the problems are not below ground, they're above it.

But so far the response hasn't been good enough. Access to something like three quarters of the world's resources is constrained for private investment. Resource nationalism is on the rise everywhere.

These are all important facts because it is the oil majors which have some of the best technology for bringing difficult resources on stream across many very different and difficult geological conditions. The technical challenges are formidable. There is a natural decline in many of the mature oil and gas provinces of OECD where there is free access.

Bio-fuels and unconventional oil cannot be scaled up easily. There's a shortage of equipment, costs are escalating and there are too few experienced scientists and engineers.

Twenty five years of low investment, due to low prices, means production is not coming through fast enough. According to the International Energy Agency, the extraordinary figure of more than $26 trillion will be needed between now and 2030 in order to meet future energy demand with about half going to power sector and the other half going to oil and gas sector.

Over the last few years, many companies have raised their capital expenditure. BP is no exception. We're investing $22 billion this year, an increase of nearly 15% of 2007, to bring on new production, to upgrade our refineries and to invest into alternative forms of energy.

We're pushing the technical frontiers of the energy business: exploring under the ice in the Arctic, drilling in the ultra deep-water of the Gulf of Mexico and Angola, exploring in heavy oil, tight gas, pursuing investment into advanced conversion and next generation of biofuels which do not compete with food crops.

One area which has the potential to make a significant difference and contribute materially to incremental oil supply is Enhanced Oil Recovery. The worldwide average recovery factor for conventional oil reservoirs is around 35% of oil in place. If, as an industry, we can raise that by just 5%, it would add more than 170 billion barrels to world reserves, enough for six years supply.

So, the upshot of all these trends despite the prices fall today is that prices will probably settle at a higher level than we have been accustomed to historically. I believe there's a very strong case that says the era of cheap energy is over – at least for the medium term, that's probably the next five to ten years.

That's not just about prices. It's about the fact that the big strategic issues are matters of legitimate public interest. Industry faces a huge challenge. How do on the one hand we supply secure and affordable energy to fuel economic growth whilst on the other hand addressing the issue of climate change?

Let's take the issue of energy security first. This is a big issue that, as a net importer of oil, I know China is grappling with.

The first and most important thing we can say is that the best guarantee of energy supplies is the global market. Over the last 30 years it has been an extraordinary success story.

Energy and fossil fuels have increasingly become internationally traded commodities. Crude oil has long been traded in a global market, but coal and gas markets are integrating rapidly.

In fact, the global trade in energy has expanded much more rapidly than growth in underlying energy consumption – the energy world is becoming more inter-connected. Maintaining this rate of expansion is crucial to alleviate the pressure on global fuel markets, and to allow for a more efficient allocation of resources. This raises issues which should be high on the agenda of all policy makers.

Almost two thirds of the world's oil is currently traded across international boundaries. Open markets are crucial. Lower trade barriers and tariffs are both welcome and necessary. So are stable and enduring fiscal and regulatory policies.

This kind of regime will encourage the investment needed and that's the best guarantee of energy supply that anyone can offer. Where investment is allowed to take place, energy production responds positively.

The evidence is that where markets are allowed to operate, they really do work. This is a real source of hope for the future. Consumers have demonstrated their response to high prices by moderating demand. Consumers are also beginning to embrace energy efficiency. In difficult times, energy security has been maintained, served best by trade and well integrated global energy markets.

Increased global integration in energy trade is a key foundation for energy security. But it is a fragile process – much in the same way that progress on multilateral trade liberalisation under the World Trade Organisation is fragile, and in need of continued support.

The other great challenge is of course climate change. Carbon emissions have risen 35% since 1990. The evidence of man's hand in the change is overwhelming, as the UN's Intergovernmental Panel on Climate Change has found.

There are a number of options for dealing with carbon emissions: energy efficiency at industrial and consumer level; the use of renewable energy sources, including wind and solar; the development of next generation bio-fuels that do not compete with food crops; the use of nuclear; extending the deployment of clean coal technology particularly to China and India and beginning to use carbon capture and storage.

The role that China now plays in the world, as one of the largest emitter of greenhouse gases, will be crucial. The commitment of the Chinese government to reducing carbon emissions and joining the international abatement effort is very welcome. It's also good to see the efforts the Chinese government is making in seeking to reduce GHG emissions through improvements to energy efficiency, increasing the production of renewable energy and through reforestation.

In BP's particular case, we set in 1998 to reduce emissions 10% below 1990 levels. It was a great opportunity to reduce costs. We calculated that so far we created more than $2 billion of value. BP is also investing into a material Alternative Energy business. We are investing about $1 billion a year into biofuels, wind and solar PV and we've committed $500 million to the Energy Biosciences Institute to research the next generation of biofuels.

And, we need to be realistic about this. Fossil fuels provide the energy which, in most economies, is used to produce clean water, food and shelter. They provide the heat, light and mobility necessary for social progress. And, like it or not, fossil fuels are responsible for nearly 90% of world's energy consumption and 60% of the world's greenhouse gas emissions.

At BP, we talk about going Beyond Petroleum. This means three things to us. One: producing more fossil fuels more efficiently, today. Two: making better use of fossil fuels we produce and three: beginning the transition to a low carbon future.

In China that means a range of things. BP has invested over four and half billion dollars so far and is one of the leading foreign investors. BP's business activities include offshore gas production, chemical joint ventures, aviation fuel supply, LPG import and marketing, oil product and lubricant retailing, solar power installations and manufacturing, and the sales of chemicals technology.

We are working closely with Tsinghua University and Dalian Institute of Chemical Physics under the Chinese Academy of Sciences (CAS) on a Clean Energy: Facing the Future program, which is aimed at developing and proving new clean energy options for China and for the world.

We're also working with schools to enhance young people's awareness for environmental protection and climate change. "The Carbon Reduction Initiative for Millions of Young People in Liaoning" is a partnership between BP and Liaoning Youth League, and it supports delivering the national agenda of "energy conservation and emission reduction" and constructing an eco-friendly Liaoning through building awareness and skills for energy conservation among 3.5 million school children in Liaoning Province.

Companies do not operate in isolation and they cannot do this alone. Tackling environmental problems requires a sensible partnership with governments. If the costs of greenhouse gases were included in the price we pay for everyday activities like the price of a train ticket or switching on the lights, consumer behaviour would begin to shift.

There are, essentially, three ways this can be done: through a cap and trade system, through taxation or through regulation. The cap and trade system is, in our view, the best option. A tax on carbon use would offer cost certainty. It wouldn't, though, offer environmental certainty and that is, after all, what we are after.

In order for carbon markets to work we need to place a cap on all greenhouse gas emissions. This can then be divided up into tradable permits.

This kind of cap and trade system has gained widespread acceptance – in theory at least - as an efficient method of imposing an economy wide carbon price. Indeed, it is already running with some success in the EU's Emissions Trading System.

The question for us now is how can this work at a global level? Can we seriously expect the 180-odd sovereign governments of the world to agree on the cap? We've seen how hard it is recently to get all 27 members of the EU to sign up to something.

The sheer difficulty of the question is the reason why, against my usual instincts, I think there is a case for transitional incentives, to bring forward the development and deployment of low carbon technology. We need the new technology urgently and we need it now. In some cases this will initially require a higher carbon price than that provided by a Cap and Trade system. We need to support development, deployment and diffusion of new technologies as they start to compete with other fossil fuels.

The purpose of any incentive should be to kick start the introduction of 'CleanTech' alternative technologies.

Once low carbon technologies are proven, cheap and accepted, they will be adopted around the world. That is how markets work to disseminate knowledge, from oil exploration to computers, to mobile phones. But any incentive regime needs to be strictly temporary. Properly designed incentives take thruway over time that accelerates the cycle of innovation without encouraging inefficiency. You get the new thinking, then you drive down the cost curve.

So, you can see that, for all these reasons, life is not quiet at BP. The strategic decisions that we make have ramifications way beyond the companies we lead. BP is hugely committed to the idea of being a good corporate citizen. We are well aware that we are embedded in societies, that our actions affect millions of people.

Put like that, it sounds like a burden. In fact, it’s an enormous privilege.

And it is a relationship that we want to see developing. I want to see BP expanding its current investments in China very significantly over the medium term. I think we can do that in places where there is great benefit to you in this country. Our expertise and experience can help China in its endeavour of energy security through energy diversity.

I want to end by restating the importance of partnership. In these partnerships, we bring our best people, technology and know-how to the table, and our partners bring their resources and in many cases, their own technical expertise. These partnerships are based on one of the great motivating forces in human affairs: genuine mutual advantage.

Ladies and gentlemen, thank you for listening to me. I would now be delighted to hear your thoughts and take your questions.