Ladies and Gentlemen,

• I am delighted to be here at the World Petroleum Congress.
• I am particularly happy to share the stage with the OPEC Secretary General.
  • Our relationship is a good one, and a particularly important one for the International Energy Agency and for me.
• The IEA is a long-time supporter of the producer-consumer dialogue - and I hardly need to say that we remain committed to playing our full part.
• I would like to talk with you today about...
  • how we see oil market trends developing in the months and years ahead...
  • and some of the challenges this presents in the context of the producer-consumer dialogue.
• A broader energy perspective is vital as we move towards a more sustainable, affordable and secure energy future.
• But oil will remain at the core of the energy aspirations of emerging and developed countries alike for decades to come.
• Sufficient investment will be key.
• To start with, I’d like to share with you some key points from our **short term** oil market analysis.

• **First** - For consumers in the OECD and the emerging markets, crude prices remain alarmingly high.
  
  • In the longer term higher prices are to be expected, due to the oil cost curve and the need to diversify energy sources.
  
  • But as the world tries to claw its way out of recession, and with renewed concerns on the sustainability of recovery,
    
    • **triple-digit oil in the short term is a cause for concern.**
  
• The amount that the world’s energy consumers spend on oil – the so called ‘oil burden’ - has already in 2011 breached 5% of global GDP, a level last seen in 2008.
  
  • There is nothing sacred about 5%, but in the past this level of oil burden has coincided with marked economic slowdown.

• Why is the price so high? We believe they are due to a steady tightening in oil market fundamentals for the past 2 years.
  
  • Ultimately, the market decides the level of prices necessary to bring supply and demand back into equilibrium, and eventually both will adjust.
  
  • But it is our responsibility as both consumers and producers to ensure that statements and policy actions don’t risk further exacerbating short-term challenges.
In 2010, the market tightened because of a surge in oil demand driven by post-recessionary recovery, stimulus, and bad weather. Demand grew year-on-year by nearly 3 mb/d.

But the driver of tightening markets in 2011 has been on the other side, due to supply shortfalls.

- First, the loss of 1.6 mb/d of light-sweet oil from Libya,
- and then a series of unplanned shut-downs affecting non-OPEC production capacity in the North Sea, Caspian, Middle East and China.

The ongoing loss of Libyan barrels and the prospect of strengthening third quarter demand led to the IEA’s Libya Collective Action and then saw a number of OPEC producers also boost supply.

- Thankfully, this extra liquidity in the market helped prevent the sort of alarming draw in industrial inventories that had looked likely from around mid year.

But 2011 supply losses now appear to have been only temporary.

- Libya has exceeded initial expectations and could average 500 kb/d this quarter and 1.2 mb/d by the end of 2012.
- Non-OPEC supply seems likely to see a renewed spurt of growth in 2012, with rising availability from the Americas in general, and US onshore light, tight oil more specifically.

Does this mean we can expect calm in 2012?
Unfortunately no – 2012 looks to be marked by serious uncertainty.

On the demand side, of course concerns persist about economic growth.

- Like other forecasters, we have scaled back our expectations for GDP growth in 2011 and 2012.
- But in the absence of a double-dip recession, we still expect oil demand to grow by around 1.3 mb/d next year.
  - All of that growth will come from the emerging markets
  - ...and gasoil/diesel for transport, industrial and power generation uses will be at the forefront of that growth.
- And of course unforeseen events may also boost demand, particularly since oil is still a key swing fuel.
  - One-off events like Fukushima, and seasonal power demand swings in various major markets can see short term oil demand surge by anything up to half a million b/d for a given quarter.
- But let us be clear - the state of the global economy will be the key driver.
- And if global economic uncertainty tends to skew demand to the downside, specific events could similarly skew supply – like in 2011.
  - The recent weakening of crude prices has stopped as the market digests the constant news flow regarding short term supply prospects from Iraq, Nigeria and Iran.
- Our own view, and one that we share with the OPEC Secretariat, is that there remains a market in 2012 for at least as much oil as OPEC has been producing in recent months.
  - Even if nothing is certain during such volatile times, it may at least be reassuring that our respective analyses come to similar conclusions.
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• The short-term outlook for oil may be marked by uncertainty, but the long term outlook for oil demand looks healthy – thanks to the realities of population and income growth.

• Last month we released the World Energy Outlook 2011, which offers our latest analysis of long-term trends.

• In the New Policies Scenario – used as WEO 2011’s baseline case - overall energy demand rises by one-third by 2035, with 90% of this growth coming from emerging economies.
  • China alone accounts for one third of expected growth, even though by 2035, per capita energy consumption remains around half of that in the USA.

• And looking forward, although their dominance declines, the age of fossil fuels is far from over.
  • Renewable energy sources rise by 85%.
  • But demand for natural gas rises by 45%, and increases its share of the energy mix.
  • Coal demand increases by 17%, although its prospects will be very closely tied to government policy.
  • Fukushima has undermined prospects for nuclear in a number of countries, but capacity growth is still likely based on expansion in places like China, India, Russia and Korea, which have not changed their policies.

• But despite rapid growth in these non-oil energies, oil remains the single largest fuel form by 2035 with 28% of the fuel mix. Demand grows from 87 mb/d to 99 mb/d, excluding the contribution from biofuels.
• And that oil demand growth is becoming increasingly concentrated –
  • in the emerging markets where economic growth persists and where consumers are often shielded from world prices...
  • …But also specifically within the transport sector, where price elasticity is limited because of the long lead times required to establish non-oil technologies.
• The cause of much of the expected growth in oil demand is obviously soaring vehicle ownership, as the passenger vehicle fleet doubles to 1.7 billion by 2035.
• Thankfully, doubling the vehicle fleet does not mean an equivalent rise in oil demand as factors such as improved fuel economy and alternative fuel vehicles moderate the increase.
• Biofuels, compressed natural gas and electric vehicles all have a role to play in diversifying transport fuel demand away from oil.
  • But each of these options faces uncertainty over technology, economic viability and the durability of government support,
  • …so their role remains rather limited in the “base case” New Policies Scenario.
• As a result, we envisage sizeable growth in transport oil demand for the foreseeable future, something that will require substantial investment by upstream oil producers and oil refiners alike.
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• To meet this steady growth in oil demand, substantial new sources of supply will need to be tapped.
  • Mature oil field decline rates nearing 7% annually suggest 47 mb/d of new supply will need to be found just to sustain existing supply, let alone meet incremental demand.
  • Harnessing the investment, technology and manpower to achieve this will be a major challenge. The costs of bringing oil to market will rise as new fields are more distant and more difficult.
    • This could see oil prices approach $120/bbl in real terms by 2035.
• Lower cost resources also exist of course. Indeed 90% of the aggregate production increase still comes from the MENA region, with OPEC’s share of global production ending up above 50%.
  • Rising import dependence on a small number of producers will inevitably heighten concerns about supply security – despite the reliability of many regional producers.
  • And competition for public spending resources within MENA producing countries, along with perceived political risks, could discourage investment.
    • A special “deferred investment scenario” in the WEO supposes one third less investment in the short term than in the NPS, resulting in a $150 price spike five years out.
• The projected trends in oil demand and supply call for upstream oil and gas capital investment of about $620 billion per year — compared to the $550 billion the industry is planning to spend in 2011. Our numbers suggest that, for now at least, the industry is not far from what is needed in pure dollar terms.

• But the level of investment in money terms is only one of the factors that influence future production.
  • Unit capacity costs vary with time and by producing region.
  • Decline rates at existing fields clearly also play an important role, as do the frequently long lead times between investment and production.
  • So there is no one-to-one correlation between investment rates and production changes.
  • But, in general, periods of increases in investment, such as we are seeing for 2010-2012, have been followed, with a few years delay, by increases in production capacity.
Ensuring that this necessary investment occurs, and that supply meets demand, will require cooperation between both producers and consumers.

The latest analyses by OPEC and the IEA, while they may differ in detail, highlight many common challenges.

In 2008 at Jeddah and at subsequent gatherings, industry, government and international organisations came together to discuss how we might help stabilise oil markets and to chart a way forward for better managing market challenges in the future.

- Many of the priorities which were highlighted then remain equally valid today.

- Let me mention just four workstreams of the producer-consumer dialogue that are of particular importance – JODI, work with business, energy efficiency and access, and of course the facilitation of joint oil market analysis with OPEC.

- Together, the IEA, OPEC and IEF are forging ahead in all four.

First, we are celebrating this year the 10th anniversary of the Joint Organizations Data Initiative. JODI is often seen a centre-piece of our collaboration.

- Why is it so important? Because better and more transparent oil data has long been seen as one of the major contributors to reducing volatility in oil markets. Increasing use of the data by business and industry customers is an encouraging sign of JODI’s increasing reputation.

- But we should not take these successes for granted. The 8th World JODI Conference in Beijing in October highlighted the growing appetite for JODI data. But it also underscored the need to do more, and to do it better, to establish JODI as a benchmark for oil statistics and as a key concrete success of the producer-consumer dialogue.

Second I am pleased to recognize how effectively producers and consumers have cooperated with regards to the business agenda. Together we have taken a hard look at practical issues of technology, human resources, and international cooperation.
Thirdly, I commend a renewed emphasis by producers on the difficult issues of energy efficiency and access to energy. These are two areas which we at the IEA work hard to keep at the forefront of policy. They may sometimes appear unglamorous, and progress can be slow. But both are vital to achieving long term energy sustainability.

Finally, I want to say that I have also been very impressed in my first few weeks at the IEA by the very substantial progress that has been made in promoting joint work on oil markets and energy forecasting between our Agency and our colleagues in OPEC.

Oil price volatility and geopolitical risks are issues which affect both investment decisions and supply security. Better understanding of these is in the mutual interest of producers and consumers, and our work continues.

- Last week in Vienna saw the second joint workshop analyzing the relationship between physical and financial markets for oil.
- And in January in Riyadh the second annual symposium on energy outlooks takes place, where the IEA and OPEC’s respective short- medium- and long-term analyses are presented to an expert audience and discussed in depth.
- The last two years have also seen work commissioned from our organisations and from the IEF by the G-20, the latest being a study on the role of the Price Reporting Agencies.

Energy security, maintaining investment, price volatility - all these issues are relevant for everyone here, producers and consumers. And they set an ambitious agenda for all of us.

In the spirit of continued dialogue, I look forward to working with you as we take on the many challenges facing the global energy sector. In the past ten years, a lot of progress has been made. With continued close consultation and cooperation, we can make even more.

Thank you very much for your attention. I look forward to answering your questions.