"The Role of Oil in Commodity Markets and the Future of Oil Prices"

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"The State of Energy Markets: Lower Volatility and
A New Price Zone for Hydrocarbons?"

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Mr. Secretary-General of the United Nations Conference on Trade and Development, Supachai Panitchpakdi;

Mr. Secretary General of the International Energy Forum, Noé van Hulst;

Your Excellencies;

Ladies and gentlemen:

Good morning.

Thank you for the kind invitation to offer my perspectives on petroleum to the global commodities debate. The United Nations Conference on Trade and Development and its partners perform a valuable service by convening this second Global Commodities Forum to bring reliable information and insightful interpretation to the dialogue on perennial market issues.

It is my hope that this plenary session on energy markets will clarify the particular role of petroleum in the interdependent commodities markets. I will share my views on the current state of oil markets, and highlight some of the challenges and opportunities ahead, as we pursue further

development of the global commodity economy, and mutual benefit for producers and consumers.

Over the past several years, we have witnessed dramatic shifts in the global economy, and consequently in commodity markets, including oil.

In today's globalized economy, these shifts underscore the interconnection of our fortunes, as was made starkly evident in the global economic crisis of 2008. As to the shifts in commodity markets, in recent memory alone, a single decade gives us a compelling snapshot of oil price volatility.

Of course I am referring to the historic low of 1998, when the WTI crude-oil price pendulum swung from roughly an average of \$11 per barrel – at that point, the lowest level in nearly 30 years – to the all-time peak of \$147 per barrel in 2008.

What is behind the roller-coaster ride that has taken oil prices from the depths of 1998 to the peak of 2008, followed by the subsequent collapse and eventual rebound in prices we are seeing today? I believe that it can be explained in part by the fact that in recent years, oil has become well established as an attractive asset class for a growing and diverse set of investors.

This trend appears unlikely to abate any time soon. In fact, it will likely contribute to ongoing volatility as investor money moves in and out of oil futures markets based on a variety of factors which may have very little to do with basic oil market supply and demand fundamentals.

Oil producers and consumers share a common interest in promoting stable markets and ensuring affordable and fair prices. Petroleum is a long-term, capital-intensive industry, with exploration, discovery and development taking long lead times of many years to bring to production.

As such, adequate financial returns, stable prices, and transparency and predictability of future demand are needed. Wildly fluctuating prices are not conducive to future investments to ensure that crude oil, refined products and natural gas supplies are delivered when and where they are needed.

Like all businesses, the oil industry needs a reasonable level of certainty to undertake massive investments in new capacity.

However, volatility has been and will continue to be a significant challenge going forward. The remedy is to continue working together internationally to minimize the effects of volatility on our energy system. While the cyclical nature of the oil market means that extremes cannot be circumvented altogether, producers and consumers are making cooperative efforts to ease them.

The Jeddah Oil Summit of 2008, which was called by the Kingdom of Saudi Arabia, convened the Secretariats of the International Energy Agency, the International Energy Forum, and the Organization of Petroleum Exporting Countries; heads of state; oil industry leaders; and international organizations to explore solutions to oil price volatility.

This gathering opened a timely dialogue among stakeholders whose common goal of bringing greater stability and more efficient operation to the international oil market superseded their diverse circumstances and priorities.

It is also worth noting that the Kingdom has invited more than 80 ministers from around the world to come to Saudi Arabia next month to sign the IEF's new charter; this effort will take the producer-consumer relationship to yet a higher level.

Such dialogue encourages the greater openness and understanding necessary to reduce volatility. Transparency is vital for both producers and consumers, from the considerations of reliable and timely data and their collection and exchange.

JODI, which is the acronym of The Joint Oil Data Initiative and itself a direct outcome of improved producer-consumer dialogue, has played a useful role in improving market transparency. Ongoing dialogue and study of volatility and transparency issues within the G20 framework have also been constructive, allowing the international community to improve its understanding of various factors that contribute to market instability.

As I have noted, the commoditization of oil and its transformation into a popular asset class for investors have added new complexity and contributed to price volatility. Oil has evolved from being bought and sold for its physical properties as an energy source to its newer incarnation of asset class — as a vehicle for investment, for hedging and broader financial investing to generate returns.

Therefore, ladies and gentlemen, the reasons why oil prices have been rising are three-fold.

First and foremost, demand for oil, like that for all commodities, has grown at a torrid pace in recent years. I am not speaking solely of demand for the physical product, for fueling transportation and putting the flames under boilers. I am also referring to the demand arising from those investors, hedgers and speculators who value oil not for its energy content, but its potential financial return.

Both components of demand, the physical and financial, have been boosted by the greater and more diverse prosperity brought about by globalization, which has increased demand for all commodities, including oil.

Second, the relationship between the value of the dollar and oil prices is complex. However, broadly speaking, as the dollar declines, commodities – including oil – attract investors. Investing in futures becomes both a hedge against a weakening dollar and an investment vehicle that could yield substantial profit.

The third major factor underpinning rising oil prices is the fact that the resource base is becoming more mature, and of course it is more expensive to produce mature fields. However, let me assure you that the world is not running out of oil. The resource base is vast – there are

massive quantities of remaining reserves that can be economically exploited.

Also, new resources are continually being discovered, often coming from more remote areas and more complex geology. Like older fields, marginal supplies are high-cost to develop. In fact, the marginal barrel is now coming from higher-cost alternatives like oil sands and ultra deep offshore fields.

The result is that higher prices have been needed to coax out the necessary additional supplies to meet growing demand. This is why I have said on many occasions that a range of \$70-\$80 per barrel is an appropriate price for oil: because it encourages additional supply without damaging consumers.

Ladies and gentlemen, after a period of turmoil and economic downturn, recovery is well underway in most parts of the world, with growth particularly strong in the developing economies of Asia, including the Middle East.

As the center of economic growth continues its Eastern shift, we will see energy demand growth focused on Asia, as its developing nations grow in population; as new middle classes emerge through new prosperity; and as less developed nations seek to lift themselves out of poverty.

As a result of these and other economic and social trends, oil demand has increased and returned to pre-crisis levels in these high-growth areas. Excess inventories which built up during the downturn are now largely being worked off, and markets are returning to more normal storage levels.

Some worry that the recent rise in oil prices could signal a return to the conditions of 2008, when prices approached \$150 per barrel. These "market bulls" believe that oil demand growth in fast-growing developing economies will quickly burn through global spare capacity.

At the same time, they are pessimistic about investment in both non-OPEC and OPEC supplies, believing that additions to capacity will lag, and thus fail to keep markets in balance going forward.

There are those who are also concerned that a significant rise in oil prices could send the global economy back into recession.

While there is reason to be vigilant about price, the current situation is different from 2008.

In the short term, I am confident that oil markets are relatively balanced and that recent price rises have less to do with supply-demand fundamentals than with gyrations in the value of the dollar and in traders seeking to test new price levels.

There is adequate spare capacity in the system. Inventories in all key markets are ample, and there is significant spare capacity in Saudi Arabia. The Kingdom realizes that we have an important role to play in promoting stability in world oil markets.

Our most powerful tool for achieving a balanced market is our maintenance of spare production capacity. We work very hard to make sure that the global oil market is well supplied and well balanced.

To that end, it is our ongoing policy to maintain at least 1.5 to 2 million barrels per day of spare capacity to be used whenever and wherever there is a need. Today it stands at about 4 million barrels per day.

Maintaining this spare capacity requires considerable investment, but over the years the value of that cushion has been proven in the face of unforeseen supply disruptions, and it has helped to counter market volatility. It is worth noting that Iraqi production appears on pace to grow quickly over the next couple of years, as key fields benefit from new investment. These incremental supplies should also help ensure balanced markets.

In addition, refining bottlenecks that existed several years ago have mostly been resolved through the addition of new capacity in key markets. In fact, the global refining capacity additions by Saudi Arabia alone are expected to approach 2 million barrels per day over the next five years or so.

However, current prices are a reflection of more than just existing fundamentals. Market expectations play a significant role in price formation.

And it is clear that markets and higher oil prices are being driven by doubts and uncertainties. These include the future of non-OPEC conventional supplies, whether OPEC will make investments to significantly expand production capacity, and whether non-conventional sources, such as oil sands, can meet growing demand without passing on their higher costs to the consumer.

These questions are not new, and there will always be some who discount the role of technological progress in making vast new reserves economical to produce in the future. We have heard talk about peak oil for decades, but peak demand may well arrive before we ever reach a peak in supplies.

Ladies and gentlemen, there has always been a level of uncertainty about the industry's ability to meet growing global demand for energy – and there always will be. But time and time again, the petroleum industry has risen to the challenge, and it will continue to do so in the future.

Against the backdrop of these uncertainties, we look to the challenges ahead. Are oil prices, like all commodity prices, on an endlessly upward escalator?

While the world's major energy forecasting agencies publish a variety of scenarios regarding the future energy mix, one thing is abundantly clear – the world is going to need a lot more energy in the decades ahead.

Despite the variables, most energy outlooks agree that global energy demand will grow by 40 percent or more over the next two decades, due to increasing prosperity and world population growth of another 2 billion people by 2030, predominantly in developing nations.

Meeting future energy needs will require contributions from across the spectrum of sources — including renewables, nuclear, natural gas, coal, and of course, oil. Such great demand will mean that the more established energy sources will be called to the fore, given their known quantities including supply, infrastructure and end-use technologies.

The gap between the readiness of fossil fuels on the one hand, and that of renewables, which still must surpass hurdles on the way to appreciable contribution, on the other, makes a compelling argument for the place of oil in the energy mix.

The world does not have the luxury of discarding any particular energy source, marginalizing or penalizing its competitiveness through policy, public opinion, regulatory measures, or distribution of subsidies and incentives to unfair advantage. The effect of such an approach would be detrimental to global economic growth and to efforts to raise living standards for the billions of people still living in poverty.

A level playing field that encourages the investment needed for all viable energy sources to fully contribute is essential for a secure energy future. Likewise, that level playing field should be free from

government intervention policies that manipulate demand, creating uncertainties through artificial means rather than market signals.

The traditional fossil fuel energy sources, especially oil, will continue to serve as the "base-load" for meeting growing world energy demand for decades to come. Just as those energy outlooks concur on a 40 percent jump in energy demand over the next 20 years, they also indicate that more than 80 percent of that demand will be met by fossil fuels — of which oil will deliver the lion's share.

This will be true at least through mid-century, and perhaps even longer, thanks to human ingenuity.

The petroleum resource base continues to be vast: it is more than sufficient to meet projected demand for many decades to come. The inplace resources of conventional oil are estimated to be six to eight trillion barrels.

In addition, the world endowment of unconventional resources, such as extra-heavy oil, tar sands and shale oil, is estimated at another seven trillion barrels. Of these, only about 1.2 trillion barrels have been produced to-date. On top of all this, the world could call upon gas-to-

liquids, coal-to-liquids and even bio-fuels, if need be, notwithstanding issues related to conventional bio-fuels.

As I have often noted, the Kingdom of Saudi Arabia, as the world's leading supplier of oil with 264 billion barrels of proven oil reserves, could continue to supply crude oil at current production levels for another 80 years, even if we never found another barrel.

However, we are continually finding those new barrels through new discoveries and improved recoveries, so that our reserves have not decreased.

The degree to which the world's resources can be turned into useable reserves is a function of oil prices and technology. This fact returns us to the criticality of investment for the long term, and the capital-intensive nature of the oil industry.

It is in the interests of producers and consumers alike to work toward more stable oil prices, predictable energy and investment policies, and predictability of demand, all of which foster a climate conducive to the oil industry's deep levels of investment in technology and human resource development.

Will oil prices continue to climb in the future, as demand rises?

Ultimately, the answer to that question will be determined by our ability to develop and deploy new technologies with the goal of adequately expanding supplies.

As we have established, reserves are an economic phenomenon. Technology has continuously come on board throughout the history of the oil industry – and that is true today.

Innovation is revolutionizing oil, making it more accessible and more sustainable at every stage. Technology is allowing those ample resources to become reserves at progressively lower costs.

For a compelling example of how technology and innovation can be game changers in the energy business, we need look no further than the sudden prominence of shale gas in the United States energy mix.

Five years ago, the overwhelming consensus was that the United States was running out of natural gas; plans thus were underway to increase imports of liquefied natural gas.

Today, however, thanks to the application of new technology to unconventional shale gas fields once thought uneconomic to produce,

the U.S. is awash in natural gas, to the extent that export is a possibility, given supplies sufficient to meet current domestic demand levels for the foreseeable future.

The clear lesson is that the resource base is there, and that technology will determine how much we can convert into reserves and supplies, and at what cost.

Technology also holds out the promise of lessening the environmental footprint of the energy we use, allowing us to continue to benefit from the efficiency and usability of petroleum-based fuels while protecting the environment.

The industry has made environmental innovation a major investment focus, particularly in alignment with oil's leading use, which is transportation.

The complexities that are created by oil's dual role as an energy source and an asset class make predictions of future prices highly speculative.

However, as an oilman with many decades of experience and observation, I am confident the oil industry will continue to meet the growing needs of an energy-hungry world well into the future.

Realistically, none of us can be certain how oil's second role, that of asset, will evolve.

Speculation is not the only uncertainty we face. Our limited ability to predict economic and financial, geopolitical, and natural events, as well as our limited insight into the forces at play, places us in a poor position to accurately predict oil price levels with any certainty in the future.

The variable nature of markets brings us full circle to the importance of cooperation toward the shared goals of sustainable supply and demand, fair and sustainable prices, a better balance of benefits to both producers and consumers, and the energy security needed to pursue economic growth and higher living standards for people everywhere.

Open dialogue, greater transparency, and a level playing field that allows for adequate, timely investment are the surest path to lesser volatility and the greater opportunity that only energy can deliver.

Thank you for your kind attention.