20th June 2015

As I had indicated in my note last week, two important factors for the US to increase its production have been enhanced efficiency, and flexibility. Enhanced efficiency has come from the use of improved technology and techniques, which has led to higher production, whether it is gas or oil from shale resources. The Eagle Ford, Permian, Marcellus, and Bakken have all seen enhanced production in the last few years. Besides technology, efficiency has also been seen to have improved in terms of the number of days it takes to drill a well. As an example that I read about recently, in the Haynesville Shale, the time to drill a well dropped from 44 days in 2010 to 31 days in 2013. Now one can drill a well in Eagle Ford and Marcellus Shale in just 12 days.

A consequence of both these factors has been increased production, which is good news. The other side of the story is that demand is now not commensurate with production. This is a cause of concern to the US. There are many who believe that the US will have to offset this concern by exporting oil and LNG to Mexico or other counties. For this it has to take a decision to lift the ban on exports, which could take time.

A few other interesting facts that came out this week are as follows:

- 1. The revenue of OPEC nations from the petroleum exports fell below 1 trillion dollars last year. The 12 member group earned \$993.3 billion in 2014, which is an 11% fall from a year earlier.
- 2. The world has seen the longest lasting oil glut in the last three decades.
- 3. The oil supply has exceeded global demand for the last five quarters now.

So much for now.

Response to Arjun's clarifications

Good morning Arjun,

I am glad you have asked for the two clarifications. First let me talk about flexibility. In terms of gas usage, there is close to 10 bcf/d difference between the winter and summer in many areas in the US. So the producers reduce the flow of gas from wells in the summer till again there is demand as winter sets in. Similar is the case with oil, depending on the demand and price of oil. So, that is what is termed as 'flexibility'.

The other clarification is about enhanced efficiency and production. Keep in mind that the horizontal wells drilled in shale formations are being put to extended lengths. Due to this, the number of completion stages have gone up from 6 or 8 to 20 or more. All this is being done efficiently now and resulting in higher production.

If the price falls to \$40 or \$45, then the US shale oil will probably find it difficult to compete. But \$60 may still work.

I hope this helps.