



# EX-ONGC EXECUTIVES WELFARE ASSOCIATION, NEW DELHI

A Special Souvenir | August 2016



“Challenges & Opportunities in Volatile  
Oil Price Regime”



# OUTLOOK OF ENERGY BASKETS AND STRATEGIC GAME CHANGING OPTIONS

Aug 2016



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## 1. INTRODUCTION

Petroleum business has always been a game of Snakes and ladders .It is not a simple Demand and Supply controlled Competitive or monopoly affair, nor Elasticity of Price and Cost based for buyers and sellers.

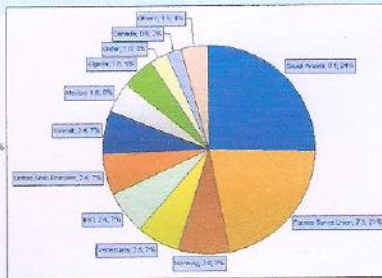
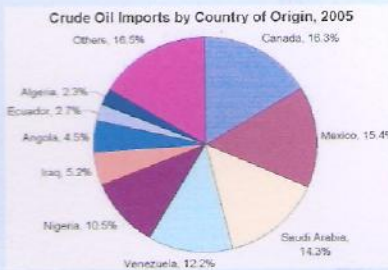
In fact it is a business of “Oligopolistic” character where the factors are controlled by Politico-economic forces depending on Country’s own industrial needs and determination for their own fast development and economic growth.



## 2. PARADOX

Interestingly the present spread of Hydro carbon Reserves and Demand centers are located far away from each other and are controlled by “cartels” with extremely conflicting political mix of interests and social beliefs. Being a basic energy source, Petroleum has captured the nerve of economy of almost every country in its specific growth design.

Fig. Showing Imbalance of hydrocarbons (Import &&export)



### 3. ECONOMIC DIVERSITIES AND VARIATIONS

3.1 There have been sharp ups and downs in “Price” of Petroleum and its products, which could have resulted in World War like tensions. There have been such situations and Roller coaster feelings in the global communities in the past. The geography, political and social orders of several countries have been changing rather fast. New nations have emerged and old ones disappeared from global ma

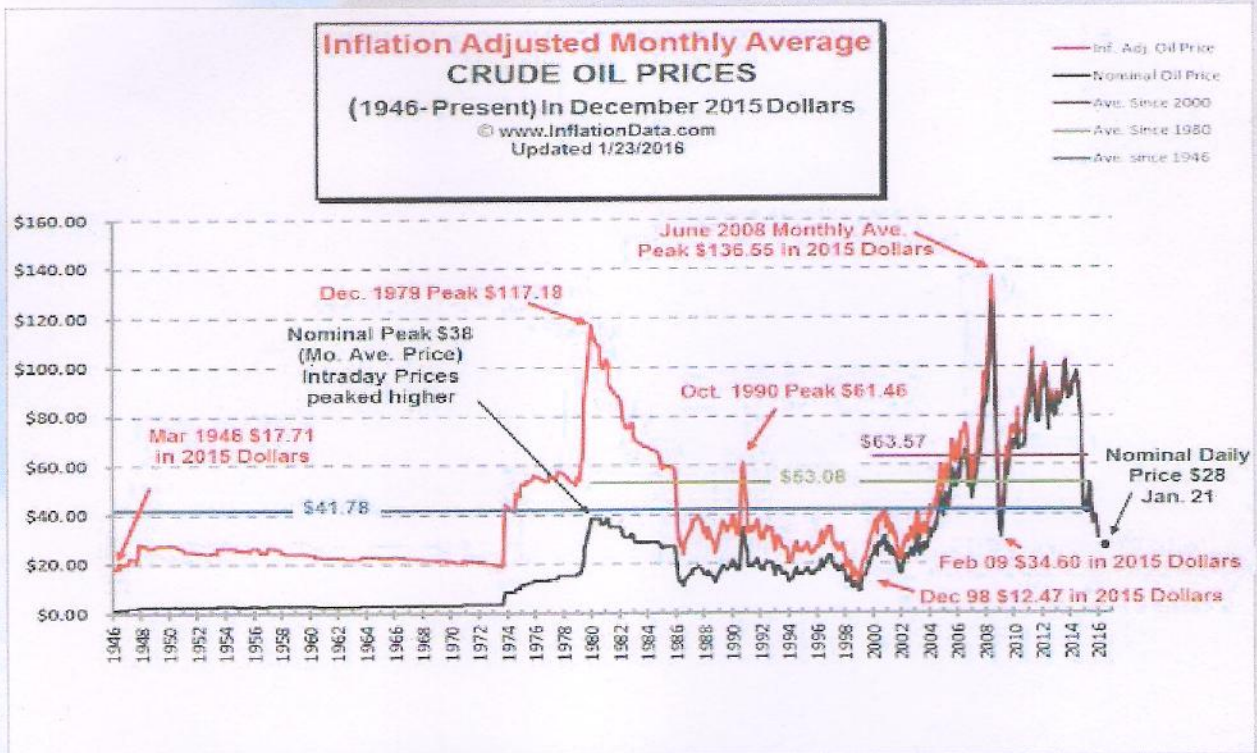


Fig.: ECONOMIC DIVERSITIES AND VARIATIONS

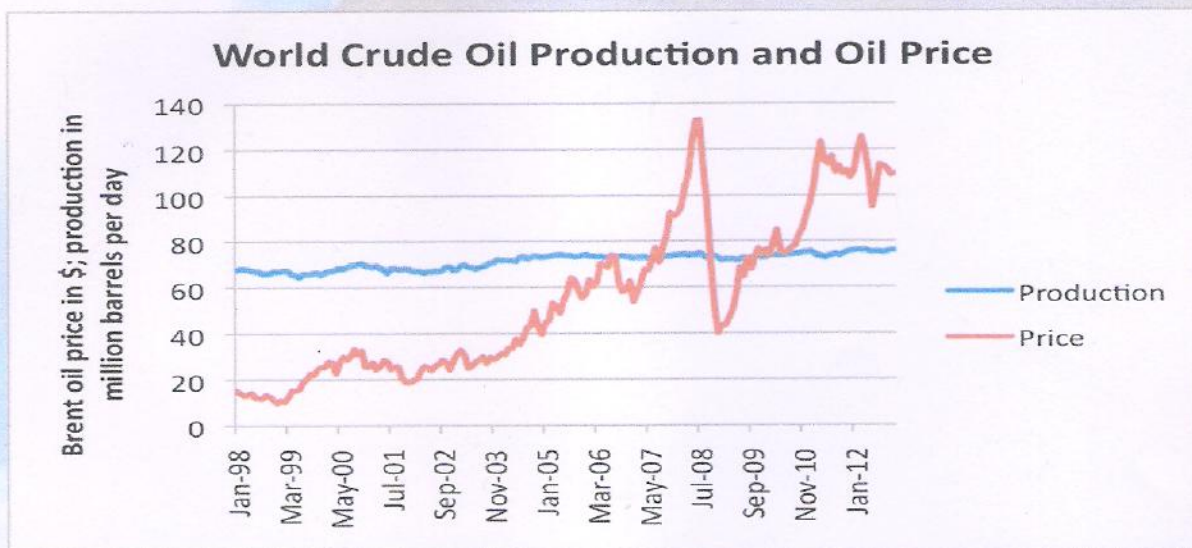
3.2 Petroleum being the main Source of Energy, every single sector of every country needs it as a basic requirement for Agriculture, Industrial infrastructural, domestic, transport and manufacturing sectors. This is really the lifeline for survival and sustenance of every nation .The trade scenario between the

countries, balance of Foreign exchange and social /cultural fabrics between them gets rearranged with shortage of fuel supplies.

3.3 As the world is experiencing high consumption of Petroleum and less addition in reserves, there is an increasing anxiety level amongst all segments of societies .The realization towards the ill effects of emission of Green House gasses on health of humans alongside Climate change is another serious concern. From this perspective there is a continuous discussion on modifying the Energy balance and Development pattern of the world as a whole.

The following graphs give an indication as to how the thinking process has been evolving as a result of Supply and demand projections.

The kinks in production from 2006 to 2012 and price ratios have virtually been shaking the world economy.



The latest price of \$ 45 bbl is likely to fluctuate violently in the range of \$ 70-100 according to various speculators and short term market trends. Here we can pose a series of simple questions which may lead to serious thinking.

#### 4. Issues and Concerns

4.1 Can there be methods to bridge the gap between Supply and demand of Energy sources as such ? Can we make our systems more Energy efficient? (Demand side management) Answer is a strong YES.

4.2. On the supply side management, should we take action to increase the Production of Coal and Petroleum, which are the main stay for most countries?

Answer is YES but with a proviso "With caution "-Cleaner technologies and cost control, safe and Productivity oriented practices.

4.3 Is there a case for substitution and gradual shift towards Renewable Energy Sources?

Answer is "A very STRONG YES!" Happily there is a serious and fast action on all fronts for adopting SOLAR, WIND, BIO and other Energy producing modes.

4.4 Can we think of eliminating Petroleum from the Energy basket?

ABSOLUTELY NO! But we must reduce its role as a Fuel and derive Value added usage in products of higher order – Such as Carbon addition in Steel production (?).Petrochemicals for special use in various scientific applications .The emission from automobiles needs to be cut drastically by adopting better standards of POL consumption.

There is a need to look deeply into the product baskets too and adjust the contribution of each product for higher value fractional usage. This is an involved subject for downstream sector

4.5 Should the upstream sector continue to feel demoralized because of price Volatility shocks?

One can have a debate but personally I feel that there is no need to get demotivated. We must look at NEW THEORIES across the international scientific arena and try to go jointly with global fora and get into concerted Research /Search activity for new prospects in unknown areas /unexplored basins.

This falls in the lap of Research activity, both at basic and applied level. We have a case for reopening the pages of history .The simple observation on space exploration and most modern data acquisition techniques can open up routes and concepts towards new as well as unknown methods of harnessing energy.

Here new concepts and "out of box " ideas for governance and collaboration shall have to be developed fast including Financial assistance from Richer nations. A strong World opinion needs to be created for such a laudable mission.

4.6 On Indian Situation, we must get out from the jumble of interdependence and fear of adopting new ideas.

4.7 R&D should be out of purview of Vigilance and have a status of Immunity .This is a very loud suggestion and needs Political Will to introduce a strong system. There should be escape routes for genuine and unavoidable wastage (?), which means greater autonomy to R&D organizations .Let us create a cadre of scientific leadership in critical areas of Energy.

It may be worthwhile to create a powerful forum at international level to do basic research on theories relating to formation of petroleum. This will possibly open up totally new direction for exploration and lead to unexplored basins across the globe. This forum thinking aloud could be under an international organization.

4.8 On the ground, there should be liberal encouragement to small players and Startups who wish to support big players on CSR routes. This is the only way to reach the poor on Energy cost saving. Subsidies should be minimized. PPP routes should be liberalized and NGOs encouraged

4.9 A very important area to achieve this objective is a focused policy and its implementation towards HRD function. This has to be seen across the entire student life cycle on one side by the Academia and the Industry trends on the other by Government and Industry together.

There is an urgent need to narrow down the SKILL DEVELOPMENT Cycle time .Adoption and absorption of contemporary skills by new pass outs has to be always on fast track. This is the primary responsibility of Industrial sector.

4.10 Whereas on one side, there is a serious concern towards the downsizing of Oil Companies, there is little action in adopting Entrepreneurial talent and improved skillsets amongst the new student community. There should be a better sync between JOB HUNT and New Entrepreneurship where parents also have a role to play.

4.11 The banking sector and willing lenders can possibly extend their arms to encourage the younger community to draw their own roadmaps through collaborative modes, counseling and adoption. The canvas spreads from tiniest desire to contribute at a singular level and offer opportunities all the way to join an enormously large fraternity of knowledge partners.

Petroleum has everything to offer as a career, and therefore will prosper as a playground for all games in Economic activity.

## **5. Conclusions**

5.1 The volatile price pattern of Petroleum appears to be a temporary phenomenon, how temporary, is a question mark. However, human ingenuity is capable of containing the situation within manageable limits by resorting to other options. The change is visible howsoever small.

Historically oil shocks have been happening in the past too. The shock in 1970s when Oil came to \$4 per bbl was a tremor of considerable large scale, but got adjusted in overall economic activity coupled with Political smartness.

5.2 The scale of economy is much larger now and so also the speed of change. Mankind is armed with innovative and creative solutions and have much more endurance than before. We have choices in solutions and flexibility to choose the most appropriate route to meet the challenges.

Petroleum is there to stay for at least fifty years, but will have other cheaper and more efficient competitors .The shackles of restrictive controls are bound to loosen because of other threats and consequences. Society will find appropriate solutions, hopefully for the benefit of coming generations which deserves cleaner air and pure water in a peaceful global environment.

Disclaimer: All the Illustrations are taken from the Internet.

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“ Mr S.K Chawla , is presently CEO of a company called Winnerspitch ( a family sponsored business) which is into Solar Energy domain –installation of medium range” Solar roof top power plants “ A well known face in Energy sector,he belongs to the first batch of Petroleum Engineers from ISM Dhanbad and was in ONGC after his graduation in 1961 finally till1993,(as GGM Pers ).He then took over as Director( Per) in Powergrid Corporation of In India. After superannuation in August 1995, he has been quite active and helped Amity , UPES and several other organizations in various capacities . He can be reached on

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