Energy Security & The Economy of Iran

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Abstract: Energy as one of the most important factors of production has significant effects on macroeconomic variables. As a result energy security is a vital issue to all industrial and energy consumer countries in the world. Energy security definition has changed through time and now in addition to supply it includes the demand side too. As a result of an increase in availability of energy or decrease in its price firms will be encouraged to increase their output. The factors that make fast and shocking swings of energy prices - especially oil- sometimes are due to unpredictable events such as wars or recent economic crisis in different countries of the world. Present conditions of world's economy and financial economic crisis caused tremendous volatility and therefore insecurity in oil price and other energy carriers which in turn makes oil incomes of exporting countries like Iran to be extremely vulnerable.

JEL Classification: Q32,Q48,Q49,Q43.

Key words: Energy Security; Economic Growth; volatility of oil Price; Iran

INTRODUCTION

Diametrical need of world economy to energy and swing in energy price-specially oil- are some of challenges that affect Iran’s economy seriously.

In one view increase in oil incomes is a golden opportunity for our country and it makes progress performance of structural projects and lots of investment on Iran’s economy, but management of these income sources is one of the most important challenges of the government.

At the present, Iran’s economy is based on oil incomes that called Mono-product economy, therefore each mutation -however it be little- will have significant effects on economic indexes of country.

Oil is the most diplomatic key good in today’s world, and due to this oil policy in the oil producer countries is the main part of setting policies in these countries.

Oil and its derivatives are very important from the aspect of its roll in GDP and also amount of oil incomes in government’s budget in Iran’s economy.(Yousef Mehnatfar & Ahmad J.Samimy)

For producer energy security is to access to a continual market with a reasonable growth in future.

2. The Importance Of Energy Security In Economic:

The literature is divided between those who believe that energy security is a real issue in response to which governments have to devise polices and those who believe that energy security is "an empty concept used to perpetuate bad, self-serving public policy."

Even though there may be some truth in them, the claims of the first group do little to define the concept of energy security. Instead, they add to the confusion and raise more questions.

Energy security means continual and certain supply with sensible prices in energy carriers. who use this word want to decrease, geopolitics, economical, technical, environmental, and mental threats on energy markets. Totally increase in application and energy exploit of production factors such as energy can increase economic and social welfare growth. Therefore we can increase application and exploit energy by improve convert technology and energy consume. However usually energy consume is a factor of level of developing for a country in percapita energy consume aspect, but it must be mention that the result of this more consume is more nation produce. on the other hand the experiment of developed countries showed that it is possible to increase economic and social welfare growth by increase of production technology and energy consume while consume kept constant or even decrease.

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Connect to this one matter must be notice is ..., of energy resources in our country makes the high amount of per capita of consume( in comparison of the countries with same structure and less energy resources). In other words energy using goods produce is a reason for high per capita of consume and energy severity in Iran.

3. Energy Security & Deal Of Oil Consume In The World:

At the present time- same the last half century- oil is the most important primal needed material for countries all over the world -specially industrial countries- to translating, warmer cooler systems, produce industrial goods.

In fact, resumption of industrial world’s movement is impossible without oil and its derivatives.

Besides, oil has strategic importance for big powers in the world and each disorder in its supply has many effects in consumer countries. for example United States of America use 6.20 millions tanker oil daily that more than half of it are imports. it is nature that each disorder of oil export progress has a tap for USA economy. or China as the second oil consumer in the world have to care about middle east condition because middle east is the nearest oil supply market for west Asia. (7 millions tanker oil daily).

Study in amounts of oil uses in 2007 show that after USA and China, Japan and Russia are third and forth oil consumer countries in the world.

Among the 10 biggest oil consume countries, India and South Korea are more oil consume countries in Asia.(Azar Mosaffayee & Hamid Abrishami, p:12-13, 1380)

<table>
<thead>
<tr>
<th>Rows</th>
<th>Name of the country</th>
<th>Daily consume (million gallons per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The united states</td>
<td>20.6</td>
</tr>
<tr>
<td>2</td>
<td>China</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Japan</td>
<td>5.3</td>
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<tr>
<td>4</td>
<td>Russia</td>
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<td>5</td>
<td>Germany</td>
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<tr>
<td>6</td>
<td>India</td>
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<td>7</td>
<td>South Korea</td>
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<td>8</td>
<td>Canada</td>
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<tr>
<td>9</td>
<td>Mexico</td>
<td>1.98</td>
</tr>
<tr>
<td>10</td>
<td>France</td>
<td>1.96</td>
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</tbody>
</table>


In 2nd table energy consume share in different countries of the world related to total consume of the world In 2007 ( %)

<table>
<thead>
<tr>
<th>Name of the country</th>
<th>Energy consume related to total consume of the world</th>
</tr>
</thead>
<tbody>
<tr>
<td>The united states</td>
<td>23</td>
</tr>
<tr>
<td>China</td>
<td>14</td>
</tr>
<tr>
<td>India</td>
<td>4</td>
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<tr>
<td>Indonesia</td>
<td>2</td>
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<td>Brasilia</td>
<td>3</td>
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<tr>
<td>Pakistan</td>
<td>1</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>0.5</td>
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<tr>
<td>Russia</td>
<td>7</td>
</tr>
<tr>
<td>Japan</td>
<td>6</td>
</tr>
<tr>
<td>Mexico</td>
<td>2</td>
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<tr>
<td>Philipin</td>
<td>0.5</td>
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<tr>
<td>Egypt</td>
<td>1</td>
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<tr>
<td>Turkish</td>
<td>1.5</td>
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<tr>
<td>Iran</td>
<td>2.5</td>
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<tr>
<td>France</td>
<td>4</td>
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<tr>
<td>Thiland</td>
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<tr>
<td>England</td>
<td>3</td>
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<tr>
<td>Italy</td>
<td>2</td>
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<td>South Africa</td>
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Each year produce of agricultural goods and any services exceed to 14,000 milliard dollars but who are the main producer?

Economic studies show that the world economy is under big powers such as USA, Japan and western European’s control never and else of developing countries effort such as China, India and Brasilia, for example more than %60 of world economy(in gross production part) is under developed countries control while the population of these countries is only %3.15 of world’s population.
The average of income per capita for the people of these countries has been 32 dollars in 2007 while the average of income per capita for people all over the world has been 9,480 dollars in the same time.

The big continent -Asia- has 10 milliards person but only %5.3 of world gross production; however USA with 3 millions persons has %270 of world gross production. Middle east and Africa have not better condition and despite they have natural sources and significant vast, their profit of world economy is only %4.

Over view of energy by different departments and the International Energy Agency (IEA) show that oil and gasoline are the main part of world energy basket for a long time.

Demand for oil has increase %7.1 in average annual because of oil hard necessity. Demand for energy in 2030 is %50 more than demand in 2005 and fossil fuels provide more than %90 of world energy likewise. However amount of oil in energy basket will decrease a little and it is expected that amount of gasoline increase and become same as oil until 2030 but it will keep its key roll.

Demand for oil and gasoline is more than other energy carriers therefore the energy security find a special meaning. Then energy security mention to oil and gasoline security though they are %64 of all energy carriers. Of course we have to notice the roll of other energy carriers but the importance of oil and gasoline roll attract attentions.(Ali Rabiei, p: 15, 1383)

4. Increase Of Energy Carriers Prices And It’s Effect On Economy:

Oil swings makes unbalance in incomes and costs of government, because it will weak balance power of economic against oil shocks.

Governments costs has increased in positives oil shocks significantly that enough potential for make balancing in economic and suit attraction of oil incomes will not arrange; this is more crisis in negative shocks because decrease of government’s cost is not proportionate and this reduction of income have to recovered by dept of central bank and propagation of budget shortage.

In fact costs increase in oil juice careers has made stable bonds for governments that disaboying of them is not possible in oil slump careers, due to these the reaction of government against oil shocks un concurrent and this will make balance power of economic weak. oil incomes reduction limit imports diametrical and by un propagation decrease in government budget the out effects of government costs for private part will increase significantly. This is experienced in Iran’s economy. The government has to review in economic structure to decrease oil sources using and make oil annual incomes independent.

Depending on oil resource incomes for government budget and separating the economic base from domestic applications; lead to government don’t care support production, growth and develop process and also make vast tax base.

Oil production quantity of area countries reached meanly 22.5 million gallons daily between 2000-04. And this amount rise to 27.3 during 2003, 27.9 during 2006, and 27.9 during 2007. And in 2008 it rise to 29.4 and in 2009 will rise to 30.6.

The amount of Iran’s oil production reached to 3.6 million gallons daily during the years 2000-04and it reached to 4, 4.1, 4.1 sequence in 2005, 2006 and 2007.

According to oil price reduction in 2008, Iran’s economy will face to oil incomes and if this process keep moving the government budget shortage will increase. because the budget of country depends %52.2 on oil incomes in 2008.

5. Security; Energy Consumption and It’s Effects on Economic Growth:

5.1. security; energy consumption and it’s effects on economic growth in developed countries

The main roll of energy in industrial production related to 1848 – when steamer engine invented- this time that count as industrial revolution era was the began of new age that other factors of production has removed by machines gradually. While machines applications in product process has increased; the amount of energy carriers consumption increased and demand for oil increased all over the world too because of using cars. extant figures and statistics show that energy consumption of OECD’s countries –that introduce as the developed countries of the world- has grown meanly %4.6 during 1830-1860 years annually. This career called the golden age of industrial growth of developed countries by using impolite materials and cheap available energy; developed the industrial production in all aspects. And machines applications reached to maximum possible amount.
After policy reforms in Iran in 1978, the oil crisis has begun in Iran, and after the second crisis, oil price increased from 12.7 dollars per gallon in 1978 to 40 dollars in 1980.

Because of oil shocks in 1973 and 1979-80, the economic growth of the world decreased rapidly and unemployment increased. The economic growth of OECD countries was 4.4% during 1968-1972, but it limited to 2.6% between 1973-1978.

Economic growth rate of Japan was 10-11% per year during 1960-1973 and it decreased to 4% per year after the first oil crisis. In France and Western Germany, it was 5.9 and 5.4 before the crisis, but it became 3.1 and 2.4 after that.

Studies show that oil prices reduction has positive effects on economic growth for oil importing countries, because production costs will decrease due to decrease of oil prices. The economic growth of USA increased after the oil price fall in 1990s. (A.J. Samimi and Y. Mehnatfar, 2006).

Oil price decreased since middle of 1991 until the end of this year. USA’s GDP grew about 3.5% in 1992, which was twice of predicting amount (in natural oil prices).

5.2- Security, Energy Consume and its Effect on Economic Growth in Developing Countries:

There are about 120 countries called developing countries that depend on growth level of craft application of production factors; social and policies base and income have different degrees. They differ also in consume aspects. In comparison of developed countries, developing countries use less energy. In 1990 all of the developing countries—except China—only used 27% of energy while they had 75% of world population. Instead, the United States, use the same amount of energy while it has only 5% of world population. One of the main reasons of this difference of energy using between developing and developed countries is using unjoinery fuel in developing countries.

As 90% of fuel use in the countries like Mozambic, Maldives, Burkina Faso is from unjoinery fuels while it decreased to 30% in more developed third world countries like India, Brazil, China, and Japan. The total decrease in amount of energy use in developing countries is not predicted because the main goal for these countries is increasing economic growth optimum.

5.3- Security, Energy Use and its Effects on Economic Growth of Iran:

Oil is the main economic part of our country. The oil price has increased from 23 dollars in 2003 to 100 dollars per gallon in 2007. And it rise to 137 dollars in 2008. According to the relation between oil price and GDP, it was expected we had more GDP.

The problems our country faces to is the same of many countries all over the world. It is expected from the countries which have rich natural resources to grow rapidly but in fact they couldn’t reach this yet. The problem is that those countries couldn’t use this natural resources well.

It can be mentioned about some factors that lead to these kinds of problems that:

- The method we use to measure success is very vast that is not useful enough. Since, in fact what we measure is what we do. If we look at the GDP and it be good, we think that we were successful and we forget the ways to fix the problems but in fact GDP is not a correct method to measure the real amount of success in countries economy. And this, lags our economy.

However our country gain a lot of successes since 1990 until now, but the low amount of GDP has made some problems for us. In other hand, it was expected that liquidity growth in country’s economy had significant effect on increase of GDP.

Our country has many natural underground resources. The goal is correct economic management surveillance to these factors to extract them. When they transmit and investigated correctly; make incomes, worth and more added values for our country. The other matter is that; noticing under ground resources to extract and extracting them to use increase incomes. And inattention to this, makes the country poor. Iran hasn’t this problem because Iran could extract this resources and invested on them -specially in third and fourth developing program- and this is not covered to any economists.

The problem of our country is to not investing on projects with high productibility to gain more revenue and added value. For example under ground oil has 4 times more increase in price and if we could extract it well we will reach to a big income for our country. Therefore it is necessary to have correct management around society worth and resources in Iran.

There are some other issues about management standards, worth, income, yield and investigation to notice them. And all of them are depend on security in economic structures of a country.

One of the problems of developing countries is lack of correct natural resources management. Therefore countries should have correct management around un stability of natural resources price to make it sustainable.
To sell oil and other mineral matters is another problem for many countries. Unfortunately oil can’t make employment solitary as a natural resource and then the competition in import and export markets becomes hard for all countries. And due to this many of rich oil sources countries count rich countries but have poor people. Therefore to solve these problems we should attention to trucks – specially external trucks-. Sustainable business program in poor countries efflorescence trucks. There are two strategic trait of oil resources to increase economic growth in Iran:

First, to be match with the world; for example China shows that it can has correct management around globalization process to gain more economic growth. The India also could has good economic growth, not by using natural resources but by correct management of globalization.

It should be notice that; India was not success to reduce poor as China was. (Hushang Amir Ahmadi, 1372, page: 88)

These examples show that elation of economic growth is gained from globalization process if governments take correct policies.

Making balance of globalization process in Iran’s economy is very important.

Second, increasing the yield of investigation on education and money toward develop science and investigation on economic structures.

One of the other problem of our country is about the amount of saving that is not as much as China’s. China’s saving was about %50 and this is because of conforming Chinese. They understood the counted amount of GDP is lower than real amount. Then they changed their economic policies and found out they didn’t count %20 of GDP. And now they’re planning to increase consumption. So they decrease dependence to export and lean on domestic investigations.

Our country’s problem is not the level of investigation but it is the yield. One of the problems of developing countries like Iran, is unemployment and its high rate. While these countries have great resources and human/natural potential; unemployment rate shows different problems around investigation. It is important to make economic opportunities for private part and these parts be expected to use these opportunities correctly; because this is the way to a successful economic and this is not possible by omission unnecessary laws solitary, but we should make close connect between government and private part. For example we should match post-education with the needs of industrial private part. Unfortunately there is no orchestrate between university education and the needs of other economic parts and due to this; university, industry private part are separate from each other.

It seems we must review the train of our youth about post-education. For example pay attention to China and Russia economy. The difference between these two countries is:

Chinese wanted to make and develop opportunity in outset of privatization and they attend to existence correct base. And also make limited policies while China could all these very well by making correct private part.

And in the end we should notice to the government’s roll and also private part.

And I have to say: there is no generality to determine government and private part roll and this is depend on different compositions. Therefore if we use oil as capital and private part investors have more action in economic programs and government make this according to 20-years overview plan, then government secure its costs from other income resources such as trucks, tax and so on. (S.karimi, Y.mehnatfar, 1385, page:130-135)

When natural incomes resources enter to a country, the real exchange will increase and the ability to competition of truck goods against import goods will decrease because of pressure of revenues.

This cost effect can company devotion effect as it attracts production factors of natural resources and the yield will decrease.

One of the most important reasons of decrease in economic growth rate in developing countries and also Iran’s economy is depression of demand level for product goods of these countries in world’s markets.

Summary, Deduction and Suggestions:

In a basic view; energy security means to access enough energy to moving economic actions on and protecting domestic, transmit and army’s needs in a suit and constant price.

Energy security is also related to big shocks of price and supply caused by diplomatic prohibition and natural disasters.

The meaning of energy security is different for different countries. It means to access to enough supply with suit price for developed countries while it’s mean to secure demand to conserve oil incomes for oil exporting countries. For Russia energy security means to support governmental control on strategic resources
and be success on main transmission ways and channels of energy markets. It is important for developing countries to know what’s the effects of energy price change on balance of their payments.

Energy security means guaranty and support enough energy to continue rapid economic growth for India and China. And it means to recover shortcoming of the country by diversity, business and investment in Japan. Energy security is very important for our country, Iran. Because the government has to prepare to reach first economic growth on middle east and north Africa in third and fourth economic developing plan and 20-years overview by shifting applications of oil use from consume to investment and arrange economic projects until 2036.

Unfortunately current energy security system is very unapt because what is basically governor on world’s oil market, is not a pervasive social system for demand and supply management in international oil market to have power protect producer and consumer’s gains suit and simultaneous. The current system is a form of methods that have made to react 70-decades oil crisis and emergency conditions in oil supply to protect consumer country’s gain and big powers such as the united states.

Energy security often mention to gas and oil security because these two energy carriers have main part of energy basket.

Traditionally, energy security defined as consumer’s all desire to receive enough energy resources on time for payable prices.

But now, the meaning of energy security has changed and it is nothing but demand, supply and energy industry security simultaneous.

Now, all economists in economic literature accept that energy security is a compact network of consumers, producers, international and national oil companies and the system of consumers and producers countries. Therefore it is clear that consumer countries have to accept this fact; and provide enough space for apt and on time investment of producer countries and also international oil countries by transparent energy policies and making energy industry out of diplomatic views. We can have sustainable energy security all around the world by continual contribution of energy security elements between consumers and producers and solving economic and diplomatic problems.

20-years title overview of country has determined country policies as the main wheel for developing economic programs in front the world.

This title also has defined the strategy of world’s relationship to use world equipment for country develop and solving the international problems.

In a such condition, this is normal that oil industry development strategy of country count as the main part of national economy in economic develop programs of the Islamic revolution of Iran. This means oil industry of country –that need international capital and technology- have to use world equipment and this is possible with positive relation through the world and moving toward international pattern of security in work frame of energy security of world.

In this way, oil industry as the main wheel for international system can be a trusty and strong place to attract attentions by development and increase Iran’s share in the world’s market. And also enhance Iran’s contribution in world energy security protect. (Y. Mehnatfar and A. J.Samimi, page: 153-158)

The title of 20-year overview of the Islamic revolution of Iran as a long time macro-strategy is going to move along development road by positive solidarity with world to prevent economic threats and gain equipment. According to the definition of this pattern Oil industry and world security communion is the core of this positive solidarity.

The Islamic revolution of Iran has no way but spurting beyond the current viewpoint in Middle East and looking for its security in international security.

Iran has to use oil and world security as positive solidarity and economic development goals rapidly and energy security by using external and internal investments.

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