The Effects of different factors on GDP of Pakistan

Muhsin Bilal[1], Dr. Ahmed Raza Bilal[2], Chaudhary Abdul Rehman[3]

[1]PHD Scholar, Superior University, Lahore Contract: 0342-0656493,
Email: mohsinbilalncn@yahoo.com
[2]Professor, Business School, superior University, Lahore
Contact: 0333-6560982, Email:arb@superior.edu.pk
[3]Professor, Business School, superior University, Lahore
Contact: 042-35530361-8, Email: ceo@superior.edu.pk

Abstract: GDP is considering very important elements in every country. The country of low GDP is live complex environment every time. The use of industry, resources, and manpower, professional's, material, tools, instructions and food is very important factor in GDP. This research provides complete guideline and directions how Oil prices, foreign direct investments, interest rate, telecommunication and inflation rate will cause to the low GDP. Data was collected through different sites, newspaper, magazines and educated personal of Pakistan so this research is only limited within the boundaries of Pakistan. The results shows that in Pakistan interest rate, FDI & telecom industry have positive impact on GDP but inflation rate and oil prices (diesel) have negative impact on GDP of Pakistan.
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Introduction:

The economy of Pakistan is the 42th largest in the world in nominal terms and 26th largest in the world in terms of purchasing power parity (PPP). The current population of Pakistan is 186 million which the 6th largest country in the world is whereas per capita GDP $3149 means 140th as a rank wise in the world. According to the government figures, Pakistan's GDP is about $276.9 billion, which means Pakistan economy is 26th largest in the world. Pakistan's GDP growth rate was registered at 4.24% in 2014. Per capita income is considered as an important measure to gauge the standard of living of any country which was about $1513 in 2015, and GDP by sector were in agriculture 25.1%, industry 21.3%, and services 53.6%. The major threat for Pakistan is inflation which was (CPI) 2.1% in April 2015. The major export goods linens, cotton and rice which are export to the United States, china and united urab amarates. The major import goods transport vehicle, machinery, petroleum and textile items which are import from china, united urab amarates and sudia arbia. Total investment 23% of GDP has been reported the highest in the country's history. Pakistan is a developing nation and it is the member of the World Trade Organization and has bilateral and multilateral trade agreements with many nations and international agreements. It has free trade agreements with china.

GDP stands for gross domestic products and it is affected by various factors but in this research we have discussed the effect of oil prices, inflation rate, interest rate, foreign direct investment (FDI) and telecommunication on GDP of Pakistan.

GDP is the market value of goods and services produced by the people and the property of the given country for the period of one year. GDP is of two types, nominal GDP which is also called money GDP is the measure of money spent and the real GDP which is also called the inflation is that which corrects the gross nominal GDP figure for inflation, making real GDP more useful for historical comparison.

In mainstream economics the word "inflation" refers to the general rise in prices measured against a standard level of purchasing power. Inflation is measured by comparing two sets of goods at two points in time and computing the increase in cost not reflected by an increase in quality. The most well-known is GDP deflator, which measure inflation in the whole of the domestic economy.

Interest rate usually refers the cost of money which we paid for the use of money. This is also called the bank lending rate. The interest rate may be quarterly, half yearly, and annually as per bank's policy in the borrowed money.

Oil prices are always debatable and remain an important variable in determining economic activity of any country. Pakistan is not oil producing country but oil imported country. The size of oil prices increase depends on the share of the cost of oil in overall GDP. There has been a continuous increase in energy consumption in Pakistan. The share of oil in total energy consumption was 29% in 2006-2007.

Telecommunication has become an enabling industry for business and commerce in particular and economy in general. Maintenance of a stable and robust telecom infrastructure results in increased business and trade in the country. Thus, resulting in economic growth in terms of increased GDP and per capita income.

Foreign direct investment (FDI) is investment directly into production in a country by a company located in another country, either by buying a company in the target country or by expanding operations of an existing business in that country. The reason of FDI is that special investment privileges such as tax exemptions offered by the country as an incentive to gain tariff-free access to the markets of the country or the region. Many developing countries including Pakistan faces the problem of saving-investment gap and FDI influences the process of economic growth by filling up this gap. Pakistan has achieved FDI of almost $8.4 billion in the financial year2006-2007, surpassing the government target of $4 billion. Foreign investment had significantly declined by 2010, dropping by 54.6% due to Pakistan's political instability and weak law and order, according to the State Bank of Pakistan. As per state bank report FDI investment has increased in 2014 by 2816.40 USD Millions as compared to 2013 which is 2665.30 Million whereas the high FDI record in 2010 which is 3184.30.

The research extends to the whole of the Pakistan and applicable only within the boundaries of Pakistan. The research objectives are that to clarify the effect of all above variables on the GDP of Pakistan. The study focus on the growth of the economy to know whether Pakistan moving towards growth or not as well as the importance of these variables with respect to GDP.

Research questions:

In this research we clarify the following questions:

1. Whether inflation has positive or negative effect on GDP?
2. What are the reasons of high oil prices in Pakistan?
3. Is telecommunication sector enhancing the GDP of Pakistan?
4. What is the effect of over interest rate on GDP of Pakistan?
5. How can we remove the obstacles which are a hindrance in the way of smooth growth of Pakistan?

Literature Review:

(Shumaila Hashim, 2008)**,** investigated in his study that telecommunication infrastructural investment can lead to economic growth in several ways: transaction cost of data collection, placing and receiving orders have greatly reduced due to the availability of advanced telecommunication infrastructure. It has put a positive effect on the output of individual firms and in aggregate overall economy.

(M.Arhad Khan, 2011)**,** concluded that **in** developing countries the level of domestic savings falls below the desired level because of low per capita income. The gap between domestic savings and desired level of investment can be filled by the transfer of resources from outside; FDI is one of the most important sources Pakistan has received comparatively higher amount of FDI over the past two decades, due to its market-oriented investment policies and enabling investment environment.

(Irfan Hameed, 2011)**,** examined that the term interest rate usually means any bank lending rate. Monetary policy rests on the relationship between the rates of interest in an economy, that is the price at which money can be borrowed, and the total supply of money.(Qayyum, 2006)**,** investigated the linkage between the excess money supply growth and inflation In Pakistan. Also he examined that is inflation a monetary phenomenon? His results from the Correlation analysis indicated that there is a positive association between money growth and Inflation. The important finding from the analysis is that the excess money supply growth has been an important contributor to the rise in inflation in Pakistan during the study period. This supports the monetarist proposition that inflation in Pakistan is a monetary phenomenon. (Syed, 2007)**,** investigated that Baluchistan is rich in gas and oil resources. PPL (Pakistan petroleum limited), Pakistan's largest production of petroleum and exploration company, has also been leading the field of gas and oil exploration for many years in the province.(Malik, 2008)**,** investigated that possible outcomes and confronts presented of increase in oil prices in Pakistan. The continuous increase in the international oil prices had affected negatively the BOP (balance of payment) and the budgetary position of Pakistan and added inflationary pressures on the economy.

Rational of Research:

The variable which is used in this research is not discussed before together in the literature that affects the GDP. After this research state banks and economists are able to find the real GDP and their effects to the other variables. So the main purpose of this study is to investigate the positive or negative affect of GDP to the other variable.

Formula to Calculate GDP Gap = Actual GDP – Potential GDP/ Potential GDP

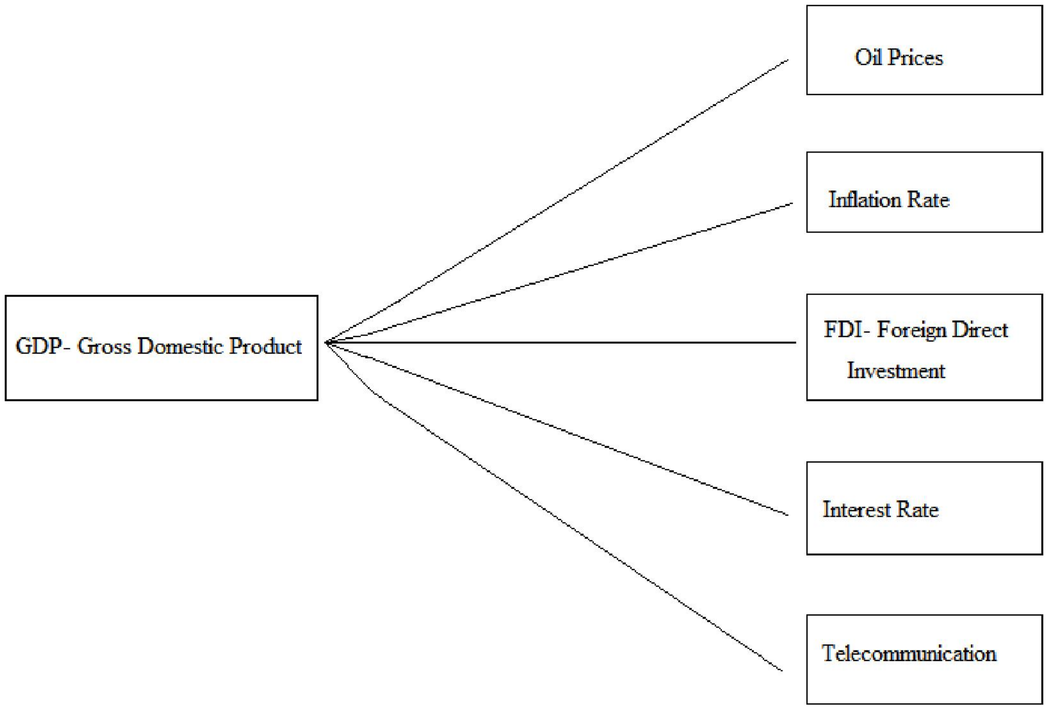
Actual GDP:

The sum of all values added in the economic activities in our country but not account for inflation. If nominal GDP is 10% shot up and the inflation rate is 4%. It means the real GDP increased by 6% in our country.

Potential GDP:

The sum of all values added by possible of all economic activities by utilizing the labor, capital, resources and technology.

Model:



<u>Independent Variable:</u>

GDP (Gross Domestic Product):

Gross domestic product (GDP) refers to the market value of all officially recognized final goods and services produced within a country in a given period. GDP per capita is often considered an indicator of a country's standard of living.

Dependent Variables:

Oil Prices:

Pakistan is an oil importing country. In recent years, the energy consumption is very higher in Pakistan and in energy the oil is consumption is very high.

Inflation Rate:

In economics, the inflation rate is a measure of inflation. It is the percentage rate of change in price level over time, usually one year. The rate of decrease in the purchasing power of money is approximately equal.

Interest Rate:

An interest rate is the rate at which interest is paid by a borrower for the use of money that they borrow from a lender.

Telecommunication:

Telecommunication has become an enabling industry for steady growth in business and commerce. Telecom sector has been exhibiting thriving growth patterns especially in relation to south Asian economies including India, Bangladesh and Nepal.

FDI (foreign direct investment):

Foreign direct investment (FDI) is a measure of foreign ownership of productive assets, such as factories, mines and land. Increasing foreign investment can be used as one measure of growing economic globalization.

Research Methodology:

Sample Development:

Data should be taken for the period 2015 from different web sites related to all variables.

Variable Table (Theoretical Relationship B/W Dependent & Independent Variables)

Sr.No	Variables	Symbol	Status	Definition	Expected Sign
1	GDP	G	Dependent	Prices of goods and services	
2	Inflation rate	Inf	Independent	Yearly rate for July 2015	_ ve
3	Interest rate	Int	Independent	Yearly rate for July 2015	+ve
4	FDI	F	Independent	In terms of billion	+ve
5	Telecom industry	T	Independent	In terms of revenue	+ve
6	Oil prices(diesel)	O	Independent	In terms of Rs	_ve

Hypothesis development:

H_1! GDP is dependent upon inflation rate.
H_2! GDP is dependent upon interest rate.
H_3! GDP is dependent upon FDI.
H_4! GDP is affected by telecom industry.
H_5! GDP is affected by oil prices.

Econometrics Model:

We are using multiple regression models in order to measure the changes in dependent variable due to change in explanatory variables (independent variables).The multiple regression equation is as under:

Y=α+β1x1+β2x2+β3x3+β4x4+β5x5+e

Y= dependent variable
A= alpha means constant value
B= slope of variable (percentage change in dependent variable due to change in independent variable)
X= independent variables
E= error term (variables that are not included in research)

Now putting the variables in regression equation:
GDP= a+infx+intx+FX+TX+ox+e
GDP= dependent variable
A= constant GDP
Inf= inflation rate
Int= interest rate
F= FDI
T= telecom industry
O= oil prices (diesel)
E= error term
Now putting the values:

GDP= 2000-0.032INF+0.07INT+2816.40F+465T-88.60+E

Explanation of Equation:

In this equation, $2000 billion is the constant GDP which is not affected by these variables.

Inflation rate is 0.032 or 3.20% which indicate that GDP is decreased by 0.320 due to inflation.

Interest rate positively affects the GDP by 0.07 which means that GDP increased by 7% due to interest rate.

FDI also positively affect the GDP by $2816.40 million which refer that GDP is increased by FDI. Telecom industry's revenue is $465 billion which also increased GDP by given amount.

Last variable is oil prices (diesel) that inversely affect the GDP due to import of oil it has high prices in Pakistan that cause to decrease in GDP.

In this equation, E refers to the error term that means those variables that affect the GDP but not included in this equation.

Conclusion:

After completing the analysis In Pakistan by taking the data for the year 2015, used the multiple regression analysis. This research found that in Pakistan interest rate, FDI & telecom industry have positive impact on GDP but inflation rate and oil prices (diesel) have negative impact on GDP of Pakistan. The result shows that foreign direct investment greatly increases the GDP of Pakistan by $2816.40 million and it has positively affect the GDP. And oil prices & inflation rate adversely affect the GDP of Pakistan.

Limitations:

This research extends to the whole of the Pakistan. Because we have collected data for the year 2015 from budget year book of Pakistan. So, this is applicable only within the boundaries of Pakistan.

Recommendations:

We suggested that,

❖ Diesel consumption should be reduced in the country and alternative resources are used instead of diesel.

❖ Further, state bank of Pakistan should introduce the effective policies in order to control the inflation rate within the country.

❖ Foreign direct investment should be made more effective that would result increased in employment that ultimately increased GDP of Pakistan.

❖ Here interest rate indicate the interest on deposit, so if interest rate increased that result more saving in country and increase profitability of the banks.

❖ In order to increase the FDI, government should adopt the adequate policies.

References:

1. Irfan Hameed, U.-A. (2011). Impact of Monetary policy on Gross Domestic Product (GDP). *Interdisciplinary Journal of Contemporary Research in Business* , 1-12.
2. M.Arhad Khan, S. A. (2011). *Forign direct investment and economic growth in pakistan.* PIDE.
3. Malik, A. (2008). *How Pakistan is coping with the challenges of High Oil prices* . pakistan institute of development economics 2008.
4. Qayyum. (2006). *Excess money supply and growth rate.*
5. Shumaila Hashim, K.-u.-Z. A. (2008). Telecom Infrastructre and Economic Development of Pakistan. *International Journal of Arts & humanities (IRJAH)*, 147-148.
6. Syed, F.-E. H. (2007). *Improving Security for Oil and Gas Exploration.* Pakistan and Gulf Economist 2007.

- www.tradingeconomics.com/pakistan/interest-rate
- www.wikipedia.com.
- en.wikipedia.org/wiki/Economy_of_Pakistan.

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