

# An Analysis of Measures of Economic Development: A Case Study of Pakistan Economy

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## ABSTRACT

**Aim of the Study:** The paper analysis different Classical measures of economic development, their similarities and differences.

**Methodology:** There are different measures or techniques to measure the economic development of a country. In the paper, researchers have used three of the Classical measures estimators for Pakistan economy point of view. These measures are Per Capital Income in U.S. dollar (PCI US. \$), Per Capita Income in Rs. Market Prices (PCI Rs. MP). The per capital income in Dollar is posed as a perfect measure of development also considered as adjusted income measure and satisfied the Purchasing Power Parity (PPP) condition.

**Findings:** The analysis provides us an interesting result that per capita income on market prices shows, more similarities with an international measure of economic development. It also provides another important result that both Classical measures of economic development are perfect.

**Conclusion:** The study provide an important conclusion that per capita income on market prices shows more similarity with an international measure of development i.e., per capita income on US \$. So, both measure of economic development are perfect. Moreover, to measure level of economic development the both measure are correct, according to Pakistan economy analysis.

**Keyword:** Economy, Development, Pakistan.

## Introduction

The development is a composite concept: it includes all types of developments like, economic, social, political, and cultural. To measure the development, economists used various methods and techniques. The simplest and Classical methods are per capita income, per capita income in US \$. Gross National Product, and National Income. We usually use different measures to access the Pakistan's economic development. The objective of our paper is to see the harmoniousness of different methods, being used for the measurement of Pakistan economics development. The exercise is important because it enable us to understand the Classical methods differences and similarities.

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To analyses the issue "Classical development methods differences and similarities" we have arranged five sections i.e. after the first section, in the second section, we have made a comprehensive review about the available literature on the issue. The third section of the paper presents formulation of an econometrics model and also sources of the data used for the analysis. The section four allocated for empirical analysis and results discussion. Finally, section five is about the conclusion and policy suggestions.

## **Review of Literature**

The classic indicator of development is per capita income in US dollars. The World Bank (1996) ranks countries according to this metric. Nations with GNP per capita less than \$ 765 in 1995 are labelled "low-income economies," nations with GNP per capita income higher than \$ 9385 in 1995 are labelled "high-income economies," and all countries in between are labelled "middle-income economies" (World Bank 1980). It's tempting to label low- and middle-income economies as "less developed countries" and high-income economies as "more developed countries." GDP per capita is sometimes used instead of GNP per capita. The entire final output of goods and services generated inside a country's territory by residents and nonresidents is defined as the gross domestic product. Gross national product is GDP plus factor income accruing to residents from abroad, less income accruing to nonresidents in the local economy. Although GDP per capita is the correct measure of income per capita, GDP per capita is frequently easier to estimate. Per capita income is the average of a country's residents and, as such, can mask substantial regional variances. For example, even after accounting for differences in cost of living, per capita income in the southeast region of Brazil was estimated to be double that in the northwest region in 1975 (World Bank 1991, P. 41). This difficulty extends to all attempts to measure national development. Nonetheless, this practice has persisted since many countries lack credible regional development data and the majority of critical policy decisions are taken at the national level. Various efforts were launched in the 1970s to rectify, complement, or replace per capita income in US dollars as a measure of development (Meier and Rauch 2000).

We have seen various approaches and theories in the literature, by various schools of economists and individual economists of eminence the Classical school, the Neo- classical school, the Maxcians, Schumpeter, the Keynes and his followers and other Post-Keynesian writers. Each had a tendency to stress one dominant factor as the mainspring of the process. The Mercantilists of the sixteenth and seventeenth century, Europe relied on the favourable balance of trade resulting in the net imports of treasure, which stimulated economic activity. The French treasure, which stimulated economic activity. The French School of Economists, based their theory on the net product of agriculture the only productive activity net product of agriculture the only productive activity that Yields, according to them, a surplus over cost of production. Adam Smith put his reliance on savings resulting in accumulation of capital in an environment free from government intervention. Karl Marx talked in terms of the class-conflict resulting from Labour exploitation by rich capitalist class. Malthus, senior and Mill, among other things, stress the expansion of education as the chief agent.

Economists have laid emphasis on different factors. Thus Huntington (2017) has stressed the importance of natural resources; Schumpeter regards the innovation entrepreneur as the leading element. Thornstein Veblen gives credit to "disciplined enterprising people". Nurkse, Harrod and Domar consider enterprising people". Nurkse, Harrod and Domar consider capital accumulation as the most important factor or determinant of economic development. Milton Friedman and Kindleburger rely on the free marketing system. Other writers have stressed technical knowledge, trade and commerce, and some of them think that non-economic factors, Whiter psychological or social, are greater importance than the economic factors, since they influence human behavior and motivations more deeply. The fact is that there is an element of truth in all these views. Each of the factors mentioned above, play a part in promoting economic development. Difference of opinion concerns the relative importance allotted to each. According to M.L. Qureshi (1984), the traditional theory of development is based on the increase in the rate of growth; development is based on the increase in the rate of growth of the gross national product. It was thought that the developing countries were poor because of the small size of their gross national

product, hence the emphasis on economic growth, we think a major goal of development is reduction of poverty, we might want to supplement (if not replace) per capita GNP a measure of the extent of poverty. Attempts to an internationally comparable poverty line" and measure the extent of poverty across countries are described in the selection by the World Bank. Pasha (2018), there is a fairly substantial difference in per capita income among the four provinces of Pakistan as revealed by the estimate of provincial GDPs and population.

Ahmed and Amjad (1984), presented the relationship between development and social services:- "a close relationship between economic development and the provision of essential social services like education and health, for not only as an economy develops are we more able to provide these essential facilities but a better educated and healthier labour force also helps to accelerate the process of economic development."

Zaidi (1999), GNP per capita is a very simplistic and crude measure of social development, the HDI is a larger and broader composite indicator which capture much more than just per capita income.

## Methodology and Data

In strictly economic terms, development has typically indicated a country's ability to generate and sustain an annual increase in its gross national product of 5% to 7% or more after its starting economic position had been more or less unchanged for a long time. The GDP, which is similar to GNP, is also utilized. A common alternative economic indicator of development has been the use of rates of growth in income per capita or per capita GNP to account for a country's ability to expand output at a pace greater than population growth.

There are different measures or techniques to measure the economic development of a country. In the paper, we have used three of the Classical measures estimators for Pakistan economy point of view. These measures are Per Capital Income in U.S. dollar (PCI US. \$). Per Capita Income in Rs. Market Prices (PCI Rs. MP). The per capital income in Dollar is posed as a perfect measure of development also considered as adjusted income measure and satisfied the Purchasing Power Parity (PPP) condition. To analysis the different classical methods relation to the adjusted measure of development, we have formulated the model as:

$$Y_t = f(\phi, Z_t)$$

$$Y_t = \alpha + \beta_1 \phi_t + \beta_2 Z_t + \mu_t$$

Where  $Y_t$  = Pakistan per capita income in US \$ over time

$\phi_t$  = Pakistan per capita income in Rs. Market price over time.

$Z_t$  = Pakistan Gross Domestic Product to Gross National Product at market price over time.

$\alpha$  and  $\beta$  are parameters (intercept and slopes)  $t$  is time in years (2006 to 2020)

The data sources for per capita GNP are Economics Survey of Pakistan, Statistical Year book of Pakistan and State Bank of Pakistan publications. While for per capita income in U.S. \$, we have used some other sources like the World Bank, WDI and United Nations Publications.

## Empirical Analysis

We must immediately draw attention to two types of errors in the official data on development and growth. In addition to the fact that these data are not all that reliable across nations, factors like productivity, income, and education are actually more culturally particular than universal. However, national and international organizations only publish information that can be quantified using "conventional accounting procedures". Whose standards are being used? Those of the original theories of

the world market economies. Therefore, GDP measures the sections of production that are sold for a price in a formal market, but it does not account for goods consumed within the family or informal service trades. As a result, a significant amount of economic activity in many Third World nations is either completely neglected or only estimated. The estimates 60 to 80 percent of food is produced in the "informal sector" and 70 percent of informal entrepreneurs are women; a large portion of this unreported product is a result of women's labor (Rogers 1980:61). Literally, none of this non-formal activity is taken into account, when calculating the economy estimates. Even estimates from France, which is often regarded as having a highly organized market economy, indicate that informal income transfers like gifts account for about 75% of the official GNP (Insel 1993). In Third-World nations, where substantially more economic activity takes place outside of the formal market system, the share is significantly larger.

Alternatively, the real economy, whose true measures are unknown, may be only a small portion of the "official" economy, whose measurements are the primary sign of growth. This must be kept in mind when arguments are made about growth, development, and poverty using available statistics: these individuals genuinely have care about. Similar to how energy consumption excludes traditional fuels like firewood and dried animal feces, education is officially measured as enrolment in a regular school alone and so excludes informal educational institutions.

Due to these flaws, many detractors come to the conclusion that GNP and GDP represent development in a broad sense rather than economic modernization in the narrow sense of how closely a country replicates Western traits. Increases in GNP per capita, energy consumption, or educational attainment may simply indicate a rise in the share of economic activity taking place in the formal, taxed market sector as opposed to the unorganized sector; total real production may even fall while these indicators rise. Therefore, GDP is a gross indicator of the quality of domestic production, even though it may indicate a quantitative change in production (economic growth). Additionally, as the topic of inequality indicates, average (mean) statistics such as GDP per capita or the number of patients per physician conceal significant variations between groups within nations, such as across classes or genders or between rural and urban populations. When attempting to reflect the true state of a society, means are useless. In conclusion, if by the word "economic development" we essentially mean the level of material standard of living for the majority of the people, the existing data only provide a weak and frequently deceptive indicator of the degree and movement of economic development. We then shift to a stronger critique of the use of GNP and GDP data to gauge development. Conclusions drawn from income data are becoming increasingly dubious to those theorists who are vehemently skeptical about modernity, development, progress, and many other concepts previously taken for granted in the post-(European) Enlightenment world, even when qualified by the unreliability and insufficiency of the data. There is a growing argument that variations in quality of life have nothing to do with GNP per capita or even more innocuous statistical measures like the HDI. This argument holds true not only for peasants living on the periphery of a purportedly good planet but also for the wealthiest individuals living in the suburbs of Western cities, whose lives are in fact made miserable by an excess of technology and whose only goals are to acquire more. Take "happiness" as an example. Over the past 50 years, wealth and income in the West have significantly increased, but happiness levels have not. According to Kahneman and Krueger (2006), "standard of living has increased dramatically, but happiness has increased not at all, and in some cases, it has even decreased slightly".

It is a fact that people in wealthy nations claim to be happier than those in less fortunate nations. But once individuals have a place to live, food to eat, and clothes to wear, they don't seem to be all that happy with any additional money. According to Rudin (2006), the average national income of \$20,000 appears to be the threshold at which happiness is sufficient. Therefore, why not redistribute income from the wealthy, who do not need it in order to live happily, to the poor, who might undoubtedly benefit from it in order to be in a better position? However, rather than serving as objective techniques of assessment, statistical tables of GNP per capita and even tables of happiness can be viewed as instruments of power. This is due to the fact that their designs, which function as comparison series, imply a hierarchy—essentially a league

table—with a ladder rising from the bottom to the top and requiring ascent by individuals and nations aiming for "development" or even some form of universal happiness. High per capita GNPs, attained through economic growth, become the target of a society's best efforts, and the economic and political strategies employed in the past by wealthy nations become the development strategy of aspirant poor nations, with "success" determined by changes in tabular rankings.

Strangely, some thinkers still insist that individuals are living beings rather than numbers. There is also the fundamental paradox that as GNP rises, resource demand and environmental harm grow even more quickly, with repercussions including ozone layer depletion, global warming, and El Nino effects that are worsened by warmer ocean currents. A high GNP per capita may most accurately represent cultural blindness, environmental degradation, and the capturing of the global imagination.

By development, we mean the process of raising the standard of living for all people. Three equally significant aspects of development are: (1) raising people's living standards through appropriate economic growth processes, including their incomes and consumption levels of food, healthcare, and education; (2) creating environments that foster people's self-esteem growth through the establishment of social, political, and economic systems and institutions that uphold human dignity and respect; and (3) increasing people's freedom by broadening the scope of the rule of law.

Sometime, the terms "Economic Development", "Economic Growth", "Economic Progress" and "Secular Change" have been used more or less interchangeably in modern literature on the subject. It is, however, possible to distinguish between them. For instances, one might reserve the term "Economic Development" for a change in national income overtime. "Economic Growth" may be conceived of in terms of a rise in per capita income, "Economic Progress" may contain a value-judgment of the process of economic change and "Secular Change" may be used to describe the very long period trends in the relevant economic variables.

The new development economics resembled the old growth economics of Classical economists (Smith, Malthus, and Ricardo) in that it was concerned with the weighty variables of capital and population, and the goal of what Adam Smith referred to as the "Progress of Opulence" in the progressive state. The phrase "Economic Development" provided a compelling definition: an increase in real per capita income as a desired goal (Meier and Rauch, 2000).

For the comparison of different method of economic development and their similarities, we have estimated the model, which we have formulated in the section three of the paper. The estimates of the model are as follows:

$$Y_t = \alpha + \beta_1 \Phi_t + \beta_2 Z_t + \mu_t$$

$$\epsilon_t = 417.037 + 51.054\Phi_t + 33.224Z_t + U_t$$

Table 1: *Analysis results*

|                      |                          |          |              |
|----------------------|--------------------------|----------|--------------|
| $\alpha$ and $\beta$ | = (417.037)              | (51.054) | (33.224)     |
| Se                   | =(59.262)                | (0.001)  | (61.894)     |
| Ts                   | =(7.037)                 | (3.916)  | (0.537)      |
| $T_{sig}$            | =(0.000)                 | (0.002)  | (0.601)      |
| $R^2$                | = 0.764 Adj $R^2$ =0.514 | F = 8.37 | Fsig = 0.005 |
| Df=                  | 12                       |          |              |

In the above model, dependent variable is level of development in \$ term and explanatory variables are two: levels of development in term of per capita income in RS and ratio of GDP to GNP in RS at market prices. The goodness of fit of the model is about 76 percent, which is explanatory power of the model, and enable us to explain the model. The parameters are simultaneously significant, which we have

observed from the F statistic. Explaining the individually independent variables, our first explanatory variable from development measures is per capita income ( $\Phi t$ ) in Rs. Such variable at market prices, which is positively significance with the international measure of development (per capita income in US\$), indicating that both method have a similarity in increasing level of both measures, over the last fourteen years at the rate of  $\beta_1$  (51.054). It also communicates us that over the last fourteen years, both measures present a correct picture regarding the level of development in Pakistan. An alternative presentation may be that whenever our national per capita income enhancement, it may influence adjustment level of income (Purchasing Power Parity) by the rate of its coefficient. The second independent variable of our model is the GDP to GNP ratio ( $Z_t$ ), which shows positive insignificance with the dependent variable, however on the basis of economic criteria, we are able to present it that the sign criteria shows a positive relation of both the measures over the last fourteen years. The intercept of the model is also positively significant with the dependent, indicating autonomous factors are positive force of Per Capita Income in US\$ for the Pakistan economy.

## Conclusion and Proposals

Now a day, we have many methods to measure economic development like, the Classical School, the New and Neo-Classical; the Marxian's the Schumpeter, the Keynes, New and Neo- Keynesian and other Post Keynesian writers. In all of the theories and approaches level of income has been considered as the core of the theory.

Our paper provide us an important conclusion that per capita income on market prices shows more similarity with an international measure of development i.e .per capita income on US \$. So, both measure of economic development are perfect. Moreover, to measure level of economic development the both measure are correct, according to Pakistan economy analysis.

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## Conflict of Interest


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