



The Concept of National Income and its Application on the Indian Economy

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Abstract

One of the important tools for assessing the economic health and performance of a country is measurement and analysis of national income. This project aims to provide an understanding of national income, exploring its various concepts methods of calculation, and significance in economic policymaking.

The project begins by describing the fundamental concepts of national income measurement, including Gross Domestic Product (GDP), Gross National Product (GNP) and Net National Product (NNP).

Moreover, the project explores the significance of national income statistics in guiding economic policy formulation and evaluation. The project also talks about the methods employed in computing national income including the production approach and expenditure approach. It examines the data sources, the relevance and the limitations or challenges involved in estimating national income. The project also includes crucial measures like disposable income, purchasing power parity and per capita income which shows more accurate picture of how economy is doing for the typical citizen by accounting for population size and wealth distribution. It also includes the calculation of nominal and real GDP, where even the reason for discrepancies have been explained briefly. Lastly, one case study is included which gives an overview on how policies, strategies, exports, etc., have affected the GDP trend and growth.

I. Introduction and Methodology

National income is an important concept in economics, and it is the way to measure the economic performance and condition of a nation. It signifies the sum total of all goods and services generated within a country's boundaries for a given year. The process of national income starts with appreciating its different constituents like wages, profits, rents, taxes which sum up to constitute national product.

Various approaches can be used to compute national income namely expenditure approach; income approach and production approach. All these methods look at different dimensions of economic activity hence providing overall picture of the economy suitable to economists and policy makers.

Relevance of tracking national income over time allows for the analysis:

- **Measure of Economic Growth:** National income provides a measure of the total output of goods and services produced within an economy over a specific period, typically a year. Changes in national income over time indicate the rate of economic growth, allowing policymakers, businesses, and individuals to assess the pace of economic expansion or contraction.
- **Standard of Living:** National income per capita, which is national income divided by the population, is often used as a proxy for the standard of living within a country. Higher national income per capita generally correlates with higher levels of consumption, better access to goods and services, and an improved quality of life for citizens.
- **Resource Allocation:** National income data helps in the allocation of resources within an economy. By identifying sectors that contribute the most to national income, policymakers can make informed decisions about resource allocation, investment priorities, and economic development strategies.
- **International Comparisons:** National income calculations facilitate comparisons of economic performance between countries. Metrics such as Gross Domestic Product (GDP) or Gross National Income (GNI) allow policymakers, investors, and analysts to assess the relative economic strength and competitiveness of different nations.



Calculating national income involves various methods, each offering a unique perspective on economic activity within a country. The three primary methods used are the, production approach, income approach, and expenditure approach. Here's a brief overview of each:

1. **Production Approach:** Also known as the value-added approach, this method calculates national income by summing up the value added at each stage of production within an economy. It avoids double counting by just looking at the value added in every step. The formula for calculating national income using the production approach is:
$$\text{National Income} = \text{Value Added in Agriculture} + \text{Value Added in Industry} + \text{Value Added in Services}$$

The value added in each sector is calculated by subtracting the cost of intermediate goods and services from the total output of that sector.

2. **Income Approach:** This method calculates national income by summing up all income earned by factors of production within an economy. The key components of the income approach are:

- Wages and Salaries (W):** Income earned by labour for their work.
- Profits (P):** Income earned by businesses after deducting expenses from revenues.
- Interest (I):** Income earned by individuals and businesses from lending or investing money.
- Rent (R):** Income earned by individuals or businesses from owning land or other natural resources.
- Taxes (T):** Subtracting taxes paid by households and businesses.

The formula for calculating national income using the income approach is:

$$\text{National Income} = \text{Wages and Salaries (W)} + \text{Profits (P)} + \text{Interest (I)} + \text{Rent (R)} - \text{Taxes (T)}$$

3. **Expenditure Approach:** This method calculates national income by summing up all expenditures made on final goods and services within an economy during a specific time period, typically a year. The key components of the expenditure approach are:

- Consumption (C):** Total expenditures by households on goods and services.
- Investment (I):** Spending on capital goods, such as machinery, equipment, and construction, by

businesses and households.

c. **Government Spending (G):** All expenditures made by the government on goods and services, including salaries, infrastructure, and public services.

d. **Net Exports (NX):** The difference between exports (goods and services sold to other countries) and imports (goods and services purchased from other countries).

The formula for calculating national income using the expenditure approach is:

$$\text{National Income} = \text{Consumption (C)} + \text{Investment (I)} + \text{Government Spending (G)} + \text{Net Exports (X-M)}$$

1.1 Assumptions and Limitations

In economics, the measurement of national income involves several assumptions to simplify the complex reality of an economy. These assumptions help in standardizing the calculation process and making comparisons over time or between different countries. Here are some key assumptions commonly made in the estimation of national income:

- Homogeneity of Goods and Services:** It assumes that goods and services produced within an economy are homogeneous or identical. This allows for aggregation of various economic activities into broader categories without considering differences in quality or characteristics.
- Perfect Competition:** National income calculations often assume a state of perfect competition, where there are many buyers and sellers in the market, and no single entity can influence prices. This assumption simplifies the determination of market prices and ensures that the value of goods and services reflects their true economic worth.
- Factor Mobility:** It assumes that factors of production, such as labour and capital, can move freely between industries and regions within an economy. This assumption ensures that resources are allocated efficiently to maximize production and minimize costs.
- No Income Generated Outside the Country:** National income calculations typically focus on income generated within the borders of a country and do not account for income earned by residents from foreign sources (e.g., remittances, foreign investments). However, such income is



often included in broader measures like Gross National Income (GNI) or Gross National Product (GNP).

While national income is a valuable economic indicator, it also has several limitations that need to be considered when interpreting its significance. Here are some key limitations of national income:

1. **Excludes Non-Market Transactions:** National income typically measures only market transactions, excluding non-market activities such as household work, volunteer services, and informal sector activities. As a result, it may not fully capture the overall economic activity within a country, leading to an underestimation of the true economic output.

2. **Ignores Distributional Issues:** National income aggregates the total output of an economy without considering how income is distributed among different segments of the population. As a result, it may mask income inequality and disparities in wealth distribution, providing an incomplete picture of the economic well-being of citizens.

3. **Doesn't Account for Externalities:** National income calculations often ignore the external costs and benefits associated with economic activities, such as environmental degradation, pollution, and social impacts. Failure to account for these externalities can lead to overestimation of economic welfare and sustainability.

4. **Quality of Life Indicators:** National income alone does not capture important aspects of well-being and quality of life, such as health outcomes, education levels, social cohesion, and personal happiness. While economic growth may increase national income, it does not necessarily translate into improvements in overall quality of life for all citizens.

5. **Ignores Household Production:** National income calculations typically exclude household production, such as self-consumption of home-grown food, childcare, and home repairs. This omission can lead to underestimation of economic output, particularly in economies where household production is significant.

6. **Ignores Income Distribution:** While national income provides an aggregate measure of economic output, it does not reveal how income is distributed among different groups within a society. Rising national income may benefit certain segments of the population disproportionately, exacerbating income inequality.

7. **Ignores Changes in Productivity:** National income does not account for changes in productivity or improvements in technology that may affect the efficiency of production. As a result, changes in national income may not accurately reflect changes in economic well-being or standards of living over time.

8. **Currency Fluctuations:** National income calculations are typically done using a single currency, which may not accurately reflect the purchasing power of that currency due to fluctuations in exchange rates. This can distort comparisons of national income between countries and over time.

Overall, while national income is a valuable measure of economic activity, it should be interpreted alongside other indicators and supplemented with additional data to provide a more comprehensive understanding of economic performance and societal well-being.

II. Calculation of National Income of India

Various measures are used to estimate the aggregate economic activity in a country, mainly GDP, GNP, NDP and NNP. GDP is one of the most vital macroeconomic variables and one of the best measures to review an economy's performance.

Nominal GDP or Gross Domestic Product at Current Prices in the year 2022-23 is estimated at Rs. 272.04 lakh crore, compared to the First Revised Estimates of GDP of the year 2021-22 at Rs. 234.71 lakh crore. The growth of nominal GDP during the year 2022-23 is estimated at 15.9% as compared to 18.4% in 2021-22.

The three approaches used to calculate the GDP are the output approach, the income approach and the expenditure approach. Theoretically, the three approaches must produce the same result because the total expenditures on goods and services (Gross National Expenditure) must be equal to the total income paid out to the producers (Gross National Income), and that must also be equal to the total value of the output of goods and services (Gross National Production). However, in real life difference might arise in the results of the three methods, majorly due to statistical discrepancies, limited data availability and measurement errors. These methods rely on different data sources and assumptions.

a. Output Approach

This method measures national income at the production stage. The stages involved are:



- i) Estimation of Gross Value of the domestic product
- ii) Estimation of Intermediate Cost
- iii) Estimation of Net Value of domestic product

For the year 2022-23, Gross Value Added (at Current Prices) is Rs. 2,47,07,001 crore. This includes the industries of Agriculture, Forest & Fishing, Mining and Quarrying, Manufacturing, Electricity, Gas, Water Supply & Other Utility Services, Construction, Trade, Hotels & Transport, Communication and Broadcasting Services, Financial, Real Estate and Professional Services, Public Administration, Defence, and Other Services.

The growth rates of Primary sector (comprising Agriculture, Forestry, Fishing and Mining &

Quarrying), Secondary sector (comprising Manufacturing, Electricity, Gas, Water Supply & Other Utility Services, and Construction) and Tertiary sector (Services) have been estimated as 3.9%, 12% and 8.8% respectively in 2021-22 as compared to a growth of 2.4%, -0.2% and -8.2%, respectively, in the previous year.

The growth in real Gross Value Added during 2021-22 is due to growth in Mining and Quarrying, Manufacturing, Electricity, Gas, Water Supply & Other Utility Services, Construction, Trade, repair, Hotels and Restaurants, Transport, Storage and Communication & Services related to Broadcasting and Other services. However, Agriculture, Forestry and Fishing, Financial Services, Real Estate & Professional Services and Public Administration and Defence have only witnessed a modest growth during this period.

Statement 4A: Second Advance Estimates of GVA at Basic Prices by Economic Activity (at Current Prices)

Industry	(₹ crore)				
	2020-21 (2nd RE)	2021-22 (1st RE)	2022-23 (SAE)	Percentage Change Over Previous Year	
				2021-22	2022-23
1. Agriculture, Forestry & Fishing	36,95,412	40,66,649	45,20,818	10.0	11.2
2. Mining & Quarrying	3,16,268	4,29,364	5,84,763	35.8	36.2
3. Manufacturing	28,00,895	33,96,735	36,23,284	21.3	6.7
4. Electricity, Gas, Water Supply & Other Utility Services	5,00,804	5,55,605	7,40,602	10.9	33.3
5. Construction	13,43,531	17,37,505	20,21,176	29.3	16.3
6. Trade, Hotels, Transport, Communication & Services related to Broadcasting	28,70,667	36,11,993	44,75,544	25.8	23.9
7. Financial, Real Estate & Professional Services	40,36,766	46,12,286	52,94,692	14.3	14.8
8. Public Administration, Defence & Other Services*	26,24,437	30,28,745	34,46,122	15.4	13.8
GVA at Basic Prices	1,81,88,780	2,14,38,883	2,47,07,001	17.9	15.2

RE: Revised Estimates; SAE: Second Advance Estimates

* Public Administration, Defence & Other Services category includes the Other Services sector i.e. Education, Health, Recreation, and other personal services

For 2022-23,
Gross Value Added of all industries = Rs. 2,47,07,001 crore
Final Gross Domestic Product = Rs. 2,72,03,767 crore
Depreciation = 28,73,198 crore
Net Factor Income from Abroad = -5,44,783 crore
Net Taxes = 24,96,766 crore

National Income or NNP_{FC} = Gross Domestic Product – Depreciation + Net Factor Income from

Abroad – Net Taxes
National Income of 2022-23:
National Income = 2,72,03,767 crore – 28,73,198 crore + (-5,44,783 crore) – 24,96,766 crore
National Income = Rs. 2,12,89,020 crore
Similarly, National Income of 2021-22 = Rs. 1,82,94,672 crore

b. Expenditure Approach

This method measures national income at the disposition stage. The four components of GDP



are,

i) Private Final Consumption Expenditure(C) - It includes goods and services, which are purchased by households for final consumption.

ii) Gross Fixed Capital Formation/ Investment Expenditure(I) - It consists of goods and services bought for use of further production. It includes gross fixed business investment, inventory investment and gross residential investment.

iii) Government Final Expenditure (G) - They include the goods and services bought by the different governments like defence equipment.

iv) Net Exports (X-M): They are the values of goods and services exported to other countries minus the value of goods and services imported into the country.

Gross Domestic Product = C + I + G + (X-M)

For 2022-23,

Private Final Consumption Expenditure = 1,74,71,083 crore

Investment Expenditure = 28,53,537+1,80,751 = 30,34,288 crore

Where, I = Gross Fixed Capital Formation + Change in Stock

Government Final Expenditure = 79,45,898 crore

Net Exports = 61,07,093 – 73,24,249 = -12,17,156 crore

GDP = 1,74,71,083 crore + (28,53,537+1,80,751) crore + 79,45,898 crore + (61,07,093 – 73,24,249) crore

GDP = Rs. 2,72,34,113 crore

National Income or NNP_{FC} = Gross Domestic Product – Depreciation + Net Factor Income from Abroad – Net Taxes

National Income of 2022-23:

National Income = 2,60,53,362 crore - 28,73,198 crore + (-5,44,783 crore) – 24,96,766 crore

National Income = Rs. 2,13,19,366 crore

Similarly, National Income of 2021-22 = Rs. 1,81,23,811 crore

Gross Capital Formation or Investment Expenditure (I) at current prices is estimated at Rs. 73.62 lakh crore for the year 2021-22 as compared to Rs. 55.27 lakh crore during 2020-21. The rate of Gross Capital Formation to Gross Domestic Product is 31.4% during 2021-22 compared to 27.9% in the 2020-21. The rates of capital formation in the years 2011-12 to 2019-20 and 2021-22 have been higher than the rate of savings

because of positive net capital flow from Rest of the World. The highest contributor of Gross Fixed Capital Formation at current prices is Non-Financial Corporations followed by Household sector, shares of which stood at 44.1% and 40.5% respectively in 2021-22.

Private Final Consumption Expenditure (C) at current prices is estimated at Rs. 143.44 lakh crore for the year 2021-22 as against Rs. 121.50 lakh crore in 2020-21. The Private Final Consumption Expenditure to Gross Domestic Product ratio at current prices during 2020-21 and 2021-22 are 61.3% and 61.1% respectively.

Government Final Consumption Expenditure (G) at current prices is estimated at Rs. 26.25 lakh crore for 2021-22 as compared to Rs. 23.03 lakh crore during 2020-21.

III. Measurement of GDP: Nominal v/s Real

For evaluating economic activity, stability, and growth of goods and services in an economy, GDP is considered one of the most important metrics for measurement. It is calculated from two angles: Nominal and Real.

Nominal GDP is a macroeconomics measurement of the value of goods and services produced using current prices prevailing in the economy. As such, Nominal GDP is also referred to as “Current Dollar GDP”.

As Nominal GDP measures economic activity of an economy without factoring in price changes that occur due to inflation or deflation, it may show inflated growth because goods and services that are used to determine Nominal GDP are valued at current year prices.

To eliminate inflated calculation, Real GDP is determined.

Real GDP is a macroeconomic statistic that measures the value of goods and services produced by an economy during a certain period, taking price changes into account, whether they are due to inflation or deflation.

It is expressed in base-year prices and is often referred to as inflation-corrected, constant-price or constant-dollar GDP. Real GDP makes comparing GDP more meaningful as it shows comparisons for both the quantity and value of goods and services.

To calculate Real GDP, nominal GDP is divided by a GDP Deflator.

Both nominal as well as real GDP are used globally as metrics for evaluating economic growth and purchasing power over time. This is done by



using GDP price Deflator, which helps in measuring the change in prices of all the goods and services in an economy.

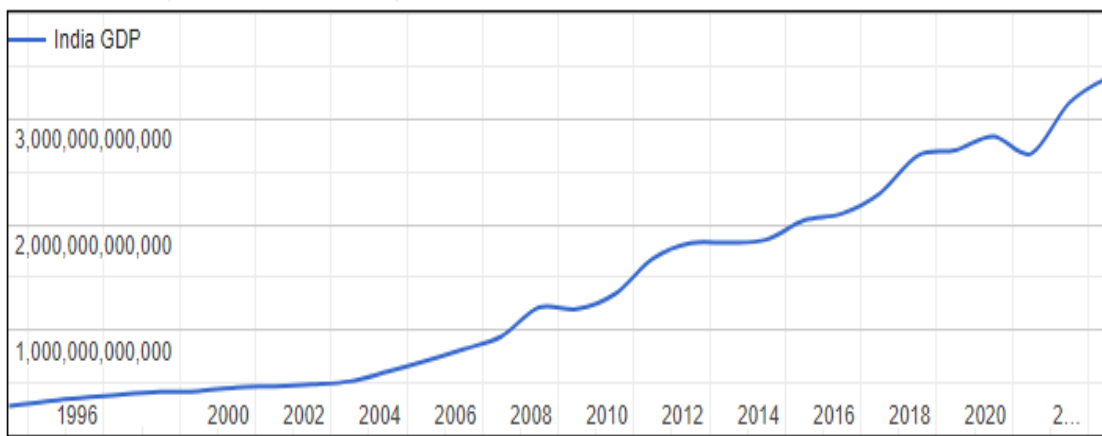
$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP Deflator}}$$

The base-year for calculating India's GDP is 2011-2012 which was adopted in the year 2015, before that the base-year used to be 2004-2005.

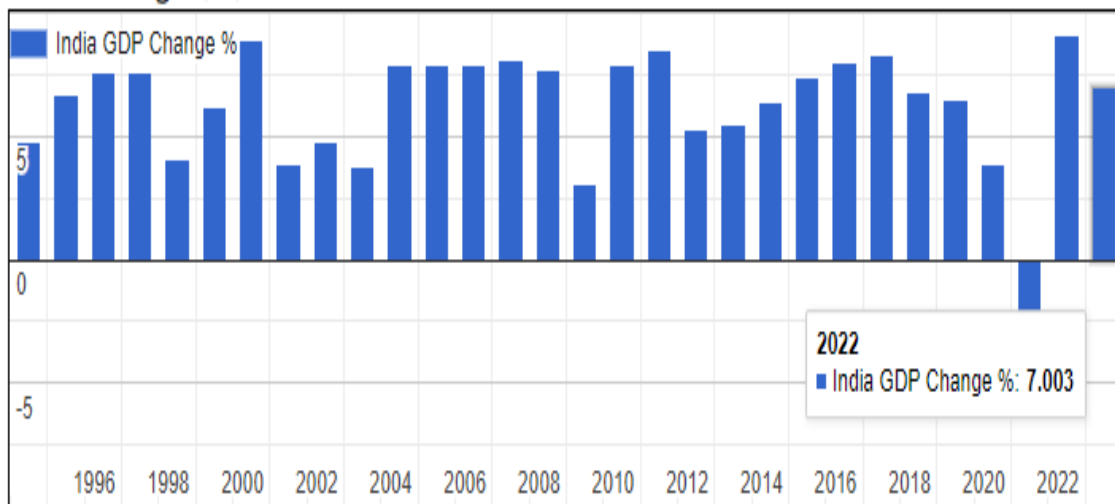
As of Year 2022, India's Nominal GDP (current) is \$3,385,090,000,000 (USD), whereas, the Real GDP (constant) of India reached \$2,432,020,000,000 in 2022.

GDP Growth Rate in 2022 was 7.00%, representing a change of 193,390,000,000 US\$ over 2021, when Real GDP was \$2,761,590,000,000.

India GDP (Nominal, \$USD) 2003-2022



GDP change (%)





Gross Domestic Product (GDP) of India

Year	GDP Nominal (Current USD)	GDP Real (Inflation adj.)	GDP change	GDP per capita	Pop. change	Population
2022	\$3,385,090,000,000	\$2,954,980,000,000	7.00%	\$2,085	0.68 %	1,417,173,173
2021	\$3,150,310,000,000	\$2,761,590,000,000	9.05%	\$1,962	0.80 %	1,407,563,842
2020	\$2,671,600,000,000	\$2,532,400,000,000	-5.83%	\$1,814	0.96 %	1,396,387,127
2019	\$2,835,610,000,000	\$2,689,210,000,000	3.87%	\$1,944	1.03 %	1,383,112,050
2018	\$2,702,930,000,000	\$2,588,970,000,000	6.45%	\$1,891	1.09 %	1,369,003,306
2017	\$2,651,470,000,000	\$2,432,020,000,000	6.80%	\$1,796	1.16 %	1,354,195,680
2016	\$2,294,800,000,000	\$2,277,270,000,000	8.26%	\$1,701	1.19 %	1,338,636,340
2015	\$2,103,590,000,000	\$2,103,590,000,000	8.00%	\$1,590	1.19 %	1,322,866,505
2014	\$2,039,130,000,000	\$1,947,830,000,000	7.41%	\$1,490	1.25 %	1,307,246,509
2013	\$1,856,720,000,000	\$1,813,450,000,000	6.39%	\$1,405	1.31 %	1,291,132,063
2012	\$1,827,640,000,000	\$1,704,600,000,000	5.46%	\$1,337	1.34 %	1,274,487,215
2011	\$1,823,050,000,000	\$1,616,400,000,000	5.24%	\$1,285	1.37 %	1,257,621,191
2010	\$1,675,620,000,000	\$1,535,900,000,000	8.50%	\$1,238	1.39 %	1,240,613,620
2009	\$1,341,890,000,000	\$1,415,610,000,000	7.86%	\$1,157	1.40 %	1,223,640,160
2008	\$1,198,900,000,000	\$1,312,420,000,000	3.09%	\$1,088	1.43 %	1,206,734,806
2007	\$1,216,740,000,000	\$1,273,130,000,000	7.66%	\$1,070	1.48 %	1,189,691,809
2006	\$940,260,000,000	\$1,182,530,000,000	8.06%	\$1,009	1.54 %	1,172,373,788
2005	\$820,382,000,000	\$1,094,320,000,000	7.92%	\$948	1.62 %	1,154,638,713
2004	\$709,149,000,000	\$1,013,980,000,000	7.92%	\$892	1.69 %	1,136,264,583
2003	\$607,699,000,000	\$939,543,000,000	7.86%	\$841	1.74 %	1,117,415,123
2002	\$514,938,000,000	\$871,073,000,000	3.80%	\$793	1.79 %	1,098,313,039
2001	\$485,441,000,000	\$839,152,000,000	4.82%	\$778	1.82 %	1,078,970,907
2000	\$468,395,000,000	\$800,534,000,000	3.84%	\$755	1.84 %	1,059,633,675
1999	\$458,820,000,000	\$770,923,000,000	8.85%	\$741	1.87 %	1,040,500,054
1998	\$421,351,000,000	\$708,271,000,000	6.18%	\$693	1.91 %	1,021,434,576
1997	\$415,868,000,000	\$667,020,000,000	4.05%	\$665	1.94 %	1,002,335,230
1996	\$392,897,000,000	\$641,058,000,000	7.55%	\$652	1.97 %	983,281,218



a. Is GDP a true measure of welfare?

Starting with the origin of GDP, its modern conception is a product of war. It was originally thought by Simon Kuznets during the Great Depression and later modified by John Maynard Keynes during the Second World War.

According to Keynes, the estimate of national income should be the sum of private consumption, investment and government spending. His method of calculating GDP found acceptance globally and is practiced till today.

But a measure created for assessing war time production has glaring flaws in peacetime. For one, GDP does not take the qualitative outcomes and externalities produced into account. For example, environmental degradation is a prominent externality that the GDP does not account for. It also fails to capture income distribution in the society, which has become an issue of alarm due to the rising inequality levels between the rich and the poor.

“GDP measures everything” Senator Robert Kennedy said, “except that which makes life worthwhile.” It fails to measure health, education, equality of opportunity, the state of environment or other indicators of the quality of life. Crucial aspects of an economy like sustainability are also not measured.

GDP only measures the size of a nation’s economy; it does not reflect a nation’s welfare. Yet policy makers, politicians and the public treat GDP as an all-encompassing unit to signify a nation’s development. As a result, policies that result in increase in GDP, irrespective of their externalities are thought to be as beneficial for the society.

However, a number of countries have started to realise that focusing exclusively on GDP and economic growth would not ensure societal progress. For instance, India is developing an Ease of living index that will measure quality of life, economic ability and sustainability that will help us understand the holistic impact of policies rather than just economical.

IV. Per Capita Income and its Impact on the Economy

Per Capita Income refers to the average income earned per person in the nation. It is used to calculate the average income for an individual in the nation in a year. Per Capita Income is calculated by dividing the national income of a country by its population.

Impact Of Per Capita Income On The Economy

1. Direct relationship with economic growth: The population of a country plays a major role in the per capita income and therefore in the economic growth of the country. In a country like India where the population is rapidly increasing, the per capita income tends to decline as the population increases but the income remains the same. If a country's per capita income is stable it will have no problem adjusting to the rise in the population and hence economic growth will not be affected. Just as the rise in the per capita income, the economic growth will also rise [due to its direct relationship]. India’s economy is the 5th largest in the world and is targeted to be the 3rd largest by 2030.

2. Development in Standard of Living: If there is a high per capita income it means that the overall population has a higher disposable income which increases their capacity to spend more on goods and services which in turn advances the standard of living of people.

Per Capital Income of India (2022-23):

Per Capita Income, Product and Final Consumption						
27	Per Capita GDP (₹)	1,46,301	1,71,498	1,96,716	17.2	14.7
28	Per Capita GNI (₹)	1,44,334	1,68,066	1,92,777	16.4	14.7
29	Per Capita NNI (₹)	1,27,065	1,48,524	1,72,000	16.9	15.8
30	Per Capita GNDI (₹)	1,48,408	1,72,490	1,97,409	16.2	14.4
31	Per Capita PFCE (₹)	89,641	1,04,811	1,19,106	16.9	13.6

The per capita income of India has seen a consistent rise over the years. The image depicts three different years, but for this project, we will stick to the current year's prices.

The per capita GDP has seen a 14.7% rise from the

previous year’s GDP which shows the positive rise in India’s economic growth. However, this number has fallen as compared to last year’s calculation as earlier the jump was approximately 17.2%.

The same story is replicated by per capita GNI



(Gross National Income), per capita NNI (Net National Income), and per capita PFCE (Private Final Consumption Expenditure) where they have seen a consistent rise yet it cannot match the previous year's percentages. The rise in the population has also played a major role in the rise of this per capita income.

a. Disposable Income and its Importance

Disposable income refers to the final sum of money left from the income after the deduction of all taxes. Disposable income is also referred to as, net income which is spent on the purchase of necessities and luxuries. Economists keep a close check on the disposable personal income of people as it is a prime indicator of a strong economy. Disposable Income = Total Income – Taxes – Compulsory Deductions

Why is Disposable Income Important for The

Gross National Disposable Income of India (2022-23)

Year	Sector-wise share in GVA at current prices (in %)			Sector-wise growth in GVA at constant (2011-12) prices (in %)				Aggregate GVA (₹ in lakh crore)	
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary	All	Current	Constant
2011-12	21.7	29.3	49.0					81.1	81.1
2012-13	21.3	28.7	50.0	1.4	3.6	8.3	5.4	92.0	85.5
2013-14	21.4	27.9	50.6	4.8	4.2	7.7	6.1	103.6	90.6
2014-15	20.9	27.3	51.8	1.2	6.7	9.8	7.2	115.0	97.1
2015-16	20.1	27.6	52.3	2.1	9.5	9.4	8.0	125.7	104.9
2016-17	20.4	27.0	52.6	7.3	7.5	8.5	8.0	139.7	113.3
2017-18	20.4	27.0	52.5	4.5	7.1	6.3	6.2	155.1	120.3
2018-19	19.8	26.9	53.3	1.6	5.9	7.2	5.8	171.8	127.3
2019-20*	20.3	25.0	54.8	4.8	-1.3	6.4	3.9	183.8	132.4
2020-21#	22.1	25.5	52.4	2.4	-0.2	-8.2	-4.2	181.9	126.8
2021-22@	21.0	26.5	52.5	3.9	12.0	8.8	8.8	214.4	138.0

At current estimated prices the Gross National Disposable Income of India is roughly calculated at ₹273.99 lakh crore for the year 2022-23, however for the year 2021-22 the disposable income stood at ₹239.25 lakh crore, depicting a growth of 14.5% for the year 2022-23 in comparison to the growth of 18.8% in the year 2021-22.

b. Purchasing Power Parity

Purchasing Power Parity is calculated and used to compare the standard of living of a country as well as its economic productivity. It is used to measure the purchasing power of different currencies across countries by equalizing the prices of goods and services. For example: the goods and services you can purchase with ₹100 in India are

Economy?

Financial Flexibility:

Disposable income provides freedom to spend their money and to decide whether to invest or consume goods and services. It plays a critical role in taking care of people's needs and plans for the future.

Macroeconomic Growth:

The percentage of income spent by the consumer on consumption is a major contributor to economic growth, which is largely affected by the disposable income of the people. With the rise in disposable income consumers are prone to spend on products and services which in turn boosts economic activity and helps in employment creation.

Investments & Savings:

With disposable income people can invest in their long-term goals such as kids' college fees or saving to buy a house. Investing provides companies with greater capital and hence strengthens the economy as a whole.

different when you take the USA in comparison thus, we use Purchasing Power Parity where you take a basket of goods and services and how much income you require to purchase the same amount of goods in any other country or determine their purchasing power. This is very important for economists as it helps to compare the economies of the different countries.



\$100,000 in US (which is 79 lakh INR)	Rs 23 lakh in India
	Rs 65 lakh in UK
	Rs 37 lakh in the UAR

This is a brief example of what we discussed above it explains how much money you need to maintain a lifestyle of 100,000 dollars in the USA in comparison to other countries.

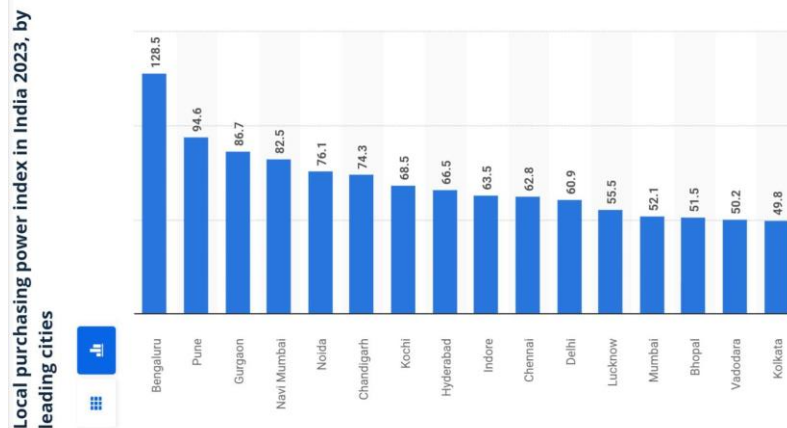
Purchasing Power Parity in India:

India ranks 12th by the gross domestic product calculation, whereas when it comes to the PPP-adjusted GDP India ranks 3rd right behind the US and China.

When we come to compare the Purchasing Power

Parity in India between rural and urban areas. The rural cost of living is one-third of what the cost of living is in the urban areas. Thus, the rural PPP is much higher than the urban India. Furthermore, the rise in costs of the rural economy is far slower than the urban economy. Apart from the costs the rural economy is more adaptable.

In India, there is a high difference between the PPPs of different states as well.

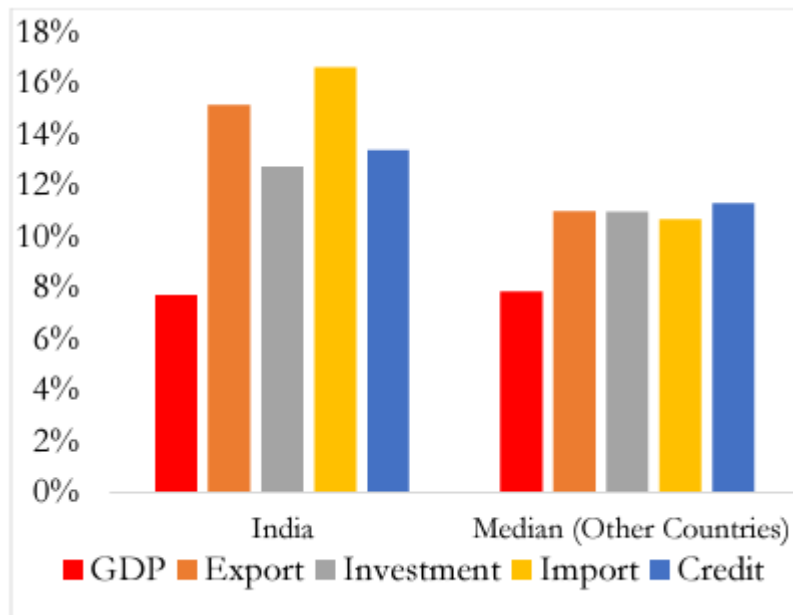


The above image depicts the ranging PPPs of different cities in India. Bangalore has the highest Purchasing Power in comparison to Mumbai and other metropolitan cities.

V. Case Study: Analyzing India's Economic Resilience- Unraveling the Puzzle of growth amidst shocks

During 2002–2011, India behaved like a typical fast-growing country, with measured GDP growth showing a strong correlation with other

demand indicators: GDP was growing at about 7.5 percent, while investment and exports were growing faster, at 13 percent and at the rate of 15 percent. percent respectively, corresponding to a mean value of 12 percent for both variables among comparable fast growers.



A number of shocks struck the Indian economy between 2011 and 2016. Throughout the whole five-year period under review, growth was impacted by three of these shocks. These were:

1. Export Collapse: Strong worldwide demand for emerging markets' goods propelled them during the 2000s, allowing their average export growth to be very rapid. But since 2011, there has been a slowdown in global demand, which has led to the collapse of emerging market export growth. India's export growth slowed to just 3% annually from an average of 15% annually prior to 2011. With a rough estimate of roughly 2½ percentage points, this shock has the potential to significantly slow development because India's export-to-GDP ratio was roughly 22% between 2012 and 2016.

2. Twin Balance Sheet Problem: During the boom of the mid-2000s many companies invested heavily in projects that did not work out, leading to significant stress in the corporate sector and double-digit levels of non-performing assets in banks. As a result, many companies are not financially strong enough to invest, while banks are reluctant to lend even to healthy companies.

Real credit growth in India dropped from 14% to 6% before to 2011. More significantly from the standpoint of investments, real credit growth to industry contracted from a depressing fifteen percent to a pitiful one percent. Additionally, the figures may potentially exaggerate the amount of credit that was utilized to finance firms' investments if part of the credit growth—after TBS took effect—represented evergreening, or bank lending to cover interest payments of stressed enterprises. Therefore, it should come as no

surprise that investment growth fell by 10 percentage points, which could reduce growth by an additional 2½ to 3 percentage points.

3. Oil Price and terms of trade: Offsetting these negative shocks were positive ones in the form of falling oil prices and consequent improvement in the terms of trade for India as a net oil importer. The annual average change in real US\$ oil prices was about 16.5 percent between 2002-2011 and minus 16 percent between 2012-2016. Again, a rough calculation suggests that this should have led to growth of about 1 to 1½ percentage points.

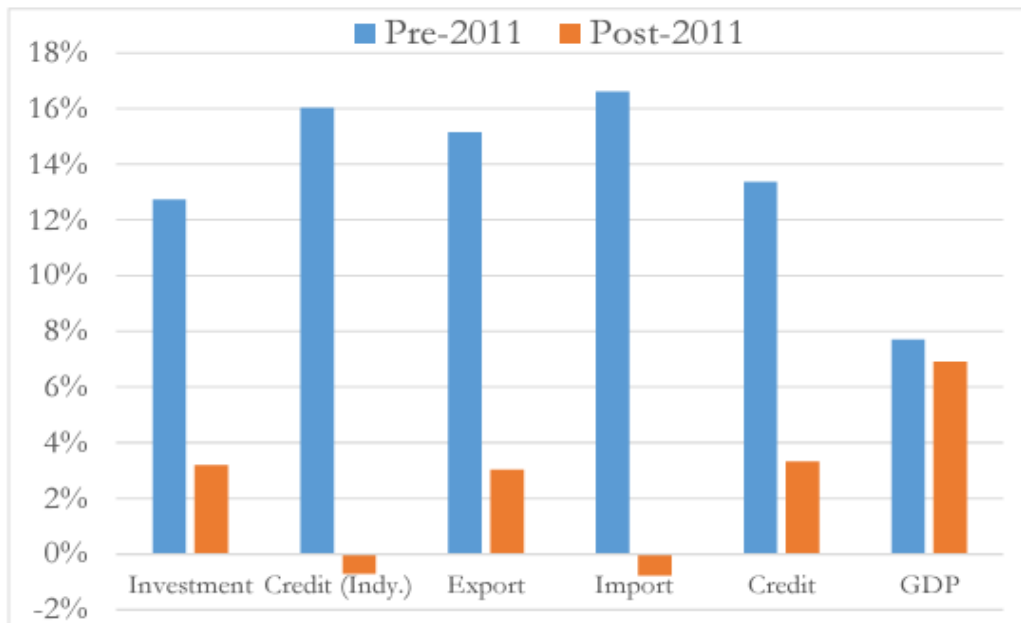
4. Drought (2014-2015). The agricultural sector was hit by drought for two consecutive years. Growth in foodgrain production was -4.9 percent and 0.5 percent in these years, well below the long-term average of about 3 percent. This reduced growth, which is about 0.4 percent.

5. Demonetization (2016). Finally, there was a major macroeconomic shock in the last year of our sample period, when the currency supply fell by 86 percent in November 2016, affecting the production of the large informal sector, which relies heavily on cash.

The following graph illustrates the major effect of these shocks on key macro indicators of growth in:



- Real credit to industry collapsed, falling from 16 percent to -1 percent, reflected in official figures for real investment growth, which fell from 13 percent to 3 percent;
- Actual exports fell from 15 percent to 3 percent;
- Overall real lending declined from 13 percent to 3 percent;
- Real imports fell from 17 percent to minus 1 percent.



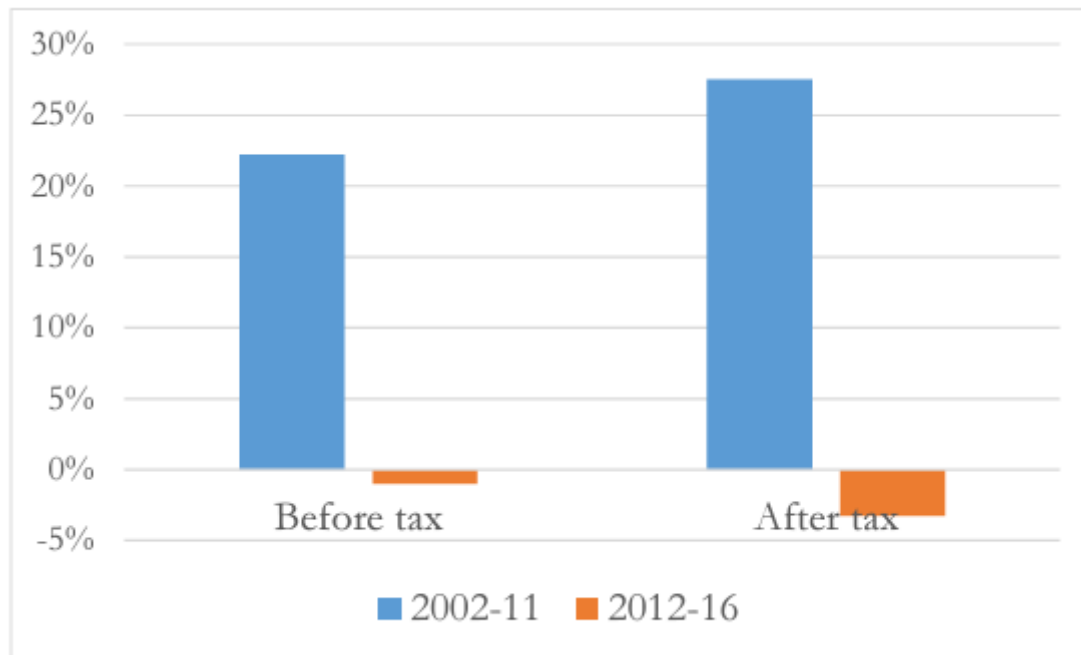
But the new GDP series shows that despite this big shock, economic growth has dropped from 7.7 percent to 6.9 percent.¹⁷ This raises the question: Could it be that these five big negative effects really have less impact? SME development?

Possible Explanation: Of course, there may be other things to compensate for this big earthquake. Specifically, three possibilities should be considered: the beneficial reform efforts of the NDA government; increase productivity; and consumer growth.

1.NDA-2 Reforms: Take a first look at the NDA reforms. Three are very important: the historic introduction of the Goods and Services Tax (GST), the upcoming Insolvency and Bankruptcy Code (IBC) and the public offering of essential private goods and services (PPEGS) - housing, gas, energy, toilets, bank accounts, insurance emergency medicine. But GST and IBC, which will provide growth benefits in the medium term, were implemented after the period covered by this study. PPEGS, which in turn increases welfare,

does not necessarily increase development.

2.Productivity Surge: Consider the next productivity improvement opportunity. If such growth takes place in the post-2011 period, productivity should have accelerated in the last two years of the UPA-2 regime, amid acute macro stress and declining policy credibility. This makes trust difficult; it is more likely that productivity will actually decrease during these difficult times. Furthermore, if productivity has increased, we should see benefits in the form of higher profits for the company. But figure below, using the Provest database (which collects data from firms' balance sheets), shows the opposite: the annual growth of real income (before and after tax) of the Indian corporate sector (domestic, foreign and government combined)) dropped from 22-28 percent to a negative growth zone, a sharp drop if productivity increased, actually collapsing. Profit accumulation contradicts the explanation of productivity growth.



3. Consumption Surge puzzle: Post-2011, India has experienced several major shocks that have had a significant impact on demand indicators but little impact on measured growth. That is, India has continued economic growth in an environment of lower investment, income, exports, debt financing and possible consumption. The three conventional explanations usually offered to explain this phenomenon are inconsistent with the available evidence. This leaves us with a profound conundrum.

VI. Conclusion

Our comprehensive exploration of national income has provided us with a deep understanding of the concept as well as its implications in context with India. By exploring various theoretical frameworks and methodologies such as output and expenditure methods, we have gained insights into the intricate process of calculating National Income. Moreover, our discussion on purchasing power parity, disposable income, and per capita income has shed light on the standard of living and economic well-being of the Indian populace.

Furthermore, a deep dive into the comparison between Real GDP and Nominal GDP has underscored the importance of accounting for inflationary pressures and price level fluctuations when assessing economic performance. Despite the utility of GDP as a measure of economic activity,

our analysis has illuminated its inherent limitations, particularly its inability to capture qualitative aspects of economic welfare.

Examining India's growth trajectory over the years has revealed both triumphs and challenges. The impact of export collapses, the Twin Balance Sheet problem, fluctuating oil prices, and terms of trade fluctuations has highlighted the vulnerability of the Indian economy to external shocks. Additionally, events such as demonetization have underscored the complexities of policy interventions and their repercussions on economic dynamics.

Nevertheless, amidst these challenges, India has exhibited resilience and adaptability. The economy's ability to rebound from setbacks such as demonetization underscores its inherent strength and potential for growth. Through prudent policy measures and structural reforms, India has demonstrated its capacity to navigate turbulent waters and emerge stronger.

Looking ahead, as India continues its journey towards economic prosperity, it must remain vigilant to address systemic issues and foster inclusive growth. By leveraging its demographic dividend, technological prowess, and entrepreneurial spirit, India can chart a path towards sustainable and equitable development,



ultimately realizing its aspirations of becoming a global economic powerhouse.

References

Links

- [1]. <https://triumphias.com/blog/understanding-national-income/>
- [2]. <https://www.studyiq.com/articles/national-income/>
- [3]. https://www.mospi.gov.in/sites/default/files/press_release/PressNoteNAD_28feb23final.pdf
- [4]. <https://www.investopedia.com/terms/r/realgdp.asp>
- [5]. <https://www.worldometers.info/gdp/india-gdp/>
- [6]. <https://hbr.org/2019/10/gdp-is-not-a-measure-of-human-well-being>
- [7]. <https://www.scientificamerican.com/article/gdp-is-the-wrong-tool-for-measuring-what-matters/>
- [8]. <https://www.icicidirect.com/research/equity/finace/understanding-purchasing-power-parity>
- [9]. https://www.mospi.gov.in/sites/default/files/press_release/PressNoteNAD_28feb23final.pdf
- [10]. <https://www.investopedia.com/terms/p/percapita-gdp.asp#:~:text=It%20is%20used%20to%20measure,of%20life%20of%20a%20population.>
- [11]. <https://dash.harvard.edu/bitstream/handle/1/37366395/357.pdf?sequence=1&isAllowed=y>
- [12]. <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.indiabudget.gov.in/budget2017-2018/es2016-17/echapter.pdf?ref=static.internetfreedom.in>