

A Brief Introduction on National Income and Related Aggregates

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ABSTRACT

In economics, national income and associated aggregates like Gross Domestic Product GDP are essential because they offer quantifiable indicators of economic activity inside a nation. The benefits and importance of national income and related aggregates are highlighted in this chapter. Firstly, indices of economic activity include national income and related aggregates. They enable policymakers and analysts to gauge the size and health of an economy because they offer a thorough measurement of the overall value of goods and services generated over the course of a specific time period. For tracking and assessing economic success over time, this data is essential.

KEYWORDS:

Associated Aggregates, Capital Formation, Domestic Product, Economic Activity, Goods Services.

I. INTRODUCTION

The value of the final commodities and services generated in a nation within a certain accounting year is often referred to as national income. However, it can also be described in terms of total spending, total factor income, and total output as previously stated. It is the total of a country's factor incomes wages, rent, interest, and profit for a given year. Land, lab our, capital, and a company's or an entrepreneur's organization receive compensation in the form of rent, wage, interest, and profit, respectively. In terms of income produced by the economy, the total of these rewards represents the national income. The total amount of a nation's outlays over the course of a year is its national income. According to the expenditure method, a nation's spending from households, the private sector, and the government adds up to its total national revenue[1], [2].

Income National at Current and Constant Prices

The monetary value of all commodities and services produced in a nation calculated at the going rates is known as national income at current prices. The national income calculated in a base year, which is a previous year to the present year, is the national income at constant prices. For comparisons of national income and associated data, national income at constant prices is used. With the aid of the subsequent table, let's discuss the concepts of national income at current prices and at constant prices. Between 2000 and 2005, the economy produced steel, vehicles, rice, and other goods in addition to certain services. For the purpose of computing national income at constant prices, the year 2000 is used as the base year. Columns 3 and 5 list the prices for the next two years. It is assumed that the quantity of commodities produced and the units of services rendered in both years were equal. The national income is shown to be Rs. 740 at current prices and Rs. 600 at constant prices. The national income today is 40 rupees higher than it would be at constant prices. It is not genuine; it is an illusion. Although the national income has increased, the output from 2005 has not, and this is because prices have gone up. Thus, national income at constant prices is more relevant in order to provide an accurate picture of an economy's growth. When a comparison is necessary, national income at current prices can be transformed into national income at constant prices using the formula below:

Consistent Flow of Income

As previously stated, national income is the total factor income labor and property earnings resulting from the factors of production's current production of goods and services. This is illustrated by a circular flow. Consider an economy with just two sectors: consumers and businesses. Families are essentially consumer units, and they own the manufacturing inputs. While families offer these businesses with services related to the factors of production, firms manufacture goods. Production factors are paid for the labor they perform. The sum of all payments made by the enterprises to the factors of production in the form of wages, rents, interest, and profits must match the sales value of net production. Households use these earnings to buy a range of goods and services. As a result, corporations provide productive services to households in exchange for income, and consumers purchase goods in return. The movement of payments and receipts for products, services, and factor services between various economic sectors is referred to as circular flow of income. Money flows and real flows are the two different sorts of flows. Income and payment flow is referred to as money flow. Real flow is the movement of products and services. Both a flow of commodities and services and a flow of money income make up national income[3], [4].The following presumptions are taken into account to explain the circular flow of revenue in the two-sector simple economy model:

1. An economy that is closed.
2. There is no foreign sector.
3. Households do not produce however; they provide factors of production.
4. Businesses, or the business sector, are the only ones who produce;
5. Whatever businesses produce is sold; there is no building up of inventories;
6. Consumers, or the household sector, do not save their income; rather, they spend it all;
7. There are no taxes or other forms of government spending on goods and services, etc.

Thus, it is evident that in a two-sector model, production equals sales and income equals spending. However, there are injections and leakages in the economy when the circular flow of revenue is actually in operation. Leakages are those variables that cause spending to decrease, whereas injections cause spending to grow. As an illustration, families typically save a portion of their income. Savings lead to leaks in the economy's income stream or flow. Similar to this, when we pay taxes to the government, that amount is deducted from our income. This is yet another significant type of leakage. On the other hand, if the government spends money on products and services, income rises and output is stimulated. The economy is receiving a boost from this.

Ideas on National Income

Before learning how to assess national income, it is imperative that we understand the following fundamental national income ideas. Gross national product, net domestic product, private income, personal income, and personal disposable income are the key terms or aggregates of national income. Gross National Product GNPmp The total market value of all finished goods and services generated by a nation's citizens in a given year is known as the country's gross national product GNPmp. It is a monetary indicator of the volume of economic activity that an economy is now producing. We should only factor in the value of final goods and services when computing GNP, not that of intermediate goods[5], [6].

II. DISCUSSION

The volume of goods and services generated in an economy determines how well it performs. The Gross Domestic Product GDP, Gross National Income GNI, and Net National Income NNI are used to quantify it in monetary terms. Capital formation and savings are the other key indicators to gauge the health of the economy in addition to these macroeconomic aggregates. As a result, measuring key macroeconomic indicators is a crucial task that necessitates the collection and analysis of vast amounts of data. To keep up with the dynamics of the observable world, the conceptual framework driving such an endeavor must be solid and develop over time.SNA, or the System of National Accounts: In order to provide a thorough conceptual and accounting framework for gathering and reporting macroeconomic

statistics for studying and evaluating an economy's performance, the United Nations developed the System of National Accounts SNA. The Sub-Committee on National Income Statistics Report from the League of Nations Committee of Statistical Experts in 1947 is where the SNA got its start.

The UNSC oversaw the publication of the 1953 SNA. It was made up of a set of six standard accounts and a set of twelve standard tables that detailed and offered alternate classifications for the economic flows. The accounts' principles and terminology were generally relevant to most nations, even developing nations. The 1953 SNA saw the publication of two slightly altered versions. SNA was revised in 1960, 1964, and 1968 in response to country experiences in implementing SNA 1953, to improve consistency with the IMF's Balance of Payments manual, to expand the scope by adding input output tables, balance sheets, and to bring it closer to the Material Product System MPS, respectively. The latest version in the series, SNA 2008, represents a significant advance in national income accounting. In India, a National Income Committee was established in 1949 to develop a method for the accurate assessment of national income. In 1954, the National Income Unit was transferred from the Ministry of Finance to the Central Statistics Office, which is now in charge of producing the estimates [7], [8].

Global Economic Growth Scenario Comparing real GDP growth rates since 1980 using data from the IMF's World Economic Outlook Database, October 2014 Charts as Annexure 3 A & 3B, it is clear that developing Asia has experienced significantly higher growth rates than emerging markets and developing economies, which are both typically experiencing faster growth rates than the global average. The advanced economies, on the other hand, often experienced slower growth rates throughout this time 1980 and on than the global average. Comparing some of the top economies on a country-by-country basis China, USA, Japan, India, Brazil, Russia, and South Africa confirms this. With a few exceptions during a few years, China and India saw faster growth than the United States and Japan. The same is true of South Africa and Russia with the exception of 2009, both of which have had stronger growth since 2000 than the US and Japan. As a result, the purchasing power parity PPP value of country GDP has caused a major change in the composition of the world GDP over the past three decades.

China and India's share of global GDP, which was just around 5% in 1980, climbed to more than 20% in 2012–2013, whereas other G-7-member advanced nations experienced a fall. India's economic growth history: 3.4 According to various assessments, the Indian economy increased on average 0.7% annually between 1917 and 1946, compared to 1.5% annually between 1900 and 1913. Back series for National Accounts Statistics based on 1993-94 prices brought out by CSO is available from 1950 onwards. Phase 1 1950–1951 through 1979–1980: According to popular wisdom, the Indian economy has been stuck since independence at a Hindu rate of growth of roughly 3.5% annually also known as a socialist rate of growth because India's socialist experimentation lasted for 30 years, from. In this phase, the economy grew at a faster rate than it had during the previous colonial era, and the average income, as measured by per capita GDP, increased by 1.3% annually. Growth at this time had a coefficient of variation of 1, making it quite unpredictable. The economy underwent structural transformation with a growth in the proportion of non-agricultural income, primarily driven by industry. The GDP had a sharp decrease throughout the mid-1960s through the 1970s to 1980 timeframe as industrial growth slowed. In a period of otherwise consistently rising GDP over sub phases, as shown in the table below, the 1970s interregnum was also characterized by a sharp slowdown in agricultural expansion [9], [10].

The 1980s saw a recovery in GDP after the 1970s' stagnation, which benefited from the start of several reform initiatives meant to boost local competitiveness. In 1979–80, a large coalition experiment came to an end, and in 1980–81, the Congress I party took back the reins of power. The establishment increasingly realized in the late 1970s that the regulations and subsidies enacted by the Congress governments during the previous phase were not accomplishing what they were meant to. A new strategy for economic management was progressively introduced by the new administration. In terms of growth, there was a transition in the 1980s towards services dominating industry. The biggest contributor to the growing percentage of services in GDP was the public sector. Since the early 1990s, macroeconomic responses to the BOP crisis and substantial reforms brought about by the implementation of a radical new economic policy framework in 1991–92 appear to have given growth

impulses more traction. Within the second phase of economic expansion, this signals the start of the second sub phase. During this sub phase, the private organized sector had significant expansion relative to the public sector, a gradual move away from industry, and a decisive strengthening of a growth trajectory dominated by services.

The East Asian financial crisis, setbacks to the fiscal correction process, poor quality of fiscal adjustment, slowdown in agriculture growth caused by years with lower-than-average monsoons, and some sluggishness in the pace of structural reforms all contributed to a loss of growth momentum in the second half of the 1990s. Others think the slowdown during this time period was caused by monetary tightening in response to inflationary pressures. With the exception of the interregnum in the 1970s, the increase in decadal domestic growth over the first two stages 1950–2000 was correlated with the long-term trends of rising domestic investment and savings. Over the same period, domestic investment rate increased continuously from 10.8% in the 1950s to nearly 36% by 2006-07. Gross domestic savings increased continuously from an average of 9.6% of GDP during the 1950s to about 38% of GDP during 2007-08. The fact that domestic savings provided the majority of the funding for Indian economic growth was a very important aspect of these patterns in savings and investment rates. The use of foreign savings, or the current account deficit, was relatively low during this period of Indian expansion. When the current account deficit expanded slightly towards 2% of GDP in the 1960s and 1980s, it was followed by a serious balance of payments and economic crisis.

It's interesting to note that, with the exception of the 1970s, the growth of manufacturing production as measured by decadal averages remained essentially constant at between 5.6% and 5.9% throughout the first five decades following Independence. There are two further noteworthy aspects of our growth trajectory. First, there has been a lot of diversity in agricultural growth over the years. The significant downturn in agricultural growth during the 1970s interregnum, which was followed by a notable recovery in the 1980s and a subsequent slowdown, are particularly notable. Second, the expansion of the services sector received little attention prior to the 1990s. Once again, with the exception of the interregnum in the 1970s, a quick glance at the growth record reveals that the continual acceleration in overall GDP growth is really being driven by the consistent and ongoing acceleration in the expansion of services over the decades, which had previously been neglected.

Concepts & Definitions: The following paragraphs provide an overview of the key terms used in national accounts statistics as well as their relationships, notably with regard to the macroeconomic aggregates of gross domestic product, consumption, saving, and capital creation.

- 1. Domestic Product:** The phrase domestic product refers to the volume of all goods and services generated by an economy over a specific time period, without taking into account any duplication. Since the physical units of production and various measures of services cannot be added simply, the measurement must, of course, be in value terms. This measurement equals domestic product in a closed economy.
- 2. Domestic Product and National Income:** The domestic product measures all products and services produced by economic activity, whereas national income is the total of all incomes generated by that activity. Since the usage of primary factors of inputs, namely, capital and labor, coupled with the raw materials, results in the production of goods and services, the process naturally creates money. Returns on the work and capital employed in the production process make up this income. Only the so-called factor incomes, which originate directly from the current production of goods and services, are included in national income.
- 3. National Income and Expenditure:** The production within the economy during a certain period of time is spent either for consumption by its citizens, addition of fixed assets, or addition to the stock of existing productive assets within the nation. Therefore, the expenditure of individuals who buy the finished or final items and services can also be used to measure production. The total of all institutional sector expenditures, including that of the government, households, and businesses, is known as the national expenditure. The expenditure on finished products and services may be made for capital formation, such as the addition of buildings, plants, machinery, transportation equipment, and the like, or it may be made merely for consumption purposes, such as the consumption of food,

clothing, shelter, and other services. Some products might not be sold right away and might be maintained as inventories. These items that are added to stocks are likewise considered to be final outlays.

- 4. Production, revenue, and expenditure:** A nation's national income can be calculated in three different ways: from the production angle, from the revenue generation angle, and from the final utilization aspect. These three forms all have circular shapes.

Gross National Income GNI: Since India's economy engages in trade with the rest of the world through exports, imports, loans, and other means, it is not a closed system. The idea of national or domestic revenue is thus born. The production of all inhabited areas inside a nation's borders is referred to as the gross domestic product, which is distinct from the output of all productive activities carried out by people. Residents' productive endeavors may occasionally take them abroad. On the other hand, a portion of domestic production may be ascribed to seasonal and temporary foreign workers. The following formula is used to compute the gross national income:

- 1. Categories of Expenditure:** Next, the revenue that is accessible to people in the form of labor income, capital income, or retained income for productive units is spent. The ways in which revenue is used or spent include: a household consumption, government spending and capital production, which includes fixed capital formation and stock accumulation. GNI is calculated as GDP plus wages and property income that are due to other countries and wages and property income that are due to other countries.
- 2. Household Consumption Expenditure:** The National Accounts Statistics NAS refers to household consumption expenditure as private final consumption expenditure PFCE, which includes expenditures by households including non-profit institutions on all durable goods besides land and buildings as well as non-durable consumer goods and services.
- 3. Government Final Consumption Expenditure:** This category of spending includes payments made to government employees as well as purchases made by the government, including those made abroad. Pay and social security contributions make up the general government employees' compensation.
- 4. Gross Capital Formation:** Only generated capital goods such as machinery, buildings, roads, original works of art, etc. and enhancements to non-manufactured assets are included in gross capital formation. The capacity to generate more goods and revenue in the future is increased by the additions to the capital stock of buildings, machinery, and inventories, which are measured by gross capital formation. Gross fixed capital formation is one of the elements of gross capital formation.

Purchases rather than sales of priceless items such as jewelry and pieces of art. Gross Fixed Capital Formation includes purchases of new assets on the domestic market, such as buildings, transportation equipment, machinery, breeding stock, etc.; imports of new assets; own account production of new assets by the enterprise, such as production of railroad engines, wagons, trucks, aero planes, farm machinery, breeding stock of fish, sheep, and cows, etc.; purchases of new homes by consumer households; and net purchases of used physical assets from abroad.

1. The difference between the beginning stock and the closing stock represents the change in stocks inventory.
2. Savings are the difference between current revenue and current outlays for different economic sectors. On the revenue and expense accounts of the producing firms, households, government administration, and other final consumers, it serves as the balancing item. Savings equals capital formation during the year for a closed economy, but it also includes net capital inflow from abroad during the year for an open economy.
3. Gross vs. Net Value Added. Because GDP does not account for depreciation, it does not accurately reflect the whole flow of products and services through various sectors. As a result, the phrase net product, which is obtained by deducting depreciation costs from the gross domestic product, is thought to be more appropriate. During the course of production, capital assets such as machines, equipment, tools, factory buildings, tractors, etc. depreciate. These

capital items need to be replaced eventually. Consumption of Fixed Capital CFC is the term used to describe the decrease in the current value of the stock of fixed assets that a producer owns and uses throughout the course of the accounting period as a result of physical wear and tear, expected depreciation, or expected accidental damage. Net domestic product is produced by deducting CFC from GDP.

Prices

Current versus Constant: No matter the notion, national income is always calculated at the current price, which is the price at the time. Therefore, when measured over a period of years, increases in national income would implicitly take into account both the impact of production and price changes. Therefore, comparing this estimate over the period would not provide a reliable indicator of the nation's total genuine rise in production, the wellbeing of its citizens' finances, or the expansion of the economy. As a result, it would be essential to remove the price effect, or to recompute the entire series at the supplied prices of a specific base year. The national income calculated in this way is known as the national income in real terms or at constant prices.

Data Sources

The National Accounts Division of the Central Statistics Office, Ministry of Statistics & PI, compiles national accounts statistics in India. Annual as well as quarterly estimates are made accessible, and the statistics are issued in accordance with an advance release calendar that is posted on the Ministry's website www.mospi.nic.in. After being released, the advance estimates go through numerous rounds of review before being decided. As a result, numerous versions are also made available, including Provisional Estimates, First Revised Estimates, Second Revised Estimates, and so forth. The 2004-05 series has since taken the place of the earlier 1993-4 series, and 2004-05 prices are now used to calculate estimates for constant prices. The information required to calculate national income is gathered from a variety of sources and used not only to calculate national income but also to cross-check the final national accounts estimate.

Advantages

- 1. Economic Activity Measurement:** The national income and associated aggregates offer a numerical assessment of the total economic activity inside a nation. They provide information on the size and health of the economy since they represent the entire worth of goods and services generated during a given time period. These metrics enable decision-makers, economists, and analysts to track and gauge an economy's performance across time.
- 2. Comparative Analysis:** The ability to compare meaningfully between various nations or areas is made possible by national income and related aggregates. It is feasible to compare the relative economic size, growth rates, and productivity levels of nations by standardizing economic activity into a single statistic, such as GDP. Understanding global competitiveness, trade trends, and economic development differences are made easier by this knowledge.
- 3. National Income and Associated Aggregates:** serve as important indices of economic growth. GDP fluctuations over time show whether an economy is growing or declining. Positive GDP growth denotes an economy that is growing, whereas negative growth could signify a recession. Policymakers can identify the factors behind economic growth and create effective policies to maintain and improve it by examining the GDP components, such as consumption, investment, government spending, and net exports.
- 4. National Income:** Associated aggregates provide important information on employment trends and labor market dynamics. They give data on employment and unemployment rates within an economy, allowing decision-makers to gauge the state of the labor market as a whole. The effectiveness of employment policy and the effects of economic shocks on labor markets can both be measured using changes in GDP and employment levels.
- 5. National Income and Associated Aggregates:** They are important in the formulation of policy. These measurements are used by policymakers to identify economic trends, assess the results of policy actions, and establish acceptable goals. For instance, choices about tax rates and government

spending are frequently made based on information provided by national income aggregates on the general size and growth of the economy.

6. **National Income:** Associated aggregates are important for investment and commercial decision-making. These metrics are used by firms and investors to gauge market potential, analyses the state of the economy, and make wise investment choices. For instance, GDP growth rates can affect corporate plans, expansion tactics, and the distribution of investments.
7. **International Financial Reporting:** In international financial reporting and analysis, country income and related aggregates are essential. They serve as comparison points for evaluating a nation's creditworthiness and economic performance. When assessing the risk and return of investments in various nations, these indicators offer useful information for credit rating companies, investors, and financial institutions.

III. CONCLUSION

The Gross Domestic Product GDP and other associated aggregates, which provide numerical measures of economic activity inside a nation, serve as key instruments in economics. These aggregates have various, substantial benefits. Policymakers and analysts can track and assess an economy's performance over time by using national income and related aggregates as a comprehensive indicator of its size and health. By enabling meaningful comparisons across nations or regions in terms of economic size, growth rates, and productivity levels, they enhance comparative study. These aggregates are essential for identifying periods of economic expansion and recession. An economy's growth or decline is reflected in changes in GDP, which helps policymakers identify the factors that promote growth and create effective policies. They also offer insightful information about employment trends, enabling decision-makers to gauge the state of the labor market and gauge the effect of economic shocks.

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