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LIVE COACHING CLASSES

BOARD OF STUDIES(A), ICAI

CA INTERMEDIATE

TOPIC NAME - : METHODS OF NATIONAL INCOME ACCOUNTING

PAPER 8B : ECONOMICS FOR FINANCE

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GDP at MP/GDP at FC

Production taxes and subsidies are different from product taxes and subsidies.

A WHOLE NEW APPROACH

Gross domestic product & growth at 2011-12 prices

	2011-12 (₹ crore)	2012-13 (₹ crore)	% chg y-o-y	2013-14 (₹ crore)	% chg y-o-y
A) Gross value added at basic prices	81,95,546	85,99,224	4.9	91,69,787	6.6
B) Product-indirect taxes	8,86,969	9,78,603	10.3	10,37,006	6.0
C) Product-subsidies	2,50,503	2,97,024	18.6	2,85,687	-3.8
GDP at market prices (A+B-C)	88,32,012	92,80,803	5.1	99,21,106	6.9

Source: Ministry of Statistics and Programme Implementation (MoSPI)

Gross domestic product & growth at 2004-05 prices

	2011-12 (₹ crore)	2012-13 (₹ crore)	% chg y-o-y	2013-14 (₹ crore)	% chg y-o-y
GDP at factor cost	52,47,530	54,82,111	4.5	57,41,791	4.7
Indirect Taxes	NA	NA	NA	NA	NA
Subsidies	NA	NA	NA	NA	NA
GDP at market prices	56,33,050	58,99,847	4.7	61,95,842	5.0

Note: NA is not available

Source: MoSPI

NNP at Factor Cost to GDP at Market Price

- **NNPfc $\longrightarrow$ GDP mp**
- NNP fc - NFIA= NDPfc
- NDP fc + Net Indirect Taxes = NDPmp
- Net Indirect Taxes = Indirect Taxes – Subsidies
- NDP mp + Depreciation = GDPmp
- NNP mp= GNPmp – Depreciation

Compute the amount of depreciation from the following data

(₹ in Crores)

GDP at Market Price (GDP_{Mp})	8,76,532
Net factor income from abroad	(-) 232
Aggregate amount of Indirect Taxes	564
Subsidies	30
National Income (NNP_{Fc})	8,46,576

Solution

The amount of depreciation

$GDP_{MP} = NNP_{FC}$ - NFIA + NIT + Depreciation

8,76,532 = 8,46,576 – (-232) + (564-30) + Depreciation

8,76,532= 8,46,576 +232 +534 +Depreciation

8,76,532 = 8,47,342 + Depreciation

8,76,532 – 8,47,342 = 29,190 = Depreciation

Depreciation = 29,190 Crores.

Compute the amount of subsidies from the following data:

GDP at market price (₹ in crores)	*7,79,567*
Indirect Taxes (₹ in crores)	*4,54,367*
GDP at factor cost (₹ in crores)	*3,60,815*

Gross Domestic Product at Market Price (GDP_{MP}) = Gross Domestic Product at Factor Cost (GDP_{FC}) + (Indirect Taxes – Subsidies)

$\therefore$ Subsidies = GDP_{FC} + Indirect tax - GDP_{MP}

= 360815 + 454367 – 779567

= ₹ 35,615 Crores

Personal Income | Personal Disposable Income

Particular		Rs. In crores
(i)	National Income	2000
(ii)	Undistributed Profits	175
(iii)	Net Interest Payment made by households	35
(iv)	Corporate Tax	20
(v)	Transfer payment to the households from firms And government	25
(vi)	Personal Income Tax	50
(vii)	Non-Tax Payments	40

PI= NI- Undistributed Profits-Corporate Tax – Net Interest Payments by Households + Transfer Payments to the households (Rs. 1795 crore)

PDI= PI – Personal Income Tax- Non Tax Payments (Rs.1705 crore)

Net & Gross National Disposable Income

Net National Disposable Income (NNDI) = NNI + net taxes on income and wealth receivable from abroad + net social contributions and benefits receivable from abroad.

Gross National Disposable Income (GNDI) = NNDI + CFC = GNI + other net current transfers from the rest of the world (Receipts less payments)

Net National Disposable Income =NNPMP+ Net Current Transfer from ROW

Gross National Disposable Income = GNPMP + Net current transfers from Row

Circular Flow of Income

Production of Goods and Services

Value Added

Income or Distribution as Factor Income (rent , interest, Wages, Profit)

Expenditure / Disposition Consumption and Investment

Data requirements and Outcomes of Different Methods of National Income Calculation

Method	Data required	What is measured
Phase of Output: Value added method (Product Method)	The sum of net values added by all the producing enterprises of the country	Contribution of production units
Phase of income : Income Method	Total factor incomes generated in the production of goods and services	Relative contribution of factor owners
Phase of disposition: Expenditure method	Sum of expenditures of the three spending units in the economy, namely, government, consumer households, and producing enterprises	Flow of consumption and investment expenditures

Gross value added (GVA_{MP}) = Value of output – Intermediate consumption

= (Sales + change in stock) – Intermediate consumption

$\sum$ (GVA_{MP}) – Depreciation = Net value added (NVA_{MP})

Net value added (NVA_{MP}) – Net Indirect taxes = Net Domestic Product (NVA_{FC})

Net Domestic Product (NVA_{FC}) + (NFIA) = National Income (NNP_{FC})

The three methods are summarized in the following table:

Value Added Method	Income Distribution Method	Final Expenditure Method
Sum of GVAmp, of all industrial sectors	Compensation of employees	Private final consumption expenditure.
	+ Rent	
	+ Interest	+ Government final consumption expenditure
	+ Profit	
	+ Mixed Income	+ Gross domestic capital formation (Gross Investment)
	+ Consumption of fixed capital	
	+ Indirect Tax	+ Net exports
	– Subsidy	
= GDP_{MP}	GDP_{MP}	= GDP_{MP}
– consumption of fixed capital	– Consumption of fixed capital	– consumption of fixed capital
– indirect taxes	– Indirect tax	– indirect taxes
+ subsidies	+ Subsides	+ subsidies
+ Net factor income from abroad	+ Net factor income from abroad	+ Net factor income from abroad
= NNPfc	= NNPfc	= NNPfc

Value Added Method

The values of the following items are also included:

(i) Own account production of fixed assets by government, enterprises and households.

(ii) Imputed value of production of goods for self- consumption, and

(iii) Imputed rent of owner occupied houses.

(iv) Change in stock(inventory)

Income Method Measurement

While using income method, capital gains, windfall profits, transfer incomes and income from sale of second-hand goods and financial assets and payments out of past savings are not included. However, commissions, brokerages and imputed value of services provided by owners of production units will be included as these add to the current flow of goods and services.

Income Method (NNPfc)

- NNPfc = Compensation of Employees + Operating Surplus + Mixed Income of Self Employed

Only incomes earned by owners of primary factors of production are included in national income. Thus, while wages of labourers will be included, pensions of retired workers will be excluded from national income. Compensation of employees includes, apart from wages and salaries, bonus, dearness allowance, commission, employers' contribution to provident fund and imputed value of compensation in kind. Non-labour income includes rent (actual and imputed), royalty, interest on loans availed for productive services, dividends, undistributed profits of corporations

Income Method Measurement

- Profits = Corporate Tax + Retained Earnings + Dividend

While using income method, capital gains, windfall profits, transfer incomes and income from sale of second-hand goods and financial assets and payments out of past savings are not included. However, commissions, brokerages and imputed value of services provided by owners of production units will be included as these add to the current flow of goods and services.

National Income and Personal Income

From the following data, estimate National Income and Personal Income.

Items	**₹ . in Crores**
Net national product at market price	1,891
Income from property and entrepreneurship accruing to government administrative departments	45
Indirect taxes	175
Subsidies	30
Saving of non-departmental enterprises	10
Interest on National debt	15
Current transfers from government	35
Current transfers from rest of the world	20
Saving of private corporate sector	25
Corporate profit tax	25

- National Income (NNPfc) = NNPMP-(Indirect Taxes-Subsidies)
- National Income= 1,891 –(175- 30)= INR 1746 Crore
- Personal Income= National Income – Income from property and entrepreneurship accruing to the government administrative departments – savings of non-departmental enterprises + Interest on National debt+ current transfer from ROW + current transfer from government – corporate profit tax – savings of private corporate sector **(1711 crore)**

NNPMP and Disposable Personal Income

Items	Rs In Crores
NDP fc	14900
Income from domestic product accruing to the govt	150
Interest on national debt	170
Transfer payment by Government	60
Net Pvt Donation from abroad	30
NFIA	80
Indirect Taxes	335
Direct Taxes	100
Subsidies	262
Taxes on Corporate Profits	222
Undistributed profits of corporations	105

Solution

- NNPMP= NNPFC+ Indirect Taxes- Subsidies
- NNPFC = NDPFC + NFIA
- NNPMP = 14980+335-262= Rs15053 Crores
- DI = PI- Personal Income Tax – Non Tax Payments
- PI= National Income – Income from property and entrepreneurship accruing to the government administrative departments – savings of non-departmental enterprises + Interest on National debt+ current transfer from ROW + current transfer from government – corporate profit tax – savings of private corporate sector = Rs14663 crore

Expenditure Method (GDP)

GDP_{MP} = Personal consumption expenditure + Gross Investment (Gross business fixed investment + inventory investment) + Gross residential construction investment + Gross public investment + Government purchases of goods and services + Net Exports (Exports-imports)

Nov 2020

(ii) Which method is used in India for measurement of National Income ? Also, state the method which is considered the most suitable for measurement of National Income of the developed economies. 2

Agriculture sector and Manufacturing Sector (value added), MSME (Income Method) , Construction Sector (Expenditure Method)

Nov 2021

(a) (i) Compute GDP at market price and Mixed Income of Self-Employed from the data given below : 3

(₹ in Crores)

Compensation of Employees	810
Depreciation	26
Rent, Interest and Profit	453
NDP at factor cost	1450
Subsidies	18
Net factor Income from Abroad	(–) 17
Indirect taxes.	57

Nov 2021

Marks

3. (a) Calculate GNP at market price from the following data using Value Added Method. 5

(₹ in Crores)

Government Transfer Payments	1800
Value of output in Primary Sector	1500
Value of output in Secondary Sector	2700
Value of output in Tertiary Sector	2100
Net factor income from Abroad	(–) 60
Intermediate Consumption in Primary Sector	750
Intermediate Consumption in Secondary Sector	1200
Intermediate Consumption in Tertiary Sector	900

Nov 2019

(a) (i) Compute NNP at factor cost or national income from the following data using income method : 3

	(₹ in crores)
Compensation of employees	3,000
Mixed income of self-employed	1,050
Indirect taxes	480
Subsidies	630
Depreciation	428
Rent	1,020
Interest	2,010
Profit	980
Net factor income from abroad	370

(a) Compute GNP at factor cost and NDP at market price using expenditure method from the following data : 5

	(₹ in Crores)
Personal Consumption expenditure	2900
Imports	300
Gross public Investment	500
Consumption of fixed capital	60
Exports	200
Inventory Investment	170
Government purchases of goods & services	1100
Gross Residential construction Investment	450
Net factor Income from abroad	(–) 30
Gross business fixed Investment	410
Subsidies	80

Measurement of National Income in India

Income Method : Developed Countries

Expenditure Method : Consumption Driven Countries

India:

Agriculture by Production Method

MSMEs by Income Method

Construction sector : Expenditure Method

SUPRA- REGIONAL SECTORS

In the preparation of state income estimates, certain economic activities like Railways, Banking & Insurance, Communication, and Central Govt. Administration, cut across state boundaries as their economic contribution can not be assigned to any one state directly. Such activities are included in Supra-regional sectors of the economy.

The estimates for these activities are compiled for the economy as a whole and allotted to the states on the basis of relevant indicators State-wise estimates of Gross/Net Domestic Product (GSDP/NSDP) and Gross Fixed capital formation (GFCF) in respect of supra-regional sectors are prepared by the Central Statistical Organization (CSO) and supplied to state Directorates of Economics and Statistics (DESs) for incorporating the same in their estimates.

The System of Regional Accounts in India

DIRECTORATE OF ECONOMICS AND STATISTICS
GOVERNMENT OF CHHATTISGARH

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Schemes

- State Income
- Capital Formation
- Local Bodies
- National Sample Survey
- MPLAD
- ASI
- Business Register
- 20 Points Programme

CG Statistics

- Projected Population

Annual Technical Program

- Directorate
- District

Important Links

- Government of Chhattisgarh
- Census of India
- MPLAD
- CG Finance Department
- e-Kosh Online

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Capital Formation Division

What is Capital Formation ?

Capital formation equals fixed capital investment, the increase in the value of inventories held, plus (net) lending to foreign countries, during an accounting period.

Capital is said to be "formed" when savings are used for investment purposes, often investment in production.

Working Procedure :

This division prepares the estimates of Gross Fixed Capital Formation (GFCF). For the purpose of estimation of GFCF, the capital originated by Public and Private sectors within the geographical boundaries of the state has been taken into account. In Public Sector, the GFCF is estimated for Central and State Administrative Departments, Departmental Commercial Undertakings (DCUs), Local Bodies, Central Non-Departmental Commercial Undertakings (CNDCUs) and Supra-Regional Sectors. For preparation of the estimates, the Annual Account Report of the Departments/Sectors/DCUs/NDCUs is collected. The Annual Account Report is classifying purpose wise.Then publication is prepared after compiling and tabulation of the data.

Main activities/report published:

- Collection of Annual Account Report of the Departments/Sectors/DCUs/NDCUs.
- Analysis and preparation of publication of the Annual Account Report of public sector units/undertakings of the State.
- Collection, compilation and tabulation for preparation of publication "Estimate of Gross Fixed

GDP is an imperfect measure of well-being

1. It counts just the value of goods and services bought and sold in markets.

2. The challenge is to account for non-market factors such as the value of leisure, health, and home production, such as cleaning, cooking and childcare, as well as the negative byproducts of economic activity, such as pollution and inequality.

3. GDP does capture the main component of well-being. Policies that improve the efficiency of production and contribute to income will continue to be important in promoting welfare.

4. Poor health leads to lower life expectancy and imposes a significant welfare cost on poorer countries. Policies that improve health are powerful tools in raising welfare: improving access to healthcare, nutrition, and clean water; improving the quality of care; and taxing unhealthy behaviors such as smoking.

Bad health also contributes to disruptions in employment, lowers productivity, and reduces economic growth. So, improvements in health will not only elevate welfare directly but are also likely to result in higher incomes and future welfare improvements in a virtuous cycle.

What is World Happiness Report?

The World Happiness Report is a landmark survey of the state of global happiness that ranks 149 countries by how happy their citizens perceive themselves to be. India is at 136 Position

The World Happiness Report 2021 focuses on the effects of Covid-19 and how people all over the world have fared.

The annual report ranks nations based on gross domestic product per person, healthy life expectancy and the opinions of residents. Surveys ask respondents to indicate on a 1-10 scale how much social support they feel they have if something goes wrong, their freedom to make their own life choices, their sense of how corrupt their society is and how generous they are.

Negative and Positive Externality

Similarly, there has been only a marginal improvement in India's rank (2021 rank: 104) for Healthy Life Expectancy despite being a pharma capital of the world, growing medical tourism or an overall increase in healthcare facilities in the country.

India has shown notable improvement in its ranking for intangible criteria like Generosity and Freedom to make choices. Interestingly, amidst all the talk about freedom of speech, India consistently improved its ranking from 56 in 2018 to 37 in 2021.

However, the long-lasting problem of corruption is there, and the perception of corruption has only increased. The Happiness Index also considers positive and negative effects: positive effect measured in happiness, laugh and enjoyment, whereas negative effect measured in worry, sadness and anger.

THANK YOU