

SAMPURNA JUNE 2024

# ECONOMICS

*Chapter - 6*

## Determination of National Income

By- LOVE KAUSHIK SIR



Lecture No.- 05



# RECAP OF PREVIOUS LECTURE

1) National Income Accounting



# TOPICS TO BE COVERED

1) National Income Accounting



# Topic: Limitations and Challenges of National Income Computation

The task of computing National Income is more complex in underdeveloped and developing countries. There are many conceptual difficulties related to measurement which are difficult to resolve, such as :

- a) lack of an agreed definition of national income,
- b) accurate distinction between final goods and intermediate goods,
- c) issue of transfer payments,
- d) difficulty of incorporating distribution of income,
- e) valuation of a new good at constant prices, and
- f) Inadequacy of data and lack of reliability of available data,
- g) absence of recording of incomes due to illiteracy and ignorance,
- h) lack of proper occupational classification, and
- i) accurate estimation of consumption of fixed capital

#Q. Calculate the aggregate value of depreciation when the GDP at market price of a country in a particular year was ₹ 1,100 Crores. Net Factor Income from Abroad was ₹ 100 Crores. The value of Indirect taxes - Subsidies was ₹ 150 Crores and National Income was ₹ 850 Crores.

$$GDP_{mp} = 1100, NFIA = 100, NIT = 150$$

$$NNP_{FC} = 850$$

$$NNP_{FC} = GDP_{mp} - NIT + NFIA - Dep.$$

$$GDP_{mp} = NNP_{FC} + NIT - NFIA + Dep.$$

$$1100 = 850 + 150 - 100 + Dep.$$

$$1100 - 900 = Dep$$

$$200 \leftarrow$$

(A) 300

(B) 200 (B)

(C) 100

**Given,**

$$\text{GDP}_{\text{MP}} = 1100 \text{ Crores, NFIA} = 100 \text{ Crores, NIT} = 150 \text{ Crores, NNP}_{\text{FC}} = 850 \text{ Crores}$$

$$\therefore \text{GDP}_{\text{FC}} = \text{GDP}_{\text{MP}} - \text{NIT} = 1100 - 150 = 950$$

$$\text{GNP}_{\text{FC}} = \text{GDP}_{\text{FC}} + \text{NFIA} = 950 + 100 = 1050$$

$$\text{NNP}_{\text{FC}} = \text{GNP}_{\text{FC}} - \text{Depreciation}$$

$$850 = 1050 - \text{Depreciation}$$

$$\text{Depreciation} = 1050 - 850 = 200 \text{ Crores.}$$

$$\underline{\text{Disposable Income}} = \text{Income} - \text{Tax} + \underline{\underline{\text{Transfer}}}$$

↓  
Income that you can spend.

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$$\text{income} = 100.$$

$$\text{Tax} = \underline{-2}$$

98.

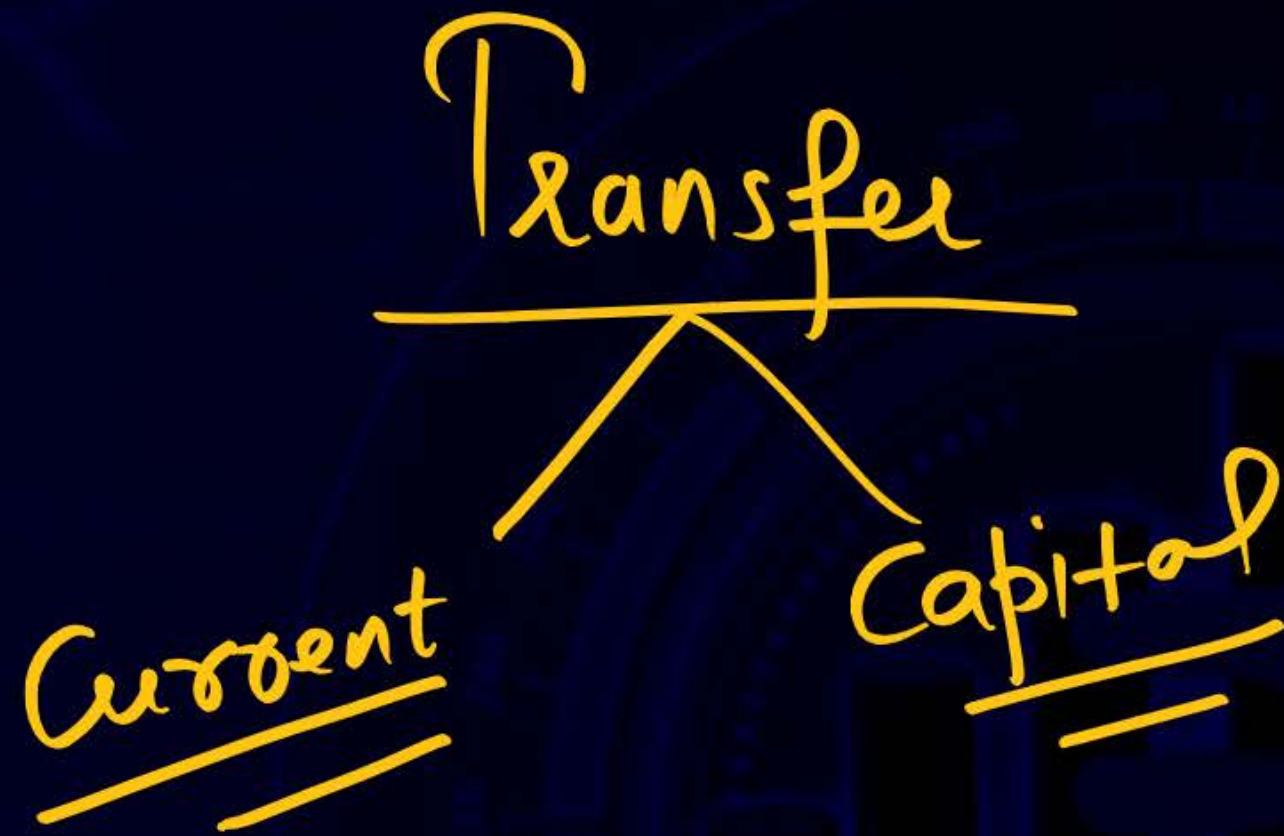
$$\text{Transfer} = \underline{\underline{+5}}$$

103

Net National Disposable income NNDI ✓  
= NI + Net Current Transfers

$$\text{GNDI} = \text{NNDI} + \text{Dep.}$$





	<b>Net National Disposable Income (NNDI)</b>
=	<u>Net National Income (NNI)</u>
+	<u>Other net current transfers from the rest of the world</u> [Receipts Less Payments]

OR

$$98 = 100 - 2$$

	<b>Net National Disposable Income (NNDI)</b>
=	Net National Income
+	Net taxes on income and wealth receivable from abroad (4)
+	Net social contributions and benefits receivable from abroad (2)

	<b>Gross National Disposable Income (GNDI)</b>
=	<u>NNDI + CFC</u> / Dep.

OR

	<b>Gross National Disposable Income (GNDI)</b>
=	<u>GNI</u>
+	<u>Other Net current transfers from the rest the world (Receipts less payments)</u>

Other Current Transfers refer to current transfers other than the primary incomes

$$NI = NNP_{FC}$$

$$GNI = GNP_{FC}$$

$$NNDI = NI + \text{Net Current Transfer}$$

Net Taxes from R/w

Net Social Security R/w

$$GNDI = \text{NNDI} + \text{Dep}$$

$$= \text{NI} + \text{Dep} + \text{Net Current Transfer}$$

$$= GNI + \text{Net Current Transfer}$$

$$\text{NNP}_{fc} + \text{Dep} = \text{GNP}_{fc}$$



Personal Income (PI)

↓  
Income of Personal Sector

↓  
Household Sector  
+  
Non-profit Institution  
Serving Household **NPIHH**

Private income



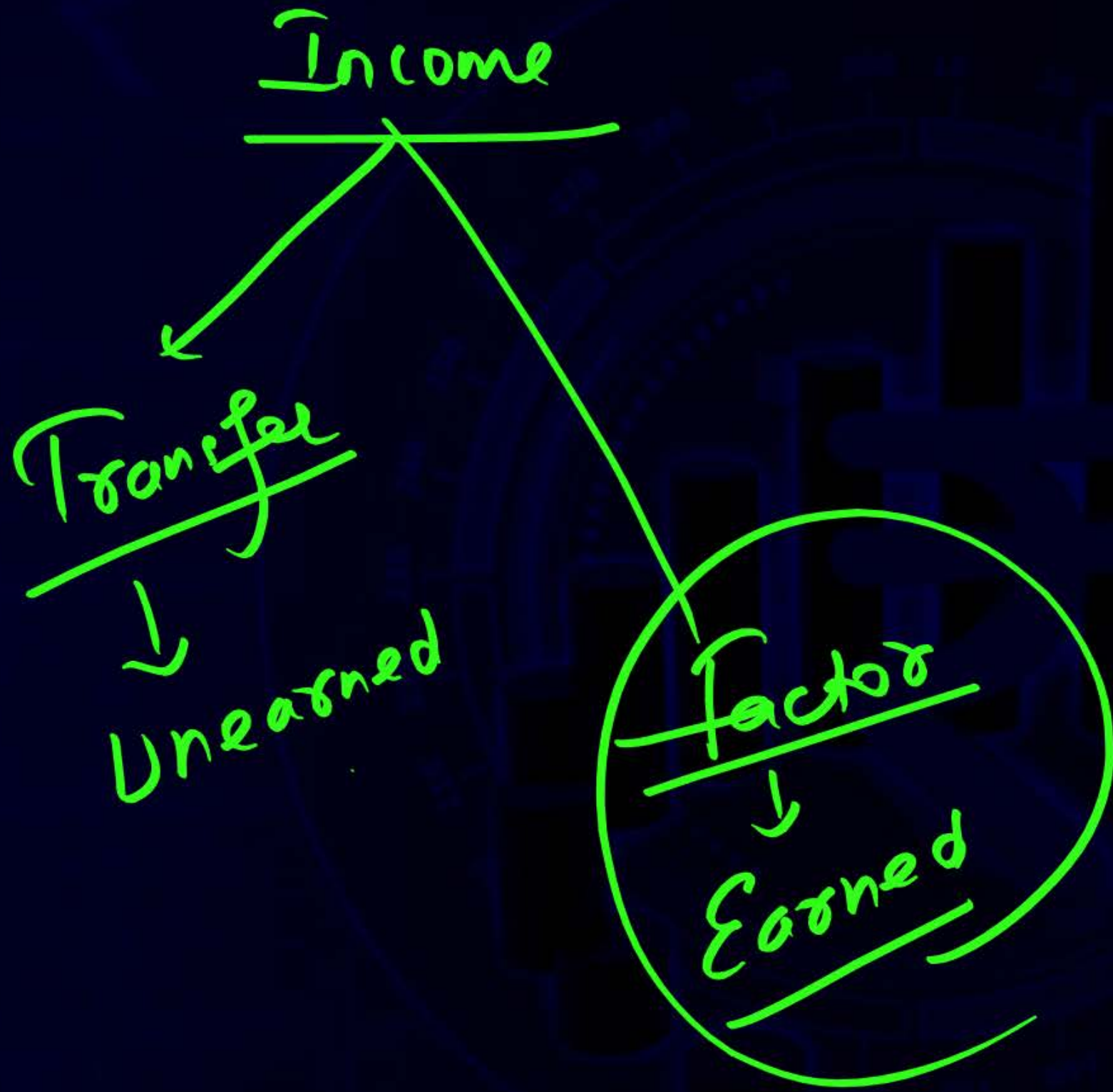
Income of Pvt. Sector



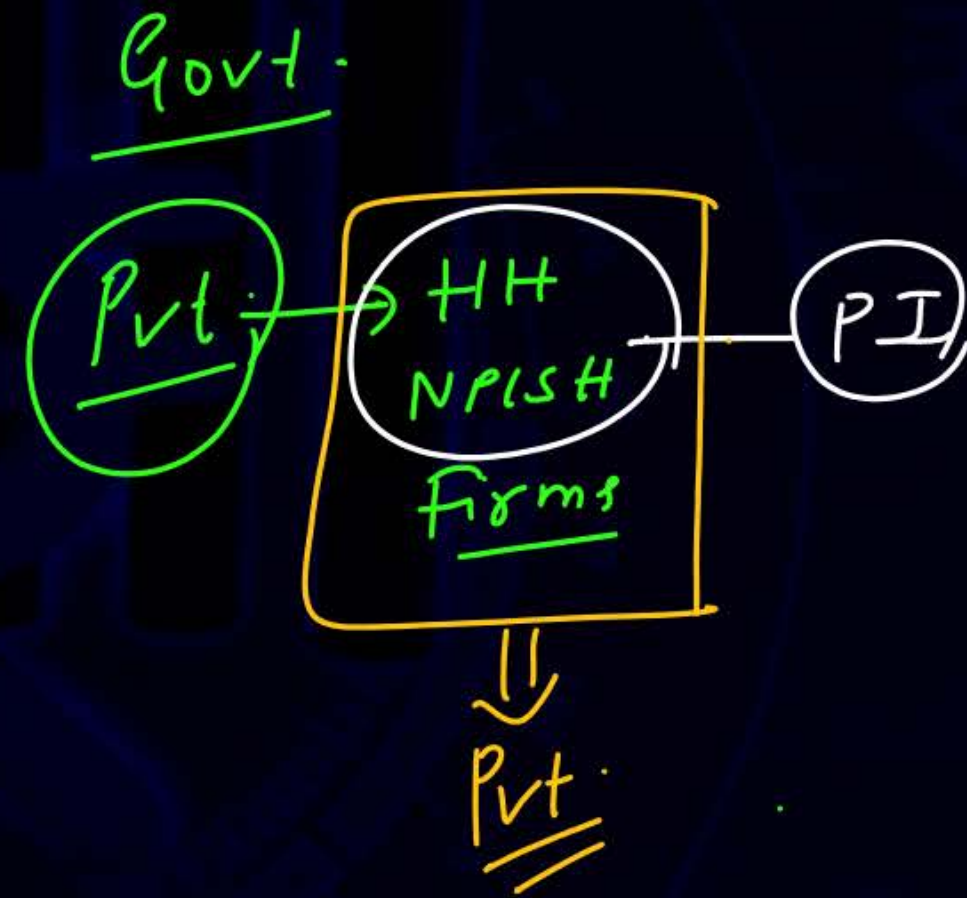
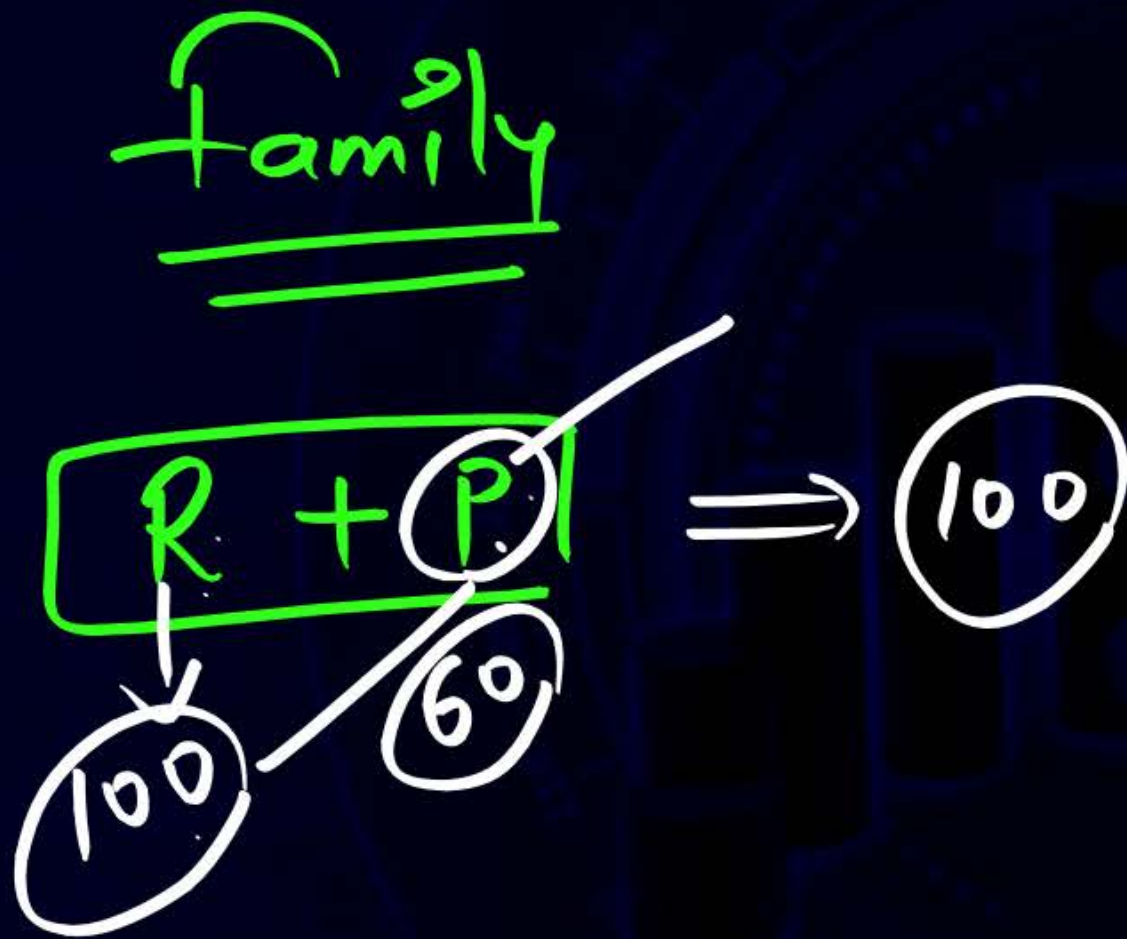
Personal Sector  
+  
Profit making firms

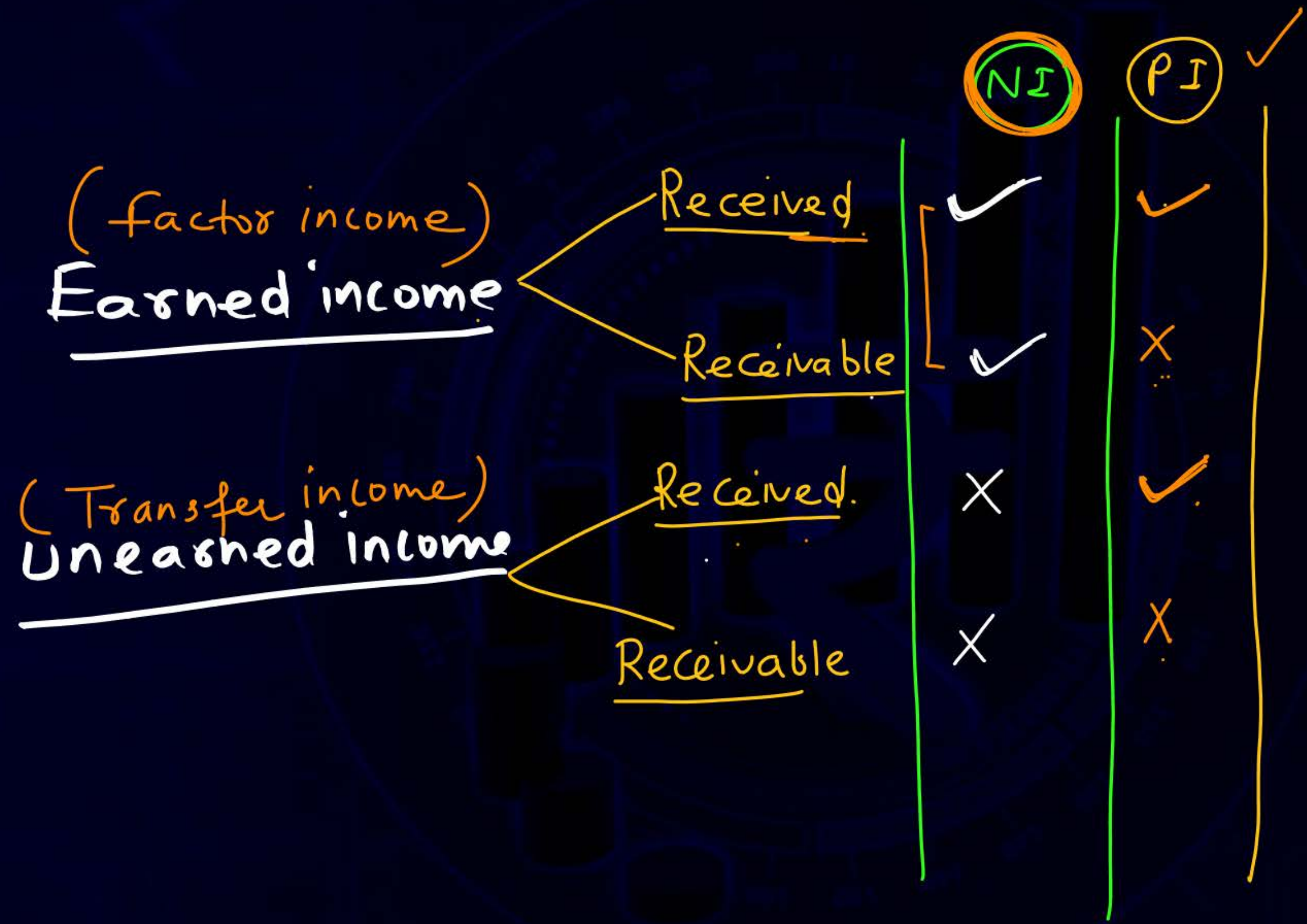
income received

income receivable → Not yet received









		NI	PI
Earned Income	Received	✓	✓
	Receivable	✓	✗
Transferred Income (Income Not Earned)	Received	✗	✓
	Receivable	✗	✗

$$\text{PI} = \text{NI} - \text{Income earned but not received} + \text{Income not earned but received}$$

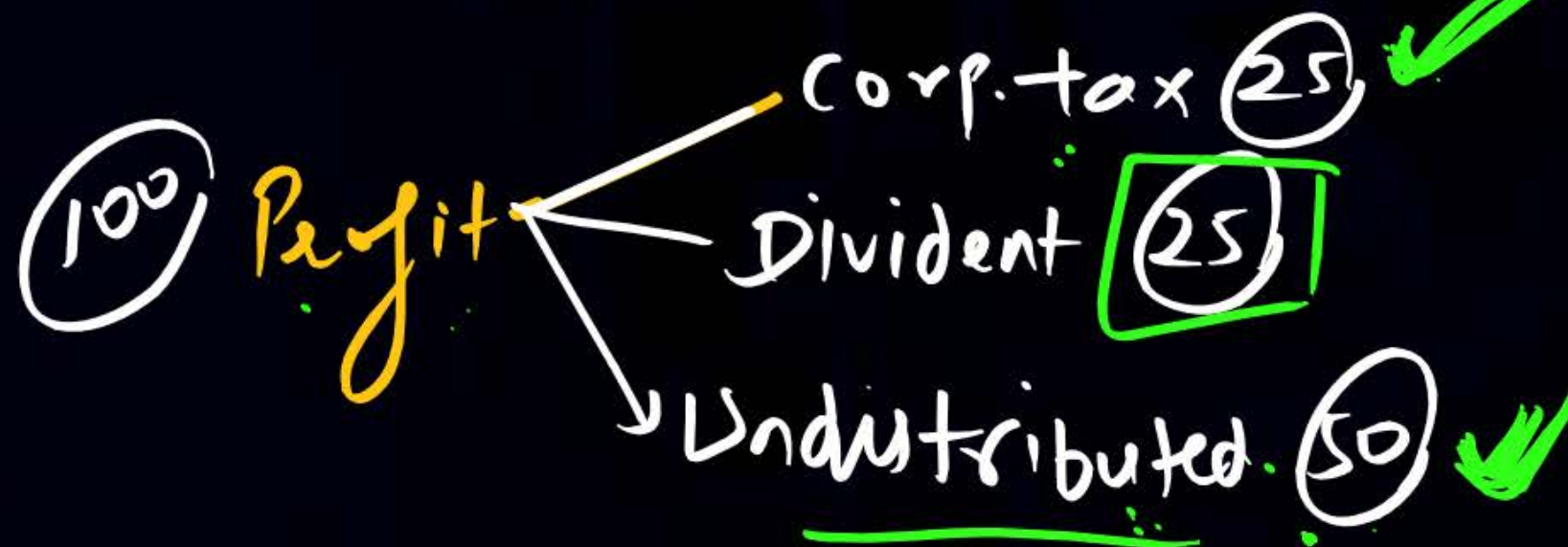
(100) - (3) Receivables + (2) Transfer

# Topic: Personal Income

$$= NI - \text{Income Earned but Not Received} + \text{Income Not Earned but Received}$$

=	<b>National Income</b>
-	Undistributed Profits
-	<u>Net Interest Payment made by households</u>
-	<u>Corporate tax</u>
+	<u>Transfer Payments to the households from firms and government</u>

Income Earned but not received



Personal  
Income

$$= \text{NNP}_{fc} - \text{Income Earned not Received} + \text{Income Not Earned but Received}$$

(NI)

$$= \text{NI} - \left[ \begin{array}{l} \text{Corp. tax} \\ + \\ \text{Undistributed Profit} \\ + \\ \text{Interest Paid by HH} \end{array} \right] + \text{Transfer from firm \& \text{govt.}}$$

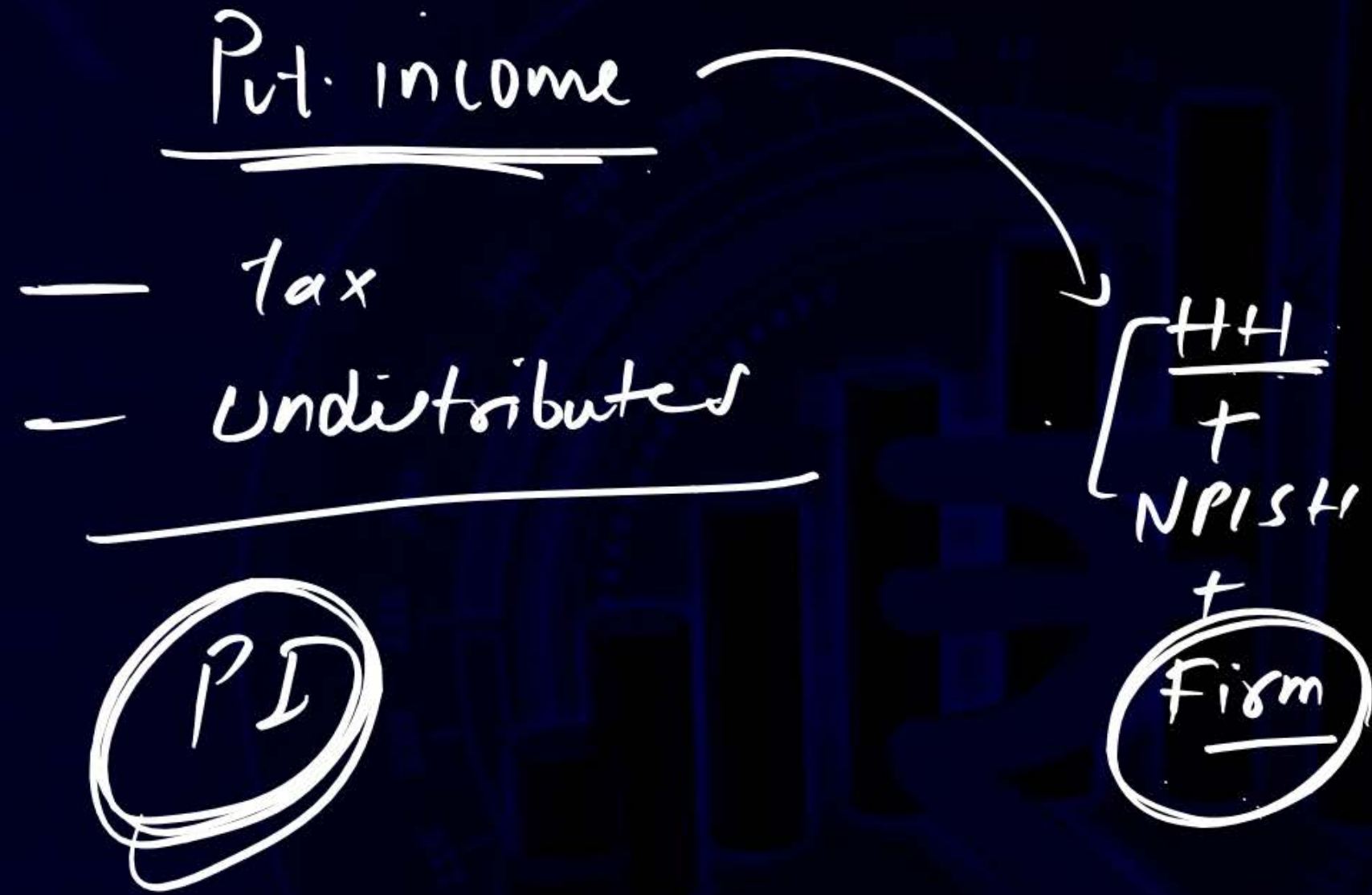
$$\underline{\text{Personal Income}} = 100$$

$$- \text{Personal tax} = \frac{10}{90}$$

$$- \text{Non-tax Payment fee, fine etc.} = 5$$

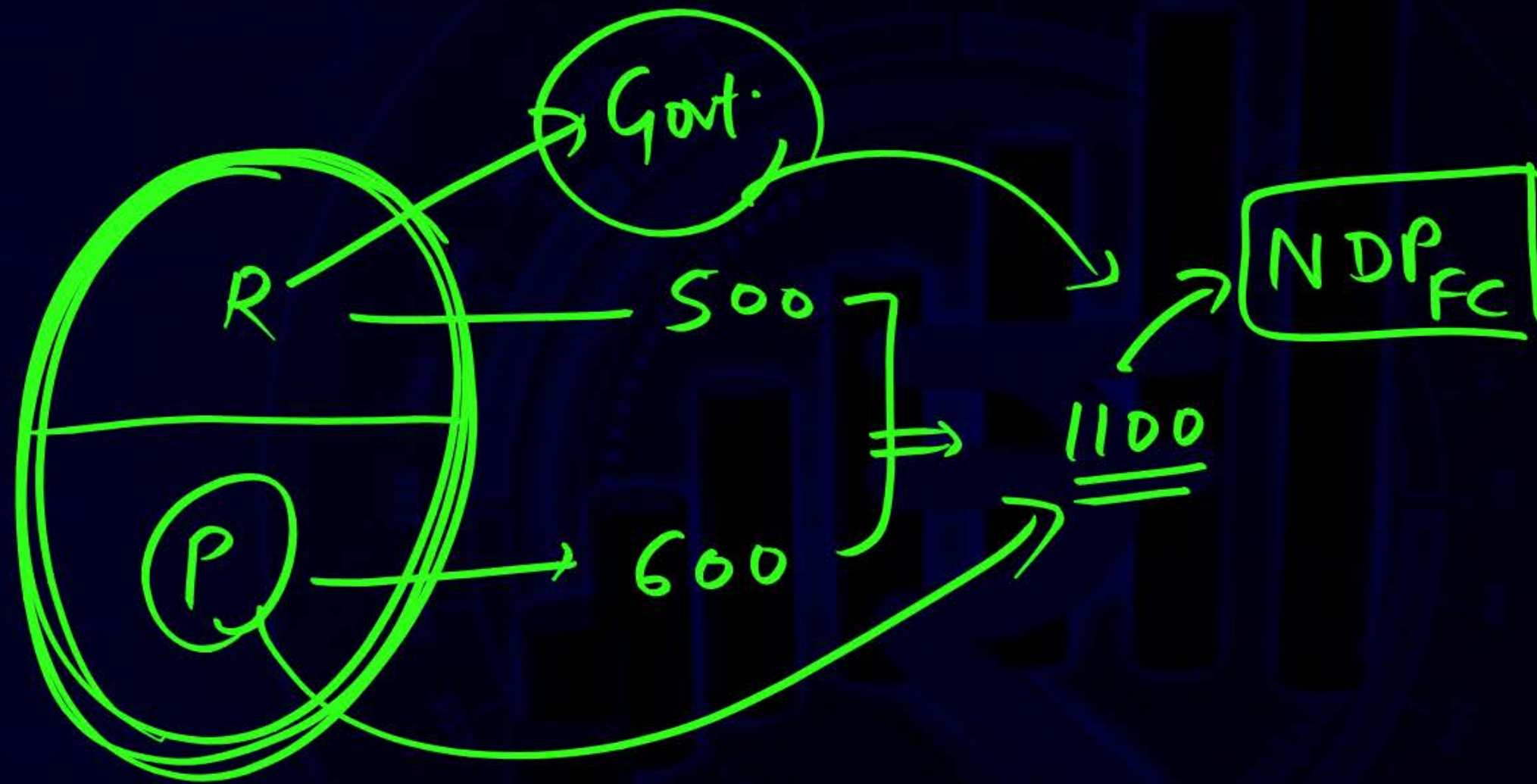
$$\text{Disposable Personal Income} = \boxed{85}$$

<b>Private Income</b>	-
Less: <u>Undistributed Profits</u>	(-)
Less: <u>Corporate Tax</u>	(-)
<b>Personal Income</b>	-





<b>Personal Income</b>	-
Less: <b>Personal Taxation</b>	(-)
Less: <b>Non tax payments i.e., fees, penalty, fines to government</b>	(-)
<b>Disposable Personal Income</b>	-



Domestic income (NDP<sub>FC</sub>)

100

30

Domestic income  
accruing to  
govt. sector

70

Domestic income  
accruing to Pvt. Sector



Domestic income (NDP<sub>FC</sub>)

100 ✓

30 ✓

Domestic income  
accruing to  
govt. sector

① income from Property  
& Entrepreneurship ⑩

② Saving ②

70

Domestic income  
accruing to Pvt. Sector

**Domestic Income** may be categorized into 2 parts

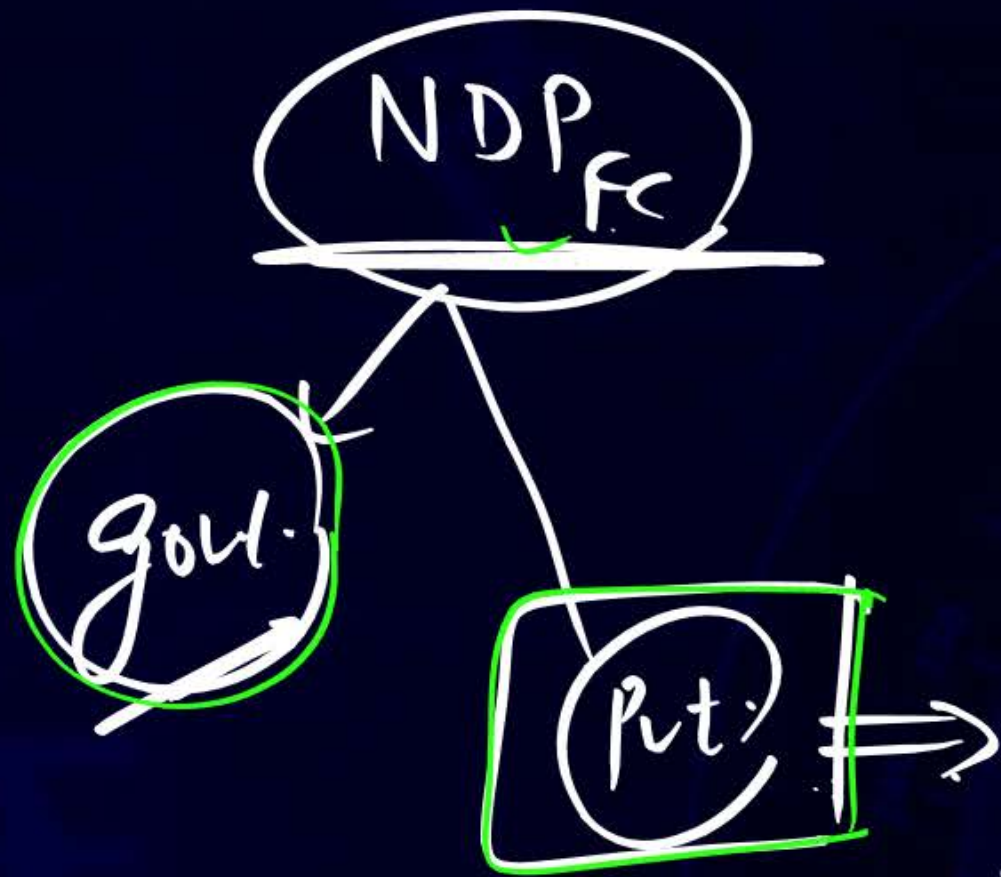
<p>Income from domestic product accruing to the public sector which includes</p>	<p>Income from domestic product accruing to private sector</p>
<p>① income from property and entrepreneurship accruing to government administrative departments and</p>	<p>= <math>NDP_{FC}</math></p>
<p>② savings of non-departmental enterprises.</p>	<p>— Income from property and entrepreneurship accruing to government administrative departments</p>
	<p>— Savings of non-departmental enterprises</p>

# Topic: Private Income

Private income is a measure of the income (both factor income and transfer income) which accrues to private sector from all sources within and outside the country.

=	<u>Factor income from net domestic product accruing to the private sector</u>
+	Net factor income from abroad <u>(NFIA)</u>
+	<u>National debt interest</u>   <u>Interest on Public Debt</u>
+	<u>Current transfers from government</u>
+	<u>Other net transfers from the rest of the world</u>

Priv. Income



- + NFIA
  - + National Debt Interest
  - + Govt. Transfer
  - + Transfer from Abroad
- 
- Pvt income

#Q. On basis of following information, calculate NNP at market price and Disposable personal income (DPI).

Items	₹ in Crores
NDP at factor cost	14900
Income from domestic product accruing to government	150
Interest on National debt	170
Transfer payment by government	60
Net private donation from abroad	30
Net factor income from abroad	80
Indirect taxes	335
Direct taxes	100
Subsidies	262
Taxes on corporate profits	222
Undistributed profits of corporations	105

$$\begin{aligned}
 \text{NNP}_{mp} &= \text{NDP}_{fc} + \text{NFI} + \text{NIT} \\
 &= 14900 + 80 + 73 \\
 &= 15053
 \end{aligned}$$

$$\begin{array}{r}
 14980 \\
 \quad 73 \\
 \hline
 15053 \\
 335 \\
 \hline
 262 \\
 \hline
 073 \\
 \hline
 \hline
 \end{array}$$



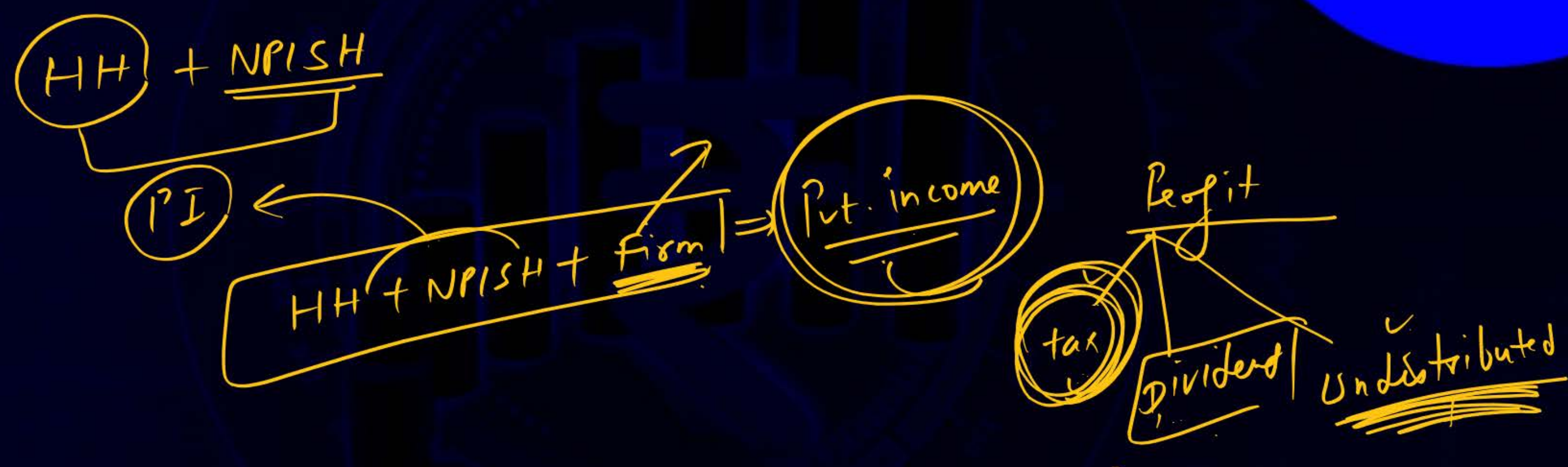
#Q. On basis of following information, calculate NNP at market price and Disposable personal income

Items	₹ in Crores
NDP at factor cost	14900
Income from domestic product accruing to government ✓	- 150
Interest on National debt ①	170
Transfer payment by government ②	60
Net private donation from abroad ③	- 30
Net factor income from abroad NFIA ④	80
Indirect taxes	335
<u>Direct taxes</u>	100
Subsidies ✓	262
Taxes on corporate profits ✓	222
<u>Undistributed profits of corporations</u> ✓	105

$NDP_{FC} = 14900$   
 (-) income accruing to govt. = 150  
 $14750$   
 income accruing to Pvt. sector  
 $170$   
 $60$   
 $30$   
 $80$   
Pvt. income =  $15090$   
 $222$   
 $105$   
14763 ✓

$15090$   
 $222$   
 $105$   
14763

$$\begin{aligned} \text{DPI} &= \text{PI} - \text{Personal} \\ &\quad \text{Tax} \\ &\quad - \text{Non-tax Payment} \\ &= 14763 - 100 = \underline{\underline{14663}} \end{aligned}$$



NNP at Market price = NNP at factor cost + indirect tax - subsidies

Where NNP at factor cost =  $NDP_{FC} + NFIA$

$$= 14900 + 80 = 14980$$

Therefore,  $NNP_{MP} = \text{Therefore, NNP MP} = 14980 + 335 - 262 = 15053$

Disposable personal income (DI) = PI - Personal income tax

PI = NI + income received but not earned - income earned but not received

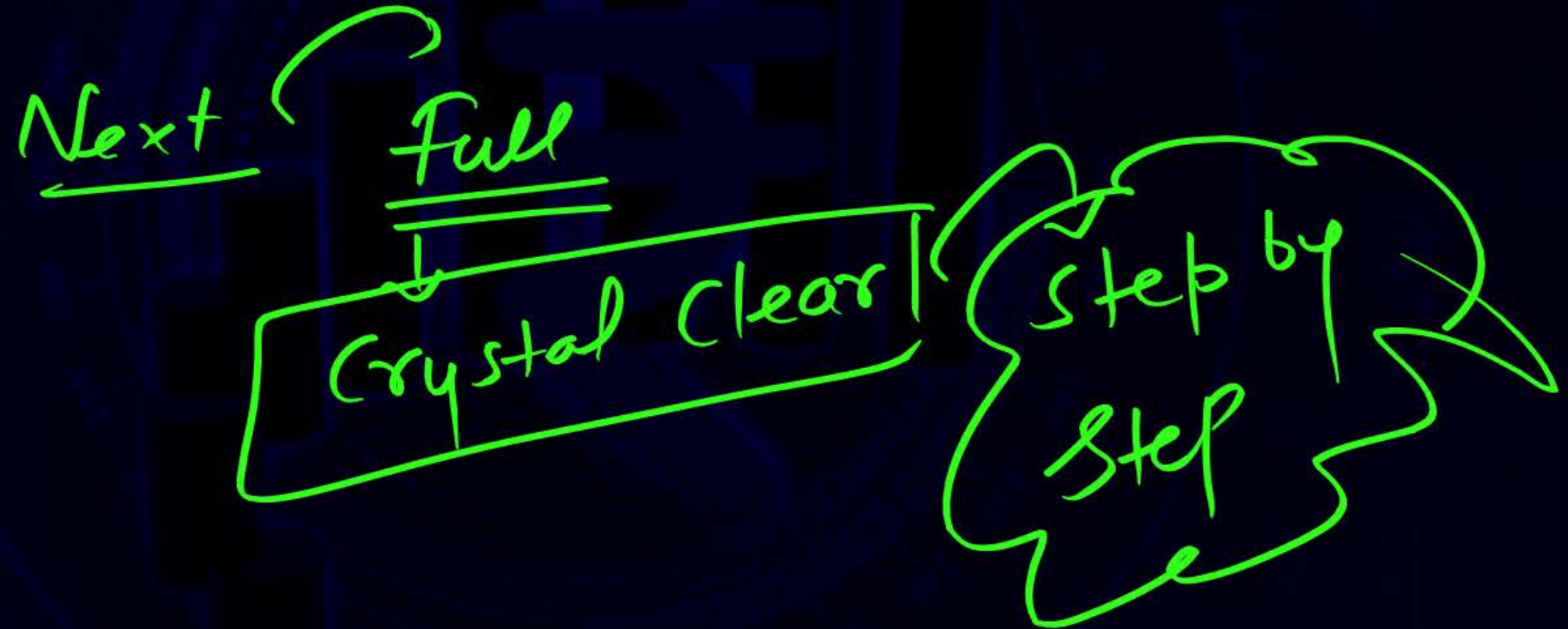
$$= 14980 + 170 + 60 + 30 - 150 - 222 - 105 = 14763$$

Therefore,  $DI = 14763 - 100 = \underline{14663}$  Crores

# QUIZ!

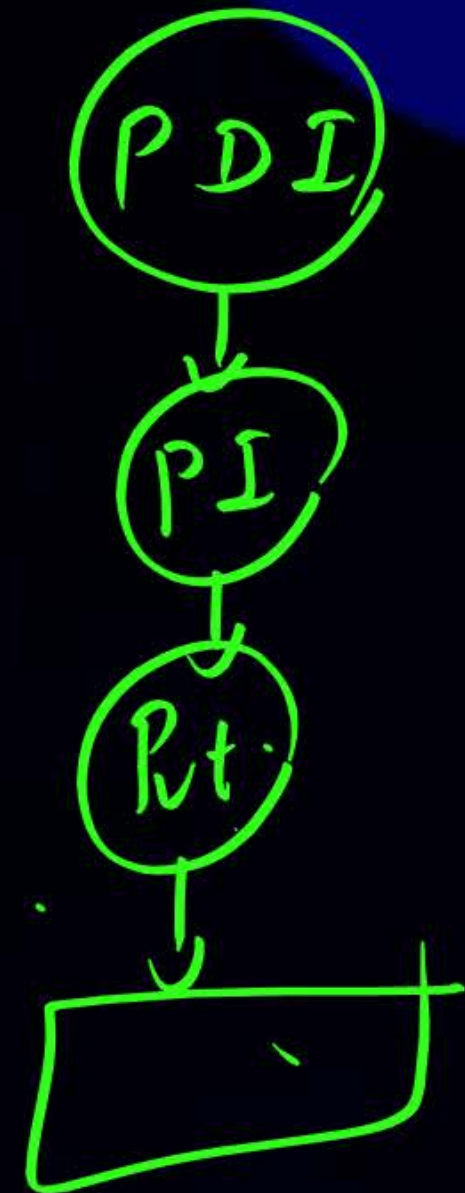
#Q. Which of the following is added to national income while calculating personal income?

1. Transfer payments to individuals (A)
2. Undistributed profits of corporate
3. Transfer payments made to foreigners
4. Mixed income of self employed



## 2 mins Summary

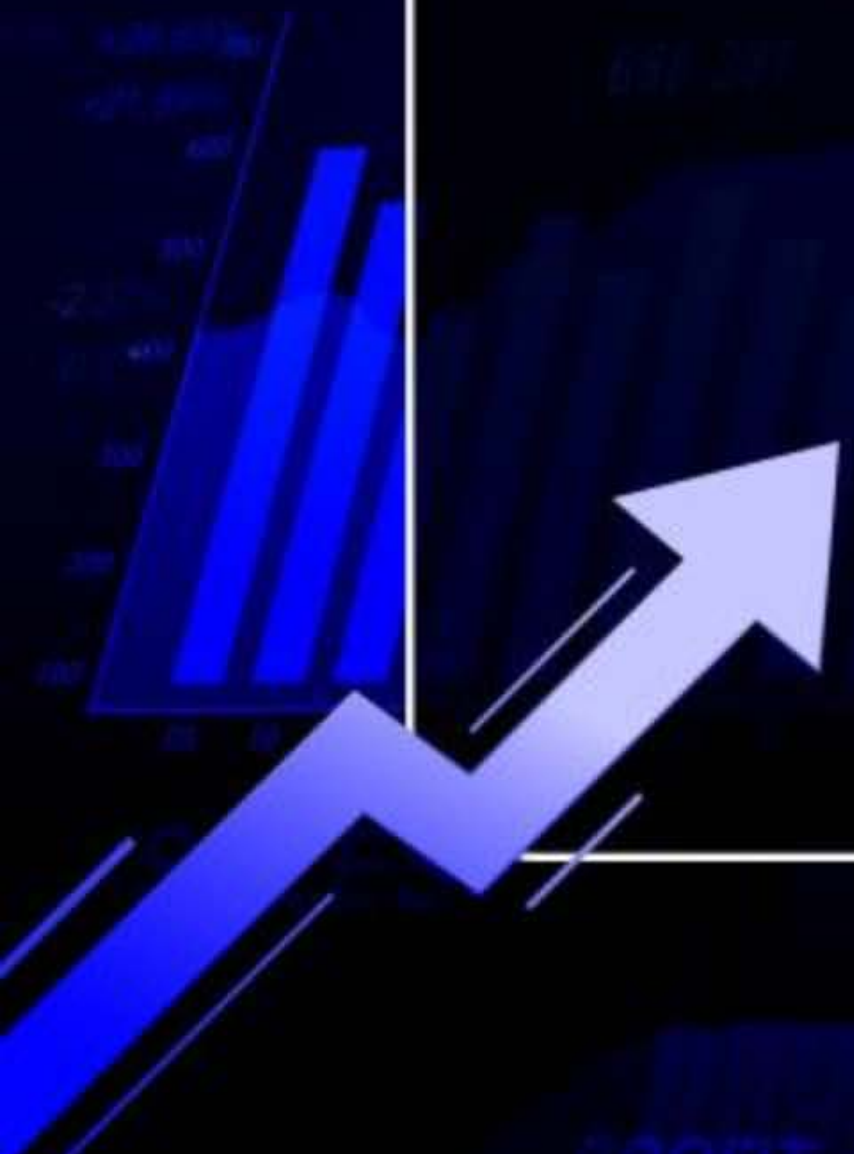
1. mixed-understanding  
↓  
20%.







Thank You



MARKET

PROFIT

SERVICE

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