अधिकारी घडविणारी महाराष्ट्रातील विश्वसनिय संस्था

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UPSC / MPSC / BANKING / SSC

ECONOMICS –NATIONAL INCOME

By– Mr. S. Wasnik (Faculty)

A few words with students..........

- These are the topic wise class notes of Economics for UPSC Civil and Rajyaseva.

- All the data and concepts given here are updated up to March 2020.

- I encourage you all to use this as a reference for your study.

- Suggestion, advises, queries and feedback are most welcome in order to improve content further.

- Practice and previous questions based on this topic will be uploaded soon.

National Income

1) Definitions and its features
2) Variants of National Income
3) Measurement of National Income
4) Recent Data
5) References

DEFINITIONS AND IT'S FEATURE'S

"The value of commodities and services produced in an economy in a given period, counted without duplication"- National Income Committee (1948)

Or

Market value of all final goods & services produced within country for a given time period.

Features

1) National Income is a macroeconomic aggregate.
2) National Income is Flow concept- measured over a period of time.
3) Value in National Income is expressed in terms of national currency.
4) National income is calculated based on the assumption of 'Circular Flow of Income'.

MEASUREMENT OF NATIONAL INCOME

Based on the assumption of *'Circular Flow of Income',* National income can be measured by three ways –
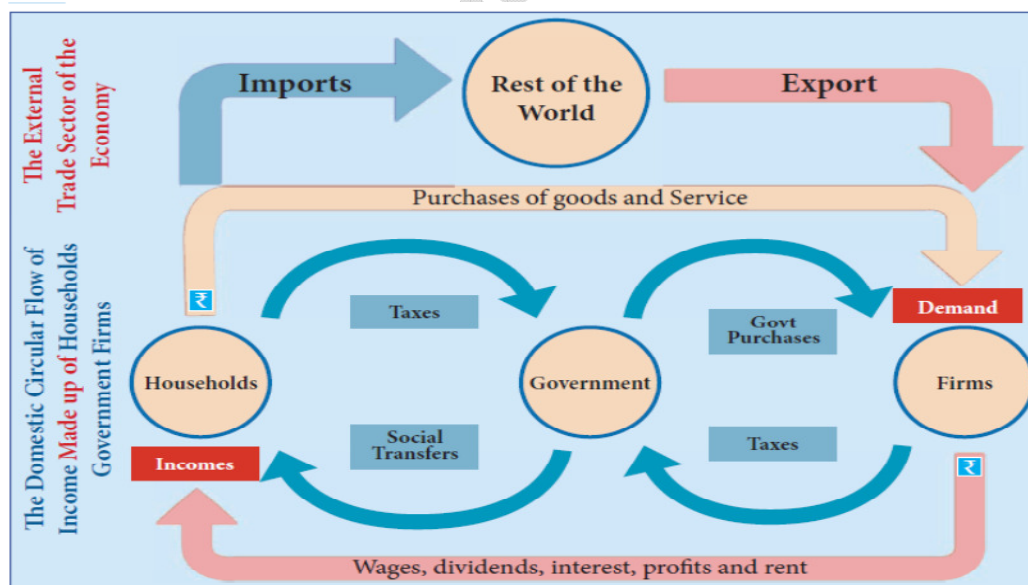
1) Income Method
2) Expenditure Method
3) Product/Value Added Method

Income Method –

- It measures all the income that generated in an economy in a given period. It is a sum total of all factor payments in an economy.
- *Factor payments* are rewards earned by factors of production for their contribution in production.
- Following things are not measured while calculating National Income by Income method
1) Transfer Income or Income which is received but not earned- Scholarships, Award money, Gifts, Allowances, Pensions….etc.
2) Income earned by selling home, vehicle, shares, bonds ….etc. which not generated in present years
3) Tax income received by Government
4) All non income goods and services – Like mother services to family, teacher teaching to his own pupil etc.

National Income =W+I+P+R =Wages+ interest+ profit + rent

Expenditure Method –

- It measures all the final expenditure incurred in an economy in given period.
- Final Expenditure- An expenditure which is not undertaken for intermediate purposes. (Expenditure on 1 kg sugar includes expenditure on its raw material i.e Sugarcane)
- Expenditure method shows the *demand side of economy*.

National Income =C + I + G + (X – M)

Where,

C = private final Consumption → Expenditure on food, cloth, buying vehicle, Rent etc.

I= Investment expenditure → Expenditure on Inventory, Stock, on buying new home etc.

G- Government Expenditure → Expenditure on Government employees salaries, Expenditure by PSU's, (Transfer expenditures are not counted- subsidies, Pension, Scholarship, Awards etc.)

(X – M)= Net Foreign Expenditure =(Export Expenditure – Import Expenditure)

Product/Value Added Method

- It measures all the value of all <u>final</u> goods and services produced in an economy in a given period.
- Double counting must be avoided.(By counting only end product or value addition at each stage of production)
- Product/Value Added Method shows the <u>Supply side</u> of economy.

> **National Income= Value of Production – Value of Intermediate goods**

Variants of National Income

Following the <u>System of National Accounts 2008 (SNA2008)</u> given by the United Nations in partnership with some other agencies, countries are now switching to new aggregates. India shifted to these aggregates in <u>2015</u>.

1) Gross Domestic Product , Net Domestic Product
2) Gross National Product, Net National Product
3) National Income calculated at- Market Price ,Constant Price, Factor Cost, Basic Price

Gross Domestic Product

- <u>Market value</u> of <u>all final goods & services produced within country</u> for a <u>given time period.</u>
- The most important variable of National Income which shows relatively bigger picture of economy.
- It can be calculated by three ways- Income, Expenditure, Product.

> **Gross Domestic Product(GDP)**
> - **GDP by Product Method= Value of Production – Value of Intermediate goods**
> - **GDP by Expenditure Method =C + I + G + (X – M)**
> - **GDP by Income Method =W+I+P+R =Wages+ interest+ profit + rent**

GDP at - Market Price , Constant Price, Factor Cost,

Market prices

- The prices as paid by the consumers.
- Market prices also include product taxes and subsides
- It measures inflation.

> **GDP at Market Price =GDP at Factor Cost + Taxes- Subsidies**
> **Taxes- Subsidies= Net Indirect Taxes**

Factor Cost

- The term factor cost refers to the prices of products as received by the producers.
- Thus, factor cost is equal to market prices, minus net indirect taxes.
- GDP at factor cost measures money value of output produced by the firms within the domestic boundaries of a country in a year.

> **GDP at Factor Cost = GDP at Market Price – Taxes + Subsidies**
> **(Taxes- Subsidies) = Net Indirect Taxes**

Constant Price

- If Price changes, then there may be difficulties in comparing GDPs.

- For example – GDP at market price for the year 2015 is say Rs 1 Cr and that of 2016 is 2Cr.The increase in GDP in two successive years is attributed to either growth in production or hike in prices.

- Hence real comparison between the GDP of two years will be arrived by eliminating the price effect. For that we calculated GDP of the given year at some constant set of prices called as Constant Prices derived from Base Year.

- Constant price is the price taken from Base year. And GDP calculated at constant price is called Real GDP(R-GDP) and that of current year price is called Nominal GDP(N-GDP)

- Ratio of Real GDP to that of Nominal GDP is called as 'GDP Deflator'

Analysis of GDP Definition

Market value	all final goods & services	produced within country	for a given time period
Calculated at market value – **taking Inflation in.**	**All** – Word 'All' indicated all firms that produced goods and services are registered, legal and accounted. **Final** – goods and services are said to be final based on their economic use	All production done by the national residents or the non-residents in a country gets included, regardless of Whether that production is owned by a local company or a foreign entity.	Year/Quarter

Net Domestic Product

- It accounts for the loss due wear and tear while undergoing production.
- Depreciation loss shows the level of technology at which production is taking place. If depreciation loss is more production technology is understood be poor and vice –versa.

NDP=GDP- Depreciation

Importance /History /Drawback of GDP

- GDP in modern times measured for the first time in USA in 1933 based on the recommendation of National Income Committee chaired by economist Simon Kuznets.
- GDP is an indicator economic growth rather than economic development.
- GDP shows the strength of Economy of any country.
- GDP forms the base for imposing tax.
- It is generally believed that higher the GDP of any country higher is per capita income and better living standard.
- Ideally GDP calculated by three methods shows same result. But in practice any deviation in the result shows discrepancies. If economy is dominated by informal sector like India , the discrepancies are wide.
- Following things are not taken into consideration while calculating GDO-
- Underground Economy , Non-Marketed Activities ,Barter Exchanges , Negative Externality , Opportunity cost , Income Inequality
- Therefore, GDP is not taken as a welfare index.

Gross National Product (GNP)

GNP = GDP + Net Income from abroad

- Net Income from abroad = (Indian Citizen working abroad – Foreign Citizen working India)
  Net Income from abroad (NFIA) Component
  1) Trade Balance=Export Income -Import Income
  2) Net Interest Payment
  3) Pvt. Remittance

- For India =>GNP = GDP - Net Income from abroad (due higher trade deficit and high Interest payment liabilities)
- GNP is bigger concept than GDP as it take into consideration goods and services made by Indian nationals all over the world rather than in India.
- Therefore it shows 1) Internal and External strength of the economy, 2) **Quantitative & Qualitative aspect of economy , 3) degree of dependence on world**
- GNP indicator is use to compare economies of different countries mainly by IMF, World Bank.

Net National Product (NNP)

NNP = GNP- Depreciation

National Income

NNP at MP – Taxes + Subsidies =National Income (NI)

- This aggregate is called _National Income-denoted by 'NI'._
- _All other aggregate (GDP/NDP/GNP/NNP)also indicates national income but they are denoted as 'ni'_

Per Capita Income

- NI divided by population is called Per Capita Income
- It shows the shareholders in income and nor the distribution of Income.

Personal Income-PI

- PI ≠ NI
- National Income measures only Earned Income
- IRBNE(Income Received but not earned)-Subsidy, Scholarship,
- IEBNR(Income Earned but not received)- PF, Pension, Undistributed profit
- PI= GDP+IRBNE-IEBNR

Disposable Income-DI

- DI= PI-(PT+S) where Personal Tax- PT , Saving-S

National Income Measurement in India

- *__National Statistical Office (NSO)__* under the Ministry of Statistics and Proagramme Implementation measures the aggregates of National Income and released the data annually, half yearly and quarterly.
- NSO was formed in 2019 by merging erstwhile two institutions – CSO and NSSO.
- This office also brings out (CPI – Consumer Price Index),(IIP – Index of Industrial Production), Annual Survey of Industries(ASI) , Family health survey(FHS), Unemployment and employment survey(E-US), household survey.

New method of Calculating GDP

- In 2015 CSO (now NSO) has changed the method of calculating GDP.
- These changes are in line with System of National Accounts (SNA).
- System of National Accounts (SNA) is the standard use by leading economies to calculate National Income.
- CSO calculates the GDP at market price now – earlier factor cost.
- It changed the base year from 2004 to 2011-12
- It divided the economy into 8 fields-
  Primary- 1) Agri and Allied activities
  Secondary - 2) Mining and Quarrying, 3) Manufacturing
  Tertiary - 4) Supply and Utility- Electricity, Gas, Water,
  5) Construction, 6) Trade, Hotel, Transport, Communication& Broadcasting, 7) Financial, Real estate, Professional Services
  8) Public Administration, Defense, Others
- It gives new income method of calculating GDP
- GDP =Compensation +Consumption of Fixed Capital +Mixed income/ Operating Surplus

Before 2015	From 2015
GDP at FC+ Taxes-Subsidies =GDP at MP	Gross Value added at FC + Production Taxes -Production Subsidies = GVA at Basic Price
GDP at MP divided by GDP deflator =GDP at Constant Price	GVA at Basic Price + Product Taxes - Product Subsidies =GDP at Market Price(MP)
Official GDP of India GDP at Factor Cost = GDP at Constant Price -Taxes-Subsidies	Official GDP of India GDP at MP divided by GDP deflator =GDP at Constant Price-

NOTES ON THE STATEMENTS

ACRONYMS USED IN THE PRESS RELEASE

GDP: Gross Domestic Product

GVA: Gross Value Added

GNI: Gross National Income

NDP: Net Domestic Product

NNI: Net National Income

GNDI: Gross National Disposable Income

PFCE: Private Final Consumption Expenditure

GFCE: Government Final Consumption Expenditure

CFC: Consumption of Fixed Capital

GFCF: Gross Fixed Capital Formation

CIS: Changes in Stock

CE: Compensation of Employees

OS: Operating Surplus

MI: Mixed Income

ROW: Rest of the World

FORMULAE

1. GVA at basic prices = CE + OS/MI + CFC + Production taxes less Production subsidies
2. GVA at factor cost (earlier referred to as GDP at factor cost) = GVA at basic prices – Production taxes less Production subsidies
3. GDP = $\sum$ GVA at basic prices + Product taxes - Product subsidies
4. NDP/NNI = GDP/GNI - CFC
5. GNI = GDP + Net primary income from ROW (Receipts less payments)
6. Primary Incomes = CE + Property and Entrepreneurial Income
7. NNDI =NNI + other current transfers from ROW, net (Receipts less payments)
8. GNDI = NNDI + CFC = GNI + other current transfers from ROW, net (Receipts less payments)
9. Gross Capital Formation= Gross Savings+ Net Capital Inflow from ROW
10. GCF = GFCF + CIS + Valuables + "Errors and Omissions"
11. Gross Disposable Income of Govt. = GFCE + Gross Saving of GG
12. Gross Disposable Income of Households = GNDI – GDI of Govt. – Gross Savings of All Corporations

GDP of 2019-20

1) India and the world

- In 2019-20(Estimated)India was 5th largest economy with GDP of $ 2.99 trillion on Nominal basis.(As per the world economic outlook Oct.2019 database)

- If GDP compares on purchasing power parity basis, India stands 3rd largest economy after China and United States.

2) India in 2019-20

Growth rate

- Q1 FY-20 => Achieved 5.6 % growth rate against the projection of 8%.
- Q2 FY-20 =>Achieved 5.1% growth rate against the projection of 5.3%.
- Q3 FY-20 =>Achieved 4.7% growth rate.
- GDP (Apr- Dec) FY 20 =>5.1%
- Reason =>Recession

Projection

- Real GDP FY 20 => 5%, **INR *Rs.146.84 Lakh Cr***
- Q4 FY-20 => 4.7%

Indian Economy is in Recession!

- *In an economy, a recession happens when <u>output declines for two successive quarters</u> (that is, six months).*

- *Output as measured by –GDP, Index of Industrial Production(IIP) etc*

- *Over the past <u>seven consecutive quarters</u>, economic growth in India has decelerated with every quarter.*

- *It has both internal and external factors (Impact of Global Slowdown) that caused this recession.*
- *GDP =>FY 20=> Q1- 5.6%, Q2 – 5.1% , Q3 – 4.7%*
- *Apr to Dec FY20 => 5.1%*
- *Apr to Dec FY19 => 6.3%*

Other symptoms of recession

- *Fall in demand => Low sales growth => Consumer durables , Automobiles, FMCG*
- *Increase in unemployment-*
- *1) As per Periodic Labour Force Survey (PLFS) 2017-18 unemployment in India was at a 45-year high*
- *Low Inflation*

GDP Data for the Year 2018-19

1) India and the world

- In 2018-19 India was 6th largest economy with GDP of $ 2.59 trillion on nominal basis.

- If GDP compares on purchasing power parity basis, India stands 3rd largest economy after China and United States.

- According to IMF India continues to be Fastest growing economy since 2014.

2) India in 2018-19

- GDP →Rs 14077586 Cr (Constant Price) => Now revised to RS 13,981,426 Cr

- Rate → 6.6% (Lower than 2017- 18) => Now revised to 6.1%

- Why?

   1) Low growth in some sector =>'Agriculture & allied', 'Trade, hotel, transport, storage, communication and services related to broadcasting' 'Public administration & defence' sectors.

   2) Low Demand

Table 0.1 : key Indicator

Data Categories	Unit	2015-16	2016-17	2017-18	2018-19
GDP and Related Indicator					
GDP at current market Prices	Rs. Crore	13771874	15362386	17095005	19010164[a]
GDP at constant Market Prices	Rs. Crore	11369493	12298324	13179857	14077586[a]
Growth Rate	(Per Cent)	8.0	8.2	7.2	6.8[a]
GVA at constant basic prices	Rs. Crore	10491870	11318972	12104165	12906936[a]
Growth Rate	(Per Cent)	8.0	7.9	6.9	6.6[a]
Goss Savings	% of GDP	31.1	30.3	30.5	NA
Gross Capital Formation	% of GDP	32.1	30.9	32.3	NA
Per Capital Net National Income (at current Prices)	Rs.	94797	104659	114958	126406[a]

(Source : Economic Survey of India 2018-19)

Supply and Demand Side of Economy in 2018-19

Demand Side

- Demand Side has always been 'Driver of Economy'.

- 1) Consumption→A) Private Final Consumption, B) Government consumption

- Consumption is biggest driver of growth in 2018-19. It accounts for 70% of GDP .This shows that - The huge size of the economy serves as a big market for businesses.

- Also the year 2018-19 witnessed that pattern of consumption has undergone some change over time – from essentials to luxuries and from goods to services

- 2) Investment = Fixed investment +Change in stock +Valuables (As the saving rate has declined, so has the investment rate.)

- 3) Export→ due to rising trade protectionism Import growth is more than export growth

Table 2: Components of aggregate demand

Components	Real growth (per cent)			Share at current prices (per cent)		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Total consumption	7.8	8.6	8.3	69.6	70.0	70.6
Government consumption	5.8	15.0	9.2	10.3	11.0	11.2
Private consumption	8.2	7.4	8.1	59.3	59.0	59.4
Fixed investment	8.3	9.3	10.0	28.2	28.6	29.3
Change in stock	-48.2	21.2	4.8	0.9	1.0	1.0
Valuables	-18.9	27.4	-9.0	1.1	1.3	1.0
Exports of goods and services	5.1	4.7	12.5	19.2	18.8	19.7
Imports of goods and services	4.4	17.6	15.4	21.0	22.0	23.6
GDP at market prices	8.2	7.2	6.8	100	100	100

(Source : Economic Survey of India 2018-19)

Supply Side 2018-19

❑ *GVA reflects the supply or production side of the economy*

Table 4: Gross Value Added at Basic Prices by Economic Activity

	Real growth (per cent)			Share at current prices (per cent)		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Agriculture, forestry & fishing	6.3	5.0	2.9	17.9	17.2	16.1
Industry	7.7	5.9	6.9	29.4	29.3	29.6
Mining & quarrying	9.5	5.1	1.3	2.3	2.3	2.4
Manufacturing	7.9	5.9	6.9	16.8	16.4	16.4
Electricity, gas, water supply & other utility services	10.0	8.6	7.0	2.5	2.7	2.8
Construction	6.1	5.6	8.7	7.8	7.8	8.0
Services	8.4	8.1	7.5	52.7	53.5	54.3
Trade, hotel, transport, storage, communication & services related to broadcasting	7.7	7.8	6.9	18.2	18.2	18.3
Financial, real estate & professional services	8.7	6.2	7.4	20.9	21.0	21.3
Public administration, defence and other services	9.2	11.9	8.6	13.6	14.3	14.7
GVA at basic prices	7.9	6.9	6.6	100.0	100.0	100.0

(Source : Economic Survey of India 2018-19)

Sectoral Growth

Agriculture

- Sector saw low growth rate that caused the low agriculture production.
- 2018-19 = 283-4 Million .Tons
- 2017-18 = 285 Million .Tons
- 2016-17 = 275-1 Million .Tons
- Reasons of low growth rate=> 1) Rain deficiency 2) Decline Food Prices trends

Industry

- Growth in industry accelerated during 2018-19 on the strength of improving manufacturing & construction activity

Services

- key driver of economic growth .GDP => 54%
- Share of service in total exports => 38.4 % and world service exports =>3.5 per cent

3) For the Last 5 years

TABLE 2 : MACRO-ECONOMIC AGGREGATES
(Base Year: 2011-12 At Constant Prices)

(Amount in ₹ Crore)

Item/Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7	8
GVA at Basic Prices	8546275	9063649	9712133	10491870	11318972	12104165	12906936
Net taxes on products	666741	737721	815541	877623	979355	1075693	1170650
Gross Domestic Product	9213017	9801370	10527674	11369493	12298327	13179857	14077586
Consumption of Fixed Capital	1010661	1100610	1178644	1270890	1380954	1502962	1602641
Net Domestic Product	8202356	8700760	9349029	10098603	10917373	11676896	12474945
Primary income receivable from ROW (net)	-108354	-122343	-124687	-134922	-144573	-145736	-145299
Gross National Income	9104662	9679027	10402987	11234571	12153754	13034121	13932287
Net National Income	8094001	8578417	9224343	9963681	10772800	11531159	12329646
Gross Capital Formation	3639296	3448236	3659763	3917358	4146020	4679689	-
Net Capital Formation	2628635	2347626	2481119	2646468	2765066	3176728	-
Per Capita GDP (₹)	74599	78348	83091	88616	94675	100151	105688
Per Capita GNI (₹)	73722	77370	82107	87565	93562	99043	104597
Per Capita NNI (₹)	65538	68572	72805	77659	82931	87623	92565
Per Capita PFCE (₹)	41936	44423	46667	49738	53149	56364	60185

(Source : RBI Statistical Book 2018-19)

TABLE 222 : SELECT MACRO-ECONOMIC AGGREGATES - GROWTH AND INVESTMENT RATES
(At Constant Prices)

(Per cent)

Item/Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7	8
Annual Growth Rate							
GVA at Basic Prices	5.42	6.05	7.15	8.03	7.88	6.94	6.63
Gross Domestic Product	5.46	6.39	7.41	8.00	8.17	7.17	6.81
Gross National Income	5.14	6.31	7.48	7.99	8.18	7.24	6.89
Net National Income	4.54	5.98	7.53	8.02	8.12	7.04	6.92
Per Capita NNI	3.27	4.63	6.17	6.67	6.79	5.66	5.64
As % of GDP							
Gross Capital Formation	39.50	35.18	34.76	34.45	33.71	35.51	-
Net Capital Formation	28.53	23.95	23.57	23.28	22.48	24.10	-

(Source : RBI Statistical Book 2018-19)

The table shows

- India's growth of real GDP has been high with average growth of 7.5 per cent in the last 5 years (2014-15 onwards).
- **According to IMF from 2014-2018 , India was fastest growing economy in the world**

Figure 1 : Average growth of GDP during 2014-17 (per cent)
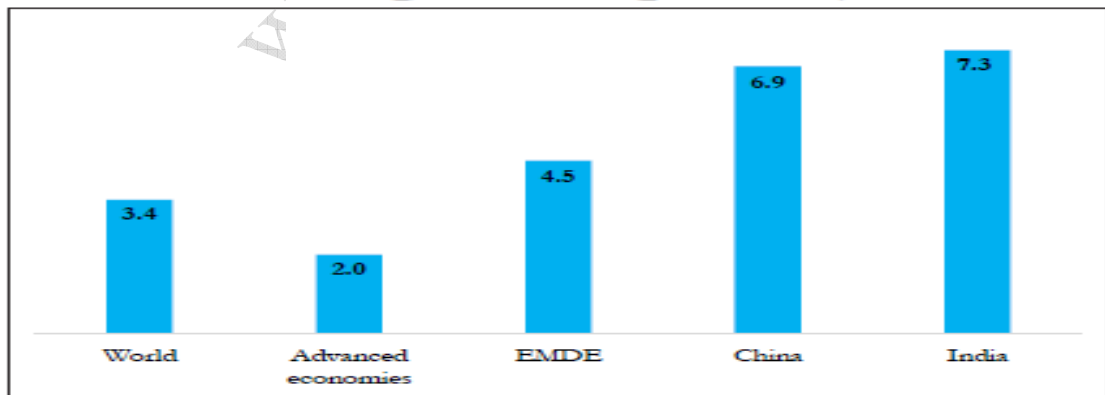
Source: Based on IMF's World Economic Outlook Database (October 2017)

(Source : Economic Survey of India 2018-19)

Major steps in India's growth story

Year	
1950--90	~ 3.71% Hindu Growth rate
After 1991	Rapid Growth rate Reason- LPG
2008-09	3.1%- Recession 2008
2010-11	8.5% - Highest Ever
2016-17	8.1 %
2017-18	7.2%
2018-19	6.8%
2014-15 onwards	7.5 %

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