Concepts in macroeconomic analysis

[Economics](#)

Concepts in Macroeconomic Analysis Stock and Flow Variables ï‚· Stock: quantity of a variable at a point in time. Eg: Capital stock, money supply, unemployment level, foreign exchange reserve, etc. ï‚· Flow: quantity expressed for a period of time. Eg: GDP, inflation, exports, consumption, etc. Aggregate Demand and Aggregate Supply ï‚· Aggregate Demand: sum of demands for all consumer goods and services and for capital goods — Sum of consumption, investment, government expenditure and net export. ï‚· Aggregate Supply: sum of the supplies of all consumer goods and services and of capital goods — The amount of output the economy can produce given the resources and technology available National Income — Concepts and Measurement Different concepts of NI - (i) Items included in or excluded from the NI concept; (ii) Method of estimating NI Gross Domestic Product (GDP) — The sum of market value of all final goods and services produced in a country during a specified period of time, generally one year. Also called GDP at market prices (GDPMP) ï‚· GDP at factor cost (GDPFC) is the sum of all factor payments (wages, interest, rent, profits and depreciation) ï‚· GDPFC= GDPMP — Net indirect taxes, where Net indirect taxes = Indirect taxes — Subsidies. GNP vs. GDP ï‚· GNP measures the total value of all final goods and services that a country's citizens produce regardless of where they produce them. Example: Profits of Indian MNCs earn in overseas market is included in India's GNP. GDP measures the total value of goods and services that are produced within a country's geographical borders. Example: An Indian MNC in China will actually contribute to Chinese GDP. ï‚· GDP = GNP — NFIA (Net Factor Income from Abroad), where NFIA= income earned by residents abroad — income earned by non-residents from our country. 1 Net National Product (NNP) ï‚· ï‚· ï‚· GNP included final consumer goods + capital

goods Depreciation: part of capital goods that is used up or consumed in the process of production Usually covered under Gross Investment, (Gross Investment = Net Investment + Replacement Investment/Depreciation) NNP = GNP — Depreciation ï,· ï,· NNPFC = NI (the actual measure of National Income) Per Capita Income = (NNPFC = NI) / Total Population Personal Income (PI): The sum of all kinds of income received by the individuals from all sources of income — The share of NI actually received by the HH sector. ï,· Personal Income (PI) = National Income (NI) — Income earned but not received (undistributed corporate profits, social security contributions by the HHs, etc.) + Income received but not earned (transfer payments by business and govt. to HHs). Disposable Personal Income (DPI): the income at the disposal of a person, DPI = PI — Direct Taxes. Nominal and Real GNP ï,· ï,· ï,· ï,· ï,· GNP is estimated at current and constant prices Nominal GNP: market value of all final goods and services measured in current year prices. Real GNP: market value of all final goods and services measured in the price of a base year (constant prices). Why do we estimate GNP at constant prices? How to convert the nominal (current) values into real (constant) values? GNP Deflator ï,· ï,· ï,· ï,· ï,· An index of price changes for goods and services included in GNP Used to deflate the nominal GNP to eliminate the price effect to find real GNP for any year GNP Deflator = (Price Index for the current year) / (Price Index for the base year, i. e. = 100) Real GNP = Nominal GNP / GNP Deflator; GNP Deflator = (Nominal GNP / Real GNP) x 100. Paradox of Thrift ï,· ï,· ï,· Paradox of thrift is important to the Keynesian theory When consumers save more, spending decreases and equilibrium output is lower Unemployment would rise and incomes would fall as people lost their jobs causing both consumption and saving to fall as well 2 ï,· Thus, attempts by

people to save more lead both to a decline in output and to unchanged saving. This surprising pair of results is known as the paradox of saving (or the paradox of thrift). Relationship between Macroeconomic Concepts ï,· NNPMP = GNPMP — Capital Consumption Allowance ï,· National Income = NNPMP — Indirect Business Tax — Business Transfer Payments — Current Surpluses of Government Enterprises + Government Subsidies. ï,· National Income = GNPMP — [Capital Consumption Allowance + Indirect Business Tax + Business Transfer Payments + Current Surpluses of Government Enterprises — Government Subsidies]. ï,· Personal Income = National Income — Undistributed Profits — Profits Tax — Employers' Contribution for Social Insurance — Employees' Contribution for Social Insurance + Government Transfer Payments to Persons + Business Transfer Payments + Net Interest Paid by Government + Interest Paid by Consumers. ï,· Disposable Personal Income = Personal Income — Personal Taxes. ï,· Personal Outlays = Disposable Personal Income — Personal Savings. Measurement of NI — Methods ï,· ï,· ï,· Product Approach Factor Income Approach Expenditure Approach (a) The Product Method ï,· ï,· ï,· Also known as Output Method or Value Added Method Either by valuing all the final goods and services during a year Or by aggregating the values imparted to the intermediate products at each stage of production Method 1: ï,· ï,· ï,· ï,· Classification of output under various categories o (15 sub-categories are currently used in India) Computation of gross value of output of each category by multiplying the output of each category by their respective market prices and adding them together OR by summing up the value added at each stage of production This gives GDP at market prices 3 Method 2: ï,· ï,· ï,· ï,· By estimating the cost of production including depreciation Complicated and difficult task due to o

non-availability of cost data o Estimating depreciation Gives GDP at factor cost (because do not include indirect taxes and subsidies) Adding net income from abroad (income received abroad — income paid abroad), gets GNP at factor cost. (b) The Income Method ï,· ï,· Also known as factor share method Sum of the incomes accruing to the basic factors of production used in producing the national products o Rent + wages + interests + profits + depreciation = GDP at factor cost o Plus net income from abroad = GNP at factor cost (c) The Expenditure Method ï,· ï,· ï,· ï,· Measures NI at final expenditure stage Excluded all expenditure on intermediate goods Sum of all money spend by individuals, firms and government within a year = GDP at market prices (Y) = Consumption (C) + Investment (I) + Government Expenditure (G) + Exports and factor income from abroad (X) - Imports and factor income paid abroad(M) Y= C+I+G+X-M Problems of measuring GNP ï,· ï,· ï,· ï,· ï,· ï,· Determining what is ' final' and what is not (problem of double counting) Evaluation of non-marketed goods and services o Example: - The goods and services produced and consumed at home, that never enter the market place The services of housewives, women at HHs. Many economic activities by unorganized sector Black money, black market items, income from illegal activities and professions, etc. Does not consider certain factors affecting people's welfare (like income distribution, environmental damages) 4