The Measurement and structure of the National Economy- Part I

- Reference
- Abel Bernanke et.al Macroeconomics

  Chapter 2 covers pgs 22-41

National income accounts: an accounting framework used in measuring current economic activity.

Three alternative approaches give the same measurements:

I Product approach: the amount of output produced.
II Income approach: the incomes generated by production.
III Expenditure approach: the amount of spending by purchasers
They must be, by definition: Any output produced (product approach) is purchased by someone (expenditure approach) and results in income to someone (income approach).

The fundamental identity of national income accounting:

Total production = Total income = Total expenditure.

Numerous transactions occur that have nothing to do with final goods and services being produced.

- Exclusion of financial transactions: Securities:Stocks and bonds
    - Government transfer payments:Social Security. Unemployment compensation
    - Private transfer payments: Individual gifts, Corporate gifts
    - Sale of second hand goods/ illegal transaction/underground economy/household services

GDP’s limitations

- Excludes non-market production
- It is not necessarily a good measure of the well-being of a nation.
- GDP is not a measure of a nation’s overall welfare.
- GDP is a measure of the value of production in terms of market prices, and an indicator of economic activity.

Product Approach

Value Added= Value of final goods & Services –Cost of intermediate goods & Services
It avoids double counting
GVA at market Price =GDP at market price

GDPmp – Depreciation = **NDPmp**
NDPmp +Net Factor Income from Abroad, NFYA(ROW)=**NNPmp**
NNPmp-Net Indirect Taxes= N**NPfc** or at factor cost (**NATIONAL INCOME)**
Net Indirect Taxes(NIT) = indirect taxes-subsidies

The product approach to measuring GDP:

Market value: allows adding together unlike items by valuing them at their market prices.

Newly produced: counts only things produced in the given period; excludes things produced earlier.
Final goods and services:
Final goods / Capital goods /Inventory investment /Adding up value added works well

Don't count intermediate goods and services

Value Added method or output method

- Final Goods and Services
  - Goods and services that are at their final stage of production and will not be transformed into yet other goods or services

The income approach to measuring GDP

Adds up income generated by production (including profits and taxes paid to the government).

NDPfc= compensation of employees (including benefits) +operating surplus +Mixed income of self employed

NDPfc+NFYA= NNPfc or National Income

Also to note:

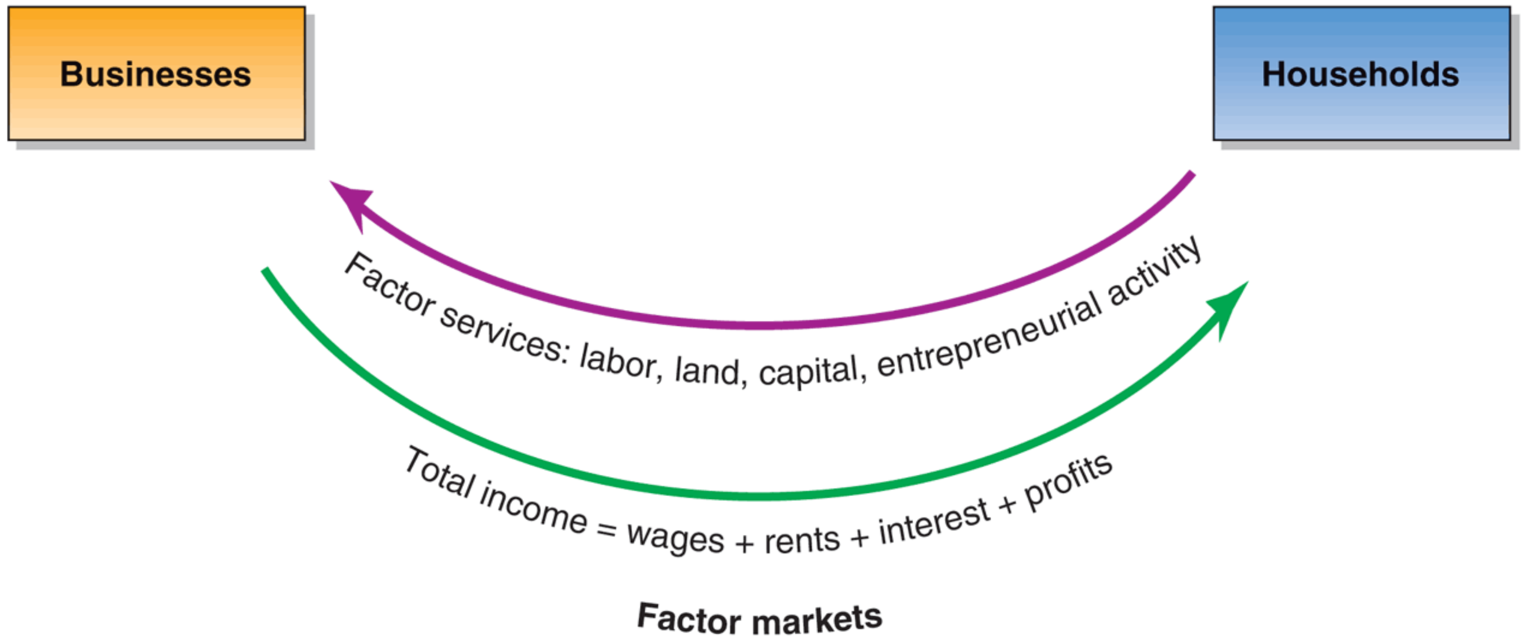
GDPmp+NFYA=GNPmp

NNPfc+Depreciation=GNPfc

GNPfc +NIT=GNPmp

GNPmp-NFYA=GDPmp

Income Method



The expenditure approach to measuring GDP

Measures total spending on Final goods and services produced within a nation during a specified period of time.

Four main categories of spending:

consumption (C), investment (I), government purchases of goods and services (G), and net exports (NX).

The income-expenditure identity: Y = C + I + G + NX= GDPmp

GDPmp – Depreciation = **NDPmp**

NDPmp +Net Factor Income from Abroad, NFYA(ROW)=**NNPmp**

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Aggregate income aggregates are:

GDPmp

GDPfc

GNPmp

GNPfc

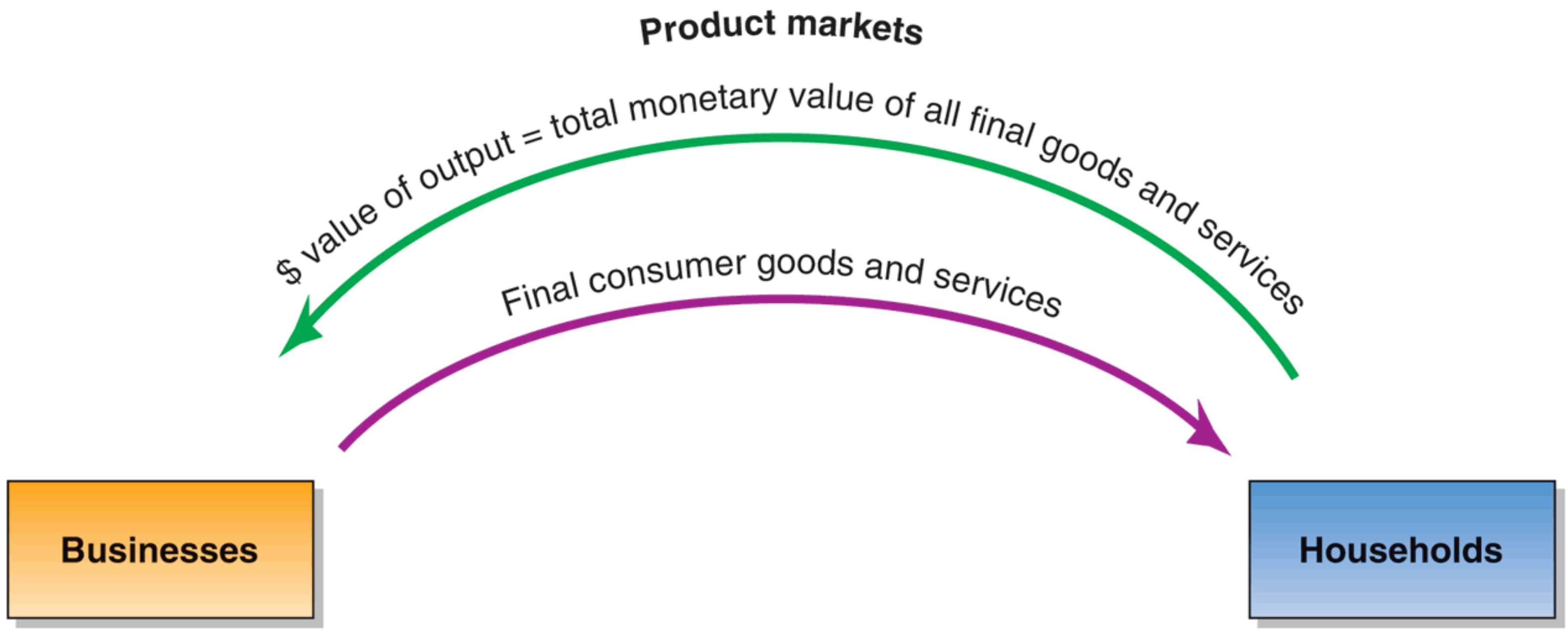
NDPmp

NDPfc

NNPmp

NNPfc=National Income

Expenditure approach



Private sector and government sector income

Private disposable income = income of the private sector = private sector income earned at home (Y or GDP) and abroad (NFP) +Transfer payments(TR)+Interest on National Debt(INT)-Taxes(T)

Government's net income: T − TR − INT.

Private disposable income + government's net income: GDP + NFP = GNP.

Measures of aggregate saving Saving = current income - current spending.

Saving rate = saving/current income.
Private saving = private disposable income - consumption:
Spvt = (Y + NFP+ TR + INT- T) − C(Consumption)

Government saving = net government income - government purchases of goods and services

National saving = private saving + government saving:

Government saving = **Government budget surplus** = government receipts - government outlays:

Government receipts = tax revenue (T).
Government outlays = Government Expenditure(G)

Government budget deficit = − Sgovt.

Simplification: count government investment as government purchases, not investment.
S= C+I+G+(X-M) + NFYA-C-G, simplifying

S = I + (NX + NFP) = I + CA,
Since S = Spvt + Sgovt, therefore, Spvt=S-Sgovt
Subtracting (-Sgovt) on both sides of the equation S=I+CA we get,
Spvt=I+(-Sgovt)+CA
where CA = NX + NFP is current account balance.
The uses-of-saving identity saving Spvt=I+(-Sgovt)+CA
is used in three ways:
(1) investment (I);
(2) government budget deficit (−Sgovt); and
(3) current account balance (CA)

WEALTH

Household wealth = a household's assets minus its liabilities.
National wealth = sum of all households', firms', and Governments' wealth within the nation.
Saving by individuals, businesses, and government determine wealth.

Relating saving and wealth

Stocks and Flows:
Flow variables: measured per unit of time (GDP, income, saving, investment).
Stock variables: measured at a point in time (quantity of money, value of houses, capital stock).
Flow variables often equal rates of change of stock variables.
Wealth and saving as stock and flow (wealth is a stock, saving is a flow).

National wealth: domestic physical assets + net foreign assets.
Country's domestic physical assets (capital goods and land).
Country's net foreign assets.
Wealth matters because the economic well-being of a country depends on it.

Changes in national wealth
Change in value of existing assets and liabilities.
National saving ($S = I + CA$) raises wealth.