Shortened recapitulation of conventional equations

Approach to formation of Yield

$$Y = C + S$$

Yield = Consumption (Expenditures) + Save
whereby C known as Consumption expenditures

Approach to use of Yield

$$Y = C + I_n$$

Yield = Consumption + Net Investment
whereby C known as Consumption expenditures

Identity Equation
in a closed economy (without foreign trade)

$$S = I_n$$

Save = Net Investment

Balanced Budget
in a closed economy (without foreign trade)

$$I_{(i)} = S_{(Y)}$$

Investment = Save
whereby (i) = interest and (Y) = Yield

Economic Savings

$$S = Y - C - G$$

Yield
./. Consumption
./. Government Spending
= Save

Government Spending/Purchases

$$G$$

Expenditures by all levels in the public sector are education, healthcare, social protection, direct investments in provision of housing and traffic infrastructure, acquisition of military goods, property management and research spending, pay and stipends for governing authorities

Net Export (stock size)

$$N_x = Ex - Im$$

Net Export = Export - Import

Identity Equation
in an open economy with foreign trade

$$S = I + N_x$$

Save = Investments + Net Export

OC - Outside Contribution

$$Y = C + I + N_x$$

whereby N_x = Ex - Im

CB - Current balance (momentum size)

$$Y_1 + Im_1 = C_2 + I_2 + Ex_2$$

whereby CB ≠ N_x

Depreciation	Gross Investment
D	I_g
known as Capital Consumption	The purchase of Capital goods: tool, machines, instruments, facilities, other and own constructions (in-kind benefit by own production), additional inventories (input for production factors or stock of inventory) including purchase of financial assets (stocks and bonds).

Gross Domestic Product (GDP) – Market Value by amount that CONSUMERS pay for FINAL goods and services (not as components)	Net Domestic Product (NDP) at factor costs Market Value by amount it costs PRODUCERS to make (form) used and consumer goods (commodities, durables) and services by using INTERMEDIATE goods (including components) and by combining factors of production: Work (W), Nature (N) or (G) Ground, Capital (C)
$AE = C + I + G + NX$	$Y = H_{(p)} + i_{(C)} + r_{(C)} \pm PL_{(E)}$
Consumption + Investment ≠ I_g (including stocks and bonds) + Government Spending + Net Export (Ex - Im) = Yield by Aggregate Expenditures (AE)	Human payrol expenses (Compensation of employees,Salaries,Wages) + Interest Amount indexed with Capital (C) + rent indexed with Capital (C) + Profit & Loss (accumulated Deficit) indexed with Enterprise/Entrepreneur (E) = NDP (Net Domestic Product at factor cost) + indirect taxes on sales + subsidies by government to Enterprise (E) + Depreciation (known as Capital Consumption) = Yield by Aggregated or Earned Income

Net Tranfer (NT)
excluding of social security contribution and social security charges (e.g. governmental fees, custom dues, development assistance, benefit to non-government institutions, education, academic research)

$$NT_{(S)} = t_{(S)} [(H)+(E)] - b_{(S)} [(H)+(E)]$$

taxes from Households (H)
+ taxes from Enterprise/Entrepreneur (E)
– transfer benefits/payments to Households (H)
– transfer benefits/payments to Enterprises (E)
= Net Tranfer (NT) according to State (S)

Gross Domestic Product (GDP) – Market Value by amount that CONSUMERS render (use) for final goods and services (not as components)

$$Y = C + S + NT_{(S)}$$

Consumption
+ Savings (excluding interest)
+ Net Transfer according to State (S)
= Yield by Aggregate Usage

Net operation surplus earned by (N), (C), (E)

$$i_{(C)} + r_{(C)} \pm PL_{(E)}$$

+ Interest Amount indexed with Capital (C)
+ rent indexed with Capital (C)
+ Profit & Loss (accumulated Deficit) indexed with Enterprise/Entrepreneur (E)

adjusted Gross Domestic Product (GDP)

Yield (Income Approach)
./. statistical discrepancies
= GPD (Expenditure Approach)

whereby GDP by Aggregated Expenditures (AE) unequal to Aggregated or Earned Income (Y)

Gross National Product (GNP)

GDP (Gross Domestic Product)
+ net factor income from abroad
= GNP (Gross National Product)

Net National Product (NNP)

GNP (Gross National product)
- Depreciation
= NNP (Net National Product)

National Income (NI)

NNP (Net National Product)
./. statistical discrepancies
= NI (National Income)

Personal Income (PI)

NI (National Income)
- retained profits
+ transfer payments
= PI (Personal Income)

Disposable Personal Income (DPI)

PI (Personal Income) by Households (H)
./. Personal Income Tax
= DPI (Disposable Personal Income)

Level of the Price

$$°P$$

prefixed ° degree sign followed by upper case P

Inflation

$$°P_2 - °P_1 > 0$$

Money supply

$$(M)$$

determinant Money with parenthesis

Money creation

$$(M)_2 - (M)_1 > 0$$

Circulation of Speed for Money

$$Cs_{(M)}$$

**Circulation of Speed (Cs)
indexed with Money supply (M)**

Equation of the price level

$$°P = [(M) \times Cs_{(M)}] \div Y$$

**Level of the price =
Money supply multiplied with Circulation of Speed (Cs) divided by Yield**

**Circulation of Speed for Money
increases or remain constant**

$$Cs_{2(M)} - Cs_{1(M)} > 0$$

**Circulation of Speed (Cs)
indexed with Money supply (M)**

**Inflation Equation
showing the change rates
of the reporting periods**

$$(M)_2 - (M)_1 > [Y_2 - Y_1] - [Cs_{2(M)} - Cs_{1(M)}]$$

**Money creation greater than difference
of Yield creation and Circulation of Speed $Cs_{(M)}$**

**Identity Equation
approach to quantity of Yield**

$$Y \times °P = (M) \times Cs_{(M)}$$

**Yield multiplied with Level of the Price
is equal to Money supply (M) multiplied with
Circulation of Speed $Cs_{(M)}$**

Nominal Yield creation

$$Y_2 - Y_1 > 0$$

Real Yield creation (real GDP divided by person)

$$Y_2 \div H_{rp} - Y_1 \div H_{rp} > 0$$

whereby H (Humanity)
indexed with residential population

Consumer Price Index (CPI)
underlying consumer basket
(standard cost of living)

$$CPI = 100\%$$

based up to 200 categories on a percentage basis quantify the performance of purchasing power comparing to °(P) Level of the Price that qualify the performance of money (M)

Nominal Gross Domestic Product (NGDP)
actual-actual comparision
between reported periods

$$NGDP = p_1 x_1$$

whereby Y = NGDP, p = price, x = amount;
value of the FINAL goods and services produced in a given year (reported period) expressed in terms by the prices of the SAME year (same period)

Real Gross Domestic Product (RGDP)
nominal-actual comparision
between a fixed year (base period = 100 %)

GDP deflator

$$\Rightarrow (NGDP \div RGDP) \times 100\%$$

$$\Rightarrow (p_1 x_1 \div p_n x_1) \times 100\%$$

whereby Y = NGDP, x = amount,
GDP deflator is average of current prices,
p indexed with n = price in base year;
Value of the FINAL goods and services produced in a given year (reported period) expressed in terms by the prices of the BASE year (base period)

Potential Gross Domestic Product Y_p
all factors of production known as
Work (W), Capital (C), Nature (N) and
Enterprise/Entrepreneur (E) are fully employed

$$Y < Y_p$$

labor and other factors of production are unemployed

$$Y = Y_p$$

labor and other factors are fully used

$$Y > Y_p$$

labor and other factors are over-employed

Other determinants

TX – Terra X (worldwide, one planet)
SX – Space X (extraterrestrial, one galaxy)
WB – World Balance (the fourth sector)
CB – Current Balance
OC – Outside Contribution

$M_{(P)}$ – Goods Market
indexed with Product (P)

$M_{(R)}$ – Resource Market
indexed with Resource (R)

$M_{(M)}$ – Financial Market
indexed with Money (M)

UR – Unemployment Rate
$BC_{(E)}$ – Blank Cheque by Enterprise (E)