

# Macro Terms in New 2005 Syllabus

## **Circular flow**

A mechanistic model depicting the major interrelationships and flows, real and monetary, between the major 'players' (decision making units) of an economy. [// Since for an economy to exist at the very least production and consumption activities must take place, the circular flow model must in its simplest version include households and firms; there is a flow of factors from households to firms and a flow of goods and services from firms to households (real flows); in the opposite direction there is a monetary flow of payments for the factors (the sum of which is national income (Y)) and of household expenditures on goods and services. If there is no tomorrow (a 'one-shot' model) then the two flows must be equal. If there is a 'tomorrow' then part of income may be saved (a leakage, a 'withdrawal' from the circular flow) while firms themselves will be spending on (capital) goods so there will be investment spending (an 'injection'). This 'system' will thus be in equilibrium (in the sense that the flow of income; of measured economic activity through time will not tend to change) if the leakage(s) (only saving up to now) is (are) equal to the injection(s) (investment spending up to now). (The model becomes more realistic if we add the government and the foreign sector; then we should add two more injections {spending on goods and services by the Government (G) as well as spending on domestic goods and services by foreigners (X)} and two more leakages {taxes (T) and domestic spending on foreign goods and services M}).]

## **Income, expenditure and output method**

Three equivalent in principle methods of measuring overall economic activity. The output method includes all final goods and services produced within a period of time; the income method adds all incomes that this production process generates (wages, profits, interest and rents); the expenditure method sums all the expenditures made for the purchase of these final goods and services produced (note that any output produced but not purchased is considered to be bought by the firms themselves (unplanned increase in inventories – a component of investment spending)).

## **Gross Domestic Product**

The value of all final goods and services produced within (the boundaries of) an economy over a period of time, usually a year (independently of the nationality of the factors involved).

## **Real GDP**

GDP after isolating (adjusting for) the effect of inflation; real GDP thus measures the volume of output; a measure of overall economic activity.

## **Gross National Product**

The total income earned by a nation's permanent residents for contributions to current production that takes place anywhere in the world (Mankiw, Economics, 3<sup>rd</sup>, p.504 with Lipsey & Harbury, 2<sup>nd</sup>, p.262); GNP equals GDP plus property (i.e. derived from assets) income from abroad minus property income paid abroad.

## **Net Investment**

Defined as gross investment spending minus capital consumption (depreciation; the wear and tear of capital equipment); some capital expenditures are for the purpose to replace worn out / obsolete capital ('rusty trucks and old computers') so net investment measures the increase in the stock of capital of an economy.

## **Net National Product**

Defines as gross national product minus depreciation

## **National – domestic**

National aggregates focus on the nationality of factors independently of their location whereas domestic aggregates focus on location independently of the nationality of the factors of production involved. As a result, national aggregates are equal to domestic aggregates plus property income from abroad minus property income paid abroad (interest, dividends, profits, rents)

## **Nominal – real**

Nominal GDP (or and other aggregate) can also be referred to as money GDP and is GDP measured at current prices; real GDP also referred to as GDP at constant prices is GDP after isolating (adjusting for) inflation; real GDP is equal to money GDP over a price index (times 100); along the same line, the real wage measures the wage rate in terms of goods being equal to money wage divided by a price index.

## **Per capita (GDP or Income) or per head**

Is defined as total GDP (or national income) divided by population

## **Economic growth – economic development**

(see the first set of glossary terms with the introductory and micro terms; remember that growth is quantitative whereas development is qualitative)

## **Aggregate Demand**

The level of (planned) spending on domestic goods and services at various possible average price levels; negatively sloped relationship for reasons that are different than the reasons the demand for broccoli slopes downwards. The AD is negatively sloped because of the (a) real wealth effect (b) the interest rate effect and (c) the trade effect; make sure that when you draw the diagram you label the vertical axis 'average price level – P' and the horizontal 'real output/income –  $Y_r$ '. Do *NOT* use P and Q on the axes as it is misleading.

## **Aggregate Supply**

The level of planned output of goods and services at various possible price levels.

## **Full employment**

The term has come to refer to the situation where there is equilibrium in the labor market and thus any unemployment remaining is not demand deficient.

## **Inflationary gap**

An inflationary gap is present if equilibrium (actual) real output (temporarily) exceeds the level corresponding to the full employment level of output (at which equilibrium unemployment exists) as a result of money illusion (as a result of expectations not having fully adjusted).

## **Deflationary gap**

An deflationary gap is present if equilibrium (actual) real output falls short of the level corresponding to the full employment level of output as a result of insufficient aggregate demand.

## **Business / trade cycle**

The short run fluctuations of real GDP around its long run trend;

## **Demand side (management) policies**

Policies aimed at influencing the level of aggregate demand in order to affect the level of output, employment and inflation. They include fiscal and monetary policy.

### **Fiscal policy**

Refers to the manipulation of the level of government spending (G) and of taxation (T) in order to affect aggregate demand; expansionary FP is the case if government spending (G) rises and/or taxes (T) decrease.

### **Budget deficit**

...exists, if government spending (G) exceeds government revenues (T); may be due to *cyclical* reasons (cyclical deficit; as an economy enters recession -  $Y_r$  decreases – tax revenues automatically decrease while spending on unemployment benefits tends to increase G) or, *structural* reasons (structural deficit: if  $G > T$  at the full employment level of output, revealing an expansionary fiscal stance)

### **Monetary policy**

The manipulation of interest rates (or, equivalently, the money supply) and/or of credit conditions in order to affect aggregate demand and thus inflation, output and employment.

### **Multiplier effect (expenditure multiplier)**

The idea, of Keynesian origin, that a rise in injections ( $J = G, I, X$ ) will lead a greater increase of national income. The ratio  $\Delta Y / \Delta J$  is the multiplier and its size depends on the marginal propensity to consume domestic goods or, equivalently, on the marginal propensity to save, the marginal propensity to import and the marginal rate of taxation.

### **Accelerator**

A (Keynesian) theory of investment level determination which leads to investment spending exhibiting considerable volatility and was thus considered responsible (together with the multiplier effect) for the generation of business cycles. The basic premise (as was the case with the Domar model) was that firms wish to maintain a fixed capital / output ratio. Thus, for investment spending to remain constant through time, the rate of output (of national income) would have to continuously grow at a constant rate.

### **Crowding – out**

The idea that expansionary fiscal policy was not as effective as Keynesian theory (through the multiplier effect) posited because deficit spending required financing which would lead to increased interest rates and thus reduced private sector spending. The increased government spending would lead to decreased private investment (and consumption) spending, canceling out much (or all) of the initial effect. Aggregate demand would not shift outward as much as the multiplier effect promised.

### **Unemployment**

...exists when individuals who are actively searching for a job can not find one at the current market wage rate.

### **Underemployment**

...exist when individuals are considered employed but are working less than they would have wanted to or in positions below their skills; for example, a part timer is considered employed but she may have liked to be working full time; an economist is forced to work as a cab driver.

### **Structural**

...the unemployment that remains present way past recovery (The Economist, a long time ago). The result of a mismatch between the skills available by the unemployed and the skills demanded by the (vacant positions in the) labor market as well as of distorted incentives that are institutionally built – in the labor market (such as high unemployment benefits)

### **Seasonal**

... unemployment due to seasonal variations of demand: construction workers in New England are (always) unemployed in January and so are water ski instructors in Mykonos during the winter

### **Frictional**

... unavoidable unemployment as people are constantly moving between jobs in search of better opportunities; people in between jobs; better and faster info concerning labor market particulars lowers this type of unemployment

### **Cyclical – demand deficient – Keynesian**

... a result of insufficient aggregate demand (and of sticky money wages); cyclical unemployment rises as an economy moves deeper into recession

### **Real wage unemployment**

...exists if, for whatever reason, the real wage rate is above the equilibrium rate; trade unions or sticky money wages are usually blamed

### **Inflation**

...exists when the average price level is rising through time (a sustained increase in the general price level)

### **Deflation**

...is the case if the average level of prices is decreasing through time; it implies *negative* inflation, not lower inflation rates (since in the latter case prices continue to rise albeit at a slower rate)

### **Cost push inflation**

Inflation resulting from adverse supply shocks (shifts to the left of AS); typically rising commodity prices are responsible, especially oil prices. Militant trade unions have also been blamed as well as productivity slow downs etc

### **Demand pull**

Inflation resulting from aggregate demand rising (faster than aggregate supply); usually overly expansionary fiscal or monetary policies are responsible. Deficit spending, easy monetary policy, very optimistic firms and consumers ('irrational exuberance'), strong export demand can all contribute to demand pull inflation; remember that according to the Monetarist (and Classical School) 'inflation is always and everywhere a purely monetary phenomenon' and 'inflation is too much money chasing after too few goods' (M. Friedman) / use Quantity Theory of Money to show this/

### **Phillips curve**

An empirically derived inverse relationship between the rate of inflation (originally, the percentage change in money wages) and the rate of unemployment

### **Long Run Phillips curve**

A vertical line at the non-accelerating inflation rate of unemployment suggesting the idea that there is a rate of unemployment compatible with any rate of inflation as long as this does not accelerate (in which case money illusion will lead to temporarily lower unemployment). It suggests that no permanent trade off exists between inflation and unemployment only one between unanticipated inflation and unemployment.

### **NRU / NAIRU**

The Natural Rate of Unemployment is defined as the equilibrium rate of unemployment i.e. the unemployment that exists at the real (so that no money illusion is present) wage rate that equates the number of workers that firms are willing to hire with the number of workers who are willing to accept a job offer (given the level of unemployment benefits). The term was first introduced by Milton Friedman in his 1968 AEA presidential address, see <http://www.andrew.cmu.edu/course/88-301/phillips/friedman.pdf> )

The NAIRU is defined as that rate of unemployment that is compatible with any non-accelerating (i.e. constant) rate of inflation. In general, that rate is considered to be the natural rate of unemployment which comprises mostly of structural unemployment. (for an interesting treatment see Nouriel Roubini at <http://pages.stern.nyu.edu/~nroubini/NOTES/HAND2.HTM/> also the March 6, 1997 Economist article “Up the NAIRU without a paddle” –uploaded in resources)

{In more advanced courses you will realize that the two terms can be understood as distinct where Friedman’s Natural Rate assumes perfect competition at the micro (labor market) level whereas the NAIRU is a product of the neo-Keynesian wage bargaining framework where the equilibrium real wage rate does not clear the labour market but is an equilibrium rate in the sense that the competing wage bargaining claims of unions and firms are consistent so that inflation does not accelerate; for the time being, the two terms mean the same and can be used interchangeably }

### **Progressive – proportional – regressive taxation**

Progressive taxes are the case if the ratio of the tax paid over the tax base (say, income) rises as the tax base rises (the average tax rate rises; thus, marginal tax rate > average tax rate); if this ratio remains constant then it is a proportional tax ( $MTR = ATR$ ); if it decreases, then it is regressive ( $MTR < ATR$ ); income taxes are usually progressive with higher income households paying *proportionately* more.

### **Transfer payments**

Payments of the government to individuals that do not reflect the latter’s contribution to current production and as such are not included in national income but are included in disposable income. ( $Y_d = NY - T + T_r$ ) Typical examples of transfer payments include unemployment benefits and pensions.

### **Laffer curve**

The diagrammatic relationship that plots tax revenues against tax rates from 0% to 100% that was used by Reagan supply siders such as Arthur Laffer and others to justify the tax cuts to the rich initiated during that administration. Supposedly, Laffer plotted it on a napkin of a Washington DC restaurant and convinced people that the tax cut would lead to higher, not lower, tax revenues which proved not to be the case.

**Lorenz curve**

A diagrammatic description of how national income is distributed within a country where on the horizontal axis the % of the population cumulatively ranked is measured and on the vertical the cumulative proportion of national income. The diagonal thus portrays the perfectly equal distribution. The Lorenz curve shows what proportion of national income is enjoyed by the poorest 20% of the population, what proportion is enjoyed by the poorest 40% etc.

**Gini coefficient**

A measure of income inequality; it is defined as the ratio of the area between the Lorenz curve and the diagonal, over the area of the 'half-square'. It ranges thus from zero (perfect income equality as the Lorenz curve is the diagonal) and one (perfect income inequality as one has all and the rest have nothing); an example of an actual very high Gini coefficient value is Brazil with 0.62.