**The basical macroeconomics indicators.**

The level of Macroeconomics is concerned either on with the economy as a whole or with the basic subdivisions of aggregates - such as government, household and business sectors - which make up the economy. An **aggregate** is a collection of the specific economics units which are treated *as if* they were one unit. Macroeconomics overviews all economy by generally outlining the maine aggregates which construct the economy. That's why such words as ***total, general*** are always used in Macroeconomics. That is the part of economics concerned with the economy as a whole; with such major aggregates as house-holds, business and governmental sectors and with totals for the ec. So, the basical Macro-economics indicators are: Gross National Product (GNP), Price level, Interest Reate and Employment.

**GNP:** It is generally agreed that the best available indicator of economy health is its annual output of goods and services, or so-called aggregate output. This is called GNP and is de-fined as *the total market value of all final goods & services produced in ec in one year.* The definition of the GNP is very explicit and merits comments. First, GNP measures the market value of annual output. Second, GNP is a monetary measure. To measure all output accurately we should count all goods and services only once. That is why GNP increase reaseludes only final goods and services and ignores transactions involving intermediate goods and services. By **Final** meant such goods and services that are purchased for final use and not to be sold in future (resale), or other processing or manufacturing. Directly opposite goods and services are called **intermediate**. Intermediate goods and services are excluded from GNP cause it could involve double counting. A lot of **nonproduction** transactions must be carefully excluded from GNP: financial transaction (*public transfer payments* - to increase reassessed them to GNP would be to overstate this year's production; *private transfer payments* - simply transfer of funds to one person to another; *security transactions* - buying or selling stocks in the stock market.) secondhand sales (Such sales either reflect no current production or they involve double counting.) Actually *GNP can be determined either by adding up all that is spent to buy this year's total output or by summing up all the increasereaseomes derived from the production of this year's output.* The formula GNP can be determined looks like this:

GNP = C + Ig + G + Xn

where ***C*** stands for personal **consumption** expenditures (expenditures by households on *durable consumer goods:* automobiles, houses, VCRs, and so on; *nondurable consumer goods:* milk, bread, beer, toothpaste, clothes, etc.; *consumer expenditures for services* of lawers, doctors, barbers), ***Ig*** means Gross Private Domestic Investment, ***G*** governmental purchases of goods and services, and ***Xn*** stands for Net Exports, is the amount by which foreign spending on American goods and services exceeds American spending on foreign goods and services. All these categories of expenditures shown above increasereaselude all possible types of spending. Added together they reflect the year's GNP.

**Measuring the price level.**

The price level is stated as an index number. A *price index* measures the combined price of particular collections of goods & services, called a "marked basket".

Price index in a given year =

= Price of market basket in a given year / Price of the same basket in the base year X 100%

The Federal government computes price indexes os several different collections (or market baskets) of goods and services. The best known of these indexes are Consumer Price Index (**CPI**) which measures the prices of a fixed market basket of some 300 consumer goods and services purchased by a typical urban consumer. The GNP price index or *GNP deflator ,* however, is more useful than the CPI for measuring the overall price level. GNP deflator also increasereaseludes the prices of investment goods, goods and services purchased by government, and g & s which enter into world trade.

This paragraph summary.

**1**. GNP is a basic measure of society's economic performance, is the market value of all final goods and services produced in a year. Intermediate goods, nonproduction transactions and secondhand sales are excluded from calculating GNP.

**2**.By the expenditures approach GNP is determined by adding consumer purchases of goods and services, gross investment spending by businesses, government purchases of goods and services and net exports.

**3**. Gross investment can be divided into: replacement investment (required to maintain the nation's stock of capital at its existing level), and net investment (the net increasereaserease in the stock of capital) Positive net investment is associated with a grown economy, negative - with a decreaselining economy.

**4**. By the increasereaseome or allocations approach GNP is calculated as a sum of compensation to employees, rents, interest, proprietors' increasereaseome, corporate increasereaseome taxes, dividends, undistributed corporate profits, and the two nonincreasereaseome charges (capital consumption allowance & indirect business taxes)

**5**. Other important national increasereaseome accounting measures are derived from the GNP. **Net national product** (NNP) is GNP less the capital consumption allowance. *National increasereaseome* (NI) is total increasereaseome earned by resource suppliers; it is found by subtracting indirect business taxes from NNP. *Personal increasereaseome* (PI) is the total increasereaseome paid to households prior to any allowance for personal taxes. *Disposable increasereaseome* (DI) is personal increasereaseome after personal taxes have been paid. DI measures the amount of increasereaseome households have available to consume or save.

**6**. Price indexes are computed by comparing the price of a specific collection or "market basket" of output in a given period to the price (cost) of the same market basket in a base period and multiplying the outcome (quotient) by 100. The GNP deflator is the price indexused to adjust normal GNP to account for inflation or deflation and thereby to obtain real GNP.

**7**. Nominal (current dollar) GNP measures each year's output valued in terms of the prices prevailing in that year. Real (constant dollar) GNP measures each year's output valued in terms of the prices prevailing in a selected base year. Because it is adjusted for price level changes, real GNP measures the level of production activity.

Nominal GNP / Price index (in hundredths) = Real GNP

**8**. The various national increasereaseome accounting measures exclude nonmarket and illegal transactions, changes in leisure and product quality, the composition and distribution of output, and the environmental effects of production. Nevertheless, these measures are reasonably accurate and very useful indicators of the nation's economic performance.

**Aggregate demand & Aggregate supply**

**Aggregate demand** - is a schedule, graphically represented by a curve, which shows various amounts of goods and services - the amount of real national output - which consumers, businesses and government collectively will desire to purchase at each possible price level.

Conversely, the higher the price level, the smaller will be the national output they desire to purchase. That's exactly what indicates the downsloping AD curve. The rationale for a downsloping AD curve rests primarily upon three factors.

**1**. ***Interest-rate effect***

As the price level rises so will interest rates and rising interest rates will cause reduction in certain kinds of consumption and investment spending. AD curve assumes that the supply of money in the economy. When the price level increasereasereases, consumers will need to have more money on hand to make purchases and businesses will similarly require more money to meet the payrolls and purchase other needed inputs. In short, a higher price level will increasereaserease the demand for money. Given a fixed supply of money, this increasereaserease in demand will drive up the price paid for the use of money. that price, of course, is the **Interest Rate**. High IRs will curtail certain interest -sensitive expenditures by businesses & households.

*Conclusion:* A high price level - by increasereasereasing the demand for money and the Interset Rate - causes a reduction in the amount of real output demanded.

**2**. ***Wealth effect***

A second reason why the AD curve is downsloping involves the Wealth or Real Balances Effect. The idea here is that at a higher price level the real value of purchasing power of the accumulated financial assets - In particular, assets with fixed money values such as savings, accounts or bonds - held by the public will diminish. Conversely a decreaseline in the price level will increasereaserease the real value or purchasing power of one's wealth and tend to increasereaserease spending

**3**. ***Foreign Purchases effect***

The Foreign Purchases effect of a price-level increasereaserease results in a decreaseline in the aggregate amount of American goods and services demanded. Conversely, a relative decline a our price level will reduce our imports and increasereaserease our exports, Thereby, increasereasereasing the NE component of American AD

**Aggregate supply** - is a schedule, graphically represented by a curve, indicating the level of real natn'l output which will be available at each possible price level.

High price levels create an increasereaseentive for enterprises to produce additional output and offer it for sale. Lower price levels cause reductions in output. As a result the relationship between the price level & the amount national output businesses offer for sale is direct or positive.

*The AS curve* shows the level of real national output which will be produced at various price levels. It comprises three ranges: a horizontal (or Keynesian) range wherein the price level remains constant as Ntn'l output varies; a vertical (or Classical) wherein the Ntn'l output is constant at the full-employment level and the price level can vary; and intermediate range wherein both: real output and the price level are variable.

This paragraph summary.

**1**. It is useful for purposes of analysis to consolidate - or aggregate - the outcomes from the enormous number of individual product markets into a composite market in which the key variables are the price level and the level of Real National Output. This is accomplished through an AD-AS model of the economy

**2**. The AD curve shows the level of Real National Output which the economy will purchase at each possible price level

**3**. The rationale for the downsloping AD curve is based upon the Interest-Rate effect, the Wealth (or the Real Balances effect) and the Foreign purchases effect. The Interest-Rate effect indicates that, given supply of money, a high price level will increaserease the demand for money, thereby increasereaseing the interest rate and reducing those consumption and investment purchases which are interest rate sensitive. The Wealth effect indicates that inflation will reduce the real value of purchasing power of fixed-value financial assets held by households and will thereby cause them to retrench on their consumer spending. The FPE suggest that a change in the US' price level relative to other countries will change the NE component of the US AD in the opposite direction.,

**4**. The major non-price-level determinants of AD are spending by domestic consumers, businesses, government & foreign buyers.

**5**. The AS curve shows the level of Real National Output which the will be produced at each various possible price levels.

**6**. The shape of the AS curve depends upon what happens to per unit production costs - and therefore to the prices which businesses must receive to cover costs and make a profit - as Real National Output expends. The Keynaisian range of the curve is horizontal because, with substantial unemployment production can be increasereased without per unit costs or price increasereases. In the intermediate range, per unit costs increaserease as production bottlenecks appear and less efficient equipment and workers are employed. Prices must therefore rise as Real National Output is expended in this range. The Classical range coincides with full employment; Real National Output is at a maximum and cannot be increasereasereased but the price level will rise in response to an increaserease in AD.

**7**. the major non-price-level determinants of AS are input prices, productivity and the legal-institution environment. All else being equal a change in one of these factors will change per unit production costs at each level of output and therefore alter the location of the AS curve.

**8**. The intersection of the AD and AS curves determines equilibrium price level and Real National Output.

**9**. Given AS rightward shifts of AD will:

 a) Increase Real National Output and employment but not alter the price level in the Keyneisian range;

 b) Increase both Real National Output and the price level in the intermediate range;

 c) Increase the price level but not change Real National Output in the Classical range.

**10**. The ratchet effect is based upon the notion that prices are flexible upward but, relatively inflexible downward. Hence, an increaserease in AD will raise the price level, but in the short term prices cannot be expected to fall when demand decrease.

**11**. The basic aggregate demand and supply model is a springboard for a more detailed and comprehensive study of Macroeconomic analysis and issues.

**Macroeconomic instability: unemployment & inflation**

***Unemployment***

"Full unemployment is an elusive concept to define. A person might initially interpret it to mean that everyone who is in the labor market - 100% of the labor force - is employed. But such isn't the case some unemployment is regarded as normal or warranted.

**Types of unemployment**

Let us approach the task of defining full employment by distinguishing among several different types of employment.

**Frictional unemployment**

Given freedom to choose occupations & jobs, at any point in time some workers will be "between jobs". Some workers will be in the process of voluntarily switching jobs. Others will have been fired and are seeking reemployment. Still others will be temporarily laid off from their jobs cause of seasonally or modal changeovers as in automobile industry and there will be some workers particularly young people, searching for their first jobs. Economists use the term *Frictional unemployment* which consists of search unemployment and wait unemployment, for the group of workers who are either searching for jobs or waiting to take jobs to the near future. The adjective "frictional" implies that the labor market doesn't operate perfectly and instantaneously - that's without friction in matching workers & jobs. Frictional unemployment is regarded is inevitable and, at least inpart, desirable.

**Structural unemployment**

Frictional unemployment shades into a second category, called *structural* In this regard, economists use the term "structural" in the sense of "compositional". Important changes occur overtime in the "structure" of consumer demand and in technology which alter the structure of the total demand for labor. Because of suchchanges some particular skills will be in less demand or may even become obsolete. The demand for other skills will be expending, including new skills which previously did not exist. Unemployment results because the composition of the labor force doesn't respond weekly or completely to the new structure of job opportunities. As a result some workers find that they have no readily marketable talents; Their skills and experience have been rendered obsolets and unwanted by changes in technology and consumer demand.

This paragraph summary.

**1**. Our economy has been characterized by fluctuations in national output, employment and the price level. Although characterized by common phases - peak, recession, trough, recovery - business cycles vary greatly in duration and intensity.

**2**. Although the business cycle has been explained in terms of such ultimate causal factors as innovations, political events, and money creation, it is generally agreed that the level of total spending is the immediate determinant of national output and employment.

**3**. All sectors of the economy are affected by the business cycle but in varying ways and degrees. The cycle has greater output and employment reifications in the capital goods and durable consumer goods industries than is does in nondurable goods industries. Over the cycle, price fluctuations are greater in competitive than in monopolistic industries.

**4**. Economists distinguish between frictional, structural and cyclical unemployment. The full-employment or natural rate of unemployment is currently believed to be between 5 and 6%. The accurate measurement of unemployment is complicated by the existence of parttime and discouraged workers.

**5**. The economic cost of unemployment as measured by the GNP gap, consists of the goods & services which society foregoes when its resources are involuntarily idle. Okun's law suggests that every one person increase in unemployment above the natural rate gives rise to a 2.5%

GNP gap.

**Classical & Keynesian theories of employment**

**1**. Classical employment theory envisonet laissez faire capitalism as being capable of providing virtually continous full employment. This analysis was based on Say's Law and the assumption of price-wage flexibility.

**2**. The classical economists argued that because supply creates its own demand, general overproduction was improbable. This conclusion was held to be valid even when saving occurred, cause the money market or most specifically, the interest rate, would automatically synchronize the saving plans of households and the investment plans of businesses.

**3**. Classical employment theory also held that even if temporary declines in total spending where to occur, these declines would be compensated for by downward price wage adjustments in such a way that real output, employment, and real income wouldn't decline.

**4**. Keyneisian employment theory rejects the notion that the interest rate would equate saving and investment by pointing out that savers & investors are substantially different groups who make their saving & investment decisions for different reasons - reasons which, for savers, are largely unrelated to the interest rate. Further more, because of changes in

 a) The publics holdings of money balances;

 b) Loans made by banks and other financial institutions, the supply of funds may exceed op fall short of current saving to the end that saving & investment will not be equal.

**5**. Keyneisian economists discredit price-wage flexibility on both practical and theoretical grounds. They argue that

 a) Union and business monopolists, minimum-wage legislation, and a host of related factors have virtually eliminated the possibility of substantial price-wage reductions;

 b) Price-wage cuts will lower total income and therefore the demand for labor.

**6**. The Classical & Keyneisian views can be illustrated through the AD-AS model. Classical economists envision

 a) A vertical AS curve which establishes the level of output;

 b) A stable AD curve which establishes the price level ;

Keyneisians see

 a) A horizontal AS curve at less-than-full-employment levels of output;

 b) Inherently unstable AD curve.

**7**. The basic tools of Key employment theory are the Consumption (C), Saving (S) and Investment (I) schedules, which show the various amounts that households intend to consume and save and that businesses plan to invest at the various possible income-output levels given a particular price level.

**8**. The locations of the consumption and Saving schedules are determined by such factors as:

 a) The amount of wealth owned by households;

 b) The price level;

 c) Expectations of future income, future prices and product availability;

 d) The relative size of consumer indebtedness;

 e) Taxation;

The consumption and saving schedules are relatively stable.

**9**. The *average* propensities to consume and save show the proportion of fraction of any level of *total* income that is consumed and saved. The *marginal* propensities to consume and save show the proportion of fraction of any *change* in total income that is consumed or saved.

**10**. The immediate determinants of investment are:

 a) The expected rate of net profit;

 b) The real rate of interest

The economy's investment-demand curve can be determined by cumulating investment projects and arraying them in descending order according to their expected net profitability and applying the rule that investment will be profitable up to the point at which the real interest rate equals the expected rate of net profit. The investment-demand curve reveals and inverse relationship between the interest rate and the level of aggregate investment.

**11**. Shifts in the investment-demand curve can occur as the result of chances in

 a) The acquisition, maintenance and operating costs of capital goods;

 b) Business taxes;

 c) Technology;

 d) The stocks of capital goods on hand;

 e) Expectations.

**12**. We make the simplifying assumption that the level of investment determined by the current interest rate and the investment-demand curve doesn't vary with the level of aggregate income.

**13**. The durability of capital goods, the irregular occurrence of major innovations profit volatility, and the variability of expectations all contribute to the instability of investment spending.

**Equilibrium National output in Keynesian model**

**1**. For a closed no-government economy the equilibrium level of NNP is that at which the aggregate expenditures and national output are equal or graphically where the C + In line intersects the 45-degree line. At any NNP greater than the equilibrium NNP, national output will exceed aggregate spending resulting in unintended investment in inventories, depressed profits and eventual declines in output employment and income. At any below equilibrium NNP the aggregate expenditures will exceed the national output, thereby resulting in unintended disinvestment in inventories, substantial profits and eventual increases in NNP.

**Fiscal Policy**

**1**. Government responsibility for achieving and maintaining full employment is set forth in the Employment Act of 1946. The Council Economic Advisers (CEA) was established to advise the President on policies appropriate to fulfilling the goals of the act. The Humphrey-Hawkins Act of 1978 contains specific inflation and unemployment rate objectives.

**2**. Increases in government spending expand, and decreases contract, the equilibrium NNP. Conversely, increases in taxes reduce, and decreases expand the equilibrium NNP. Appropriate fiscal policy therefore calls for increases in government spending and decreases in taxes - that is, for a budget deficit - to correct for unemployment. Decreases in government spending and increases in taxes - that is, a budget surplus - are appropriate fiscal policy for correcting demand-pull inflation.

**3**. The balanced-budget multiplier indicates that equal increases in government spending and taxation will increase the equilibrium NNP by the amount of the increase in government expenditures and taxes.

**4**. Built-in stability refers to the fact that net tax (NT) revenues vary directly with the level of NNP. Therefore, during a rescission the public budget automatically tends toward a stabilizing deficit; Conversely, during expansion the budget automatically tends toward an anti-inflationary surplus. Built-in stability ameliorates, but doesn't correct, undesired changes in the NNP.

**5**. The full-employment budget indicates what the Federal budgetary surplus or deficit would be if the economy operated at full employment throughout the year. The full-employment budget is a more meaginful indicator of the government's fiscal posture than is its actual budgetary surplus or deficit.

**6**. The enactment and application of appropriate fiscal policy and subject to certain problems and question. Some of the most important are these

 a) Can the enactment and application of fiscal policy be better timed so as to maximize its effectiveness in heading off economic fluctuations?

 b) Can the economy rely upon Congress to enact appropriate fiscal policy?

c) An expansionary fiscal policy maybe weakened if it crowds out some private investment spending;

 d) Some of the effect of an expansionary fiscal policy maybe dissipated in inflation;

 e) Fiscal policy maybe rendered ineffective or inappropriate by unforeseen events occurring within the world economy. Also fiscal policy may precipitate changes in exchange rates which weaken its effects;

 f) Supply-side economists contend that Keynesian fiscal policy fails to consider the effects of tax changes upon AS.

**Monetary Policy**

**1**. Like fiscal policy, the goal of monetary policy is to assist the economy in achieving a full-employment, noninflationary level of total output.

**2**. For a consideration of monetary policy the most important assets of the Federal Reserve Banks are securities and loans to commercial banks. The basic liabilities are the reserves of member banks, Treasury deposits & Federal Reserve Notes.

**3**. The three major instruments of monetary policy are

 a) open-market operations;

 b) changing the reserve ratio;

 c) changing the discount rate;

**4**. Minor selective controls involve the margin requirement, consumer credit & moral suasion.

**5**. Keynesians envision monetary policy as operating through a complex cause-effect chain

 a) policy decisions effect commercial bank reserves;

 b) changes in reserves effect the supply of money;

 c) changes in the supply of money alter the interest rate;

 d) Changes in the interest rate affect investment, the equilibrium NNP and the price level;

**6**. The advantages of monetary policy include its flexibility and political acceptability. Further, monetarists feel that the supply of money is the single most important determinant of the level of national output.

**7**. Monetary policy is subject to a number of limitations and the problems

 a) They excess reserves which an easy money policy provides may not be used by banks to expend the supply of money;

 b) Policy-instigated changes in the supply of money maybe pertially offset by changes in the velocity of money;

 c) The impact of monetary policy will be lessened if the money-demand curve is flat ant the investment-demand is steep. The investment-demand curve may also shift so as to negate monetary policy.

**8**. The monetary authorities face a policy dilemma in that they can stabilize interest rates or the money supply but not both. In the post-World War II period monetary policy has shifted from stabilizing interest rates to controlling the money supply and more recently to a more pragmatic position.

**9**. The impact of an easy money policy upon domestic NNP strangthed by an accompanying increase in net exports precipitated by a lower domestic interest rate. Likewise, a tight money policy is strengthed by a decline in net exports. In some circumstances there maybe a trade off between the use of monetary policy to affect the value of the dollar and thus to current at rage imbalance and the use of monetary policy to achieve domestic stability.