**Macroeconomics ECO202 Dr. Mary Habib**

**Notes on Chapter 20**

**Introduction to Macroeconomics**

**I. A Historical Background: The Great Depression**

The study of macroeconomics emerged with the events of the 1930's. Production in the US dropped sharply over a few years (1929-1933) in what came to be known as "The Great Depression." Many think that this crisis affected economics scholarship more than any other event in history. Indeed, the founding of macroeconomics as a separate discipline largely coincided with attempts to explain the Great Depression.

The most common association that the general public has with the Great Depression is the crash of the US stock market that occurred in October of 1929. A stock market crash is a term that simply means sudden drop in stock values (which may lead to bankruptcies for concerned firms as well as to loss of investor wealth). Stock prices did fall dramatically on the day of the crash and continued to be very low for several years. However, the Great Depression was much more than a crash in financial markets.

The two most prominent symptoms of the Depression were: a) a 50% decline in U.S. net national product from 1929 to 1933, and b) the steep rise in the unemployment rate from 3 % of the labor force in 1929 to 25 % in 1933.

[As a side note: Unemployment began to decline slowly after 1933. President Roosevelt at the time introduced a major recovery plan known as the “New Deal”, which helped the U.S. economy tremendously. Many modern day characteristics of the American government and economic institutions began with the New Deal (in response to the Great Depression). Later, with World War II in the early 1940s, a military boom occurred in the U.S., causing unemployment to fall down further to a record low of 2%].

## Causes of the Great Depression

### \*\*Note to Class: The material in this section (“Causes of the Great Depression”, up to end of first paragraph page 3) is provided for your information only. You are not responsible for these details on the exam. Recently, and since the beginning of the finacial crisis in the US in 2008, a lot of discussion among economists and policymakers all over the world has been on how this current crisis compares with the Great Depression of 1929. Hence, a historical overview of the Depression might be useful for interested students.

In [1929](http://www.fact-index.com/1/19/1929.html) the world's most prosperous nation was the [United States](http://www.fact-index.com/u/un/united_states.html). But despite the confidence in the [United States](http://www.fact-index.com/u/un/united_states.html) and the apparent economic well-being in other industrial countries, the world economy was in an unhealthy state.

Economists agree that the following were among the most prominent causes of the Depression.

### *1) Unequal distribution of purchasing power*

The highly unequal distribution of wealth throughout the [1920s](http://www.fact-index.com/1/19/1920s.html" \o "1920s) was a factor contributing to the Depression. As [industrial](http://www.fact-index.com/i/in/industry_1.html) and [agricultural](http://www.fact-index.com/a/ag/agriculture.html) production increased, profits of business owners soared. However, the proportion of these profits going to the farmers, factory workers, and other potential consumers was far too small to create a market for all the goods that they were producing. In short, factories were pouring out more goods than consumers could purchase (low aggregate demand).

### *2) A lack of diversification*

Another factor was the serious lack of diversification in the American economy of the [1920s](http://www.fact-index.com/1/19/1920s.html" \o "1920s). Prosperity had been excessively dependent on a few basic industries, with the heaviest focus on the automotive industry. When this crucial industry began to weaken in the late 1920s (due to European competition in the automobile sector), there was not enough strength in other sectors of the economy to compensate.

### *3) The breakdown of international trade*

Another factor was America's position in international trade. Protectionism increased in the ‘20s and American tariffs were raised by US congress to unprecedented levels in 1930 under the pressure of US firms who feared foreign competition. This practically closed U.S. borders to imports. The Europeans and other trading partners retaliated by raising their own tariffs against the US. This caused the immediate collapse of the most important US export industry: agriculture. American foreign trade seriously declined, and the overall volume of world trade decreased drastically.

### *4) Large international debts and the subsequent banking crisis*

The international debt structure was another contributing factor to the Depression. When WWI came to an end in [1918](http://www.fact-index.com/1/19/1918.html), all European nations that were allied with the [United States](http://www.fact-index.com/u/un/united_states.html) during the war owed large sums of money to American banks. These debts were much too large to be repaid out of their shattered economies. At the same time, high US tariffs were making it difficult for them to sell their goods in US markets. Without any source of revenues from foreign exchange with which to repay their loans, they began to default. This led to the banking crisis in the US with several banks collapsing.

**II. Using Economics to Explain the Great Depression**

**Let us first define Keynesian economics.**

**Keynesian economics**, or **Keynesianism**, is an [economic](http://www.fact-index.com/e/ec/economics_1.html) [theory](http://www.fact-index.com/t/th/theory.html) based on the ideas of [John Maynard Keynes](http://www.fact-index.com/j/jo/john_maynard_keynes.html), as put forward in his book The General Theory of Employment, Interest and Money, published in [1936](http://www.fact-index.com/1/19/1936.html).

Keynes, a British economist and politician, wrote his book in response to the Great Depression. The central conclusion of the book was that markets, left alone, do not necessarily and automatically ensure that the economy move towards full employment. Keynes was the first economist to formally advocate government intervention in the economy (not only in regulating and supervising, but also in spending and taxing).

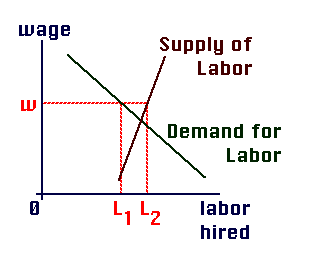
At the time, classical economic thinking was shaped by the writings of Adam Smith a century and a half earlier (see chapter 1). Smith believed in the “invisible hand” of the market. In the “Wealth of Nations”, Smith had argued that the best system was one based on “laissez-faire” with minimal government intervention. When individuals freely engage in economic activities, they do so in pursuit of their own self-interest, and this leads to overall prosperity for all. No government role beyond the standard maintenance of law and order should ever be needed. Free markets are the ideal institutions to deal with all economic issues (particularly to answer the three questions of what, how, and for whom).

When the Great Depression began most economists followed that school of thought. Initially, the standard argument was that that adjustments in prices and wages were all that was need in order to restore full employment in the economy. Essentially, economists before Keynes applied *micro*economic “market-clearing” models to *macro*economic problems, and generally concluded that markets work well. They saw prices as flexible, adjusting to maintain equality between supply and demand. In other words, they trusted that the market system had an inherent “self-correcting” mechanism when facing any imbalances. [According to this philosophy government role should be confined to providing law, order, and defense. Taxes would be collected from citizens to cover those expenses.]

But classical economics was not very suited for understanding the Depression and the huge unemployment levels that came with it.

Why was that?

Consider the problem of unemployment. Classical economists assumed that if there was excess supply of labor (which is one way of describing unemployment), wage rates would drop until the quantity of labor supplied equaled the quantity demanded, and any unemployment would not last.



The graph above shows the situation where the wage rate is too high to obtain equilibrium.

Question: Why might wages be higher than the market-clearing level?

Suppose there was another demand curve for labor to the right of the one above, and suppose that originally that demand curve and the supply curve had intersected at *w*. Then consider what happens if the demand curve shifts left (to where it is in the figure above). Now the market-clearing wage is reduced to a lower rate (the intersection).

Why would the demand curve for labor shift in the first place? Any reason that causes firms to decrease their investment also causes them to demand less labor. This includes wars, stock market crashes, political unrest, economic uncertainty, etc.

So now what do we have? We have excess supply of labor (S>D) at the former market- clearing wage (as illustrated above). In the classical economic view, wage rates will be pushed down until equilibrium is restored at a new lower level. The classical economic recommendation then was to allow wages to drop sufficiently to eliminate the unemployment (thru a non-interventionist government). And, since classical economists believed that prices and wages were perfectly flexible (as long as the government did not interfere), then they did not worry much about the Great Depression at the beginning.

But during the Great Depression there was high unemployment that persisted for several years.

Why did wages not drop (or not drop enough)? Why did unemployment persist?

In his attempts to answer these questions, Keynes analyzed the economy and its fluctuations differently. There were two dimensions to this new analysis.

The first dimension relates to how markets generally operate and the role of prices and wages in that mode of operation.

While classical economists believed that prices and wages were flexible, Keynes observed that many important prices in the economy are rigid or “sticky”.

Sticky prices/wages are prices/wages that do not always adjust rapidly to maintain equality between supply and demand. According to Keynes, wages may not drop low enough or fast enough to restore full employment. If wages do not drop, there will continue to be more supply than demand for labor.

Side Note FYI:

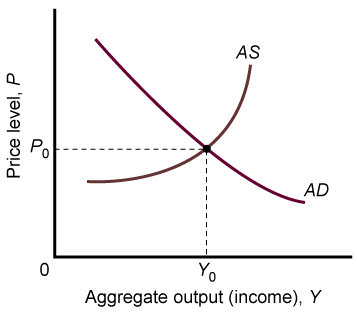
Keynesian economists later on developed a number of models to explain real-world wage rigidity. The most popular of those explanations is termed the efficiency wage theory, which basically argues that in many industries, firms tend not to reduce the wages of their workers during an economic downturn. This is due to their perception that workers will work less effectively and/or will leave the firm if management reduces wages. If these workers are valuable to the company (highly skilled, trained, loyal, etc.) then the cost to the firm of losing them would be substantial. Therefore, in response to the depressed economic conditions (the left shift of the demand curve) firms lay off workers instead, while keeping the best ones on board. In a number of empirical studies, this theory was tested using industrial data (on labor and salaries) from various sectors and has demonstrated a high degree of accuracy.

Another reason for wage rigidity observed in several countries around the world is labor contracts. Where labor unions are strong, contracts between workers and employers often include restrictions regarding wage flexibility. In many industries such contracts may bind the company to two or three-year agreements at fixed salary levels. In these cases, the only option for firms facing lower consumer demand may be to fire non-essential workers.

The second dimension of the Keynesian analysis relates to the determinants of labor.

According to Keynes, wages only determine where the demand for labor will be *on a particular* labor demand curve. However, what determines the position of the curve itself is aggregate demand and the overall condition of the economy. Aggregate demand is the total demand for goods and services by all the major sectors of an economy: firms, households, the government, and the rest of the world. Naturally, in a healthy economy, there will be more demand for labor (i.e. firms will hire more workers). By contrast, in a slow economy (with low aggregate demand), there will be less demand for labor (i.e. firms will hire less workers). Keynes argued that even if wages were flexible, and even if they adjusted to the supply/demand conditions and went down, the equilibrium that will result may still be too low to ensure sufficient employment for the economy. If aggregate demand is not high enough, many people could still be without jobs.

[A simple AD/AS diagram is shown below. We will study this model in detail later in the semester.]



That is why Keynes had this proposal (which was revolutionary at the time): *the government should play an active role in the economy.*

Specifically, Keynes believed that government intervention in the economy would increase aggregate demand and affect the level of output and unemployment.

How, exactly, might the government intervene?

During periods of sluggish private demand, the government should step in to *stimulate* demand by increasing its purchase of goods and services. Doing so would push the AD curve to the right. This means that the labor demand curve in the labor diagram would shift right as well, which would increase equilibrium employment levels. This is called “expansionary” fiscal policy.

Alternatively, the government should decrease spending in boom times when there may be inflation (which is known as “contractionary” fiscal policy).

Expanding government spending during recessions and contracting government spending during booms are collectively known as “counter-cyclical policies”.

In the years following World War II, Keynes' policy ideas and recommendations were widely accepted. For the first time, governments prepared good quality economic statistics on an ongoing basis, and attempted to use fiscal and monetary policy to manage the economy. Most industrial countries (US and Western Europe) enjoyed low unemployment and low inflation throughout the 1950s and 1960s.

**III. Four Macroeconomic Problems**

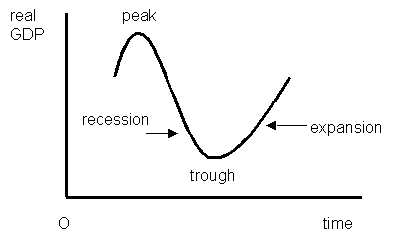
This shift of attention in the economics profession from microeconomics to macroeconomics allowed economists to identify four important macroeconomic problems. By “macroeconomic problems” we mean problems that could not be understood or solved without understanding how the whole economic system worked.

1. [Recessions](http://william-king.www.drexel.edu/top/prin/txt/probs/reces1.html) (part of the “Business Cycle”)
2. Economic Growth
3. [Unemployment](http://william-king.www.drexel.edu/top/prin/txt/probs/Ch5_unemdef.html)
4. [Inflation](http://william-king.www.drexel.edu/top/prin/txt/probs/infl1.html)

# 1) Recessions

Economic activity--income, employment etc--moves in an *irregular* cyclical fashion through time. The *short-term* fluctuations (ups and downs) in economic performance are known as the “business cycle”.

There are two main phases of a business cycle. With GDP plotted on the y-axis and time on the x-axis, a typical business cycle may look as follows:



The economy experiences an expansion (or a boom) when output and employment grow. This reaches a highest point (peak). The economy then experiences a contraction (or recession or slump) where output and employment drop. The lowest point in that phase is called the “trough”.

More formally, a recession is defined as a period of two or more successive quarters of decreasing production (i.e. decreasing GDP). [A quarter is three months.] Macroeconomics tries to understand the business cycle, and to suggest government policy options that may minimize problems resulting from the cycle.   There is nothing mysterious about the business cycle.  Anything that rises and falls through time can be called a cycle. It is important to understand that business cycles are irregular and therefore cannot be predicted. An expansion could be much longer than a contraction or visa versa. The only thing that is regular is that after an expansion, there must be some sort of a contraction and so on.

# 2) Economic Growth and/or Stagnation

The second macroeconomic problem mentioned in this chapter is the problem of economic growth. This is a more *long-term* concept than the business cycle. Economic growth rates are normally measured annually (i.e. how the economy grew from one year to the next), whereas the term business cycle refers mostly to short-term fluctuations.

When growth does not occur or is very slow, we say we have stagnation.

**3) Unemployment**

Our third macroeconomic problem is unemployment. This problem is highly correlated with recession, but is distinct, and we need to look at it in its own terms.

Here is a modern definition of unemployment:

***unemployed***

A person is said to be "unemployed" if he or she is looking for work, is able to work, is *willing to work at the prevailing wage*, but is unable to find a job.

***unemployment***

Unemployment refers to the condition of being unemployed, or to the number or proportion of people in the working population who are unemployed.

But why is unemployment a problem?

This is quite controversial. Economists of the classical and neoclassical schools do not regard unemployment as a long-term phenomenon. Unemployment would eventually come to an end when wages adjust to an equilibrium level.

[Side Note: Even though classical economic analysis failed to explain the Great Depression as we said before, it remained an influential school in economics, and its main principles persisted. This includes its emphasis on the efficiency of the market and its belief that government intervention should in general be minimized.]

From the brief discussion in the preceding section, it follows that there have been two major views on unemployment:

***The "Keynesian" view of Unemployment:***

Unemployment is a prolonged excess supply of labor resulting from a failure of coordination in the market economy. When wages are sticky, the wage system fails to equalize labor supply and demand. Additionally, large levels of unemployment are often caused by low aggregate demand for goods and services (or an AD level that is not high enough to lead to full employment). A low AD level leads to a low level of aggregate labor demand. In this case, even if there is equilibrium, lots of people are still unemployed. Without active government policy, unemployment may last a long time.

***The "Classical" view of Unemployment:***

As long as there are no reasons preventing wage flexibility (minimum wage laws, other government regulations, etc.), unemployment should be a short-term phenomenon only. Eventually, wages are flexible enough to ensure a clearing of the market. This occurs when the wage is such that anyone who wants a job at that rate should find one. Once wages adjust to restore equilibrium, then unemployment is cleared *no matter how low that equilibrium may be*. In this case, people not working are simply not looking for jobs (mostly because they’re not interested in working at the “going” wage rate). They are not considered unemployed (as formally defined). Rather, they are voluntarily “not working”.

**4) Inflation**

The fourth area of concern for macroeconomics is inflation. Inflation is defined as an increase in the average price level in the economy. If the price of each good or service in the economy were to rise by 5% from one year to the next, we could say without hesitation that the average price level has risen by 5%, and there has been 5% inflation.

But in reality things are more complicated than that. In general, prices do not all rise at the same rate -- some rise rapidly, some rise slowly, and some prices even drop. Thus, we express the overall price level by a price index, that is, an average of important prices. We could then say that, on average, prices have increased by 5% or whatever. [Measuring inflation will be discussed further in chapter 7.]

# IV. Government in the Macroeconomy

Contemporary thinking about the proper role of government in the economy (in market economies) revolves around the following six objectives. We may consider these objectives to be the least common denominator between neoclassical economists and Keynesian economists.

1. ***Providing a Stable Set of Institutions and Rules:*** This includes the set of laws specifying what can and cannot be done as well as the mechanism to enforce these laws. The modern market economy requires enforceable complex contractual arrangements among individuals. These contracts are enforced thru the government.
2. ***Promoting Effective and Workable Competition:*** In market economies, the forces of monopoly and competition are always in conflict. Competition is the preferred system, but monopolistic activities are sometimes not avoidable. The government tries to limit the practice of monopoly as much as possible. Thus, when Microsoft gained a monopolistic control of the market for operating systems with Windows, the US government took the company to court and challenged that monopoly (and eventually won the case). Here, in Lebanon, a recent example of government regulating industry involves the prolonged examination of the possible market share that would result when the two banks Audi and Saradar announced plans to merge several years ago.
3. ***Correcting for Externalities:*** An externality is the effect of a decision on a third party not taken into account by the decision maker. An example of a negative externality is pollution. Government can play a role in pollution abatement by setting rules and regulations governing the degree to which firms may cause pollution and the production processes that can and cannot be used for their environmental implications.

***Note:*** Positive externalities also exist. Examples are education and research and development. These benefit not only the person or persons undertaking them but the whole society. This is one justification for government subsidies for education and funding for research and development (a lot of which is conducted by the private sector). In this case, a positive externality is sometimes also considered a “public good”. (see below)

1. ***Provision of Public Goods:*** Economists define a public good as a good with two characteristics:
   1. Non-Rival: Its consumption by one individual does not in any way prevent and/or reduce its consumption by another individual. An example of a private good is an apple. Once you eat it that particular apple, nobody else may.
   2. Non-Excludable: Once provided, the provider cannot in any way exclude anyone from enjoying or consuming it. In other words, its consumption is not conditional upon paying a price. The apple in the above example is excludable in the sense that you must pay for it before you can consume it.

Examples of public goods are: roads and bridges, defense, free public parks, environmental cleanup programs, police service, forest protection programs, pollution abatement programs, etc. Left to the private sector public goods may either not be provided at all or be under-produced.

Students: Think for yourselves why the private sector may under-produce things like scientific research and development or infrastructure.

Economists often collectively group the three roles (2-4) above under the title “correcting for market failures”. The term “market failure” is used to refer to any situation where the market does not exhibit the ideal perfect competition model (imperfect competition leading to market power), OR where the market does not adequately provide a good or service (public goods) OR where the market provides goods with undesirable costs (negative externalities).

Students: Think for yourselves why the above types of goods are public goods as defined.

1. ***Ensuring Economic Stability:*** This essentially entails minimizing or reducing inflation and erratic fluctuations in GDP. [This function will be discussed in details later in the course in chapters 7-13.]
2. ***Adjusting for Undesirable Market Outcomes:*** Government redistributes income, taking it away from some individuals and giving it to others whom it sees as more deserving or more in need. It does so thru the proper management of spending and taxing policies. Governments all over the world do this to one extent or another. This represents the primary way thru which governments promote equity. [But bear in mind that there is much diversity in how governments they do this, in how they tax their citizens, and in what they spend this tax money on.]

The Types of Government Policies:

How does the government reach the above goals?

Modern economics distinguishes between several categories of government policies

1. Fiscal Policy

2. Monetary Policy

3. Trade Policy

4. Growth Policy

5. Regulatory Policy

**1) Fiscal Policy:** Refers to policies on expenditure and taxation. These policies are executed on behalf of the government by the Ministry of Finance (which is in charge of collecting taxes and paying for the various government activities).

Today, all economists agree that fiscal policy is an important function of governments. What they disagree on is the proper extent of government’s involvement. Neoclassicals still believe that the best government policy is one that promotes “laissez faire” as much as possible. According to this view free markets are the ideal economic system and governments should confine their activities to providing basic public goods and services in the context of a balanced budget (i.e. a budget that can be covered by taxes and not debt). More specifically, the neoclassical school of economic thinking argues that the government should confine itself to goals 1-4 above, and (to a lesser degree) roles 5-6.

Most importantly, neoclassical proponents of free markets argue that government action should not fluctuate according to the general macroeconomic conditions, but should rather follow rules and stick to budgets. Recessions, if they occur, should be self- correctable in the market provided the government enforces proper supervision and a sound regulatory structure.

Keynesians, on the other hand, propose an active government involvement in the economy. If there is a recession, governments should not simply wait until the markets correct the problem. Rather, governments should step in and apply an expansionary fiscal policy (increase spending on goods and services and/or reduce taxes) in order to stimulate the economy. Governments should be authorized to do so regardless of prior budgets and plans. In other words, governments should spend more in recessions even if they have to borrow as a result. When the economy goes back on track and growth resumes, debts can be paid back.

**2) Monetary Policy:** Refers to policies (conducted by the Central Bank) to control and vary the money supply and the interest rate. These policies also influence price levels and exchange rates. Monetary policy can also be expansionary or contractionary (as we will later see).

**3) Trade Policy:** Here the government is concerned with trade regulations, barriers (such as tariffs and quotas), trade agreements with other nations, and exchange rate policies (the value of the domestic currency vis a vis other currencies).

**4) Growth Policy:** This is policy that focuses on the supply (not demand) side of the economy and works through increasing *incentives*. It aims to stimulate growth through promoting human capital, improving technology, legislating laws that protect business and private property.

Example: One hotly debated aspect of growth policies in many countries is corporate taxes. [In the news recently there has been a lot of discussion of the VAT increases proposed by the Lebanese Ministry of Economy. Many analysts and critics have been arguing that the Lebanese government should work on increasing taxes on corporations and profits instead. In the US it has always been an area of confrontation between the Republicans and the Democrats. In most European countries, the government plays a greater role than in the US and both corporate as well as personal taxes tend to be quite high.]

The economic idea behind this is that tax relief (lower taxes) for corporations stimulates investment and growth. The controversy arises because usually (according to numerous studies conducted) such policy has only lead to the further enrichment of the rich and the impoverishment of the poor, *without really stimulating investment and growth*. It turns out that investment is mainly driven by other factors: technological breakthroughs, political stability, growing demand, etc.

**5) Regulatory Policy:** This category of policies includes all rules and regulations legislated by parliament (or congress) that are pertinent to the economy (such as the laws related to monopoly and excessive market power mentioned above) and all other regulations required to satisfy the other roles (tax laws, labor laws, commercial laws, education regulations, etc.).

# V. Three Macroeconomic Markets

The three macroeconomic markets are:

1. Goods and Services Market (this is the product or output market)

2. Labor Market (this is a major input market where labor is bought and sold)

3. Money Market (this is the other major input market, sometimes called the capital or financial market). This is where bonds and stocks are traded, and where savers and investors are brought together to channel funds from the group who has an excess to the group that has a shortage.

[Side note: Land is the third major resource or factor of production besides labor and capital, but the land market is not usually considered a macroeconomic market.]

**The “expanded” circular flow of payments** brings all the three markets together, showing how payments flow to and from the four main macroeconomic players: firms, government, households, and the rest of the world.

