Overview of Business Cycle, Money, Supply & Demand

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The business cycle and the money supply are macro economic issues while supply and demand are a micro economic concept that has a great influence on the bigger economic system as a whole. From a macroeconomic viewpoint, a good grasp of the business cycle and the money supply are fundamental to appreciating how a capitalist market system operates. And to fully see the bigger picture, it is important to understand that it is essentially the law of supply and demand that drives the economy, which in turn affects the business cycles, and the flow of money.

When viewing the economy from a macroeconomic perspective it is helpful to recognize that the capitalist market system is cyclic by nature. This cyclic nature is termed the business cycle, a fluctuation in economic activity characterized by a period of growth that reaches a peak and begins a downturn followed by a period of negative growth. A summary of the business cycle stages is shown below.

Prosperity → Slowdown → Recession → Recovery → ….

During a period of prosperity, a rise in production becomes evident. Employment, wages, and profits increase correspondingly. Business executives express their optimism by investing to expand production. As the upswing continues, however, obstacles begin to occur that impede further expansion. For example, production costs increase, shortages of raw materials may further hamper production, interest rates rise, prices rise, and consumers react to increased prices by buying less. As consumption starts to lag production, inventories accumulate, causing a price decline. Manufacturers begin to retrench; workers are laid off. Such factors lead to a period of slowdown. Business executives become pessimistic as prices and profits drop. Money is hoarded, not invested. Production cutbacks and factory shutdowns occur. Unemployment becomes widespread. A recession is in progress.

Recovery from a recession may be initiated by several factors, including resurgence in consumer demand, the exhaustion of inventories, or government action to stimulate the economy. Although generally slow and uneven at the start, recovery soon gathers momentum. Prices rise more rapidly than costs. Employment increases, providing some additional purchasing power. Investment in capital-goods industries expands. As optimism pervades the economy, the desire to speculate on new business ventures returns. A new cycle is under way.

However, business cycles do not always behave as neatly as the model just given, and no two cycles are alike. The most severe and widespread of all economic depressions occurred in the 1930s and is referred to as “The Great Depression”. Although business cycles cannot be stopped, there are things that can be done to lessen their impact. Today, we have an Index of Leading Economic Indicators which is very useful, because it provides an early signal of a turn in the economy. By using this Index, we can identify the phase of the business cycle and determine how we will be affected. Thus, it is important that we take a lesson from history and understand our individual role in this economic cycle.

The element that directs the flow of the economy from a macro economic perspective is money. While people often think of coins and currency, money is anything that can be used to make purchases. The United States divides money into four categories known as measures: M1, M2, M3, and L.

This breakdown measures the money supply by degree of liquidity. Liquidity refers to how easy it is to convert money into cash—the most liquid form of money. Checking accounts represent the next most liquid form because money in a checking account can be easily withdrawn by writing a check. Savings accounts are slightly more difficult to access than checking accounts and therefore are less liquid. Certificates of deposit are less liquid still because often funds cannot be withdrawn before a specified date without a penalty.

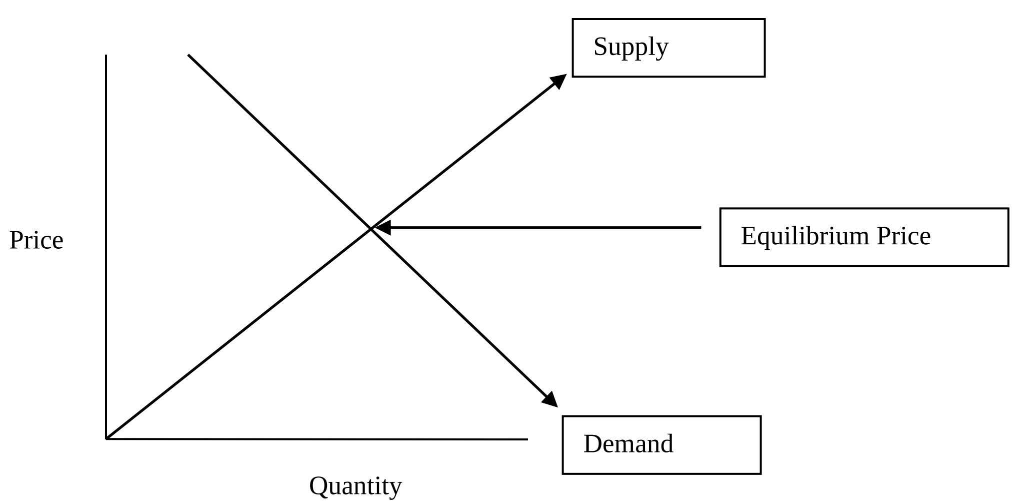
Definitions of different money supply measures include several technical items, but, in a general sense, M1 is the most liquid and includes cash, travelers' checks, and demand deposits—checking accounts from which money can be withdrawn on demand. M2 is less liquid and consists of M1 plus savings deposits of $100,000 or less. M3 consists of M2 plus savings deposits of more than $100,000. L consists of M3 plus government securities, such as savings bonds and treasury notes.

In the United States, the money supply is manipulated by the Federal Reserve Bank with one of three methods: buying and selling government securities, raising or lowering banks' reserve ratio which is the percentage of their total deposits that banks must maintain at the Federal Reserve banks, and raising or lowering the discount rate banks pay to borrow money from the Federal Reserve. Thus, the banking system operates on what is known as a fractional reserve system. That means that a certain specified fraction of all demand deposits must be always kept on hand in cash or at the Federal Reserve. The fractional reserve system allows banks to lend or invest money that has been deposited and gives the Federal Reserve a means of regulating how much the banks can lend or invest. So, through this system the Federal Reserve can control the money in the system and thereby control the supply of money to the economy.

Money supply is an important aspect of government monetary policy. Governments use monetary policy, along with fiscal policy, to maintain economic growth, high employment, and low inflation. So, as businessmen and consumers, we are greatly affected by the money supply. It is important for us to not only understand what money is, but also how it works. We must all continue to have a measure of faith in the system because the moment we stop, money will cease to function.

To fully grasp the economy as a bigger picture, we need to understand what is happening at the micro economic level. The economy is driven by the price of goods and this pricing is determined by supply and demand. According to the theory, or law, of supply and demand, the market prices of goods and services are determined by the relationship of supply to demand. Theoretically, when supply exceeds demand, sellers must lower prices to stimulate sales; conversely, when demand exceeds supply, buyers bid prices up as they compete to buy goods. The terms supply and demand do not mean the amount of goods and services sold and bought. Rather, in economic theory, supply is the amount available for sale or the amount that sellers are willing to sell at a specified price, and demand is the amount purchasers are willing to buy at a specified price.

We may think of demand as a force tending to increase the price of a good, and of supply as a force tending to reduce the price. When the two forces balance one another, the price would neither rise nor fall, but would be stable. This analogy leads us to think of the stable or natural price in a particular market as the "equilibrium" price. This sort of "equilibrium" exists when the price is just high enough so that the quantity supplied just equals the quantity demanded. As shown in the graph below, if we superimpose the demand curve and the supply curve in the same diagram, we can easily visualize this "equilibrium" price. It is the price at which the two curves cross. The corresponding quantity is the quantity that would be traded in market equilibrium. At equilibrium, there is no competition either to buy or to sell, because everyone can buy or sell however much they may wish, at the going price. But whenever the market is away from equilibrium, competition will arise and tend to force it back.



Thus, the price determining mechanism of supply and demand is operative only in economic systems in which competition is largely unfettered. Increasing recourse in recent times, to governmental regulation of the economy has tended to restrict the scope of the operation of the supply-and-demand mechanism. It was greatly restricted in the United States and other countries by the temporary governmental price regulations and rationing during World War II. In most Communist countries, where the economy is planned and controlled by the state, the supply-and-demand mechanism was initially slated for elimination. However, in the 1950s in Yugoslavia and in the 1960s in Hungary and the USSR, Communist planners began to restore the role of market forces in the economy. During the 1990s, new non-Communist governments in several Eastern European countries adopted free market principles.

Given the historical context, understanding this fundamental concept of microeconomics is more important than ever since we are now truly living in a global economy. The concept of supply and demand is so important because it helps us to better appreciate the market for goods we buy daily and somehow take for granted. In a wide variety of historic and current examples, we find that we can explain changes in quantities and prices as the equilibrium of supply and demand, with shifts in demand or in supply causing changes in price and quantity. The changes in price and quantity are coordinated in ways that can be understood and predicted if we understand the theory of supply and demand.

Business Cycle

Economic growth tends to occur in a cyclical pattern.

- Prosperity – Rise in production. More money is flowing, Supply and Demand equilibrium.

- Slowdown – Production costs rise, profits decrease. The Fed will raise interest rates, which should slow down the flow of money and demand will decrease since people will buy less.

- Recession – Production decreases, more people are unemployed. Money is not invested, and a low supply of products will keep prices high, and people will buy less.

- Recovery – Optimism pervades economy, government spends more money. The Fed lowers interest rates, which should increase the flow of money and increase consumer demand.

External Factors:

Random Shocks - Events often occur that are relatively unpredictable but have a significant effect on the economy. Recent examples include the failure of banks in Japan, and the collapse in SE Asia.

Policy Induced - Politicians have often been known to put in place policies to boost the economy. This can lead to booms which lead to the incoming government having to deflate to slow the economy down again.

Imported Cycles - If the rest of the world is growing in cycles, then this will affect us. Our exports may fluctuate, which means that aggregate demand will change and therefore growth changes.

Expectations - Expectations can have a powerful effect on growth. For example, if firms expect there to be a slowdown, they may delay investment plans. If they do that then aggregate demand will fall. If aggregate demand falls, so does growth.

Psychological Theories:

Optimism and pessimism of business leaders may influence an economic trend; this affects supply of money and supply and demand of goods and services.

Economic Theories:

Underconsumption – Inequality of income causes economic declines. The market becomes glutted with goods because the poor cannot afford to buy, and the rich cannot consume all they can afford. Thus, the rich accumulate savings that are not reinvested in products because of insufficient demand for goods. This disrupts economic equilibrium and begins a cycle of production cutbacks.

Innovation – New inventions stimulate investment in capital goods industries. Because new inventions are developed unevenly, business conditions must alternately be expansive and recessive.

Overinvestment – Instability is the logical consequence of expanding production to the point where less sufficient resources are drawn upon. Production costs then rise, and if these costs cannot be passed on to the consumer, the producer cuts back production and lays off workers.

Monetary - Stresses the importance of the supply of money in the economic system. Since many businesses must borrow money to operate or expand production, the availability and cost of money influence their decisions. Changes in interest rates determine whether executives decrease or increase their capital investments, thus affecting the cycle.

Multiplier Effects: (Money Supply and Demand Effects on the Business Cycle)

Basic to all theories of business cycle fluctuations and their causes is the relationship between investment and consumption. New investments have what is called a multiplier effect, that is, investment money paid to wage earners and suppliers becomes income to them and then, in turn, becomes income to others as the wage earners or suppliers spend most of their earnings. An expanding ripple effect is thus set into motion.

Similarly, an increasing level of income spent by consumers has an accelerating influence on investment. Higher demand creates a greater incentive to increase investment in production, in order to meet that demand. Both factors also can work in a negative way, with reduced investment greatly diminishing aggregate income, and reduced consumer demand decelerating the amount of investment spending.

Money Supply

How Money Supply Influences the Business Cycle and Supply/Demand

There are three major techniques available: monetary policy, fiscal policy, and incomes policy.

1. Monetary policy involves controlling, via the central Federal Reserve Bank, the money supply and interest rates. These determine the availability and costs of loans to businesses. Tightening the money supply theoretically helps to counteract inflation, loosening the supply helps recovery from a recession.

2. Fiscal policy includes increased taxation of the wealthy.

3. Incomes policy seeks to hold wages and prices down to a level that reflects productivity growth.

Classical theories: (Belief that the market system is a totally self-correcting mechanism)

Free market - Assumed that if the economy was left to itself, then it would tend to full employment equilibrium.

Say's Law – Supply creates its own demand since any increase in output of goods and services (supply) will lead to an increase in expenditure to buy those goods and services (demand). There will not be any shortage of demand and there will always be jobs for all workers - full employment.

Keynesians believe that an increased money supply can lead to increased employment and output as follows:

Reflationary policies to boost the level of economic activity:

- Increasing the level of government expenditure
- Cutting taxation (either direct or indirect) to encourage spending
- Cutting interest rates to encourage saving
- Allowing some money supply growth

Deflationary policies to dampen down the level of economic activity:

- Reducing the level of government expenditure
- Increasing taxation (either direct or indirect) to discourage spending
- Increasing interest rates to discourage saving
- Reducing money supply growth

Monetarists argue that increased money supply ultimately only affects prices, leading to inflation, and that output is not increased:

Quantity Theory of Money is $MV = PT$

where:

M is the amount of money in circulation
V is the velocity of circulation of that money
P is the average price level and
T is the number of transactions taking place

Classical economists suggested that **V** would be relatively stable, and **T** would always tend to full employment. In other words, increases in the money supply would lead to inflation. The message was simple: control the money supply to control inflation.

If the money supply grew faster than the underlying growth rate of output, there would be inflation. Inflation would be bad for the economy because of the uncertainty it created. This uncertainty could limit spending, limit the level of investment, and may also damage international competitiveness.

Supply and Demand

Demand-side Policies: (Government controls business cycle by spending and manipulating money supply)

The government uses reflationary policies to generate more demand by:

- Cutting tax rates to boost people's disposable income
- Increasing the level of government expenditure
- Cutting interest rates to encourage more borrowing and spending

Supply-side Policies: (Business growth and money supply generated by giving people more disposable income through tax breaks and less government spending promotes individual incentives)

These are policies that aim to boost the potential for the economy to grow by supplying more as follows:

- Cutting tax rates to give people the incentive to work harder and be more productive
- Cutting benefits to give the unemployed a bigger incentive to find a job
- Promoting education and training to create a more skilled and productive workforce
- Promoting research and development to find new more efficient ways to produce and lead to variety
- Promoting mobility so that people can retrain and move to where jobs are

Supply / Demand Theory:

- individual supply/demand functions
- determinants of supply/demand
- market supply/demand function
- supply/demand elasticity

Supply Determinants:

- Number of competitors
- Size of Market
- Costs
- Productivity
- Government Actions
- Technology
- Price
- Expectations

Demand Determinants:

- Income
- Price
- Market Size
- Prices of Other Goods
- Taste
- Expectations

The above determinants of supply and demand affect the availability of and the demand for goods and services in the economy. These factors are an integral part of the money supply and phase of the current business cycle.

Bibliography

1. Electronic library, Encyclodopedia.com [http://www.encyclopedia.com]

2. Hunter College, Introduction to Economics, 1999

3. The internet learning zone encyclopedia [http://www.searchspot.com/encyclopedia.htm]

4. [http://www.bized.ac.uk/virtual/economy]

5. Microsoft, Encarta Online encyclopedia [http://www.microsoft.com/encarta]

6. Heilbroner and Thurow, Economics Explained, 1998 pp. 124-164

7. Regis University, Economics of Management, 1999 pp. 21,29-33,66-69,74-77