

## **Important theories of Unemployment and Public Policies**

**Adil H. Mouhammed**  
**University of Illinois at Springfield**

*This paper intends to analyze the most important theories of unemployment. These theories are scientifically developed and confirmed by economists representing various schools of economic thought such as the Keynesian and the classical schools of political economy. These theories are used to develop some essential public policies that can be employed to reduce the unemployment rate.*

### **INTRODUCTION**

Many countries whether advanced capitalist economies or developing countries have experienced very high rates of unemployment since the Great Recession of December 2007. The American economy faces unemployment rate of 9.2 percent in June 2011, and Egypt has a rate of unemployment of 19 percent. The Saudi economy faces a rate of unemployment of 10 percent. This problem is very costly economically and politically. Economically, unemployment represents a loss in the Gross Domestic Product (GDP). Politically, the world witnesses the Arab revolt in Egypt, Tunisia, Syria, Libya, Iraq, and Bahrain, to mention a few, a revolt that is caused by unemployment, poverty, inequality, and dictatorship.

Economic literature provides many explanations for the unemployment problem. Some causes blame the economic systems, and others blame the unemployed workers. Still, other theories shift the problem to external sources and shocks, or unpredictable events, and others argue that technology and labor market institutions are the causes of the unemployment problem. Other theories think the deficiency in aggregate spending and innovations are the essential factors for explaining the problem.

This paper intends to review analytically these dominant determinants in the next seven sections. Section nine uses some of these theories to develop a set of public policies capable of reducing the rate of unemployment. The last section provides a summary and conclusions of this work.

### **UNEMPLOYMENT IN THE CLASSICAL ECONOMIC THEORY**

The classical theory, as analyzed by Pigou (1933) and Solow (1981), argues that the labor market consists of demand and supply of labor. Demand for labor is a derived demand, obtained from the declining portion of the marginal product of labor. The demand curve is a negative function of real wage in that if wages increase the quantity demand for labor will decline and the opposite is correct. The supply of labor is derived from worker's choice whether to spend part of time working or not working (leisure). Supply of hours worked is a positive function of the real wage, because if the real wage rises, workers supply more hours of work. In equilibrium, demand and supply of labor are intersected at a clearing point that determines the equilibrium real wage rate and full employment. Unemployment, Sweezy (1940: 807) explaining Pigou's *Theory of Unemployment*, "apart from frictional obstructions...would be nonexistent

if it were not for the fact that wage-earners habitually stipulate for a rate of wages higher than the 'equilibrium' level."

Full employment does not mean that there is no unemployment. Still frictional unemployment does exist at the going real wage rate. For example, if a worker thinks that the disutility of work is greater than the benefit of work or the utility of the real wage, this worker will decide not to work. This type of unemployment is called voluntary unemployment. Frictional unemployment arises because of the dynamic nature of the labor markets, the availability of information, the search for better jobs, and random fluctuations in demand for labor such as closing of a plant and of opening of a new plant. Duration of frictional unemployment is determined by the unemployment insurance benefits and the speed of the information.

Wicksell thinks that if wages are sufficiently flexible downward, then this decline can maintain full employment (Jonung 1989: 28-35). Cheaper credit to businessmen is the most effective measure to fight unemployment. He even thought that the government should support private investment in housing and soils. Government can support the introduction of various inventions as well. Government support should be financed by taxation. Wicksell analyzes technical unemployment due to technological change as well. The introduction of machinery would cause unemployment but the unemployed will search for new jobs, a search that will push wages downward. Hence, full employment is restored again. For the normal (frictional) unemployment, Wicksell thinks that advertisements and employment agencies can reduce the normal rate of unemployment. The cyclical unemployment, as another type of unemployment, is due to the lack of effective demand. He thought it would be a good idea to raise wages in order for workers to buy more. But this action may cause workers to lose their jobs as a result of higher wages.

Essentially, for Wicksell the cyclical unemployment was due to the wrong investment of capital. Capital was invested in areas where rates of return were low. He concluded that public works is the best measure to fight cyclical unemployment. After World War I, Wicksell thinks the boom and the rise in prices induced by the war would come to an end. Thus, unemployment would rise. Workers would have to accept lower wages. He also thought that government should provide financial support to the unemployed who could not find jobs. After 1921, Wicksell turns to Malthus. He thought that the causes of the unemployment are the surplus people, shortage of capital brought about by the war, and the disorganized state of the monetary system. For the third cause, after the war prices were falling and producers decided to produce lower amounts of production because they knew they would receive lower prices for their products. Thus, they let their money set idle in banks and workers became unemployed. These causes suggest that emigration became one of the important policies for solving the unemployment problem.

Wage reduction is not a competent policy to increase employment. The increase in wages is most likely due to increased labor productivity and wage reduction will reduce work intensity and productivity. Wage reduction will not force some capital intensive firms to switch to labor intensive techniques in the short run. Higher wages should stimulate the substitution effect by employing more machines for labor. And this substitution will increase labor productivity and employment in the long-run.

Hayek (Nishhiyama and Leube 1984: 7) contends that unemployment is due "to a discrepancy between the distribution of labor...between industries...and the distribution of demand among their producers. This discrepancy is caused by a distortion of the system of relative prices and wages." In other words, the unemployment is caused by "a deviation from the equilibrium prices and wages which would establish themselves with a free market and stable money." This is actually a mismatch between demand and supply of labor, which is usually caused by expansionary monetary and fiscal policies and powerful trade unions. These policies create economic dislocation and structural changes in an economy which misdirect labor and other economic resources to other alternatives. Unions are also able to set higher wages compared to market wages, which generate unemployment, particularly in industries that become less profitable. In short, for Hayek the unemployment problem is caused by resources being in the wrong places at the wrong time and can be corrected if wages and prices are determined by the equilibrium of supply and demand.

In line with Hayek theory of unemployment, Trehan (2001) provides an important explanation of the search theory of unemployment. Firms search for the productive workers and workers search for high-paying jobs. So, both agents continue searching until matches are reached. At that point a worker will leave the unemployment pool. But if a worker realizes later on that her productivity is worth higher wages and firms are paying high wages on the average, then the worker's reservation wage will increase. Consequently, the unemployment rate will start rising gradually, indicating a mismatch has occurred again.

## **UNEMPLOYMENT IN THE THEORY OF INNOVATIONS**

Originally, this theory was developed by the German economist Von Mangoldt (Ekelund and Hebert 2007) wrote a book about entrepreneurial profits in 1855 and connected profits to risk. He provided several ways by which the entrepreneur can make profits. These ways are (1) finding particular markets, (2) acquisition of productive agents, (3) skillful combination of factors of production, (4) successful sales policy, and (5) innovations. And it is well understood proposition that entrepreneurial profits will increase employment (Mouhammed 2010).

Schumpeter (1934) does not provide explicitly a theory of unemployment but his theory of the business cycle does demonstrate clearly how unemployment can be reduced. Innovation (see also Vecchi 1995) which creates more jobs relative to job destruction is the basic force beyond the increases in employment and the decreases in unemployment. When entrepreneurs innovate something new such as the production of a new product, the finding of a new market, the finding of a new method of production, and the introduction of new technologies and a new organization they increase investments to materialize those innovations. Domestic investment expenditures will increase demand on economic resources and will increase their prices. Other entrepreneurs will imitate the leaders by adopting the new innovations. Labor and materials will be employed to produce the new items. Consequently, wages will be increasing and unemployment will be declining, assuming that employment creation will outweigh employment destruction due to the new innovations (see also Mortensen and Pissarides 1998 and Manuelli 2000).

Schumpeter started his analysis by explaining economic development. By development, which is the essential part of his endogenous dynamic economics, Schumpeter (1934: 83) means the "changes in economic life as are not forced upon it from without but arise by its own initiative, from within. Should it turn out that there are no such changes arising in the economic sphere itself, and that the phenomenon that we call economic development is in practice simply founded upon the fact that the data change and that the economy continuously adapts itself to them, then we should say that there is no economic development." Economic development which reflects new changes outlined below is not a phenomenon that can be explained by economic forces only, but it has to be explained by other forces that are external to the ones analyzed by economic theory.

For Schumpeter, economic development generates changes in the socio-economic environment, including the existing equilibrium. As he (1934: 64) puts it: "Development ...is spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing." The essential driving force for generating development is innovations introduced by the entrepreneurs whose leadership becomes the triggering device for the discontinuous dynamic changes. Innovations start by "the producer [not consumer] who as a rule initiates economic change, and consumers are educated by him if necessary" (Schumpeter 1934: 65). It follows that economic development is defined "by the carrying out of new combinations" which are triggered by the business entrepreneur and appeared discontinuously (Schumpeter 1934: 66). And the outcomes of these combinations are welcomed by the consumers who are affected by the entrepreneurial leadership. That is, leadership becomes the prime mover to consumers and other imitating producers.

The concept of innovation which creates changes according to Schumpeter (1934: 66) covers the following five areas of development: "(1) the introduction of new good...or of a new quality of a good. (2) The introduction of a new method of production....(3) The opening of a new market....(4) The conquest of a new source of supply of raw materials, or manufactured goods...(5) The carrying out of the new

organization of any industry, like the creation of a monopoly position...or the breaking up of a monopoly position.” The new combinations are usually embodied in new productive enterprises which start by utilizing the unemployed working people, the unsold raw materials, the new technologies, and the unused productive capacity. As Schumpeter (1934: 68) points out, “Development consists primarily in employing existing resources in a different way, in doing new things with them, irrespective of whether those resources increase or not.”

For the continuation of the process of economic development and innovations credit and finance are important requirements: “in carrying out new combinations, financing...is fundamentally necessary” (Schumpeter 1934: 70). Credit is a very important function in economic development because it provides funds for the entrepreneurs to materialize innovations, or to carry out the new combination. Consequently, Schumpeter (1934: 74) argues, the banker who has savings and creates the money (or the purchasing power) for the entrepreneur is “a phenomenon of development.”

Accordingly, entrepreneurial leadership which triggers the process of economic development is “a special kind of function and in contrast to a mere difference in rank, which would exist in every social body” (Schumpeter 1934: 87). Leadership arises “only where new possibilities present,” and innovations require leadership, and the entrepreneur is the leader who responds to reality effectively and creatively. For her efforts, the entrepreneur earns entrepreneurial profits as a surplus over costs. That is, new combinations are carried out if there is development and if total receipts are greater than the total costs. Most importantly, Schumpeter (1934: 154) contends, “without development there is no profit, without profit [there is] no development.” And without profit there is no accumulation of wealth under capitalism. In other words, entrepreneurial leadership becomes the essential driving force for the business enterprises and the backbone of competitive capitalism.

Not only does economic development generate employment, income, and profits, but it also creates the value of land (rent), and without development the value of land does not exist. As the process of development continues the land value will rise due to urban and rural expansion. Moreover, development creates demand for certain goods. This is called repercussion of development, which creates surpluses (Schumpeter 1934: 172). Hence, profits are augmented in the process of the repercussion of development, which will in turn create another price for credit which is called the interest rate. Interests will be paid out of the profit or the surplus value. It is also true that without development there is no interest, but the process of development makes interest act “as a tax upon profit” (Schumpeter 1934: 175). For Schumpeter, supply and demand for credit will determine the interest rate, where the demand for credits is discontinuous because innovations are discontinuous. In short, higher wages and employment, economic profit, interests, and rents are all phenomena generated by innovations which in turn furnished by the entrepreneur.

During the process of economic development the economy is drifted toward a boom which is followed by a downturn, or a recession. Schumpeter contends that during the early period of the prosperity phase of the business cycle, the new innovating firms generate a higher demand for economic resources which must come from other industries. However, an innovative firm means it is able to produce per unit of a product at a smaller cost (Schumpeter 1928: 378). At the same time the innovative firms start selling the new products at reasonable prices, reflecting the economic power of these innovative enterprises. Given the low cost of production, the reasonable prices will generate higher revenues and surpluses which include profit.

The profit, however, is a temporary phenomenon. This is because some older firms become adapted to the new conditions and innovations and will be able to imitate (or copy) the methods and the products of the leading innovative enterprises. On the one hand, demand for economic resources will rise, so will their prices and the cost of production. Cost per unit of output will increase. On the other hand, the large volume of production will lower the prices, as firms lose their economic power for setting higher prices for their products. Consequently, as costs rise and revenues decline, profits will be eliminated, and liquidation will follow. Pessimism emerges and the capitalist economy moves toward a recession or a depression. Revival will start again after new swarms of innovations are initiated by some entrepreneurs.

Business enterprises whose leaders are creative will establish their economic power again for setting higher prices for low cost production. Profits will be rising, so will investments and employment.

Essentially, Schumpeter's theories of economic development and the business cycle are based on the entrepreneur and her creative leadership and responses. Schumpeter emphasizes the fact that innovation means creative destruction, destroying old products, firms, and markets and creating new products, firms, markets, and technologies that generate secondary waves. Innovation is a matter of entrepreneurial leadership and individual initiatives (Schumpeter 1928: 384). The entrepreneurial creative responses, Schumpeter (1947: 150) argues, are not predictable but are generating significant changes for a long period of time. Hence, entrepreneurship according to Schumpeter (1947: 151) is the mechanism of economic change, and the entrepreneur is the one who gets things done and controls the resistance and difficulties facing her business operations. In fact, the entrepreneur is the force behind economic and institutional changes such as technologies, products, contracts, property, labor relations, regulations, security, and freedom.

### **UNEMPLOYMENT IN THE THEORY OF EFFECTIVE DEMAND**

Veblen points out that the volume of output is set to attain a satisfactory profit and is a manifestation of the predatory instinct of the vested interests which aim at domestic and international dominance. But how is this volume of production determined to achieve reasonable profits? Veblen gives a lucid answer. He accurately realizes, and before Lord Keynes reaches a similar conclusion, that vested interests determine the volume of output after taking into consideration the aggregate demand. As Veblen (1904: 195) explains:

In part by actual increase of demand and in part through a lively anticipation of an advanced demand, aggressive business enterprise extends its venture".

And the 'venture', of course, means extending production and operations, assuming the existence of a reasonable level of profits.

The level of aggregate demand will provide the necessary increases in total revenues. On the other side, the cost of production has to decline. If revenue rises and cost declines, then the reasonable level of profits can be found. There are various forces in Veblen's work that reduce the cost of production. Technology increases production and reduce the cost of inputs used in the production process, and enterprises cut wages and increase productivity in order to cut cost per unit of output. Better technology can reduce the prices of capital goods, and government can cut taxes. Banks can reduce the interest rates as well. Administrative and insurance cost can be declined in order to stimulate business enterprises. The decline in costs, given rising revenues, will increase the profit level for Veblen. Consequently, higher profits will force the business enterprises to expand and employ more workers. Thus, employment will increase and the rate of unemployment will decline.

Keynes (1936) considers unemployment as an involuntary phenomenon. He thinks that employment is cyclical, generated by the deficiency of aggregate demand (Mouhammed 2010). Capitalists hire workers and invest to produce output when the expectations about the economy and profits are favorable. If expectations about the future are supported by reality, investments and employment continue rising until equilibrium is reached. This equilibrium is attained by the intersection of the aggregate demand and supply--the point of the effective demand—which may be less than the full employment equilibrium. If expectations about the future of the economy are not favorable, capitalists invest less and employ less number of workers. Hence, the equilibrium is achieved where cyclical unemployment exists. This unemployment is due to the deficiency of the aggregate demand, particularly investment expenditures.

Consistent with Keynes's teaching, Davidson (1998), a representative of Post Keynesian economics, argues that involuntary unemployment is explained by insufficiency of effective demand, instability of exchange rates, and international mobility of finances which create uncertainty that weakens entrepreneurial confidence to make investments to reduce unemployment. Similarly, other Keynesians

argue that the unemployment is due to the contractionary nature of the U.S. monetary policy which creates deficiency in aggregate demand. Other Keynesians think that the unexpected increase in price level, or a higher rate of inflation, will reduce the real wage and increase demand for labor. That is, the rate of unemployment will decline. This idea reminds one with the old proposition of Phillips curve suggesting there is a trade-off between the rate of unemployment and the rate of inflation.

## **UNEMPLOYMENT IN THE REAL BUSINESS CYCLE THEORY**

It is argued in this theory (Chatterjee 1995 and 1999) that the growth of productivity of input which revolutionizes technology is the main source of employment and unemployment. If the growth of output increases more than the growth of inputs, then total factor productivity or the residual, has increased. If total factor productivity is not growing, then firms and the economy become inefficient. It follows that reallocation of labor and capital cannot be achieved and labor and capital will be used in less profitable opportunities.

There are various causes for the slowdown in total factor productivity. Technology is not improving in the production of goods and services and workers' skills are not being enhanced. New products are not invented and when the prices of imported materials are increasing. Once total factor productivity is stagnating, the co-movements in other important variables will slowdown. For example, consumption expenditures will not increase above the trend, nor will investment spending. GDP and total hours worked will not be above the trend either. When consumption, investment, GDP, and hours of work decline, the Solow's residual, which represents the growth in labor productivity and is measured by the difference between actual and predicted productivity growth (or shocks), will decline. That is, there is no improvement in technology and productivity under this condition. Therefore, unemployment will increase.

Technology shocks are brought about by scientific and engineering development, by R&D, management techniques, and by industrial organizations that make inputs more productive. In Schumpeter's terminology innovations are being introduced and are very effective in making the economy grow. Innovations and favorable technological shocks also reduce inputs and increase total factor productivity. In short, if shocks to productivity brought about by technological shocks do not exit, the unemployment will rise.

Gali and Rabanal (2004) contend that demand and monetary shocks affect the variables of the business cycle, including employment, by about 75 percent, where the technological shocks affect those variables by about 25 percent. Gali (1999) finds that the positive shocks in technology generate a decline in hours of labor and negative comovement between technology shocks and productivity. For him, non technology shocks generated positive comovement between hours and productivity. His results were not consistent with the real business cycle theory.

## **UNEMPLOYMENT AND PRODUCTIVITY**

The standard microeconomic theory produces a similar result with different terminology. In this theory the marginal revenue product is MRP which is the multiplication of marginal revenue (MR) by the marginal product of labor ( $MP_L$ ), or productivity. Mathematically, it is  $MRP_L = (MR) (MP_L)$ . And the profit-maximizing firm will hire workers until  $MRP_L = W$ , where W is the given wage rate. It is assumed that the production function is of the form where output (Q) depends on two resources Labor (L) and all other resources combined as O, and is subject to a constant return to scale, where the sum of the exponents of L and O is equal to one. It is also assumed that the production function is affected by the technological level A such that,

$$Q = AL^aO^b \dots 1$$

Differentiate the production function partially with respect to labor yields

$$\partial Q/\partial L = aAL^{a-1}O^b \dots 2$$

Use the marginal product of labor in the  $MRP_L$  equation to obtain

$$MRP_L = MR \times MP = MR \times (aAL^{a-1}O^b) \dots 3$$

because,

$$MP_L = (aAL^{a-1}O^b)$$

The  $MRP_L$  should equal to the real wage rate  $W/P$ , where  $P$  is the price of the product. The  $MRP_L$  is equal to the value of the marginal product of labor if  $MR = P$  under perfect competition. Under imperfect competition, the  $MRP_L$  is smaller than the value of the marginal product, indicating the existence of labor exploitation. In any event, solving for  $L$ , we obtain the employment level

$$L = aPQ/W \dots 4$$

where  $PQ$  represents the gross domestic product, or GDP. If the numerator and the denominator of the above equation are divided by  $L$ , one can obtain

$$L = aPQ/L/W/L = a (\text{average product of labor})/(\text{average wage})$$

This equation states that if labor productivity (or the average product of labor) increases, assuming  $W$  is constant, the demand for labor,  $L$ , will rise, and the unemployment rate will decline. And this shift (or increase) in the demand for labor can occur, for example, if investment or capital formation increases. This is because if labor productivity increases relative to wages, the employer or the producer will increase the firm's rate of profit by hiring more workers ( $L$ ).

The previous analysis was adopted by Arthur Lewis (1954). Lewis develops what was called the Lewis model in which he assumes that if there was a surplus of labor and a given demand for labor, then the wage rate is fixed. Lewis points out that under this condition capitalists do make a certain level of profit. The capitalists will reinvest part of the profits in new capitals. This investment will raise labor productivity. Hence, the demand for labor will increase, and these new employed workers can come from low productivity sectors or the rural areas. This increase in employment will provide more profits for the capitalists, and more profits will increase investment, employment, and income. In short, demand for labor will shift to the right when labor productivity rises, indicating an increase in employment and income.

Clearly, the introduction of new innovative marketing techniques will increase the demand for the product and consequently will increase demand for labor. Moreover, if productivity increases due to a greater utilization of capital goods, new technological advances, and better quality of labor (due to education, training, and health), then the demand for labor (or employment) will increase. In other words, successful innovations will increase productivity and employment (Schumpeter 1934). In addition, if the prices of capital goods decline, the quantity demanded for these goods will rise. Consequently, output will increase, so will the employment of labor. If resources are complement, the employment of more capital in the production process will increase the demand for labor or employment.

In fact, technological change or growth will be equal to the growth rate of output minus the growth rate of labor productivity. If productivity increases significantly, it will increase the growth rate of the gross domestic product (GDP) with larger increases than productivity, which forces employers at that point to hire more workers to accommodate expected demand. Wages will rise but if labor productivity increases at a rate faster than the increase in wages, then the rates of inflation and unemployment will decline.

## MARKET STRUCTURE AND UNEMPLOYMENT

Microeconomic theory contends that market structure does affect the level of unemployment. Under the perfect competitive market the demand for labor and the supply of labor intersects to determine the wage rate and employment. Under this market condition, the demand for labor reflects labor productivity. Employers will hire workers up to the point where the value of marginal product ( $VMP_L = MP_L \times P$ ) is equal to the wage rate. Let us call this employment level  $E_c$ .

Under imperfect market conditions the outcomes are different. The demand for labor reflects the marginal revenue product ( $MRP_L = MP_L \times MR_X$ ), where  $MR_X$  is the marginal revenue. Under this condition,  $MR_X$  is lower than the market price  $P$ . It follows that the  $MRP_L$  is lower than  $VMP_L$ . That is, there is exploitation of the labor force by employers. The second important outcome under the imperfect market condition is that the marginal labor cost will be above the labor supply. When the  $MRP_L$  intersects the marginal factor cost, the employment of labor ( $E_m$ ) is determined. But this employment level is lower than the level of employment determined under perfect market condition ( $E_c$ ).

It follows that an economy dominated by large corporations will generate lower level of employment and a higher rate of unemployment. In some cases such as the NFL and NBA, among others, collective bargaining is used to settle wages. Even John B Clark (1894: 8) points out that monopoly “wants a high price for its own special product and it can get this only by reducing the amount created. This means fewer men in its own shops.” In other words, a restricted output will increase the rate of unemployment. Veblen (1921) calls this intentional restriction of output by large corporations as sabotage. For him, sabotage increases unemployment of plants and workers.

## GLOBALIZATION AND UNEMPLOYMENT

Recently, the unemployment problem has been attributed to the globalization process. For example, shifting production and outsourcing to other countries have generated a high rate of structural unemployment in the U.S. economy, which has contributed for the increase in the rate of unemployment. Appreciated dollar during the 1980s made American exports expensive in the world market, which reduced the export level, causing unemployment to increase in the exporting industries. But an appreciated dollar increased the imports from foreign countries, which raised the American rate of unemployment. Currently, the opposite has happened. The dollar has been depreciating against the major currencies, which have made the American exports cheaper globally. Hence, exports have increased and imports have become very expensive, which have contributed for increasing the level of employment.

Over the last two decades one can contend that generally the transportation cost has been declining (before the increases in oil prices) and wages and taxes had been increasing before the Great Recession of 2007. These factors provided incentives for corporations to outsource their production tasks to other producers located in foreign countries. It is also true that these forces pushed corporations to relocate to other countries where wages and taxes are low relative to the United States of America. It follows that many American workers lost their jobs due to these corporate decisions. For example, due to outsourcing and relocation of firms a large number of workers lost their jobs from the states of Michigan and Ohio.

Large corporations have also tried to increase their efficiencies in order to make more profits in the long run by reducing the cost of production. Thus, they have been involved in downsizing their operations. This process of downsizing is actually aiming at cutting employment of labor. Consequently, structural unemployment rose due to this process.

Globalization has also played a significant role in the development process of important countries such as India, China, and Brazil, to mention a few. These countries can compete with the United States of America and will be able to control a larger share of the global market. This will affect the American exports and employment negatively. But the process of globalization raises national incomes in many countries, a prosperity that will increase imports from the United States of America. Globalization also creates a competitive environment, forcing many corporations to be innovative. Hence, productivity and



demand for labor will increase in the United States of America, which will reduce the rate of unemployment.

## **IMPORTANT IMPLICATIONS FOR PUBLIC POLICIES**

The analysis of these determinants of unemployment provides an excellent picture for the trend of public policies. Governments at all levels should provide accurate information about the job market in order for workers to be able to seize this opportunity for finding employment. Governments should spend for education in order to develop very productive workers and innovative entrepreneurs. Training centers are also extremely useful for training and retraining the unemployed workers. These practices assist workers to develop new skills. In addition, governments can directly employ workers, and the Federal government can provide financial assistance to state governments to achieve this task. State governments can attract foreign direct investments, which will be able to create many jobs for the American workers. And in this context, it must be stated that governments have to cut taxes on domestically investing firms, because this action will provide better profitability for these firms. Furthermore, the Federal government must implement a tax holiday according to which the payroll taxes (taxes for social security) must be cut for a certain period of time, an action that reduces the cost of hiring new workers and provides extra income for the workers, which can be spent on consumption and investment (such as the purchase of a house).

The Federal government needs to reallocate a significant part of its spending from the military to the civilian economy, because the military sector is highly capital-intensive, requiring a lower level of employment. This reallocation is able to reduce uncertainty and foreign tension, which have increased prices of imported materials such as oil. Tax cuts and less costly regulations will increase employment and profits and reduce uncertainty which will increase domestic real investments. Spending for Research and Development and the infrastructure are crucially important tools for better innovations (such as finding new methods of production, new products, and new markets for increasing sales) and productivity which will increase domestic real investments and economic growth.

The Federal government has to use some regulations according to which large corporations can become more competitive. That is, the reduction of monopolistic and oligopolistic corporate power. This is because these large firms, given they employ less number of workers than competitive firms, cut production and employment rather than prices of products when there is a reduction in demand for their products. This behavior worsens the unemployment problem during a recession. If these firms become competitive, then the decline in demand for products will reduce prices rather than output and employment. Once these firms become more competitive they will be able to employ more workers.

The Federal government along with the Federal Reserve Banks can provide more credits at lower interest rates to business people and foreign buyers to purchase American products. This will increase employment in many domestic manufacturing firms. In line with this factor, the Federal government can encourage other foreign government to reduce or eliminate tariffs in order to make American exports cheaper in the global market.

American entrepreneurs with the financial support of the Federal governments and the Federal Reserve must develop new products and new technology. Both will increase domestic investments and employment. In addition, innovative products and technology can increase the export of the country and will enhance the global competitive position of the country. Technology is also a very important factor for increasing productivity which will reduce the cost per unit of output and will increase the profit margin.

## **SUMMARY AND CONCLUSIONS**

The important theories of unemployment suggest that there are very important variables for increasing the level of employment and reducing the rate of unemployment. These variables are expectations of high sales (demand) and growth, the provision of cheap loans to business enterprises, the increases in domestic real private and public investments, the improved skills of workers, the reduction in

economic and financial uncertainty such as regulations and higher health and labor costs, the improvement in technological progress and innovations, the transition toward competitive market economy, the reduction in taxes, the availability of competitive entrepreneurs and credits, the continuous increases in productivity, the reduction of prices of physical inputs such as oil, and the provision of job information.

These variables indicate that governments can play a significant role for increasing the level of employment. For example, the Federal government can reallocate half of the wasteful military expenditure to the civilian economy by spending more funds on education, the infrastructure, and training centers for enhancing workers' skills. The government can spend funds for colleges and universities for innovating new products and technology. The government can provide financial assistance to the state governments to balance their budgets and to increase employment level, and the government can cut taxes on domestic investors in real economic activities such as the real estate and the manufacturing sectors. Cutting payroll taxes such social security tax becomes a very urgent temporary task, because this cutting encourages firms to hire more workers and to stimulate workers to spend for consumption and investment. In addition, the government can cut healthcare and regulation costs in order to reduce business costs and to increase profitability, and the government can make the economy more competitive by reducing monopolistic and oligopolistic economic power in order to increase the employment level. In short, these types of cost cutting and government expenditure will increase productivity and employment, making the economy better off relative to the current status-quo.

The government can really cut the business cost of production by ending the wars which have contributed significantly for increasing oil prices from \$25 in 2000 to \$140 in 2008. These high oil prices have affected many industries and consumers negatively. Therefore, ending the wars in Iraq and Afghanistan is the simple way towards solving the energy problem in the American economy. Finally, the government can use various ways for solving the trade deficit with China, a trade deficit that has reduced the aggregate demand and the level of employment over the years.

## REFERENCES

Chat Chatterjee, S. (1995). "Productivity Growth and the American Business Cycle". *Business Review*, Federal Reserve Bank of Philadelphia, (September/October), 13-23.

Chatterjee, S. (1999). "Real Business Cycles: A Legacy of Countercyclical Policies?". *Business Review*, Federal Reserve Bank of Philadelphia, (January/February), 17-27.

Clark, John Bates. (1904). *The Problem of Monopoly: A Study of A Grave Danger And of the Natural Mode of Averting It*. New York: The Columbia University Press.

Clark, John B. (1894). "The Modern Appeal to Legal Forces In Economic Life," The Seventh Annual Meeting of the American Economic Association, Columbia College December.

Davidson, P. (1998). "Post Keynesian Employment Analysis and the Macroeconomics of OECD Unemployment," *The Economic Journal*, 108, 448, 817-831.

Ekelund, Jr., Robert and Robert F. Hebert. ( 2007). *A History of Economic Theory and Method*. Fifth edition, Long Grove, Illinois: The Waveland Press.

Gali, Jordi. (1999). "Technology, Employment, and the Business Cycle: Do Technology Explain Aggregate Fluctuations," *The American Economic Review*, 1, 249-271.

Gali, Jordi and Rabanal, Pau. (2004). "Technology Shocks and Aggregate Fluctuations: How Well Does the Real Business Cycle Model Fit Postwar U.S. Data?," *NBER Macroeconomics Annual*, 19, 225-288.

- Jonung, Lars. (1989). "Knut Wicksell on unemployment," *History of Political Economy*, 21, 1, 27-42.
- Keynes, J. (1936). *The General Theory of Employment, Interest and Money*. London: Harcourt.
- Lewis, A (1954). Economic Development with Unlimited Supplies of Labor. *Manchester School*, 22, 139-191
- Manuelli, R. (2000). "Technological Change, the Labor Market, and the Stock Market," NBER Working Paper 8022 (November).
- Morgenstern, Oskar. (1941). "Unemployment: Analysis of Factors," *The American Economic Review*, 30, 5, 273-293.
- Mouhammed, Adil. (2010). "Unemployment and the Entrepreneur," *International Journal of Economics and Research*, 1, 1, 1-14.
- Mortensen, D. and Pissarides, C. (1994). "Job Creation and Job Destruction in the Theory of Unemployment," *The Review of Economic Studies*, 61, 3, 397-415.
- Nishiyama, C. and Leube, K. (1984). *The Essence of Hayek*. Hoover Institution: Stanford University, Stanford, CA.
- Pigou, A.C., (1933), *The Theory of Unemployment*, London: Macmillan.
- Schumpeter, J. (1934). *Theory of Economic Development*. Cambridge, MA.: Harvard University Press. [Originally published in 1912].
- Schumpeter, J. (1947). "The Creative Response In Economic History," *Journal of Economic History*, 7, 2, (November), pp.149-159.
- Sweezy, P. (1934), "Professor Pigou's Theory of Unemployment," *The Journal of Political Economy*, 42, 6, (December), 800-811.
- Trehan, B. 2001. Unemployment and Productivity, *Economic Letter*, Federal Reserve Bank of San Francisco, Number 28, October 12, 1-3.
- Veblen, T. (1904). *The Theory of Business Enterprise*. New York: Kelley.
- Veblen, T. (1921). *The Engineers and the Price System*. New York: B.W. Huebsch.
- Vecchi, N. (1995). *Entrepreneurs, Institutions and Economic Change: The economics thought of J.A. Schumpeter (1905-1925)*. London: Edward Elgar.