

## Macroeconomic Theory and Unemployment: A Comparison between the Keynesian and New Classical Model

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**Abstract:** Unemployment has been a cause for concern in the political economy since its inception, and viewed as a universal problem. Both the New Classical and Keynesians models ignore involuntary unemployment, which is an effect of labour supply. Thus, a pertinent question arises; Are the theoretical constructs of unemployment the same for both schools of thought? This paper investigates and discusses the implications of the two schools of thought in relation to the mentioned constructs. Gaps in literature suggest that existing theories of unemployment and the macroeconomic theory are based on problematic assumptions; which do not allow for a seamless policy framework. This has resulted in conflicting and contrasting dimensions between the two schools of thought. The paper adopted a qualitative approach, using content review method. This involves the review of various journal articles and publications. To compare the main difference between the Keynesian School and the New Classical School, we focused on macroeconomic Equilibrium; Monetary policy Effects of Unemployment; Philips Curve and Supply of Labour. Analysis suggests that a near consensus is that there is no answer to unemployment conundrum for developing countries without them increasing their rate of capital accumulation, which must be at the same level with the growth of labour supply. The New Classical model posits that an efficient outcome is a consequence of free markets, which is self-regulating. They assume that in the long run, aggregate supply curve is inelastic; therefore, any shift from full employment will only be transitory. However, Keynesians contend that the economy can be below full capacity for a significant time because of market imperfections. Thus, they advocate a greater role for expansionary fiscal policy to overcome recession. Policy makers should support micro and macro adjustments for effective fiscal policy. The issues discussed in the paper provide a template that could assist policymakers in improving policies that aim to reduce unemployment.

**Keywords:** Unemployment; Keynesian; Classical; Policy

**JEL Classification:** B2; B20; B21

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## 1. Introduction

The focus of the macroeconomic theory is the aggregate market analysis, which is aggregate demand and aggregate supply. This theory is a mixture of Classical and Keynesian economics. Classical economics is based on the perception that flexible prices ensure market equilibrium; thus, full employment is therefore maintained; whereas, the Keynesian economics is based on the assumption that aggregate demand is the primary source of uncertainty, thereby making Government intervention inevitable. Nonetheless, macroeconomic policy is implemented through two main policies, namely, the monetary policy and the fiscal policy. The monetary policy is implemented by central banks through the control of money supply. Money supply is continuously shifted to maintain a fixed interest rate. In some cases, the interest rate is allowed to fluctuate, with the idea of focusing solely on inflation. Policy-makers favour this because of its shorter inside lags, and decisions can be made quickly. The fiscal policy, on the other hand, is the use of revenue and expenditure generated by government in the economy. Government expenditure can be used to employ extra resources in order to achieve optimal output where it is not being achieved. Any form of expenditure from government increases consumption and investment. This increase in consumption and investment contributes towards a decrease in unemployment. Thus, the increase in investment is an indication that more funds are available in the economy. However, political institutions influence the fiscal policy, and decisions are, therefore, more likely to be made based on political motives. The fiscal policy has longer inside and outside lags, and the outcome of the period of these lags influences how long it takes to make a decision.

The Keynesian School of thought is centred on macroeconomic policy and focuses on the pressure of unemployment. This school of thought focuses on cyclical unemployment and argues that there is no involuntary unemployment due to it being an unfounded situation. The absence of involuntary unemployment results in the equilibrium of demand and supply of labour. This means that the skills demanded for the job meet the skills supplied by the employees. It is further argued that a trade-off between inflation and unemployment exists in the economy. Nonetheless, The New Classical School of thought argues that employment might increase through downward adjustment of wages. This school posits that unemployment occurs when wages within an economy are kept above the market-clearing. The perceived outcome of this is the economy has a surplus of labour supplied. The concept of involuntary unemployment is applied within the theory. Unemployment has severe implications for an economy, namely: unemployment financial costs and a decrease in spending power. The unemployment financial costs are borne by government as they pay benefits such as grants to the unemployed. Unemployment has been a concern of the political economy since its inception, and it is a universal problem. There are three distinct types of unemployment, namely: voluntary unemployment, frictional unemployment and involuntary unemployment. Unemployment becomes

an alarming concern when it is involuntary. John Maynard Keynes (1936) singled out two interlinked principle faults of unemployment: (i) the principle of capitalism; and (ii) the principle of excessive inequality. In a capitalist economy wages are a major source of income, whereas involuntary unemployment results in lower-income. Inequality and poverty will be reduced if jobs can be delivered to the unemployed.

The initial Neo-Keynesian Phillips curve was grounded on the empirical work of Phillips (1958), which suggested a negatively sloped long-run relationship between unemployment and inflation. The perspective was challenged in the late 1960s. They argue that structural unemployment occurs regardless of the cyclical state of an economy. Fourie and Burger (2009) further suggest that seasonal unemployment simply looks at seasonal patterns of increased or decreased activity in a certain sector of the economy (industry and agricultural). However, frictional unemployment focuses on the number of individuals who are in the process of searching for new jobs. The individuals in the process of changing careers are also classified under frictional unemployment. Lastly, cyclical unemployment looks at short-run cyclical downswings in the level of macroeconomic activity income. When the level of income fluctuates, the employment fluctuates along with the level of income. Nemalili (2006) and several others argue that unemployment is a problem that every political leadership has to grapple with. The theory behind the natural rate of unemployment, which was established by Friedman and Phelps (1968), suggested a vertical long-run relationship between unemployment and inflation. The policy implication suggested that no long-run trade-off between inflation and unemployment exists. Akerlof (2000) and Palley (1998) developed a backward bending Phillips curve model. It suggested that the Phillips curve is negatively sloped in unemployment and inflation trade-off. It eventually bends back, becomes positively sloped, and eventually becomes vertical. The Phillips curve provides the equation in the determination of the rate of inflation. It establishes a structural restriction on policy. It is imperative to differentiate between conflict inflation and demand-pull inflation.

The Neo-Keynesian Phillips curve is a demand-pull inflation story, whereas the Post Keynesians intended to accentuate conflict inflation. Nonetheless, Marx (1867) and Friedman (1968) agreed that high unemployment was associated with workers' bargaining power. The argument was that a decline in bargaining power leads to an increase in unemployment. Friedman (1968) agreed with the theory of Keynes (1936), who argued that unemployment could be eradicated under capitalism. Keynes believes that under capitalism, the implementation of good policies could maintain employment levels. Vermeulen (2009) supports the theory of inflation and unemployment as a trade-off. His analysis of the relationship between the two variables confirmed that there is a negative relationship. Higher inflation is associated with slower growth in employment, while Samuelson and Solow (1960)

contended that a long-run trade-off between unemployment and inflation existed. However, Friedman and Phelps (1968) disputed the assertion. They argued that irrespective of the inflation rate, the economy would slope to a natural rate of unemployment. The causes of unemployment, according to Darity and Goldsmith (1996), are unforeseen shocks. Changes in productivity are directly linked labour supply. The market is unable to reach equilibrium due to the minimum wage model. Wray (2009) argues that unemployment is as a result of inadequate real demand. The only way in which this could be resolved is through employment creation. The employment creation induces higher demand. Friedman (1968) argued that leisure was a form of voluntary unemployment. The decline of market-determined wages leads to involuntary unemployment. Marx (1867) posits that involuntary unemployment was efficient for a capitalist economy. The statement that involuntary workers could replace workers who lose their bargaining power supported the argument. Keynes (1936) disagreed with Marx's theory by stating that involuntary unemployment was irrational. Mishkin (2006) argued that the non-accelerating inflation rate of joblessness is not necessarily stationary at one rate of unemployment. The outcome is lower unemployment rates without inflationary pressures.

### **1.1. Issues in Context**

From the foregoing, there are obvious conflicting and contrasting dimensions between the two schools of thought regarding unemployment from a macroeconomic perspective. The New Classical school argues that equilibrium occurs where supply and demand of labour are equal. However, the analysis leaves no room for involuntary unemployment that is an excess of quantity supply of labour. On the other hand, the Keynesian school of thought argues that unemployment is a result of a decrease in labour demanded. The outcome is an excess supply of labour, which leads to involuntary unemployment. Gaps in contemporary literature suggest that the existing theories of unemployment and the macroeconomic theory are based on problematic assumptions. Thus, a pertinent question arises, Are the theoretical constructs of unemployment the same for both the New Classical and the Keynesians? This paper reviews and discusses the significance and implications of the two schools of thought. The paper specifically compares and contrasts theoretical unemployment perspectives under the Keynesian School and The New Classical School.

## 2. Theoretical Framework/Method

The paper adopts a qualitative approach and employs a case study approach, which entails the review of various journal articles and publications, which is a form of documentation to answer the research question. The purpose of adopting qualitative research is to develop an understanding of the different schools of thought regarding unemployment from a macroeconomic perspective. A content review was chosen as the desired approach for analysis. The first theoretical framework that is adopted in this review paper is The Keynesian approach, developed by John Maynard Keynes in 1936. The British economist supposed that there was a trade-off between unemployment and inflation. The model focuses solely on aggregate demand alone. It further emphasises the effect this has on inflation as well as output. The position presented is that, whether it is expected or unexpected, changes within aggregate demand leads to the greatest impact on productivity and employment in the short run. The idea is represented by Phillip's curve, which illustrates the trade-off between inflation and unemployment. Keynes in his famous statement says, "*In the long run, we are all dead*" The statement was a reflection of the notion that we cannot conclude that the same outcome will occur in the long term.

The second theoretical framework adopted in this research paper is The New Classical approach, which was developed by the pioneering works of Robert Lucas in the early-1970s. The model was developed in an attempt to critique The Keynesian theory of unemployment. The model framework claims that employees rationally form price expectations. It further assumes wage and price flexibility. The conclusion drawn is that the return of the economy to its distinctive long-run equilibrium spot at full employment and possible output is ensured by wage and price flexibility. Labour supply is related directly to changes in productivity. A minimum wage model is perceived as a major role player in this model. The effect of this model differs amongst the employed and unemployed. At the same time, The New Classical school theory suggests that there is an adjustment process to any shock, which includes rational expectations, prices, and income. According to (Blanchard 2009), monetary and fiscal policies within the New Classical framework at full employment influence aggregate demand, whereas the level of potential output determines aggregate demand (Próchniak 2012).

## 3. Brief Review of Literature: Unemployment Framework Debate

Marx (1867) addressed the issue of unemployment at great length in the first volume of *Capital*, especially in Chapter 25, "The General Law of Capitalist Accumulation." Marx argued that workers assume less power than capitalists in the bargaining process over wages in a free market capitalist economy. Pollen (2008) stated that the argument is supported by the mere fact that if workers fail to find employment, they

have no other way of surviving. The reasonably stronger bargaining position assists capitalists in gaining higher revenues. High unemployment and underemployment result in workers' bargaining power drastically declining. Active workers could effortlessly be substituted by involuntary unemployed persons. Marx (1867) concluded that purposeful to the operations of a capitalist economy was high involuntary unemployment. When a capitalist economy grows swiftly, it leads to involuntary unemployment. The result thereof is that employees would abuse their increased bargaining power to influence wage increments. Friedman, like Marx, associates the occurrence of high unemployment in capitalist economies with the capability of employees to raise bargaining power. Friedman (1968) concludes that free-market capitalism will guarantee that companies are offering employees employment with suitable remuneration packages. Workers have the courtesy to choose between employment and leisure. Leisure would, therefore, be defined as voluntary unemployment. Where workers refuse to accept free market-determined wages, it would result in the natural rate of involuntary unemployment becoming positive. On the other hand, Keynes (1936) opposed Marx (1867) by stating that involuntary unemployment is irrational. He, however, agreed with Friedman's theories. Keynes believed that full employment was achievable under capitalism. Keynes (1936) also believed that high unemployment was a result of inadequacy in total spending within the economy. In order to sustain, Keynes suggested that applications of cleverly designed policies build and maintain full employment capitalism.

The Keynesian approach was centred on macroeconomic policy. In the maintenance of a level of overall demand, which is consistent with no involuntary unemployment government could control interest rates and the availability of credit. Kalecki (1945) argues that the issue which would be beneficial to profits is full-employment. The operation of the economy is flexible for markets at a high level of overall demand for products. However, Pollen (1998) argues that high wages demand, that a full-employment economy could be accommodated through business profits. Businesses will not support full employment as a goal, although full employment would be advantageous to them. Kalecki (1945) argued that even if full employment supported profit, capitalists would not support full employment even though it was maintainable under capitalism. Samuelson and Solow (1960) posited that the work by Phillips (1958) is inclined to a long-run trade-off between unemployment and inflation and suggested that the trade-off should be exploited. This, therefore, means that the policymakers are given a choice between inflation and unemployment, which are two competing goals. The policymakers also have the decision of the maximum inflation rate, and they are prepared to accept this to enable a lower unemployment rate to be reached. Samuelson and Solow (1960) stated that inflation accelerated in the late 1960s and 1970s according to economic record. The inflation rate in industrialized countries rose above 10 percent; this was called "The Great

Inflation.” Conversely, Milton Friedman (1968) and Edmund Phelps (1968) disputed the suggestion by Samuelson and Solow of a trade-off. Their argument was based on the following premise; there was no long-run trade-off between unemployment and the inflation rate: They further argued that the economy would descend to some natural rate of unemployment in the long-term, regardless of the inflation rate. In summary, what they argued was that all of this would result in the accumulation of a long-run Phillips curve that is vertical. The natural rate assumption of Friedman-Phelps was instantaneously dominant and quickly began its incorporation into formal econometric models.

Friedman (1968), a monetarist, critiqued the traditional Keynesian Phillips curve model as miss-specified. A key theoretical insight was provided which indicated that nominal wages are reasonably high in relation to price inflation within labour markets. The monetary policy was said to influence unemployment temporarily. The stimulation of employment is said to be temporary due to the fact that unemployment could return to its natural rate resulting in higher inflation. The goal of low unemployment was pursued through monetary expansion. When interest rates are lowered, it would result in the stimulation of spending. In the short-term, labour productivity rises and employment and output are increased. Friedman (1968) further argues that unemployment is guaranteed to always be at its natural rate when an increase in the real wage rate occurs. From another viewpoint, The New Classical model states that participants of the labour force influence price expectations reasonably. Darity and Goldsmith (1996) further state that unforeseen shocks have real effects. The consequences thereof are persistent unemployment. Lott and Miller (1982) measured employer and employee price forecasts, respectively, using both the Livingston Survey and the Michigan Survey data. The results suggested that workers in the United States of America, as well as in the United Kingdom, are more plausible forecasters of inflation. Darity and Goldsmith (1996) argue that an assumption of the New Classical model is that labour supply is directly linked to changes in productivity. Technological improvement increases labour productivity and demand as well as stimulating a temporarily high wage desire to supply additional labour. A basic analysis of the minimum wage model is an analysis of any price floor. Darity and Goldsmith (1996) further posit that the model assumes that all employees participate in the same market, and they would, therefore, receive the same remuneration.

Mafiri (2002) found that the focus of the Keynesian model has been on cyclical unemployment traditionally. The cyclical unemployment, as mentioned earlier, generally focuses on the downswing in the level of macroeconomic activity income. Insufficient expenditure is illuminated by the simple Keynesian explanation of unemployment. The result thereof is that macroeconomic equilibrium would be below the full employment level.

Theoretically, the supply adjustment process illustrates long periods of cyclical unemployment. However, the adjustment process moves the economy back from the level of unemployment equilibrium to the level of equilibrium on the long-run supply curve. The requirement is of prices and wages to adjust downwards, this illustrates the trade-off between unemployment and inflation, while Mishkin (2006) concludes that the non-accelerating inflation rate of unemployment (NAIRU) is not essentially static at one rate of unemployment. This view originates from the fact that if aggregate investment could be enlarged by growing productivity and competitiveness, then it would result in the rise of the feasible wage which firms would be able to pay. The economy would thus be able to function on the premise of a decreased unemployment rate and without inflationary pressures emerging. Improving productive proficiencies shifts the NAIRU curve to the left Mishkin (2006:91). The inference is not only that there may be no distinctive equilibrium point (NAIRU) with one level of joblessness associated with non-accelerating inflation but also that the decrease in redundancy would result in an outcome that leads to inflation decreasing instead of increasing (Mishkin, 2006:91). The disparity between the long-run Phillips curves and the short-run Phillips curves has altered the meaning of the relations between inflation, unemployment, and output since its first publication by Phillips in 1958. Nonetheless, Mishkin (2006) posits that the Phillips curve theory is now highly debatable. In-addition, Wray (2009) argues that unemployment is not a result of defective operation of the labour market. Unemployment is seen as “normal” and is the result of the operation of market forces, which can be resolved only through targeted social policy if the targeted policy is well directed towards the increased demand and delivers jobs for the unemployed. Wray (2009) stated that Keynes (1936) singled out unemployment as one of the primary faults of capitalism. The other primary fault is unwarranted inequality.

Broadly speaking, there is a relationship between unemployment and inequality. People who are geographically located in capitalist economies work for wages as the main basis for their earnings. Involuntary unemployment results in lower-income. Since 1960 the fear of low unemployment resulting in inflation was represented by the supposedly Phillips curve trade-off. The trade-off suggested that lower unemployment can only be acquired through higher inflation. Wray (2009) further suggested that the main obstacle to achieving full employment is the trade-off. Economists and policy-makers fought policy that would achieve full employment due to the fear of the Phillips curve trade-off. Keynes, therefore, argued that “true inflation” arises only when aggregate demand rises beyond the full employment level. The argument further states that prices and wages could rise long before that point. The Keynesian policy fell out of favour during the 1970s. Stagflation occurred in developed countries during this period. Stagflation can be defined as the combination of high unemployment and high inflation. The Keynesian policy was,



therefore, no longer useful. In order to combat inflation, aggregate demand should be reduced. In order to fight unemployment government should increase aggregate demand. In testing the Gordon Triangular Model (GTM) using the U.S inflation and unemployment data, Gordon (1990) adopted a New- Keynesian perspective. The period, which the model was tested for, was between 1970 and 2006. The data used was on real marginal cost as an alternative for output gap as well as data on inflation rates. It was found that there was an overall weak correlation between the two variables, although the correlation was positive. Gali and Gertler (1999) similarly undertook a structural econometric analysis of the inflation dynamics in the U.S. The period which they used was 1960 to 1997. The study found a direct relationship between future expected inflation and unemployment. The empirical validity of the New- Keynesian firm theory-based Phillips Curve models were supported by the findings of Gali and Gertler.

Vermeulen (2015) argued that analysis suggests a conflicting relationship in the long run between inflation and employment. Inflation was plotted against employment with a fitted logarithmic regression line. The results indicated a very small positive relationship in the long run between inflation and the number of people employed. It was illustrated by the correlation coefficient of 0.12. Higher levels of employment weakly coincide with higher levels of inflation. This statement is not consistent with the argument of economic growth leading to employment growth, and the negative relationship between inflation and growth in South Africa. However, a very weak positive correlation was found. When a few observations were removed when employment was relatively low, it changed the correlation coefficient -0.40. A further analysis of this observation was done in Vermeulen (2015) on the relationship between inflation and employment growth. The results showed that the correlation coefficient of -0.33 is stronger evidence of a moderate negative relationship. However, when a few observations were removed, it did not change the sign of the correlation, and it remains weakly negative at -0.29. The outcome of the results reinforced the suggestion of a negative relationship between inflation and employment growth. Employment creation is said to be restrained by overly strict inflation targeting. It may seem that higher inflation is poorly associated with higher employment; the adjustment of the sample questions this observation. Higher inflation is clearly associated with slower increase in employment. It might be suggested that agreeing to higher inflation as part of expansionary monetary policy might not necessarily improve long-run employment growth. It might be questioned that it possibly slows it down.

#### **4. Discussion and Interpretation: The Keynesian School and the New Classical School**

To compare the main difference between the Keynesian School and the New Classical School, we focused on macroeconomic Equilibrium; Monetary policy Effects of Unemployment; Philips Curve and Supply of Labour

##### **i. Macroeconomic Equilibrium**

Macroeconomic equilibrium occurs when an economy is in a situation where the quantity of aggregate demand equals the quantity of aggregate supply. According to Keynesian theorists, slow price adjustments may result in the non-clearing of markets. The economy, therefore, finds itself in a state of disequilibrium. The Keynesians further argue that the economy would find itself in a situation where unemployment is involuntary. As mentioned above, involuntary unemployment occurs when the amount of labour supplied exceeds the demand. Conversely, The New Classical School assumes that continuously, all markets clear in the economy. Proponents of The New Classical School further argue that prices and wages also adjust instantaneously, because the economy is in a continuous equilibrium state. This applies to both the short and long-run and all markets are cleared. As price and wage changes are almost immediate, there is no disequilibrium even in the short-run, and all unemployment is equilibrium unemployment. The key difference between the two schools is that Keynesian theorists argue that the economy is in disequilibrium due to a slow adjustment in prices, and as a result, the economy finds itself experiencing involuntary unemployment. The New Classical theorists, however, argue that the economy is in a continuous state of equilibrium as price, wages adjust instantly, and therefore the economy finds itself experiencing a voluntary form of unemployment.

Neary and Stiglitz (1983), Buiter, Willem and Miller (1983) and Taylor (1985) show several illustrations where policy impotence is not implied as rational expectations, which supports the Keynesian view on equilibrium, while Darity and Goldsmith (1996) concur with the New Classical model on equilibrium on the instantaneous adjustment of process and wages. The policy implication from the Keynesian economist's point of view is that due to the presence of involuntary unemployment, interventions would need to be adjusted such that the demand for labour increases by targeting the skills which are required for a job. Monetary policy can be used to achieve this outcome through monetary expansion, which is the expansion of money. This results in a decrease in interest that in turn encourages investment; aggregate demand will therefore increase, and the outcome is a decrease in the level of unemployment, which is a rise in the employment level. In addition, fiscal policy interventions can be implemented in the event that monetary policy fails. The outcome is an increase in aggregate demand. This will lead to a decrease in

involuntary unemployment. The policy implication from The New Classical economist's point of view is that due to the economy being in a state of continuous equilibrium, the outcome is voluntary unemployment. Government would, therefore, need to design a policy in which the jobs, which are available, offer an attractive package. This might help to alleviate the presence of voluntary unemployment.

## ii. Monetary policy effect on unemployment

The Keynesian economists argue that there is an indirect relationship between the real GDP and money supply. Monetary policy that is expansionary increases the money supply accessible via the banking system. The outcome is a decline in interest rates. The goal of low unemployment was pursued through expansionary monetary policy; lower interest rates stimulate spending, according to Friedman (1968). On the other hand, lower interest rates increase aggregate expenditures on investment, which causes real GDP to increase. The conclusion, which can be drawn, is that the monetary policy affects real GDP indirectly. However, the lower interest does not always encourage an increase in aggregate investment. The firms' and households' demands are not necessarily sensitive to lower interest. The outcome can be that unemployment would not necessarily decrease, although the money supply has increased. On the other hand, The New Classical economists argue that an increase in the quantity of money leads to a relative increase in the price level. The argument is based on the quantity theory of money. The equation is expressed by  $MV=PY$ . P symbolizes price level; Y symbolizes level of real GDP. PY, therefore, represents nominal GDP. M denotes money supply, whereas V represents the velocity of circulation. The above model posits the prevailing market worth of all final goods and services. The New Classical economists insist that the economy is always near or at the natural level of real GDP. Hence, expansionary monetary policy would lead to a rise in money supply, which is inflationary leading to a price level increase.

The key difference between the two schools of thought is that Keynesians argue that there is an indirect relationship between money supply and real GDP, whereas the Classical School argues that the increase in money supply leads to an increase in the price level which affects inflation. Inflation is as a result of higher price levels, which means firms are able to afford more workers, which would decrease unemployment. Pollen (1998), Friedman (1968) and Phelps (1968) agree on the key differences between both schools as per the effects of monetary policy on unemployment. The policy implication from the Keynesian economist's point of view is that lowering interest rates would decrease the cost of borrowing. Businesses are, therefore, able to borrow money and repay loans in the future. It encourages investments, therefore leading to an increase in aggregate demand and GDP. The increased activity of borrowing increases the demand for goods; in turn, this encourages companies to employ workers. The outcome is a decrease in unemployment. The policy

implication from the New Classical economist's point of view is that unemployment is affected by setting inflation. Further, it is argued that steady prices encourage business owners to employ more people. Employees benefit from an increase in wages and job security. The employees are engaged in meeting consumer demands. The outcome is a reduction in unemployment levels.

### **iii. Phillip's Curve**

The Keynesian School believes that there is a trade-off between unemployment and inflation. The conclusion was drawn from the inverse correlation between the two variables. Samuelson and Solow (1960) agreed with this argument by stating that there is a trade-off between unemployment and inflation. It was further argued that the trade-off could be exploited. The notion was that policy-makers are given a choice between the two competing goals. The policymakers can, therefore, choose the maximum inflation rate in order to lower the unemployment rate. The Keynesian school strengthened their stance by arguing that if there is extra capacity, which means we move closer to full capacity, an increase in aggregate demand leads to an increase in real GDP (gross domestic product). Unemployment, therefore, decreases due to businesses employing more employees. However there is a trade-off of higher levels of inflation. When there is a lower rate of unemployment, employees can demand higher remuneration. Businesses also increase their price levels, leading to a decrease in unemployment but an increase in inflation. Keynesians further argue that if there is a significant negative output gap, the increase of aggregate demand could lead to lower unemployment and a modest increase in inflation. The New Classical School argues that that there was not any useful trade-off between unemployment and inflation. Friedman and Phelps (1968) supported this argument by stating that there was no long-run trade-off between the inflation rate and the unemployment level. Their argument identified the fact that the economy descends to a natural rate of unemployment in the long run, regardless of what the inflation rate was. The New Classical economists argue that aggregate demand through expansion decreases unemployment only due to unexpected acceleration in prices. Businesses who misinterpret increased market prices for increased returns would produce more goods. Employees who misunderstand increased wage levels for an increase in their purchasing power if not employed would grab job opportunities sooner. The outcome would be alleviation of unemployment according to The New Classical economists. The outcome, however, would only be temporary. The increased returns and increase in purchasing power was not corrected for higher inflation. Once the error is realized, businesses and employees would return to their previous levels of output and labour supply.

The key difference between the two schools of thought lies in the fact that The Keynesian School argues that the Phillip's curve exists. The optimal outcome is

lower unemployment and higher inflation. The New Classical School argues that the presence of the Phillip's curve is absent in the economy. The argument follows that unemployment decreases due to unexpected changes in price levels. The adjustment of wages reduces unemployment in the long term. Classical economists submit that the reduction of unemployment below the natural rate in the short-term is attainable by increasing aggregate demand. However, in the long-term, when wages correct, inflation will be higher because unemployment will return to the natural state. Therefore, there is no trade-off in the long term. On the other hand, the Keynesians dispute this scenario but rather contend that there can be a trade-off between unemployment and inflation. Authors such as Burger & Marinkov (2006), Friedman (1998), Gordon (2011), and Hoover (2008 & 2015) agree on the key differences of both schools of thought. The policy implication view of the Keynesians was that monetary or fiscal policy, which lowered the unemployment rate, also caused a higher inflation rate. Policy-makers will aim for a situation of low inflation and low unemployment. If those measures were attainable, the outcome of lower inflation and lower unemployment would have been easy to obtain. However, in reality, policy-makers are weighing their options. The decision lies between prioritising reducing unemployment and reducing inflation. The policy view of The New Classical economists is that an unexpected growth in aggregate demand taking place due to an expansionary monetary policy will result in the increase in output. We would, therefore, attract workers, which, in turn, raise wages, which results in an increase in the supply of labour. The outcome, however, is a short-run outcome due to the assumption of rational expectations. The review of inflationary expectations will result in a new outcome, which is a long run outcome, leaving employment and output the same; however, prices will increase. In conclusion, an unexpected growth in money supply leads to a temporary change in employment and output levels, although prices increase in the short-run.

#### **iv. Supply of labour**

The Keynesian economists argue that the long-run aggregate supply is different from the short-run aggregate supply. The argument is based on the premise that the economy is allowed to be below full capacity in the long term. It is, therefore, safe to say that the Keynesians place emphasis on the cause of a recession being due to the aggregate demand. The logic behind this is that in a scenario where there is a fall in demand for labour, unions will reject cuts in nominal wages. Wages are, therefore, often inflexible. The best possible solution would be to increase aggregate demand for labour. However, should a situation arise where government forces lower wages, it would be counter-productive. Lower wages mean a decrease in spending power. The result is a fall in aggregate supply of labour. The fall in supply of labour results in unemployment increase due to the lower wage rates. The New Classical

economists argue that production is fixed at every level. At a particular level, all factors of production will be employed. Changes in the aggregate demand would result in the price levels being affected; however, this would not affect the production. The aggregate supply is, therefore, left unaffected. It is argued that labour supply is directly linked to changes in productivity (Darity and Goldsmith 1996). Should businesses increase their level of production, the supply of labour would also increase. Technological improvement increases labour productivity, as mentioned earlier. The desire to increase labour supply, therefore, increases. Darity and Goldsmith (1996) argued that temporary high wages induced an increase in the supply of labour.

The economists further argue that the minimum wage model plays a role in the decision of workers to work, which determines the voluntary unemployment rate. The supply of labour is determined by the size of the labour force and the willingness of employees to work at a particular wage rate. The key difference between the two schools is that The Keynesian School argues that the long-run aggregate supply is different from the short-run aggregate supply. While The New Classical School argue that labour supply is directly linked to changes in productivity. An Increase in production levels leads to an increase in the supply of labour. The goal to increase labour supply is therefore achieved. The policy objective from the point of view of Keynesians would be to increase the supply of labour. The measure, which can be used to achieve this, is an increase in skills development of individuals. The in-service training through businesses assists in this regard. The policy objective of the New Classical economists is to increase production and reduce unemployment. Changes in production and employment are based on the equilibrium supply decisions of businesses and their employees, given their views on prices. Appropriate policy measures to increase production and reduce unemployment are specifically aimed to increase aggregate supply of labour. In order to increase the supply of labour, education and training need to take place. Development of skills assists in the supply of labour which is demanded. The supply of labour by employees and the production of businesses depend on prices.

## 5. Conclusion

The Keynesian School of thought and The New Classical School of thought have contrasting perspectives on macroeconomic equilibrium, monetary policy effect on unemployment, Phillip's curve, the supply of labour, and wage increments. However, the theoretical and empirical literature gives a complete understanding of the unemployment theories, namely New Classical and Keynesian theory. The literature review suggests that monetary policy influences unemployment temporarily through monetary expansion. A decrease in interest rates stimulates spending and it commensurate with productivity, which raises employment and

output in the short term. The reasonable wage that businesses would be able to pay would rise when aggregate investment is increased along with the rise in productivity and competitiveness. The literature review further suggests that the presence of a Phillips curve implies the presence of inflation, which is related to output level effects and rates-of-change effects. The presence of hysteresis in output is suggested by there being practically no evidence of output level effects. A near consensus from scholars is that there is no answer to unemployment issues for both emerging and developing economies without them increasing their rate of capital accumulation, and this rate must be at the same level as the growth of labour supply. In other words, the move towards more labour intensive techniques of production is imperative and must be the prime emphasis of economic strategy in these countries. The Keynesian school of thought believes that there was a trade-off between unemployment and inflation. It is possible to view the implications from two perspectives. Inflation is the rate at which the general price level rises, and the purchasing power of the currency falls. The purpose of inflation targeting is to keep an economy running efficiently. An example of inflation targeting is a target of 3-6 percent. When a policy of inflation targeting is implemented, the implication of such a policy would be that when trying to acquire a specific rate of inflation which falls within the target bracket, government might find themselves in a situation where they are left with both high inflation and high unemployment.

The trade-off implies that government would be willing to accept high inflation if it meant that the economy would be in a situation of lower unemployment. However, when targeting only inflation, unemployment is left unaccounted for. When government implements a policy, which specifically targets unemployment, the attempts to target unemployment would ignore the implications of inflation. The outcome might result in an increase in aggregate demand for goods and services due to the decrease in unemployment; however, the increase in aggregate demand for goods and services in an economy would rise more rapidly than the productive capacity, which leaves the economy being unstable. The economy would take a while to adjust. The New Classical school of thought has a similar policy implication for monetary policy and fiscal policy. An unexpected growth in aggregate demand taking place due to an expansionary monetary policy will result in the increase in output. This would, therefore, attract workers, which, in turn, raises wages, which results in an increase in the supply of labour. The outcome, however, is a short-run outcome due to the assumption of rational expectations. The review of inflationary expectations will result in a new outcome, which is a long-run outcome, leaving employment and output the same, however, prices will increase. An expected growth in aggregate demand, however, has a different effect. The expectation would be an increase in aggregate demand and a higher price level for both the short run and the long run. The major conclusion that can be drawn from the key findings of the research is that there is no one fit all approach towards the reduction of

unemployment. As indicated, unemployment depends on a variety of variables, which continuously interact with each other. Our analysis provides insights into the preferences of economists and policy-makers to deal with unemployment. An important policy implication of our review is that the nature of policies, which authorities follow in order to reduce unemployment and increase output does count.

### 5.1. Recommendations

The reality is that economic growth that is sustainable has become imperative for all countries. Supply-side policies are required to reduce cost-push inflation and structural unemployment. An important policy implication from above is the nature of policies, which authorities follow in order to reduce unemployment and increase output. An apposite framework to increase aggregate supply of output and labour output is required to decrease unemployment. Additionally, the improvement of education levels will also assist in increasing labour supply. However, in order to be successful in this regard, policy needs to target the demand for employment as well. It is imperative that the labour supply meets the labour demanded. The wage levels also play a role; government, therefore, needs to implement policies, which will raise the total output and, in turn, increase the wage levels. The implications of policy from both schools bother on the stance, which government takes, and which theory they follow. Finally, the interest rates should be managed to encourage investment and keep inflation at an acceptable rate. Policy designs required to remove involuntary employment and maintain equilibrium.

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