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**The Causes and Consequences of Unemployment: The Case
Study of Youth Unemployment in Azerbaijan**

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ABSTRACT

The issue of youth unemployment has been a pressing concern in many countries, and Azerbaijan is no exception. This study investigates the causes and consequences of unemployment among Azerbaijani youth, focusing on the factors that contribute to this challenge and the implications for the country's socio-economic development. Drawing on empirical research and data analysis, the study identifies three main causes for the high rate of youth unemployment in Azerbaijan: the lack of government policies and initiatives, the mismatch between profession and labor market demands, and rural-urban migration that leads to low-level education attainment. The consequences of youth unemployment in Azerbaijan are multifaceted and have significant implications for the country's socioeconomic development. High rates of unemployment among young people not only lead to a waste of human resources but also negatively impact the overall economic growth and productivity of the nation. Additionally, unemployment breeds social problems such as increased crime rates, substance abuse, and mental health issues among the affected individuals. In the long run, the persistence of youth unemployment may also contribute to social unrest and political instability in the country. To address the issue of youth unemployment in Azerbaijan, the study recommends the development and implementation of effective government policies and initiatives aimed at enhancing the employability of young people. These should include programs that promote vocational training, entrepreneurship, and internship opportunities. Furthermore, the education system must be reformed to better align with the needs of the labor market, focusing on improving the quality of education and addressing the skills gap. Lastly, policies aimed at promoting rural development and encouraging youth to remain in their local communities should be explored to mitigate the negative consequences of rural-urban migration.

Keywords: Youth unemployment, causes, consequences, Azerbaijan

INTRODUCTION

In most areas of the globe, rising images of individuals gaining achievement via education, as well as a willingness to work in white-collar¹ occupations, motivated most people to invest their money in formal education. Increases in people's investment in education, combined with a lack of wage employment opportunities for graduates and high school matriculants, have resulted in a massive unemployment problem among educated individuals, which was particularly visible and severe in Africa, Asia, and Latin America during the 1990s and early 2000s, and is still prevalent today (Jeffrey, 2009). A large proportion of educated young people in their twenties or thirties in different countries are negatively impacted by the widespread unemployment issue. Unemployment among young people is a major problem in many nations nowadays (Mago, 2014). In the context of employment, the phrase "unemployment" refers to those who are employable and actively seeking employment but are unable to obtain work. This category includes persons who are already employed but do not have a position that is suitable for their skills and experience. Unemployment is often assessed by the unemployment rate, which is calculated by dividing the number of unemployed persons by the total number of people in the labor force. Unemployment is one of the economic indicators used to assess a country's economic health.

Because the workplace in the twenty-first century is unique, persons who possess both sufficient and in-demand abilities will have an easier time finding suitable employment. For their part, many individuals continue to be out of work because they lack the necessary skills or are suffering from the consequences of a skills mismatch issue, which is a major source of unemployment across many nations.

Furthermore, in the study of Amani, J. (2017), the idea of unemployment is defined in terms of a standard definition as well as a country meaning of the term. The usual definition is that it is the number of people in the labour force who are out of work yet actively looking for job. In contrast, the national definition refers to it as the total number of people who are not working. Additionally, it may be described as those who are not already employed but who are eager and able to work. Furthermore, it is defined

¹ Salaried professional/office jobs in public or private sectors

as the number of persons between the ages of 15 and 65 who are jobless and actively seeking employment. (Dimian, G.C. et al., 2017)

Regardless of the precise definition, all definitions of unemployment concur that the primary features of jobless persons are the desire to find work and the capacity to do that work. Because unemployment has a negative impact on economic, social, and security results, (Dimian, G.C. et al., 2017) **the purpose of this study** is to examine the causes and consequences of unemployment in general, and young unemployment, as well as their interconnections. The reasons why the author investigates the causes and consequences of unemployment differ. **The research significance** of this topic relies on the problems and challenges of youth in different parts of the world who seek jobs but remain unemployed for different reasons. Moreover, the author also tries to prepare a report for the manager and public authorities for mitigating youth unemployment. There are scientific reasons beyond thesis topic choice. The author prepares the scheme of the unemployment dilemma from different scientific perspectives such as the IS-LM framework, Keynesian, and neoclassic views on unemployment. There are several causes and consequences of unemployment. It is worth beginning with the causes of unemployment. There are several causes of unemployment in accordance with the different types of unemployment.

Unemployment may be attributed to seven different factors. Frictional unemployment is caused by four factors. Employees that quit their jobs to obtain a better opportunity are unemployed. There are two factors that contribute to structural unemployment. This occurs when the skills or income needs of employees no longer match the jobs that are available. The seventh cause of unemployment is cyclical in nature. (Congressional Research Service, 2020)

Even in a strong economy, there will be periods of frictional and structural unemployment. According to the Federal Reserve, the natural rate of unemployment is between 4 percent and 5 percent of the labour force. Unemployed persons, according to the Bureau of Labour Statistics (BLS), are defined as those who are out of work and have actively sought employment in the previous four weeks, as well as those who have been temporarily laid off from their current position. If they do not continue their search, the Bureau of Labour Statistics does not consider them as part of the labour force. (Bureau of Labour Statistics, 2022)

Unemployment may be caused by people choosing to leave their jobs freely. Some of the jobless have amassed sufficient savings to enable them to leave unsatisfying occupations. They have the luxury of searching till they come upon the perfect opportunity for them. The second reason is when employees move to a new location. In the meanwhile, they are jobless until they can find work in the new town. The third reason is the influx of new employees into the workforce. Included in this category are students who have graduated from high school, college, or any other higher-level degree program. They hunt for work that is compatible with their newly acquired abilities and certifications. That is one of the key reasons behind young unemployment. (Bureau of Labor Statistics, 2021) When job seekers re-enter labour, this is the fourth reason for unemployment. These are individuals who have had a time in their life during which they have not sought employment. They might have taken time off work to raise children, gotten married, or cared for aging relatives, among other reasons. A portion of the job search process that cannot be avoided is the following four reasons. On the positive side, it's important to note that frictional unemployment is typically voluntary and short-term.

It is neither voluntary nor short-term to be out of work due to structural unemployment. The following two factors contribute to long-term unemployment. The sixth reason is the advancement of technological knowledge. This is the situation in which computers or robots take the place of workers. Most of these employees need more training before they can find a new position in their profession. The sixth reason is the outsourcing of jobs. When a corporation relocates its production or contact center operations to another nation, this is known as globalization. Labor expenses are lower in nations with a lower cost of living than in the United States. Following the signing of NAFTA in 1994, this scenario happened in several states. Many manufacturing jobs were relocated to Mexico. (Council on Foreign Relations, 2020) It also happened once employees in China and India acquired the skills required by American corporations.

When there are fewer available jobs than there are qualified candidates, this is the eighth reason for unemployment. Unemployment caused by a lack of demand is referred to as demand-deficient unemployment in technical terms. Unemployment that occurs during the recessionary phase of the economic cycle is referred to as cyclical unemployment. Consumer demand is low, which results in cyclical unemployment. When demand declines, businesses suffer a significant loss of earnings. If they do not anticipate

revenues to increase soon, they will be forced to lay off employees. The increase in unemployment leads consumer demand to fall even more, which is why it is cyclical in nature. Consequently, there is widespread unemployment. Among the recent examples are the financial crisis of 2008 as well as the Great Depression of 1929. It is also important to give information concerning the consequences of unemployment.

Unemployment is a huge life experience that affects many people. It has the potential to have a terrible effect on people's life. It has an impact not just on the jobless individual, but also on his or her family and the greater society. Unemployment may have a long-term influence on a person's life. Long-term unemployment has a far-reaching influence, frequently hurting people's ability to maintain their level of life in retirement. (Kahraman, B., 2011) The loss of money by the parents might have a negative impact on the future chances of their children. Aside from the human consequences, unemployment represents a loss of significant productive resources for the economy. The effect of employment loss in rural and regional locations ripples through the local community, causing companies to suffer because of decreased family spending. People leaving in pursuit of jobs may do more harm to their communities, causing them to suffer even more. (Laura J. R., 2014)

It has far-reaching financial, fiscal, and economic consequences when a person is out of work. Many people who quit working unceremoniously do not have the financial means to live a pleasant and long life in retirement. The price that society must bear is higher income assistance, health care, and community-support expenditures, as well as a decline in human capital and overall productivity. Entrenched unemployment creates a divided country in which those who have jobs gain from economic development while those who do not may be consigned to a secondary position because of the economic downturn. (Majumder, R., 2013) Youth unemployment is the main theme of the study, which is described briefly below.

Young persons who are out of work are classified as being unemployed, according to the United Nations, with the age range of 15–24 years old being young. The term “unemployed person” refers to someone who is out of work or who does not have a job but who is willing, able, and eager to find employment (UN, 2012). Unemployment among young people is a big problem across the world, and it has an influence in almost every country (World Bank, 2015). The ability of young people to participate in

productive activities has a significant impact on their social and economic circumstances. Unemployment among young people is much worse than unemployment among older people. It is important to note that many nations are experiencing a transition from education to employment. Not only do young people in poor nations confront the issue of obtaining a successful career, but they also face the challenge of finding work that is secure and acceptable to them.

There are five chapters in the thesis. The first chapter of the theoretical explanation of unemployment. There is information concerning the concepts and definitions of unemployment, its measurement ways, and the unemployment theories used in the study. The following chapter deals with the main causes of unemployment; the Keynesian theory of unemployment, the classical theory of unemployment, and Okun's Law are well explained. The third chapter presents information concerning the relationship between unemployment and inflation; the Phillips Curve, and the impact of monetary and fiscal policy on the relationship between inflation and unemployment are explained. The fourth chapter presents information concerning the research environment and design, research process and methods, data collection, organization, interpretation etc. The final chapter presents information concerning the findings of the study. There are concluding remarks in the conclusion.

CHAPTER 1: THEORETICAL EXPLANATION OF UNEMPLOYMENT

This chapter provides information concerning the theoretical framework of unemployment. The concept and definitions of unemployment, measurements of unemployment, and theories of unemployment are presented.

1.1 The Concept and Definitions of Unemployment

Unemployment is a serious social and economic problem that affects individuals, families, and entire communities. It occurs when people who are willing and able to work are unable to find employment. This can have a wide range of negative effects on individuals and society, including reduced income, increased poverty, and a decrease in overall economic growth. In this part, the author will explore the concept of unemployment in greater detail, including its causes, effects, and possible solutions. One of the most fundamental causes of unemployment is a lack of job opportunities. This can occur when there is a downturn in the economy or when a particular industry or sector experiences a decline. For example, the closure of a factory or the downsizing of a company can result in many people losing their jobs. Additionally, technological advancements can also lead to job losses, as automation and other forms of technology can replace human labor. Another factor that can contribute to unemployment is the mismatch between the skills and qualifications of workers and the skills and qualifications required for available jobs.

The effects of unemployment can be devastating for individuals and families. Those who are unemployed may struggle to make ends meet and may have difficulty paying for necessities such as food, housing, and healthcare. They may also experience feelings of isolation, depression, and a loss of self-worth. In addition, unemployment can also have broader effects on society, including reduced economic growth, increased poverty, and increased crime rates. To address the problem of unemployment, a variety of solutions have been proposed and implemented. One approach is to provide job training and education programs to help workers acquire the skills and qualifications needed to find employment. This can include programs such as vocational training and

apprenticeships, as well as initiatives that provide funding for individuals to go back to school and acquire new skills.

Another solution is to stimulate economic growth through government spending or tax cuts, which can lead to an increase in job opportunities. This can include infrastructure projects such as building roads, bridges, and public transportation, as well as providing incentives to businesses to invest in new equipment and expand their operations. Additionally, policymakers can also focus on improving the overall business environment by reducing regulations and making it easier for businesses to operate. There are also several policies that governments can enact to aid unemployed individuals, such as unemployment insurance and social welfare programs. These programs can provide financial assistance to those who are out of work, helping them to make ends meet and providing a safety net for those who are struggling to find employment. Additionally, some governments also provide job-search assistance and support services, such as career counseling, resume-writing workshops, and networking opportunities.

It's also important to note that unemployment affects different groups of people differently. Some groups, such as young people, women, and minority populations, may experience higher levels of unemployment than others. Therefore, policies should be designed to target these groups specifically, such as providing additional job training and education programs or creating policies that promote job opportunities in certain sectors where these groups are typically underrepresented. Unemployment is a complex issue that affects individuals, families, and entire communities. It is caused by a lack of job opportunities, a mismatch between skills and qualifications of workers and jobs, and other factors, and can have a range of negative effects on individuals and society. Solutions include providing job training and education programs, stimulating economic growth, aiding unemployed individuals, and targeting specific groups with higher rates of unemployment. Addressing this issue requires a comprehensive and multifaceted approach that involves the cooperation and collaboration of governments, businesses, and community organizations.

We may give it as many labels as we like, but according to The Lumen Learning Course (2005), 'unemployment' is just another term for 'joblessness,' which describes the situation in which people are out of work and actively seeking new employment. More importantly, they show that rising unemployment rates are the norm during economic

downturns. Consequently, there are several potential explanations, consequences, and solutions for the problem of unemployment.

However, according to Chappelow (2020), unemployment happens when a job seeker is unsuccessful in their quest. It's important to note that the rate of unemployment is often used as an indicator of the economy's overall health. Mlatsheni and Leibbrandt (2011) agree, arguing that the staggering rate of unemployment and underemployment is a major factor in the long-term survival of social isolation. Based on data from the U.S. Bureau of Labor Statistics (2020), the unemployment rate is calculated by dividing the number of jobless individuals by the total number of persons actively seeking work in the economy, which are shown below.

- Unemployment happens when people who are competent and willing to work are unable to find work, hence reducing economic production yet continuing to have basic needs.
- Extremely low unemployment rates could indicate an overheated economy, whereas high rates of unemployment are an indicator of an economic crisis.
- Frictional, cyclical, structural, and institutional unemployment are the four main types of joblessness.
- Unemployment data are collected and published by government agencies in a variety of ways.

It is crucial that we recognize that unemployment is a leading economic indicator because it reveals whether people can find jobs that allow them to participate in the economy's productive output (Chappelow, 2020). Van Aardt (2012) suggests that the global recession's effects on output growth and employment, structural shifts in production, and the declining marginal utility of labor due to price pressures are all to blame. If more people are out of work, the economy cannot function at full capacity and less is produced. In addition, unlike unused capital, jobless employees still need at least a certain level of spending to survive. An economy with high unemployment has decreased production without a corresponding drop in the demand for basic spending, as Chappelow (2020) notes. Consistently high unemployment rates are a warning indication of economic trouble that might eventually spark social and political unrest.

Unemployment rates are broken down and classed according to the typical population of people who are actively seeking work but have little luck finding it. However, by drawing samples from our total data, we can reliably estimate the number of young people who are now jobless within that group of categories. The academic and formal definition of 'Youth' is straightforward: it refers to all members of a population who are between the ages of 18 and 29. Since we have access to genuine statistical data, we may confidently hypothesize, express opinions, make suggestions, or provide critiques on almost any topic related to youth unemployment (Yu, 2013).

Yu (2013) believes that economic dis-stress as a nation, especially because of young unemployment, might be the root cause of these problems. Hence, by using the South African diaspora as a case study and comparing its various components. But as we go forward, we find out that about 2 million 16-to-19-year-olds are jobless at any one time, according to Clark and Summers (1982). In addition, 600,000 people have dropped out of school and are neither working nor seeking for a job. In addition, Yu (2013) argues that the issue of adolescent unemployment stems not from a lack of willingness to work but from an inability to obtain employment. Therefore, job scarcity appears to be the only explanation for the high sensitivity of employment to changes in demand.

To back up our claims, we'll reference the research and opinions of Clark and Summers (1982) and note that only about 60% of all teenagers and 25% of black youths are not in school and are working. A focus on the significance of these alarmingly high unemployment rates, which have been a source of worry for economists and policymakers alike. What can we say other than that if unemployment were merely a matter of volatility, we wouldn't have much reason to expect it to respond strongly to aggregate demand (Yu, 2013).

1.2 Measurement of Unemployment

The worldwide standard definition of unemployment, which was agreed upon by the 13th International Conference on Labour Statistics, is based on three criteria, all of which must be satisfied at the same time. Those classified as jobless are those who were not employed during the reference period and who were above the age stipulated for assessing the economically active population at the time of the measurement.

- a) “without work” as individuals who are neither employed nor self-employed according to the international definition of employment;
- b) “currently available for work” as individuals who were available for paid employment or self-employment during the reference period;
- c) “seeking work” as individuals who had taken specific steps in a specified recent period to seek paid employment or self-employment in this section.

The 13th ICLS Resolution does not make any reference to any institutional or legal elements, such as the receipt of unemployment insurance benefits or the registration as a job seeker with a public employment agency, in defining these criteria. A person's specific actions during a given reference period are meant to be referred to solely by the international definition of unemployed, which has been adopted. The unemployment statistics based on the international definition of unemployment may vary from the data on recorded unemployment because of this. (Iqbal, A. et al. 2012)

Economic inactivity takes precedence over unemployment in the labour force framework, which is based on the priority principles for the labour force framework. As a result, students, homemakers, pensioners, and other individuals who spent most of their time engaged in non-economic activities during the reference period and who meet the criteria for the description of unemployment set forth above should be treated on the same grounds as other groupings of unemployed individuals. They should, nevertheless, be distinguished from one another whenever feasible. Employed people who are seeking another or extra employment, on the other hand, are exempt from the definition of jobless. (Aremu, M. A. & Adeyemi, S. L., 2011)

The “without work” criteria are used to create a barrier between employment and non-employment and to guarantee that employment and unemployment are mutually exclusive, with employment taking priority over unemployment. As a result, a person is regarded to be unemployed if he or she did not work at all during the reference period (not even for an hour), nor was he or she temporarily absent from work in the meaning stated in the preceding part of this article, as defined in the Employment Statistics Act. The other two elements of the traditional definition of unemployment, namely “current availability for work” and “seeking work,” are used to differentiate between people who are jobless and those who are not economically active within the non-employed population. (Aynadis, Z and Mohammednur, M., 2014)

To ensure that the “seeking work” requirement is met, it is expressed in terms of an active search for employment in line with the activity principle of the labour force framework. A person must have made action to get a job each recent time to be classified as actively seeking employment. It is not sufficient to just state that you are looking for a job on a broad basis. This phrasing of the criteria is intended to add an element of objectivity to the process of measuring things. However, the most recent time given for job search activity does not necessarily have to correspond to the basic survey reference period of a week or a day, but it may be longer. The 13th International Conference on Labour Standards did not specify how long the job search period would last. It left the decision up to the individual nations. Most nations define job search time as the final month or the last four weeks, depending on the situation. Extending the job search period backward in time is intended to account for the time delays that exist in the process of acquiring employment after the first step of looking for work has been taken to locate work. During these time gaps, individuals may not be able to take any additional steps to acquire employment. People who can only apply for work with a single possible employer (for example, judges) and who are waiting for a response to their application for a position may be particularly at risk in this situation. (Belay, K.D. et al. 2015)

Among the active steps to seek work listed by the 13th ICLS are the following: registration at a public or private employment exchange; application to employers; checking at worksite or farm gate; placing or answering newspaper advertisements; enlisting the assistance of friends or family members; searching for land, buildings, machinery, or equipment to start one's own enterprise; arranging for financial resources; applying for permits and licensing; and submitting a resume to potential employers. Some of these instances are more official techniques of finding a job (such as registering with an employment exchange), whilst others represent more casual methods of finding work (e.g., seeking the assistance of friends or relatives). When it comes to “registration at a public or private employment exchange,” the 14th International Conference on Labour Standards (ICLS) specified that this should be considered an active step to seek work only when it is done with the intention of receiving a job offer, as opposed to cases where registration is merely an administrative requirement for the receipt of certain social benefits. (Broussard, N., & Tekleselassie, T., 2012)

It should be noted that the measures outlined above apply not just to paid work but also to self-employment in certain cases. The reason for this is that the concept of seeking work is independent of the type and duration of employment sought, which includes self-employment, part-time employment, seasonal or casual work as well as any other type of work considered to be an economic activity in general, such as construction or manufacturing.

The concept of pursuing self-employment needs special consideration since, for self-employed individuals, distinguishing between work-seeking activities and self-employment activities themselves may be difficult to discern. Numerous actions such as seeking possible customers or orders, as well as marketing and selling the products or services supplied, are required as part of the self-employment activity itself. Furthermore, when new businesses are established, it may become necessary to define the moment at which the process of pursuing self-employment transitions into the actual practice of self-employment. Purchasing an initial supply of raw materials or products, or purchasing the required equipment for starting a store, for example, is not clear if these activities should still be classified as search activities or already be classified as a self-employed job. Considering the discussion, the 14th ICLS recommended that the distinction between seeking self-employment and engaging in self-employment activity itself be based on the point at which the enterprise becomes formally established, such as when the enterprise is registered with the relevant government agency. Activities carried out before to the registration of a business would be classified as search actions, but activities carried out after the registration of the firm would be classified as self-employment itself. In situations where enterprises are not required to formally register to operate, it was recommended that the dividing line be drawn at the point at which the enterprise is ready to accept the first order, when financial resources become available, or when the necessary infrastructure is in place, among other things. (Bula, H. O., 2012)

According to international standards, a person must be available for employment throughout the reference period to be classified jobless for that time. When a person is available for employment, it suggests that he or she should be able and ready to work if the chance arises. When the availability criteria is used in the context of the traditional definition of unemployment, one of the goals of the criterion is to remove those who are looking for work that will begin at a later date. This may be the case for students who, at

the time of the survey, are already looking for jobs that will begin after the school year has ended. In this case, the application of the availability criteria acts as a check on the existing preparedness of the organization to begin work. The availability criteria also help to remove other individuals who are unable to take up employment owing to specific constraints, such as family obligations, sickness, or commitments to community service activities, from consideration. (Campens, E., et al., 2012)

Although the availability criteria were defined by the 13th ICLS as available during the reference week or day of the survey, some nations decide to employ a somewhat longer period in their surveys. For example, in nations inside the European Union, current availability for employment is defined as being available during the survey reference week or the two weeks following the survey reference week. This is done to account for the reality that not everyone who is looking for employment can be expected or is expected, to accept a job offer as soon as it is made available to him or her. Persons may be momentarily ill during such time, or they may need to prepare for childcare, transportation, and other necessities before they can begin working. Furthermore, it is possible that it is standard practice for businesses to not expect newly hired workers to begin working before the first or fifteenth of the month following their hire. (Cho, Y., & Honorati, M., 2013)

All in all, a specific category of people is mentioned in the Thirteenth ICLS Resolution, for whom an exception is made from the general rule that all three criteria (being without work, currently available for work, and seeking work) must be met at the same time to be considered unemployed under the standard definition of the term. People who are out of work but have already prepared to begin paid employment or self-employment activity at a time after the reference period are included in this category (future starters). Such individuals, if they are now available for employment, are to be treated as jobless, regardless of whether they continue to look for work. In survey applications, it may be beneficial to provide a time restriction within which the employee must be initiated before the application may be processed. (Chuta, N. and G. Crivello, 2013)

1.3 Theories of Unemployment Used in the Study

The author utilized different theories in the study. Keynesian theory, the problem of sufficient aggregate demand, classical theory, causes of the natural rate of unemployment, and Okun's law will be discussed shortly in this sub-chapter. There is a detailed explanation of the mentioned theories in the second chapter.

It is worthy to begin with **the Keynesian theory and the problem of sufficient aggregate demand**. John Maynard Keynes, a British economist who lived in the first half of the 20th century, developed the theory of Keynesian economics, which emphasizes the role of government intervention in stabilizing economic activity. One of the key aspects of this theory is the concept of unemployment. According to Keynes, unemployment is not only a social problem, but also an economic problem, because it results in a reduction in overall economic activity, which in turn can lead to a downward spiral of lower growth, lower incomes, and even higher unemployment. In this part, the author will discuss the main elements of Keynes' theory of unemployment and its relevance to modern macroeconomic policy.

One of the key concepts in Keynesian theory is the idea of 'effective demand.' Effective demand is the level of demand for goods and services that will result in the full employment of resources, such as labor and capital. According to Keynes, the level of effective demand in an economy can be influenced by a variety of factors, including changes in consumer spending, investment, and government spending. (Galí, J., Smets, F., & Wouters, R., 2012) When the level of effective demand is low, it can lead to unemployment, as firms are not able to sell enough goods and services to justify hiring all the workers they would like to. Another key concept in Keynesian theory is the idea of the 'multiplier effect.' The multiplier effect refers to the idea that an increase in spending, whether by consumers, firms, or the government, can have a much larger impact on overall economic activity than the initial increase in spending. (Ono, Y., 2011) This is because each dollar of spending creates a 'ripple' effect, as it is used to purchase goods and services from other firms, which in turn use the income to purchase goods and services from yet other firms, and so on. The idea of the multiplier effect is closely related to the concept of effective demand, as an increase in spending can help to raise the level of effective demand and reduce unemployment.

One of the main criticisms of Keynesian theory is that it assumes that the economy is inherently unstable, and that government intervention is necessary to stabilize it. However, the unemployment rate fluctuates over time, even in a healthy economy, this is known as the 'natural rate of unemployment.' And the natural rate of unemployment reflects the fact that there is always some level of joblessness in an economy. The natural rate of unemployment is caused by a variety of factors, such as the time it takes for workers to find new jobs when they are laid off, the time it takes for firms to fill open positions and the fact that some workers will always be in between jobs. So, the key question is whether the level of unemployment is significantly above the natural rate.

One way that the government can help to reduce unemployment is through fiscal policy, which involves changes in government spending and taxation. For example, if the government increases spending or reduces taxes, it can provide a boost to overall demand and reduce unemployment. Alternatively, if the government reduces spending or increases taxes, it can slow down economic growth and lead to higher unemployment. Another policy that government can use is the Monetary policy, this is the tool that Central Banks use to control the money supply, interest rates and inflation. An expansionary monetary policy, for example, can help to reduce unemployment by making it easier for firms to borrow and invest in new projects, which can lead to increased hiring. Conversely, a contractionary monetary policy can make it harder for firms to borrow and invest and can lead to higher unemployment. The Keynesian theory also emphasizes the importance of labor market policies as a means of reducing unemployment. One such policy is the use of minimum wages, which can help to reduce unemployment among low-skilled workers by raising the cost of hiring them.

The problem of sufficient aggregate demand, or 'demand-deficient unemployment,' is a central concept in John Maynard Keynes' macroeconomic theory. According to Keynes, demand-deficient unemployment occurs when aggregate demand for goods and services is not high enough to employ all available labor resources. In other words, there are not enough buyers for the goods and services that could be produced by all the workers who are willing and able to work. One of the main causes of demand-deficient unemployment, according to Keynes, is a deficiency in consumer spending. (Jahan, S., Mahmud, A. S., & Papageorgiou, C., 2014) When consumers are not spending enough money, businesses do not have enough customers to sell their goods and services

to, and as a result, they do not need as many workers. This can lead to businesses cutting back on production and laying off workers, which can further decrease consumer spending, as unemployed workers have less money to spend.

Another factor that can contribute to demand-deficient unemployment is a lack of investment spending by businesses. When businesses do not see enough demand for their products and services, they may not see the need to invest in new equipment or expand their operations, which can lead to less hiring and more layoffs. To combat demand-deficient unemployment, Keynes proposed several government policies, including increasing government spending, cutting taxes, and implementing monetary policy measures such as interest rate reductions. The idea behind these policies is to increase aggregate demand, by putting more money into the hands of consumers and businesses, so that they will spend more and invest more, which will in turn create jobs and decrease unemployment. An important idea in the Keynesian approach is that of the Multiplier effect. The Multiplier effect refers to the idea that any increase in government spending or decrease in taxes will have a much larger impact on the economy than the initial amount of the increase or decrease. This is because when the government spends money, it creates jobs, which puts money into the hands of consumers, who then spend more money, which in turn creates more jobs, and so on. This creates a 'multiplier' effect, where a small initial increase in government spending can lead to a much larger overall increase in economic activity.

Additionally, in the case of Long-term Unemployment, Activation policies are proposed to fight such kinds of unemployment. Such policies are intended to help long-term unemployed workers get back into the workforce by providing them with training, education, and job placement services. In addition to these measures, Keynes also emphasized the need for government intervention in labor markets. He suggested that the government should set minimum wages to ensure that workers are paid a living wage and that it should also implement policies to promote collective bargaining between workers and employers so that workers have more power to negotiate for better wages and working conditions. It is important to note that, the Keynesian economics approach would imply that, the government should not be on the sidelines, but actively participate in the economy to overcome the deficiency of aggregate demand.

It is also worth noting, that Keynesian economics would entail the government running budget deficits in the short term to stimulate the economy, but once the economy is on a path of recovery, the government should work to reduce the deficit. The problem of sufficient aggregate demand is a major concern in macroeconomics, and it is an important concept in John Maynard Keynes' theory of macroeconomics. According to Keynes, demand-deficient unemployment occurs when the aggregate demand for goods and services is not high enough to employ all available labor resources. (Blinder, A. S., 2008) To combat this problem, Keynes proposed several government policies, including increasing government spending, cutting taxes, and implementing monetary policy measures, that are aimed at increasing aggregate demand, creating jobs, and decreasing unemployment. It is also important to give information about **the classical theory on unemployment**.

The classical theory of unemployment is a macroeconomic theory that originated in the late 18th and early 19th centuries. According to this theory, unemployment is a natural and necessary feature of a capitalist economy. The theory holds that unemployment is caused by the interaction between the supply of labor and the demand for labor, and that it is primarily the result of wages being too high. The classical theory argues that the market for labor works just like any other market. Just as the price of a good is determined by the supply and demand for that good, the wage rate for a particular type of labor is determined by the supply and demand for that labor. When the supply of labor is greater than the demand for labor, there will be unemployment. Conversely, when the demand for labor is greater than the supply of labor, there will be a shortage of labor and wages will rise. (Mouhammed, A. H., 2011)

According to classical theory, wages are determined by the marginal productivity of labor, which is the extra output that is produced by one additional unit of labor. If wages are too high, then firms will not be able to afford to hire as many workers, and as a result, unemployment will occur. Conversely, if wages are too low, then firms will be able to hire more workers than they need, leading to a surplus of labor and a decrease in wages. The classical economists believed that the market for labor would automatically adjust to the point where there is full employment. This is because, as wages increase, the cost of labor increases, which in turn makes it more difficult for firms to make a profit. As a result, firms will decrease the amount of labor they use, which will cause wages to

fall. Similarly, as wages decrease, firms will find it cheaper to produce goods and services, which will increase the demand for labor and cause wages to rise. This process of adjustment is known as the '**natural rate of unemployment.**'

The natural rate of unemployment is not a fixed number, but rather it is determined by several factors, such as the level of productivity, the level of technology, and the level of education and skills of the workforce. According to classical economists, the natural rate of unemployment reflects the inherent imperfections and frictions in the labor market and that it cannot be eliminated. They argue that any attempt by the government to artificially reduce the unemployment rate below the natural rate will only lead to inflation and a decline in economic growth. (King, T. B., & Morley, J., 2007)

One of the key criticisms of the classical theory of unemployment is that it does not consider the effects of demand-side factors. It assumes that changes in the demand for goods and services do not affect the labor market, and that unemployment is solely the result of wages being too high. However, changes in aggregate demand can have a significant impact on the labor market. A downturn in the economy can lead to a decrease in consumer spending and business investment, which in turn can cause firms to decrease their production and lay off workers.

Another criticism of the classical theory is that it does not consider the effects of structural unemployment, which is unemployment that is caused by changes in the structure of the economy. For example, changes in technology and automation can lead to some types of jobs becoming obsolete, and workers in those industries may find it difficult to find new employment. The classical theory of unemployment is a macroeconomic theory that holds that unemployment is a natural and necessary feature of a capitalist economy, that it is primarily caused by wages being too high, and that the market for labor will automatically adjust to the point of full employment. It is also important to talk about **Okun's Law on unemployment.**

Okun's Law is an empirical relationship that describes the relationship between changes in an economy's unemployment rate and changes in its real gross domestic product (GDP). The law is named after Arthur Okun, an American economist who first proposed it in 1962. The basic idea behind Okun's Law is that when an economy is growing, unemployment tends to decrease, and when an economy is contracting, unemployment tends to increase. More specifically, the law states that for every 1%

increase in real GDP growth, the unemployment rate will decrease by around 2%. Conversely, for every 1% decrease in real GDP growth, the unemployment rate will increase by around 2%. (Daly, M., & Hobijn, B., 2010)

The relationship between GDP and unemployment is not always a simple one, and there are several factors that can affect it. One important factor is the level of labor market slack, which refers to the degree of spare capacity in the labor market. When there is a lot of slack in the labor market, it is easier for employers to find workers, and so unemployment is likely to be low. When there is less slack in the labor market, it is more difficult for employers to find workers, and so unemployment is likely to be high. Another important factor is the level of productivity in an economy. When productivity is high, firms can produce more goods and services with fewer workers, which can lead to higher unemployment. Conversely, when productivity is low, firms need more workers to produce the same amount of goods and services, which can lead to lower unemployment.

It's also important to note that Okun's law is only valid for small changes in the unemployment rate. When the unemployment rate changes significantly, say from 3% to 7%, Okun's Law becomes unreliable. Another important thing to note is that Okun's law is based on data from the US economy, and thus might not be applicable to other countries. Some researchers have found similar relationship between GDP and unemployment for different countries, but this relationship can also vary by country. There are also some criticisms of Okun's Law, which point out that it is not always a perfect representation of the relationship between GDP and unemployment. For example, some economists have argued that the relationship between GDP and unemployment is not always linear, and that there are times when small changes in GDP do not have a corresponding change in unemployment. Additionally, it has been argued that the relationship between GDP and unemployment can be affected by structural factors, such as changes in the composition of the workforce or changes in the mix of industries in an economy.

Despite these criticisms, Okun's Law remains an important tool for analyzing the relationship between GDP and unemployment. It can provide a general guide for understanding how changes in GDP are likely to affect unemployment and can be used to help make predictions about the likely direction of the economy in the future. It's also

widely used as an indicator to forecast the future unemployment rate in various econometric models and by central banks and policy makers.

It is also worth mentioning that Okun's Law has been used to measure how much the economy is underperforming, called the 'Okun's gap.' It compares the actual unemployment rate with the unemployment rate that would be consistent with the economy operating at its potential output, often referred as to the "natural rate of unemployment". This measurement can give a sense of how much slack there is in the economy, and whether the economy is below or above potential. Overall, Okun's Law is an important relationship that describes the relationship between changes in an economy's unemployment rate and changes in its real GDP.

CHAPTER 2: MAIN CAUSES OF UNEMPLOYMENT

This chapter presents information concerning the main causes of unemployment. In more detail, Keynesian theory, the problem of sufficient aggregate demand, and the classical theory. The social and economic cost of unemployment (Okun's law) is also discussed in the second chapter.

2.1 Keynesian Theory on Unemployment

In general, the Keynesian view of unemployment is that it is caused by a lack of aggregate demand in the economy. According to this theory, when demand for goods and services is low, businesses will cut back on production and layoffs will occur. To stimulate demand and reduce unemployment, governments and central banks can use expansionary monetary and fiscal policies. Expansionary monetary policy involves decreasing interest rates and increasing the money supply, which can lead to increased borrowing, spending, and economic growth. Fiscal policy, on the other hand, involves the government increasing spending or decreasing taxes to stimulate demand.

Keynes also identified the concept of 'sticky wages' which means that when demand for goods and services falls, businesses may be hesitant to lower wages to cut costs, leading to layoffs and higher unemployment. Critics of Keynesian theory argue that it can lead to inflation and that government spending and intervention in the economy can be inefficient and detrimental in the long run. Additionally, many criticisms point out that if it is done on a large scale and frequently, this can cause a moral hazard problem in the private sector. (Kahn, R. F., 2022)

In summary, according to the Keynesian theory, unemployment is caused by a lack of aggregate demand in the economy and that government intervention through expansionary monetary and fiscal policies can help to reduce it. It is important to note that there are many criticisms and alternative theories on unemployment and macroeconomic policy and that the effectiveness of these policies can depend on the specific economic conditions and context of a country. It is worthy to give information concerning the sufficient aggregate demand for unemployment.

The term ‘aggregate demand,’ or ‘AD,’ refers to the sum of an economy's demand for goods and services. The overall flow of expenditures in an economy during a certain time is directly tied to effective demand. The following elements make up its entirety, which is shown on Formula 1:

Formula 1: The Formula of Aggregate Demand on Keynesian Theory

$$Effective\ Demand = C + I + G + (X - M)$$

C-Consumption demand by the households

I-Investment demand, i.e., demands for capital goods by the business firms

G-Government expenditure

(X-M)- Net income from abroad

According to Keynes, the classical theory's assumption that full employment is a natural condition of affairs does not hold water. He suggested that the level of income that is associated with full employment could not necessarily correspond to the equilibrium level of production and employment in an economy. At employment levels lower than full capacity, it is feasible to achieve macroeconomic equilibrium. If the current level of aggregate demand (expenditure) is not sufficient to purchase all of the goods produced in the economy (i.e., there is an excess supply), then production will be reduced to match the level of aggregate demand. This will occur if there is a situation in which there is an excess supply.

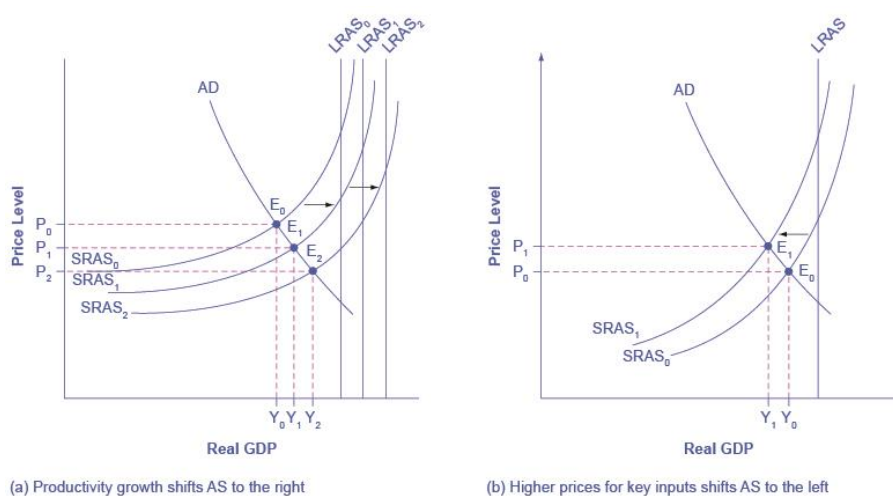
The link between aggregate demand (AD) and aggregate supply is at the center of Keynes' theory about the factors that determine equilibrium in terms of both income and employment (AS). (Rubin, G., 2002) According to him, the level of aggregate demand (AD) in the economy is what determines the level of equilibrium employment (income), given the level of aggregate supply in the economy (AS). Therefore, the level of employment that is in equilibrium is the level at which the level of aggregate supply is compatible with the level that is now experienced by aggregate demand. In contrast to the belief held by classical economics, which is that ‘supply produces its own demand,’ this theory holds that ‘demand creates its own supply.’

Since macroeconomics examines the economy, it must balance a great number of distinct ideas. These ideas include the three macroeconomic goals of growth, low

inflation, and low unemployment; the components of aggregate demand; aggregate supply; and a diverse range of economic events and policy decisions. Because it offers a general framework for putting all of these components together in one figure, the aggregate demand and aggregate supply model, often known as the AD/AS model, is one of the most essential tools in the field of economics. In addition, the AD/AS framework is adaptable enough to include both Keynes' law method, which centers on aggregate demand and the short run, and Say's law approach, which centers on aggregate supply and the long run. This is made possible by the framework's capacity for flexibility.

Using the AD/AS model, we can investigate both the long-term and short-term fluctuations in the gross domestic product, often known as GDP. Long-term economic growth that occurs because of steady gains in productivity over the course of time is shown as a slow shift to the right of aggregate supply in an AD/AS diagram. In addition, the vertical line that depicts potential GDP, often known as the level of gross domestic product at full employment, progressively swings to the right over the course of time. (Lisi, G., 2021) This impact is shown in the AD/AS figure A that follows; this diagram depicts a pattern of economic expansion over a period of three years. However, the factors that determine the speed of this long-term economic growth rate do not appear directly in an AD/AS diagram, which is shown in Figure 2.1. These factors include investment in physical and human capital, technology, and whether an economy can take advantage of catch-up growth.

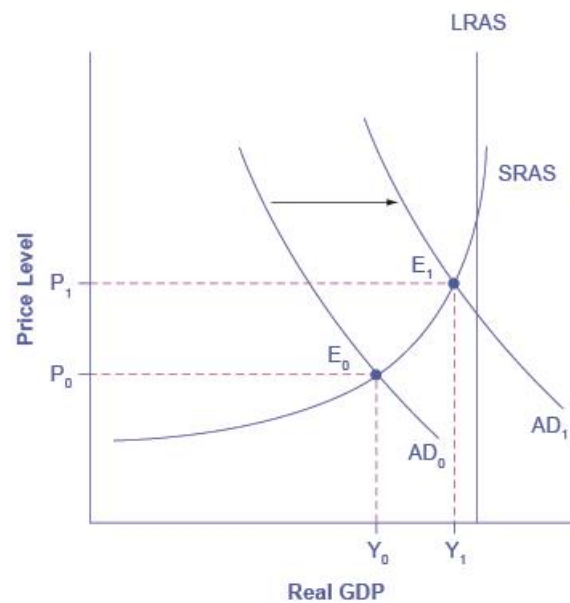
Figure 2.1: Shifts in Aggregate Supply



Source: The author's contribution

GDP, or gross domestic product, experiences both decreases and increases in the short term in every economy, regardless of whether the country is entering or emerging from a recession. A recession is present when an AD/AS diagram displays an equilibrium level of real GDP that is much lower than the potential GDP. This is seen in the diagram below at the equilibrium point E_0 . On the other hand, when the economy is experiencing robust growth, the equilibrium will generally be rather near to the GDP potential, much as it is at equilibrium point E_1 in Figure 2.2.

Figure 2.2: Shifts in Aggregate Demand



Source: The author's contribution

Using an AD/AS diagram, we can investigate not one, but two distinct forms of unemployment: cyclical unemployment and the natural rate of unemployment. The fluctuations in GDP over short time periods have a direct influence on the cyclical behavior of unemployment. On the other hand, the phrase 'natural rate of unemployment' refers to the consistent, long-term level of unemployment that remains constant from year to year. (Poast, P. D., 2001)

The natural rate of unemployment is calculated by analyzing how well the various market and government institutions in the economy lead to a matching of employees and employers in the labor market. This analysis is then used to calculate the unemployment rate. It is possible for potential GDP to suggest different unemployment rates in various

economies, and these differences may be attributed to the natural rate of unemployment that exists in each country.

In an AD/AS diagram, cyclical unemployment is represented by the degree to which the GDP level is now approaching either its potential or its level at full employment. Take a second look at the AD/AS diagram that was just shown. When an economy's level of production is relatively near to its potential gross domestic product, as it is when it is at the equilibrium point E1, cyclical unemployment is quite low. On the other hand, high cyclical unemployment occurs at the equilibrium point E0 of the AD/AS diagram when there is a significant amount of production to the left of the potential GDP on the diagram. Even though they are an implicit element of what defines potential GDP, also known as GDP at full employment, in any given country, the variables that determine the natural rate of unemployment are not displayed individually in the AD/AS model. However, the AD/AS model does consider these factors. The next sub-chapter presents information concerning the classical theory of unemployment.

2.2 The Classical Theory of Unemployment

Classical economics is the original macroeconomic theory that preceded the development of Keynesian economics. The classical theory of unemployment holds that unemployment is caused by wages being too high and that if wages were to fall, unemployment would also fall. According to classical economists, wages and prices in the economy are determined by supply and demand. In a competitive labor market, the wage rate will adjust to the level at which the quantity of labor supplied equals the quantity of labor demanded. When wages are too high, the quantity of labor supplied will exceed the quantity of labor demanded, resulting in unemployment.

Classical economists argue that the natural rate of unemployment, or the rate of unemployment that occurs when wages are at the 'correct' level, is always present in the economy. This rate is also called the 'non-accelerating inflation rate of unemployment' (NAIRU). They believed that this unemployment rate will exist even in a healthy economy and that there was nothing that can be done about it in the short run. Classical economists believed that unemployment would be self-correcting in the long run. They argued that if wages are too high, businesses will not be able to sell their products and

will have to reduce their prices to remain competitive. This will in turn lead to lower profits and reduced investment, causing a fall in aggregate demand and leading to lower wages. As wages fall, employment will increase, and the economy will return to full employment. (Grieve, R. H., 2010)

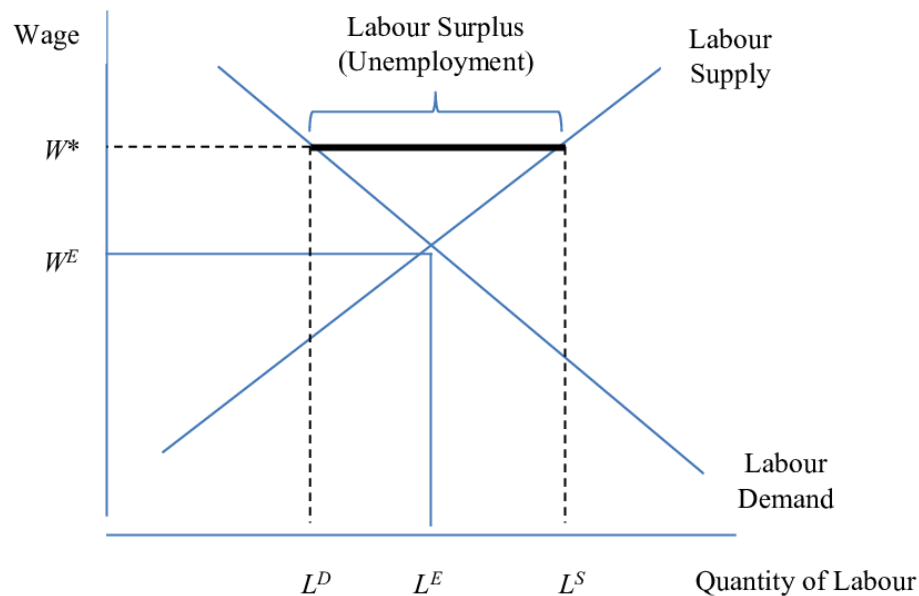
Critics of classical theory argue that it is based on several unrealistic assumptions, such as perfect competition and flexible wages and prices. In the real world, wages and prices may not adjust quickly or at all, which can lead to persistent unemployment. Additionally, classical theory doesn't consider the role of demand in the economy and assumes that supply creates its own demand, which is not always the case. In summary, according to classical theory, unemployment is caused by wages being too high, and if wages were to fall, unemployment would also fall. It is a self-correcting problem in the long run and can't be changed by short-term policy interventions. However, this theory has many criticisms and alternative theories, and it assumes certain conditions, such as perfect competition and flexible wages and prices, that might not always exist in the real world.

The labor market is seen as a single, unchanging market in the classical theory of unemployment. This market is said to be characterized by perfect competition, spot transactions, and institutions for double auction bidding. In this hypothetical situation, employees offer their labor while employers seek it out. One way to understand the amount of labor that is provided is to consider, for instance, the number of employees who put in full days of work within a certain time. On the other hand, the cost of labor is measured by the hourly rate of the actual wage. The theory operates on the presumption that each individual unit of labor services is the same and that every worker participating in the labor market receives the exact same pay. Furthermore, according to classical theory, unemployment is a transient condition, and the operation of the forces of a free market would guarantee that the economy is returned to full employment given the assumptions of flexible wages and perfect knowledge. (Dagume, M.A. and Gyekye, A., 2016)

The example shown in figure 2.3 depicts a scenario in which the premise of flexible salaries does not hold true, and as a result, the labor market does not clear. The equilibrium amount of labor provided and required, as shown in Figure 2.3, is equal to the equilibrium wage, which is denoted by WE. According to the classical theory, if

employers are required to pay a minimum wage of W^* (as shown in Figure 2.3), then this price will be much higher than the wage that would be considered to be in equilibrium. In this scenario, the amount of labor that is provided will be lower than the demand for labor at the minimum wage, which will result in an LD demand.

Figure 2.3: Unemployment Under the Classical Theory



Source: Dagume, M.A. and Gyekye, A. (2016) Determinants of Youth Unemployment in South Africa: Evidence from the Vhembe District of Limpopo Province.

The fact that the amount of labor that is provided is more than the quantity of labor that is requested at the minimum wage causes a labour surplus, which translates into what is known as classical voluntary unemployment. Only in situations in which there are distortions in the operations of the labor market, which prevent the market from clearing, is it conceivable for there to be unemployment that is not voluntarily chosen by the individual. In addition, according to this theory, there is no such thing as cyclical unemployment. This is another contention of the theory. People who are not working have either chosen not to work or are a part of frictional or structural unemployment. (Goodwin, N.R. et al., 2006) People who are not working might fall into any of these three categories.

2.3 Okun's Law

Unemployment has a wide range of social and economic costs that can affect individuals, families, and entire communities. For individuals, unemployment can lead to financial insecurity, poverty, and reduced access to healthcare and other public services. It can also have negative effects on mental and physical health, leading to increased rates of depression, stress, and other health problems. Families can also be affected by unemployment, particularly if they rely on the income of the unemployed individual. This can lead to financial strain, reduced access to necessities, and increased stress and strain on relationships.

In communities, unemployment can lead to reduced economic activity, lower tax revenue, and increased demand for government assistance. Additionally, it can lead to a decrease in the overall standard of living and increased crime rates. Okun's law is an empirical relationship that describes the relationship between unemployment and economic growth. The relationship states that for every 1% increase in the unemployment rate, there is a corresponding 2% decrease in economic growth. (Bankole, A. S., & Fatai, B. O., 2013)

This law was first proposed by economist Arthur Okun in 1962, and it has been found to hold true for many developed economies. The relationship is based on the idea that unemployment represents a loss of potential economic output and that as unemployment increases, economic growth will decrease. Okun's law is often used as an indicator of the health of an economy, and it can be used to predict how changes in unemployment will affect economic growth. However, this law is an average relationship, and it can vary depending on the specific economic conditions of a country.

Critics of Okun's law argue that it is based on a linear relationship between unemployment and economic growth, which may not always hold true. Additionally, the law doesn't consider the potential for other factors such as productivity or technological advancements to affect economic growth. In summary, unemployment has a wide range of social and economic costs that can affect individuals, families, and entire communities. Okun's law is an empirical relationship that describes the relationship between unemployment and economic growth which states that for every 1% increase in the unemployment rate, there is a corresponding 2% decrease in economic growth. It is a

useful tool to predict the effects of unemployment on economic growth, but it is important to note that it has some limitations.

During the middle of the 20th century, an economist by the name of Arthur Okun discovered what seemed to be a connection between the number of unemployed people and a country's GDP. Simply put, Okun's law is an examination of the correlation that exists between unemployment and rates of economic expansion. Its purpose is to make people aware of how much of a nation's gross domestic product (GDP) may be at risk if the unemployment rate is higher than what would be its 'natural rate.' To be more specific, the legislation dictates that to achieve a decrease in the rate of unemployment of 0.5 percentage points, the nation's GDP must rise by an amount equal to or greater than its potential GDP. (Ball, L. M., Leigh, D., & Loungani, P., 2013)

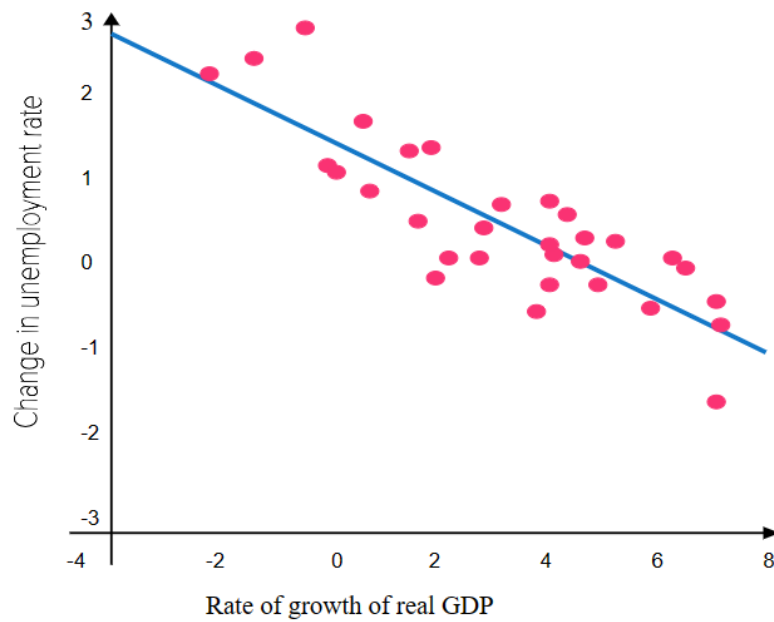
The reasoning behind Okun's Law is quite easy to understand. There is a negative relationship between unemployment and production since the amount of labor used in the production process is directly proportional to the output. There is an inverse relationship between productivity and joblessness, as shown by the fact that total employment is equal to the labor force minus the number of unemployed people. Because of this, Okun's Law might be characterized as an inverse relationship between changes in levels of productivity and shifts in levels of unemployment. The first link that Okun made documented how variations in the rate of unemployment throughout quarters corresponded to changes in the level of actual output during those same quarters, which is shown on Formula 2:

$$\text{Change in Unemployment Rate} = b \times \text{Real Output Growth}$$

This interpretation of Okun's law is referred to as the difference version. It illustrates how output growth changes simultaneously with fluctuations in the rate of unemployment, which is the key to understanding the relationship that exists between rising production and shifting rates of unemployment. The value b is sometimes referred to as Okun's coefficient in certain circles. It is reasonable to anticipate that it will be negative, which would mean that an increase in output is tied to a falling rate of unemployment, but a stagnant or negative production rate is related to an increase in the rate of unemployment.

A broad example of Okun's rule based on fictional data is shown in the graphic that can be seen below (Figure 2.4). It illustrates that shifts in the unemployment rate can be observed and anticipated accurately by the rate of increase in GDP.

Figure 2.4: Okun's Law Diagram



CHAPTER 3: THE RELATIONSHIP BETWEEN INFLATION AND UNEMPLOYMENT

This chapter presents information on the relationship between inflation and unemployment. In more detail, there is information concerning the Phillips Curve, and the impact of monetary and fiscal policy on the relationship.

Generally speaking, inflation and unemployment are two of the most important macroeconomic indicators that economists use to assess the overall health of an economy. The relationship between these two variables is complex and multifaceted, with various theories and models attempting to explain it. In this essay, I will examine the different ways in which inflation and unemployment are related, including the Phillips Curve, the Natural Rate of Unemployment, and the impact of monetary and fiscal policy on the relationship.

The Phillips Curve is a theoretical model that depicts the relationship between inflation and unemployment. The curve is named after economist A.W. Phillips, who first observed an inverse relationship between unemployment and wages in the United Kingdom in the 1950s. The basic idea behind the Phillips Curve is that there is a trade-off between inflation and unemployment: as unemployment decreases, inflation tends to increase, and as unemployment increases, inflation tends to decrease. However, the Phillips Curve theory has its limitations. The curve assumes that unemployment is always at its natural rate. However, in the 1970s, economists Milton Friedman and Edmund Phelps challenged this assumption and argued that the natural rate of unemployment, or the ‘non-accelerating inflation rate of unemployment’ (NAIRU), is not constant but instead changes over time. They also pointed out that expansionary monetary and fiscal policies can temporarily lower unemployment below its natural rate, but this will only lead to higher inflation in the long run. This theory was later called the ‘Friedman-Phelps hypothesis.’

The Natural rate of unemployment is the level of unemployment that is consistent with stable inflation over the long run. It is important to understand that the Natural Rate of Unemployment is not constant but changes over time. It's affected by structural factors like demographics, labor market regulation, education, and technological changes among others.

Monetary policy, which is the use of interest rates and other tools to control the money supply, can also affect the relationship between inflation and unemployment. Expansionary monetary policy, which increases the money supply and lowers interest rates, can lead to lower unemployment in the short run. However, if the policy is continued for too long, it can lead to inflation. On the other hand, contractionary monetary policy, which reduces the money supply and raises interest rates, can lead to higher unemployment in the short run but can help to control inflation in the long run.

Fiscal policy, which is the use of government spending and taxation to influence the economy, can also affect the relationship between inflation and unemployment. Expansionary fiscal policy, which increases government spending and reduces taxes, can lead to lower unemployment in the short run. However, if the policy is continued for too long, it can lead to inflation, especially if the government finances the increased spending by borrowing instead of raising taxes. On the other hand, contractionary fiscal policy, which reduces government spending and increases taxes, can lead to higher unemployment in the short run, but it can help to control inflation in the long run.

Overall, the relationship between inflation and unemployment is complex and multifaceted, with various theories and models attempting to explain it. The Phillips Curve is a theoretical model that depicts the relationship between inflation and unemployment, but it has limitations. The Natural rate of unemployment is an important concept to understand, as it changes over time, and structural factors affect it. Monetary and Fiscal policies can affect the relationship between inflation and unemployment, but they can have different short-term and long-term effects depending on how they are implemented.

3.1 Phillips Curve

The Phillips curve is an economic theory that describes the relationship between unemployment and inflation. The theory is named after economist A.W. Phillips, who published a paper in 1958 that presented evidence of a negative correlation between unemployment and inflation in the United Kingdom over the period 1861 to 1957. According to the Phillips curve, as unemployment decreases, inflation increases, and as unemployment increases, inflation decreases.

The Phillips curve is typically depicted as a downward-sloping curve, with inflation on the vertical axis and unemployment on the horizontal axis. The slope of the curve depends on the relationship between the labor market and the rate of inflation, with a steeper slope indicating a stronger relationship. The slope of the curve can also change over time depending on factors such as changes in the structure of the labor market or shifts in monetary policy.

The Phillips curve was initially seen as a stable and long-run relationship between inflation and unemployment, which can be used as a guide for macroeconomic policy. However, the empirical evidence from the 1960s and 1970s suggested that the relationship was not stable, but rather the slope of the curve shifted upward. This was called the 'Phillips curve trade-off' and the idea was that a government could choose a point along the curve by adjusting monetary policy to achieve a specific unemployment rate. (Stock, J. H., & Watson, M. W., 2008)

But economists started noticing this trade-off breakdown as stagflation occurred in the 1970s, where high inflation and unemployment both happened simultaneously. This led to the development of the theory of the 'Expectations-augmented Phillips Curve' where inflation expectations play a crucial role in determining the unemployment-inflation trade-off. The idea behind this is that when people expect prices to rise, they will demand higher wages, which in turn pushes up prices. Expectations of inflation, therefore, affect the relationship between unemployment and inflation.

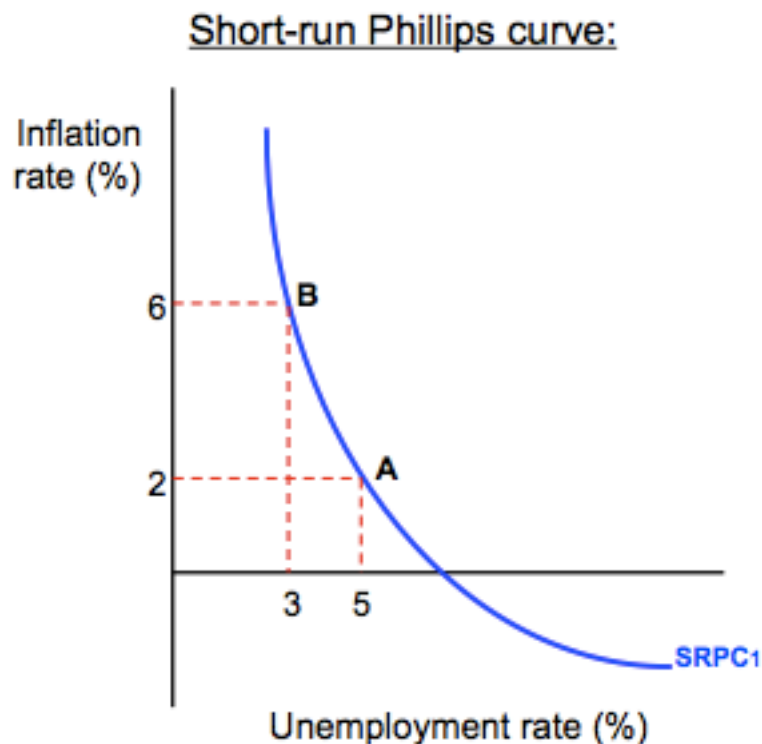
In the long run, many economists argue that the Phillips curve is vertical and does not exist. This is because, in the long run, any attempt to reduce unemployment below its natural rate will only lead to inflation, and not to a sustained decrease in unemployment. This is known as the 'natural rate of unemployment' or the 'non-accelerating inflation rate of unemployment. (NAIRU) (Gertler, M., & Leahy, J., 2008)

Finally, it's important to note that while the Phillips curve is still an important concept in macroeconomics, it's not the only explanation of the relationship between inflation and unemployment. There are also other theories such as the Real Business Cycle theory, the New Keynesian theory, and others that provide alternative explanations.

The relationship between the rate of inflation and the rate of unemployment is represented by the Phillips curve. The Phillips curve proposes that unemployment and

inflation have an inverse relationship, meaning that higher levels of inflation may be expected as unemployment rates fall. The connection, on the other hand, does not follow a straight line. When the unemployment rate is shown along the x-axis and the inflation rate is plotted along the y-axis, as illustrated in Figure 3.1, the short-run Phillips curve takes the form of L when depicted graphically.

Figure 3.1: The Phillips Curve in the Short Run



Source: The author's contribution

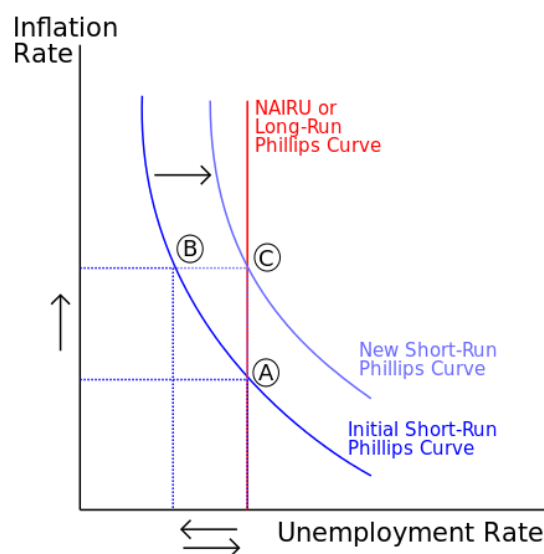
The Phillips curve illustrates the trade-off that occurs between inflation and unemployment in an inverted fashion. When one variable rises, the other must decrease proportionately. In this scenario, an economy has the choice of having a rate of unemployment of 3% at the expense of 6% inflation or increasing the unemployment rate to 5% to reduce the rate of inflation down to 2%.

The Phillips curve illustrates the trade-off between inflation and unemployment; however, the extent to which this connection holds true over the long term is debatable. Economists believe that in the long term, there is no possible way to strike a balance between lowering unemployment and lowering inflation. It is possible for there to be a

spike in inflation after a reduction in the unemployment rate; however, this effect is only temporary. There is no correlation between inflation and unemployment over the course of a whole economic cycle. In graphical terms, this indicates that the Phillips curve is in a vertical position at the natural rate of unemployment, also known as the hypothetical rate of unemployment, that would exist if aggregate output were at its long-run level. The only effect that can be expected from efforts to reduce unemployment rates is for the economy to progress down this vertical line. (Nason, J. M., & Smith, G. W., 2008)

Milton Friedman and Edmund Phelps, both prominent figures in the field of economics, are credited with the development of the natural rate of unemployment hypothesis, which is also known as the non-accelerating inflation rate of unemployment (NAIRU) theory. The NAIRU hypothesis contends that expansionary economic policies will only result in short-term reductions in unemployment because the economy will eventually readjust to its natural rate of unemployment. Furthermore, if unemployment is lower than the rate that would be considered normal, inflation will pick up speed. Inflation will begin to slow down when the jobless rate rises above the natural rate. Inflation is constant, or non-accelerating when the unemployment rate is the same as the rate that would occur naturally. Consider the example shown in Figure 3.2 to have a better understanding of the long-run Phillips curve.

Figure 3.2: Phillips Curve in the Long-Run



Source: The author's contribution

Assume for the moment that the economy begins at point A and has both a starting rate of unemployment and a starting rate of inflation. If the government makes the decision to pursue expansionary economic policies, then aggregate demand will move to the right, which will lead to a rise in inflation. This may be seen as a movement along the short-run Phillips curve, to point B, which represents an unstable equilibrium. As a result of a rise in aggregate demand, more employees will be employed by businesses so that they can generate more output to satisfy the growing demand. This will lead to a decline in the rate of unemployment. However, because of the higher inflation, workers' expectations of future inflation shift. This causes the short-run Phillips curve to shift to the right, moving from an unstable equilibrium point B to a stable equilibrium point C. This is because workers' expectations of future inflation are affected by the higher inflation. At point C, the rate of unemployment has returned to its normal rate, but inflation is still greater than it was at the beginning of the scenario.

Overall, the Phillips curve is an economic theory that describes the relationship between unemployment and inflation. It was first presented by A.W. Phillips in 1958 and has since been used as a guide for macroeconomic policy. However, it was later found that the relationship is not stable and can be affected by factors such as inflation expectations. Additionally, the Phillips curve has since been refined and other theories have been developed that provide alternative explanations of the relationship between inflation and unemployment.

3.2 The Impact of Monetary Policy on the Relationship Between Inflation and Unemployment

The relationship between inflation and unemployment, known as the Phillips Curve, has been a topic of economic debate for decades. The Phillips Curve posits that there is an inverse relationship between the two variables, such that when unemployment is low, inflation is high and vice versa. However, the relationship between inflation and unemployment is not a fixed one and can be affected by a variety of factors, including monetary policy.

Monetary policy, which is the process by which a central bank manages the money supply and interest rates in an economy, can have a significant impact on the relationship

between inflation and unemployment. Central banks use monetary policy to achieve their dual mandate of stable prices and maximum employment. One of the main ways in which monetary policy can affect the relationship between inflation and unemployment is through its effect on interest rates. When interest rates are low, it becomes cheaper for businesses and consumers to borrow money, which can lead to increased spending and economic growth. This, in turn, can lead to lower unemployment and higher inflation. Conversely, when interest rates are high, borrowing becomes more expensive, which can lead to decreased spending and economic growth, resulting in higher unemployment and lower inflation. (Selim, M., & Hassan, M. K., 2019)

Interest rates play a crucial role in the relationship between inflation and unemployment. The Federal Reserve, through its monetary policy, sets the target interest rate, which is the rate at which banks can borrow money from the Fed. This target rate influences other interest rates in the economy, such as the rates at which consumers and businesses can borrow money. When the Federal Reserve lowers the target interest rate, it makes it cheaper for businesses and consumers to borrow money. This can lead to increased spending and economic growth, which can lead to lower unemployment and higher inflation. Conversely, when the Federal Reserve raises the target interest rate, it makes borrowing more expensive, which can lead to decreased spending and economic growth, resulting in higher unemployment and lower inflation.

This relationship between interest rates and the economy is known as the 'monetary policy transmission mechanism.' The monetary policy transmission mechanism operates through several channels, such as the interest rate channel, the exchange rate channel, and the asset price channel. The interest rate channel is considered the most important channel through which monetary policy affects the economy. The interest rate channel works by influencing the cost of borrowing. When interest rates are low, it becomes cheaper for businesses and consumers to borrow money, which can lead to increased spending and economic growth. This increased spending can lead to increased demand for goods and services, which can lead to higher prices (inflation) and lower unemployment.

However, this relationship between interest rates and inflation, and unemployment is not always straightforward. In certain circumstances, low-interest rates can also lead to economic stagnation and high unemployment, as well as high inflation.

This is known as a 'liquidity trap' and it occurs when the economy is in a state of recession and interest rates are already at or near zero. In this situation, lowering interest rates further will not stimulate borrowing and spending, and instead, the economy may remain stagnant. Another important aspect to consider is the expectation of future interest rates. If people expect interest rates to rise in the future, they may demand higher wages, which can lead to increased production costs and higher prices. This is known as the 'expectations channel' and it works by influencing the expectations of future inflation.

Overall, interest rates play a crucial role in the relationship between inflation and unemployment. The Federal Reserve, through its monetary policy, sets the target interest rate, which influences other interest rates in the economy. When interest rates are low, it becomes cheaper for businesses and consumers to borrow money, which can lead to increased spending and economic growth, resulting in lower unemployment and higher inflation. However, this relationship is not always straightforward, and it can be affected by other factors such as the liquidity trap and the expectations channel. The Federal Reserve must carefully balance the trade-offs between inflation and unemployment when setting its target interest rate. (Roberts, J. M., 2004)

Another way in which monetary policy can affect the relationship between inflation and unemployment is through its effect on the money supply. When a central bank increases the money supply, it can lead to increased spending and economic growth, which can lead to lower unemployment and higher inflation. Conversely, when a central bank decreases the money supply, it can lead to decreased spending and economic growth, resulting in higher unemployment and lower inflation.

The money supply, which is the total amount of money available in an economy, plays a crucial role in the relationship between inflation and unemployment. The Federal Reserve, through its monetary policy, sets the money supply by controlling the amount of money that banks have in reserve. This money supply can have a significant impact on the economy, including the relationship between inflation and unemployment.

When the Federal Reserve increases the money supply, it can lead to increased spending and economic growth, which can lead to lower unemployment and higher inflation. This is known as expansionary monetary policy. The Federal Reserve increases the money supply by purchasing government securities from banks, which increases the amount of money that banks have in reserve. With more money in reserve, banks can lend

more money to businesses and consumers, which can lead to increased spending and economic growth.

Conversely, when the Federal Reserve decreases the money supply, it can lead to decreased spending and economic growth, resulting in higher unemployment and lower inflation. This is known as contractionary monetary policy. The Federal Reserve decreases the money supply by selling government securities to banks, which decreases the amount of money that banks have in reserve. With less money in reserve, banks can lend less money to businesses and consumers, which can lead to decreased spending and economic growth.

The money supply can also affect the relationship between inflation and unemployment through its effect on interest rates. When the money supply is increased, it can lead to lower interest rates, which can make borrowing cheaper and lead to increased spending and economic growth. Conversely, when the money supply is decreased, it can lead to higher interest rates, which can make borrowing more expensive and lead to decreased spending and economic growth. (Alves, S. A. L., 2018)

It's important to note that the relationship between the money supply and inflation and unemployment is not always straightforward. In certain circumstances, increasing the money supply can lead to inflation without a corresponding decrease in unemployment. This is known as 'stagflation' and it occurs when the economy is in a state of recession and prices are already rising. In this situation, increasing the money supply will not stimulate economic growth and instead, prices will continue to rise. In addition, it's also important to consider other factors such as changes in productivity, changes in population, and changes in government policies, that can also play a role in the relationship between inflation and unemployment.

Overall, the money supply plays a crucial role in the relationship between inflation and unemployment. The Federal Reserve, through its monetary policy, sets the money supply by controlling the amount of money that banks have in reserve. When the Federal Reserve increases the money supply, it can lead to increased spending and economic growth, resulting in lower unemployment and higher inflation. Conversely, when the Federal Reserve decreases the money supply, it can lead to decreased spending and economic growth, resulting in higher unemployment and lower inflation. However, the relationship between the money supply and inflation and unemployment is not always

straightforward, and it can be affected by other factors such as stagflation, changes in productivity, changes in population, and changes in government policies. The Federal Reserve must carefully balance the trade-offs between inflation and unemployment when setting the money supply.

Overall, monetary policy can have a significant impact on the relationship between inflation and unemployment. Central banks use monetary policy to achieve their dual mandate of stable prices and maximum employment. Monetary policy affects the relationship between inflation and unemployment through its effect on interest rates and the money supply. However, it's important to note that monetary policy is not the only factor that can affect the relationship between inflation and unemployment, and it's also important to consider other factors such as changes in productivity, changes in population, and changes in government policies.

3.3 The Impact of Fiscal Policy on the Relationship Between Inflation and Unemployment

Fiscal policy, which is the process by which the government manages its spending and taxation in an economy, can have a significant impact on the relationship between inflation and unemployment. The relationship between inflation and unemployment, known as the Phillips Curve, posits that there is an inverse relationship between the two variables, such that when unemployment is low, inflation is high and vice versa. However, the relationship between inflation and unemployment is not a fixed one and can be affected by a variety of factors, including fiscal policy. (Rendahl, P., 2016)

One of the main ways in which fiscal policy can affect the relationship between inflation and unemployment is through its effect on government spending. When the government increases spending, it can lead to increased demand for goods and services, which can lead to higher prices (inflation) and lower unemployment. Conversely, when the government decreases spending, it can lead to decreased demand for goods and services, resulting in lower prices (deflation) and higher unemployment.

The role of government spending in fiscal policy can have a significant impact on the relationship between inflation and unemployment. Government spending refers to the money that the government spends on various programs and services such as

infrastructure, education, healthcare, and welfare. This government spending can have a positive or negative effect on the economy, including the relationship between inflation and unemployment.

When the government increases spending, it can lead to increased demand for goods and services, which can lead to higher prices (inflation) and lower unemployment. This is known as expansionary fiscal policy. Expansionary fiscal policy can be implemented through a variety of means, such as increasing government spending on infrastructure projects, increasing transfer payments to individuals, and increasing subsidies to businesses. When the government increases spending, it can lead to increased demand for goods and services, which can lead to higher prices (inflation) and lower unemployment. (Mitchell, W. F., & Mosler, W. B., 2002)

Conversely, when the government decreases spending, it can lead to decreased demand for goods and services, resulting in lower prices (deflation) and higher unemployment. This is known as contractionary fiscal policy. Contractionary fiscal policy can be implemented through a variety of means, such as decreasing government spending on infrastructure projects, decreasing transfer payments to individuals, and decreasing subsidies to businesses. When the government decreases spending, it can lead to decreased demand for goods and services, which can lead to lower prices (deflation) and higher unemployment.

It's important to note that the relationship between government spending and inflation and unemployment is not always straightforward. In certain circumstances, increasing government spending can lead to inflation without a corresponding decrease in unemployment. This can occur when the increase in government spending is financed by borrowing, rather than through taxation. This increase in borrowing can lead to higher interest rates, which can make borrowing more expensive and lead to decreased spending and economic growth. Additionally, the relationship between government spending and inflation, and unemployment can be affected by expectations. If people expect government spending to increase, they may demand higher wages, which can lead to increased production costs and higher prices. This is known as the 'expectations channel' and it works by influencing the expectations of future inflation.

Overall, the role of government spending in fiscal policy can have a significant impact on the relationship between inflation and unemployment. When the government

increases spending, it can lead to increased demand for goods and services, resulting in higher prices (inflation) and lower unemployment. Conversely, when the government decreases spending, it can lead to decreased demand for goods and services, resulting in lower prices (deflation) and higher unemployment. However, the relationship between government spending and inflation, and unemployment is not always straightforward, and it can be affected by other factors such as an increase in borrowing, and the expectations channel. The government must carefully balance the trade-offs between inflation and unemployment when implementing the fiscal policy by considering the source of financing for government spending. (Obayori, J. B., 2016)

Another way in which fiscal policy can affect the relationship between inflation and unemployment is through its effect on taxation. When the government increases taxes, it can lead to decreased spending and economic growth, which can lead to higher unemployment and lower inflation. Conversely, when the government decreases taxes, it can lead to increased spending and economic growth, resulting in lower unemployment and higher inflation.

The role of taxation in fiscal policy can have a significant impact on the relationship between inflation and unemployment. Taxation refers to the money that the government collects from individuals and businesses through various forms of taxes such as income tax, sales tax, and property tax. The government uses taxation to finance its spending and to influence the economy, including the relationship between inflation and unemployment.

When the government increases taxes, it can lead to decreased spending and economic growth, which can lead to higher unemployment and lower inflation. This is known as contractionary fiscal policy. Contractionary fiscal policy can be implemented through a variety of means, such as increasing income tax rates, increasing sales tax rates, and increasing property tax rates. When the government increases taxes, it can lead to decreased spending by individuals and businesses, which can lead to lower demand for goods and services, resulting in lower prices (deflation) and higher unemployment.

Conversely, when the government decreases taxes, it can lead to increased spending and economic growth, resulting in lower unemployment and higher inflation. This is known as expansionary fiscal policy. Expansionary fiscal policy can be implemented through a variety of means, such as decreasing income tax rates, decreasing

sales tax rates, and decreasing property tax rates. When the government decreases taxes, it can lead to increased spending by individuals and businesses, which can lead to higher demand for goods and services, resulting in higher prices (inflation) and lower unemployment. (Ebrahimi, N., Pedram, M., & Mousavi, M. H., 2021)

It's important to note that the relationship between taxation and inflation and unemployment is not always straightforward. In certain circumstances, decreasing taxes can lead to inflation without a corresponding decrease in unemployment. This can occur when the decrease in taxes is financed by borrowing, rather than through spending cuts. This increase in borrowing can lead to higher interest rates, which can make borrowing more expensive and lead to decreased spending and economic growth. Additionally, the relationship between taxation and inflation, and unemployment can be affected by expectations. If people expect taxes to decrease, they may demand higher wages, which can lead to increased production costs and higher prices. This is known as the 'expectations channel' and it works by influencing the expectations of future inflation.

Overall, the role of taxation in fiscal policy can have a significant impact on the relationship between inflation and unemployment. When the government increases taxes, it can lead to decreased spending and economic growth, resulting in higher unemployment and lower inflation. Conversely, when the government decreases taxes, it can lead to increased spending and economic growth, resulting in lower unemployment and higher inflation. However, the relationship between taxation and inflation and unemployment is not always straightforward, and it can be affected by other factors such as increase in borrowing, and the expectations channel. The government must carefully balance the trade-offs between inflation and unemployment when implementing fiscal policy by considering the source of financing for tax cuts or increases.

It's important to note that fiscal policy is not the only factor that can affect the relationship between inflation and unemployment. Other factors, such as changes in productivity, changes in population, and changes in monetary policy, can also play a role. In addition, the relationship between inflation and unemployment can be affected by expectations. If people expect inflation to be high, they may demand higher wages, which can lead to increased production costs and higher prices.

Fiscal policy also can have an impact on the short-run and long-run Phillips curve. In the short run, an expansionary fiscal policy (increase in government spending or

decrease in taxes) will shift the Phillips curve downward, meaning that for a given level of unemployment, there will be higher inflation. However, this effect is not sustained in the long run, as the increased government spending will lead to a higher budget deficit, and eventually, it will lead to higher interest rates and inflation.

Overall, fiscal policy can have a significant impact on the relationship between inflation and unemployment. The government uses fiscal policy to manage its spending and taxation in an economy. Fiscal policy affects the relationship between inflation and unemployment through its effect on government spending and taxation. However, it's important to note that fiscal policy is not the only factor that can affect the relationship between inflation and unemployment, and it's also important to consider other factors such as changes in productivity, changes in population, and changes in monetary policy. Fiscal policy can have both short-term and long-term effects on the Phillips curve, and it's important for the government to carefully balance the trade-offs between inflation and unemployment when implementing fiscal policy.

CHAPTER 4: METHODOLOGY OF THE RESEARCH

This chapter presents the methodology of the research. There is information concerning the research environment & research design, research process & methods, data collection, data organization, and data analysis & interpretation.

4.1 Research Environment and Research Design

The research environment, also known as culture, is generally agreed that the most potent determinant of research output. These evaluations have neglected the contextual intricacies and the multitude of environmental features, even though various narrative and systematic reviews have started to define the characteristics of a research-favorable environment. According to Evans, a research environment is made up of the following components: shared values, assumptions, beliefs, rituals, and other forms of behavior whose focus is the acceptance and recognition of research practice and output as valued, worthwhile, and preeminent activity. (Evans, Linda, 2012, 425) The locale of this study is young people searching for a job in Azerbaijan. The author sent research questionnaires to 100 unemployed young people in Azerbaijan. The author attempted to test the assumptions and beliefs of the individuals.

The framework of research methodologies and procedures that a researcher decides to use is known as the research design. The design gives researchers the ability to zero in on research methodologies that are appropriate for the topic at hand and increases the likelihood that their investigations will be successful. The design of a research subject describes not only the kind of research that will be conducted (for example, experimental, survey research, correlational, semi-experimental, or review) but also the sub-type of research that will be conducted (experimental design, research problem, descriptive case-study). Research designs often fall into one of three categories: those that focus on data gathering, measurement, or analysis. (Ahmed, R., Farooq, A., Storie, D., Hartling, L., & Oswald, A., 2016, 125)

The framework for the collecting of data and its subsequent analysis is provided by the research design. A case study, an experiment, or a longitudinal design would not be appropriate for the purpose of understanding the common beliefs of individuals regarding the causes of unemployment; rather, a cross-sectional approach would be more

appropriate. To be more precise, one common use of experimental design is in the study of the correlation between different variables. Experiments are often conducted to investigate and make sense of a particular problem.

When doing research that relies on experiments, it is important to divide participants into two groups: one will be the experimental group, and the other will serve as the control group. There is a difference between case study research, which uses a relatively small sample size, and longitudinal design research, which examines changes over time and provides casual effects. This kind of research, however, necessitates the use of relatively large sample size and longitudinal design research. Therefore, the design of cross-sections is recommended while discussing this subject. (Borkowski, D., McKinstry, C., Cotchett, M., Williams, C., & Haines, T., 2016, 300)

When a cross-sectional research methodology is used, the data from several cases at the same point in time are gathered and examined all at once. Next, the obtained quantitative or quantifiable data are used in conjunction with the patent of association to conduct the examination. (Pollard, A., 2015, 7) This aspect is essential to this research for a couple of reasons.

In this study, the cross-sectional design enables both quantitative and qualitative data to be collected, which is ideal for the mixed approaches outlined in the preceding sections. One-shot social survey research and structured observation of a representative sample are common methods for gathering quantitative data in this technique, while qualitative data is often collected via one-shot interviews or focus groups. A survey technique is used in the study for data collection.

4.2 Research Process and Research Methods

It is highly vital to explain to the respondents the purpose and objectives of the study, how their involvement would aid the conduct of the research, and that none of them will be harmed in any way for the data that is obtained to be trustworthy. At the same time, it is extremely necessary for the participants to know the name of the researcher and how the data will be utilized to establish a climate of trust between these two parties. This may be accomplished by providing the participants with this information.

In addition, ensuring the anonymity of the participants and the confidentiality of the data is an essential problem that must be considered. In conclusion, it is essential to always adhere to the idea of objectivity (Greener, 2008, 4). All the components are included in the participants' informed permission. As a result, the researcher made the following disclosures to the participants: a) their anonymity and the fact that no personal information (e.g., address or telephone number) would be used; b) the respect of data confidentiality and the fact that the data would be used only for this study; c) the way the data would be gathered and how it would contribute to the research's goal.

Using the SPSS program, the author makes an analysis of the information that was obtained via the use of the questionnaire. The opinions of respondents about the reasons for unemployment are grouped together and analyzed with the use of descriptive statistics, such as means and standard deviations. The comparison of the perspectives spoken by the people who took part in the study will serve as the foundation for the interpretation of the information that was gathered via surveys (Dawson, 2009, 4). This indicates that the responses collected from the subjects of the study will be presented, evaluated, and compared to the responses gained from other participants for each topic that will be asked.

In general, the findings of the study will be dissected and analyzed in accordance with the literature and the information that was presented in the previous chapter, both of which are components of the secondary background research. There is a strong connection between literature review and research. (Greener, 2008, 5) This is because the researcher can observe whether there are any differences between the findings of one's research and previous studies in the same field, or what the theory postulates about the subject being investigated.

The researcher used both descriptive and analytical methods for the study. The descriptive method is the one that was utilized to explain the supposed rationale behind the correlations that existed between the study variables and the features of the research sample. The analytical technique goes beyond just describing a phenomenon in its context to gather relevant data and analyze it to generalize the produced findings into organizations that are comparable and have comparable circumstances. Assessments of attitudes, views, demographic information, situations, and methods are the primary focuses of most descriptive research.

The research strategy that was decided to use for the study was the survey research strategy. The survey is an effort to gather data from members of a population so that researchers may identify the present state of that group about one or more factors. In its most effective form, knowledge survey research has the potential to provide highly useful data. It requires meticulous planning and execution of each step in the research process to get the desired results. The survey instrument's primary objective is to gather information on the respondents regarding the many aspects of the research being investigated.

4.3 Data Collection

Both theoretical and practical components make up the present investigation in its entirety. When it came to the theoretical component, the researcher looked to other scientific studies that were in some way connected to the one they were working on at the time. In contrast, the researcher relied on descriptive techniques and approached data collection, analysis, and hypothesis testing practically. This was done to get the best possible results.

The present research draws on two different sources for its methods of data collecting and analysis, as well as its programs:

1. Books, articles, and journals are examples of secondary materials that may be used to develop the theoretical framework for the research.
2. The primary source is a questionnaire that is prepared to represent the research questions and goals.

In this investigation, we made use of both primary and secondary sources of information. Following the completion of an exhaustive literature study to develop a solid theoretical foundation for the topic, the researcher designed a questionnaire to measure the research variable by adopting valid and reliable measures from prior studies. After that, the questionnaire was evaluated to see whether its contents were appropriate and whether they were relevant to the study variables.

One of the most often used approaches in quantitative research is the use of a questionnaire that respondents fill out on their own. With a self-completion questionnaire,

respondents answer questions by completing the form themselves. Several considerations led to the selection of this approach. The first justification for this lies in the fact that the study questions have been articulated in such a way that a questionnaire is the best option for collecting standardized data that is simple to handle and examine. Especially because there are no interviewers present while the questionnaires are being filled out, it is possible that the findings will not be influenced by the participants. In addition to this, it is less expensive than other approaches (Bryman & Bell, 2007, 241).

If the writers are in various countries and the research is about Azerbaijani individuals, it would be highly costly to conduct face-to-face interviews with individuals living in Azerbaijan. In addition, using this strategy helps save time, which enables hundreds of surveys to be sent all at once instead of individually. If respondents need to disclose any sensitive information, questionnaires are a more convenient option for them; in other words, they tend to be more honest than they would be in an interview setting.

According to Saunders et al. (2009, 362), self-administered surveys are separated into two types, one of which is termed a postal questionnaire, and the other is a delivery-collection questionnaire. This division is based on the method the questionnaires are distributed. Bryman and Bell (2007, 240) discuss the two different approaches that might be used when distributing questionnaires. The very first option is to send the questionnaires and a request to fill out the survey straight to the respondents who have been chosen at random. The researchers also have the option of personally delivering the questionnaire to each responder and then collecting it immediately after the respondent has finished filling it out. The first available choice will be used in this investigation.

4.4 Data Analysis and Interpretation

SPSS program is used to process and evaluate the data once it has been gathered. To begin, the data are cleaned by excluding the questionnaires that are of low quality, such as those that have an excessive number of missing values or evaluations that are biased. After that, descriptive statistics, and regression analysis are some of the statistical approaches that are used for the data to accomplish the goals of the study. To describe the respondents' personal information, descriptive statistics such as mode, median, mean, variance, and standard deviation are used. The effect degree of behavioral factors on the

investment decision-making of shareholders may also be described using descriptive statistics.

By the following formula, the means of the constructs that will be studied will be taken into consideration for each of the questionnaire items.

Interval Length can be calculated by Formula 3:

$$\text{Interval Length} = \frac{(\text{Highest Value} - \text{Lowest Value})}{\text{Number of Levels Interval Length}} = \frac{(5 - 1)}{3} = 1.33.$$

- **Low Level** = $1 + 1.33 = 2.33$ and Less
- **Medium Level** = $2.34 + 1.33 = 3.67$ so this level range is from 2.34 to 3.67
- **High Level** = 3.68 and above

Based on the responses, the researcher has gathered from the population under study who have responded to the questionnaire, means, and standard deviations have been calculated for the study constructs along with the items. These calculations have been done for both the study constructs and the items. The author also runs regression analysis in the study, formula 2 presents linear regression equation.

Linear Regression Equation can be calculated by Formula 4:

$$\hat{y} = b_1 \cdot x_1 + b_2 \cdot x_2 + \dots + b_k \cdot x_k + a$$

Where $\hat{y}$ is the dependent variable;

x is explanatory variable;

b is the slope of line;

a is the intercept.

4.6 Hypothesis Development

There are six hypotheses in the study.

Hypothesis 1 deals with the relationship between low levels of education attainment and government policies and initiatives on unemployment among youth in Azerbaijan.

H 1.0: Lack of government policies and initiatives does not lead to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

H 1.1: Lack of government policies and initiatives leads to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

Hypothesis 2 deals with the relationship between the mismatch between fresh graduates' profession and the labor market leading to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

H 2.0: The mismatch between fresh graduates' profession and the labor market does not lead to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

H 2.1: The mismatch between fresh graduates' profession and the labor market leads to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

Hypothesis 3 deals with the relationship between rural-urban migration and low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

H 3.0: Rural-urban migration does not lead to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

H 3.1: Rural-urban migration leads to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan.

CHAPTER 5: RESEARCH FINDINGS OF THE STUDY

This chapter presents the results of the study; the results of regression analysis, ANOVA test, and correlation coefficient results are presented in the third chapter.

5.1 Results of Demographic Questions

Table 5.1 presents the gender of the respondents.

Table 5.1: Gender of Respondents

		gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	50	50.0	50.0	50.0
	Male	48	48.0	48.0	98.0
	Prefer not to say	1	1.0	1.0	99.0
	transgender	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

Source: The author's contribution

According to Table 5.1, there are fifty female respondents, while there are forty-eight male respondents. There is one respondent who does not prefer to indicate gender, while there is one transgender respondent. Table 5.2 presents the age group of respondents.

Table 5.2: Age Group of Respondents

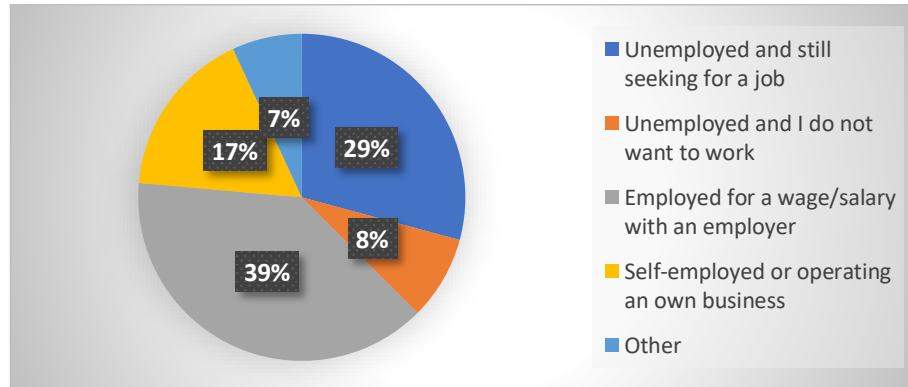
		age group			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-22	31	31.0	31.0	31.0
	23-27	33	33.0	33.0	64.0
	28-30	15	15.0	15.0	79.0
	31-35	21	21.0	21.0	100.0
	Total	100	100.0	100.0	

Source: The author's contribution

Table 5.2 shows there are thirty-one respondents aged between 18-22, while there are thirty-three respondents aged between 23-27. Moreover, there are fifteen respondents

aged between 28-30, while there are twenty-one respondents aged between 31-35. Figure 5.1 presents employment status of respondents.

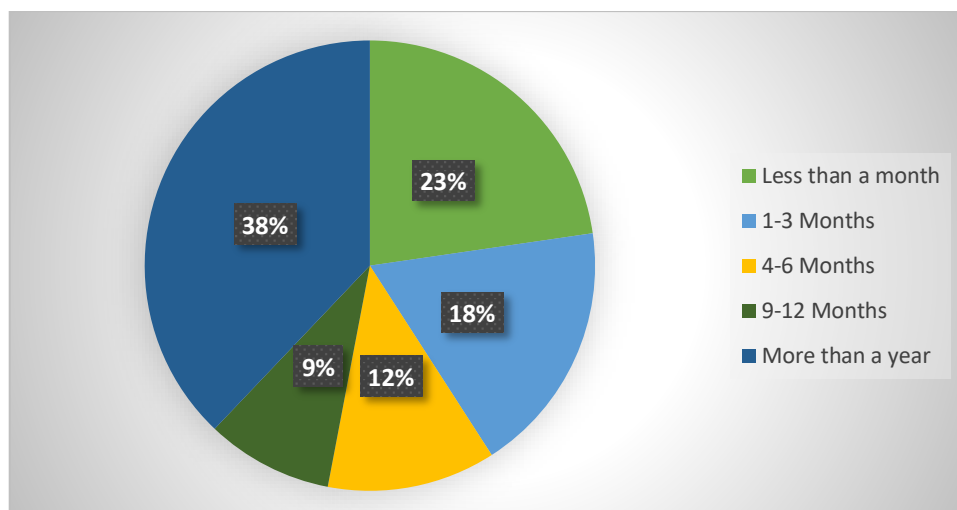
Figure 5.1: Employment Status of Respondents



Source: The author's contribution

According to Figure 5.1, the majority (39 %) of the respondents are “employed for a wage/salary with an employer,” while 29.2 % of the respondents are “unemployed and still seeking for a job.” Moreover, 17 % of the respondents are “self-employed or operating own business,” while 8.3 % of the respondents are “unemployed and do not want to work.” Finally, 6.9 % of the respondents choose the other option. Figure 5.2 displays the duration of the unemployment status.

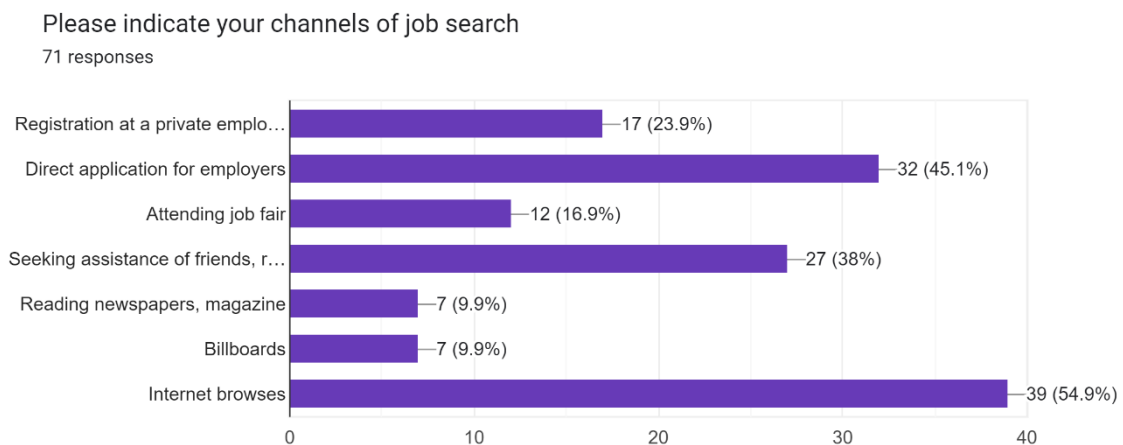
Figure 5.2: Duration of the Unemployment Status



Source: The author's contribution

According to Figure 5.2, 38 % of the respondents are unemployed for more than a year, meanwhile, 23 % of the respondents are unemployed less than a month. Moreover, 18 % of the respondents are unemployed between 1-3 months, and 12 % of the respondents are unemployed between 4-6 months. Finally, 9 % of the respondents are unemployed between 9-12 months. Figure 5.3 displays the channels of job search among young people in Azerbaijan.

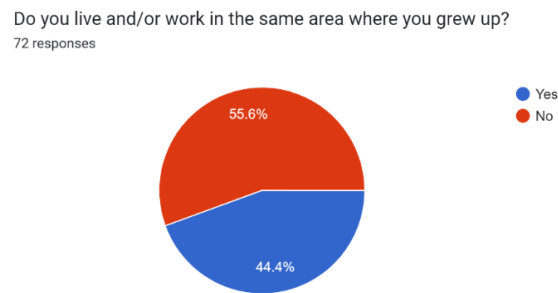
Figure 5.3: Channels for Job Search



Source: The author's contribution

According to Figure 5.3, 54.9 % of the respondents use “internet browsers” as a job search channel, while 45.1 % of the respondents prefer to send a direct application to employers. Moreover, 38 % of the respondents prefer the assistance of friends, relatives, colleagues, and unions for job search, meanwhile, 16.9 % of the respondents attend at job fairs. Finally, 9.9 % of the respondents read newspapers and magazines, while 9.9 % of the respondents use billboards for job search. Figure 5.4 displays the relationship between geography and work opportunities.

Figure 5.4: The Relationship between Geography and Work Opportunities

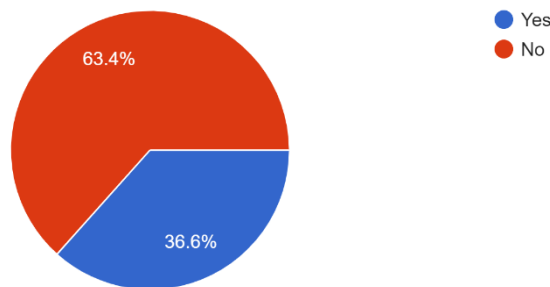


Source: The author's contribution

According to Figure 5.4, 55.6 % of the respondents claim that they do not live and work in the same area where they grew up, while 44.4 % of the respondents agree that they work and live in the same area where they grew up. Figure 5.5 displays the opinions of the respondents concerning the role of government in the assistance of creation of job opportunities.

Figure 5.5: The Role of Government in the Assistance of Creation of Job Opportunities

Do you think government provides employment opportunities for graduates?
71 responses



Source: The author's contribution

According to Figure 5.5, 63.4 % of the respondents disagree that the government does not provide job opportunities for graduates in Azerbaijan, while 36.6 % of the respondents agree that the government provides job opportunities for graduates in Azerbaijan. The next sub-chapter shows the findings of the regression analysis, ANOVA test, and correlation coefficient.

5.2 Results of Descriptive Statistics, Regression Analysis, and ANOVA test

Firstly, the author presents the results of the descriptive statistics. Table 5.3 presents the results of the descriptive statistics.

Table 5.3: Results of Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
education attainment	100	2	5	4.29	.782
government policies and initiatives	100	2	5	4.22	.848
mismatch between profession and the labor market	100	2	5	4.17	.779
rural urban migration	100	1	5	4.12	.967
Valid N (listwise)	100				

Source: The author's contribution

Table 5.3 presents the summary of the mean values of the research questions. The dependent variable of the study is education attainment of the respondents. The author marks primary education with '1,' secondary education '2,' bachelor's degree '3,' master's degree '4,' and doctoral degree '5.' We can say that most respondents' education attainment level changes between master's degree and doctoral degree since the mean value is 4.29. The mean value of the question concerning government policies and initiatives is 4.22, lack of government policies and initiatives has significant impact on youth unemployment. Followingly, the mean value of the mismatch between profession and the labor market is 4.17, which is a high number; the author can interpret that most respondents see the mismatch between profession and the labor market as the main cause of unemployment among young people in Azerbaijan. Moreover, the mean value for "rural urban migration" is 4.17; most respondents view this variable as a main cause of unemployment. The author discusses the results of regression analysis followingly. Table 5.4 presents a model summary.

Table 5.4: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877 ^a	.770	.762	.381

a. Predictors: (Constant), rural urban migration, government policies and initiatives, mismatch between profession and the labor market

Source: The author's contribution

A multiple linear regression analysis was performed to examine the influence of the variables mismatch between profession and the labor market, lack of government policies and initiatives, and rural-urban migration on the variable education attainment of the respondents. The regression model showed that 76.2 % of the variance in the dependent variable is explained by the independent variables.

In more detail, R, which is a multiple correlation coefficient, measures the relationship between the independent and dependent variables. R^2 , which is the coefficient of determination, indicates how much of the variance of the dependent variable can be explained by the independent variables. Adjusted R^2 overestimates the coefficient of determination just when many independent variables are used. Standard estimation error indicates how much the model overestimates the dependent variables on average.

Following the results of table 3.1, the value of R is 0.87, which implies that there is a strong linear relationship between the dependent and independent variables. In terms of R^2 , 76.2 % of the dependent variable can be accounted for by the mentioned independent variables above. The smaller value for standard error, the more accurate results the researchers get. In this case, the standard error is 0.38, which is a small value for the study. The author presents the results of the ANOVA test in table 5.5.

Table 5.5: Results of ANOVA Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.634	3	15.545	106.925	<.001 ^b
	Residual	13.956	96	.145		
	Total	60.590	99			

a. Dependent Variable: education attainment

b. Predictors: (Constant), rural urban migration, government policies and initiatives, mismatch between profession and the labor market

Source: The author's contribution

The ANOVA test is used for testing the established hypotheses. If The p-value is less than 0.05, the thesis rejects the null hypothesis and accepts the alternative hypothesis. In accordance with the results, the thesis rejects null hypotheses and accepts alternative hypotheses. Thus, the thesis rejects H 1.0, H 2.0, and H 3.0. In contrast, the thesis accepts H 1.1, H 2.1, and H 3.1.

CONCLUSION

Most people, in most parts of the world, are encouraged to put their money into formal education because they are seeing more examples of people achieving success because of their education, and they are also more eager to work in white-collar jobs. Increases in people's investments in education have resulted in a massive unemployment problem among educated individuals. This problem was particularly visible and severe in Africa, Asia, and Latin America during the 1990s and early 2000s, and it is still prevalent today. Additionally, there are not enough wage employment opportunities for graduates and high school matriculants. The pervasive problem of unemployment has a detrimental effect on the lives of a significant number of highly educated young people who are in their twenties or thirties and live in a variety of nations.

In many countries throughout the world today, a significant issue that must be addressed is the high rate of youth unemployment. In the context of work and employment, the term 'unemployment' refers to those who can find a job and are making attempts to do so, but who have been unsuccessful in doing so. People who are currently working but aren't happy with their jobs because they don't use their full potential in terms of their education and experience fall into this group. The unemployment rate, which is determined by dividing the number of individuals who are jobless by the total number of people who are actively looking for work, is often used to evaluate the level of unemployment. One of the economic indicators that is considered while determining the state of an economy is the unemployment rate.

This study's objective is to investigate the factors that lead to unemployment in general, as well as the factors that contribute to youth unemployment, as well as the links between these factors. There are a few different motivations for the author's investigation into the causes and effects of unemployment. The relevance of this subject for study is based on the issues and challenges faced by young people in many regions of the globe who are looking for work but are unable to find employment for a variety of reasons. In addition to that, the author tries to compile a report for the management as well as the governmental authorities to reduce the rate of young unemployment. In addition to the choice of subject for the thesis, there are scientific factors.

The author constructs a solution to the problem of unemployment by drawing from a variety of scientific schools of thought, including the IS-LM framework,

Keynesian, and neoclassical viewpoints on the issue of unemployment. There are several factors that contribute to and are affected by unemployment. It is important to start with the factors that contribute to unemployment. According to the many categories of unemployed people, there are a variety of factors that contribute to unemployment.

The thesis is broken up into three different portions. The ideas of unemployment and the methods used to quantify unemployment are discussed in the first chapter of the research, which is the section devoted to the study's theoretical foundation. The methodological considerations of the research are going to be covered in the next chapter. The results of the investigation are discussed in detail in the concluding chapter of the report. In the end, there is a section for closing comments.

According to research results, lack of government policies and initiatives, mismatch between profession and the labor market, and rural-urban migration lead to low-level education attainment resulting in an increase in unemployment among youth in Azerbaijan. Moreover, the mentioned variables are statistically significant causes of unemployment in Azerbaijan.

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DECLARATION

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