The macroeconomic influence of the government's reduction of taxation in a closed economy

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Abstract. As the world's economies develop, governments always use economic policies to achieve specific economic objectives like decreasing the unemployment rate, improving economic growth, maintaining price stability, and deteriorating the current deficit. Also, tax changes could be one of the standard government policies. Moreover, with the changing taxation in a closed economy, some variables must be influenced. For example, the output and the rate of employment might change. This essay synthesizes several pieces of literature to discover the impacts on output and employment if the state cuts taxes. Based on these works, employment could rise when the government reduces the tax, the short-run output might increase, and the long-run output will be stable. Furthermore, economists may utilize these findings to make better national financial plans.

Keywords: Policy; Supply; Demand.

1. Introduction

With economic globalization, all countries take tax reduction as an essential means to stimulate markets for future development. Also, tax reduction is a policy response to the trend of economic globalization, which has brought increasingly fierce international competition in the new century. The relationship between tax and some economic variables has focused much research over the last few decades. In order to ensure economic stability and sustainable development, it is crucial to analyze the impact of tax on the economy. This paper mainly aims to find the effects on output and employment when the nation reduces the tax.

In addition, this article is based on the Keynesian model, which is different from the mainstream literature that applies the neoclassical model to macroeconomic analysis and is more applicable in the context of the current world economic recession. Moreover, Keynesians believe that high progressive and preferential tax rates are necessary to regulate social wealth distribution.

Keynesians and supply-siders have done a systematic demonstration and analysis. More specifically, Keynes looked at the aggregate of income, demand, investment, savings, consumption, money, price levels, and their relationships and came up with a whole set of policies centred on government intervention in economic life to boost effective demand, consumption, and investment. As a result, although the paper is based on closed conditions, its findings can still be applied and generalized to open economies, providing lessons for subsequent research on open economies.

This article's structure begins with a list of several authors and their contributions to this paper in the literature review section. After that, the methods section discusses models applied in this essay, such as the Philips curve, the supply and demand model, and the concept of fiscal policy. What is more, in the main body, the effects of a national tax cut on short-run aggregate supply, long-run aggregate supply, and the employment rate are stated, followed by a discussion of the flaws and shortcomings of fiscal policy and this paper. In the last section, the conclusion summarises the paper's content and provides an outlook for future development.

2. Literature Review

Several works support the discussion of this essay. Firstly, Pettinger (2020) and Barnier (2020) have found that inflation and unemployment have an inverse relationship; when inflation rises, the unemployment rate will drop, and vice versa (Investopedia, 2022) [12]. In addition, the Indeed Editorial Team (2022) provides information about the supply and demand curve, demonstrating market changes more precisely. What is more, Harvey (2012) and Pettinger (2019) state their thoughts on fiscal policy in this paper [10]. From their perspective, people could predict what will occur in the future if the government increases or decreases taxation—their thoughts better people's understanding of details and further influence fiscal policy. Also, Pettinger (2020) supplements information on monetary policy [11], and Gainti (2020) offers details of multiplier effects which means the market may have more output than the previous prediction. Permalink (2013) and an online resource called ‘Gender discrimination at work (2020) state the definition, different forms, and examples of gender discrimination. Furthermore, the article named ‘Age discrimination at work’ deeper our understanding of age discrimination, and it also provides details of the current situation of ageism.

However, there may be some deficiencies in the existing literature because the total paper is discussed under the assumption of fully flexible money wages and a closed economy. However, there is no wholly closed economy in the actual world, and it is impossible to conduct in-depth derivation on the existing theoretical basis and analyze the situation of the century. Also, without the support of numerical simulation, the simulated situation is inconsistent with reality, which may lead to a significant deviation in the results.

3. Method

3.1 Fiscal policy

The paper used several models, and the first one is fiscal policy. The government tax cutting could be one implementation of the expansionary fiscal policy in the economy, which could shift aggregate demand to the right on the graphs. It is widely known that fiscal policy manages government expenditure and taxation to control economic spending (Harvey, 2012) . Also, fiscal policy comprises the government changing tax and spending levels to influence aggregate demand and economic activity. (Pettinger,2019) [10]; the aggregate demand is the total consumer spending, investment, government spending, exports, and imports.

When the government reduces taxation, people may have more disposable income, which improves their purchasing power. Accordingly, people in the market will have more disposable income to consume. Meanwhile, the total demand will rise. Specifically, the total demand will shift from E0 to E1.

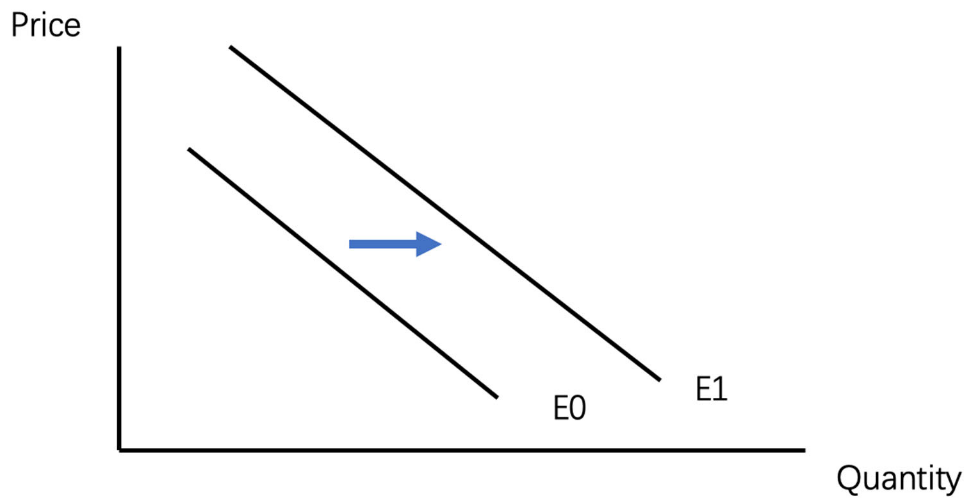

Fig. 1 Increase in aggregate demand graph

3.2 Supply and demand model

Secondly, the Indeed Editorial Team (2022) claimed that the supply and demand curve is a graph that displays the relationship between how much of a product is accessible to a market and how much the market's consumers desire the commodity. . The graph's two lines represent the relationship between the pricing and demand for these variables. Supply and demand curves depict the price-quantity relationship between supply and demand. Price is represented on the graph's y-axis, while quantity is plotted on the x-axis. Because the law of supply, which asserts that as prices rise, the quantity will increase afterwards, is visually illustrated by a supply curve. As a result, supply is often shown as an upward-sloping curve.

Furthermore, there are two main types of supply one is short-run aggregate supply, another one is long-run aggregate supply. Academics were creating SRAS believe productivity, manufacturing costs, and technical status will remain steady in the medium run. As enterprises respond to the profit incentive, increasing the general price level should cause aggregate supply to expand. In addition, manufacturing may be curtailed when prices fall. The short-run aggregate supply (SRAS) slopes upward, demonstrating a positive relationship between inflation and real government domestic product. Although, the long-run aggregate supply (LRAS) curve represents the exact connection between the price level and real GDP as SRAS. However, as prices can move along the LRAS, production cannot since it reflects total employment output.

3.3 Philips curve

After that, the paper used the Philips curve model, an economic theory claiming that unemployment and inflation have a constant negative relationship. Philips. Nevertheless, stagflation occurred in the 1970s, when inflation and unemployment were high, rejecting the basic assumption. (The Investopedia team,2022) [12].

The basic principle of the Phillips curve holds that variations in unemployment within an economy anticipate price inflation. Inflation and unemployment are linked by a concave, downward-sloping curve, with unemployment on the X-axis and inflation on the Y-axis (The Investopedia team, 2022) [12].

4. Basic Analysis

4.1 Output

After the government cuts taxation, the short-run supply could climb. This effect would be due to firms having more money to invest and produce goods. The extra money could also lead to firms hiring more workers and increasing output. This change is represented by a shift in the supply curve to the right from S0 to S1. In the short run, the output would be stable at the new equilibrium point.

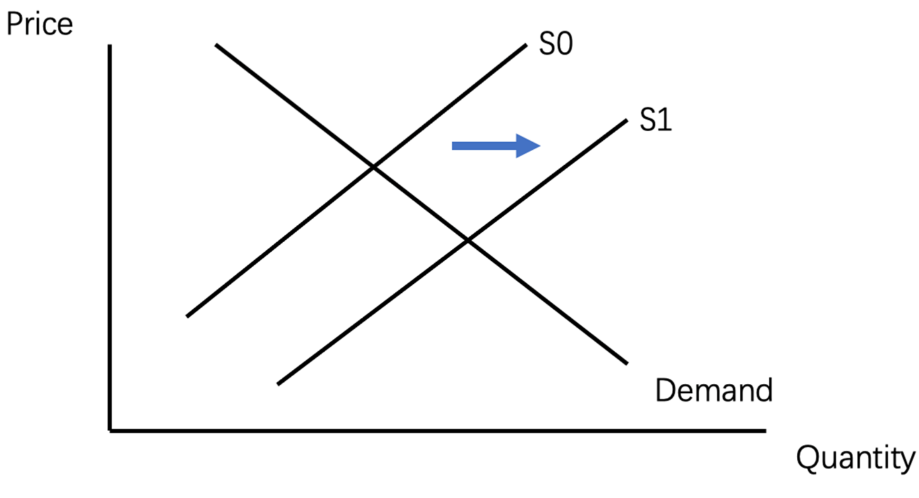

Fig. 2 Increase in short-run aggregate supply graph

However, the vertical long-run aggregate supply line would not change unless the productivity changes. Singularly, under the background of this issue, tax-cutting has no impact on the economy's productivity, and there is no change in technology and efficiency. As a result, the total output will stay at the same level; the government tax reduction has no effects on the long-run aggregate supply.

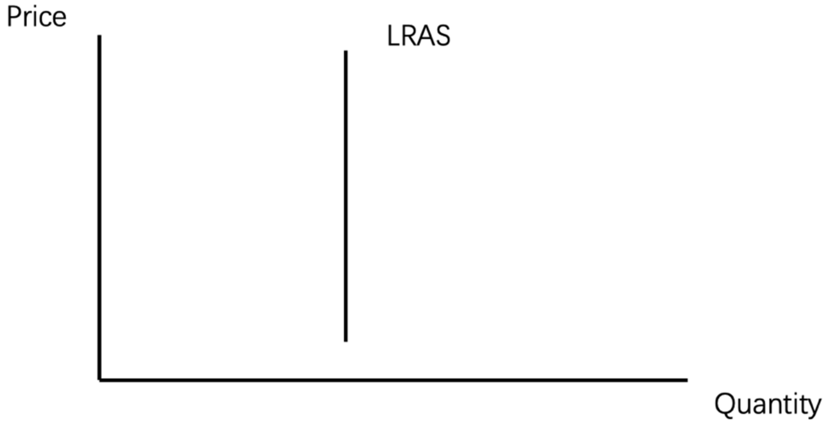

Fig. 3 Stable long-run aggregate supply graph

4.2 Employment

In addition, when the government reduces taxes, the employment rate will rise. If the government applies the expansionary policy, companies may have more funds to recruit more employees to produce goods or services. As a result, the rate of employment increases. Moreover, the Philips curve could explain this effect more academically. When the state decrease tax, the economy will grow, and inflation will increase. Under the rule of the Philips curve, inflation and unemployment have a stable and inverse relationship (Barnier, 2020), the unemployment will decrease afterwards.

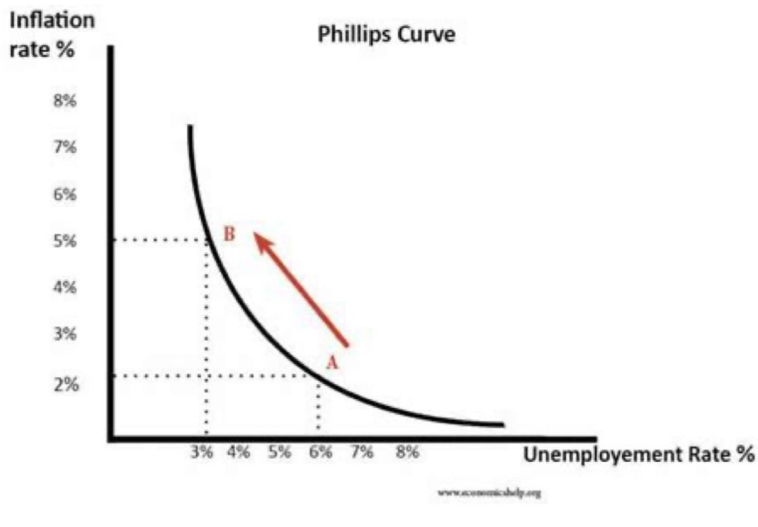

Fig. 4 Philips curve

In this graph, the unemployment rate at point A is 8%, while the inflation rate is 2%. When the inflation rate rises to 5% in point B, unemployment falls to 3%. As a result, when the government applied expansionary fiscal policy. The increasing inflation might bring more employment.

However, there are some discriminations in employment, such as ageism and genderism. Firstly, age discrimination occurs when a person is treated unjustly for reasons that cannot be objectively justified. According to the Equality Act of 2010, there are four main types of age discrimination: direct discrimination, indirect discrimination, harassment, and victimization. Ageism at work that leads to termination of employment might give rise to unfair dismissal and a discrimination suit. In addition, age discrimination in the workplace can manifest itself in various ways. It is most frequent among senior employees but can also affect younger employees. However, as the workforce matures, this type of discrimination is growing more widespread among older workers.

Furthermore, according to research published in early 2020, 64% of older employees in the United Kingdom were concerned about age discrimination. They report being perceived as less inventive, adaptable, and competent than younger employees; they suffer in a workplace culture that favours younger individuals. For example, a greater emphasis on digital procedures and a need for a younger, less expensive workforce might lead to increased prejudice against older workers.

Also gender discrimination is another issue. Gender discrimination in the workplace can take various forms, but generally, it refers to mistreating individuals based on their gender, gender identity, or sexual orientation. (Permalink, 2013) . To illustrate, people may be denied employment or given a lower-paying position because of their gender identity or sexual orientation.

5. Limitations and Future Outlook

However, fiscal policy also has several drawbacks. For starters, the government may be under-informed about the state of the economy. As a result, the government may make incorrect judgments based on inaccurate information, worsening the current situation. Another issue that needs to be addressed in fiscal policy is time latency. More specifically, if the government implies this policy, it may take months or years to impact the economy and aggregate demand. As a result, it may be too late to be useful for fiscal policy.

Furthermore, the success of the fiscal policy is dependent on several factors. The antecedent determines the magnitude of the multiplier effect. The multiplier effect is the proportionate increase or decrease in eventual income caused by a spending injection or withdrawal (Ganti,2020) . If the multiplier effect is significant, the influence on the total demand could be more substantial. In this condition, when the nation expects to utilize the expansionary policy, the overall demand may become higher than predicted.

Moreover, the effect of government taxation depends on the current condition of the economic cycle. To clarify, if the current point is already on the potential of LRAS, the tax-cutting may not be wise because the increase in AD might lead to higher inflation in the economy. On the contrary, if the current point is below the potential, expansionary fiscal policy could be more effective.

Also, fiscal policy is frequently employed in concert with monetary policy[11] to reduce the crowding-out effects.

Nevertheless, there are some flaws in this paper. The first problem is that almost all the methods discussed in this essay are theoretical. In addition, this paper’s models are in a closed economy that is unreal in the modern world. However, more complex data could be utilized to support the results. What is more, we could turn the closed economy assumption into an open economy.

6. Conclusion

Overall, the findings of this paper examine the results of employment rate, short-run and long-run aggregate supply after descending taxation in a closed economy. Specifically, the employment rate of workers and the short-run output would climb, and the long-tun output would not change after this government economic policy change. However, the conclusion of this policy change might become different when the money wage is rigid. In addition, the absolute closed economy does not exist in the world. As a result, the findings in this report are not entirely accurate and may not be feasible in the real world.

Nevertheless, the findings from this paper might be helpful to some extent. Because, based on these outcomes, the government could make some significant short-run or long-run decisions. Moreover, the market and corporations might find the equilibrium of supply and demand under different conditions. For, trade unions could detect different discriminations in the workplace and then negotiate with corporations to create a more comfortable working environment. Also, for individuals, the government taxation changes might influence their employment. They can decide how to react after the government changes in policies.

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