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Theoretical Effects of Government Funding Through Central Bank Money Creation

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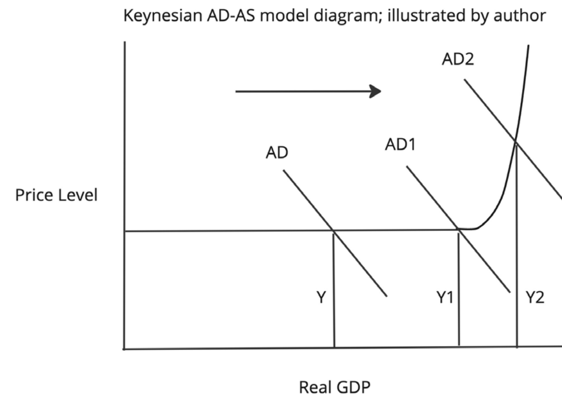
ABSTRACT

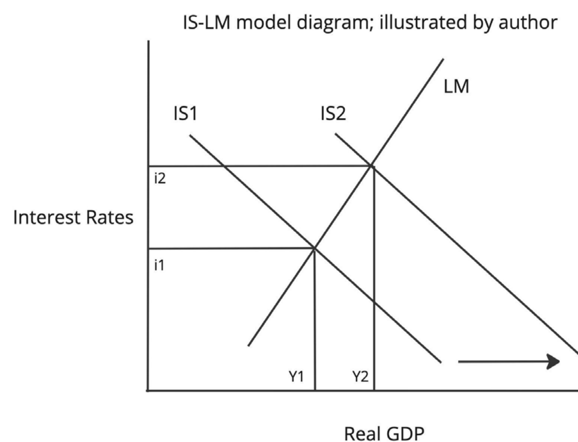
The primary objective of this essay is to present an analysis of the effects of the implementation of the government policy described in the title, in which government expenditures are funded by money newly created by the central bank. The analysis is firmly grounded on modern economic theory and models, backed up by statistics from authentic sources, and based on historical events replicating a similar situation; it draws economic concepts from the Keynesian school of thought, is supported by government data, and references the period of hyperinflation in Weimar Germany in 1921. The essay emphasizes the less obvious existence of short term advantages while breaking down the more obvious long term disadvantages as a consequence of the implementation of the aforementioned government policy. Clear definitions of ambiguous terms and vocabulary are provided.

If a government were to rely solely on money newly created by the central bank to fund their expenditures, inflation of the respective currency would most assuredly be the overall result. However, it must be recognized that inflation is a broad generalization of the overall effect and specific consequences must be addressed. Although a negative connotation is attached to the concept of inflation in the minds of the general public, and this policy might seem to solely cause disadvantages at first glance, there are nevertheless potential benefits.**[1]** While the enactment of this policy might be disastrous in the long-term, short-term advantages exist.

Varying outcomes would inevitably exist depending on current economic conditions and the political system, both of which differ substantially from country to country. As the United States has the highest GDP out of all countries, its economy will be used for analysis. “Advantages” and “disadvantages” are subjective terms open to numerous interpretations depending on perspective and the metric system used. With it being the instigator of the policy, the most obvious perspective is that of the government’s, and it would be reasonable to assume the acceleration of economic growth as their intent. In this context, “advantages” and “disadvantages” can be characterized as consequences arising from the enactment of this policy that increase and decrease real GDP respectively.

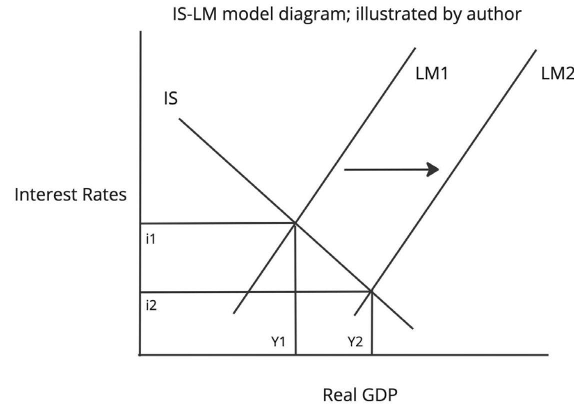
Analysis will be separated into two timeframes, short and long term. In the short term, the removal of tax increases the disposable income of individuals and businesses, therefore increasing consumption and investment. Both factors are key constituents of aggregate demand (AD = C + I + G + [X - M]), resulting in its increase, shifting the aggregate demand curve and the IS curve to the right on the Keynesian AD-AS model and IS-LM model respectively. If the economy is currently operating below its full capacity in the Keynesian range, the shift will increase the utilization of available resources, thus increasing real GDP and the employment rate without increasing prices, acting as an advantage. However, if the economy is already operating at full capacity, the shift will only create demand-pull inflation.





Furthermore, explained by the substitution effect, it can be argued that the removal of tax also increases the willingness of workers to work overtime due to the extra income increasing the opportunity cost of leisure time. However, it can also be argued that the worker's willingness to work will decrease due to the ability to achieve their targeted wage with less work, described by the income effect. The accepted tradeoff rate between work and leisure time varies from worker to worker, therefore the effect on willingness to work cannot be accurately determined.

In the short term, the government's reliance on the central bank's newly created money will lead to an increase in money supply, shifting the LM curve in the IS-LM model to the right, decreasing interest rates that would have been determined by a free market without intervention and disruption. However, as the U.S. economy is used for analysis, the interbank interest rate set by the federal reserve would substantially affect market interest rates.**[2]** Therefore, the resulting increase in inflation would be dependent on the decisions of the central bank. To conclude, the decrease in interest rates would promote borrowing and subsequently consumption and investment assuming that government intervention is nonexistent, leading to a further increase of aggregate demand.



Highlighting the few short-term advantages resulting from the enactment of this policy might have downplayed the significance of the byproduct of inflation. The annual U.S. government expenditure is around 6.27 trillion USD as of the fiscal year of 2022, about 23.5 times the annual new money created by the federal reserve (267.1 billion), and about 2.8 times the total currency in circulation (2.26 trillion).**[3][4][5]** This suggests that relatively high rates of inflation would arise from the enactment of this policy, as the increase in money supply creates excess currency in circulation relative to the total economic output.

It can be contended that high rates of inflation decrease wealth inequality and reduce government debt. The sudden upsurge in inflation would immediately impact lenders, the majority of which are large financial institutions, negatively, as the interest yields in real terms of debt and bonds would plummet. However, this would be perceived positively from the perspective of fixed-rate borrowers. Although the wealthy might borrow more than the poor in nominal terms, lower-income borrowers tend to retain a higher debt to income ratio and face severe debt distress, especially in times of financial crisis.**[6][7]** Therefore, providing the poor with substantial debt relief, the escalation of inflation would assist lower-income borrowers to a higher degree than the wealthy. Furthermore, high rates of inflation would reduce government debt considerably. According to Fiscal Data, the United States had accumulated an outstanding total debt of nearly 31 trillion as of 2022.**[8]** A decrease in real value of the debt means that the government is able to reduce the debt at a smaller cost, freeing up money to finance other projects.

However, it is important to recognize that the advantages listed above are short term, and therefore unanticipated. Bond prices would recover in the long term as issuers begin anticipating the new inflation rates, adjusting the yields correspondingly. In this case, wealth inequality would be increased. Citizens that lack the knowledge and ability to invest in certain assets to hedge against inflation would see their purchasing power drain away. Generally, the wealthy are more likely to possess such knowledge and ability than the poor and lower middle class. Besides it being apparent that the wealthy can easily obtain financial advice from professionals, this trend was also observed in history, an example being the periods of hyperinflation in Weimar Germany.**[9]** Many of the poor lacked understanding of the situation and were vastly unprepared.**[10]** Consequently, people from lower socioeconomic classes would be left behind financially.

Yet, from a contemporary perspective, it can be debated that the inability of lower classes to hedge against inflation in the past was due to the lack of public information and effective communication. In the modern world, the existence of large online databases, quick communication systems, and widespread news outreach resolves the problem, providing common citizens the access to such knowledge. Furthermore, modern education enables more people to learn of similar historical events, achieving a higher degree of preparedness.

Assuming that modern technology is successful, although the issue of knowledge has been resolved, complications arise from the current difference in wealth. Due to the poor's higher marginal propensity to consume, the less wealthy would have a lower percentage of their total cash available for investment. On top of that, the difference in wealth would block the access of the less wealthy to more effective financial instruments, services, and investments

such as hedge funds and real estate. Ultimately, wealth inequality would increase in the long term. Explained by the law of diminishing marginal utility, in which the less affluent have higher levels of marginal utility, the decrease in the equality of resource allocation also leads to a decrease in the effectiveness of the utilization of resources, leading to a decrease in real GDP. Therefore, it is a disadvantage.

Additionally, long term consequences depend heavily on the government's ability to stabilize the new inflation rate, which subsequently depends on the volatility of government expenditure in real terms.

At first glance, it can be argued that inflation is a form of indirect taxation in which the government's printed money serves as the revenue and the decreased buying power from inflation acts as the tax, and that the policy simply transforms direct taxation into an indirect form, maintaining stability as total taxation in real terms remains unchanged.

However, this conclusion has many flaws. The United States government had a deficit of 1.4 trillion as of 2022 due to taxation being unable to cover their expenditure of 6.27 trillion.**[11]** If the government were to also print the annual deficit amount, a substantially higher percentage of tax would be created.

Furthermore, according to the data provided by the United States Office of Management and Budget, government expenditure has steadily increased from 9.5 billion during 1940 to 6.27 trillion in 2022, with the numbers adjusted for inflation representing current dollars.**[12]** Therefore, it is reasonable to assume that if the central bank prints the government's ever-growing expenditure, the rate of inflation, and subsequently indirect tax, would increase correspondingly. As a result, stability cannot be maintained.

Moreover, expected inflation rates have a substantial impact upon observed inflation rates, and the government's attitude towards inflation, such as the level of determination to reach the inflation target, have a profound effect on market expectations.**[13]** Additionally, the toleration of higher rates of inflation leads to an increase in its volatility.**[14]** The policy to print government expenditures creates inflation rates sufficiently high that any confidence in the inflation target being achieved and the government's intent to do so is eliminated, detaching market expectations and subsequently increasing the volatility of observed inflation rates.

The credibility of the government will also be reduced drastically, reasoned by American economist Arthur Okun: "Can a government that shifts its inflation tolerance level from 2 to 5 percent convince anyone that it will vigorously combat 8 percent inflation in the event of unforeseen excess demand or another unfavorable surprise in the Phillips curve?"**[15]** Apart from making future statements on fiscal policy less authoritative, a decrease in credibility will negatively influence the trustworthiness of government statements overall. Impeding the effectiveness of government regulations in the future, especially during times of crisis, leads to a decrease in GDP and therefore this is a disadvantage.

Moreover, the increases of volatile inflation rates would set off a large-scale wage price spiral, in which workers demand higher wage increases as a consequence of their buying power being eroded to a higher extent. Realizing the increased cost of labor, businesses reflect these additional expenses onto their products and services, creating more inflationary pressure. Workers would then demand wage increases yet again, ultimately causing the situation to spiral downwards in a vicious cycle. Eventually, businesses would become less competitive, especially on the global market, resulting in their taking action to cut costs, increasing unemployment, and slowing economic activity.

Although investment might have increased in the short term due to the removal of taxes, capital flight is inevitable in the long run. The inflation upsurge decreases confidence in the economy, reducing foreign investment and incentivizing investors to purchase foreign assets for both the purposes of more effective speculating and hedging. Shopkeepers and traders will likely prefer payments in foreign currency rather than the rapidly depreciating local currency.**[16]** Decreasing profitability of businesses mentioned above also contributes to the overall decrease in investment.

Ultimately, dissatisfaction and unrest will steadily grow among citizens in the long run as a consequence of their increasing cost of living, decreasing purchasing power, increasing wealth inequality, and increasing unemployment. Consequently, the occurrence of strikes, riots, and criminal activity will gradually increase as is historically demonstrated during hyperinflationary periods in Weimar Germany.**[17]** The increase in such activity will further

impact economic output negatively due to lost working hours. In accordance with historical evidence, groups of political extremists form and seek to overthrow the government, to which they have been successful historically, but it is unable to be determined due to the overwhelming number of factors at play.

Despite the silver linings to be appreciated in the short term, there are nevertheless immense disadvantages in the long run, and subsequently overall. The consequences of enacting this policy accurately reflect the famous sentence written by John Keynes, “In the long run we are all dead,”.

Endnotes

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