

# The Impact of Quantitative Easing on The U.S. Economy

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**Abstract.** Quantitative easing has had a profound impact on various aspects of the US economy, including social welfare and wealth disparities, education reforms, changes in government fiscal strategies and financial regulation, alterations in consumption savings and investment patterns, as well as corporate strategy adjustments. Additionally, this policy has significantly influenced academia, policymaking, and public discourse. The recession was not limited to the financial markets but affected all sectors of society. In a low-interest-rate environment, capital seeking higher returns flooded into the stock and real estate markets leading to soaring prices. While excessive borrowing and spending may stimulate short-term economic growth; it could trigger a credit crunch that would further depress growth in the long run. In the current global low-interest rate environment, higher education institutions have the option of obtaining funds through debt financing; however, they must remain vigilant to fluctuations in tuition and educational burden. Collaboration between governments, educational institutions, employers and students is crucial for mitigating this crisis. Vocational education has become a more cost-effective and adaptable alternative due to its lower tuition fees. Furthermore, quantitative easing may impose constraints on future government policymaking regarding debt-related issues. The government should closely monitor changes in inflationary pressures, take measures to contain the threat of high inflation to economic stability, and prevent long-term debt accumulation from leading to fiscal deficits and cuts in public services.

**Keywords:** Quantitative easing; public service; consumption; investment.

## 1. Introduction

Following the 2008 global financial crisis, the U.S. and other significant economies confronted immense economic challenges, from corporate collapses and escalating unemployment to halted growth. As traditional monetary tools appeared ineffective with short-term interest rates nearing zero, the U.S. Federal Reserve System (FRS) introduced an unconventional approach: quantitative easing (QE). This strategy, involving the purchase of long-term assets, was designed to broaden the monetary base and spur economic rejuvenation. However, the United States has implemented several quantitative easing policies, and once the volume of reserves becomes excessive, it becomes challenging to achieve short-term interest rate adjustments. The undeniable fact is that quantitative easing has undeniably played a pivotal and constructive role in facilitating the economic recovery of the United States.[1] However, research has indicated that the implementation of quantitative easing has gradually imposed significant costs on other emerging markets [2], leading to a notable reduction in macroeconomic benefits experienced by countries such as the United Kingdom, the European Union, Japan, and South Korea [3]. This research deeply explores QE's multifaceted impact on the U.S. economy. Key areas of focus encompass its effects on social welfare and the widening wealth disparity; potential influences on educational reforms; shifts in government fiscal strategies and financial regulations; changes in consumer spending, saving, and investment patterns; and the recalibration of business strategies in light of QE. For the everyday American, QE might have altered their financial behaviors, from employment prospects to consumption habits. Furthermore, in the academic realm, QE has ushered in novel research trajectories within economics and finance.

An essential dimension of this investigation is discerning how the U.S.'s QE measures compare to those of other nations. What are the inherent advantages, and what risks lurk in the shadows? By delving into the tangible consequences of QE across diverse sectors, this study aims to provide evidence-based conclusions. In essence, while QE has left an indelible mark on the U.S. economy, it also carries broader ramifications for academia, policy formation, and public discourse. This analysis

endeavors to elucidate the encompassing ramifications of this pivotal monetary policy on the U.S.'s economic fabric.

## 2. Society

### 2.1. Asset Bubbles and Wealth Gap

The impact of quantitative easing, as the central bank's main tool to cope with the economic downturn, is not only confined to the financial market but also reaches all corners of society. In terms of asset bubbles and the gap between the rich and the poor, in a low-interest rate environment, capital seeks higher returns and rushes into the stock and real estate markets, resulting in soaring prices in these markets. This was undoubtedly a huge dividend for those who already owned assets and their wealth proliferated. However, for young people who do not have assets or who are new to the workforce and wish to buy a home for the first time, high property prices make it unaffordable. This situation not only makes young people feel oppressed but can also lead to discontent and anxiety in society as a whole, as young people are the future of the country.

### 2.2. Consumption Behavior

Due to the low-interest rates, individuals are more inclined to borrow funds for consumption purposes, thereby undeniably stimulating short-term economic growth. In the long term, if the household's debt burden surpasses its capacity for repayment, it can result in an elevated risk of loan defaults and household bankruptcies. [4] This, in turn, triggers a credit crunch as banks become reluctant to extend loans, further dampening economic growth. Moreover, excessive consumption may lead to a decline in the household savings rate, posing significant concerns for future economic prospects.[5] Initially, when individuals engage in excessive borrowing for the purpose of consumption, they experience a temporary surge in purchasing power. This subsequently stimulates consumption and fosters economic growth. However, if individuals accumulate more debt than they can feasibly repay, it may impede their ability to meet loan obligations within the designated timeframe. Consequently, this will result in an upsurge of defaults, thereby exacerbating economic risks. Financial institutions may adopt a more cautious approach towards lending to mitigate risk exposure, consequently constraining the engine of economic expansion. The occurrence of a credit crunch is likely to transpire as loan defaults increase and the risk of household bankruptcies escalates. Banks and financial institutions are anticipated to adopt a more cautious approach, heightening lending standards and reducing loan provisions. Consequently, this will curtail individuals' access to credit, further dampening economic growth. Additionally, stricter credit conditions may constrict corporate financing options, limiting expansion opportunities and investments while exerting additional pressure on the economy. For instance, a bank opts to reduce interest rates in order to stimulate economic growth. Amidst the backdrop of declining interest rates, an individual decides to purchase a new car. To accomplish this objective, they opt for obtaining a loan specifically for purchasing the car. Due to the favorable low-interest rate environment, acquiring a substantial car loan becomes effortless for them. Initially, they experience great satisfaction as they acquire a brand-new vehicle while enjoying relatively low monthly loan payments. However, due to insufficient financial planning and anticipation of future changes, he soon experienced a detrimental impact. Moreover, his family's debt burden will escalate alongside the increasing loan amount. Gradually, he started feeling overwhelmed by this burden, particularly when additional expenses and living costs began accumulating while his salary growth failed to keep pace with the mounting loans. Consequently, his ability to repay diminished significantly. Subsequently, as personal debt default risks heightened, banks became more cautious in approving new loan applications. His credit score plummeted, and the bank deemed him excessively indebted, rendering it nearly impossible for him to obtain another loan at present and severely constraining his spending power.

To conclude, while low-interest rates incentivize individuals to favor loan consumption, excessive reliance on such consumption may give rise to a range of long-term risks. These encompass the

potential for debt burdens surpassing households' repayment capacity, heightened probabilities of loan defaults and household bankruptcies, stricter credit conditions, and a decline in household savings rates. To ensure sustainable economic growth and stable development, it is imperative that we strive to strike a balance between loan consumption and savings/investment activities while avoiding undue borrowing and extravagant expenditure [6].

### **3. Education**

#### **3.1. Changes in Tuition Financing**

In recent years, the implementation of quantitative easing policies has intensified the low-interest rate environment worldwide. Within this context, higher education institutions can more readily secure necessary funds through debt financing. However, this convenience is often accompanied by concerns, one of which pertains to fluctuations in tuition fees. Tuition financing is a primary method employed by higher education institutions to cover daily operations, teaching, and research activities [7]. In a low-interest rate environment, debt financing enables schools to acquire the necessary funds at a lower cost, thereby better fulfilling the needs of students and staff while providing an enhanced teaching and research environment. Nevertheless, it has also resulted in certain adverse consequences.

Firstly, in a low-interest rate environment, higher education institutions are likely to allocate more funds toward enhancing teaching and research. This financial advantage enables them to invest in improving infrastructure, attracting high-quality faculty and researchers, as well as offering increased scholarships and grants. These measures will undoubtedly enhance the educational quality; however, they will also result in escalated operational costs that subsequently drive up tuition fees.

Secondly, the low cost of financing in the current low-interest rate environment has prompted schools to increasingly invest in competition. Consequently, higher education institutions are experiencing heightened levels of competitiveness. To attract exceptional faculty, students, and research projects, universities must enhance their publicity and promotional efforts, upgrade campus facilities, and expand academic resources. This intensified competition has resulted in increased expenditure, subsequently leading to higher tuition fees.

Thirdly, the provision of tuition financing can also result in substantial levels of indebtedness. While educational institutions have relatively easy access to borrowing, this also entails an increase in their debt burden. Once the debt becomes excessive or cannot be repaid through alternative means, the institution may face financial difficulties and struggle to maintain regular operations and instructional activities. In such circumstances, schools may need to implement additional measures, such as raising tuition fees, to compensate for the financial shortfall [8].

In general, the low-interest rate environment resulting from quantitative easing has facilitated higher education institutions' ability to raise funds through debt financing. However, it may also exert additional pressure on schools to enhance teaching quality, navigate competition and manage debts, thereby further escalating tuition fees. Under the premise of balanced development, educational administration departments and schools should closely monitor changes in tuition financing to ensure the sustainable advancement of higher education while ensuring a reasonable educational burden for students. Only by doing so can we guarantee that higher education can cultivate more exceptional talents for society and make substantial contributions to social progress and development.

#### **3.2. Student Debt Crisis**

The influx of a large number of students into the job market seeking loans, combined with the escalating cost of education, places many graduates in a predicament of being burdened by debt. This financial obligation becomes particularly onerous for those who struggle to secure well-paying employment or face job insecurity. Numerous graduates are confronted with substantial loan amounts upon completion of their studies but encounter challenges in finding stable and competitive jobs to repay this debt [9].

On one hand, the accumulation of debt exerts significant pressure on the job prospects and career advancement of recent graduates. Many companies require prior work experience, which can be a challenging requirement for those who have just graduated. This can lead to a vicious cycle where they struggle to secure well-paying jobs that would enable them to pay off their debts, thereby making it difficult for them to access competitive employment opportunities. On the other hand, even if they manage to secure employment and repay their debts, these graduates still confront insufficient salaries and the escalating cost of living. Consequently, it becomes arduous for them to uphold a commendable standard of living and attain financial stability. Numerous young individuals are compelled to postpone significant purchases such as homes or cars, while some find themselves incapable of self-sufficiency or starting a family. Above all, it is crucial for students to exercise informed decision-making when selecting an educational path and acquiring loans. They ought to thoroughly examine the job market prospects and carefully evaluate the debt risks associated with investing in education. Simultaneously, they should actively pursue practical opportunities, proactively accumulate work experience beforehand, and enhance their employability. The student debt crisis exerts a detrimental impact on both individuals and society at large, necessitating collaborative efforts from all stakeholders to identify viable solutions that can pave the way for a more promising future for the younger generation. Only through concerted endeavors of governments, educational institutions, employers, and students themselves can we effectively alleviate this crisis and establish robust and sustainable education and employment systems [3].

### 3.3. Changes in the Concept of Education Investment

With the advancement of the socio-economic landscape and the government's prioritization of education, there has been a gradual transformation in the perception of educational investment. Previously, higher education was widely perceived as the sole pathway to individual success and secure employment. However, with escalating educational costs and mounting concerns regarding student loan risks, an increasing number of individuals are reevaluating the return on investment associated with pursuing higher education [10].

First of all, the escalating cost of education is a significant source of financial strain for many individuals. The expenses associated with higher education, particularly at prestigious institutions, have become increasingly unaffordable. This poses an immense burden on families with low to moderate incomes. Simultaneously, the rising cost of living coupled with additional educational expenditures such as textbooks, accommodation, and transportation further exacerbate the financial challenges faced by numerous households.

Secondly, the emergence of student loan risks has prompted a critical examination of the viability of investing in education. Historically, many individuals opted for student loans to finance their higher education with the intention of repaying them through future work-related returns. However, given the intense competition within the job market and fluctuating salary levels, numerous graduates encounter difficulties in securing an ideal job as effortlessly as anticipated. Consequently, student loans have transformed into a substantial burden, plunging countless individuals into financial distress.

Faced with these challenges, an increasing number of individuals are seeking more cost-effective and adaptable forms of education. Vocational education has emerged as a prominent alternative. The objective of vocational education is to foster students' practical skills and knowledge in order to meet the demands of the job market for skilled professionals. Diverging from traditional academic education, vocational education places greater emphasis on cultivating practical abilities, enabling students to swiftly acquire the necessary skills and enhance their employability. Moreover, vocational education offers relatively affordable tuition fees, making it particularly suitable for those aiming to maximize returns on their investment [11].

## **4. Government**

### **4.1. Public Programs and Investments**

The current low-interest rate environment presents a favorable opportunity for the government to invest in public infrastructure projects such as roads, bridges, and schools. The reduced cost of financing resulting from these low-interest rates allows for significant savings that can be allocated toward other critical areas. By focusing on the construction of public projects, it is possible to enhance existing infrastructure, stimulate economic growth, and ultimately improve the overall quality of life. [6] The investment in public projects can also serve as a catalyst for economic growth, fostering the development of interconnected industrial chains, and generating employment opportunities and tax revenues. It is imperative for the government to effectively manage and monitor these projects, with a strong emphasis on sustainable development and social responsibility, in order to maximize public interests and optimize economic benefits. In short, the utilization of the current low-interest rate environment for investment in public projects will yield tangible benefits to the general public and serve as a vital catalyst for economic development.

### **4.2. Future Policy Making**

When the economy recovers and inflationary pressures emerge, the government may need to adjust its policies to ensure financial stability and sustained economic growth. Quantitative easing may impose constraints on the government's future policymaking, especially when dealing with debt-related issues [7].

The government also needs to pay close attention to changes in inflationary pressures and act accordingly. While economic recovery is positive for development, high inflation could pose a threat to economic stability. The government may need to tighten monetary policy, adjust fiscal policy and promote structural reforms to contain the adverse effects of inflation and preserve financial stability.

In addition, other aspects such as environmental protection, social equity and sustainable development need to be taken into account. The government should take proactive policy measures to promote green development, innovation and technological development to achieve long-term sustainable economic growth.

### **4.3. Long-Term Financial Responsibility**

While low-interest rates help ease the burden of debt servicing in the short term, the accumulation of long-term debt, however, may lead to an increased burden on debt service payments and result in higher fiscal deficits and interest payments [12]. In the event that the government faces significant pressures from debt service obligations, its ability to invest in other crucial areas may be constrained. This could potentially lead to cuts in public services such as healthcare, education, and security, thereby impacting public well-being and hindering social development. Therefore, it is imperative for the government to prudently manage its debt levels, strategically plan its budgetary allocations, and ensure effective control over its overall debt position.

## **5. National**

### **5.1. Financial Strategies and Investment Behavior**

In a low-interest rate environment, as traditional savings yield lower returns, many individuals may opt for higher-yielding investments such as stocks and real estate, seeking enhanced rates of return. This scenario has prompted the government to venture into these markets with the objective of boosting incentives for purchasing and consumption in order to stimulate economic growth. However, this also entails the potential risk of increased indebtedness [12]. Investing in volatile assets such as stocks and real estate may yield higher returns, but it also entails inherent risks and uncertainties. Fluctuations in the market, declining prices, or economic downturns within the rental

and sales sectors can result in potential investment losses. Moreover, an overreliance on risky investments can contribute to the formation of market bubbles, thereby exacerbating economic vulnerabilities. [13] The country must carefully consider risk management and regulatory measures when engaging in high-risk investment sectors such as stocks and real estate. The government should enhance financial regulation and monitoring, ensuring market fairness, and transparency, and preventing potential market manipulation and misconduct. Additionally, the government should formulate appropriate policies and regulations to promote the sound development of the capital market while safeguarding market stability and protecting investors' legitimate rights and interests.

## **5.2. Quality of Life and Economic Expectations**

The low-interest rates have significant implications for retirees and individuals relying on fixed income, as it diminishes the returns on their savings. With declining interest rates in traditional investment options such as savings accounts and bonds, retirees face the risk of reduced income and a lower standard of living. The decrease in interest earnings from annuities, pensions, and other sources of fixed income can pose challenges for retirees to meet the rising cost of living [14].

In addition, the sustained low-interest rates can also impact a country's confidence and expectations regarding the future economy. Within an environment of low-interest rates, individuals experience relatively diminished returns on their investments, which may subsequently lower their anticipations for economic growth and profit expansion. Consequently, businesses might curtail investment and hiring activities while consumers could reduce consumption and purchasing power, thereby exerting an adverse influence on overall economic development and employment prospects.

## **5.3. Social Polarization between Rich and Poor**

As asset prices increase, the wealth of existing asset owners grows, while individuals lacking assets or investment opportunities face challenges in reaping their benefits. Consequently, this exacerbates societal wealth disparity and may give rise to social discontent and instability, ultimately fostering a sense of social inequality [15]. To address this situation, the government can implement a range of measures, including enhancing poverty alleviation efforts, bolstering educational and vocational training opportunities to enhance individuals' employability and income levels, as well as refining tax and welfare policies to ensure a more equitable distribution of income.

## **5.4. Rising Cost of Living**

Long-term expectations of low-interest rates and inflation may result in a gradual escalation of essential living expenses, such as food and energy prices. This exerts pressure on the financial burden faced by ordinary individuals. The government can alleviate this strain by managing inflation expectations, enhancing supervision to curb excessive price hikes, and implementing appropriate price subsidies and welfare policies. Furthermore, it can also foster technological innovation and promote energy transformation to reduce energy costs while improving agricultural production efficiency in order to mitigate the escalating cost of living [16].

# **6. Enterprises**

## **6.1. Financing and Investment**

In a low-interest rate environment, the reduction of financing costs presents numerous opportunities for businesses. This advantageous environment can incentivize businesses to augment investment and expansion as they gain more affordable access to capital. The flexibility and accessibility of financing also facilitate companies in meeting market demand and driving innovation and growth. As financing conditions improve, companies have the opportunity to utilize additional capital for fostering innovation, conducting research and development activities, and expanding their market presence. Innovation and research and development play a pivotal role in business success as

they enable companies to create novel products, technologies, and services that cater to evolving consumer demands. Moreover, through market expansion initiatives, companies can bolster sales growth and penetrate new market segments [17].

In addition to fostering innovation and expanding market presence, the prevailing low-interest rate environment has fostered a greater proclivity among companies to engage in share buyback initiatives. A stock buyback entails a company repurchasing its own issued shares, typically with the aim of bolstering both share price and shareholder return per share. By executing such transactions, a company can directly enhance shareholder value while simultaneously signaling confidence in its stock to the market. Moreover, this practice can effectively mitigate financing costs as it often proves more cost-effective than issuing bonds or additional shares.

## 6.2. Risk and Decision Making

Firms may be willing to take higher risks in environments such as overexpansion. The current borrowing costs are at a low level and capital is relatively abundant. However, enterprises should thoroughly consider the risk-return trade-off when making decisions, avoiding blindly pursuing high returns while neglecting potential risks. Simultaneously, the prevailing low interest rate environment may enhance the attractiveness of certain long-term projects; thus, companies should meticulously evaluate project sustainability and market prospects to ensure the long-term viability of investment decisions.

## 6.3. Competition in International Markets

The implementation of a quantitative easing policy may result in currency depreciation, thereby impacting the export competitiveness and import costs of enterprises. Consequently, enterprises may need to adjust their strategies in the global market.[2] Enterprises must closely monitor the dynamics of the global market and promptly adjust their product positioning and marketing strategies to enhance competitiveness. Simultaneously, it is imperative to strengthen innovation capacity, improve product quality, and add value in order to gain an edge in intense international competition. By formulating robust foreign trade policies and trade agreements, the government can facilitate access to a broader market while providing increased opportunities and support for enterprises [18].

## 7. Conclusion

Since the onset of the global financial crisis in 2008, the implementation of quantitative easing in the United States has not only had a profound impact on its domestic economic architecture but has also triggered widely publicized ripple effects in several areas. First, empirical evidence suggests that this policy has exacerbated socioeconomic inequalities, bringing significant economic benefits to capital holders and increasing economic burdens for the younger generation and the assets. Moreover, this policy also affects consumer behavior; in the short run, increased consumption contributes to an economic rebound, but in the long run, this may lead to higher loan default rates. In the education sector, we have observed a rapid rise in tuition fees and an increase in student loans, which has led the public to question the value of investing in tertiary education. The government's public finance strategy is challenged by the fact that, while low interest rates provide a short-term financing advantage for public programs, the long-term accumulation of public debt may put continued pressure on future budgets. From the perspective of the general public, their investment strategies and life expectations have changed significantly in the context of quantitative easing, with a particular impact on fixed incomes and retirement. The corporate sector faces both opportunities and challenges: the low-interest-rate environment has fueled business expansion and investment but may also lead to excessive risk exposure. Given the dual impact of quantitative easing, short-term stimulus and increased business investment have undoubtedly energized the U.S. economy, and academics have been able to explore new research topics as a result. However, the adverse effects of the policy, such as the widening gap between the rich and poor in society, the growing risk of defaults, and the rising

cost of education, should also receive corresponding attention. Currently, the strategy of quantitative easing may need to be moderated for the future or combined with other macroeconomic instruments to neutralize its potential side effects. It is recommended that policymakers conduct more in-depth research and considerations as well as strengthen macroeconomic education for the public to help them cope with the current complex economic environment. In terms of a long-term strategy, we should seek a more diversified and balanced economic policy to ensure the stability and sustained growth of the country's economy.

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