

Public Policies: New Monetary Policy and its Appropriateness

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Article History	Abstract
Original Research Article	<i>The objective of this research is to measure the economic consequences and the social interest of the new Monetary Policy after 2008. We want to determine its effectiveness and efficiency, its social costs and social benefits, and to evaluate its optimality and its appropriateness. We are using different policy rules, by dividing in four different regimes the period 2008-2025, and a VAR model to test the effectiveness and efficiency of monetary policy by testing the effects of policy instruments (i_{FF}, MB, M^S) on the objective variables, prices (CPI), unemployment (u), growth of GDP (RGDP), stock market (DJIA), and long-term interest rate (i_{10YTB}). By measuring the bail in cost on depositors and the bail out cost on taxpayers, we can have an indicator of its appropriateness and optimality of this policy. The empirical results show that the most of the public policy tools do not have a significant effect on the objective variables. The benefits, lately, are insignificant and the social cost enormous and the reason might be the incompetence or the corruption of the financial system or the control of the policy makers by foreign powers. They must know what the true objective of their policy is, but they cannot satisfy it, which is the maximization of the social welfare, the wellbeing in every sector in the lives of the citizens of the country. There is a need to fix all these dysfunctional institutions and improve our democratic system, but if not impossible, it is very difficult and too late. What their new liberal public policies have caused people is just uncertainty (financial market risk), inflation, divisions, an enormous social cost, and pessimism for the future. After the 2024 elections and the new President in the U.S., some people had started to become more optimistic, but so far there are not any improvements, only deterioration (wars, destruction, and a creeping global recession). We must go back to our traditional policies and to our 3,000 years old moral philosophy and to our 2,000 years old Revealed Truth, which represent our value system, civilization, culture, faith, hope, and education and promote love for our people. Public policies must prevent crises and satisfy the current, the future, and eternal needs of humans (persons), our citizens.</i> Keywords: Monetary Policy, Central Banks and Their Policies, Interest Rates, Central Banking, Financial Markets and the Macro-economy, Production. JEL (Classification): E52, E58, E43, E44, E23
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Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited. Citation: Dr. Ioannis N. Kallianiotis. (2026). Public policies: New monetary policy and its appropriateness. UKR Journal of Economics, Business and Management, 2(8), 170-210.	

I. Introduction

An appropriate monetary regime¹ is characterized by four properties: (i) the weight policy makers put on price stability relative to their concern about output stabilization, (ii) the day-to-day procedures used to implement policy, (iii) the periodic evaluation of the policy effectiveness, and (iv) the social implications of the monetary policy. This work deals with the four latest and current regimes implemented by the Federal Reserve since 2008. For the U.S., the first is the New Zero Interest Rate Regime (December 16, 2008-December 15, 2015) and then, the second again with zero interest rate from (March 15, 2020 to March 16, 2022); the third and fourth are the previous Positive Interest Rate regime (December 16, 2015 to March

¹ Gavin (2018) examines four different monetary policy regimes from 1965 to 2015. See, "Monetary Policy Regimes and the Real Interest Rate", [Monetary Policy Regimes and the Real Interest Rate | St. Louis Fed \(stlouisfed.org\)](https://www.stlouisfed.org/publications/monetary-policy-regimes-and-the-real-interest-rate)

14, 2020) and the current New Regime (March 17, 2022 -present).² Each regime is an experiment that is associated with different policy objectives, different operating procedures, different statistical patterns in the data, different effectiveness, different social implications, but common “global end”, which is suboptimal, non-preventable, and anti-social. (Sic).

The proper and suitable monetary policy must be effective, social and fair for the people that means ethical. Ethics (ἠθική = ἡ ἐπιστήμη ἡ ἐρευνῶσα τοὺς κανόνες τῆς διαγωγῆς τῶν ἐν τῇ κοινωνίᾳ συμβιούντων ἀνθρώπων καὶ ὀργανισμῶν, δογματική διδασκαλία, ἀντίληψις περὶ τοῦ καλοῦ καὶ ἀγαθοῦ) is a moral philosophy or a discipline concerned with what is morally good and bad, morally true and lie, morally right and wrong,³ and morally uncontrolled and enslaved. The term is also applied to any social system, democracy, culture, traditions, politics, economics, history, anthropology, biology, sociology, decision making, justice, social interest, public policies, public goods, and it is discussed with the theory of moral values, moral life and virtues (fear of God, faith, courage, peace, justice, prudence, temperance, moderation, modesty, humility, hope, love), theological principles, and practical moral problems. The Greek moral thought was originally based from the 600s B.C. on a new moral approach that emerged, at that time, which was using rational arguments leading to the rise of moral philosophy as a distinct mode of thought. This has been attributed to Socrates, Plato, Aristotle (the “supreme good”, eudaimonia, εὐδαιμονία = εὖ + δαίμων, θεότης, εὐημερία), and many others up to the Revelation in the 1st century A.D. Unfortunately, today, our problem is the imposed ignorance (ἄγνοια) as wisdom (σοφία), the controlled political “leaders” as free, and the irrelevant public politics as appropriate policies, which are presented in this article.

II. The New Monetary Theory and Policy

Before December 2008, the Fed implemented monetary policy with *limited reserves*, Figure 1, by supplying non-borrowed (R^*) and borrowed (R_B) reserves, in the banking system ($R^* + R_B = R_T^s$) and relied on *OMO*, as its key instrument (tool). Then, the zero-interest rate era (ZIRE, $0.00\% \leq i_{FF} \leq 0.25\%$) started on December 15, 2008 to December 15, 2015 for seven years (quantitative easing) and again on March 15, 2020 to March 15, 2022 for two years (the suspicious COVID-19 pandemic). Between December 16, 2015 and March 15, 2020, the positive interest rate era (PIRE $0.25\% \leq i_{FF} \leq 5.50\%$),⁴ which continues after the COVID-19 era (March 16, 2022 to present), with $3.50\% \leq i_{FF} \leq 3.75\%$ since December 11, 2025, and this range of federal funds rates from 0% to 5.50% were used to implement monetary policy decisions.⁵

II.1 The Mostly Zero Interest Rate Era (MZIRE)

After the financial crisis of 2008, the Fed implements monetary policy with *ample reserves*, Figure 2 and Graph 1,⁶ by using many new instruments⁷ and it relies on interest on reserves (*IOR*) since October 1, 2008, and since June 17, 2021, on

² See, “Federal Funds Target Rate History From 1990 to The Present”, [Fed Funds Target Rate History \(Historical\) \(fedprimerate.com\)](https://www.fedprimerate.com/)

³ Today, “We are passing through the ultimate historical period of humanity and remain indifferent and in ignorance, far from the Truth due to the imposed sleep-education. Today's knowledge is very deficient, a worldly knowledge meant only to secure a profession. In order to rise spiritually, we need the knowledge of the Truth, which is forbidden to be taught in our schools.” See, Δημητρίου Χατζηνικολάου, «Ὁ δρόμος πρὸς τὴν ἐπίγειον ἀλλά καὶ τὴν αἰώνιον κόλασιν», Ὁρθόδοξος Τύπος, Ἀρ. Φύλλου 2562, 24 Ὀκτωβρίου 2025, σσ. 1 καὶ 3. [2562-ΠΡΩΤΟΣΕΛΙΔΟ.jpg \(1200×1620\) \(orthodoxostypos.gr\)](https://www.orthodoxostypos.gr/)

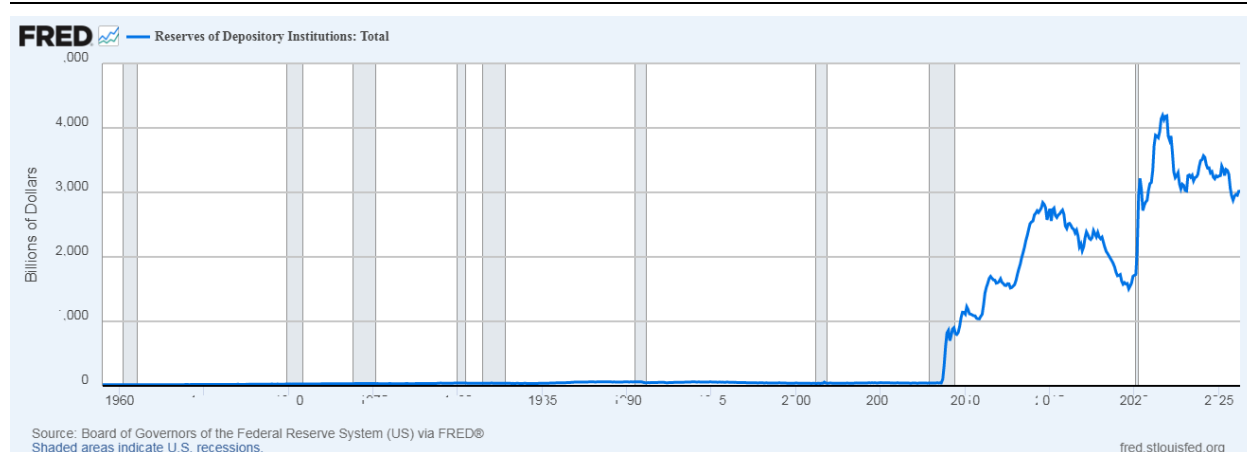
⁴ See, “Federal Funds Target Rate History”, [Fed Funds Target Rate History \(Historical\) \(fedprimerate.com\)](https://www.fedprimerate.com/)

⁵ See, Bindseil (2016), Gavin (2018), Bullard (2018), and Kallianiotis (2023). See also, “Economy at a Glance - Policy Rate”, [The Fed - Economy at a Glance - Policy Rate](https://www.fedprimerate.com/). In addition, see, [Fed Funds Target Rate History \(Historical\) \(fedprimerate.com\)](https://www.fedprimerate.com/). Further, see, [Federal Funds Rate History 1990 to 2026 – Forbes Advisor](https://www.forbes.com/advisor/federal-funds-rate-history/)

⁶ Graph 1. Reserves of Depository Institutions: Total (TOTRESNS) SSOWNLOAD.

interest on overnight reverse repurchase agreements (*ION RRP*),⁸ too. Why the poor taxpayers have to pay interest on these corrupted institutions?

With the previous regime, banks held reserves to meet the Fed's regulatory reserve requirements (R_R),⁹ which was 10% on demand deposits and some excess reserves (R_E) to meet the banking demands of their customers.¹⁰ The interest on reserves ($R_R + R_E = R_T^d$) was zero ($i_{IOR} = 0$), which was the appropriate, ethical, and socially fair practice. When banks needed extra reserves to meet their demands, they were borrowing these reserves from the federal funds market or through Fed's discount window.¹¹ If banks had excess reserves, they could lend them in the federal funds market at the i_{FF}^{eff} . The demand and supply of reserves are shown in Figure 1. To raise the i_{FF} , the Fed decreases the supply of reserves (R^*) by selling U.S. Treasury securities in the open market. To lower the i_{FF} , the Fed increases the supply of reserves (R^*) by buying government securities and later (December 2008),¹² mortgage-back securities, too, in the open market, or by changing the reserve requirements (R_R). Also, it was using as instruments, the discount rate (i_{DR}), the reserve requirements ratio (r_R), and the margin requirements (r_m).¹³ If the central bank wished to lower interest rates, it purchased government debt, thereby increasing the amount of cash in circulation or crediting banks' reserves; the R^* shifts to the right, Figure 1.



Source: [Reserves of Depository Institutions: Total \(TOTRESNS\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

With December 2008, $R_T = \$820.9$ billion, they reached $\$4,193.2$ billion (September 2021), a 31.6% p.a. growth and now (May 2026), they were $R_T = \$3,078.4$ billion.

⁷ Policy Tools. <https://www.federalreserve.gov/monetarypolicy/policytools.htm>. See, also, The Fed's New Monetary Policy Tools. <https://research.stlouisfed.org/publications/page1-econ/2020/08/03/the-feds-new-monetary-policy-tools>

⁸ See, "Repo and Reverse Repo Agreements", [Repo and Reverse Repo Agreements - FEDERAL RESERVE BANK of NEW YORK \(newyorkfed.org\)](#). See, also, "Overnight Reverse Repurchase Agreements Award Rate", [Overnight Reverse Repurchase Agreements Award Rate: Treasury Securities Sold by the Federal Reserve in the Temporary Open Market Operations \(RRPONTSYAWARD\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

⁹ As [announced](#) on March 15, 2020, the Board reduced reserve requirement ratios to zero percent effective March 26, 2020. See, <https://www.federalreserve.gov/monetarypolicy/reservereq.htm>. See also, <https://www.thebalance.com/reserve-requirement-3305883>

¹⁰ See, Kallianiotis (2017).

¹¹ See, "Discount Window Lending", [The Fed - Discount Window Lending](#). See, also, [Federal Discount Rate \(DISC\) Historical Data | Nasdaq](#). In addition, [Interest Rates, Discount Rate for United States | FRED | St. Louis Fed](#)

¹² On November 25, 2008, Federal Reserve announces it will initiate a program to purchase the direct obligations of housing-related government-sponsored enterprises and mortgage-backed securities backed by Fannie Mae, Freddie Mac, and Ginnie Mae. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20081125b.htm>

¹³ The $r_m = 50\%$ since 1974. See, Kallianiotis (2017).

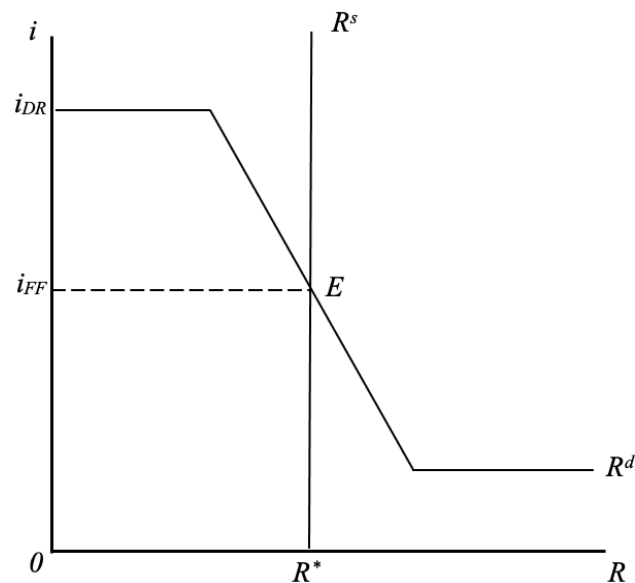


Figure 1. Market with Limited Reserves

Note: R^d = demand for reserves, R^s = supply of reserves, i = interest rates, i_{DR} = discount rate, i_{FF} = federal funds rate, R = reserves, R^* = non-borrowed reserves, E = equilibrium ($R^s = R^d$), $R_B + R^* = R_T^s$, and $R_R + R_E = R_T^d$.

Banks, before October 1, 2008, were minimizing their holdings of excess reserves because $i_{IOER} = 0$. Then, with $i_{IOER} > 0$, banks have an incentive to hold more excess reserves.¹⁴ This is an anti-social policy, which forces the taxpayers to pay the corrupted banks with this enormous interest (bail out cost, calculated in Section V.1). The i_{IOER} became a tool to influence banks to hold more excess reserves at the Fed. The Fed has since that time the i_{IOER} as a new tool for implementing monetary policy. Since November 2008, $i_{IORR} = i_{IOER}$ and since March 26, 2020, the Fed abandoned the required reserves ($R_R = 0$).¹⁵ This $IORR$ made Fed's policy effectiveness irrelevant for banks and now, banks are riskier. The Fed shifted to an ample-reserves framework and reserve requirements are not anymore a tool of monetary policy. Thus, now, we have only IOR (i_{IOR}) and since 2021, the Fed introduced the $ION RRP$ ($i_{ON RRP}$). The reserves are still remained "ample", Figure 2.

When there is a large quantity of reserves in the banking system, as it is lately, Figure 2, the Fed can no longer influence the i_{FF} by making small changes in the supply of reserves (R^s). Why we need all these non-borrowed reserves (R^*)? What was the reason of this idle enormous liquidity? Why the taxpayers have to pay billions of dollars to the corrupted banks for keeping these idle excess reserves? Is this policy efficient, effective, fair, ethical, or social and the appropriate one? All this money supply had caused the enormous double digit inflation $\pi = 18\%$,¹⁶ and an official¹⁷ $\pi = 9.1\%$, which is already here

¹⁴ The Financial Services Regulatory Relief Act of 2006 authorized the Federal Reserve Banks to pay interest on balances held by or on behalf of eligible institutions in master accounts at Reserve Banks, subject to regulations of the Board of Governors, effective October 1, 2011. The effective date of this authority was advanced to October 1, 2008, by the Emergency Economic Stabilization Act of 2008. Since September 18, 2025, it was, $i_{IOR} = 4.15\%$ and lately fell to 3.90% (November 2025). Now, July 7, 2026, it is 3.65% . See, "Interest on Reserve Balances", [Federal Reserve Board - Interest on Reserve Balances](https://www.federalreserve.gov/monetarypolicy/reservereq.htm) and "Interest Rate on Reserve Balances (IORB Rate) (IORB)", [Interest Rate on Reserve Balances \(IORB Rate\) \(IORB\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://www.federalreserve.gov/monetarypolicy/reservereq.htm)

¹⁵ As announced on March 15, 2020, the Board reduced reserve requirement ratios to zero percent effective March 26, 2020. This action eliminated reserve requirements for all depository institutions. See, "Reserve Requirements", <https://www.federalreserve.gov/monetarypolicy/reservereq.htm>.

¹⁶ See, SGS, https://www.shadowstats.com/alternate_data/inflation-charts

¹⁷ See, Stephen Miller, "U.S. Inflation Rate Reaches 8.6% in May, a 40-Year High, Pushing Wages Up". In June 2022, the CPI rose 9.1% and the PPI rose 10.8% . <https://www.shrm.org/resourcesandtools/hr-topics/compensation/pages/annual-inflation-hit-40-year-high-in-may.aspx>. In September 2022, it was $\pi = 8.2\%$, in November 2024, it was: $\pi = 2.75\%$, and in August 2025, it was, $\pi = 2.9\%$. In November 2025, it was $\pi = 2.7\%$, in January 2026, it was $\pi = 2.4\%$, and in April $\pi = 3.8\%$. See, Current US Inflation Rates: 2000-2026", [Current U.S. Inflation Rates: 2000-2026 \(usinflationcalculator.com\)](https://www.usinflationcalculator.com) See also, "Fed can't ignore the risk of higher inflation, Powell says", [Fed can't ignore the risk of higher inflation, Powell says \(msn.com\)](https://www.msn.com)

annum).²⁸ In 2014, the *FOMC* announced that it will use the Overnight Reverse Repurchase Agreement Facility (*ON RRP*)²⁹ to help control the i_{FF} . This facility is a form of *OMO*, where the Fed interacts with many nonbank financial institutions (large money market funds and government-sponsored enterprises).³⁰ When one nonbank financial institution uses the *ON RRP* facility, it deposits reserves at the Fed overnight receiving securities as collateral. The next day the transaction is “unwound”,³¹ the Fed buys back the securities and the institution earns the $i_{ON RRP}$, which the Fed sets, on the cash it deposited at the Fed (another bail out cost), Figure 2. This investment facility is a risk-free option and these institutions are willing to lend funds to this relatively low rate, the $i_{ON RRP}$, but not lower. For this reason, the $i_{ON RRP}$ acts as a reservation rate and institutions can use it to arbitrage other short-term rates. Thus, the interest rate paid on *ON RRP* transactions and it is below the i_{IOR} , acts like a floor for the i_{FF} and serves as a new *supplementary policy tool* by the Fed, Figure 2.

Some reasonable questions arise, now. Why the Fed needs these overnight deposits (ONRRP)?³² Why the tax payers have to pay some more billion dollars per annum to these money market nonbank lenders? Why we do not increase the deposit rate (i_D) to increase the deposits (demand for deposit accounts)³³ in our banks, if they need more liquidity? Make at least

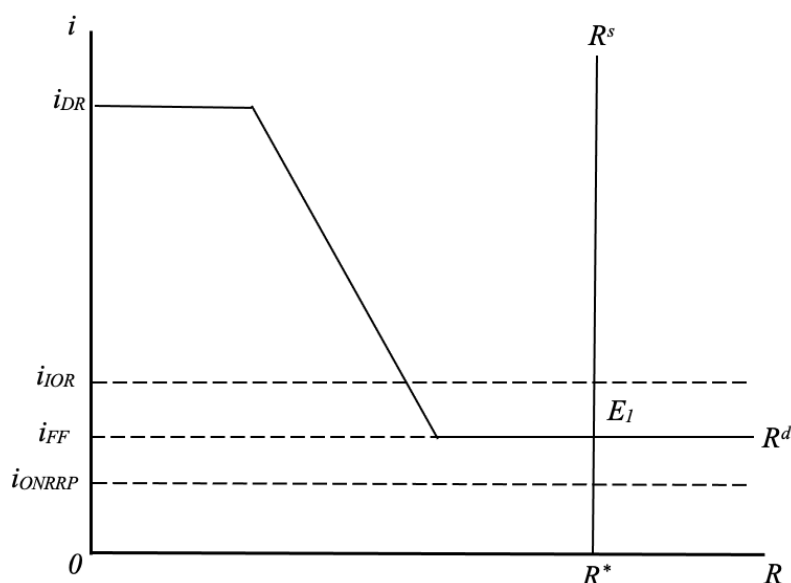


Figure 2: New Monetary Policy with Ample Reserves

²⁸ With May 2024, the ON RRP were \$439.806 billion and the $i_{ON RRP} = 5.30\%$. Then, their bail out cost was: \$23.310 billion per annum. On August 30, 2024, they were \$433.130 billion and $i_{ON RRP} = 5.30\%$, which made a bail-out cost of \$22.956 billion p.a.. [FAQs: Reverse Repurchase Agreement Operations - FED/FEDERAL RESERVE BANK of NEW YORK \(newyorkfed.org\)](https://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm). With November 24, 2025, the ONRRP were \$1.077 billion, see, “Overnight Reverse Repurchase Agreements: Treasury Securities Sold by the Federal Reserve in the Temporary Open Market Operations (RRPONTSYD)”, [Overnight Reverse Repurchase Agreements: Treasury Securities Sold by the Federal Reserve in the Temporary Open Market Operations \(RRPONTSYD\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm). See, “Overnight Reverse Repurchase Agreements Award Rate (RRPONTSYAWARD)”, [Overnight Reverse Repurchase Agreements Award Rate \(RRPONTSYAWARD\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm).

²⁹ See, Board of Governors of the Federal Reserve System. “Overnight Reverse Repurchase Agreement Facility”. <https://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm>.

³⁰ See, “What Is a Money Market Fund?”, <https://www.investopedia.com/investing/do-money-market-funds-pay/> and “Government-Sponsored Enterprise (GSE)”, <https://www.investopedia.com/terms/g/gse.asp>. See also, Federal Reserve Bank of New York, “Reverse Repo Counterparties”. https://www.newyorkfed.org/markets/rfp_counterparties.

³¹ Unwind = To close out a relatively complicated investment position.

³² See, “How the Fed’s Overnight Reverse Repo Facility Works”, JANUARY 11, 2022. [HTTPS://LIBERTYSTREETECONOMICS.NEWYORKFED.ORG/2022/01/HOW-THE-FEDS-OVERNIGHT-REVERSE-REPO-FACILITY-WORKS/](https://libertystreeteconomics.newyorkfed.org/2022/01/how-the-feds-overnight-reverse-repo-facility-works/)

See, also, “Interest Rates”. [Interest Rates - St. Louis Fed](https://www.stlouisfed.org/interest-rates)

³³ See, Hadjimichalakakis (1982).

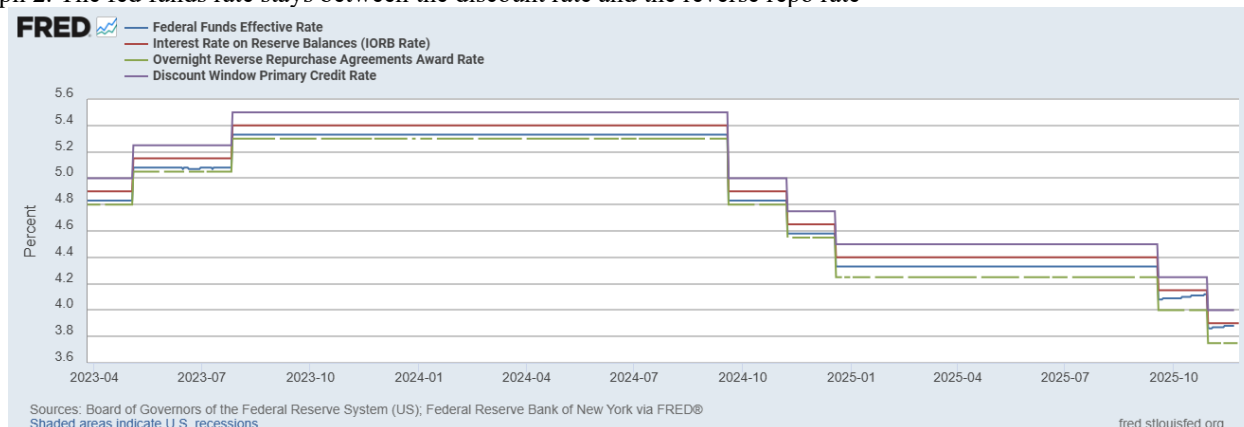
Note: i = interest rates, i_{FF} = federal funds rate, i_{DR} = discount rate, i_{IOR} = interest rate on reserves, i_{ONRRP} = interest rate on overnight reverse repurchase, R = reserves, R^d = demand for reserves, R^s = supply of reserves, R^* = non-borrowed reserves, E_l = equilibrium ($R^s = R^d$). On June 1, 2026, these rates were: $i_{DR} = 3.75\%$, $i_{IOR} = 3.65\%$, $i_{FF}^{eff} = 3.64\%$, and $i_{ONRRP} = 3.50\%$.

the saving account rate, $i_D \cong 3.55\% \geq i_{ONRRP} \cong 3.50\%$ ³⁴ and not zero ($i_D = 0.05\%$), as it was for 15 years.³⁵ Why we exploit the depositors? Why we confiscate their deposits? Why we force the risk averse depositors to invest in the risky financial market? This new policy is not necessary, and it has also a very high social cost (trillions of dollars bail out cost to taxpayers and bail in cost to depositors). The federal funds market can provide the liquidity for the banks through the OMO without forcing the people to bail out banks by paying IOR and $IONRRP$. The limited reserve system is sufficient to provide all reserves needed in our banking system and concurrently, it maximizes the social benefits (social welfare).

II.2 Exaggerated Liquidity and its Effects on the Economy

The Fed introduced new lending programs and new tools during the global financial crisis in 2007-2008.³⁶ Thus, the Federal Reserve has a variety of policy tools (instruments)³⁷ that it was using in the past and it is still using them, now, together with the new ones, in order to implement monetary policy and support the economy during the latest global financial and the suspicious coronavirus (COVID-19) economic and social crises, and during these last five years of huge government spending (inefficiency and wastes),³⁸ which led the country to an enormous national debt.³⁹ Some economists are blaming

³⁴ Graph 2. The fed funds rate stays between the discount rate and the reverse repo rate



Note: With July 7, 2026, they were: $i_{DR} = 3.75\%$, $i_{IOR} = 3.65\%$, $i_{FF}^{eff} = 3.63\%$, and $i_{ONRRP} = 3.50\%$.

Source: [Rates related to monetary policy | FRED Blog](#)

³⁵ In this case the real deposit rate was: $r_D = i_D - \pi = r_D = 3.80\% - 8.2\% = -4.4\%$, which is still negative, but not -8.15% , as it was in the past. The deposit rate must be: $i_D = \pi_t^e + 1\%$ or $r_D = 1\%$. At that time, $i_D = 8.2\% + 1\% = 9.2\%$. With December 2025, $r_D = i_D - \pi = r_D = 0.39\% - 2.7\% = -2.31\%$; then, the $i_D = 3.70\%$ (necessary to cover the inflation), but no lower than 3.50% (the i_{ONRRP}). Now, $r_D = i_D - \pi = r_D = 0.38\% - 3.8\% = -3.42\%$; the deposit rate must be, $i_D = \pi_t^e + 1\% = 3.8\% + 1\% = 4.8\%$. See, [National Rate: Savings \(SNDR\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

³⁶ They were: (1) Term Auction Facility (TAF) on December 12, 2007. (2) Term Securities Lending Facility (TSLF) on March 11, 2008. (3) Swap Lines on March 11, 2008. (4) Loans to J.P. Morgan to buy Bear Sterns on March 14, 2008. (5) Primary Dealer Credit Facility (PDCF) on March 16, 2008. (6) Loans to AIG on September 16, 2008. (7) Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF) on September 19, 2008. (8) Commercial Paper Funding Facility (CPFF) on October 7, 2008. (9) Money Market Investor Funding Facility (MMIFF) on October 21, 2008. (10) Term Asset-Backed Securities Loan Facility (TALF) on November 25, 2008. See, Mishkin and Eakins (2018, p. 224).

³⁷ These instruments are the followings: (1) [Open Market Operations](#). (2) [Discount Window and Discount Rate](#). (3) [Reserve Requirements](#). (4) [Interest on Required Reserve Balances and Excess Balances](#). (5) [Overnight Reverse Repurchase Agreement Facility](#). (6) [Term Deposit Facility](#). (7) [Commercial Paper Funding Facility](#). (8) [Primary Dealer Credit Facility](#). (9) [Money Market Mutual Fund Liquidity Facility](#). (10) [Primary Market Corporate Credit Facility](#). (11) [Secondary Market Corporate Credit Facility](#). (12) [Term Asset-Backed Securities Loan Facility](#). (13) [Paycheck Protection Program Liquidity Facility](#). (14) [Municipal Liquidity Facility](#). (15) [Main Street Lending Program](#). (16) [Central Bank Liquidity Swaps](#). (17) [Temporary Foreign and International Monetary Authorities \(FIMA\) Repo Facility](#). (18) [Expired Policy Tools](#). (19) Margin Requirements. See, Overview of Margin Requirements.

<https://www.finra.org/rules-guidance/key-topics/margin-accounts> . Also, <https://www.investopedia.com/terms/i/initialmargin.asp> . Further, All Regulations, <https://www.federalreserve.gov/supervisionreg/reglisting.htm>

³⁸ The current administration, President Trump, created a new department the DOGE, to reduce government waste; but they

Alan Greenspan, who started his policy by fueled financial asset with inflation. In 1987:Q2 the U.S. GDP was \$4.8 trillion and the total stock market was valued at \$3 trillion, as measured by the Wilshire 5000. During the three-decade period, the Wilshire 5000 market cap rose by 1,440% to \$46.3 trillion; that is nearly four times the 375% gain in nominal GDP to \$22.7 trillion.⁴⁰ Thus, our financial markets are completely artificial; very risky bubbles.

Then, this irrational liquidity by the Fed continues and when there is a large quantity of reserves in the banking system, as it is lately, Figure 2, the Fed can no longer influence the i_{FF} by making small changes in the supply of reserves (R^S). What was the reason of this idle enormous liquidity with the economy lockdown, businesses had no workers because of the vaccine mandates (people were against this risky vaccination and they were laid off from their jobs), a vast demand for imports (Graph 7),⁴¹ a supply chain problem, and a very anemic AD ? Why the depositors had to earn zero deposit rate and pay a high real deposit rate (bail-in cost) to banks? All this money supply⁴² and the government spending⁴³ caused the enormous double-digit inflation $\pi = 18\%$,⁴⁴ and an official⁴⁵ $\pi = 9.1\%$, which is already, here and will stay for a long time, and a huge trade deficit; Graph 6 gives the CPI⁴⁶ and Graph 7 the Current Account.⁴⁷ How will we control the bubble⁴⁸ (Figure 3 and Exhibit A1, A1a, and A1b) in the financial market? The market manipulators and the insiders, plus the unacceptable and unfair U.S. and Israeli war against Iran⁴⁹ will start taking advantage of this situation, as already they

continue to do the same government spending by financing the wars in Ukraine, Palestine, Syria, Iran, Venezuela, etc.. Estimated Savings from the DOGE: \$214B. Amount Saved Per Taxpayer: \$1,329.19. See, [DOGE: Department of Government Efficiency](#). See, also, Mearsheimer and Walt (2007). But their mistakes continue and have made the U.S. the most dangerous country for the global peace. *“The US was the overwhelming choice (24% of respondents) for the country that represents the greatest threat to peace in the world today”*. See, “Which Country Is The Greatest Threat to World Peace?”, [Which Country Is The Greatest Threat to World Peace? - Brilliant Maps](#)

³⁹ The U.S. National debt was on November 25, 2025, \$38.329 trillion, which is 121.34% of the GDP. Now (3/8/2026), it is \$38.858 trillion. See, <https://www.usdebtclock.org/>

⁴⁰ See, Stockman (2022, p.106).

⁴¹ See, “United States Imports”, <https://tradingeconomics.com/united-states/imports> . See also, “List of imports of the United States”,

https://en.wikipedia.org/wiki/List_of_imports_of_the_United_States . Further see, “What Are the Top 10 U.S. Imports?”, <https://traderiskguaranty.com/trgpeak/what-are-the-top-10-u-s-imports/> . See also, Kallianiotis (2025b).

⁴² See, Money Supply, M2 (M2NS), Graph 5. With January 2008, M2 = \$7,502.6 billion, and it reached with May 2026 M2=\$22,971.7 billion. [M2 \(M2NS\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

⁴³ See, Federal Debt: Total Public Debt (GFDEBTN), Graph 10. With 2008:Q4, the ND was \$10.7 trillion, With June 1, 2026, it was ND = \$39.197 trillion, 121.83% of the GDP, and with July 9, 2026, it was \$39.425 trillion or 122.11% of the GDP. [Federal Debt: Total Public Debt \(GFDEBTN\) | FRED | St. Louis Fed \(stlouisfed.org\)](#). See, also, <https://www.usdebtclock.org/>

⁴⁴ See, SGS, http://www.shadowstats.com/alternate_data/inflation-charts

⁴⁵ See, Stephen Miller, “U.S. Inflation Rate Reaches 8.6% in May, a 40-Year High, Pushing Wages Up”. In June 2022, the CPI rose 9.1% and the PPI rose 10.8%. <https://www.shrm.org/resourcesandtools/hr-topics/compensation/pages/annual-inflation-hit-40-year-high-in-may.aspx> . The inflation for some foods it is over 100%. For example, 3 liters of olive oil was priced \$28.99, now it is \$58.99. A packet of spaghetti was \$1 and its now \$2.50. It is obvious that the official numbers have become political numbers. The official (political) inflation with March 2024 was: $\pi = 3.5\%$ and with August 2024 fell to $\pi = 2.53\%$. [Current US Inflation Rates: 2000-2024 \(usinflationcalculator.com\)](#) . and became $\pi = 3.81\%$ with April 2026. See also, “What is the Current Inflation Rate?” [What is the Current U.S. Inflation Rate? \(inflationdata.com\)](#)

⁴⁶ See, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average (CPIAUCSL). The official CPI was 204.813 (November 2008) and reached 312.23 (April 10, 2024), a growth of 52.446% or an average growth of 3.42% per annum. In May 2026, it was 333.979. [Consumer Price Index for All Urban Consumers: All Items in U.S. City Average \(CPIAUCSL\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

⁴⁷ The Trade Account was -\$51.983 billion (December 2008) and -\$119.981 billion (March 2022) and became -\$162.060 billion in (March 2025). See, Trade Balance: Goods, Balance of Payments Basis (BOPGTB), [Trade Balance: Goods, Balance of Payments Basis \(BOPGTB\) | FRED | St. Louis Fed \(stlouisfed.org\)](#). See also, The U.S. Trade Balance with Every Country. [The U.S. Trade Balance with Every Country | The Motley Fool](#) . With 2025, the total trade deficit was TA = -\$1,230.513 billion. See, Trade in Goods with World, Seasonally Adjusted. U.S. Census. [Trade in Goods with World, Seasonally Adjusted. U.S. Census. - Search \(bing.com\)](#)

⁴⁸ See, Stockman (2022). See, [Dow Jones - DJIA - 100 Year Historical Chart | MacroTrends](#) . Also, see, Table A6: Dow Jones - DJIA – Historical Annual Data.

⁴⁹ See, “Live Updates: U.S. and Israel Strike Iran as Trump Calls for Overthrow of Government”, *New York Times*, [Live Updates: U.S. and Israel Strike Iran as Trump Calls for Overthrow of Government - The New York Times \(nytimes.com\)](#). Iranian Supreme Leader [Ayatollah Ali Khamenei is dead](#). The U.S. and Israel [seized a rare opportunity](#) to kill several top Iranian leaders at once, prompting Iran to [vow revenge](#) and threatening to [drive up oil prices and inflation](#). Now, the U.S. is racing to complete its mission [before munitions run out](#)—and the Islamic Revolutionary Guard Corps faces its [ultimate test](#). Emma Tucker, Editor in Chief, *The Wall Street Journal*, 3/1/2026.

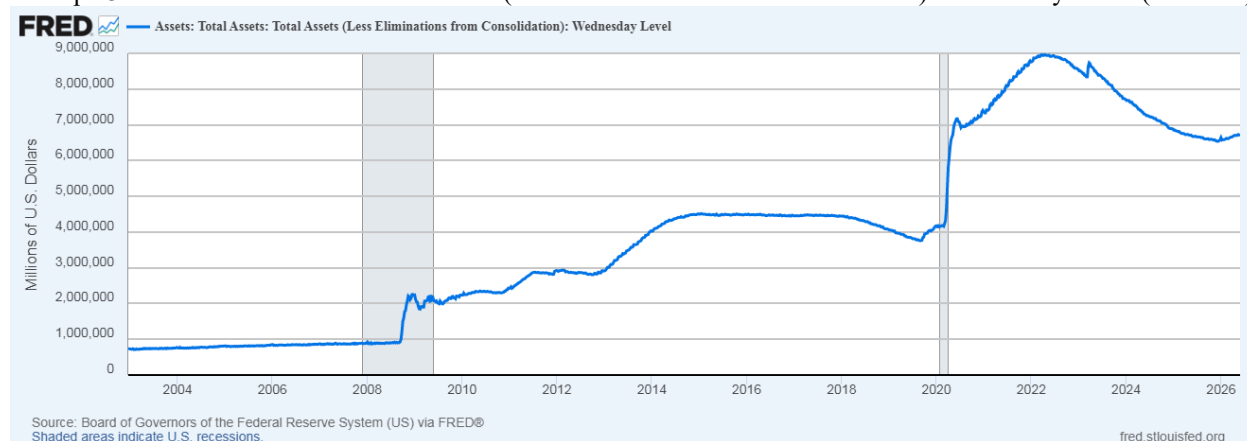
are doing. All these artificial values⁵⁰ have generated an unfair huge social cost and an uncertain future. There is no asset (real or financial) to be correctly priced; everything is artificially overpriced.

Thus, between January 2008 (from \$880.754 billion) and the end of the financial crisis in May 2009, the Federal Reserve's balance sheet increased by 150%, swelling to \$2.196 trillion.⁵¹ Since then, the balance sheet has increased by an additional \$2.2 trillion and by July 2014, it had become \$4.4 trillion. It consisted of \$2.46 trillion in Treasuries, \$26.81 billion in agency debt, and \$1.76 trillion in mortgage-backed securities. The highest value was on January 14, 2015: \$4.516 trillion and on August 14, 2019, it was \$3,337.347 billion. The total banks' reserves ($R_R + R_E$) were \$200.608 billion and \$1,386.237 billion respectively, a total of \$1,586.845 billion. Lately, they were going up again. On April 13, 2022, it reached \$8,965.487 billion (the highest). On November 8, 2023, they were \$7.909 trillion: \$4.873 trillion in government securities and \$2.463 trillion in mortgage-backed securities (plus other factors of \$0.573 trillion).⁵² On August 28, 2024, it was a small reduction, and they were \$7.144 trillion (\$4.399 trillion in government securities, \$2.308 trillion in mortgage-back securities, plus others of 0.437 trillion).⁵³ Lately, (7/1/2026), they were, Total Assets = \$6,724.564 billion.⁵⁴

Over four rounds of "quantitative easing" (QE)⁵⁵ in 2008, 2010, 2012, 2014, 2023, and 2024, the Fed purchased a huge amount of assets such as U.S. Treasury debt and agency mortgage-backed securities and continued with the same policy until 2024. As the Fed was buying these assets, the banks that were selling them saw their excess reserve (R_E) balances to become enormous and the total monetary base was increasing. Actually, it continues going up until December 2021, where the total monetary base reached \$6,413.100 billion; a growth since 2008 by \$5,503.4 billion or 604.969% or 46.536% per annum, Graph 4.⁵⁶ With August 27, 2024, it was, $MB = \$5,653.9$ billion and with October 2025, it was $MB = \$5,361.5$

⁵⁰ See, Stockman (2022).

⁵¹ Graph 3. Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level (WALCL).



Note: The total assets were, on December 31, 2008, \$2,239.457 billion and on December 7, 2023, \$7,737.385 billion, with May 27, 2026, they were \$6,704.383 billion, and with July 1, 2026, they were \$6,724.564 billion...

Source: [Assets: Total Assets: Total Assets \(Less Eliminations from Consolidation\): Wednesday Level \(WALCL\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

⁵² See, See, "Federal Reserve Balance Sheet: Factors Affecting Reserve Balances - H.4.1", [Federal Reserve Balance Sheet: Factors Affecting Reserve Balances - H.4.1 - November 09, 2023](#). See also with January 08, 2026, <https://www.federalreserve.gov/releases/h41/current/h41.htm>

⁵³ See, <https://www.federalreserve.gov/releases/h41/current/h41.htm>

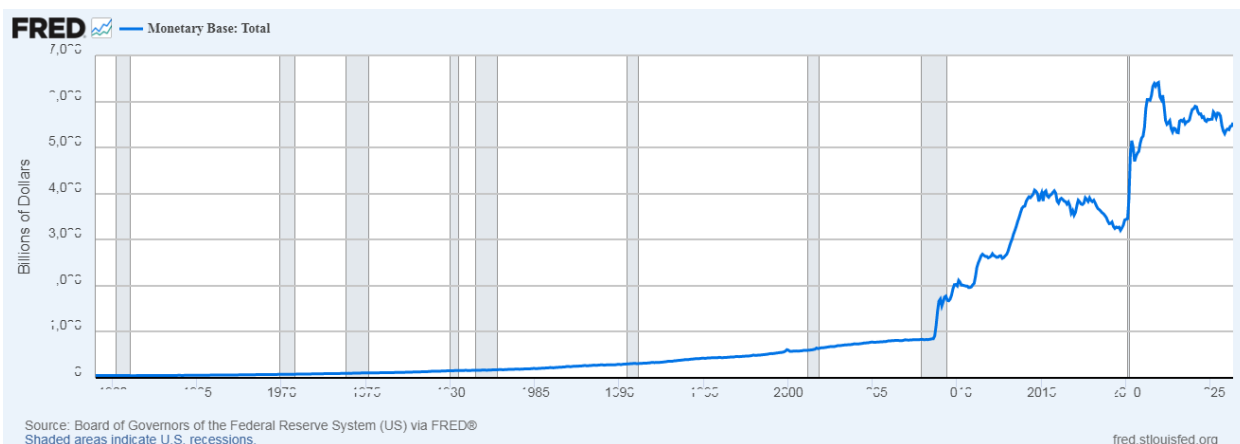
⁵⁴ See, "Federal Reserve Balance Sheet: Factors Affecting Reserve Balances - H.4.1", [Federal Reserve Balance Sheet: Factors Affecting Reserve Balances - H.4.1 - November 20, 2025](#)

⁵⁵ "Foolishly, Greenspan and Company spared them the trouble by flooding the world with surplus dollars." ... "a coiled spring of irrational exuberance and momentum chasing." See, Stockman (2022).

⁵⁶ Graph 4. St. Louis Monetary Base Total.

billion. This monetary policy cannot be efficient and socially necessary. As a result, excess reserves held by depository institutions reached, $R_E = \$2,699.968$ billion by August 2014. To put that in perspective, in the pre-crisis years, by August 2008 they were \$1.876 billion; in December 2008 became \$767.319 billion; in February 2010, they were \$1,161.852 billion; in July 2011 became \$1,618.118; in August 2014, they reached \$2,699.968 billion; and then, they started to decline and were in May 2019: \$1,376.568 billion. In July 2019, they were \$1,378.447 billion. In December 2019, the monetary base was \$3,382.800 billion, the currency in circulation was \$1,786.231 billion, the required reserves (R_R) were \$206.586 billion, and the excess reserves (R_E) were \$1,388.636 billion, also some other reserves of \$1.347 billion and continue to grow. In October 2025, the $R_T \equiv R_E = \$2,944.7$ billion⁵⁷ and in April 2026, they were $R_T \equiv R_E = \$3,018$ billion.

The money supply (M2) has surpassed all its limits,⁵⁸ from \$7,502.6 billion (January 2008) reached \$21,577 billion (June 2022), a growth by \$14,074.4 billion or 187.59% or 13.4% per annum; lately, the M2 = \$22,936.1 billion (April 2026), Graph 5.⁵⁹ The consumer price index (CPI) was growing, and the inflation had reduced consumers' purchasing power,



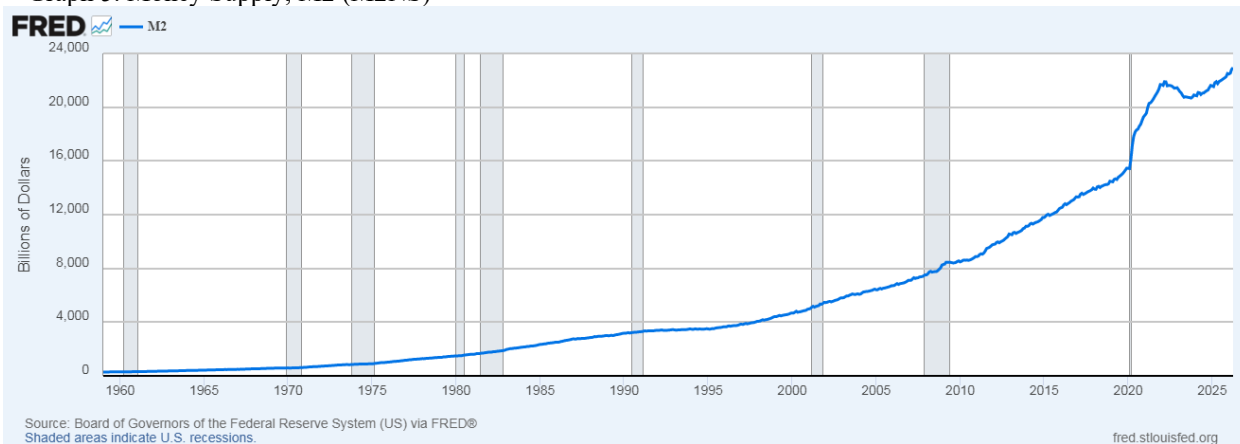
Note: The Monetary base was on September 10, 2008: \$874.83 billion; December 31, 2008: \$1,690.829 billion; February 24, 2010: \$2,183.734 billion; February 22, 2012: \$2,753.052 billion; September 17, 2014: \$4,149.829 billion; On December 19, 2019 it was \$3,441.873 billion (reserves: \$1,649.453 billion and currency: \$1,792.420 billion); on October 24, 2023, MB was \$5,567.1 billion; on November 28, 2023 went up to \$5,601.3 billion. On May 4, 2024, it became \$5,883 billion, In April 2026, it was MB = \$5,470.4 billion and in May 2026, it became \$5,538.5 billion..

Source: <https://fred.stlouisfed.org/series/BOGMBASE/> . Also, [Monetary Base; Total \(BOGMBASE\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://fred.stlouisfed.org/series/BOGMBASE/). In addition, see, Monetary Base; Total (BOGMBASE) | FRED | St. Louis Fed (stlouisfed.org) Further, see, <https://research.stlouisfed.org/datatrends/usfd/page7.php> , <https://www.federalreserve.gov/releases/h3/current/> , <https://fred.stlouisfed.org/series/BOGMBASE/#>

⁵⁷ See, [Reserves of Depository Institutions: Total \(TOTRESNS\) | FRED | St. Louis Fed](https://fred.stlouisfed.org/series/TOTRESNS/)

⁵⁸ See, Money Supply, M2 (M2NS). With December 30, 2019, M2 = \$15,427.9 billion, with April 9, 2020 reached M2 = \$16,668.9 billion, with October 24, 2023, the M2 was \$20,699.3 billion, on November 28, 2023, it was M2 = \$20,671.1 billion, on April 23, 2024, M2=\$20,981.9 billion, with August 27, 2024, it is M2 = \$20,987.2 billion, and now (April 2026) M2 = \$22,936.2 billion.. [M2 \(M2NS\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://fred.stlouisfed.org/series/M2NS/)

⁵⁹ Graph 5. Money Supply, M2 (M2NS)



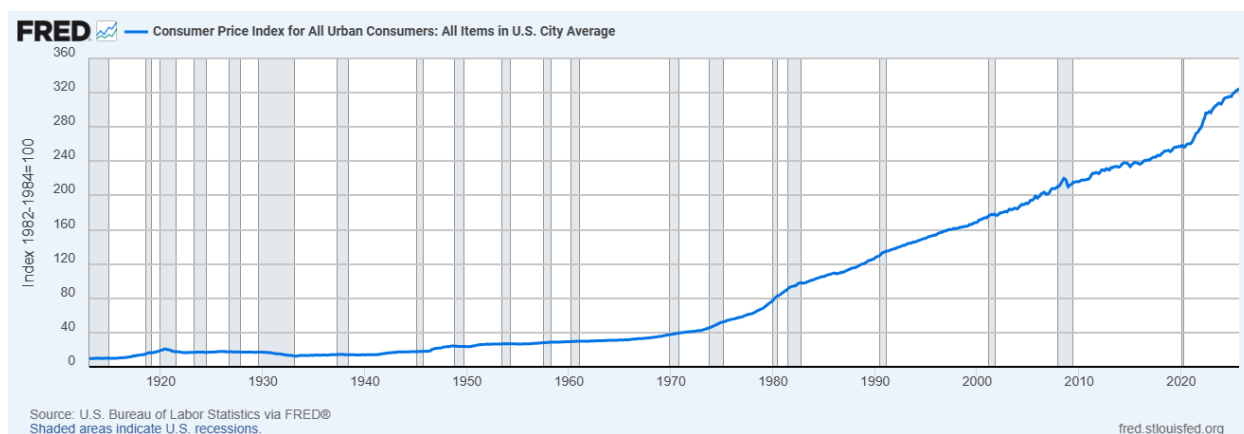
Note: November 2008: it was \$8,023.6 billion. With January 2026, the M2 was \$22,505.2 billion and with June 2026, it reached \$23,124.5 billion..

Source: [M2 \(M2NS\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://fred.stlouisfed.org/series/M2NS/)

Graph 6.⁶⁰ The DJIA reached 41,563.08 on August 30, 2024 from 6,547.05 on March 9, 2009, a growth by 35,016.03 points or 534.837% or 34.506% p.a. The highest DJIA was on January 12, 2026, 49,590.20, a growth of 43,043.15 points or 657.44%, 39.06% per annum.⁶¹ September 19, 2025, 46,314.57 (Figure 3),⁶² a growth by 39,807.53 points or 611,76% or 36.85% p.a. The DJIA reached 50,188.14 (2/10/2026) and then, came the U.S. and Israeli war against Iran and it fell to 45,166.64 by -5,021.5 points or -10% (3/27/2026). Was this 36.85% p.a. growth of the stock prices⁶³ due to high risk (RP) or due to excess liquidity (Fed's policy) and its low margin requirements ($r_m = 50\%$)?⁶⁴ The market capitalization on December 31, 2008 was \$11.461 trillion and on December 31, 2025 had reached \$68.963 trillion,⁶⁵ a growth by \$57.502 trillion or 501.719% in 17 years or 29.513% p.a.

The GDP in 2008:Q4 was \$14.770 trillion and in 2025:Q4 was \$30.616 trillion,⁶⁶ a growth by \$15.846 trillion or 107.285% or 6.3% p.a.; 4.68 times less than the financial market or the GDP grew by 23.213% less than the market. Thus, the stock market has gotten way ahead of the economy. Does this bubble bode a new financial crisis? Yes; but, the world's planners found another way to cause a deeper crisis, the more effective and suspicious coronavirus (COVID-19)⁶⁷ and the criminal vaccine mandate.⁶⁸ What lays ahead, it is a fall of the financial asset prices until they recover a healthy relationship between stock market growth and growth of the economy. Unfortunately, everything is artificial (fake); no true value anywhere, Exhibits A1, A1a, and A1b.

⁶⁰ Graph 6. The Consumer Price Index (CPI) for All Urban Consumers



Note: Consumer prices up 3.0 percent from September 2024 to September 2025

November 19, 2025. The Consumer Price Index for All Urban Consumers (CPI-U) increased 3.0 percent for the 12 months ending September 2025, after rising 2.9 percent over the 12 months ending August. [Chart Image](#) and [Chart Data](#). In January 2026, the CPI = 325.252. The official inflation was 2.7% in December 2025 and fell to 2.4% in January 2026. In May 2025, the CPI = 335.123. The inflation with May 2026 was 4.2%. [Current U.S. Inflation Rates: 2000-2026 \(usinflationcalculator.com\)](#). But the unofficial inflation must be much higher.

Source: [Consumer Price Index for All Urban Consumers: All Items in U.S. City Average \(CPIAUCNS\) | FRED | St. Louis Fed](#) Also, [Consumer prices up 3.0 percent from September 2024 to September 2025 : The Economics Daily: U.S. Bureau of Labor Statistics](#)

⁶¹ See, [Yahoo Finance - Stock Market Live, Quotes, Business & Finance News](#)

⁶² See, "Dow Jones Industrial Average (DJIA)", [Dow Jones Industrial Average \(DJIA\) History Chart](#)

⁶³ In 2019, the stock market (DJIA) must have grown by 9.886% p.a. ($= \bar{r}_{RF} + HRP = 0.986\% + 8.9\%$). See, Ross, Westerfield, Jaffe, and Jordan (2022, p. 311). Then, today (9/4/2024), the growth of the DJIA must be: $g_{DJIA} = 5.05\% + 8.9\% = 13.95\%$, and today (11/25/2025), $g_{DJIA} = 3.82\% + 8.9\% = 12.72\%$.

⁶⁴ The margin requirements must be, $r_m = 100\%$. You must buy stocks only with the money that you have (cash accounts). This enormous demand for stocks, due to borrowing, 50% loans of the market value of your stocks, you have contributed to this huge bubble, which is a very risky artificial market price of stocks and their indexes. See, [SEC.gov | Margin: Borrowing Money to Pay for Stocks](#)

⁶⁵ The total market cap represents the combined market cap of all U.S.-based public companies listed on the New York Stock Exchange, Nasdaq, or the OTCQX U.S. See, "Total Market Value of the U.S. Stock Market", [US Stock Market Total Market Value 2026 | Sibilis Research](#)

⁶⁶ U.S. GDP in 2008 and in 2025. See, [United States \(USA\) GDP - Gross Domestic Product 2008 | countryeconomy.com](#) and [United States GDP \(2025\) - Worldometer \(worldometers.info\)](#)

⁶⁷ COVID-19: The number 1 corresponds to A and the number 9 to I; then, COVID-19 is COVID-AI. See, "How has AI helped in the COVID pandemic?", [How has AI helped in the COVID pandemic?](#). Ἡ μία ἀπάτη μετὰ τὴν ἄλλην!..

⁶⁸ Deadly vaccines for the COVID-19. See, "Largest COVID Vaccine Study Ever Reveals The Actual Health Risks You Face", [Largest COVID Vaccine Study Ever Reveals The Actual Health Risks You Face : ScienceAlert](#)

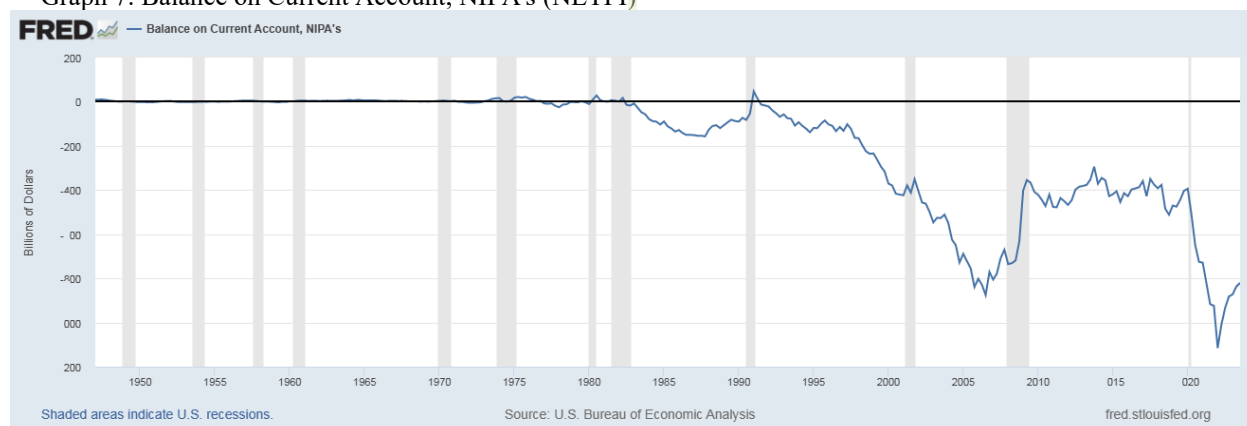
Then, inconsiderate government expenditures went up drastically since 2020,⁶⁹ raising together the national debt Graph 10. Unfortunately, the most inefficient institution in the country is the Federal government.⁷⁰ The unfair trade deficit is going up, too (Graph 7),⁷¹ due to enormous liquidity, which depreciates the dollar (Graphs 8 and 9)⁷² and increases the price of

⁶⁹ See, Federal Government: Current Expenditures (FGEXPND). On April 25, 2024, it was $G = \$6,591.274$ billion and on August 29, 2024, it was $G = \$6,683.964$ billion. With 2026:Q1, it was $G = \$7,679.66$ billion. This is a very inefficient government.

[Federal Government: Current Expenditures \(FGEXPND\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

⁷⁰ The corruption, the control, and the ineffectiveness of all governments (the establishment, the deep swamp) are known since the French Revolution (by the Jacobins) in 1789. These government crises are global. There are a few governments that they are doing well and the rest of the world is against them. As it was happened with Hungary's Prime Minister Viktor Orbán. "The EU wants answers from Hungary about work visas for Russia and Belarus". [The EU wants answers from Hungary about work visas for Russia and Belarus | AP News](#). Also, "EU ministers take a very public swipe at Hungary over a lack of respect for the bloc's values". [EU ministers take a very public swipe at Hungary over a lack of respect for the bloc's values \(msn.com\)](#). At the end, with all this negative EU propaganda, Orbán lost the elections. See, "How Orbán, a Wizard of Populism, Lost His Magic Touch", [How Orbán Lost His Touch, and Hungary's Election - The New York Times \(nytimes.com\)](#). See also, "Europe cheers Orbán defeat as a bloody nose for the Kremlin – but Hungary's future remains contested", [Europe cheers Orbán defeat – but Hungary's future remains contested \(cnbc.com\)](#). The number one leader of the world is the enemy of the ignorant and fallen West, the Christian Orthodox Vladimir Putin.

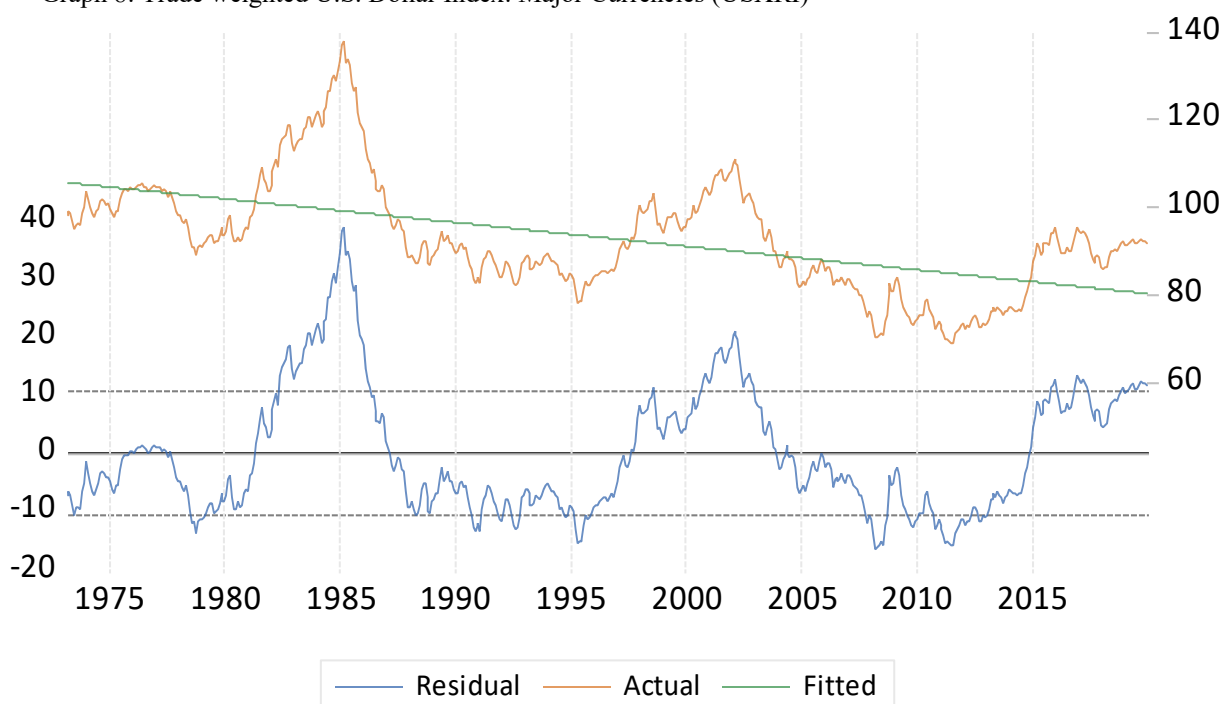
⁷¹ Graph 7: Balance on Current Account, NIPA's (NETFI)



Note: With 2023:Q3, the CA = -\$820.286 billion, with 2023:Q4 became -\$794.265 billion, with 2024:Q2, it became -\$942.951 billion, and 2025:Q3 became -\$979.092 billion.. NAFTA and China's join to WTO have deteriorated the U.S. Trade Account (Current Account). Then, these two actions were unfair policies for the U.S. economy.

Source: [Balance on Current Account, NIPA's \(NETFI\) | FRED | St. Louis Fed \(stlouisfed.org\)](#) and [The U.S. Trade Deficit: How Much Does It Matter? | Council on Foreign Relations \(cfr.org\)](#)

⁷² Graph 8: Trade weighted U.S. Dollar Index: Major Currencies (USXRI)



Note: The Fitted line is the time trend of the equation below:

importables, the value of imports and the trade deficit. President Trump has threaten enemies and allies with high tariffs⁷³ to reduce the trade deficit, but erratic decisions cannot help the economy.⁷⁴ Fed also went back to a new zero federal funds rate, on March 16, 2020, to cope with the new created economic crisis.⁷⁵ The worst is the invasion, the bombing, and the assassination of the leaders of other countries to impose “democracy” and grasp their natural resources.⁷⁶

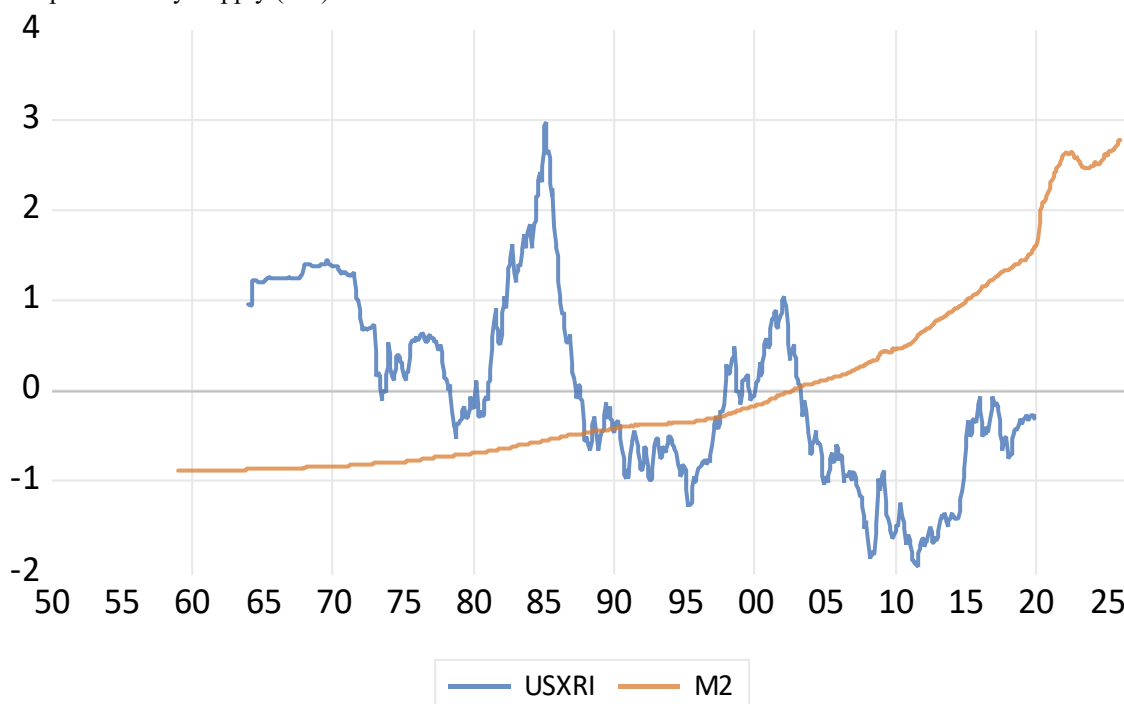
$$USXRI_t = 105.642^{***} - 0.045^{***}t$$

(0.903) (0.003)

$$R^2 = 0.320, SER = 10.685, F = 263.501, D - W = 0.020, N = 562$$

The negative time trend (-0.045^{***}) shows the depreciation of the dollar overtime.

Graph 9: Money Supply (M2) and USXRI



Note: As the money supply is increasing, the USXRI (FCs/\$) is falling (dollar is depreciated).

Correlation between the Index and money supply is relatively high, $\rho_{M2,USXRI} = -0.606$, which shows the depreciation of the dollar, due to increase in money supply.

⁷³ The Tariff Revenue was (12/11/2025) \$370.35 billion, which was \$3,247 per Taxpayer. With June 1, 2026, it was TR = \$330.566 billion. See, [U.S. National Debt Clock : Real Time](#)

⁷⁴ See, Kallianiotis (2025b). Also, the U.S. demand for imports is inelastic ($|\varepsilon_p^M| < 1$). See also, Kallianiotis, Petsas, and Balagyozyan (2026).

⁷⁵ The new target federal funds rate was again back to: $0.00\% \leq \bar{i}_{FF} \leq 0.25\%$ and the effective: $i_{FF}^{eff} = 0.05\%$. Then, since July 26, 2023, it was: $5.25\% \leq \bar{i}_{FF} \leq 5.50\%$ and the effective: $i_{FF}^{eff} = 5.33\%$. See, [Fed Funds Target Rate History \(Historical\) \(fedprimerate.com\)](#) and <https://fred.stlouisfed.org/series/fedfunds>

⁷⁶ All these politics are against the International Law, but above laws is the power. Thus, crises are of many-sided, political, economic, social, cultural, legal, administrative, etc. See, “US capture of Maduro in Venezuela criticized as violation of international, US law”, [US capture of Maduro in Venezuela criticized as violation of international, US law](#). On February 28, 2026, U.S. and Israel killed Khamenei along with around 40 senior Iranian officials, the IDF said. See, “Ayatollah Ali Khamenei killed in US-Israel attack, Iran declares 40 days of mourning - France 24” and “Intelligence pinpointed Khamenei in Tehran compound ahead of 'precise' strike, Israel says”, [Intelligence pinpointed Khamenei in Tehran compound ahead of 'precise' strike, Israel says - ABC News](#)



Note: USDJIA = U.S. Dow Jones Industrial Average. In 2009:03, the DJIA was 6,547.05 and the pick point was on January 4, 2022 (DJIA = 36,799.65); a growth from March 9, 2009 by 30,252.6 points or 462.09% or 39.33 p.a. Then, a new peak on May 17, 2024 (DJIA = 40,003.59), which is a growth by 33,456.54 points or 511.017% or 34.068% p.a. since the trough of March 9, 2009. Further, it reached 40,842.79 on July 31, 2024 and then, the bubble started losing air and fell in a few days to 38,703.27 (August 5, 2024). The DJIA lost 2,139.52 points (or -5.24%). In January 2026 continued to go up and it was 49,590.20 (1/12/2026), a growth of 43,043.15 points or 657.44% 39.06% per annum. On February 10, 2026, it reached 50,188.14. This has become a very dangerous bubble. Then, the war with Iran started and the DJIA had fallen to 45,166.64 (3/27/2026), a reduction by 5,021.5 points or -10.01%. On June 1, 2026, it reached DJIA = 51,078.88. On June 4, 2026, was DJIA = 51,561.93. On June 30, 2026, it was 52,319.20 and on July 2, 2026 closed to 52,900.07, a growth by 46,353.02 points or 707.999% or 41.043% p.a. On July 6, 2026 it reached 53,055.91 and then, down again; on August 5, 2026, it was 54,349.12; then, the volatility continues and the risk hang over the risk averse investors.

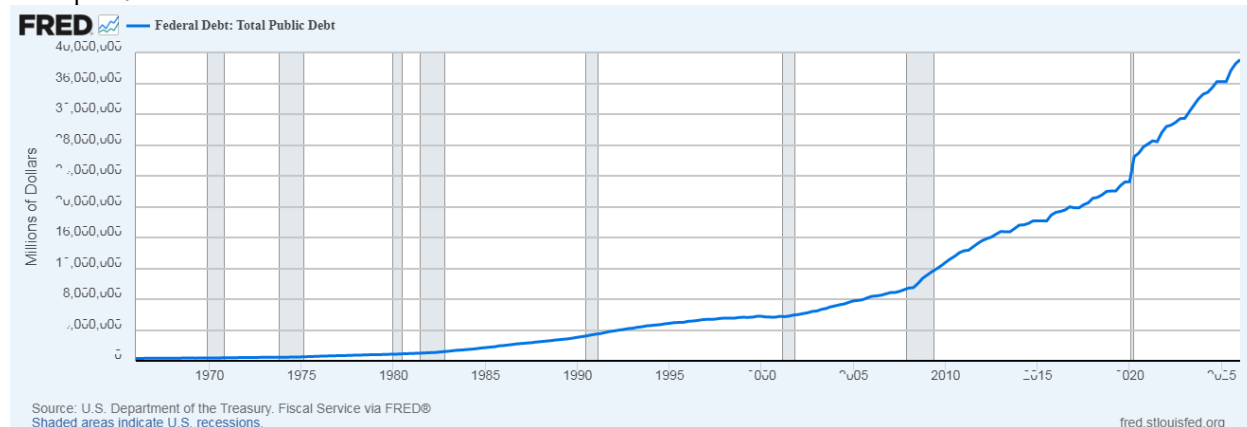
and [Dow Jones Industrial Average \(^DJI\) Stock Historical Prices & Data - Yahoo Finance](#) , also, DAX 30 Index - Historical Annual Data, <https://www.macrotrends.net/2595/dax-30-index-germany-historical-chart-data> and [Dow Jones Industrial Average \(^DJI\) Historical Data - Yahoo Finance](#)

⁷⁷ With 12/25/2019, they were: (1) Bills: \$164.167 billion; (2) Notes and Bonds: \$2,159.857 billion; (3) Mortgage-backed securities: \$1,420.886; and (4) Other assets: \$462.392 billion; Total: \$4,207.302 billion. With May 1, 2024, they became: (1) Bills: \$195.143 billion; (2) Notes and Bonds: \$3,874.914 billion; (3) Mortgage-backed securities: \$2,372.049; and (4) Other assets: \$901.275 billion; Total: \$7,343.381 billion. With September 4, 2024, they became: (1) Bills: \$195.293 billion; (2) Notes and Bonds: \$4,459.635 billion; (3) Mortgage-backed securities: \$2,299.798; and (4) Other assets: \$217.020 billion; Total: \$7,171.746 billion. With January 7, 2026, they were: (1) Bills: \$234.758 billion; (2) Notes and Bonds: \$3,996.287 billion; (3) Mortgage-backed securities: \$2039.024; and (4) Other assets: \$367.934 billion; Total: \$6,638.003 billion See, “FEDERAL RESERVE statistical release”, <https://www.federalreserve.gov/releases/h41/current/h41.pdf> When $D_{L-T} \uparrow \Rightarrow P_{L-T} \uparrow \Rightarrow i_{L-T} \downarrow$ and if $D_{S-T} \downarrow \Rightarrow P_{S-T} \downarrow \Rightarrow i_{S-T} \uparrow$. This is the reason that the Yield Curve was negatively slopped.

for the country and unfortunately, Pentagon blows \$11 billion in first week of Iran War,⁷⁸ a war without any reason to take place and it is also against the International Law, and affects directly the monetary policy.⁷⁹ In October 2008 (ή ἀποφράς ἡμέρα),⁸⁰ the Federal Reserve had begun to pay interest on reserves (IOR).⁸¹ The IOR was set at the top of the federal funds target range and remained about 20 basis points above the discount rate on 3-month Treasury bills ($i_{IOR} = i_{RF} + 0.20\%$).⁸²

⁷⁸ See, “Pentagon Spent More Than Eleven Billion in Less Than a Week Fighting Iran”, https://americanconservatives.com/2026/03/pentagon-spent-more-than-eleven-billion-in-less-than-a-week-fighting-iran/?utm_source=newsstand.beehiiv.com&utm_medium=newsletter&utm_campaign=pentagon-blows-11-billion-in-first-week-of-iran-war&bhlid=2ce81ed886ce5df20258f351ae91b539e7754091. So far the cost is over \$25 billion. See, “\$25bn or \$1 trillion: How much has Iran war really cost the US?” [\\$25bn or \\$1 trillion: How much has Iran war really cost the US?](https://www.aljazeera.com/news/2026/03/25bn-or-1-trillion-how-much-has-iran-war-really-cost-the-us/) | US-Israel war on Iran News | Al Jazeera

⁷⁹ Graph 10: National Debt



Note: Federal Debt: Total Public Debt (GFDEBTN) with 2008 it was \$10,699,805 million and became ND = \$36,211,469 million (2025:Q2). The sequence of events is as follows: $ND \uparrow \Rightarrow EXS\ GS \Rightarrow P_{GS} \downarrow \Rightarrow i_{GS} \uparrow \Rightarrow Fed\ i \downarrow \Rightarrow M^s \uparrow$. With March 20, 2026, the U.S. BD = \$1.692 trillion and the ND = \$39.013 trillion. With July 9, 2026, it was ND = \$39.425 trillion (122.11% of the GDP) and BD = \$1.651 trillion. On August 9, 2026, it was ND = \$39.840 trillion (123.03% of the GDP) and the BD = \$1.680 trillion. See, “Pentagon Spent More Than Eleven Billion in Less Than a Week Fighting Iran”, https://americanconservatives.com/2026/03/pentagon-spent-more-than-eleven-billion-in-less-than-a-week-fighting-iran/?utm_source=newsstand.beehiiv.com&utm_medium=newsletter&utm_campaign=pentagon-blows-11-billion-in-first-week-of-iran-war&bhlid=2ce81ed886ce5df20258f351ae91b539e7754091

Source: [Federal Debt: Total Public Debt \(GFDEBTN\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://fred.stlouisfed.org/series/GFDEBTN)

⁸⁰ The ill-omened day for our economic history because of its immense negative effects on social welfare and its global effects, due to contagion (globalization).

⁸¹ Interest on reserves (IOR=IORR+IOER) is the rate at which the Federal Reserve Banks pay interest on idle reserve balances, which are balances held by depository institutions at their local Reserve Banks. One component of IOR was Interest on Required Reserves (IORR), which was the rate at which the Federal Reserve Banks were paying interest on required reserve balances (R_R). Paying interest on required reserves aims to eliminate the opportunity cost that depository institutions incur by not investing required reserves in interest-bearing assets; but all these interests are paid by the taxpayers. The $R_R = 0$ since March 26, 2020. The other component of IOR is Interest on Excess Reserves (IOER), which is the interest paid on those balances (R_E) that are above the level of reserves the depository institution were required to hold. Paying IOER increases the incentive for depository institutions to sell securities to the Fed, providing the Federal Reserve additional control over the effective federal funds rate (i_{FF}^{eff}) at the time that demand for loans is low. But, as it was mentioned, these IOR are paid by the poor taxpayers (bail-out cost). (Sic). See, also, Kallianiotis (2022a, b, c).

⁸² During the Zero Interest Rate Regime (2008:12-2015:11), on the average this i_{IOR} was: $\bar{i}_{IOR} = \bar{i}_{RF} + 0.20\% = 0.078\% + 0.20\% = 0.278\%$ [Kallianiotis (2020a, Table A1)]. This rate was on August 1, 2019, $i_{IOR} = 2.10\%$. Since 7/27/2023, the $i_{IOR} = 5.40\%$ ($= 5.20\% + 0.20\%$). With November 2025, it was $i_{IOR} = 3.78\% + 0.20\% = 3.98\%$; but it was 3.90%. Now, it is $i_{IOR} = 3.65\%$. Interest on Reserve Balances, <https://www.federalreserve.gov/monetarypolicy/reserve-balances.htm>. Then, if banks were receiving interest ($2.10\% = 1.90\% + 0.20\%$) from the Fed, why to pay interest on deposits? They do not need more funds from depositors as long as the Fed provides this enormous liquidity (R^*). Banks kept a deposit rate closed to zero ($i_D = 0.05\%$), which was giving a negative real deposit rate ($r_D = -1.536\%$). In January 2020, $r_D = -2.25\%$. In October 2023, it was $r_D = -3.6\%$. In November 2023, with the official inflation it was $r_D = -2.1\%$ and with SGS, it was $r_D = -11.00\%$. This is another proof that the Fed has failed (or it has no interest) to maximize the depositors' interest income and consequently, their welfare. Fed is supplying these trillions of dollars reserves to banks and because there is no demand for investments, banks cannot offer loans, so they do not need all these excess reserves. Thus, the Fed offers to banks a high interest rate to avoid the opposition of the banks against this QE policy. (Sic). See, Kallianiotis (2020b). Depositors are paying interest, instead of receiving, on their bank accounts ($r_D < 0$). (Sic). These are true anti-social and unethical policies.

This was a factor that increased banks' willingness to hold a large stock of excess reserves. Interest rates paid on other short-term financial securities (for example, commercial paper and Treasury bills), often move up or down roughly in parallel with the funds rate. The only rates that are not affected by federal funds rate are the deposit rates. (*Sic*). Yields on long-term assets (i. e., corporate bonds and Treasury notes), are determined in part by expectations for the fed funds rate in the future. These enormous federal funds cannot be absorbed by banks because there is no sufficient demand for investments⁸³ and for this reason, they cause only bubbles in the financial market and preparing the environment for the 3rd global financial crisis of the 21st century, like the evolution of the Middle East war to WWII (enormous liquidity, which is offered to financial investors by using margin accounts with $r_m = 50\%$) and keeping the deposit rate closed to zero. The QE programs flooded the banking system with liquidity and made it less necessary for banks to borrow in the federal funds market or to supply deposit accounts.⁸⁴ Therefore, this policy is not only inefficient and ineffective; it is no appropriate, because it is bad (risky and unfair) for depositors, for taxpayers, and for the real economy (for our financial system, too, and inflationary for everyone), Graph 6.

Meanwhile, domestic institutions have been charging fees to discourage large investors from making large deposits with them. As it was mentioned above, the deposit rate on small deposits was closed to zero from 2008 to 2023, which makes the real deposit rate negative (depositors are paying the banks to keep their deposits). Thus, risk-averse depositors have been forced to avoid depositing their money to banks and to buy risky financial assets ($RP_{DJIA} = \bar{g}_{DJIA} - \bar{R}_{RF} = 39.33\% - 0.799\% = 38.531\%$).⁸⁵ These changes in private (non-public) Fed's monetary policy overturn and invalidate its ultimate objective, which is the prevention of financial crises and the improvement of social welfare.

III. Policy Rules and their Correctness

We can use different monetary policy rules (interest rate reaction functions) to test the efficiency and effectiveness of the target federal funds interest rate ($\bar{i}_{FF}$) and of course, to see if the level of this federal funds rate is optimal. The objective of the Fed is, stabilization of output (maximum employment) and prices (inflation target, $\bar{\pi}_t = 2\%$), hoping to stimulate consumption and investment. Central bank's behavior (reaction to inflation and output-employment) can be presented with the Bullard rule, an interest rate reaction function, eq. (1), as follows:

$$\bar{i}_{FF_t} = \rho \bar{i}_{FF_{t-1}} + (1 - \rho)(\pi_t + r_t^*) + \alpha_\pi(\pi_t - \pi_t^*) - \alpha_u(u_t - u_t^N) \quad (1) \quad \text{where, } \bar{i}_{FF_t}$$

= the target federal funds rate, π_t = the rate of inflation as measured by the GDP deflator, π_t^* = the desired rate of

⁸³ See, U.S. Gross Private Domestic Investment (billions of dollars, SA). In 2007:Q2, it was I = \$2,697.217 billion; in 2009:Q3, I = \$1,841.416 billion and until 2013 it was below the 2007 level. In 2019:Q3, I = \$3,744.607 billion, in 2019:Q4, I = \$3,698.273 billion, on October 26, 2023, it was I = \$4,899.337 billion, on 2024:Q1, it was I = \$5,006.854 billion, on 2024:Q2, it was I = \$5,144.229 billion, on 2025:Q3, it was I = \$5,418.578 billion, and on 2026:Q1, it was I = \$5,620.395 billion. See, [Gross Private Domestic Investment \(GDPDI\) | FRED | St. Louis Fed](#).

The demand for investments depends on the demand for goods by the Americans and their demand depends on their income and employment, which depend on domestic production. With the outsourcing ("the allies first"), this production has gone abroad, and the income of Americans has fallen and unemployment is very high. "The number of immigrants working over this period is up by 2.9 million, while 183,000 fewer US-born Americans are working." See, [Job gains are going to immigrants, and keeping young US-born men out of the workforce \(msn.com\)](#). The domestic aggregate demand can increase only if manufacturing and agricultural production and jobs will come back to the country. See, Kallianiotis (2025b). Then, we need, here, a fiscal and a trade policy to improve these conditions. Monetary policy does not work by itself. The liberal central bank is in favor of only liberals agenda for the country: Russia => Racism => Recession => Revenge (against the country) => Reproach (climate) => Restraint (globalization) => Coronavirus => liberal indoctrination in education => digital money => digital ID => dictatorship of technology (AI) => citizens' control. (*Sic*). The establishment allowed for 30 years (since 1994) an unfair trade with the emerging markets and the country (the entire western economies) is suffering. The fake news is exposing the lies in the tariff fight with China and affects negatively the financial market. (*Fox News*, August 23, 2019). The demand for bank loans has declined. Commercial and Industrial Loans, All Commercial Banks: With 2023:Q3, loans fell by -1.0% p.a., with 2024:Q1, they fell by -1.7%. With 2024:Q2, they went up by +0.9% and with 2026:Q1 went up by +12.8%. <https://fred.stlouisfed.org/series/CILACBQ158SBOG>.

⁸⁴ Banks supply deposits (deposit accounts) and depositors are demanding deposit accounts. Deposits are supply-determined (a downward negatively sloped supply curve) by the banks. See, Hadjimichalakis (1982, p.3).

⁸⁵ These are the average rates from 2008:12 to 2023:09. This is an indication that our public policies have made our financial market very risky. The average $HRP = 8.9\%$ and the recent one was the unacceptable $HRP = 38.531\%$. (*Sic*). This is another indicator that our public policies are completely wrong.

inflation,⁸⁶ r_t^* = the assumed equilibrium real interest rate, u_t = the unemployment rate, u_t^N = the natural level of unemployment, and ρ = the weight put on the past federal funds rate setting.

We can run a simplified regression of eq. (1), which is presented in eq. (2). The target interest rate will follow the changes in inflation and unemployment based on the coefficients estimated in eq. (2). This interest rate measured by the reaction function must be the target federal funds rate:

$$\bar{i}_{FF_t} = \alpha_0 + \alpha_1 \bar{i}_{FF_{t-1}} + \alpha_2 \pi_t + \alpha_3 u_t^{GAP} + \alpha_4 u_{t-1}^{GAP} + \varepsilon_t \quad (2)$$

where, $u_t^{GAP} = u_t - u_t^N$ and coefficients, $\alpha_2 > 0$, $\alpha_3 < 0$ and $\alpha_4 < 0$.

Using monthly data for the U.S. economy (1954:08-2025:09), we have:

$$\begin{aligned} \bar{i}_{FF_t} &= 0.178^{***} + 0.985^{***} \bar{i}_{FF_{t-1}} + 0.013^{***} \pi_t - 0.145^{***} u_t^{GAP} + 0.118^{***} u_{t-1}^{GAP} \\ (0.062) \quad (0.005) \quad (0.004) \quad (0.039) \quad (0.039) \\ R^2 &= 0.982, \quad SER = 0.473, \quad F = 11,763.16, \quad D - W = 1.296, \quad N = 854 \end{aligned}$$

The size of the partial adjustment, coefficient α_1 , which is 0.985^{***} provides direct evidence that the observed degree of persistence in federal funds rates is greater than the one that can be attributed to systematic policy responses to persistent inflation and unemployment (output) fluctuations. The coefficients of regression show that the federal funds rate must respond significantly to an increase in inflation ($\alpha_2 = 0.013^{***}$), but less aggressively to induce an increase in target rate and a tightening monetary policy. The federal funds rate must respond sufficiently aggressively to an increase in unemployment ($\alpha_3 = -0.145^{***}$) to induce a reduction in interest rate and an effective easing monetary policy. During the New Monetary Policy Regime (2008:12-2025:09), eq. (2) gives the following results:

$$\begin{aligned} \bar{i}_{FF_t} &= -0.024 + 0.969^{***} \bar{i}_{FF_{t-1}} + 0.006^{***} \pi_t - 0.030^{***} u_t^{GAP} + 0.041^{***} u_{t-1}^{GAP} \\ (0.194) \quad (0.099) \quad 0.002 \quad (0.015) \quad (0.014) \\ &+ 0.935^{***} AR(1) - 0.562^{***} MA(1) \\ (0.120) \quad (0.059) \end{aligned}$$

$$R^2 = 0.996, \quad SER = 0.113, \quad F = 7,027.473, \quad D - W = 2.080, \quad N = 202$$

Then, by using the Bullard rule,⁸⁷ we have:

$$\bar{i}_{FF_t} = \rho i_{FF_{t-1}} + (1 - \rho)[r_t^* + \pi^* + \phi_\pi(\pi_t - 2\%) + \phi_u(u_t - 4\%)] \quad (1')$$

For the ZIRR (2008:12-2015:11) the i_{FF} must have been:

$$\bar{i}_{FF} = 0.85(0.25\%) + 0.15[1\% + 2\% + 1.5(1.586\% - 2\%) + 1(7.838\% - 4\%)] = 1.14505\%; \text{ but it was } 0.129\%, \text{ which was very low.}$$

A specific case of eq. (1) is the Taylor rule by putting $\rho = 0$. According to Taylor's original version of the rule, the nominal interest rate should respond to divergences of actual inflation rates from *target* inflation rates and of actual GDP

⁸⁶ The Fed ultimately stated explicitly that its target was a 2% per year increase in the raw personal consumption expenditures deflator. See, Williamson (2014, p. 112). Here, we forecast the inflation by using an ARMA (2,1) process, eq. (7) in footnote 96, below.

⁸⁷ See, Bullard Rule, "Policy Rules and How Policymakers Use Them", [Federal Reserve Board - Policy Rules and How Policymakers Use Them](https://www.federalreserve.org/publications/2014/policy-rules-and-how-policymakers-use-them). See, also, "Taylor Rule Utility", [Taylor Rule Utility - Federal Reserve Bank of Atlanta \(atlantafed.org\)](https://www.frbatlanta.org/outreach/taylor-rule-utility)

from *potential* GDP. By substituting, from the original equation, the logarithm of GDP with the unemployment rate, we have the following eq. (3):

$$\bar{i}_{FF_t} = \pi_t + r_t^* + \alpha_\pi(\pi_t - \pi_t^*) - \alpha_u(u_t - u_t^N) \quad (3)$$

Taylor (1993) proposed an $\alpha_\pi = 0.5$ and $\alpha_u = -0.5$. The rule “recommends” a high interest rate (a “tight” monetary policy) when inflation is above its target, in order to reduce inflationary pressure, and a low interest rate (“easy” monetary policy) when the unemployment rate is above its natural level to stimulate production, output, and employment.⁸⁸

The coefficients are: $\alpha_\pi = 0.5$ and $\alpha_u = -0.5$, the other variables are $r_t^* = 1\%$, $\pi_t^* = 2\%$, and $u_t^N = 4\%$, π_t , and u_t are the averages of each period. The target federal funds rate was between (0.00%-0.25%) for the period 2008:12 to 2015:11.⁸⁹ Thus, i_{FF} must have been:

$$i_{FF} = 1.586\% + 1\% + 0.5(1.586\% - 2\%) - 0.5(7.838\% - 4\%) = 0.46\%; \text{ but, it was between } 0\% \text{ and } 0.25\% \text{ (average } \bar{i}_{FF}^{eff} = 0.129\% \text{), which was low.}$$

In addition, the financial market plays a major role in market-oriented economies and its optimal growth has a positive effect on investors' and consumers' confidence and their wealth. The opposite happens, if growth is artificially enormous (abnormal bubbles) and in this case the probability of a market crash is very high. Kallianiotis (2020c) rule is an expansion of eq. (3) by using an extra term, the growth of the financial market (g_{DJIA_t}), as follows,

$$\bar{i}_{FF_t} = \pi_t + r_t^* + \alpha_\pi(\pi_t - \pi_t^*) - \alpha_u(u_t - u_t^N) + \alpha_{DJIA}(g_{DJIA_t} - g_{DJIA_t}^*) \quad (4)$$

where, g_{DJIA_t} = the actual growth of the DJIA index, $g_{DJIA_t}^*$ = the optimal (the bubble prevention) growth of the DJIA ($g_{DJIA}^* = R_{RF} + HRP = 0.078\% + 8.9\% = 8.978\%$)⁹⁰ in 2021 or an average growth of 7%, and $\alpha_\pi = 0.25$, $\alpha_u = -0.50$,⁹¹ $\alpha_{DJIA} = 0.25$.

Another equation can be the following:

$$i_{FF_t} = \beta_0 + \beta_1 i_{FF_{t-1}} + \beta_2 \pi_t - \beta_3 u_t^{GAP} + \beta_4 djia_t^{GAP} + \varepsilon_t$$

The estimation of the above equation gives:

$$\bar{i}_{FF_t} = -0.767^{**} + 0.974^{***} \bar{i}_{FF_{t-1}} + 0.258^{**} \pi_t - 0.059^{***} u_t^{GAP} - 0.179^{***} djia_t^{GAP}$$

(0.366) (0.008) (0.103) (0.014) (0.065)

$$R^2 = 0.982, \text{ SER} = 0.481, F = 11,369.43, D - W = 1.229, N = 836$$

Correcting for serial correlation, we get:

⁸⁸ If the economy has a high inflation and it is in a recession (with high unemployment), we must have a target interest rate: $\bar{i}_{FF} = 5.4\% + 1\% + 0.5(5.4\% - 2\%) - 0.5(5.9\% - 4\%) = 7.15\%$. This should have been the federal funds rate in June 2021, but it was between 0.00% and 0.25%, which was very low; and it was ineffective, it did not improve growth and did not reduce inflation and unemployment; it just increased the bubble in the stock market. (*Sic*). Lately, (November 2024), the target rate must have been: $\bar{i}_{FF} = 2.75\% + 1\% + 0.5(2.75\% - 2\%) - 0.5(4.2\% - 4\%) = 4.025\%$ and it was between 4.5% and 4.75%, which was good.

⁸⁹ For federal funds target rate, see, http://www.fedprimerate.com/fedfundsrate/federal_funds_rate_history.htm

⁹⁰ For the Historic Risk Premium (HRP), see, Ross, Westerfield, Jaffe, and Jordan (2022, p. 311). See, 3-Month Treasury Bill Secondary Market Rate, Discount Basis (TB3MS), [3-Month Treasury Bill Secondary Market Rate, Discount Basis \(TB3MS\)](https://fred.stlouisfed.org/series/TB3MS) | FRED | St. Louis Fed ([stlouisfed.org](https://fred.stlouisfed.org/)).

Unfortunately, for our small investors and IRA holders, the growth of DJIA has been 39.06% per annum from March 9, 2009 (6,547.05) to January 12, 2026 (49,590.20). This is the most dangerous financial bubble in humans' history. See, [Dow Jones Industrial Average \(^DJI\) Historical Data - Yahoo Finance](https://finance.yahoo.com/quote/%5EDJI/history)

⁹¹ The coefficient of unemployment is higher because full employment is the most important objective of every policy. Citizens of a country need work (employment), certainty (zero risk), confidence for the financial market (no bubbles and enormous declines), and low inflation (the true cost of production of a good). And above all, they need a democratic system that provides safety and security (peace) and not something like the latest indescribable one that has made America the most dangerous nation for the global peace. See, “*The US was the overwhelming choice (24% of respondents) for the country that represents the greatest threat to peace in the world today.*” Which Country Is The Greatest Threat to World Peace?, Last Updated: July 23, 2025. [Which Country Is The Greatest Threat to World Peace? - Brilliant Maps](https://brilliantmaps.com/which-country-is-the-greatest-threat-to-world-peace/).

$$\bar{i}_{FFt} = -1.282^{**} + 0.959^{***}\bar{i}_{FFt-1} + 0.416^{***}\pi_t - 0.071^{***}u_t^{GAP} - 0.287^{***}djia_t^{GAP}$$

(0.565) (0.009) (0.158) (0.022) (0.104)

$$+0.430^{***}MA(1)$$

(0.017)

$$R^2 = 0.985, SER = 0.440, F = 9,102.110, D - W = 1.948, N = 836$$

The negative coefficient of $\ln$ of DJIA ($djia$) (-0.287^{***}) is due to expectations. If we expect the interest rate (i_{FF}) to go up the DJIA (financial Market) will fall because an increase in i_{FF} causes a reduction in money supply, which will cause a reduction of the DJIA. The opposite if we expect the i_{FF} to fall, the M^S increases and the DJIA goes up; this is the cause of the current bubble in the stock market. Also, based on the monetarist view, eq. (5), $g_{M^S} \cong g_P(\pi) \Rightarrow 10\%$ increase in money supply will cause 10% increase in prices (inflation).⁹²

$$M V = Q P \quad (5)$$

where, M = stock of money, V = velocity of money, Q = real output (GDP), and P = price level.

For the ZIRR (2008:12-2015:11) the i_{FF} must have been:⁹³

$i_{FF} = 1.586\% + 1\% + 0.25(1.586\% - 2\%) - 0.50(7.838\% - 4\%) + 0.25(9.952\% - 7\%) = 1.5095\%$, but it was $0.00\% \leq i_{FF} \leq 0.25\%$, which was very low.

⁹² See Appendix, Exhibit A1, A1a, and A1b.

⁹³ By measuring the four different periods and using the three rules, we have the following results:

Exhibit 1. Target and Accepted Federal Funds Rates

2008:12-2015:11								
Period								
Variables	π_t	r_t^*	u	g_{DJIA}		i_{FF}^A		$\bar{i}_{FF}$
	1.586%	1%	7.838%	9.952%	Bullard	1.145%	very low	0.129%
					Taylor	0.460%	low	0.129%
					Kallianiotis	1.509%	very low	0.129%
2015:12-2020:02								
Period								
Variables	π_t	r_t^*	u	g_{DJIA}		i_{FF}^A		$\bar{i}_{FF}$
	1.969%	1%	4.186%	5.002%	Bullard	4.819%	very low	1.334%
					Taylor	2.861%	very low	1.334%
					Kallianiotis	2.361%	very low	1.334%
2020:03-2022:02								
Period								
Variables	π_t	r_t^*	u	g_{DJIA}		i_{FF}^A		$\bar{i}_{FF}$
	4.538%	1%	6.763%	21.796%	Bullard	2.569%	very low	0.103%
					Taylor	5.425%	very low	0.103%
					Kallianiotis	6.610%	very low	0.103%
2022:03-2025:11								
Period								
Variables	π_t	r_t^*	u	g_{DJIA}		i_{FF}^A		$\bar{i}_{FF}$
	3.751%	1%	3.813%	7.919%	Bullard	4.403%	low	4.220%
					Taylor	5.720%	low	4.220%
					Kallianiotis	5.950%	low	4.220%

Note: π_t = average inflation, r_t^* = the assumed equilibrium real rate of interest, u_t = average unemployment, g_{DJIA} = growth of DJIA during the period, i_{FF}^A = accepted growth of federal funds rate (based on the rules), and $\bar{i}_{FF}$ = the average federal funds for the period.

Source: Table 1 and 2.

The monetary policy is a little more effective on prices (inflation), but not at all on financial markets (stability or bubbles). Also, on growth and unemployment, it is less effective because money is a veil (neutrality of money in the long-run). The negative relationship between inflation and unemployment can be seen with a Phillips curve. The Phillips curve can be written as follows:

$$\pi_t = \pi_t^e - \psi(u_{t-1} - u_t^N) \quad (6)$$

where, π_t = inflation rate, π_t^e = expected inflation rate, u_{t-1} = actual unemployment rate last period, and u_t^N = natural level of unemployment.

Testing empirically this Phillips curve, we have supported this theory for the last seventy years.⁹⁴

The biggest surprise for the Fed was that inflation did not accelerate in response to lower interest rates during that extended period of low interest rate; from 2008 to 2015 ($\bar{\pi} = 1.552\%$) because the unemployment was high (official $\bar{u} = 6.9\%$)⁹⁵ and this high unemployment causes reduction in personal income and aggregate demand, which affect negatively the price level.⁹⁶ But, it seems that there was a need to invert the yield curve, raising federal funds rate above US10YTB,⁹⁷ Figure 4, to keep inflation under control and reduce the bubble that was creating in the financial market. Every policy is experimental; for this reason they cannot prevent financial crises and business cycles.

IV. Policy Instruments and their Effectiveness

The New Monetary Policy Regime starts on December 16, 2008, when the Fed imposed the ZIRR ($0.00\% \leq \bar{i}_{FF} \leq 0.25\%$) and after seven years, it begun to raise interest rate to $\bar{i}_{FF} = 0.50\%$ and continues, which had reached 2.50% and back to 1.75%. Then, again back to zero from March 15, 2020 to March 15, 2022, and since July 25, 2023, it was between 5.25% and 5.50%.⁹⁸ Now, it is ($3.50\% \leq \bar{i}_{FF} \leq 3.75\%$). Fed had started to signal rate increase after December 16, 2015 for the entire new monetary policy period.⁹⁹ This is also a period in which the Federal Reserve used interest rate targeting procedures to maintain the credibility for low inflation. The FOMC tried to maintain a 2% inflation target.¹⁰⁰ The method

⁹⁴ Here, we forecast the inflation, as follows:

$$\begin{aligned} \pi_t^e = \pi_t^* &= 3.830^{***} + 1.285^{***} \pi_{t-1} - 0.299^{***} \pi_{t-2} - 0.893^{***} \varepsilon_{t-1} \\ &\quad (0.859) \quad (0.036) \quad (0.033) \quad (0.024) \end{aligned} \quad (7)$$

$$R^2 = 0.356, SER = 3.393, F = 119.526, D-W = 1.998, N = 869, RMSE = 3.385$$

Then, there is a Phillips curve in our economy: $\pi_t = \pi_t^e - \phi(u_t - u_t^N) + \varepsilon_t$, which gives the following regression:

$$\begin{aligned} \pi_t &= 1.034^{***} \pi_t^e - 0.097^* (u_t - 4) \\ &\quad (0.034) \quad (0.060) \end{aligned} \quad (8)$$

$$R^2 = 0.358, SER = 3.384, D-W = 2.024, N = 867, RMSE = 0.224$$

⁹⁵ See, <https://www.macrotrends.net/countries/USA/united-states/unemployment-rate>

⁹⁶ The SGS give an inflation for these two periods from 7% to 14% and an unemployment from 14% to 23%. The ShadowStats Alternate Unemployment Rate for June 2018 was 21.5%. See, http://www.shadowstats.com/alternate_data/unemployment-charts

⁹⁷ On November 17, 2022, the rates were: $i_{10YTB} = 3.772\%$ and $i_{FF}^{eff} = 3.83\%$. On December 2, 2024, they are: $i_{10YTB} = 4.396\%$ and $i_{FF}^{eff} = 4.64\%$. On January 2, 2025, they were: $i_{10YTB} = 4.78\%$ and $i_{FF}^{eff} = 4.48\%$, which was normal. On November 26, 2025, it was: $i_{10YTB} = 4.01\%$ and $i_{FF}^{eff} = 3.88\%$. On December 16, 2025, it was $i_{10YTB} = 4.165\%$ and $i_{FF}^{eff} = 3.64\%$. On January 14, 2026, $i_{10YTB} = 4.18\%$ and $i_{FF}^{eff} = 3.64\%$, and with June 1, 2026, they were $i_{10YTB} = 4.45\%$ and $i_{FF}^{eff} = 3.64\%$. See, [Effective Federal Funds Rate - FEDERAL RESERVE BANK of NEW YORK \(newyorkfed.org\)](https://www.federalreserve.gov/newsevents/press/monetary/20241117.htm), and [TMUBMUSD10Y | U.S. 10 Year Treasury Note Overview | MarketWatch](https://www.federalreserve.gov/newsevents/press/monetary/20241117.htm), http://www.fedprimerate.com/fedfundsrate/federal_funds_rate_history.htm and [Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis \(DGS10\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://www.federalreserve.gov/newsevents/press/monetary/20241117.htm). In addition, [Effective Federal Funds Rate - FEDERAL RESERVE BANK of NEW YORK \(newyorkfed.org\)](https://www.federalreserve.gov/newsevents/press/monetary/20241117.htm) <https://www.bloomberg.com/markets/rates-bonds/government-bonds/us>. Also, [Bonds & Rates \(wsj.com\)](https://www.bloomberg.com/markets/rates-bonds/government-bonds/us) and [Federal Funds Effective Rate \(FEDFUNDS\) | FRED | St. Louis Fed \(stlouisfed.org\)](https://www.federalreserve.gov/newsevents/press/monetary/20241117.htm).

⁹⁸ But, "Fed Tracking World Growth Worries, Chairman Powell Says". Central banker finds slowdown 'concerning,' but U.S. economy still strong. See, <https://www.wsj.com/articles/fed-tracking-world-growth-worries-chairman-powell-says-1542242914>. See also, Fed's Interest Rate History: The Fed Funds Rate Since 1981 | Bankrate, <https://www.bankrate.com/banking/federal-reserve/history-of-federal-funds-rate/>

⁹⁹ The central bankers also express more fear about prolonged trade disputes. See, [Fed Signals Rate Increase Next Month - WSJ](https://www.wsj.com/articles/fed-signals-rate-increase-next-month-wsj)

¹⁰⁰ See, Bullard (2018). Even, Fed's Esther George Calls for More Rate Increases. The Federal Reserve Bank of Kansas City leader was speaking on the sidelines of her bank's annual research conference in Jackson Hole, Wyo.

where, $djia_t = \text{LUSDJIA} = \ln$ of U.S. Dow Jones Industrial Average Index, $rgdp_t = \text{LUSRGDP2012} = \ln$ of U.S. real GDP, $i_{10YTB_t} = \text{US10YTB} = \text{U.S. 10-Year Treasury Bonds Rate}$, $p_t = \text{LUSCPI} = \ln$ of U.S. CPI, $u_t = \text{USU} = \text{U.S. unemployment rate}$, $i_{FF_t}^{eff} = \text{USFFR} = \text{U.S. effective federal funds rate}$, $mb_t = \text{LUSMB} = \ln$ of U.S. monetary base, and $m_t = \text{LUSM2} = \ln$ of U.S. money supply (M2).

IV.2 Data and Empirical Results

This study uses five monthly economic indicators, objective variables ($djia$, $rgdp$, i_{10YTB} , p , and u), over the period December 2008-December 2025, which is divided in four sub-periods: (1) ZIRR (2008:12-2015:11), (2) PIRR (2015:12-2020:02), (3) ZIRR-COVID-19 (2020:03-2022:02), and (4) NPIRR (2022:03-present). This is a VAR analysis of eqs. (9) and the variables (dependent and independent) are those mentioned above; and are presented in Tables 3a, 3b, 3c, and 3d. But, first, we show the mean values ($\bar{R}$) and their risk (σ_R) during the four sub-periods, for all these dependent and independent variables; Tables A1 and A2 present them. From 2008:12-2015:11, the $g_{M2} = 6.163\%$ p.a., the $g_{GDP} = 1.857\%$ p.a., the $g_{DJIA} = 9.952\%$ p.a., and the $\pi = 1.586\%$; from 2015:12- 2020:02, the $g_{M2} = 5.426\%$ p.a., the $g_{GDP} = 1.929\%$ p.a., the $g_{DJIA} = 5.002\%$, and $\pi = 1.969\%$; and from 2020:03-2022:02, the $g_{M2} = 17.015\%$ p.a., the $g_{GDP} = 2.346\%$ p.a., the $g_{DJIA} = 21.796\%$ p.a. and $\pi = 4.538\%$; and after 2022:03, the $g_{M2} = 0.239\%$ p.a., the $g_{GDP} = 5.296\%$ p.a., the $g_{DJIA} = 7.919\%$ p.a. and $\pi = 3.751\%$. Where was all this growth of money going? The Main Street expansion (g_{GDP}) was very low. It was going to the stock market (Wall Street) and prices (inflation), eq. (5).¹⁰⁴

Tables A1 and A2, in the Appendix, show that the worst period was between 2020:03 and 2022:02, which was the suspicious COVID-19 anti-humane period. The money supply was growing 17.015%, the monetary base was growing by 27.935%, the inflation was on the average 4.538%, the stock market (DJIA) was growing by 21.796%, the real GDP was growing by 2.346%, the official unemployment was 6.763%, and the national debt was increasing by 13.465%. All these measures show the suffering of the people and the extremities of our controlled policy makers.

The VAR results, eq. (9), for the U.S. for the period 2008:12-2015:11 appeared in Table 1a and for the period from 2015:12 to 2018:12 are shown in Table 3b below. For period 2020:03 -2022:02, the results are appearing in Table 3c, and for the period 2022:03-2025:06 in Table 3d During the period of ZIRR, the Fed monetary policy had a significant effect only on official unemployment. For the New Era, the Fed had some effects on DJIA and on prices (CPI). For the new ZIRR (COVID-19), the monetary policy had some effects on financial markets (DJIA), on real GDP, and negative effects on unemployment, and stranger coefficients. For the latest period (2022:03-2025:06) the monetary policy had some effects on real GDP. Then, the results show that the new monetary policy is not effective, so this new policy was not the appropriate one; they are just experimental processes without any major social benefits or prevention of crises.

Table 1a. Vector Autoregression Estimates for the U.S. (2008:12-2015:11)

Variables	$djia_t$	$rgdp_t$	i_{10YTB_t}	p_t	u_t
$djia_{t-1}$	0.678*** (0.119)	-0.002 (0.011)	0.823 (0.554)	0.016** (0.008)	0.347 (0.357)
$djia_{t-2}$	-0.206* (0.117)	-0.001 (0.011)	-0.640 (0.542)	0.001 (0.007)	-0.723** (0.350)
$rgdp_{t-1}$	0.604 (1.305)	0.660*** (0.119)	-5.781 (6.044)	-0.034 (0.083)	-3.833 (3.895)
$rgdp_{t-2}$	1.505	0.121	11.026* (6.044)	-0.038	-6.948*

¹⁰⁴ Official inflation rate reached $\pi = 9.1\%$ and the unofficial by the Shadow Government Statistics show $\pi = 17\%$ in June 2022. See, Current US Inflation Rates: 2000-2026, [Current U.S. Inflation Rates: 2000-2026 \(usinflationcalculator.com\)](https://www.usinflationcalculator.com) and Shadow Government Statistics, [Alternate Inflation Charts \(shadowstats.com\)](https://shadowstats.com)

	(1.364)	(0.124)	(6.319)	(0.087)	(4.072)
$i_{10YTB_{t-1}}$	0.021 (0.024)	0.002 (0.002)	0.990*** (0.110)	-0.001 (0.002)	-0.233*** (0.071)
$i_{10YTB_{t-2}}$	-0.005 (0.026)	-0.002 (0.002)	-0.211* (0.119)	-0.001 (0.002)	0.176** (0.077)
p_{t-1}	-1.393 (1.728)	0.096 (0.157)	0.891 (8.005)	1.074*** (0.110)	8.692* (5.158)
p_{t-2}	1.615 (1.579)	-0.023 (0.144)	-17.882*** (7.315)	-0.307*** (0.101)	-5.925 (4.714)
u_{t-1}	0.024 (0.035)	0.001 (0.003)	0.382*** (0.163)	0.001 (0.002)	0.659*** (0.105)
u_{t-2}	0.017 (0.031)	0.001 (0.003)	-0.260* (0.146)	-0.001 (0.002)	0.117 (0.093)
c_0	-21.567** (9.876)	1.334 (0.899)	15.625 (45.755)	1.503** (0.630)	100.804*** (29.484)
$i_{FF_t}^{eff}$	-0.102 (0.262)	0.035 (0.024)	-0.989 (1.214)	-0.006 (0.017)	1.963*** (0.782)
mb_t	0.102 (0.178)	0.021 (0.016)	0.641 (0.826)	0.013 (0.011)	0.952* (0.532)
m_t	0.422 (0.419)	0.026 (0.038)	2.056 (1.943)	0.021 (0.027)	-1.552 (1.252)
R^2	0.976	0.994	0.920	0.996	0.995
SEE	0.042	0.004	0.193	0.003	0.125
F	218.563	807.381	61.995	1263.581	975.740
N	84	84	84	84	84

Note: $djia_t$ = LUSDJIA = ln of U.S. Dow Jones Industrial Average Index, $rgdp_t$ = LUSRGDP2009 = ln of U.S. real GDP, i_{10YTB_t} = US10YTB = U.S. 10-Year Treasury Bonds Rate, p_t = LUSCPI = ln of U.S. CPI, u_t = USU = U.S. unemployment rate, c_0 = constant term, $i_{FF_t}^{eff}$ = USFFR = U.S. effective federal funds rate, mb_t = LUSMB = ln of U.S. monetary base, m_t = LUSM2 = ln of U.S. money supply (M2), *** = significant at the 1% level, ** = significant at the 5% level, * = significant at the 10% level, R^2 = R-squared, SEE = S.E. equation, F = F-statistic, and N = number of observations.

Source: See, Table A1.

Table 1b. Vector Autoregression Estimates for the U.S. (2015:12-2020:02)

Variables	$djia_t$	$rgdp_t$	i_{10YTB_t}	p_t	u_t
$djia_{t-1}$	0.832*** (0.199)	0.039*** (0.015)	1.852*** (0.788)	0.010 (0.007)	-0.852* (0.464)
$djia_{t-2}$	0.034 (0.239)	-0.012 (0.018)	0.019 (0.944)	0.008 (0.009)	-0.794 (0.556)
$rgdp_{t-1}$	3.991* (2.039)	0.407*** (0.153)	3.696 (8.067)	-0.038 (0.076)	-6.781 (4.753)
$rgdp_{t-2}$	1.004 (2.651)	-0.042 (0.199)	4.673 (10.490)	0.196* (0.098)	-0.222 (6.180)
$i_{10YTB_{t-1}}$	0.004 (0.043)	-0.002 (0.003)	1.037*** (0.169)	0.003** (0.002)	0.275*** (0.100)
$i_{10YTB_{t-2}}$	0.049 (0.059)	-0.001 (0.004)	0.056 (0.234)	-0.004** (0.002)	-0.405*** (0.138)
p_{t-1}	-4.810 (4.454)	0.016 (0.335)	-0.464 (17.625)	0.750*** (0.165)	-2.382 (10.384)
p_{t-2}	-5.496 (3.877)	0.170 (0.292)	-20.184 (15.340)	-0.204 (0.144)	7.781 (9.038)
u_{t-1}	-0.008 (0.066)	0.001 (0.005)	0.001 (0.260)	0.004 (0.002)	0.424*** (0.153)
u_{t-2}	0.016 (0.061)	-0.005 (0.005)	0.318 (0.241)	-0.001 (0.002)	-0.276** (0.142)
c_0	-8.758 (17.635)	4.898*** (1.327)	0.312 (69.775)	0.129 (0.655)	72.531* (41.111)
$i_{FF_t}^{eff}$	-0.008 (0.053)	0.007 (0.004)	-0.145 (0.211)	0.002 (0.002)	0.111 (0.124)
mb_t	-0.166 (0.327)	-0.025 (0.025)	-1.204 (1.293)	-0.009 (0.012)	0.465 (0.762)

m_t	2.000*** (0.835)	0.029 (0.063)	2.206 (3.302)	0.073*** (0.031)	-1.796 (1.946)
R^2	0.952	0.992	0.922	0.998	0.974
SEE	0.041	0.003	0.160	0.002	0.094
F	56.558	366.421	33.761	1175.987	107.731
N	51	51	51	51	51

Note: See, Table 1a.

Source: See, Table A1.

Table 1c. Vector Autoregression Estimates for the U.S. (2020:03-2022:02)

Variables	dja_t	$rgdp_t$	i_{10YTB_t}	p_t	u_t
dja_{t-1}	-0.041 (0.29)	-0.010 (0.101)	1.827 (1.276)	0.028** (0.013)	3.661 (3.872)
dja_{t-2}	-0.033 (0.299)	0.113 (0.104)	0.585 (1.306)	0.011 (0.013)	1.335 (3.962)
$rgdp_{t-1}$	-3.865 (0.800)	-0.332 (0.277)	1.760 (3.492)	-0.010 (0.034)	-26.868*** (10.594)
$rgdp_{t-2}$	-0.640 (0.763)	-0.291 (0.265)	-4.006 (3.330)	-0.055* (0.033)	-8.467 (10.102)
$i_{10YTB_{t-1}}$	-0.043 (0.064)	-0.034 (0.022)	1.096*** (0.279)	0.013*** (0.003)	0.263 (0.847)
$i_{10YTB_{t-2}}$	0.038 (0.064)	-0.016 (0.022)	-0.379 (0.277)	-0.001 (0.003)	1.237 (0.841)
p_{t-1}	1.835 (4.862)	2.975* (1.686)	-33.623 (21.227)	0.653*** (0.209)	5.530 (64.402)
p_{t-2}	-4.596 (4.840)	-3.504** (1.679)	33.642 (21.135)	0.348* (0.208)	59.495 (64.121)
u_{t-1}	-0.016* (0.009)	-0.007*** (0.003)	-0.013 (0.037)	0.001 (0.001)	0.002 (0.113)

u_{t-2}	-0.009 (0.009)	-0.007** (0.003)	-0.026 (0.039)	0.001 (0.001)	-0.074 (0.117)
c_0	16.905* (9.903)	11.368*** (3.435)	11.011 (43.243)	0.370 (0.426)	589.037*** (131.194)
$i_{FF_t}^{eff}$	0.331* (0.196)	0.176*** (0.068)	-0.564 (0.855)	-0.012 (0.008)	-23.604*** (2.594)
mb_t	0.602** (0.315)	-0.026 (0.109)	-0.908 (1.376)	-0.044 (0.014)	3.040 (4.175)
m_t	1.962*** (0.831)	0.695** (0.288)	-0.534 (3.628)	0.023 (0.036)	-68.145*** (11.07)
R^2	0.973	0.971	0.955	0.999	0.991
SEE	0.032	0.011	0.140	0.001	0.426
F	27.901	25.442	16.277	984.310	81.910
N	24	24	24	24	24

Note: See, Table 1a.

Source: See, Table A1.

Table 1d. Vector Autoregression Estimates for the U.S. (2022:03-2025:06)

Variables	$djia_t$	$rgdp_t$	i_{10YTB_t}	p_t	u_t
$djia_{t-1}$	0.323* (0.165)	0.003 (0.043)	-0.392 (1.322)	0.011 (0.013)	0.387 (0.547)
$djia_{t-2}$	-0.075 (0.159)	-0.034 (0.041)	0.762 (1.269)	0.029*** (0.013)	-0.055 (0.524)
$rgdp_{t-1}$	-0.902 (0.590)	0.433*** (0.154)	6.806 (4.718)	-0.032 (0.047)	-0.693 (1.951)
$rgdp_{t-2}$	1.739*** (0.586)	-0.082 (0.153)	-5.716 (4.690)	0.042 (0.047)	0.875 (1.939)
$i_{10YTB_{t-1}}$	0.001	-0.001	0.585***	0.001	-0.040

	(0.025)	(0.007)	(0.202)	(0.002)	(0.084)
$i_{10YTB_{t-2}}$	-0.015	-0.012*	-0.208	-0.002	0.012
	(0.026)	(0.007)	(0.210)	(0.002)	(0.087)
p_{t-1}	0.091	-1.311**	8.915	0.866***	3.080
	(2.245)	(0.586)	(17.972)	(0.179)	(7.430)
p_{t-2}	0.159	1.957***	-4.115	-0.011	3.401
	(2.318)	(0.605)	(18.555)	(0.184)	(7.671)
u_{t-1}	0.075	-0.020	-0.417	0.002	0.357*
	(0.061)	(0.016)	(0.491)	(0.005)	(0.203)
u_{t-2}	0.084	0.029*	0.345	-0.003	0.062
	(0.065)	(0.017)	(0.517)	(0.005)	(0.214)
c_0	-10.208	-2.277	-9.223	0.295	6.207
	(9.609)	(2.509)	(76.907)	(0.764)	(31.795)
$i_{FF_t}^{eff}$	0.001	0.017***	0.071	0.001	-0.104
	(0.028)	(0.007)	(0.223)	(0.002)	(0.092)
mb_t	0.367	0.015	-0.622	0.002	-0.412
	(0.270)	(0.070)	(2.159)	(0.021)	(0.893)
m_t	0.460	0.524**	-2.539	0.002	-4.244
	(1.060)	(0.277)	(8.483)	(0.084)	(3.507)
R^2	0.942	0.980	0.842	0.994	0.867
SEE	0.036	0.009	0.284	0.003	0.118
F	32.336	96.182	10.667	349.448	13.050
N	40	40	40	40	40

Note: See, Table 1a.

Source: See, Table A1.

V. Ethics and the Anti-social Cost of the New Policy

Ethics [ἠθικὴ = ethikē = the science that investigates the rules of conduct of people living together in society, doctrinal teaching, conception of the good (virtuous) and the beautiful (kind)], as it was mentioned in the introduction, is a moral philosophy or a discipline concerned with what is morally good and bad, morally true and lie, morally regular (normal) or abnormal (perverse), morally legal¹⁰⁵ or illegal (crime) and morally right and wrong.¹⁰⁶ The term is also applied to any

¹⁰⁵ Unfortunately, what is “legal” today does not mean that is moral and ethical. For example, how is it possible the worst crime of abortion (killing your own children) to be legal? These politicians who have voted for these laws are the biggest criminals in our fallen world.

¹⁰⁶ Lately, they have baptized (their new woke dictionary) the right as wrong, the ethical as unethical, the moral as immoral, the perversion as regular and law of the nations, the killing of the unborn child as women’s right, the depravity as integrity, corruption

social system, democracy,¹⁰⁷ culture, traditions, politics, economics, history, anthropology, biology, sociology, decision making, justice, social interest, and it is discussed with the theory of moral values, moral life and virtues (i.e., fear of God, faith, courage, justice, peace, prudence, temperance, moderation, modesty, self-respect, respect of human life, repentance, humility, hope, love), theological principles, and practical moral problems. The Greek moral philosophical thought was originally based since the 5th century B.C. on a new moral approach that emerged, at that time, which was using rational arguments leading to the rise of moral philosophy as a distinct mode of thought. This has been attributed to Socrates, Plato,¹⁰⁸ Aristotle (the “supreme good”, eudaimonia = blissfulness, prosperity), and many others up to the Revelation in the 1st century A.D., which ultimate objective is to reach perfection. Unfortunately, today, our problem is the imposed ignorance by our woke pseudo-democracies,¹⁰⁹ which are completely controlled by the Illuminati.¹¹⁰

The current public policies are causing serious problems to the country and its citizens and unfortunately, to the future generations and the rest of the world. As of the time of writing, there are a little less than 23 million public employees in the U.S., distributed across the three levels of government: 14.9 million in local government, 5.5 million in state government, and 2.4 million in the federal government.¹¹¹ Including teachers and those working in education, the total more than doubles to about 16.2 million public employees (excluding federal government) nationwide.¹¹² The U.S. labor force reached a record

as virtue, the lie as truth, and the propaganda and disinformation as information (news), the invasion of a foreign country as the need to establish democracy, the war criminals as patriots. (*Sic*). See, *The Woke Dictionary*, *The Cancel Culture Dictionary*, *The Political Correctness* and many other trashes that “experts” are using, today, to “educate” our children. There is a Greek expression about today’s education: «Τά παιδιά μπαίνουν στά σχολεία κούτσουρα καί βγαίνουν τοῦβλα.» See, «Αρκεί η Περιφρόνησις; Ἡ Ἐκκλησιαστική Ἠγεσία ἐπρόδωσε τήν ἀποστολήν Της!», [Αρκεί η Περιφρόνησις; Ἡ Ἐκκλησιαστική Ἠγεσία ἐπρόδωσε τήν ἀποστολήν Της! - Ορθόδοξος Τύπος \(orthodoxostypus.gr\)](#). «Ζῶμεν, σήμερον, εἰς ἕναν κόσμον ἀμαθείας, πονηρίας, ὑπουλόγητος, ψευδολογίας καί δολιότητος, ὑποκρισίας, ἀδικείας, κακίας, εἰθισμένον νά μεταμορφοῦται καί νά ὑποκρίνεται ὅτι λέγει τήν ἀλήθειαν, βδελυράς ἀσχημοσύνης, ἔχον ἔφεσιν εἰς αἰσχράς ἐπιθυμίας, πρόξενον τῶν ἀμαρτημάτων, ἀντίπαλον τῆς ἐλευθερίας καί τῆς ἰατρείας τῆς ψυχῆς, δολίας καί ἐπιπλάστου εὐλαβείας καί δαιμονιώδους ζωῆς, ὀλεθρίου ἐπιστήμης, δαιμονιώδους πλάνης, καί παγκοσμίου δουλείας.» (Σταχυολογήματα ἐκ τῆς Κλίμακος τοῦ Ἁγίου Ἰωάννου τοῦ Σιναΐτου). [= "Today we live in a world of ignorance, cunning, deceit, falsehood and fraudulence, hypocrisy, injustice, malice, accustomed to being transformed and impersonates that he tells the truth, of abominable immorality, having remission to the fierce desire, the cause of sins, the opponent of freedom and the healing of the soul, of despicable and contrived piety and of demonic life, of pernicious science, of demonic delusion, and of universal slavery." (From the Ladder of St. John of Sinai)].

¹⁰⁷ “Any foreign power that intervenes with force in the internal affairs of another country tramples on International Law, using as an alibi the implication of the notorious words (narco-terrorist)!... However, this is not the first time that the world's 'democratic' daddy, America, has used military force to impose regime change in Latin America.” See, Κωνσταντῖνος Ι. Βαθιώτης, “Αρπαγή Μαδούρο: Οἱ ΗΠΑ (ξανα)μαδούν το Διεθνές Δίκαιο”, [Αρπαγή Μαδούρο: Οἱ ΗΠΑ \(ξανα\)μαδούν το Διεθνές Δίκαιο - Ορθόδοξος Τύπος \(orthodoxostypus.gr\)](#) Later, they did the same and even worse in Iran. They killed the leader of the country and 40 high ranking officials. See, “Iran Supreme Leader Ali Khamenei killed, Trump says”, [Iran Supreme Leader Ali Khamenei killed, Trump says \(msn.com\)](#)

¹⁰⁸ The moral philosopher Plato presented himself to a lawyer (current philosopher), who accused him of being immoral and said: "It is a fact that we did not know the Revealed Truth at that time, but with reason and conscience we created our philosophy and tried to be as moral as possible; but when Christ came to Hades, I was the first to believe in Him." That is indeed the true and ethical Ancient Greek and later, Orthodox Culture, its Greatness, and its Education that nurtured the entire world. For this reason, the Chinese call Greece "Sila", which means, "another great civilization". See, Kallianiotis (2024).

¹⁰⁹ See, “Δασμοί, Διαπραγματεύσεις & Στρατηγική Αντιπαράθεση | Greeconomics #50”, <https://www.youtube.com/watch?v=zoB0JppLYoE>

¹¹⁰ As we see every day in the fallen West. See, “Μεσσιανικές επιδιώξεις του ισραηλινού προέδρου”, [Μεσσιανικές επιδιώξεις του ισραηλινού προέδρου - Ορθόδοξος Τύπος \(orthodoxostypus.gr\)](#). In addition, see, “Ὁ πεπλανημένος Εὐαγγελιστής Donald Trump. See, “Ἡ πάστορας του Τραμπ που «πουλάει» στους Αμερικανούς ἕναν «ιερό πόλεμο»”, [Ἡ πάστορας του Τραμπ που «πουλάει» στους Αμερικανούς ἕναν «ιερό πόλεμο» - Ορθόδοξος Τύπος \(orthodoxostypus.gr\)](#). On Memorial Day, as Americans paused to honor those who gave their lives in service to the nation, President Donald Trump ordered military action against the Islamic Republic of Iran. The strikes, confirmed by U.S. Central Command, targeted Iranian military installations in the southern region of the country.... Captain Tim Hawkins, spokesman for CENTCOM, characterized the operation as self-defense measures designed to protect American forces from imminent threats. The targets included missile launch sites and Iranian naval vessels reportedly attempting to deploy mines in regional waters. See, “Trump Orders Strikes on Iranian Military Sites as Nuclear Negotiations Stall”, https://worldlyreports.com/trump-orders-strikes-on-iranian-military-sites-as-nuclear-negotiations-stall/?utm_source=www.joinnewsflash.com&utm_medium=newsletter&utm_campaign=trump-orders-strikes-on-iranian-military-sites-as-nuclear-negotiations-stall&_bhlid=3b8a90f4bbedb9a14712199361edcc85db19e4ee

¹¹¹ See, [The evolution of government employment](#), <https://fredblog.stlouisfed.org/2024/12/the-evolution-of-government-employment/>

¹¹² See, “States With Most Government Employees: Totals and Per Capita Rates”, <https://www.governing.com/archive/states-most-government-workers-public-employees-by-job-type.html>

high of 168.7 million civilians in September 2024.¹¹³ In October 2024, the civilian labor force amounted to 168.48 million people in the United States.¹¹⁴ U.S. population is 341.217 million.¹¹⁵ Thus, 13.65% of the labor force or 6.74% of the total population is working for the government.¹¹⁶ Also, 37.6 millions are living in poverty, 27.2 millions are without insurance, Medicaid recipients are 86.9 millions, and food stamp recipients are 42.2 millions.¹¹⁷ Taxes are also very high and the new Trump's administration tries to reduce taxes¹¹⁸ and increase efficiency in government. Unfortunately, after one and a half year in power, he has done nothing, except a few wars, assassinations and abductions of foreign leaders, with enormous human and economic costs. Thus, the economy is in very bad shape and the world is terrorized. The U.S. economy could have been improved if it had become self-sufficient and its politicians independent from foreign influences. Producing domestically and avoid these huge imports and trade deficits, Graph 7.¹¹⁹

The new monetary policy tools (ample reserves, *IOR* and *IONRRP*), which kept the deposit rate closed to zero are, if not anything else, are making this public policy an unfair, anti-social, and unethical new monetary policy¹²⁰ by going against small savers (investors) and poor taxpayers. Political leaders have no power to regulate the “independent” private central banks, but they can do something for these dishonest (“corrupted”) and uncontrolled commercial banks. Central banks’ policies are ineffective for the economy, non-preventable for a new financial crisis, and anti-social for the people. Especially, during the suspicious coronavirus fraud¹²¹ and the double digits inflation; the necessary public policy is a combination of monetary and fair and moderate fiscal stimulus policy (no higher taxes due to recession and no wars on fossil fuels and in Ukraine, Palestine, Syria, and Iran)¹²² that the government provided.¹²³ The latest monetary policies benefit only large banks,¹²⁴ and generate an enormous social cost.

V.1 Social Costs and Benefits of the New Monetary Policy

¹¹³ See, “Labor force in the United States” https://en.wikipedia.org/wiki/Labor_force_in_the_United_States

¹¹⁴ See, “Monthly civilian labor force in the United States from October 2022 to October 2024 (in millions, seasonally adjusted)”. [Civilian labor force seasonally adjusted U.S. 2024 | Statista](https://www.statista.com/statistics/1111111/civilian-labor-force-seasonally-adjusted-u-s-2024/)

¹¹⁵ See, “U.S. and World Population Clock”, [Population Clock \(census.gov\)](https://www.census.gov/popclock/).

¹¹⁶ See, “States With Most Government Employees: Totals and Per Capita Rates”, <https://www.governing.com/archive/states-most-government-workers-public-employees-by-job-type.html>

¹¹⁷ See, [U.S. National Debt Clock : Real Time \(usdebtclock.org\)](https://www.usdebtclock.org/)

¹¹⁸ “Multitrillion-dollar package of tax cuts and spending reductions squeaked through the House”. See, “Trump’s ‘Big, Beautiful Bill’ Heads to Senate, Where New Fights Loom”, *The Wall Street Journal*, <https://www.wsj.com/politics/policy/trump-tax-bill-senate-f649b457> This Bill was signed by Trump. (*Fox News*, 7/7/2025).

¹¹⁹ See, Kallianiotis (2025b) and Kallianiotis, Petsas, and Balagoyzyan (2026).

¹²⁰ See, Stockman (2022). “David Stockman is one of the most astute observers of the tragic and unnecessary implosion of our economy, monetary system, and society in general...” (Run Paul). “How politics mixes with central bank and the financial sector to provide a toxic brew of bad money, bad policy, and fragile economy teetering on the edge of economic disaster.” (Ryan McMaken).

¹²¹ Dr. Fauci, CDC, and the medical bureaucracy have destroyed the science of medicine and the country. No one trust them anymore. You were not allowed to disagree with Fauci (“I represent science”, he was saying). They were the greatest damage for the people and a sinful damage to our children, with the deadly vaccine mandates. (*Fox News*, 8/22/2022).

¹²² Our pseudo-leaders do not know how to make peace and we have elected them to keep us safe, secure, free, and prosperous. They have failed and we must reject them (vote them out from the governments). Then, there was some hope again with the new U.S. President, Donald Trump. See, “In their own words: Trump supporters explain the hope they feel for his second presidency”, [Trump fans explain their hopes for his next tenure \(usatoday.com\)](https://www.usatoday.com/story/news/politics/elections/2024/11/17/trump-supporters-explain-their-hopes-second-term/76293038007/) <https://www.usatoday.com/story/news/politics/elections/2024/11/17/trump-supporters-explain-their-hopes-second-term/76293038007/>. But, so far he has done nothing important, even peace in Ukraine and Middle East. It seems that he is also controlled by the Illuminati forcing him to bomb Iran and kill Khamenei and 40 other officials, and he continues with the unethical war in Venezuela and is talking about occupying Greenland. See, See, Madhani, Aamer “After Venezuela raid, Trump says ‘We do need Greenland, absolutely’ — prompting Denmark to warn U.S. has ‘no right to annex’ the Territory”, *Fortune*, January 4, 2026, [After Venezuela raid, Trump says ‘We do need Greenland, absolutely’ | Fortune](https://www.fortune.com/story/news/politics/elections/2024/11/17/trump-supporters-explain-their-hopes-second-term/76293038007/)

¹²³ See, “Fiscal Stimulus Needed to Fight Recessions”, <https://www.cbpp.org/research/economy/fiscal-stimulus-needed-to-fight-recessions>. But not to make the national debt unsustainable, with some exaggerated and without moderation wastes. Also, “the inflation reduction act” will cause inflation and higher taxes by hiring 78,000 IRS armed agents. (*Sic*). On September 13, 2022, the White House had a big party celebrating the approval of this new act and the economic destruction that will follow and the DJIA fell 1,300 points on that day. (*Fox News*, 9/13/2022).

¹²⁴ «... Θά καταργήσωμεν επίσης όλα τὰ χρηματιστήρια... Θ’ αντικαταστήσωμεν τὰ χρηματιστήρια διά μεγάλων ειδικῶν πιστωτικῶν ἰδρυμάτων ὧν ὁ προορισμός θά εἶναι νά καθορίζωσι τήν τιμὴν τῶν βιομηχανικῶν ἀξιῶν συμφώνως πρὸς τὰς βλέψεις τῆς [παγκοσμίου] κυβερνήσεως.» [Πρωτόκολλον ΚΑ’ (Π.Σ.Σ.)]. Intimidating plans!..

With **November 2015**, the social cost was in hundreds of billions of dollars.¹²⁵ It is obvious, the central bank is working only for the banks and satisfies only their objectives, which are profitability and liquidity. This monetary policy is against the poor depositors (bail in cost = **\$838.310** billion p.a. or the “official” bail in cost = \$104.104 billion) and against the poor taxpayers (bail out cost = **\$5.923** billion p.a.). Thus, it was a pure anti-social policy and at the same time, it had created enormous bubbles in the stock market, a hidden new global crisis, which found an excuse to burst, the Wuhan coronavirus (the innovative COVID-19) and the increases in federal funds rate to control the inflation that their policies have created.¹²⁶ With this anti-social and unethical monetary policy, the deposit and saving rate were falling and the personal consumption expenditures were increasing. Thus, the household debt was going up.¹²⁷ The social cost of this modern monetary policy is enormous, so this policy is wrong, because in any policy the objective must be minimization of social cost and maximization of benefits.

Unfortunately, the lack of fairness and ethics in monetary policy is continued and taxpayers and depositors are ripped off endlessly. The higher the i_{IOR} , the higher the i_{ONRRP} , and the higher the inflation π , the higher will be the bail out and the bail in cost. With **November 3, 2022**, we had:

(I_a) The total reserves were: $R_T = \$3,131.4$ billion.

The $i_{IOR} = i_{RF} + 0.20\% = 3.72\% + 0.20\% = 3.92\%$. But, it was $i_{IOR} = 3.90\%$.

Thus, Fed was paying total interest on these reserves (I_R) = \$3,131.4 billion x 3.90% = **\$122.125** billion per annum. This was a *bail out cost* that taxpayers are paying.

(I_b) The overnight reverse repurchase agreements were: \$2,230.840 billion.

The $i_{ONRRP} = 3.80\%$.

Fed pays an interest of: **\$84.772** billion p.a. (*bail out cost*)

(II) Total deposits (D_T) = \$17,782.9112 billion.¹²⁸

$i_D = 0.05\%$

Banks were paying an insignificant total interest on deposits (I_D) = \$17,782.9112 billion x 0.05% = **\$8.891** billion per annum.

(III) The official inflation rate was (π) = 8.3%; then, $r_D = i_D - \pi = 0.05\% - 8.3\% = -8.25\%$

Thus, depositors were paying to their banks (*bail in cost*): \$17,782.9112 x (-8.25%) = **\$1,467.09** billion.

The SGS consumer inflation (1980-based)¹²⁹ was $\pi = 17\%$.

The true *bail in* was: \$17,782.9112 x (-16.95%) = **\$3,014.203** billion p.a.

(IV) Banks could offer loans: $R_E + D_T = \$3,131.4$ billion + \$17,782.9112 billion = \$20,914.311 billion.

Banks' interest rate was from 6.92% (mortgage rate) to 34.99% (credit cards with bad credit scores). The average $i_{CC} = 20.00\%$. Then, the average loan rate was: $\bar{i}_L = (6.92\% + 20.00\%): 2 = 13.46\%$.

Banks were having an interest revenue (R_I) of \$20,914.311 billion x 13.46% = **\$2,815.066** billion p.a.

Consequently, with the beginning of **November 2022**, the social cost was going up. Bail out cost to taxpayers is **\$206.897** billion p.a. and the bail in cost to depositors is **\$3,014.203** billion and the official is **\$1,467.09** billion.

¹²⁵ See, Kallianiotis (2022a).

¹²⁶ The DJIA reached 29,551.42 (2/12/2020) and with coronavirus' negative effects on health and economy, it fell to 18,591.93 (3/23/2020), it lost 10,959.49 points (-37.09%). I had read somewhere a few years ago that: “we (the economic elites) will abolish the stock exchanges and we will create large financial institutions...” (Sic).

¹²⁷ The total personal debt (2/27/2021) was \$21.137 trillion x 11% = \$2.325 trillion annual interest on personal debt and with 11/8/2022) had become \$24.067 trillion x 13.46% = \$3.239 trillion p.a. With December 14, 2024, the total personal debt was \$25.699 trillion. With 2025:Q3, it was \$18.59 trillion. See, <https://usdebtclock.org/>. Actually, the average person is paying taxes (plus the unethical property taxes), interest, and insurance premium; the rest of his income is consumed. For this reason his saving is negative (dissaving, borrowing). Thus, our system is completely anti-social.

¹²⁸ See, Deposits, All Commercial Banks. <https://fred.stlouisfed.org/series/DPSACBW027SBOG>.

¹²⁹ See, http://www.shadowstats.com/alternate_data/inflation-charts

The Fed's unethical and unfair monetary policy continues even, today. With **November 2025**, the losses due to inflation (official $\pi = 3.00\%$ ¹³⁰ and unofficial $\pi \cong 6\%$) and the volatility, by more than $\mp 1,000$ points, of the stock markets continues plus the social (bail out and bail in) cost, which was:

(Ia) The total reserves were: $R_T = \$2,944.7$ billion.

The $i_{IOR} = i_{RF} + 0.20\% = 3.82\% + 0.20\% = 4.02\%$. But, it is $i_{IOR} = 3.90\%$.

Thus, Fed was paying total interest on these reserves (I_R) = $\$2,944.7$ billion $\times 3.90\% =$ **\$114.843** billion per annum. This was a *bail out cost* that taxpayers are paying.

(Ib) The overnight reverse repurchase agreements were: $\$2.217$ billion.

The $i_{ONRRP} = 3.75\%$.

Fed pays an interest of: **\$0.0831** billion p.a. or $\$83.1$ million (*bail out cost*)

(II) Total deposits (D_T) = $\$18,504.959$ billion.¹³¹

$i_{SD} = 0.40\%$ up to $i_{CD} = 1.24\%$; an average of $i_D = 0.82\%$.¹³²

Banks were paying an insignificant total interest on deposits (I_D) = $\$18,504.959$ billion $\times 0.82\% =$ **\$151.741** billion per annum.

(III) The official inflation rate was (π) = 3% ; then, $r_D = i_D - \pi = 0.82\% - 3\% = -2.18\%$

Thus, depositors were paying to their banks (*bail in cost*): $\$18,504.959 \times (-2.18\%) =$ **\$403.41** billion.

The SGS consumer inflation (1980-based)¹³³ was double from the official one $\pi = 6\%$. They have discontinued offering any statistics the last two years.

The true *bail in* was: $\$18,504.959 \times (-5.18\%) =$ **\$958.557** billion p.a.

(IV) Banks could offer loans: $R_T + D_T = \$2,944.7$ billion + $\$18,504.959$ billion = $\$21,449.659$ billion.

Banks' interest rate was from 6.23% (mortgage rate) to $5\% - 35.99\%$ (credit cards with bad credit scores). The average $i_{CC} = 20.495\%$. Then, the average loan rate was: $\bar{i}_L = (6.23\% + 20.495\%): 2 = 13.3625\%$.

Banks were having an interest revenue (R_I) of $\$21,449.659$ billion $\times 13.3625\% =$ **\$2,866.211** billion p.a.

Thus, with the end of November 2025, the social cost was going down. Bail out cost: **\$114.843 + \$0.0831 = \$114.926** billion to taxpayers p.a. and the bail in cost to depositors is **\$958.557** billion and the official is **\$403.41** billion. Then, there is improvement, now, due to reduction on Fed's interest rates and increase in the deposit rates, and reduction in inflation.

Lately, with **June 2026**, we had the following cost:

(Ia) The total reserves were: $R_T = \$3,018.8$ billion.

The $i_{IOR} = i_{RF} + 0.20\% = 3.73\% + 0.20\% = 3.93\%$. But, it is $i_{IOR} = 3.65\%$.

Thus, Fed was paying total interest on these reserves (I_R) = $\$3,018.8$ billion $\times 3.65\% =$ **\$110.186** billion per annum. This was a *bail out cost* that taxpayers are paying.

(Ib) The overnight reverse repurchase agreements were: $\$2.127$ billion.

The $i_{ONRRP} = 3.50\%$.

Fed pays an interest of: **\$0.074** billion p.a. or $\$74.445$ million (*bail out cost*)

(II) Total deposits (D_T) = $\$19,339.5689$ billion.¹³⁴

¹³⁰ Current US Inflation Rates: 2000-2025, [Current US Inflation Rates: 2000-2025 \(usinflationcalculator.com\)](https://www.usinflationcalculator.com/)

¹³¹ See, Deposits, All Commercial Banks. <https://fred.stlouisfed.org/series/DPSACBW02SBOG> .

¹³² See, "National Rates and Rate Caps – November 2025", [National Rates and Rate Caps – November 2025 | FDIC.gov](https://www.fdic.gov/news/press-releases/2025/nr-2025-11-01.html)

¹³³ See, http://www.shadowstats.com/alternate_data/inflation-charts

¹³⁴ See, Deposits, All Commercial Banks. <https://fred.stlouisfed.org/series/DPSACBW02SBOG> .

$i_{SD} = 0.38\%$ up to $i_{CD} = 1.36\%$; an average of $i_D = 0.87\%$.¹³⁵

Banks were paying an insignificant total interest on deposits (I_D) = \$19,339.5689 billion x 0.87% = **\$168.254** billion per annum.

- (III) The official inflation rate was (π) = 3.5%; then, $r_D = i_D - \pi = 0.87\% - 3.5\% = -2.63\%$

Thus, depositors were paying to their banks (*bail in cost*): \$19,339.5689 x (-2.63%) = **\$508.63** billion.

The SGS consumer inflation (1980-based) was double from the official one $\pi = 6\%$. They have discontinued offering any statistics the last two years.

The true *bail in* was: \$19,339.5689 x (-5.13%) = **\$992.120** billion p.a.

- (IV) Banks could offer loans: $R_T + D_T = \$3,018.8$ billion + \$19,339.5689 billion = \$22,358.368 billion.

Banks' interest rate was from 6.66% (mortgage rate) to 4.2% -35.99% (credit cards with bad credit scores). The average $i_{CC} = 20.095\%$. Then, the average loan rate was: $\bar{i}_L = (6.66\% + 20.095\%) / 2 = 13.3775\%$.

Banks were having an interest revenue (R_I) of \$22,358.368 billion x 13.3775% = **\$2,990.991** billion p.a.

Bail out cost: **\$110.186 + \$0.074 = \$110.26** billion to taxpayers p.a. and the bail in cost to depositors is **\$992.120** billion and the official is **\$508.63** billion. The highest social cost of our monetary policy was between July 26, 2023 to September 17, 2024 where, ($5.25\% \leq \bar{i}_{FF} \leq 5.50\%$); with $i_{IOR} = 5.49\%$, $i_{ONRRP} = 5.30\%$, $i_{FF}^{eff} = 5.33\%$, $i_D = 0.45\%$, and $\pi = 2.4\%$.

VI. Concluding Remarks

In response to the global financial crisis of 2008, that we created with our deregulations and globalization, several experimental new policies were enacted that altered the instruments of monetary policy and the structure of the federal funds market in profound ways by keeping the target federal funds rate close to zero for nine years. On the borrowing side, the Fed's large-scale asset purchases (LSAPs) flooded the banking system with liquidity and made it less necessary to borrow or to seek more deposits, which has raised serious ethical policy questions. Banks had a deposit rate closed to zero ($i_D = 0.05\%$) for more than fifteen years. In addition, the Federal Deposit Insurance Corporation (FDIC) introduced new capital requirements¹³⁶ that increased the cost of wholesale funding for domestic financial institutions. On the lending side, the Federal Reserve is paying financial institutions interest on their reserves (IOR), which exceeds the effective federal funds rate.¹³⁷ When financial institutions have access to this low-risk and high liquidity alternative (i_{IOR}), they have less incentive to lend in the federal funds market (i_{FF}^{eff}), to borrow from the discount window (i_{DR}), and to pay high interest on deposits (i_D), because, $i_{DR} > i_{IOR} > i_{FF}^{eff} > i_D$. This policy is inefficient and anti-social, that means unethical and inappropriate. Since the financial crisis and the Great Recession, the capacity of the U.S. economy to generate growth and rising profits has sharply diminished. The real GDP growth rate since the pre-crisis peak in the fourth quarter of 2007 was just 1.5% p.a., but the stock market has gone way ahead of the economy with a growth of 39% p.a. (Tables A1 and A2 and Figure 3). Lately, due to the absurd war of Israel and U.S. against Iran, the market was falling daily. The Fed's asset inflation has affected all stock market, but mostly the value of tech stocks, the FANGMAN.¹³⁸ The question is now, what lies ahead? Normally, the financial asset prices will fall until they go back to the healthy relationship with national income. Then, a financial crisis is expected to strike our economy.¹³⁹ This monetary policy and the gamblers and speculators in the

¹³⁵ National Rates and Rate Caps – July 2026, <https://www.fdic.gov/national-rates-and-rate-caps>

¹³⁶ On April 16, 2019, the FDIC, the Office of the Comptroller of the Currency, and the Board of Governors of the Federal Reserve System issued a proposal that would establish risk-based categories for determining applicability thresholds for regulatory capital requirements for certain U.S. subsidiaries of foreign banking organizations and application of liquidity requirements to foreign banking organizations, certain U.S. depository institution holding companies, and certain depository institution subsidiaries. Comments on the proposal must be received by June 21, 2019. See, "Regulatory Capital", <https://www.fdic.gov/resources/bankers/capital-markets/regulatory-capital/index.html>

¹³⁷ It was, $i_{IOR} = 5.40\% > i_{FF}^{eff} = 5.33\%$. See, George Selgin, "The Strange Official Economics of Interest on Excess Reserves", October 3, 2017. <https://www.alt-m.org/2017/10/03/strange-official-economics-of-interest-on-excess-reserves/>. See also, "Is the Federal Reserve a Scam?", [Is the Federal Reserve a Scam? : r/conspiracy \(reddit.com\)](https://www.reddit.com/r/conspiracy). In November 2025, $i_{IOR} = 3.90\% > i_{FF}^{eff} = 3.88\%$. and now (March 2026), $i_{IOR} = 3.65\% > i_{FF}^{eff} = 3.64\%$.

¹³⁸ FANGMAN: Facebook, Apple, Netflix, Google, Microsoft, Amazon, and NVIDIA. See, footnote 154.

¹³⁹ The war in the Middle East has affected the financial market drastically. The DJIA from 50,188.14 (2/10/2026) has fell to 45,166.64 (3/27/2026) and continues its volatility. On June 1, 2026, it was DJIA = 51,078.88 and on July 6, 2026 became 53,055.91. See, <https://finance.yahoo.com/quote/%5EDJI/history/>

financial markets have disconnected the Wall Street from the Main Street. At the same time, much of America's manufacturing capacity has been offshored to China and other countries.¹⁴⁰

Also, in 2020, Federal Reserve officials signaled plans to keep again interest rates near zero for years to come and said they were studying how to provide more support to a U.S. economy battered by the suspicious and fraudulent coronavirus (COVID-19), the mandatory vaccines,¹⁴¹ and related shutdowns. "We are strongly committed to using our tools to do whatever we can and for as long as it takes to provide some relief and stability," Fed Chairman Jerome Powell said on June 10, 2020 at a virtual news conference after a two-day policy meeting.¹⁴² Earlier, in 2021, they had said that they will keep up with the liquidity to protect the environment.¹⁴³ But, they caused instability in the financial market (Figure 3), high inflation (Graph 6), and even higher trade deficit (Graph 7), due to devaluation of the dollar (Graphs 8 and 9 and the Appendix A1, etc.) and the inelastic demand for imports. Thus, the unethical bail in and bail out, plus the other "protective" social costs, are continuing for many years; only the Illuminati know the exact time, due to this latest healthcare, financial, economic, environmental, social, politically correct (= absolute wrong), cultural, woke philosophy, cancel culture, technological, educational,¹⁴⁴ conflicts, wars, and other problems that they created to the world, and the worst of all, the election crisis of the 2020 and their new plans for the 2024 one,¹⁴⁵ that they were succeeded; the elected President is following them. People do not trust our democratic (pseudo-democratic) system anymore.¹⁴⁶ The data and the empirical work show that all these results give a questionable effectiveness, efficiency, and social welfare of the new public policies, and have negative effects on the small businesses,¹⁴⁷ on the citizens of the country, and on the ultimate objective economic variables. Unfortunately, all the atheists and ignorance have become lately scientists, politicians, and "experts"; then, what

¹⁴⁰ See, Kallianiotis, Petsas and Balagoyzian (2026). See also, Stockman (2022).

¹⁴¹ What corruption, deception, and crimes are these that the world is facing today with all these pseudo-leaders (puppets) in power? See, «Συνέντευξη τύπου από την ευρωβουλή για τα εμβόλια κατά του κορωνοϊού», <https://enromiosini.gr/arthrografia/synenteyxi-typou-apo-tin/>

¹⁴² See, "Fed Officials Project No Rate Increases Through 2022". <https://www.wsj.com/articles/fed-debates-how-to-set-policy-for-the-post-pandemic-economy-11591781402>

¹⁴³ Does the green obsession require more liquidity? For what reason? See, "Climate Change and Financial Stability", [The Fed - Climate Change and Financial Stability \(federalreserve.gov\)](https://www.federalreserve.gov/monetarypolicy/20220601ccfs.htm). This is another big fraud to control people globally. They have destroyed agriculture and stock-breeding; then, the famine is coming.

¹⁴⁴ "...σήμερα είναι κάτι παραπάνω από εμφανές ότι τα σχολεία και τα πανεπιστήμια έχουν εξελιχθεί σε «προπαγανδιστικούς στρατώνες» της κάθε ατζέντας που σκαρφίζεται ή Νέα Τάξη Πραγμάτων. Κοινή αιχμή του δηλητηριασμένου δόρατός της είναι ή λατρεία της τεχνολογίας σαν να πρόκειται για την σύγχρονη θεότητα της ανθρωπότητας." Όρα, Κωνσταντίνος Βαθιώτης, «Η τεχνολογία ως «όδοστρωτήρας» της ατομικής ελευθερίας – Μέρος ΙΑ'». [Η τεχνολογία ως «όδοστρωτήρας» της ατομικής ελευθερίας – Μέρος ΙΑ' - Ορθόδοξος Τύπος \(orthodoxstypos.gr\)](https://orthodoxstypos.gr/2022/06/01/η-τεχνολογια-ως-οδοστρωτηρας-μερος-ia/)

¹⁴⁵ "I made history. When I LEFT the Democratic Party. And after I stood up against the "tolerant" Left's REGIME, they came after me. HARD. This is Tulsi Gabbard. When I came to Congress for the first time in 2002, I saw with my own eyes what the Democratic party was...an anti-American, woke, and cowardly group of ELITISTS who fought for NOBODY but themselves! On their priority list, Americans like you and I were at the very bottom. As a combat veteran and former Congresswoman, it's in my blood to serve my country. So I stood up for the American PEOPLE! And the Democrats branded me a TRAITOR. They threw the entire kitchen sink at me, hoping I'd back down and leave the SWAMP in shame. But I will NEVER give up the fight to SAVE our country! (Tulsi Gabbard). For the 2024 elections, they were pushing Kamala to become the President of the United States. This would have been the biggest scorn for the United States history and culture. Tulsi Gabbard is now, with Trump's administration, an American politician serving since 2025 as the eighth director of national intelligence (DNI). On May 22, 2026, she resigned. See, "Tulsi Gabbard resigns as director of national intelligence, citing her husband's health", [Director of National Intelligence Tulsi Gabbard resigns | AP News](https://www.apnews.com/article/tulsi-gabbard-resigns-as-director-of-national-intelligence-citing-her-husbands-health/2026/05/22).. The truth is that Iran put Gabbard, Kent and Trump at odds. There had been rumblings that Gabbard would split with Trump after the president's decision to strike Iran, which caused some division within his administration. Joe Kent, director of the National Counterterrorism Center, [announced his resignation](https://www.foxnews.com/military/joe-kent-announces-resignation) in March and said he "cannot in good conscience" back the war. Gabbard, a veteran and former Democratic congresswoman from Hawaii, built her political name on her opposition to foreign wars. This put her in an awkward position when the U.S. joined Israel in launching attacks on Iran on February 28, 2026. During a congressional hearing in March, her measured comments were notable for their careful non-endorsement of the Iran war. She repeatedly dodged questions about whether the White House had been warned of potential fallout from the conflict, including Iran's effective closure of the [Strait of Hormuz](https://www.foxnews.com/military/joe-kent-announces-resignation), a waterway crucial for global oil shipments. Thank God that still there are some people with pure conscience and respect for the life of innocent people.

¹⁴⁶ See, Κωνσταντίνου Βαθιώτης, "Παγκόσμιος τύραννος μέσω του Ιράν", [Παγκόσμιος τύραννος μέσω του Ιράν; - Ορθόδοξος Τύπος \(orthodoxstypos.gr\)](https://orthodoxstypos.gr/2022/06/01/παγκοσμιος-τυραννος-μεσω-του-ιραν/)

¹⁴⁷ Small businesses are going bankrupt every day. See, "U.S. Businesses Are Going Bankrupt At An Absolutely Blistering Pace", [U.S. Businesses Are Going Bankrupt At An Absolutely Blistering Pace \(theeconomiccollapseblog.com\)](https://theeconomiccollapseblog.com/u-s-businesses-are-going-bankrupt-at-an-absolutely-blistering-pace/). Also, see, [Megan Cerullo](https://www.cbsnews.com/news/these-national-and-regional-retailers-went-out-of-business-in-2025/), "These national and regional retailers went out of business in 2025", [These national and regional retailers went out of business in 2025 - CBS News](https://www.cbsnews.com/news/these-national-and-regional-retailers-went-out-of-business-in-2025/)

can these people offer to humanity? These people do not know the Truth;¹⁴⁸ then, nothing important and social can be offered by them, except destruction.

Lastly, the questions are still remaining. Why the Fed needs these overnight deposits (*ON RRP*)?¹⁴⁹ Why the tax payers have to pay some more billion dollars per annum to these money market nonbank lenders? Why they do not raise the deposit rate (i_D) to increase the deposits (demand for deposit accounts)¹⁵⁰ in our banks, if they need more liquidity? Make the saving account rate $i_D \geq i_{ONRRP} \cong 5.32\%$ ¹⁵¹ and not zero ($i_D = 0.05\%$), as it was for 15 years. These new public policies are not necessary and they have also a very high social cost (trillions of dollars bail out cost to tax payers and bail in cost to depositors, plus the capital losses to investors in the financial market and the reduction of purchasing power of the consumers from the double digit inflation).¹⁵² The target federal funds rates are low since 2008. This new monetary policy is also ineffective, as we saw with the VAR analysis. The federal funds market can provide the liquidity for the banks through the *OMO* without forcing the people to bail out banks by paying *IOR* and *IONRRP*. The limited reserve system was sufficient, fair, ethical, safe, secure, and effective to provide all reserves needed in our banking system or even better, we need a public central bank and not an “independent” (private) one. Of course, citizens of the country want safety, security, peace, freedom, economic stability, hope, optimism, and improvement of their social welfare. A public policy must be one that never makes even one individual worse-off or even better that never makes a single individual worse-off globally. The current public policies are not able to provide these basic needs, so there is a necessity for new public policies and efficient and effective policy makers to satisfy these simple humane objectives.

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¹⁴⁸ Of course, I cannot exclude myself; I am one of them and may be the worst. Ὁ πάντων ἐσχατώτατος.

¹⁴⁹ See, “How the Fed’s Overnight Reverse Repo Facility Works”, JANUARY 11, 2022.

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¹⁵⁰ See, Hadjimichalakis (1982).

¹⁵¹ See, [Overnight Reverse Repurchase Agreements Award Rate: Treasury Securities Sold by the Federal Reserve in the Temporary Open Market Operations \(RRPONTSYAWARD\) | FRED | St. Louis Fed \(stlouisfed.org\)](#) Or now, $i_D \geq i_{ONRRP} \cong 3.50\%$, but it is still $i_D = 0.39\%$. See, [National Rate: Savings \(SNDR\) | FRED | St. Louis Fed \(stlouisfed.org\)](#).

¹⁵² See, Kallianiotis (2022a, b, and c).

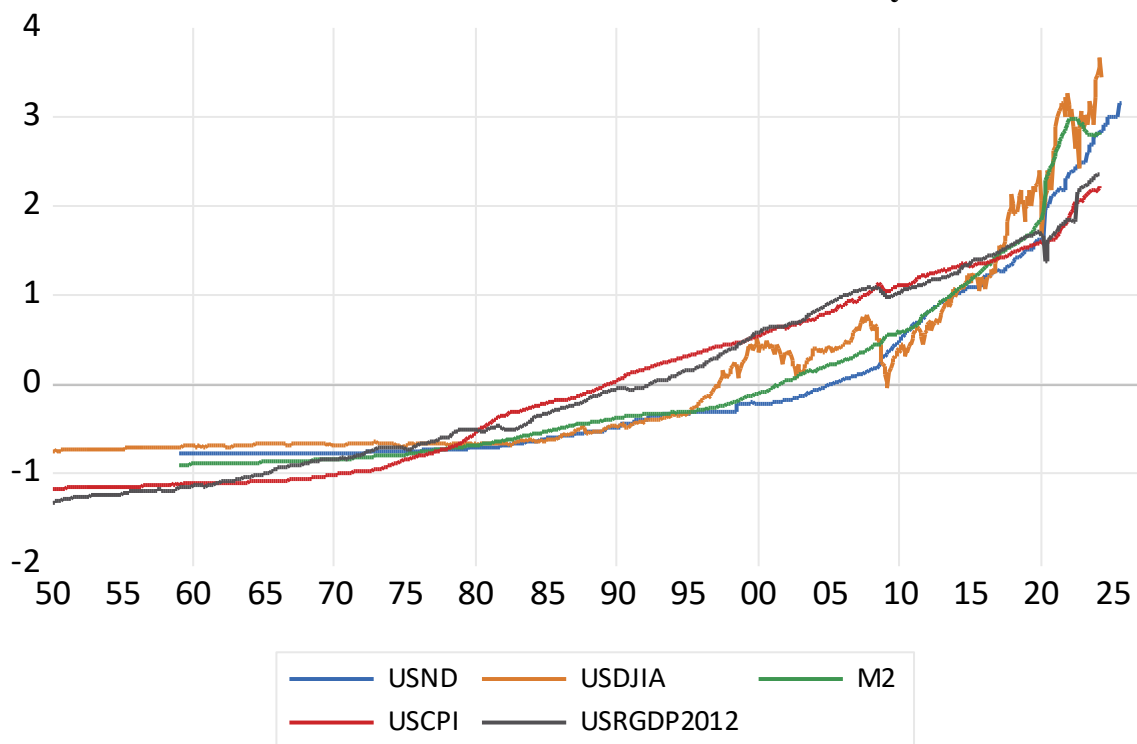
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Appendix

Exhibit A1. The Market and the Economy



Note: USND = U.S. National Debt, USDJIA = U.S. DJIA Index, M2 = Money Supply (M2), USCPI = U.S. Consumer Price Index, USRGDP2012 = U.S. Real GDP.

Exhibit A1a. Correlation and Causality

	USND	M2	USDJIA	USCPI	USRGDP2012
USND	1.000000	0.994729	0.977481	0.895721	0.913994
M2	0.994729	1.000000	0.982212	0.913041	0.929498
USDJIA	0.977481	0.982212	1.000000	0.885965	0.913192
USCPI	0.895721	0.913041	0.885965	1.000000	0.992599
USRGDP2012	0.913994	0.929498	0.913192	0.992599	1.000000

Note: The causalities bellow show: $M^S \Rightarrow CPI, DJIA, \text{ and } ND$, $ND \Rightarrow DJIA$, $CPI \Rightarrow ND$, $DJIA \Rightarrow CPI$, and $GDP \Rightarrow ND, M^S, \text{ and } DJIA$. Also, $GUSM2 \Rightarrow USINF$

Exhibit A1b. Pairwise Granger Causality Tests

Date: 01/31/26 Time: 14:02

Sample: 1950M01 2026M12

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
M2 does not Granger Cause USND	781	23.8848	9.E-11
USND does not Granger Cause M2		2.32546	0.0984
USDJIA does not Granger Cause USND	782	5.82049	0.0031
USND does not Granger Cause USDJIA		11.2601	2.E-05
USCPI does not Granger Cause USND	781	5.42373	0.0046
USND does not Granger Cause USCPI		3.89420	0.0208
USRGDP2012 does not Granger Cause USND	781	5.44988	0.0045
USND does not Granger Cause USRGDP2012		4.74348	0.0090
USDJIA does not Granger Cause M2	781	2.23213	0.1080
M2 does not Granger Cause USDJIA		8.15051	0.0003
USCPI does not Granger Cause M2	781	5.69492	0.0035
M2 does not Granger Cause USCPI		6.40767	0.0017
USRGDP2012 does not Granger Cause M2	781	19.3781	6.E-09
M2 does not Granger Cause USRGDP2012		13.5194	2.E-06
USCPI does not Granger Cause USDJIA	889	2.94729	0.0530
USDJIA does not Granger Cause USCPI		5.65915	0.0036
USRGDP2012 does not Granger Cause USDJIA	889	4.44880	0.0120
USDJIA does not Granger Cause USRGDP2012		3.19995	0.0412
USRGDP2012 does not Granger Cause USCPI	889	1.39492	0.2484
USCPI does not Granger Cause USRGDP2012		4.71185	0.0092

Table A1. U.S. Average Values and Standard Deviations

Zero Interest Rate Regime
(2008:12-2015:11)

New Positive Interest Rate Regime
(2015:12-2020:02)

[Alan Greenspan,¹⁵³ Ben Bernanke, Janet Yellen]¹⁵⁴

[Janet Yellen, Jerome Powell]

	$\bar{R}$	σ_R	$\bar{R}$	σ_R
USFFR	0.129%	0.040%	1.334%	0.736%
USRFFR	-1.458%	3.570%	-0.635%	2.271%
USMB	2,866.094	833.296	3,638.256	233.355
LUSMB	7.918	0.298	8.197	0.065
GUSMB	14.289%	37.538%	-3.622%	22.381%
M2	9,987.648	1,301.828	13,871.07	849.915
LUSM2	9.201	0.130	9.536	0.061
GUSM2	6.163%	6.395%	5.426%	3.885%
USCPI	227.366	8.464	248.209	6.533
LUSCPI	5.426	0.038	5.514	0.026
USINF	1.586%	3.571%	1.969%	2.181%
US10YTB	2.586%	0.628%	2.267%	0.494%
USR10YTB	1.000%	3.493%	0.298%	2.248%
SPREAD1	-2.457%	0.620%	-0.933%	0.679%
STT3M	0.078%	0.058%	1.264%	0.749%
RRFRI	-1.508%	3.561%	-0.705%	2.302%
USPCE	11,029.96	817.193	13,714.21	721.132
LUSPCE	9.306	0.074	9.525	0.053
GUSPCE	3.407%	3.907%	4.098%	3.492%
GUSRPCE	1.821%	3.788%	2.130%	3.377%
GAPI	-3.279%	3.913%	-2.765%	3.575%
USDJIA	13,361.00	3104.75	22,844.18	3,485.551
LUSDJIA	9.471	0.247	10.024	9.709
GUSDJIA	9.952%	55.692%	5.002%	52.341%
USRDJIA	5835.631	1166.922	9,176.579	1,198.882
LUSRDJIA	8.651	0.211	9.116	0.136
GUSRDJIA	8.366%	55.666%	3.033%	52.182
USRGDP2012	16207.12	709.469	18,419.30	549.230
LUSRGDP2012	9.692	0.044	9.821	0.030
GUSRGDP2012	1.857%	4.532%	1.929%	4.301
USU	7.838%	1.544%	4.186%	0.506%
USPSR	5.264%	1.169%	3.688%	1.655%
RPUS10YTB (Risk)	2.508%	0.606%	1.003%	0.675%
USND	15,324.26	2,349.015	20,922.83	1,286.639
LUSND	9.625	0.161	9.947	0.061
GUSND	8.124%	9.256%	4.958%	8.603%

Note: USFFR = U.S. effective federal funds rate, USRFFR = U.S. real effective federal funds rate, USMB = U.S. monetary base, LUSMB = ln of U.S. monetary base, GUSMB = growth of U.S. monetary base, M2 = money supply (M2), LUSM2 = ln of money supply (M2), GUSM2 = growth of money supply (M2), USCPI = U.S. consumer price index, LUSCPI = ln of USCPI, USINF = U.S. inflation rate, US10YTB = U.S. 10-year Treasury bonds rate, USR10YTB = U.S. real 10-year Treasury bonds rate, SPREAD1 = spread between

¹⁵³ Greenspan's "irrational exuberance" (παράλογος παροξυσμός, άλλοφροσύνη): "**Irrational exuberance**" is the phrase used by the then-Fed's chairman, Alan Greenspan, in a December 1996 speech given at the American Enterprise Institute during the [dot-com bubble](#) of the 1990s. The phrase was interpreted as a warning that the stock market might be overvalued. The DJIA in 1990 was 2,627.25 and in 1999 had grown to 10,829.28, which was a growth by 8,202.03 points or 312.19% or 34.69% p.a. Lately, it is worse, from (3/9/2009) to (1/12/2026) it was a growth of 43,043.15 points or 657.44% 39.06% per annum, Figure 3.

¹⁵⁴ See, Board of Governors Members, 1914-Present, [Federal Reserve Board - Board of Governors Members, 1914-Present](#)

the effective federal funds rate and the yield on 10-year Treasury bonds (normal, positive; flat; inverted yield curve, negative), STT3M= short-term Treasury bill 3-month maturity, RRFRI = real risk-free rate of interest ($i_{RF} - \pi$), USPCE = U.S. personal consumption expenditures, LUSPCE = ln of USPCE, GUSPCE = growth of the USPCE, GUSRPCE = growth of the U.S. real PCE, GAP1 = the gap between the real effective federal funds rate and the growth of the real PCE (=USRFFR-GUSRPCE), USDJIA = the U.S. Dow Jones Industrial Average, LUSDJIA = ln of the DJIA, GUSDJIA = growth of the DJIA, USRDJIA = U.S. real DJIA, LUSRDJIA = ln of the real DJIA, GUSRDJIA = growth of the real DJIA, USRGDP2012 = U.S. real GDP (2012 base year), LUSRGDP2012 = ln of the U.S. real GDP (2012 base year), GUSRGDP2012 = growth of the U.S. real GDP (2012 base year), USU = U.S. unemployment rate, USPSR = U.S. personal savings rate, RPUS10YTB = risk premium on 10-year Treasury bonds (=US10YTB-STT3M), USND = U.S. national debt, LUSND = ln of U.S. national debt, GUSND = growth of U.S. national debt, $\bar{R}$ = the average value of the variable, and σ_R = the standard deviation of the variable.

Source: Economagic.com, Yahoo/Finance, and FRED [Federal Reserve Economic Data | FRED | St. Louis Fed \(stlouisfed.org\)](https://fred.stlouisfed.org/)

Table A2. U.S. Average Values and Standard Deviations

	Zero Interest Rate Regime-COVID-19 (2020:03-2022:02) [Jerome Powell]		The after COVID-19 Positive Interest Rate Regime (2022:03-present) [Jerome Powell]	
	$\bar{R}$	σ_R	$\bar{R}$	σ_R
USFFR	0.103%	0.117%	4.220%	1.467%
USRFFR	-4.435%	5.229%	0.469%	5.286%
USMB	5,552.45	702.313	5,632.29	169.140%
LUSMB	8.614	0.132	8.636	0.030
GUSMB	27.935%	67.222%	-1.485%	21.213%
M2	19,624.16	1,532.842	21,230.72	401.980
LUSM2	9.881	0.080	9.963	0.019
GUSM2	17.015%	17.366%	0.239%	6.436%
USCPI	266.796	8.761	307.165	9.352
LUSCPI	5.586	0.033	5.727	0.031
USINF	4.538%	5.183%	3.751%	4.421%
US10YTB	1.179%	0.436%	3.920%	0.584%
USR10YTB	-3.359%	4.896%	0.169%	4.729%
SPREAD1	-1.076%	0.481%	0.300%	1.067%
STT3M	0.098%	0.078%	4.238%	1.339%
RRFRI	-4.440%	5.204%	0.487%	5.246%
USPCE	15,309.13	1,326.269	19,199.13	1,081.357
LUSPCE	9.632	0.089	9.861	0.056
GUSPCE	6.979%	45.494%	5.964%	14.372%
GUSRPCE	2.441%	42.480%	2.213%	14.412%
GAP1	-6.876%	45.541%	-1.744%	14.549%
USDJIA	31,450.35	3,927.306	37,065.76	4,478.515
LUSDJIA	10.348	0.129	10.513	0.129
GUSDJIA	21.796%	52.721%	7.919%	55.987%
USRDJIA	11,760.51	1,173.213	12,040.25	1,143.13
LUSRDJIA	9.368	0.103	9.392	0.095
GUSRDJIA	17.258%	54.623%	4.168%	56.937%
USRGDP2012	19,138.20	801.437	22,465.74	1,156.525
LUSRGDP2012	9.859	0.043	10.018	0.053

GUSRGDP2012	2.346%	30.274%	5.296%	16.016%
USU	6.763%	2.712%	3.813%	0.263%
USPSR	12.988%	6.815%	4.898%	1.112%
RPUS10YTB (Risk)	1.081%	0.464%	-0.318%	0.956%
USND	27,985.89	1,533.849	33,565.32	2,102.996
LUSND	10.238	0.057	10.419	0.063
GUSND	13.465%	33.637%	5.247%	10.128%

Note: See, Table A1.

Source: See, Table A1.