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The Questionable Effectiveness and Efficiency of the New Public Policies

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Abstract

In this paper we deal with the recent (1995-2023) Federal Reserve operated monetary policies, which were two unprecedented and distinct monetary policy regimes. The inflation stabilization era (1995-2008) and the zero-interest rate era (December 15, 2008-December 15, 2015) and again (March 15, 2020-March 15, 2022). These different monetary policy regimes provided various outcomes for interest rates, financial markets, inflation, cost of living, employment, international trade, and real economic growth. Then, a new fiscal policy was imposed in 2020. Some of the important results are that monetary policy appears to be able to affect long-term real interest rates, risk, the prices of the financial assets (bubbles), and very little the real economic growth. The Fed's interest rate target was set during these nine years at 0% to 0.25%. It has created a low level of long-term interest rates and the negative real rate of interest (cost of capital). The evidence suggests that these public policies are not very effective; they have created a new bubble in the financial market, future inflation, and a redistribution of wealth from riskaverse savers to banks and risk-taker speculators. This monetary policy has increased the risk (RP) to the risk-averse depositors by making the real rate of interest negative. The effects on growth and employment of both public policies (monetary and fiscal) were gradual, small, and questionable, due to exaggerated liquidity, outsourcing, COVID-19, liberalism, high cost of production, the "environment", enormous debts, and unfair trade policies.

Keywords: Monetary Policy, Central Banks and Their Policies, Money and Interest Rates, Financial Markets and the Macro-economy, Model Evaluation and Testing, Social Welfare

1. Introduction

The conception of a monetary policy regime is somewhat vague and different from a fiscal policy. It is related to the state of the economy, to Fed's experience and independence, and to the idea of amonetary standard. Examples of monetary standards include the classical gold standard1 that existed in most developed economies between 1880 and 1914, the modified gold exchange standard adopted in 1946 after the Bretton Woods agreement (1944), and the paper money

¹ The bimetallic, gold and silver, standard was abolished on January 17, 1873, with the demonetization of American silver, which became known, as the "Crime of 1873". See, Goodson (2019, pp. 70-71).

Vol. 7, No.12; 2023

ISSN: 2456-7760

standard that evolved after the abandonment of the Bretton Woods agreement in 1971.2 This paper examines two distinct U.S. policy regimes that were adopted to manage a paper money standard. These regimes are defined by the different goals for policy and by the different procedures, the inflation stabilization (moderation) era, 1995-2008 (2% inflation target) and the zero-interest rate (ZIR) era, 2008-2015 (quantitative easing) and 2020-2022 (the suspicious COVID-19) used to implement monetary policy decisions.3

Before 2007, the Fed implemented monetary policy with *limited reserves*, non-borrowed (\mathbb{R}^*) and borrowing (\mathbb{R}_B) reserves, in the banking system ($\mathbb{R}^* + \mathbb{R}_B = \mathbb{R}_T^s$) and relied on *OMO*, as its key instrument (tool). After the financial crisis of 2008, the Fed implements monetary policy with *ample reserves*, Figure 1, by using many new instruments4 and it relies since October 1, 2008 on interest on reserves (*IOR*)5 and since September 17, 2014, on interest on overnight reverse repurchase (*ON RRP*),6 too.

The Fed with its new monetary policy that is using since October 1, 2008,7it has as its administered rates, (1) interest on reserves (i_{IOR}) and later, (2) interest of overnight reverse repurchase (i_{ONRRP}), with which influences the federal funds rate (i_{FF}). The demand for reserves curve (R^d) turns flat between the new administered rates at point E_1 , Figure 1, which helps to keep the i_{FF} into the FOMC's target range (5.25% $\leq \bar{i}_{FF} \leq 5.50\%$), today.8 With these

6 See, <u>Federal Reserve Board - Overnight Reverse Repurchase Agreement Facility</u>

7 In December 2008, they were , $i_{IOR} = 0.25\%$, $i_{ON\,RRP} = 0.05\%$, $i_{FF}^{eff} = 0.12\%$, and $i_{DR} = 0.50\%$. On July 26, 2022 they were, $i_{IOR} = 2.40\%$, $i_{ON\,RRP} = 2.30\%$, $i_{FF}^{eff} = 2.33\%$, and $i_{DR} = 2.50\%$. On October 21, 2022, they were: $i_{IOR} = 3.15\%$, $i_{ON\,RRP} = 3.05\%$, $i_{FF}^{eff} = 3.08\%$, and $i_{DR} = 3.25\%$. On November 7, 2022, the interest rates became: : $i_{IOR} = 3.90\%$, $i_{ON\,RRP} = 3.80\%$, $i_{FF}^{eff} = 3.83\%$, and $i_{DR} = 4.00\%$. And in October 2023, they were: $i_{IOR} = 5.40\%$, $i_{ON\,RRP} = 5.30\%$, $i_{FF}^{eff} = 5.33\%$, and $i_{DR} = 5.50\%$. See, Interest Rates, Discount Rate for United States (INTDSRUSM193N) | FRED | St. Louis Fed (stlouisfed.org) . See, "Interest on Reserve Balances". https://www.federalreserve.gov/monetarypolicy/reserve-balances.htm . See also, "Effective Federal Funds Rate", https://www.newyorkfed.org/markets/reference-rates/effr . Further, "FRB Rates - discount, fed funds, primary credit", https://fred.stlouisfed.org/categories/118 and Overnight Reverse Repurchase Agreements Award Rate: Treasury Securities Sold by the Federal Reserve in the Temporary Open Market Operations | FRED | St. Louis Fed (stlouisfed.org). 8 See, Federal Funds Target Range - Upper Limit (DFEDTARU) | FRED | St. Louis Fed (stlouisfed.org) and Federal Funds Target Range - Lower Limit (DFEDTARL) | FRED | St. Louis Fed (stlouisfed.org) . In addition, see,

² See, Kallianiotis (2019).

³ See, Bindseil (2016), Gavin (2018), Bullard (2018), and Kallianiotis (2023).

⁴Policy Tools. <u>https://www.federalreserve.gov/monetarypolicy/policytools.htm</u> . See, also, The Fed's New Monetary Policy Tools. <u>https://research.stlouisfed.org/publications/page1-econ/2020/08/03/the-feds-new-monetary-policy-tools</u>

⁵ See, <u>Federal Reserve Board - Interest on Reserve Balances</u>

Overnight Reverse Repurchase Agreements Award Rate: Treasury Securities Sold by the Federal Reserve in the Temporary Open Market Operations | FRED | St. Louis Fed (stlouisfed.org)

Vol. 7, No.12; 2023

ISSN: 2456-7760

enormous "ample" reserves,9 the Fed does not need to make daily *OMO* (*OMP* or *OMS*), as it did before with the limited reserves to hit the i_{FF} target. Now, small shifts of the supply curve (R^s) have no effect on the i_{FF} . The main tool for keeping the i_{FF} on its target and driving the demand curve flat is the i_{IOR} . Banks invest their money short-term based on the interest rate and the risk. They can invest in Treasury Bills ($i_{RF} = 5.35\%$),10 by offering loans to banks ($i_{FF}^{eff} = 5.33\%$),11 or by depositing to the Fed ($i_{IOR} = 5.40\%$). Banks prefer to deposit their money to the Fed because i_{IOR} is higher compared to the alternative S-T investments and it is also a safe overnight



Figure 1: New Monetary Policy with Ample Reserves

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

10 The T-Bill rate in the secondary market was, $i_{RF} = 0.02\%$ on June 30, 2021 and became in one year

 $i_{RF} = 4.06\%$ (November 7, 2022). Now (December 1, 2023), it is: $i_{RF} = 5.27\%$. See,

<u>https://tradingeconomics.com/united-states/interest-rate</u> and <u>https://ycharts.com/indicators/3_month_t_bill</u> and <u>https://fred.stlouisfed.org/series/TB3MS</u>. See, also, <u>Interest Rate on Reserve Balances (IORB) | FRED | St. Louis</u> <u>Fed (stlouisfed.org)</u> In addition, see, <u>3 Month Treasury Bill Rate (ycharts.com)</u> 11 See, Effective Federal Funds Rate - FEDERAL RESERVE BANK of NEW YORK (newyorkfed.org)

⁹See, Graph 2e: Reserves of Depository Institutions: Total (TOTRESNS) SSOWNLOAD. With December 2008, $R_T =$ \$820.9 billion, they reached \$4,193.2 billion (September 2021), 31.6% p.a. growth, and today (November 28, 2023), they are \$3,276.5 billion.

Vol. 7, No.12; 2023

ISSN: 2456-7760

Note: i = interest rates, $i_{FF} = \text{federal funds rate}$, $i_{DR} = \text{discount rate}$, $i_{IOR} = \text{interest rate on reserves}$,

 i_{ONRRP} = interest rate on overnight reverse repurchase, R = reserves, R^d = demand for reserves, R^s =

supply of reserves, $R^* =$ non-borrowed reserves, $E_1 =$ equilibrium ($R^s = R^d$).

investment, but a bail-out cost for the taxpayers.12 (*Sic*). If the i_{FF} were to fall very far below the i_{IOR} , banks would borrow in the federal funds market and deposit those reserves at the Fed, earning a profit (arbitrage, π_A) on the difference ($\pi_A = i_{IOR} - i_{FF}$) This arbitrage ensures that the i_{FF} does not fall much below i_{IOR} , as follows: [$EX D_{FF} \Rightarrow i_{FF} \uparrow and EX S_{Re serves} \Rightarrow i_{IOR} \downarrow$]

Banks, before November 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. 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 ($R_R = 0$).13 This interest on required reserves (IORR) made Fed's policy effectiveness irrelevant for banks. The Fed shifted to an ample-reserves framework and reserve requirements (r_R) are not anymore, a tool of monetary policy. Thus, now, we have only IOR (i_{IOR}). The reserves are still remained "ample",14 Figure 1.

Thus, when there is a large quantity of reserves in the banking system, as it is lately, Figure 1 and Graph 2e, the Fed can no longer influence the i_{FF} by making small changes in the supply of reserves (\mathbb{R}^s). Why we need all these non-borrowed reserves (\mathbb{R}^s)? What was the reason of this idle enormous liquidity with the economy lockdown, businesses had no workers because of the

¹² See, Kallianiotis (2021c).

¹³ See, "Reserve Requirements", <u>https://www.federalreserve.gov/monetarypolicy/reservereq.htm</u>. Also, "The <u>Financial Services Regulatory Relief Act of 2006</u> 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 <u>Emergency Economic Stabilization Act of 2008</u>." See, "Interest on Reserve Balances",

https://www.federalreserve.gov/monetarypolicy/reserve-balances.htm

¹⁴ In January 2019, the FOMC released a statement saying, it would continue to implement policy with ample reserves in the long run. See, Board of Governors of the Federal Reserve System. "Statement Regarding Monetary Policy Implementation and Balance Sheet Normalization." Press release, January 30, 2019; https://www.federalreserve.gov/newsevents/pressreleases/monetary20190130c.htm

More recently, in response to the COVID-19 pandemic, reserves have grown substantially. By May 2020, reserves expanded and stood above \$3.218 trillion, at a higher level than their peak during the aftermath of the Great Recession; on January 28, 2021, they were \$3.135 trillion; on February 23, 2021, they were \$3.154 trillion; on March 23, 2021 became \$3.346 trillion; on June 28, 2022, they became \$3.318 trillion, on July 26, 2022 they fell to \$3,228.4 billion, on September 27, 2022, they became \$3,305.9 billion, and now (10/24/2023) they are \$3,239.4 billion (Graph 1). https://fred.stlouisfed.org/series/TOTRESNS

Vol. 7, No.12; 2023

ISSN: 2456-7760

vaccine mandates, a vast demand for imports (Graph 6),15 a supply chain problem, and a very anemic AD? Why the taxpayers have to pay billions of dollars to the corrupted banks for keeping these idle excess reserves? Why the depositors have to earn zero deposit rate and to pay a high real deposit rate (bail-in cost) to banks? Is this policy efficient, fair, ethical, or social? All this money supply (Graph 3) and the government spending (Graph 4) caused the enormous double-digit inflation $\pi = 18\%$,16 and an official $17\pi = 9.1\%$, which is already, here and will stay for a long time, Figure 3 and Graph 9. How will we control the bubble (Figure 2) in the financial market? The market manipulators and the insiders will start taking advantage of this situation, as already are doing. All these have generated an unfair huge social cost and an uncertain future.

In conclusion, when the Fed raises or lowers the i_{IOR} , the i_{FF} moves up or down, too. Consequently, the Fed can keep the i_{FF} into the target range set by the *FOMC* through adjustment of the i_{IOR} . The Fed sets the i_{IOR} directly, so this interest rate serves as an effective monetary policy tool. Now, this i_{IOR} lisis the *primary tool* used by the Fed for influencing the i_{FF} , Figure 1. The old tools were satisfied the same objective without charging citizens with any cost, as they have to pay, now, the IOR (bail out cost to taxpayers of hundreds of billions of dollars per annum).¹⁹ In 2014, the *FOMC* announced that it will use the Overnight Reverse Repurchase Agreement Facility (*ON RRP*)²⁰ 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).²¹ 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";²² 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 discussed by Kallianiotis (2021a). 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

2022, the CPI rose 9.1% and the PPI rose 10.8%. <u>https://www.shrm.org/resourcesandtools/hr-</u>

topics/compensation/pages/annual-inflation-hit-40-year-high-in-may.aspx . The inflation for some foods it is over 100%. For example, 3 litters 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.

19 See, Kallianiotis (2021a).

https://www.newyorkfed.org/markets/rrp_counterparties.

¹⁵ See, "United States Imports", <u>https://tradingeconomics.com/united-states/imports</u>. See also, "List of imports of the United States", <u>https://en.wikipedia.org/wiki/List_of_imports_of_the_United_States</u>. Further see, "What Are the Top 10 U.S. Imports?", <u>https://traderiskguaranty.com/trgpeak/what-are-the-top-10-u-s-imports/</u> 16 See, SGS, <u>http://www.shadowstats.com/alternate_data/inflation-charts</u>

¹⁷See, Stephen Miller, "U.S. Inflation Rate Reaches 8.6% in May, a 40-Year High, Pushing Wages Up". In June

¹⁸ See, Board of Governors of the Federal Reserve System. "Interest on Required Reserve Balances and Excess Balances". https://www.federalreserve.gov/monetarypolicy/reqresbalances.htm

²⁰ See, Board of Governors of the Federal Reserve System. "Overnight Reverse Repurchase Agreement Facility". https://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm.

²¹ See, "What Is a Money Market Fund?", <u>https://www.investopedia.com/investing/do-money-market-funds-pay/</u> and "Government-Sponsored Enterprise (GSE)", <u>https://www.investopedia.com/terms/g/gse.asp</u>. See also, Federal Reserve Bank of New York, "Reverse Repo Counterparties".

²² Unwind = To closeout a relatively complicated investment position.

Vol. 7, No.12; 2023

ISSN: 2456-7760

 i_{ONRRP} acts as a reservation rate and institutions can use it to arbitrage other short-term rates. Thus, the interest rate paid on *ONRRP* transactions and it is below the i_{IOR} , acts like a floor for the i_{FF} and serves as a *supplementary policy tool* by the Fed, Figure 1.

2. The Exaggerated Liquidity in Graphs and Numbers

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 (Graph 1).23 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 are going up again. On November8, 2023, they were \$7.909 trillion: \$4.873 in government securities and \$2.463 trillion in mortgage-backed securities (plus other factors of \$0.573 trillion).24

Over four rounds of "quantitative easing" (QE) in 2008, 2010, 2012, and 2014, 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 2022 (Graph 2e and Graph 1). 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 (Graph 2a).²⁵ As a result, excess



23Graph 1: Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level (WALCL)

Note: The total assets were, on December 7, 2023, \$7,737.385 billion.

Source: Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level (WALCL) | <u>FRED | St. Louis Fed (stlouisfed.org)</u>

24 See, See, "Federal Reserve Balance Sheet: Factors Affecting Reserve Balances - H.4.1", <u>Federal Reserve</u> <u>Balance Sheet: Factors Affecting Reserve Balances - H.4.1 - November 09, 2023</u> ²⁵ Graph 2a: St. Louis Monetary Base Total:

Vol. 7, No.12; 2023

ISSN: 2456-7760

reserves held by depository institutions reached \$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 (Graph 2b).²⁶ In July 2019, they were \$1,378.447 billion. In December 2019, the monetary base was \$3,382.800 billion, the currency in



Note: 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; April 15, 2015: \$4,167.780 billion; on June 14, 2019: \$3,304.252 billion; on August 14, 2019: \$3,331.637 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, and on November 28, 2023 went up to \$5,601.3 billion.

Source: Monetary Base; Total (BOGMBASE) | FRED | St. Louis Fed (stlouisfed.org) . In addition, see, https://fred.stlouisfed.org/series/BASE/ See, also, https://research.stlouisfed.org/datatrends/usfd/page7.php https://www.federalreserve.gov/releases/h3/current/

²⁶Graph 2b: Monetary Base; Excess Reserves of Depository Institutions (DISCONTINUED):



Note: With December 30, 2019, they continue to growth to $R_{E} = \$1,491.106$ billion and with August 2020 they were \$2,799.719 billion, where they were discontinued to keep statistics. Source: https://fred.stlouisfed.org/series/EXCSRESNS

Vol. 7, No.12; 2023

ISSN: 2456-7760

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. (Graphs 2a, 2b, 2c, 2d, and 2e).²⁷ The money supply (M2) has surpassed all its



Note: With December 30, 2019, C = \$1,796.397 billion, with October 24, 2023 had reached \$2,327.7 billion, and on November 28, 2023, it was C = \$2,324.9 billion.

Source: https://fred.stlouisfed.org/series/MBCURRCIR

Graph 2d: Monetary Base; Required Reserves of Depository Institutions (DISCONTINUED):



Note: With December 30, 2019, $R_R = 207.24 billion and lately, $R_R = 167.36 billion (April 9, 2020). In August 2020 became zero ($R_R = 0$).

Source: https://fred.stlouisfed.org/series/REQRESNS Graph 2e: Reserves of Depository Institutions: Total (TOTRESNS) SSOWNLOAD Observation: Sep 2023: 3,239.4(+ more).Updated: Oct 24, 2023

Vol. 7, No.12; 2023

ISSN: 2456-7760

limits (Graph 3)28 and the DJIA had reached 36,799.65 on January 4, 2022 (Figure 2). Is this 39.33% p.a. growth of the stock prices²⁹ due to high risk (RP) or due to excess liquidity (Fed's policy)? 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 coronavirus. Then, inconsiderate



Note: With December 2008, $R_T =$ **\$820.9** billion, it reached \$4,193.2 billion (September 2021), 31.6% p.a. growth, and today (October 2023), it is \$3,239.4 billion. Source: <u>Reserves of Depository Institutions: Total (TOTRESNS) | FRED</u> | St. Louis Fed (stlouisfed.org)



Note: 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, and on November 28, 2023, it was M2 = \$20,671.1 billion.. Source: M2 (M2NS) | FRED | St. Louis Fed (stlouisfed.org)

29 In 2019, the stock market (DJIA) must had grown by 9.886% p.a. (= $\bar{i}_{RF} + HRP = 0.986\% + 8.9\%$). See, Ross, Westerfield, Jaffe, and Jordan (2022, p. 311). Then, today (12/13/2023), the growth of the DJIA must be: $g_{DJIA} = 5.32\% + 8.9\% = 14.22\%$.

Vol. 7, No.12; 2023

ISSN: 2456-7760

government expenditures went up drastically since 2020 (Graph 4)30raising together the national debt (Graph 5 and Figure 4).³¹Unfortunately, the most inefficient institution in the country is the Federal government.³² The unfair trade deficit is going up, too (Graph 6).³³ Fed also went back to



30 Graph 4: Federal Government: Current Expenditures (FGEXPND)

Note: On November 29, 2023, it was G = \$6,400.887 billion.

Source: Federal Government: Current Expenditures (FGEXPND) | FRED | St. Louis Fed (stlouisfed.org)



31 Graph 5: Federal Debt: Total Public Debt (GFDEBTN):

Note: With December 4, 2023, the ND was \$33,167.334 billion.

Source: Federal Debt: Total Public Debt (GFDEBTN) | FRED | St. Louis Fed (stlouisfed.org)

32 The corruption, the control, and the ineffectiveness of all governments (the establishment, the deep swamp) are known since the French Revolution (the Jacobins) in 1789.

Vol. 7, No.12; 2023

ISSN: 2456-7760



a new zero federal funds rate, on March 16, 2020, to cope with the new created economic crisis.³⁴

Figure 2.The U.S. Dow Jones Industrial Average

Note: USDJIA = U.S. Dow Jones Industrial Average. In 2009:03, the DJIA was 6,547.05 and on February 12, 2020 reached 29,551.42; a growth by 23,004.37 points or 351.37% (32.18% per



Note: With 2023:Q3, the CA = -\$820.286 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) 34 The new target federal funds rate was again: $0.00\% \le \overline{i}_{FF} \le 0.25\%$ and the effective: $i_{FF}^{eff} = 0.05\%$. See, Fed Funds Target Rate History (Historical) (fedprimerate.com) Page 235

Vol. 7, No.12; 2023

ISSN: 2456-7760

annum). 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. Source: Dow Jones - DJIA - 100 Year Historical Chart | MacroTrends

Also, the average maturity of assets on the Fed's balance sheet rose as the FOMC rebalanced the portfolio, substituting long-term assets for short-term ones.³⁵In October 2008 ($\dot{\eta}\dot{\alpha}\pi\sigma\phi\rho\dot{\alpha}\varsigma$ $\dot{\eta}\mu\dot{\epsilon}\rho\alpha$),³⁶the Federal Reserve had begun to pay interest on reserves (IOR).³⁷ 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 ($i_{IOR} = i_{RF} + 0.20\%$).³⁸ This was a factor that increased banks'

https://www.federalreserve.gov/releases/h41/current/h41.pdf

When $D_{L-T} \uparrow => P_{L-T} \uparrow => i_{L-T} \downarrow$ and if $D_{S-T} \downarrow => P_{S-T} \downarrow => i_{S-T} \uparrow$. This is the reason that the Yield Curve is negatively slopped.

³⁸ 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, $i_{IOR} = 2.10\%$. See, "Interest on Required Reserve Balances and Excess Balances",

https://www.federalreserve.gov/monetarypolicy/reqressbalances.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, $r_D = -2.25\%$). On October 2023, it was $r_D = -3.6\%$. Now, 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 (Graph 2e) to banks and because there is no demand for investments (Graph 7), banks cannot offer loans (Graph 8), 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 policies.

Graph 7: U.S. Gross Private Domestic Investment (billions of dollars, SA):

³⁵With 12/25/2019, they were: (1) Bills: \$164.167 billion; (2) Notes and Bonds: \$2,159.857 billion; (3) Mortgagebacked securities: \$1,420.886; and (4) Other assets: \$462.392 billion; Total: \$4,207.302 billion. See,

³⁶ 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).

³⁷ 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 is Interest on Required Reserves (IORR), which is the rate at which the Federal Reserve Banks pay 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 (Graph 2d); but all these interests are paid by the taxpayers. The other component of IOR is Interest on Excess Reserves (IOER), Graph 2b, 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 (t_{FF}^{eff}) at the time that demand for loans is low (Graph 8). But, as it was mentioned, these IOR are paid by the poor taxpayers (bail-out cost). (Sic). See, Kallianiotis (2022).

Vol. 7, No.12; 2023

ISSN: 2456-7760

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. 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



Note: 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, and on October 26, 2023, it was I = 4,899.337 billion.

Source: https://fred.stlouisfed.org/series/GPDI

Vol. 7, No.12; 2023

ISSN: 2456-7760

investments (Graph 7)³⁹ and for this reason, they cause only bubbles in the financial market and preparing the environment for the 2nd global financial crisis of the 21st century (enormous liquidity, which is offered to financial investors by using margin accounts with $r_m = 50\%$) and keep 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.⁴⁰ Therefore, this policy is not only inefficient and ineffective, but bad (risky and unfair) for depositors, taxpayers, and the real economy (our financial system and inflationary).41

³⁹ 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 domestic aggregate demand can increase only if manufacturing and agricultural production and jobs will come back to the country. 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) => Refer to (impeachment) => Restraint (globalization) => Coronavirus => liberal indoctrination in education. The establishment allowed for 29 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, as Graph 8 shows.



Note: With 2023:Q3, loans fell by -1.0% p.a.

Source: https://fred.stlouisfed.org/series/CILACBQ158SBOG

⁴⁰ Banks supply deposits (deposit accounts) and depositors are demanding deposit accounts. Deposits are supplydetermined (a downward negatively sloped supply curve) by the banks. See, Hadjimichalakis (1982, p.3). ⁴¹ See, Graph 9: Consumer Price Index for All Urban Consumers: All Items in U.S. City Average (CPIAUCSL)

Vol. 7, No.12; 2023

ISSN: 2456-7760

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 is closed to zero since 2008, 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 banks buy risky financial to and to assets $(RP_{DIIA} = \bar{g}_{DIIA} - \bar{R}_{RF} = 39.33\% - 0.799\% = 38.531\%).42$ These changes in private Fed's monetary policy overturn and invalidate its ultimate objective, which is the prevention of financial crises and the improvement of social welfare.

3. Testing the Effectiveness and Efficiency of the New Monetary Policy

We use OLS equations to test the effectiveness of the instruments of monetary policy $(i_{FF}^{eff}, mb, and m^s)$ on the goal variables $((p, u, rgdp, i_{10YTB}, djia, and ta)$ by taking them one by one as dependent variables and the remaining of them as independent, too. This will be as a test of interdependence of the objective variables and their effect from the policy tools.

$$djia_{t} = \alpha_{0} + \alpha_{1}djia_{t-1} + \alpha_{2}rgdp_{t-1} + \alpha_{3}i_{10YTB_{t-1}} + \alpha_{4}p_{t-1} + \alpha_{5}u_{t-1} + \alpha_{6}ta_{t-1} + \alpha_{7}i_{FE}^{eff} + \alpha_{8}mb_{t} + \alpha_{9}m_{t} + \varepsilon_{t}$$
(1)

 $rgdp_{t} = \beta_{0} + \beta_{1}djia_{t-1} + \beta_{2}rgdp_{t-1} + \beta_{3}i_{10YTB_{t-1}} + \beta_{4}p_{t-1} + \beta_{5}u_{t-1} + \beta_{6}ta_{t-1} + \beta_{7}i_{FF_{t}}^{eff} + \beta_{8}mb_{t} + \beta_{9}m_{t} + \varepsilon_{t}(2)$



Note: The official CPI was 204.813 (November 2008) and reached 307.917 (November 2023), a growth of 50.34% or 3.36% per annum.

Source: <u>Consumer Price Index for All Urban Consumers: All Items in U.S. City Average (CPIAUCSL) | FRED</u> <u>St. Louis Fed (stlouisfed.org)</u>

⁴² 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*).

Vol. 7, No.12; 2023

ISSN: 2456-7760

$$i_{10YTB_{t}} = \gamma_{0} + \gamma_{1} dj a_{t-1} + \gamma_{2} rg dp_{t-1} + \gamma_{3} i_{10YTB_{t-1}} + \gamma_{4} p_{t-1} + \gamma_{5} u_{t-1} + \gamma_{6} ta_{t-1} + \gamma_{7} i_{FF_{t}}^{eff} + \gamma_{8} mb_{t} + \gamma_{9} m_{t} + \varepsilon_{t} (3)$$

$$p_{t} = \delta_{0} + \delta_{1} dj a_{t-1} + \delta_{2} rg dp_{t-1} + \delta_{3} i_{10YTB_{t-1}} + \delta_{4} p_{t-1} + \delta_{5} u_{t-1} + \delta_{6} ta_{t-1} + \delta_{7} i_{FF_{t}}^{eff} + \delta_{8} mb_{t} + \delta_{9} m_{t} + \varepsilon_{t}$$
(4)

$$u_{t} = \lambda_{0} + \lambda_{1} dj i a_{t-1} + \lambda_{2} rg dp_{t-1} + \lambda_{3} i_{10YTB_{t-1}} + \lambda_{4} p_{t-1} + \lambda_{5} u_{t-1} + \lambda_{6} t a_{t-1} + \lambda_{7} i_{FF_{t}}^{eff} + \lambda_{8} m b_{t} + \lambda_{9} m_{t} + \varepsilon_{t}$$
(5)

$$ta_{t} = \mu_{0} + \mu_{1}djia_{t-1} + \mu_{2}rgdp_{t-1} + \mu_{3}i_{10YTB_{t-1}} + \mu_{4}p_{t-1} + \mu_{5}u_{t-1} + \mu_{6}ta_{t-1} + \mu_{7}i_{FF_{t}}^{eff} + \mu_{8}mb_{t} + \mu_{9}m_{t} + \varepsilon_{t}$$
(6)

We test the effectiveness and efficiency of monetary variables (instruments) before the global financial crisis, inflation stabilization era (1995:01-2008:11) and then, during the new monetary policy regime (2008:12-now) on the objective macro-variables. The empirical results of the OLS equations appear in Tables A1 and A2.

4. Testing of the New Public Policies

Different public policies play critical roles in developing sustainable economic stability (in financial markets and the real sector) in the country, which their effectiveness and efficiency can create an environment of balance and symmetry for faster economic growth and larger social welfare. Monetary and fiscal policies are the fundamental components for promoting sustainable growth in the economy. The successful functioning of an economy depends on the coordinated activities of monetary and fiscal policies and the absence of this coordination leads to a poor overall economic performance. Lately, since 2009, we had an enormous liquidity, Graph 4, from the Fed and since 2021, a huge spending spry by the government, Graphs 4 and 5. These new policies are conducted by two separate authorities (central bank and government), they are mutually dependent, but both inefficient and ineffective, and therefore, their accomplishment is consistent by contributing to high inflation and bubble in the financial markets, thus, causing high social cost, Figures 2 and 3. There was no harmonized monetary and fiscal policy and we did not avoid inconsistencies.

Fiscal policy deals with the public expenditures and revenues and both were increasing by the liberal Biden's administration (Bidenomics). Pragmatic and effective fiscal stance promotes economic growth without inflation pressure, low levels of fiscal deficit and public debt,43

⁴³ The Treasury secretary, Janet Yellen, declares, as an "expert" on these matters, that "debts and deficits do not matter". See, "Why Janet Yellen Doesn't Lose Sleep Over U.S. Borrowing That Alarms Most Americans", Why Janet Yellen Doesn't Lose Sleep Over U.S. Borrowing | Time. See also, "U.S. National Debt by Year", U.S. National Debt by Year (investopedia.com). In addition, see, "US Debt by President: By Dollar and Percentage", US Debt by President: Dollar and Percentage (thebalancemoney.com). And as an atheist, she said: "Roe v. Wade and access to reproductive health care, including abortion, helped lead to increased labor force participation," Yellen said. See, "Abortion is an economic issue, argues Treasury Secretary Janet Yellen", <u>Treasury Secretary Janet</u> Yellen: Abortion improves women's outcomes (usatoday.com). See also, "Yellen: Banning abortion would be 'very damaging' to U.S. economy", <u>Yellen: Banning abortion would be 'very damaging' to U.S. economy - POLITICO</u>. With these people as public policy makers, we cannot expect any better results, than the current extremely questionable effectiveness and efficiency of their new policies.

Vol. 7, No.12; 2023

ISSN: 2456-7760

narrow down budget imbalances in situations of high fiscal deficit and public debt. But what we see the last years is exactly the opposite. The fiscal policy measures should be taken by influencing aggregate demand and supply, attempting to create better employment conditions and acceptable inflation level, leading the policy of steady trade balance, and supporting sustainable economic growth. Monetary Policy, which is the main subject, here, deals with the interest rate and the control of money supply by the central bank. It should be mostly focused on achieving stability of prices through targeting inflation rates, maximum employment, moderate L-T interest rate, financial market stability, growth of the GDP, and an exchange rate leading towards positive trade account balance. We want to test the comparative efficiency and effectiveness of the new public policies (monetary and fiscal policy), here.

To test the effectiveness of the monetary and fiscal policy simultaneously during the two regimes (Old from 1995 to 2008 and New from 2009 to present), a VAR model is constructed. We use a vector auto regression (VAR) model for the interrelated objective variables of the monetary and fiscal policy $(^{djia_t}, ^{rgdp_t}, ^{i_{10YTB_t}}, ^{p_t}, ^{u_t},$ and $^{ta_t})^{44}$ as endogenous variables. Also, they are used as a function with their lagged values for all these endogenous variables in the system plus the monetary policy instruments $(^{i_{eff}}_{FF_t}, ^{mb_t},$ and $^{m_t})$ and the fiscal policy tools $(^{t_t},$ and $^{g_t})$ as exogenous variables. The mathematical representation is as follows:

$$\begin{aligned} djia_{t} &= \alpha_{11} djia_{t-j} + \beta_{12} rg dp_{t-j} + \gamma_{13} i_{10YTB_{t-j}} + \delta_{14} p_{t-j} + \zeta_{15} u_{t-j} + \eta_{16} ta_{t-j} + c_{o} \\ &+ \theta_{11} i_{FF_{t}}^{eff} + \kappa_{12} mb_{t} + \lambda_{13} m_{t} + \mu_{14} t_{t} + \xi_{15} g_{t} + \varepsilon_{1t} \end{aligned}$$

$$\begin{aligned} rg dp_{t} &= \alpha_{21} djia_{t-j} + \beta_{22} rg dp_{t-j} + \gamma_{23} i_{10YTB_{t-j}} + \delta_{24} p_{t-j} + \zeta_{25} u_{t-j} + \eta_{26} ta_{t-j} + c_{o} \\ &+ \theta_{21} i_{FF_{t}}^{eff} + \kappa_{22} mb_{t} + \lambda_{23} m_{t} + \mu_{24} t_{t} + \xi_{25} g_{t} + \varepsilon_{2t} \end{aligned}$$

$$\begin{aligned} i_{10YTB_{t}} &= \alpha_{31} djia_{t-j} + \beta_{32} rg dp_{t-j} + \gamma_{33} i_{10YTB_{t-j}} + \delta_{34} p_{t-j} + \zeta_{35} u_{t-j} + \eta_{36} ta_{t-j} + c_{o} \\ &+ \theta_{31} i_{FF_{t}}^{eff} + \kappa_{32} mb_{t} + \lambda_{33} m_{t} + \mu_{34} t_{t} + \xi_{35} g_{t} + \varepsilon_{3t} \end{aligned}$$

$$\begin{aligned} p_{t} &= \alpha_{41} djia_{t-j} + \beta_{42} rg dp_{t-j} + \gamma_{43} i_{10YTB_{t-j}} + \delta_{44} p_{t-j} + \zeta_{45} u_{t-j} + \eta_{46} ta_{t-j} + c_{o} \\ &+ \theta_{41} i_{FF_{t}}^{eff} + \kappa_{42} mb_{t} + \lambda_{43} m_{t} + \mu_{44} t_{t} + \xi_{45} g_{t} + \varepsilon_{4t} \end{aligned}$$

$$\begin{aligned} (7) \\ u_{t} &= \alpha_{51} djia_{t-j} + \beta_{52} rg dp_{t-j} + \gamma_{53} i_{10YTB_{t-j}} + \delta_{54} p_{t-j} + \zeta_{55} u_{t-j} + \eta_{56} ta_{t-j} + c_{o} \\ &+ \theta_{51} i_{FF_{t}}^{eff} + \kappa_{52} mb_{t} + \lambda_{53} m_{t} + \mu_{54} t_{t} + \xi_{55} g_{t} + \varepsilon_{5t} \end{aligned}$$

$$\begin{split} ta_t &= \alpha_{61} dj ia_{t-j} + \beta_{62} rg dp_{t-j} + \gamma_{63} i_{10YTB_{t-j}} + \delta_{64} p_{t-j} + \zeta_{65} u_{t-j} + \eta_{66} ta_{t-j} + c_o \\ &+ \theta_{61} i_{FF_t}^{eff} + \kappa_{62} mb_t + \lambda_{63} m_t + \mu_{64} t_t + \xi_{65} g_t + \varepsilon_{5t} \end{split}$$

⁴⁴Which are: In of DJIA, In of RGDP, yield on 10YTB, In of CPI, USU rate, and In of TA.

Vol. 7, No.12; 2023

The evaluation and testing of the VAR model, eq. (7), are shown in Tables A4 and A6 in the Appendix. Also, measures of correlations and causality tests are applied between the instruments and the objective variables, Table A8.

5. Empirical Results

Table A1 shows the OLS estimations (eqs. 1-6) of the Old Regime (1995:01 – 2008:11). The i_{FF} had significant effect on u_t and ta_t . The mb_t had significant effects on $rgdp_t$, on p_t (inflation), u_t , and ta_t . The m_t^s had significant effects on p_t (inflation) and u_t . Table A2 continues with the OLS estimations during the New Regime (2008:12 – 2021:12). The i_{FF} has significant effects on $djia_t$ (bubble), on $rgdp_t$, on p_t (inflation), and on u_t . The mb_t has significant effects on $djia_t$ (bubble) and on u_t ; and the m_t^s has significant effect on $rgdp_t$.

Then, we start testing the stationarity of the variables used in the VAR model. A stationary series is I(0). A difference stationary series is said to be integrated and is denoted as I(d), where d is the order of integration. The order of integration is the number of unit roots contained in the series or the number of differencing operations it takes to make the series stationary. If there is one or two unit root, the series is an I(1) or I(2). Standard inference procedures do not apply to regressions, which contain an integrated dependent variable or integrated regressors. Therefore, it is important to check whether a series is stationary or not before using it in a regression. Here, we use an Augmented Dickey-Fuller Test to test their stationarity, Table A3. The only I(0) series is the LUSDJIA. There are two series as I(2), LUSRGDP2012 and LUSGCTR. The other series are I(1).

Now, the empirical results of the VAR, eq. (7), for the Old Regime (1995:01-2008:11) are presented in Table A4. The i_{FF} had significant effect on u_t . The mb_t had significant effects on djia_t (bubble), on $rgdp_t$. on p_t (inflation), and on u_t . The m_t^s had significant effect on u_t . The t_t had significant effects on $djia_t$ (bubble), on $rgdp_t$, and on u_t . The g_t had significant effects on $rgdp_t$, on i_{10YTB} , on p_t (inflation), and on u_t . Thus, the monetary and fiscal policy tools were not very effective on our ultimate objective variables because their coefficients are insignificant or with wrong signs (ineffective and inefficient). (1) The financial market (LUSDJIA) is affected significantly (at the 10% level) by the monetary base (LUSMB), but it has a wrong sign (-). It is affected significantly (at the 5% level) by the government taxes (LUSGCTR). (2) The real income (LUSRGDP2012) is affected by the monetary base (LUSMB), but it has wrong sign. It is also affected by the government taxes (at the 10% level), but it has wrong sign (+). It is also affected by the government spending (LUSGCEGI) significantly (at the 1% level). (3) The L-T interest rate (US10YTB) is not affected at all by the monetary policy instruments. It is affected significantly (at 5% level) by the government spending (crowding out effect). (4) The price level (LUSCPI) is affected significantly (at 1% level) by the monetary base, but it has wrong sign (-). It is affected significantly (at 1% level) by the government spending, which causes inflation. (5) The unemployment rate (USU) is affected significantly (at 5% level) by the federal funds rate, but it has wrong sign (-). It is affected significantly (at 5% level) by the monetary base, but it has

Vol. 7, No.12; 2023

ISSN: 2456-7760

wrong sign (+) and also by the money supply (LUSM2) significantly (at 1% level), but it has wrong sign (+), too. It is affected significantly (at 5% level) by taxes, but it has wrong sign (-). Lastly, it is affected significantly (at 10% level) by government spending (g); an increase in (g) reduces unemployment (u). (6) The international trade (current account, LUSCA) is not affected at all by monetary or fiscal policy. It needs a trade policy tool (dollar devaluation, tariffs, import taxes, quota, export subsidies, etc.).45

Engle and Granger (1987) pointed out that a linear combination of two or more non-stationary series may be stationary. If such a stationary linear combination exists, the non-stationary-series are said to be cointegrated. The stationary linear combination is called the cointegrating equation and may be interpreted as a long-run equilibrium relationship among the variables. The cointegration test output for the six-variable VAR system is shown in Table A5. The result show that the Trace test indicates 3 cointegrating equations at the 1% level and the Max-Eigenvalue test indicates 3 cointegrating equations at the 1% level and 1 cointegrating equation at the 5% level.

In addition, the New regime (2008:12 to 2022:06) is tested the same way, with a VAR, as the previous one and the results appeared in Table A6. The i_{FF} has significant effects on $rgdp_t$, on p_t (inflation), and on u_t . The mb_t has significant effect on $djia_t$ (bubble). The m_t^s has a significant effect on u_t . The t_t has significant effects on $rgdp_t$, on p_t (inflation), and on u_t . The g_t has significant effects on $rgdp_t$, on p_t (inflation), on u_t , and on ta_t . Thus, the new public policy tools have a small effect on the ultimate objective variables. (1) The financial market (LUSDJIA) is affected significantly by the monetary base (LUSMB) (at the 10% level). (2) The U.S. income (LUSGDP) is significantly affected (at 1% level) by the federal funds rate (USFFR), but it has a wrong sign (+). An increase in federal funds rate is increasing production. Also, it is affected significant (at 1% level) by taxes (LUSGCTR) but it has wrong sign (+) and by government spending (at 1% level). (3) The L-T interest rate (US10YTB) is not affected by any monetary or fiscal policy tool. (4) The price level (LUSCPI) is significantly affected by the federal funds (USFFR), by taxes (LUSGCTR), and by government spending (LUSGCEGI) (at 1% level). All these policy tools are causing inflation46. (5) The unemployment (USU) is affected by federal funds (USFFR), but it has wrong sign (at 1% level); also, by money supply (LUSM2) with wrong sign (at 1% level), by taxes (at 1% level) but wrong sign again, and by government spending (at 10% level). (6) The current account (LUSCA) is significantly affected by the government spending (at 1% level).

Table A7 shows the cointegration of the non-stationary series of the VAR system, Table A6. The Trace test indicates 3 cointegrating equations at 1% level and the Max-Eigenvalue test indicates 2 cointegrating equations at the 1% level and 1 cointegrating equation at the 5% level. Lastly, a

⁴⁵ The U.S. trade policy is an anti-American one. Actually, all the U.S. foreign policies are anti-American. See, Mearsheimer and Walt (2007).

⁴⁶ Fedflation (demand-side or demand-pull inflation) and Bidenflation (supply-side or cost-push inflation).

Vol. 7, No.12; 2023

ISSN: 2456-7760

correlation and causality test between the policy instruments and the objective variables are shown in Table A8.

Before 2008, the data show that the federal funds (i_{FF}) had no significant effect on any macrovariables, but there is causality with u, rgdp, and ta. The monetary base (mb) had significant effect (high correlation) on output (rgdp), negative on interest rate (i_{10YTB}) , on inflation $[\rho = +0.965$ and causality, mb => p (18.950^{***})], it causes u and i_{10YTB} (liquidity effect); also, negative effect on trade (ta), and increase on government spending (g) and taxes (t). The money supply (m^s) had similar effect, but no drastic effect on the financial market (djia). It causes p(inflation), u, rgdp, and i_{10YTB} . Government spending (g) had a high significant effect on inflation $[\rho = +0.997$ and g => p (9.476^{***})]; it causes u, rgdp, and i_{10YTB} . Only taxes (t)were affecting the market (djia) $[\rho = +0.877$ but not causality]. Taxes (t) cause p (inflation) and u (unemployment). Also, government spending (g) causes mb and m^s .

With the new monetary policy, after 2008, the i_{FF}^{eff} causes p (inflation), u (unemployment), rgdp, and ta. The monetary base (mb) has a significant effect on the stock market (djia) [$\rho = +0.938$ but mo causality]. The mb has affected prices (p) [$\rho = +0.963$ and no causality]; the mb causes u and rgdp. The money supply (m^s) has affected the market (djia) [$\rho = +0.902$ and $m^s => djia$ (3.030^*)] and the price level (p) [$\rho = +0.975$ and no causality]; m^s causes u, rgdp, djia, and ta. The fiscal policy, government spending (g) has a high correlation with the market (djia) [$\rho = +0.867$ and g => djia (2.974^*)] and with inflation (p) [$\rho = +0.908$ no causality]; g causes u and djia. Taxes (t) have a high correlation with the market (djia) [$\rho = +0.919$ and no causality]. Taxes (t) have a high correlation with prices (p) [$\rho = +0.919$ and no causality], but cause u and djia. Also, g causes i_{FF}^{eff} , so the monetary policy is accommodating the financing of budget deficit of the government.

6. Policies and Politics Implications

The financial crisis started in August 2007, when French banks stopped buying U.S. mortgageback securities because they considered them risky and with high market prices, due to low federal funds rate.⁴⁷More than a year later (December 16, 2008), the Fed reacted with new monetary policy to deal with this financial crisis and with the introduction of new instruments that enacted to deal with its consequences and led to great changes in the federal funds market. In general, four developments caused most of the change: (α') the Fed's balance sheet expanded in size,⁴⁸ (β') new banking regulations were enacted,49 (γ') the Fed began paying interest to banks

⁴⁷It was below 3.00% from 2001 to 2005 and 1.00% from 2003 to 2005. See, http://www.fedprimerate.com/fedfundsrate/federal_funds_rate_history.htm ⁴⁸See, Wolla (2019).

⁴⁹ See, Kallianiotis (2020b).

Vol. 7, No.12; 2023

ISSN: 2456-7760

on funds they held in their reserve accounts at the Fed (IOR),interest on required and excess reserves, IOR&ER, Figure 1,⁵⁰ (δ') it started using new monetary policy instruments (tools),51(ϵ') zero reserve requirements, RR (actually, reserve requirements ratio, $r_R = 0$),52 ($\sigma\tau'$) the use of overnight reverse repurchase agreement facility, ON RRP,⁵³ and (ζ') the scorned and idle margin requirements tool (r_m).⁵⁴ Using these dramatized and complex tools (instruments), the Federal Reserve influences the demand for, and supply of balances that depository institutions hold at Federal Reserve Banks, which affect excessively the monetary base (MB) and the money supply (M^s).

Thus, the latest incompatible modern monetary and fiscal policies have caused serious problems to the U.S. economy. The U.S. national debt had surpassed 118% of GDP55 and deficits had tended to be up to 11% during the latest financial crisis. On October 13, 2023, it is 124.09% of the GDP56 and it is going up constantly. The chronic deficits come from incomparable American characteristics (its market-oriented economy), which in large part has been caused by policies of tax reductions, especially for the upper income groups and businesses since 1980s57

letter/2000/march/margin-requirements-as-a-policy-tool/

⁵⁰ See, "Interest on Required Reserve Balances and Excess Balances",

https://www.federalreserve.gov/monetarypolicy/reqresbalances.htm

⁵¹ See, Kallianiotis (2017).

⁵² Since March 26, 2020, they are zero. See, Reserve Requirements <u>Federal Reserve Board - Reserve Requirements</u> ⁵³ See, Overnight Reverse Repurchase Agreement Facility,

https://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm

⁵⁴ The $r_m = 50\%$ since 1974. See, https://www.frbsf.org/economic-research/publications/economic-

⁵⁵ The U.S. national debt (8/24/2016) was \$19.450 trillion and the GDP \$16.575 trillion. With November 21, 2023, the ND = 33.744 trillion (124.46% of the GDP), the budget deficit was \$1.742 trillion, and the GDP = 27.115trillion. On December 8, 2023, it had reached ND = 33.898 trillion. See, https://www.usdebtclock.org/

⁵⁶ In Euro-zone, the national debts were from 9.7% (Estonia) to 176.9% (Greece) of the GDP, with an average of 85.2% for the fiscal year 2015. The budget deficits, for the same year, were from -1.2% (surplus, Luxembourg) to 7.2% (Greece) of the GDP. This was partly due to industry (banks) rescue plans (different bailouts), stimulus plans, and economic stabilizers (i.e., unemployment benefits, etc.). See, World Debt Clocks (usdebtclock.org)

⁵⁷ In U.S. businesses and wealthy people do not pay taxes. See, "19 of America's biggest companies paid little or zero — income tax: 'The tax code is broken' ", <u>19 of America's biggest companies paid little — or zero —</u> <u>income tax: "The tax code is broken" - CBS News</u>. Also, "55 Corporations Paid \$0 in Federal Taxes on 2020 Profits", <u>55 Corporations Paid \$0 in Federal Taxes on 2020 Profits – ITEP</u>. Further, "30 Biggest Companies That Paid Zero Taxes", <u>30 Biggest Companies That Paid Zero Taxes - TheStreet</u>. The textbooks call it "double taxation". (*Sic*).

Vol. 7, No.12; 2023

ISSN: 2456-7760



Figure 3. U.S. Current Aggregate Demand and Supply

Note: The quantitative easing (QE) moved the AD₀ to AD₁ from point E₀ to E₁. The continue increases in money supply and the COVID-19 stimulus increase the AD to AD₂; Biden's regulations and businesses' lockdowns shifted the AS₀ to AS₁ and the equilibrium output (Q₂) and employment (u₂) to point E₂. Then, the new money supply and the "infrastructure" bill moved the AD to AD₃ and the vaccine mandates, resignations, layoffs, supply chain problems, "protection of the environment" by going against fossil fuels, etc., reduce the AS to AS₂ and the equilibrium to E₄ (Bidenflation), which cause reduction in output (Q₄) and high unemployment (u₄) and at the same time an enormous inflation in P₄ (stagflation). If the AS had been at AS₀ and the AD at AD₃, the output would have been to E₅ (Fedflation), with the economy almost at full employment and moderate inflation at P₅. Then, moderation is the only solution, but our policy makers do not follow these historic traditions, values and virtues.

and inconsiderable spending by the current government. Taxes are going up for everyone with the new fiscal cliff deal on January 1, 2013 and with Biden's administration since 2021.58 Also,

The textbooks call it "double taxation". (Sic).

⁵⁸ See, "Biden's FY 2023 Budget Would Result in \$4 Trillion of Gross Revenue Increases", <u>Biden Budget & Biden</u> <u>Tax Increases: Details & Analysis (taxfoundation.org)</u>

Vol. 7, No.12; 2023

ISSN: 2456-7760

U.S. has an increase in spending for Medicare (prescription drugs) and for all these wars that are going on (in Iraq, Afghanistan, Syria, Levant, Libya, Ukraine, Israel,59 etc.).60

America's problems, in the past, were relatively limited, due to good economic growth because of demographic expansion (massive immigration and relatively high fertility rates), due to its value system, it manufacturing and agriculture, and because of the dollar's preeminent role as the international reserve currency since 1944.61 The new liberal pseudo-philosophies have destroyed the entire West, its culture, its values, its free speech, its freedom of expression, its education,62its freedoms in general, its existence. The open borders policies with the millions of illegal (mostly, Asians, Africans, and Muslims) immigrants have changed the European identity and have changed the name of the old Christendom to Euros tan; but the worst are the daily terrorist attacks and other crimes against the poor citizens.63 The same crises exist in U.S., too, since 2021; reverse discrimination is the rule, today. The Fed is co-responsible (jointly liable) by providing the dollars (Fed's liabilities) that are used by the Treasury to pay for the nation's deficits by buying the government debt instruments (U.S. Treasury liabilities) and mortgage back securities (private debt liabilities).

These two new public policies contributed to the bubble of the stock market, Figure 2, to the high inflation, Figure 3 and Graph 9, and to enormous debts and deficits, Figure 4 and Graphs 4, 5, and 6. We live in a fragile world, which is based on recycling of liabilities64 and redistributing wealth and risk. Of course, the mal and manipulated investment in financial assets, the asset bubbles, the over leverage, the corruption, and the income inequality65 are going to deteriorate further the social coherence of our heterogeneous nations (mixtures of people and cultures) by creating poverty and satisfy Illuminati's objective, the reduction of population. Public policy makers have a lot of work to do in the near future; but will they have the power to pursue a humane social policy? So far, we see only their ineffective politics and their anti-social policies.

⁵⁹ See, «Μία «αἰρετικὴ» προσέγγισιςτοῦμεσανατολικοῦπροβλήματος», <u>Μία «αἰρετικὴ» προσέγγισις τοῦ</u> μεσανατολικοῦ προβλήματος - Ορθόδοξος Τύπος (orthodoxostypos.gr)

⁶⁰ The strange of all these wars is that only Christians have been affected. Unfortunately, there are moral perpetrators behind these jihadists and NATOists. The country that has not submitted to these mobs is the Orthodox Christian Russia. See, Mearsheimer and Walt (2007).

⁶¹ See, Kallianiotis (2014a and b). Lately, the dollar is facing a competition from the BRICS nations, due to the conflicts between West and East. See, "Great Power Conflict Fuels BRICS Expansion Push: Amid China-U.S. tensions, the impetus to build a bigger BRICS has grown stronger than ever" <u>Great Power Conflict Fuels BRICS</u> <u>Expansion Push – The Diplomat</u>

⁶² Colleges and Universities have abandoned excellence for DEI. (*Fox News*, 12/11/2023). The educational system in the West, if it is not yet dead, it is dying daily.

⁶³ On July 27, 2016, they aattacked a Church and killed the priest during the service in France. See, http://www.nytimes.com/2016/07/29/world/europe/france-church-attack.html?_r=0

⁶⁴ From *capitalism*, we have, now, a new system, *debtism* and going to *globalism* (global dictatorship), which actually is already, here. See, Davidson (2015).

⁶⁵ We are in a new gilded age, worse than the one in 1870s. See, O'Donnell (2015).

Vol. 7, No.12; 2023

ISSN: 2456-7760

Taxes and government spending are tools of fiscal policy. These two instruments have to be used with a fair, effective, and optimal way that means ethically, morally,66 and with moderation. Unfortunately, there is an unfair and unethical tax, the property tax, which is imposed on individuals' home. This home does not generate any income, it has only expenses and the family has to pay "rent" (property taxes) for its own home. Thus, both extreme systems are against private property; the poor individual has no property because he cannot afford to pay property taxes. Property taxes have to be abolished for homes that they house the family of the owner.67 Only fair progressive income taxes are sufficient for a prosperous nation. At the same time, the government spending must be prudent, efficient, moderate, and without wastes.68 The current administration's waste and the financing of Zelensky⁶⁹ to go against the "big enemies", the Russians, and lately, Israel to go against Palestinians, can be seen from the increase of the national debt the last three years by \$12.4 trillion or 57.41% or 19.14% per annum,70Figure 4.

In enacting fiscal policy, which encompasses the budgeting process of a sovereign government as well as the justifications for budget decisions, politicians make historical compromises with, and commitments to, their ethical ideals in the form of real initiatives and operations of government because there is an enormous conflict of interest, an existing establishment, a strong lobby,71 corrupted and controlled politicians, manipulated media,72 and a deep swamp

https://tradingeconomics.com/united-states/government-debt

and Federal Deficit and Debt: January 2021 (pgpf.org)

⁶⁶ The moral crisis is a very serious impediment to the western (U.S. and EU) culture, today. The last three years, immorality and pervasion have surpassed any previous depravity in human history. There is no way out from these enemies of humanity. See, Όρα, Αλεξάντερ Ντούγκιν, «Είμαστε ἀντιμέτωποι μέ τή Δύση ὡς ἰδεολογία, φιλελευθερισμός, παγκοσμισποίηση, μετανθρωπισμός».

https://orthodoxostypos.gr/e%ce%af%ce%bc%ce%b1%cf%83%cf%84%ce%b5-

 $[\]frac{\% ce\% b1\% ce\% bd\% cf\% 84\% ce\% b9\% ce\% bc\% ce\% ad\% cf\% 84\% cf\% 89\% cf\% 80\% ce\% bf\% ce\% b9-\% ce\% bc\% ce\% b5-\% cf\% 84\% ce\% b7-\% ce\% b4\% cf\% 83\% ce\% b7-\% cf\% 89\% cf\% 82-$

<u>%ce%b9%ce%b4%ce%b5%ce%bf%ce%bb/</u>.See, also, "'Mother' and 'Father' Replaced With 'Parent 1' and 'Parent 2' in French Schools Under Same-Sex Amendment", <u>'Mother' and 'Father' Replaced With 'Parent 1' and 'Parent 2' in French Schools Under Same-Sex Amendment (newsweek.com)</u>

⁶⁷ This unfair, unethical, anti-social, anti-humane, and occupational tax, the property tax, has been imposed on Greeks since the European debt crisis (2008) by the globalist mob of the EU and IMF.

⁶⁸ Independent studies have shown that a pencil for the federal government costs \$300; its true cost is \$0.10. Then, imagine how much cost the 924 aircrafts that are used by the government and how much is their pollution to the environment, which they pretend that they care. (*Fox News*, 7/19/2022).

⁶⁹ See, "Zelenskiy Tells Finance Ministers Ukraine Needs \$55 Billion For Budget, Rebuilding Through Next Year". https://www.rferl.org/a/zelensiky-appeals-international-donors-support-ukraine/32080182.html . So far, he has received \$120 billion; Biden is sending \$2 billion more, and Zelensky visited Washington D.C. and asked for \$24 billion. (Fox News, 9/20/2023). See also, Where the \$113 billion the US approved for Ukraine has gone | CNN Politics . But, a homogenous country, like Ukraine, cannot have a non-Ukrainian as President because he causes problems enormous (even serious divisions and wars) to the citizens. See. Ήροδότου «Τό Έλληνικόνἐόνὀμαιμόντεκαιὁμόγλωσσονκαίθεῶνἰιδρύματακοινάκαίθυσίαιἡθεάτεὀμότροπα» (Ἡρόδοτος , Οὐρανία 144).

⁷⁰The U.S. national debt went from \$21.6 to \$34 trillion., the last three years. Figure 4. See, also,

⁷¹ See, Mearsheimer and Walt (2007).

⁷² See, John Swinton, the former Chief of Staff at the NEW YORK TIMES, who was asked to give a toast before the prestigious New York Press Club in 1953. He made this candid confession [it's worth noting that Swinton was called "The Dean of His Profession" by other newsmen, who admired him greatly]. "There is no such thing, at this

Vol. 7, No.12; 2023

ISSN: 2456-7760

(παρακράτος). Unlike proclamations of ethical probity and the censures of their competitors that politicians may utter during their campaigns and during their speeches, but in office they cannot satisfy their promises, so people do not trust them anymore.73 Due to oppositions from the different branches (legislative,74executive, and judicial)and their different political parties (Republicans and Democrats) of government, different ideologies and degree of corruption, the budgetary and fiscal decisions made by lawmakers even though that they are key



date of the world's history, as an independent press. You know it and I know it. There is not one of you who dares to write your honest opinions, and if you did, you know beforehand that it would never appear in print. I am paid weekly for keeping my honest opinions out of the paper I am connected with. Others of you are paid similar salaries for similar things, and any of you who would be so foolish as to write honest opinions would be out on the streets looking for another job. If I allowed my honest opinions to appear in one issue of my paper, before twenty-four hours my occupation would be gone. The business of the journalist is to destroy the truth; to lie outright; to pervert; to vilify; to fawn at the feet of mammon, and to sell the country for his daily bread. You know it and I know it and what folly is this toasting an independent press. We are the tools and vassals of the rich men [the dark powers] behind the scenes. We are the jumping jacks, they pull the strings and we dance. Our talents, our possibilities and our lives are all the property of other men. We are intellectual prostitutes."

73See, "Turnout in U.S. has soared in recent elections but by some measures still trails that of many other countries". The turnout is 94.9% in Uruguay (the highest), 62.8% in the last U.S. elections, in the past the turnout was small (i.e., in 1996, it was only 49%), the same also holds with EU elections, and 36.1% in Switzerland. https://www.pewresearch.org/fact-tank/2022/11/01/turnout-in-u-s-has-soared-in-recent-elections-but-by-some-measures-still-trails-that-of-many-other-countries/

74 The legislative branch, the Congress is composed of two parts:

- (1) <u>Senate</u>: There are two elected Senators per state, totaling 100 Senators. A Senate term is six years and there is no limit to the number of terms an individual can serve.
- (2) <u>House of Representatives</u>—There are 435 elected Representatives, which are divided among the 50 states in proportion to their total population. There are additional non-voting delegates, who represent the District of Columbia and the territories. A Representative serves a two-year term, and there is no limit to the number of terms an individual can serve.

Vol. 7, No.12; 2023

ISSN: 2456-7760

Figure 4.United States Government Debt

Note: The U.S. National Debt was with December 13, 2023. *ND* = **\$33.913** trillion. Source: <u>https://tradingeconomics.com/united-states/government-debt</u> and <u>Federal Deficit and Debt: January 2021 (pgpf.org).</u> Also, https://www.usdebtclock.org/

components of their effective morality,75but a morality that has, by design, enormous and differential impact on others (citizens and businesses) cannot be materialized.

Unfortunately, it depends on the will of the opposition party and especially, if this party has the majority of the senate, nothing can pass because they want to show to the voters that this administration has failed and they must vote for the other party that is more effective.76 During the last fifteen years (2008-2023) the monetary policy is ineffective, inefficient, and has caused serious social problems (enormous social costs); then, the last three year (2021-2023), we see that the federal system and the entire liberal administration are not effective, too. Governors and mayors, in different states and cities, did not follow administration's orders or directions. Judges also were cancelling or banned executive orders. There is a big division that is cultivated by the fanatic left (atheists and backward "progressives") and has made questionable their public politics. (*Sic*).

7. Conclusions

In response to the global financial crisis, as it was mentioned above, several new policies were enacted that altered the structure of the federal funds market in profound ways by keeping the target federal funds rate close to zero. 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 fourteen years. In addition, the Federal Deposit Insurance Corporation (FDIC) introduced new capital requirements⁷⁷ that increased the

⁷⁵ See, "Pete Buttigieg Flew His Husband to a Dutch Sporting Event in a Military Aircraft on Taxpayer Money". <u>https://republicanballotnews.com/pete-buttigieg-flew-his-husband-to-a-dutch-sporting-event-in-a-military-aircraft-on-taxpayer-money/</u>

⁷⁶ I remember very well my professor of Microeconomics in my Graduate School, where he was saying that "the politicians have only one objective, to be reelected and nothing else". Now, after forty years, I see that he was absolutely right. They have no other objective; their corruption must be over 99%. They revealed their incompetence, lately, with the war against Russia and Palestine. They do not care for peace and the life of the people. The order that they are receiving is that we are overpopulated and the population must be reduced substantially. What a misfortune for our societies, today!..

⁷⁷On 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,

Vol. 7, No.12; 2023

ISSN: 2456-7760

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.⁷⁸ 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, $i_{DR} > i_{IOR} > i_{FF}^{eff} > i_D$.

In 2020, Federal Reserve officials signaled plans to keep 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 coronavirus (COVID-19), the mandatory vaccines,79and 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.⁸⁰Earlier, in 2021, they had said that they will keep up with the liquidity to protect the environment.81But, they caused instability (Figure 2) and high inflation (Figure 3). 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, and the worst of all, the election crisis of the 2020 and their new plans for the 2024 one. 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, on the citizens of the country, and on the ultimate objective economic variables.

Lastly, the questions are still remaining. Why the Fed needs these overnight deposits (ONRRP)?⁸² Why the tax payers have to pay some more billion dollars per annum to these money market nonbank lenders? Why we do not raise the deposit rate (i_D) to increase the deposits (demand for deposit accounts)⁸³ in our banks, if they need more liquidity? Make the saving account rate $i_D \ge i_{ONRRP} \cong 5.32\%$ 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

2019. See, "Regulatory Capital", <u>https://www.fdic.gov/resources/bankers/capital-markets/regulatory-capital/index.html</u>

79See, «Συνέντευξη τύπου από την ευρωβουλή για τα εμβόλια κατά του κορωνοϊού», https://enromiosini.gr/arthrografia/synenteyxi-typoy-apo-tin/

81 See, "Climate Change and Financial Stability", <u>The Fed - Climate Change and Financial Stability</u> (federalreserve.gov)

⁷⁸See, 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?", <u>Is the Federal Reserve a Scam? : r/conspiracy (reddit.com)</u>

⁸⁰ 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

⁸² See, "How the Fed's Overnight Reverse Repo Facility Works", JANUARY 11, 2022. <u>HTTPS://LIBERTYSTREETECONOMICS.NEWYORKFED.ORG/2022/01/HOW-THE-FEDS-OVERNIGHT-REVERSE-REPO-FACILITY-WORKS/</u> 83 See, Hadjimichalakis (1982).

Vol. 7, No.12; 2023

ISSN: 2456-7760

investors in the financial market and the reduction of purchasing power of the consumers from the double digit inflation).84 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, fair, ethical, and effective to provide all reserves needed in our banking system. Of course, citizens of the country want safety, security, peace, economic stability, and improvement of their social welfare. 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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84See, Kallianiotis (2022).

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Vol. 7, No.12; 2023

ISSN: 2456-7760

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Vol. 7, No.12; 2023

ISSN: 2456-7760

Appendix	Table A1.

 Table A1. OLS Estimations of the Objective Variables (1995:01-2008:11)

Variables	djia _t	rgdp _t	<i>i</i> _{10YTB} ,	<i>p</i> _t	<i>u</i> _t	ta _t
<i>c</i> ₀	-3.346 (2.830)	0.631* (0.334)	10.927 -0.424* (14.644) (0.223)	38.657* (8.495)	** 1.751* (0.951)	
djia _{t-1}	0.800 ^{***} 0.012 ^{**} (0.051)	0.445 [*] (0.006)	-0.007* (0.265)	-0.073 (0.004)	0.025 (0.151)	(0.020)
$rgdp_{t-1}$	0.938 [*] (0.533)	0.897 ^{***} -1.375 (0.062)	0.087 ^{**} (2.684)	-7.591 ^{***} -0. (0.042)	378 ^{**} (1.642)	(0.184)
<i>i</i> _{10YTB_{t-1}}	-0.009 (0.008)	-0.001 (0.001)	0.778 ^{***} 0.002 [*] (0.070)	0.018 (0.001)	-0.002 (0.022)	(0.003)
p_{t-1}	-0.765* (0.421)	-0.027 (0.055)	1.760 (2.904)	0.845*** 3.608*** (0.031)	0.240 (1.199)	(0.156)
u _{t-1}	-0.030* (0.018) 0.140	0.002 (0.002) -0.024*	0.100 (0.096) -0.739	0.001 (0.001) 0.028***-0.444	0.664 ^{***} 0.004 (0.045) 0.913 ^{***}	(0.006)
	(0.118)	(0.014)	(0.778)	(0.008)	(0.361)	(0.049)
$i_{FF_t}^{e\!f\!f}$	-0.002 (0.006)	0.001 (0.001)	0.056 (0.041)	0.001 (0.001)	-0.075***0.004** (0.017)	(0.002)
mb_t	-0.120 (0.078)	-0.016* (0.008)	-0.153 (0.501)	-0.038***0.416** (0.013)	0.041** (0.176)	(0.020)
m _t	0.147 (0.272)	0.054 (0.034)	-1.153 (1.678)	0.083 ^{***} 1.684 ^{**} (0.022)	0.005 (0.686)	(0.084)
AR(1)	-	-0.289 [*] (0.159)	0.302^{***}	-		
MA(1)	-	-	-	0.527 ^{***} (0.068) (0.090)	-0.238 ^{***} -0.4 (0.102)	34***
R ² SER F	0.980 0.042 858.325 11091.9	0.999 0.005 07 317.292	0.957 0.209 2 27128.50	0.999 0.002 383.623 741.	0.965 0.126 521	0.981 0.017
D-W N RMSE	2.035 167 0.040279	2.192 167 0.004394	1.929 167 0.200154	1.881 167 0.002370	2.034 167 0.121709 0.01	1.842 167 6216

Note: djia_t =USDJIA= U.S. Dow Jones Industrial Average Index, rgdp_t = USRGDP2012 = 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, ta_t = LUSCA = ln of U.S. Current Account, c_0 = constant term, ${}^{i_{eff}}_{FF_t}$ = USFFR = U.S. effective federal funds rate, mb_t =LUSMB = ln of U.S. monetary base,

Vol. 7, No.12; 2023

ISSN: 2456-7760

 m_t =LUSM2= ln of U.S. money supply (M2), AR(1) =autoregressive 1 process, MA(1) = moving average 1 process, *** = significant at the 1% level, ** = significant at the 5% level, * = significant at the 10% level, R^2 = R-squared, SER=S.E. regression, F = F-statistic, D - W= Durbin-Watson statistic, N =number of observations, and RMSE = root mean square error.. Source: Economagic.com, Bloomberg, and FRED.

Variables	djia _t	$rgdp_t$	i_{10YTB_t}	p_t	u_t	ta_t
<i>c</i> ₀	-9.405** 4.900** (4.167)	** 25.177 0.870*** (0.915)	* -171.035** (23.980)(0331)	3.795 (82.612	2) (2.363)	
djia _{t-1}	0.643 ^{***} 0.045 [*] (0.073)	*** 0.923*** 0.017** (0.016)	** -2.554* (0.348)	0.052 (0.006)	(1.449)	(0.042)
$rgdp_{t-1}$	0.978 [*] (0.495)	0.468 ^{***} 2.057 (0.109)	-0.025 (2.994)	7.835 (0.035)	- (9.816)	0.472 [*] (0.280)
<i>i</i> _{10YTB_{t-1}}	0.005 (0.010)	-0.002 (0.002)	0.216 ^{**} -0.002 [*] (0.087)	* 0.282 (0.001)	-0.005 (0.193)	(0.005)
p_{t-1}	0.284 (0.541)	-0.194 (0.119)	-6.050 (4.967)	0.827 ^{***} 28.600 [*] (0.059)	*** (10.717)	0.026 (0.307)
u_{t-1}	0.017 ^{***} -0.002 [*] (0.006)	[*] 0.032 (0.001)	0.001 (0.037)	0.745**	* -0.009 (0.118))*** (0.003)
ta _{t-1}	0.246 [*] (0.147)	0.041 (0.032)	0.804 (0.843)	0.015 [*] (0.008)	-4.776 (2.911)	0.482*** (0.085)
$i_{FF_t}^{e\!f\!f}$	0.037 ^{**} (0.018)	0.014*** 0.213	0.004**	* -1.274***-0.004 (0.002)	(0.355)	(0.010)
mb_t	0.151 ^{***} 0.019 (0.049)	0.104 (0.011)	0.003 (0.469)	-2.449* (0.004)	* -0.005 (0.979)	(0.028)
m_t	0.051 (0.112)	-0.091***-2.171 (0.025)	0.014 (1.391)	-1.746 (0.009)	(2.222)	0.018 (0.065)
AR(1)	-	-	0.889 ^{***} 0.290 ^{**} (0.059)	(0.102)	-	~ /
R^2	0.987	0.985	0.948	0.998	0.876	0.503
F	0.043	0.009	0.174	0.002	0.851	0.024
D-W	1135.103	988.746 222.650	1 890	106.365 15.200	1 852	1 902
Ν	1.551	146	1.090	1.710	1.052	1.902
RMSE	0.041423	0.009096	0.186443	0.002278	0.821218	0.023321
Note: See 7	Гаble A1.					

Table A2. OLS Estimations of the Objective Variables (2008:12-2021:12)

Note. See Table AT.

Source: See, Table A1.

Vol. 7, No.12; 2023

ISSN: 2456-7760

		<u>Т</u>	Table A	A3. Aug	mented Dickey-Fuller T	`est 		
Variables in levels (Yt)		ADF		I(d)	Variables in 1st difference [Δ(Yt	ADF)]	I(d)	
LUSDJIA		-3.278*	*	I(0)	Δ(LUSDJIA)	-12.4	95***	I(1)
LUSRGDP2012	-1.919		I(2)		Δ (LUSRGDP2012)	-1.336	I(2)	
US10YTB		-2.386		I(1)	Δ (US10YTB)	-10.3	09***	I(1)
LUSCPI	-0.406		I(1)		Δ (LUSCPI)	-7.589***	I(1)	
USU		-0.756		I(1)	$\Delta(USU)$	-5.147***	I(1)	
LUSCA	-1.294		I(1)		Δ (LUSCA)	-12.530***	I(1)	
USFFR	-1.080		I(1)		$\Delta(\text{USFFR})$	-3.761***	I(1)	
LUSMB	1.663		I(1)		Δ (LUSMB)	2.999***	I(1)	
LUSM2	-0.263		I(1)		Δ (LUSM2)	-3.275**	I(1)	
LUSGCTR		-1.625		I(2)	Δ (LUSGCTR)	-1.82	20	I(2)
LUSGCEGI		1.528		I(1)	Δ (LUSGCEGI)	-2.654* I(1)		

Note: See, Table A1.

Source: See, Table A1.

Table A4. Vector Auto regression Estimates (1995:01-2008:11)

Variables	djia _t	rgdp _t	i_{10YTB_t}	p_t	<i>u</i> _t	ta_t
djia _{t-1}	0.762 ^{***} 0.020 ^{**} (0.090)	1.152*** (0.009)	* -0.009* (0.432)	0.107 (0.005)	0.042 (0.266)	(0.037)
djia _{t-2}	-0.015 (0.086)	0.011 (0.009)	-0.424 (0.416)	0.010 ^{**} -0.308 (0.005)	-0.001 (0.256)	(0.036)
$rgdp_{t-1}$	0.436 (0.778)	0.492 ^{***} 0.865 (0.079)	-0.029 (3.840)	-4.332* (0.043)	-0.527* (2.308)	(0.322)
$rgdp_{t-2}$	0.729 (0.840)	0.296 ^{***} -7.688 [*] (0.085)	0.114*** (4.047)	* -3.830 (0.047)	-0.182 (2.490)	(0.348)
$i_{10YTB_{t-1}}$	-0.010 (0.017)	-0.003** 1.015*** (0.002)	* 0.002** (0.081)	0.030 (0.001)	-0.005 (0.050)	(0.007)
<i>i</i> _{10YTB_{t-2}}	0.004 (0.016)	0.001 (0.002)	-0.186*** (0.078)	-0.002*** (0.001)	0.003 (0.048)	0.002 (0.007)
p_{t-1}	-1.399 (1.295)	-0.177 (0.131)	8.369 (6.239)	1.193 ^{***} 5.620 (0.076)	-0.488 (3.839)	(0.536)
p_{t-2}	0.071 (1.249)	-0.020 (0.126)	-11.514*-0.389** (6.017)	*** 2.053 (0.069)	0.869 (3.702)	(0.517)
u_{t-1}	-0.016 (0.027)	0.001 (0.003)	0.007 (0.130)	0.001 (0.002)	0.372 ^{***} 0.006 (0.080)	(0.011)

Vol. 7, No.12; 2023

ISSN: 2456-7760

<i>u</i> _{t-2}	0.011 (0.024)	0.001 (0.002)	0.046 (0.118)	-0.001 (0.001)	0.160 ^{**} (0.073)	-0.004 (0.010)
ta_{t-1}	-0.121 (0.203)	-0.019 (0.020)	-1.329 (0.977)	0.035 ^{***} -0.159 (0.011)	0.611 ^{***} (0.601)	(0.084)
ta_{t-2}	0.326 (0.204)	-0.039* (0.021)	0.177 (0.984)	-0.023 ^{**} -0.109 (0.011)	0.184 ^{***} (0.605)	(0.085)
<i>c</i> ₀	-4.845 (3.770)	1.706 ^{***} 48.647 [*] (0.381)	** -0.141 (18.165)(0.209)	35.864 [*] (11.178	3.680** (1.562)	
$i_{FF_t}^{e\!f\!f}$	-0.009 (0.008)	-0.001 (0.001)	-0.002	-0.001 (0.001)	-0.055 ^{**} 0.001 (0.024)	(0.003)
mb_t	-0.199* (0.095)	-0.018* (0.010)	0.551 (0.457)	-0.032*** (0.005)	0.637 ^{**} (0.281)	0.041 (0.039)
<i>m</i> _t	0.117 (0.346)	-0.039 (0.035)	-1.428 (1.668)	0.005 (0.019)	3.199*** -0.133 (1.026)	(0.143)
t _t	0.517 ^{**} (0.255)	0.043 [*] (0.026)	1.608 (1.227)	-0.010 (0.014)	-1.686 ^{**} 0.096 (0.755)	(0.105)
<i>g</i> _{<i>t</i>}	-0.098 (0.301)	0.150 ^{***} 2.880 ^{**} (0.030)	0.077 ^{***} (1.450)	* -1.589* (0.017)	0.098 (0.893)	(0.125)
R^2	0.981	0.999	0.962	0.999	0.967	0.981
SEE	0.042	0.004	0.201	0.002	0.123	0.017
F	452.884 8461.29	223.272	2 19871.32	260.825 456	.883	
Ν	167	167	167	167	167	167

Note: See, Table A1. Source: See, Table A1.

Table A5. Johansen Cointegration Test

Sample: 1995:01-2008:11 Included Observations: 168 Trend assumption: Linear deterministic trend Series: LUSDJIA, LUSRGDP2012, US10YTB, LUSCPI, USU, LUSCA Exogenous Series: USFFR, LUSMB, LUSM2, LUSGCTR, LUSGCEGI

Rank	Eigenvalue	Trace Statistic	Critical Value (0.05)	Statistic	Max-Eigen (0.05)	Critical Value
r = 0 $r \le 1$	0.4369 216.810	95.754***	96.470 ³ 58 6473	 *** ***	40.078	
$r \leq 2$	0.1815 61.693	47.856***	33.638	***	27.584	
r ≤ 3	0.1265 28.056	29.797*	22.722*	**	21.132	

Vol. 7, No.12; 2023

ISSN: 2456-7760

r ≤ 4	0.0312	5.334	15.495	5.332	14.265
r ≤ 5	0.0001	0.001	3.841	0.001	3.841

Note: Trace test indicates 3 cointegrating eqs. at the 1% level (***) and 1 cointegrating eq. at 10% level (*); *** denotes rejection of the hypothesis at the 5% level and * rejection of the hypothesis at the 10% level.

Max-eigenvalue test indicates 3 cointegrating eqs at the 1% level (***) and 1 cointegrating eq. at the 5% level (**); *** denotes rejection of the hypothesis at the 1% level and ** rejection of the hypothesis at the 5% level.

Source: VAR of Table A4.

Variables	djia _t	rgdp _t	<i>i</i> _{10YTB} ,	P_t	u_t ta_t	
djia _{t-1}	0.770^{***} 0.010 (0.085)	0.851 ^{**} (0.018)	0.006 (0.386)	3.491 ^{**} (0.005)	* -0.051 (1.418) (0.04	47)
$djia_{t-2}$	-0.096 (0.087)	0.041 ^{**} (0.019)	-1.202****-0.008 (0.394)	-4.255* (0.005)	**0.001 (1.446) (0.04	48)
$rgdp_{t-1}$	0.430 (0.460)	0.325 ^{***} -1.005 (0.098)	-0.009 (2.082)	0.521 (0.027)	-0.097 (7.639) (0.25	54)
$rgdp_{t-2}$	0.353 (0.440)	0.042 (0.094)	2.334 (1.991)	-0.003 (0.026)	2.708 0.781 ^{**} (7.307) (0.24	** 43)
$i_{10YTB_{t-1}}$	0.012 (0.018)	0.001 (0.004)	1.098 ^{***} 0.001 (0.083)	-0.570* (0.001)	0.013 (0.0)	10)
$i_{10YTB_{t-2}}$	0.002 (0.020)	-0.013***-0.187** (0.004)	* -0.002 (0.089)	1.027***-0.015 (0.001)	(0.328) (0.0	11)
p_{t-1}	-0.912 (1.276)	0.501* (0.272)	16.451*** (5.771)	1.252 ^{***} -4.738 (0.075)	0.528 (21.176) (0.705)	
p_{t-2}	0.732 (1.324)	-0.361 (0.282)	-20.181 ^{***} (5.989)	-0.289 ^{***} 26.521 (0.076)	-0.744 (21.976) (0.731)	
u_{t-1}	0.001 (0.006)	-0.004***0.013 (0.001)	0.001 (0.029)	0.598 ^{**} (0.001)	-0.009*** (0.107) (0.00	04)
<i>u</i> _{<i>t</i>-2}	0.013 ^{**} 0.002 (0.006)	0.006 (0.001)	0.001 (0.028)	-0.085 (0.001)	0.016 ^{***} (0.101) (0.00	03)
ta_{t-1}	-0.120 (0.111)	0.045* (0.024)	-0.553 (0.500)	-0.003 (0.006)	-1.517 0.289 ^{**} (1.836) (0.00	** 61)
ta_{t-2}	0.359 ^{***} -0.082 [*] (0.113)	**0.163 (0.024)	-0.016 ^{**} 4.570 ^{**} (0.512)	0.229 ^{***} (0.007)	(1.880) (0.00	63)
<i>c</i> ₀	-4.547* (2.279)	2.636 ^{***} 2.854 (0.485)	0.093 (10.308) (0.133)	-41.857 (37.826	-1.388) (1.259)	

 Table A6. Vector Autoregression Estimates (2008:12-2022:06)

Vol. 7, No.12; 2023

ISSN: 2456-7760

$i_{FF_t}^{e\!f\!f}$	0.020 (0.018)	0.021 ^{***} 0.060 (0.004)	0.0	003***-1.167***-0.002 (0.001)	(0.292)	(0.010)
mb _t	0.114 [*] (0.058)	0.010 (0.012)	0.142 (0.261)	0.003 (0.003)	-1.343 (0.957)	-0.008 (0.032)
m _t	0.084 (0.159)	0.063 (0.034)	-0.438 (0.721)	-0.011 (0.009)	6.965 ^{***} -0.119 (2.646)	(0.088)
t _t	-0.089 (0.180)	0.164 ^{***} 1.032 (0.038)	0.0 (0.814))31***-16.471*** (0.011)	0.040 (2.989)	(0.099)
<i>g</i> _{<i>t</i>}	0.004 (0.050)	0.031 ^{***} 0.257 (0.011)	0.0 (0.225)	008 ^{***} -1.539 [*] (0.003)	-0.360*** (0.827)	(0.028)
R^2	0.989	0.997	0.938	0.999	0.920	0.918
SEE	0.043	0.009	0.193	0.002	0.707	0.024
F	748.272 2741.21	16 121.938	7340.492	92.242	90.603	
N	155	155	155	155	155	155

Note: See, TablesA1 and A4.

Source: See, Table A1.

Table A7. Johansen Cointegration Test

Sample: 2008:12-2022:06

Included Observations: 154

Trend assumption: Linear deterministic trend

Series: LUSDJIA, LUSRGDP2012, US10YTB, LUSCPI, USU, LUSCA Exogenous Series: USFFR, LUSMB, LUSM2, LUSGCTR, LUSGCEGI

Rank	Eigenvalue	Trace	Critical Value		Max-Eigen	Critical Value
		Statistic	(0.05)	Statistic	(0.05)	
r = 0	0.4922 249.510	95.754***	104.37	/1***	40.078	
r ≤ 1	0.4422 145.139	69.819***	89.90	0***	33.877	
$r \leq 2$	0.1905 55.239	47.856***	32.54	1**	27.584	
r ≤ 3	0.1018 22.698	29.797	16.539	21.132		
$r \leq 4$	0.0342 6.159	15.495	5.365	14.265		
r ≤ 5	0.0051 0.794	3.841	0.794	3.841		

Note: Trace test indicates 3 cointegrating eqs. at the 1% level (***); *** denotes rejection of the hypothesis at the 1% level.

Max-eigenvalue test indicates 2 cointegrating eqs at the 1% level (***) and 1 cointegrating eq. at the 5% level; *** denotes rejection of the hypothesis at the 1% level and ** rejection of the hypothesis at the 5% level.

Source: VAR of Table A6.

Vol. 7, No.12; 2023

ISSN: 2456-7760

		Tabl	e A8. Effectiveness o	of Public Policies		
			Old Regime: 1995:0	1 – 2008:11		
	p	и	rgdp	i _{10YTB}	djia	ta
$i_{FF}^{eff}\rho$ (=>)	-0.486	-0.706 (14.175***)	-0.487 (3.434**)	0.741	-0.258	0.604 (2.660*)
mb	0.965 (18.949***) 0.153 (5.354***)	0.968	-0.833 (4.207**)	0.768	-0.879
m	0.989 (4.303**)	0.121 (5.165***)	0.987 (5.682***)	-0.843 (5.900***)	0.794	-0.885
t	0.963 (3.106**)	-0.174 (4.677**)	0.971	-0.706	0.877	-0.792
<i>g</i>	0.997 (9.476***)	0.108 (2.961*)	0.974 (3.569**)	-0.794(3.292**)	0.758	-0.836
	$\rho_{g,mb} = 0.968 a$	nd $g => mb$ (3.698**),	$\rho_{g,m2} = 0.989 \text{ and } g =$	=> <i>m</i> 2 (9.189***)		
			New Regime: 2008:1	2 – 2023:11		
	р	и	rgdp	i _{10YTB}	djia	ta
$i_{FF}^{eff}\rho$ (=>)	-0.589 (4.347**)	0.392 (25.024***)	-0.515 (19.978***)	0.203	-0.565	-0.249 (10.634***)
mb	0.963	-0.712 (9.040***)	0.950 (11.366***)	-0.503	0.938	0.621
m	0.975	-0.811 (10.262***)	0.972 (18.508***)	-0.663	0.902 (3.030*)	0.714 (9.875***)
t	0.919	-0.841 (17.462***)	0.948	-0.572 (2.550*)	0.897	0.647 (4.326**)
g	0.908	-0.597 (12.521***)	0.909	-0.651	0.867 (2.974*)	0.560
	$\rho_{g,iFF} = -0.326$	$i_{and} g => i_{FF} (3.211^{**})$				

Note: See, Table A1; $\rho_{i,j}$ = correlation coefficient, => = causality, F-Statistic in parenthesis [i.e., => (14.175^{***})]. Source: See, Table A1.

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Page 262