



Can Monetary Policy Prevent Financial Crises?

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Abstract

Monetary policy is an important public policy, but it is not the only one to stabilize our economy and reduce its business cycles. The leading central bank, the Federal Reserve of the U.S., has introduced, after the 2008 global financial crisis, new instruments and unusual facilities to implement its new innovative monetary policy. The financial world and mostly the social scientists watch as the Federal Open Market Committee (FOMC) decides on a target interest rate in the federal funds market for the next period. The framework that the FOMC uses to implement monetary policy has changed over the last twelve years and continues to evolve today. Here, we try to evaluate the new instruments and their “effectiveness”. Before the 2008 financial crisis, policymakers used one set of traditional instruments (tools) to achieve the target rate. However, several policy interventions, introduced soon after the crisis, drastically altered the landscape of the federal funds market and the traditional economic theory. This new and uncertain environment, with enormous reserves and even interest on reserves, necessitated a new set of instruments by the Fed for its monetary policy implementation. Lately, after seven years of zero interest rate, the FOMC began in December 2015 to increase the target rate and then, went back again to a lower one, but many questions arise. How did they evaluate the effectiveness of these new instruments? Is the current federal funds rate the appropriate one for our economic wellbeing? How efficient was so far this ZIR monetary policy after the latest global financial crisis? Why the Fed put all these burdens of its “innovated” new monetary policy to the poor taxpayers (bail out) and to the risk-averse depositors (bail in)? Is it possible for the Fed’s policy to prevent the future financial crises? The federal funds rate was very low and affected negatively the financial markets (bubbles were growing), the real rates of interest (it is negative for twelve years), and the deposit rates (they are closed to zero for twelve years). The redistribution of wealth of depositors and taxpayers continues, which means the true economic welfare is falling and a new global recession was in preparation, if the current unfair easy money policy will persist, ignoring the necessity of a prevention of financial crises. Then, it came as an unexpected plague the coronavirus pandemic, following with a new but, the worse in economic history global crisis (chaos).

Keywords: Monetary policy; Central banks and their policies; Money and interest rates; Financial markets and the macro-economy; Production; Economic welfare; Business fluctuations; Cycles.

1. Introduction

1.1. Debts and Monetary Policy Before the 2008 Financial Crisis

Looking at data from the Great Depression up to now, we have seven major financial crises in the U.S. They start as a significant bear market by redistributing the wealth from the risk-averse investors to speculators and insiders. Then, it starts their effect on the entire economy; by affecting negatively the real sector of the economy by destroying the consumers’ and investors’ confidence and consequently, their influence spread on the labor market, on production, income, growth, savings, debts, and on social welfare. Since the Great Depression, we had the following major financial crises by looking at their effect on the DJIA and there is no way to prevent these crises with monetary policy (Kallianiotis, 2002;2003b)¹.

¹ They were: (1) Peak on September 3, 1929 (DJIA was 381.17), trough on July 8, 1932 (DJIA was 41.22), decline of –339.95 points or –89.2%, and with calendar days to bottom 1,038. (2) Peak on March 10, 1937 (DJIA was 194.40), trough on April 28, 1942 (DJIA was 92.92), decline of –101.48 points or –52.2%, and with calendar days to bottom 1,874. (3) Peak on February 9, 1966 (DJIA was 995.15), trough on May 26, 1970 (DJIA was 631.16), decline of –363.99 points or –36.6%, and with calendar days to bottom 1,566. (4) Peak on January 11, 1973 (DJIA was 1051.7), trough on December 6, 1974 (DJIA was 577.60), decline of –474.10 points or –45.1%, and with calendar days to bottom 693. (5) Peak on August 25, 1987 (DJIA was 2,722.42), trough on November 19, 1987 (DJIA was 1,738.74), decline of –983.68 points or –36.1%, and with calendar days to bottom 85. (6) Peak on January 14, 2000 (DJIA was 11,722.98), trough on October 9, 2002 (DJIA was 7,286.27), decline of –4,436.71 points or –37.8%, and with calendar days to bottom 1,000. An economist had predicted in 2000 that the DJIA index must be 9,000 instead of

It has been impossible for the average person to explain the widespread economic deregulation that has taken place during the past four decades and to understand the ideology (or the complete control) of these people, who act against the social interest (the nation and its citizens). Their ideology might come from some kind of political philosophy (liberalism, modernism, globalism, value-neutral, ignorance of the objectives in life, etc.) or worse from their completely control by the “economic elites” (dark powers) and their enemy is the government, the people (conservatism, traditionalism, patriotism, value-oriented, knowledge of the Truth, etc.). With their ideology, they created an anti-humane legislative, cultural, educational, and social structure of excessive concentration of power in the hands of the financial elite (actually, they are people of the same origin, background, and beliefs) and no one can oppose their cruel establishment. Kallianiotis (2017b)² What constitutes ideology and why it acts against the social interest is something that has to do with their wrong philosophy in life; they ignore the ultimate objective of creation and the true aim of human beings. They have been deceived by the “seducer of the men”.

There appears to be no easy way out of a sovereign debt crisis for the United States, as we see in the Euro-zone (Kallianiotis, 2018)³. The paths are all blocked because businesses do not pay taxes to reduce a little these enormous deficits and debts. The total debt in the U.S. (government + private) was \$183.1 trillion (December 31, 2011) and the real GDP was \$13.638 trillion (2012:Q3), which was 1,342.56% of the GDP.⁴ On February 25, 2014, it was \$185.322 trillion and the real GDP was \$15.966 trillion (12/31/2013), which was 1,160.73% of the GDP. The ND was (2/24/2015) 111.23% of the GDP and the total public debt was 885.5% of the GDP. The household debt was also unbearable, \$11.52 trillion (2013Q4) and reached \$20.295 trillion at the end of January 2020.

Household Debt and Credit Developments as of Q4 2013

Category	Quarterly Change*	Annual Change**	Total as of Q4 2013
Mortgage Debt	(+) \$152 billion	(+) \$16 billion	\$8.05 trillion
Student Loan Debt	(+) \$53 billion	(+) \$114 billion	\$1.08 trillion
Auto Loan Debt	(+) \$18 billion	(+) \$80 billion	\$863 billion
Credit Card Debt	(+) \$11 billion	(+) \$4 billion	\$683 billion
HELOC	(-) \$6 billion	(-) \$34 billion	\$529 billion
Total Debt	(+) \$241 billion	(+) \$180 billion	\$11.52 trillion

Here are the figures on delinquent loans from the same report.

90+ day delinquency rates

Category	Q4 2013	Q3 2013
Mortgages	3.9 %	4.3%
Student Loans	11.5%	11.8%

11,700, but his paper was rejected for publication until he was forced to take out this figure. Of course, reality has shown that even his figure had also overestimated the correct market value of the index. (7) Peak on October 9, 2007 (DJIA was 14,164.53), trough on March 9, 2009 (DJIA was 6,547.05), decline of -7,617.48 points or -53.78%, and with calendar days to bottom 517. See, Kallianiotis (2003b). Also, Kallianiotis (2002, p. 57) had written: “The best remedy for the stock market might be an increase in the margin requirements (r_m) from 50% that has been since January 3, 1974 to 75% or higher by the Fed. This way we would reduce margin debt, risk, speculation, the tremendous fluctuations, the enormous losses, the wealth effects, and the huge social costs due to these anomalies of an overpriced market. We need an end to the ‘irrational exuberance’ or better to the irrational behavior of our markets before this speculative bubble bursts and causes the definite collapse to the global financial system and to the entire capitalism as an extreme philosophical theory”. Unfortunately, this happened six years later. On February 12, 2020, the DJIA reached 29,551.42; a growth since 2009 of 23,004.37 points or 351.37% (32.18% per annum). These are the results of the latest monetary policy; a new bubble ready to burst by the globalists. See, “George Soros warns Trump of potential economic doom before election”,

<https://www.cnn.com/2020/01/23/george-soros-warns-trump-of-potential-economic-doom-before-election.html>. An economy cannot depend only on the market value of its financial assets and on speculators’ games. The real sector of the economy is more important (its growth, its income, its employment, and the welfare of its citizens).

² Two examples of shifting ideology towards a pro-market one and against social interest (nations’ interest) are Ronald Reagan in the U.S. and Margaret Thatcher in England in 1980s. Identifying who were the driving forces behind their “new ideology” is not part of this work. Hopefully the future historians will do this, if they will be allowed to reveal these “dark powers”. Margaret Thatcher at the end opposed them and did not allow her country to join the EMU. She had said that she denied surrendering its country to the EMU even though that she was pressed by the Bilderberg Club. (*The Spot Light*, July 10, 1995). Για μένα είναι τιμή ή απόρριψή μου από την λέσχη Μπίλντελμπεργκ. Όποιος δεχθή να παραδώσει στην Λέσχη την αυτοκυριαρχία της Χώρας του είναι εκλεκτός, άλλως απορρίπτεται...Θέση της Λέσχης είναι να υποβαθμισθούν τα Έθνη και να υπάρξει μία Νέα Παγκόσμια Τάξη Πραγμάτων, αλλά θα αποτύχουν. Με παραμέρισαν, γιατί αρνήθηκα να παραδώσω την κυριαρχία της Βρετανίας στην Ευρωπαϊκή Ένωση, που αποτελεί το απαραίτητο βήμα της Λέσχης για την δημιουργία μιάς Παγκόσμιας Κυβέρνησης...» (δήλωση της πρώην πρωθυπουργού της Βρετανίας Μάργκαρετ Θάτσερ στην εφημερίδα *The Spot Light*, 10/7/1995). Όρα «Βοανεργές», άρ. τεύχ. 45, Σεπτέμβριος -Οκτώβριος 2009, σ. 93. See, also, Kallianiotis (2017b). On January 31, 2020, U.K. exited the oppressive EU. (*Fox News*, 1/31/2020). See, <https://www.3ccorp.net/2020/01/31/video-britain-has-exited-the-eu-and-it-becomes-official-tonight/>. See also, <https://www.nbcnews.com/news/world/goodbye-europe-after-years-brexite-turmoil-britain-finally-leaves-e-n1127581>

³ See, Kallianiotis (2018).

⁴ See, <http://grandfather-economic-report.com/debt-summary-table.htm>

Household Debt and Credit Developments as of 1/31/2020:

Category	Total as of 1/31/2020
Mortgage Debt	\$16,095 billion
Student Loan Debt	\$1,666 billion
Auto Loan Debt	\$923 billion
Credit Card Debt	\$1,082 billion
HELOC	\$529 billion
Total Debt	\$20.295 trillion

The U.S. total personal debt (with 1/31/2020) was \$20.295 trillion. There is a serious student loan debt crisis. (*Fox News*, 1/31/2020).

With January 2020, the total public and private debt was \$160.516 trillion (835.151% of the GDP).⁵ The question is here: Is this debt sustainable? And if the answer is “Yes”; for how long?

For the debt to be sustainable, the nominal growth minus the interest cost must exceed the primary deficit, as follows:

$$(\dot{q} + \pi) - \dot{k} \neq |\dot{t} - \dot{g}| \quad (1)$$

Sustainable if, $(4\% + 2\%) - 3\% > 2\%$

Not sustainable if, $(3\% + 1\%) - 2\% < 3\%$

where, \dot{q} = the growth of real output (GDP), π = inflation, $\dot{q} + \pi = \dot{y}$ = the growth of nominal GDP, \dot{k} = borrowing (interest) cost (as a percentage of GDP), and $\dot{t} - \dot{g} < 0$ = primary deficit (as a percentage of GDP).

Before the financial crisis, banks were holding reserves in an account at the Fed and were required to maintain a balance above a certain fraction of their deposits, the required reserves (R_R), (Kallianiotis, 2017a)⁶ eq. (2), which was a monetary policy tool to control the money multiplier and thus, the money supply.

$$R_R = r_R DD \quad (2)$$

where, R_R = required reserves, r_R = required reserves ratio, and DD = demand deposits.

At that time the federal funds market was an interbank market in which the largest players on both the demand and supply sides were domestic commercial banks, and the equilibrium effective federal funds rate was set bilaterally between the lending and borrowing banks, eq. (3). Some banks were holding very little excess reserves (R_E) to satisfy unanticipated demands, eq. (5). Of course, the Fed did not pay interest on these excess reserves, which was economically reasonable and socially ethical and fair. So banks were looking to lend overnight these excess reserves in the federal funds market to earn a positive rate of return (the effective federal funds rate, i_{FF}^{eff}). Approximately 60% of these transactions were bank-to-bank lending (Afonso *et al.*, 2013)⁷. Rates were set based on the quantity of funds available in the market and the perceived risk of the borrower, as follows:

$$i_{FF}^{eff} = f(R_R^s, R_R^d, Risk) \quad (3)$$

where, R_R^d = demand for reserves, R_R^s = supply of reserves, and i_{FF}^{eff} = effective federal funds rate.

The Federal Open Market Committee (FOMC) sets a target (or a range) for the federal funds rate (\bar{i}_{FF}),⁸ but the actual funds rate is determined in the market, with the “effective” rate (i_{FF}^{eff}) being the weighted average of all the overnight lending transactions in the federal funds market. When the effective rate moved too far from the Fed’s target before the financial crisis, the FOMC adjusted it through open market operations (buying and selling securities). The Fed’s portfolio of securities consisted mainly of treasury bills, generally of short maturity, and its balance sheet was small, less than \$900 billion [Graph 1](#).

⁵ Federal government (national debt) = \$24.123 trillion (125.510% of the GDP), State government debt = \$1.178 trillion, Local government debt = \$2.068 trillion and Total Government Debt = \$27.369 trillion (142.399% of the GDP); Un-funded Social Security liability = \$20.267 trillion, Un-funded Medicare liability = \$31.306 trillion, Un-funded Medicaid liability = \$8.4 trillion, Un-funded pension liability = \$6.917 trillion, Total Public Debt = \$94.259 trillion (or 490.421% of the GDP). Private sector debt: total personal debt = \$20.295 trillion, Mortgage debt = \$16.095 trillion, Student loan debt = \$1.666 trillion, Credit card debt = \$1.082 trillion, Business sector debt = \$12.778 trillion, Financial sector debt = \$15.247 trillion, Total Private Debt = \$67.162 trillion (349.438% of the GDP). Total Public and Private Debt = \$160.516 trillion (835.151% of the GDP). Total interest paid = \$3.726 trillion (19.386% of the GDP). The GDP (2019:Q4) = \$19.220 trillion.

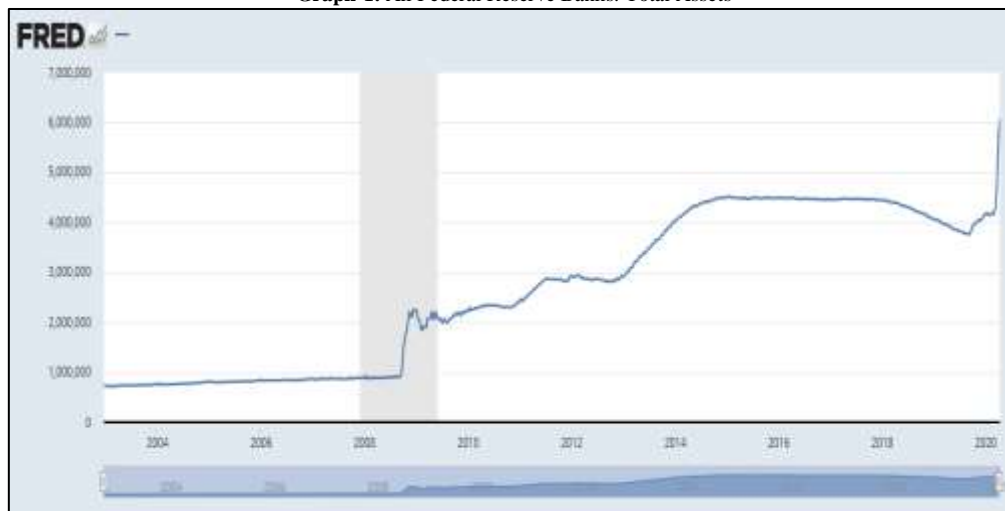
See, <https://usdebtclock.org/> and *Economagic.com*.

⁶ See, Kallianiotis (2017a).

⁷ See, Afonso, Entz, and LeSueur (2013).

⁸ Since October 30, 2019 it is between 1.50% and 1.75%.

http://www.fedprimerate.com/fedfundsrate/federal_funds_rate_history.htm

Graph-1. All Federal Reserve Banks: Total Assets

Note: Total assets were on August 22, 2007: \$789.613 billion (T-Bills: \$277.019 billion and L-T T-bonds: \$512.594 billion); on September 10, 2008: \$925.725 billion; then, on November 30, 2008 became \$1,629.339 billion (U.S. Treasury securities \$1,555.961 billion + other assets of \$73.378 billion). In December 2008, Fed announced QE (purchase of L-T Treasuries and Mortgage-backed securities, T-Bills were only \$18.423 billion). On December 31, 2008, the total assets became: \$2,239.457 billion; on May 19, 2010: \$2,350.890 billion; on February 1, 2012: \$2,924.947 billion; on January 14, 2015: \$4,516.077 billion; on June 14, 2017: \$4,476.269 billion; then, on June 13, 2019: \$3,849.955 billion; and on August 14, 2019: \$3,331.637 billion. On December 26, 2019, they were going up again to \$4,165.591 billion (T-Bills: \$164.167 billion, Notes and Bonds: \$2,159.857 billion, Mortgage-backed securities: \$1,420.886 billion, other: \$420.681 billion). On January 29, 2020, the total assets were: \$4,151.630 billion, on March 4, 2020 they were \$4,241,507 billion and lately, due to the coronavirus, the assets became \$6,083,141 billion (April 6, 2020).

Source: <https://fred.stlouisfed.org/series/WALCL>.

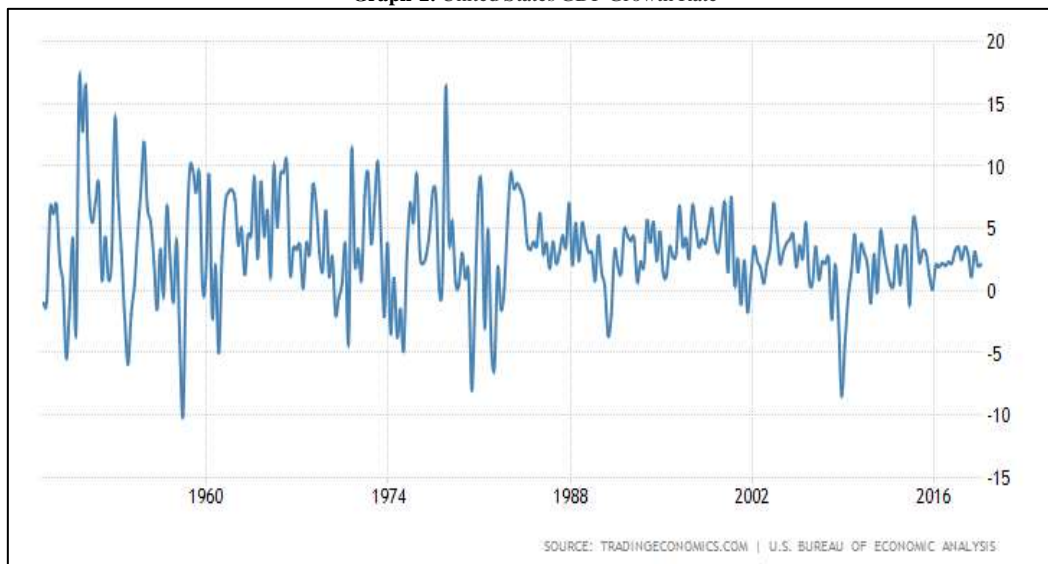
Banks hold reserves in an account at the Fed and are required to maintain a balance above a certain fraction of their deposits, called required reserves (R_R).⁹ Prior to the onset of the Great Recession in January 2008 (Graph 2), a defining feature of the fed funds market was that reserves were scarce.¹⁰ As a result, throughout the day a bank's reserves would fluctuate as payments were made or received, and some banks would find themselves short of their reserve requirements at the end of the day. In order to avoid borrowing at the Fed's discount window, these banks would look to borrow from other banks in the fed funds market (Ennis and John, 2013; Hadjimichalakis, 1982)¹¹. The Fed did not pay interest on reserves (excess and required reserves) deposited overnight, but these banks looked to lend in the federal funds market or to offer loans to earn a positive rate of return. But, with an enormous growth of monetary base after 2008, the Fed has generated a very dangerous bubble in the financial market, which can be burst by some "philanthropists" (ἀνθρωπώπους) and not only the U.S. economy, but the world can go into a deep recession.¹²

⁹ See, eq. (2) above. See also, "Reserve Requirements", <https://www.federalreserve.gov/monetarypolicy/reservereq.htm>

¹⁰ In 2008, the Monetary Base = \$821 billion (= Reserves: \$46 billion + Currency: \$775 billion). See, <https://www.federalreserve.gov/releases/h3/20081229/>. With January 23, 2020, the MB was \$3,426.483 billion ($R = \$1,630.09$ billion and $C = \$1,796.393$ billion) and became \$3,883,155 billion (April 4, 2020). See, <https://fred.stlouisfed.org/series/BOGMBASE/>

¹¹ Banks would try to avoid borrowing at the Fed's discount window because the rate was higher than the typical rate being offered in the fed funds market (with January 2020, they were: $i_{DR} = 2.25\% > i_{FF}^{eff} = 1.47\%$). See, *The Wall Street Journal*, January 2, 2020), and because there was a stigma associated with borrowing at the discount window. See Ennis and Weinberg (2013). Also, Hadjimichalakis (1982). Now, the $i_{DR} = 0.25\% > i_{FF}^{eff} = 0.05\%$.

¹² The "philanthropist" Gorge Soros said in Davos, Switzerland (1/25/2020) that the economy can go to a recession before the 2020 U.S. elections. See, "George Soros, 89, is still on a quest to destroy America", *Washington Times*, <https://www.washingtontimes.com/news/2020/jan/25/george-soros-89-still-quest-destroy-america/>

Graph-2. United States GDP Growth Rate

Note: The Great Recession was in 2008:Q4, with GDP growth = -8.27%. The U.S. GDP growth for the 2019:Q4 was 2.1%. For the full year, the U.S. economy grew at 2.3%, a slowdown from 2.9% pace of growth we saw in 2018 following Trump's tax cuts.

Source: <https://tradingeconomics.com/united-states/gdp-growth> and <https://finance.yahoo.com/news/fourth-quarter-gdp-growth-optical-illusion-morning-brief-110222004.html>

Lately, the fed funds market has been shrinking ever since the 2008 financial crisis. Kimberly Amadeo (2008)¹³ In 2007, banks lent \$222 billion. In 2012, it was only \$60 billion (Kallianiotis, 2019b)¹⁴. What has happened? First, the Federal Reserve increased its balance sheet to \$4 trillion through quantitative easing. Kimberly Amadeo¹⁵ (Graphs 1 and 3a). On December 18, 2013, it was \$4,008.062 billion. The Fed bought U.S. Treasuries and mortgage-backed securities (Kimberly Amadeo)¹⁶ from banks.¹⁷ That left them with trillions of dollars in reserves on their balance sheets. Second, the Fed now pays banks interest on excess reserves.¹⁸ Banks have less incentive to lend excess fed funds, eq. (4) (Kallianiotis, 2020)¹⁹. The Federal Reserve sets the reserve requirement in order to control the amount of money available to lend. That is known in economics as liquidity (Kimberly Amadeo)²⁰. The requirement keeps banks from lending out all their money. The Fed requires that a certain percentage of the bank's deposits need to be reserved each night, eq. (2), for security purpose and for control of the money supply for its consequences on the financial market and the economy.

Unfortunately, after 2008, with the Fed's interest rate policy, the banking system has been flooded with reserves and the federal funds rate has been near zero for seven years; the Fed funds market and its easy money policy has continued to operate, but it has changed and has affected negatively (depositors' and taxpayers') wealth and social welfare. Is this "innovated" monetary policy preventing a new financial crisis? No! Even the coronavirus affected negatively the financial market.²¹

¹³ See, Kimberly Amadeo, "2008 Financial Crisis: The Causes and Costs of the Worst Crisis Since the Great Depression", <https://www.thebalance.com/2008-financial-crisis-3305679>

¹⁴ See, Kallianiotis (2019b).

¹⁵ See, Kimberly Amadeo, "Quantitative Easing Explained: How Central Banks Create Massive Amounts of Money", <https://www.thebalance.com/what-is-quantitative-easing-definition-and-explanation-3305881>

¹⁶ See, Kimberly Amadeo, "Mortgage-Backed Securities, Their Types, and How They Work: How Mortgage-Backed Securities Worked Until They Didn't", <https://www.thebalance.com/mortgage-backed-securities-types-how-they-work-3305947>

¹⁷ On November 30, 2008 the Fed assets were \$1,629.339 billion (U.S. Treasury securities \$1,555.961 billion + other assets of \$73.378 billion, but Mortgage-backed securities were zero, \$0.000). With June 27, 2019, the U.S. Treasury securities were: \$2,110.193 billion, the Mortgage-backed securities: \$1,532.956 billion, and other: \$232.705 billion. A total of \$3,882.854 billion. With August 8, 2019, there was a little reduction; the U.S. Treasury securities were: \$2,080.703 billion, the Mortgage-backed securities: \$1,511.775 billion, and other: \$236.191 billion. A total of \$3,828.669 billion. <https://www.federalreserve.gov/releases/h41/current/h41.htm>

¹⁸ See, Interest on depository institutions' required and excess reserve balances. <https://www.federalreserve.gov/monetarypolicy/20081006a.htm>

¹⁹ See, "Who's Lending in the Fed Funds Market?", <https://libertystreeteconomics.newyorkfed.org/2013/12/whos-lending-in-the-fed-funds-market.html#>. Also see, Kallianiotis (2020, Graph 3).

²⁰ See, Kimberly Amadeo, "Liquidity, Its Gluts, Traps, and Ratios, and How the Fed Manages It: How It Controls the Economy and Your Finances", <https://www.thebalance.com/liquidity-definition-ratios-how-its-managed-3305939>

²¹ On January 31, 2020, the DJIA fell by 603.41 points to 28,256.03. See, <https://finance.yahoo.com/quote/%5EDJI/history?p=%5EDJI>. See also, "Coronavirus fears and the markets: Here's why investors probably shouldn't panic", <https://www.bankrate.com/investing/coronavirus-fears-and-stocks/>

2. The Federal Reserve and the Effects of the New Monetary Policy

The financial crisis started in August 2007, when French banks stopped buying U.S. mortgage-back securities because they considered them risky and with high market prices, due to low federal funds rate.²² More 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, (Wolla, 2019)²³ (β') new banking regulations were enacted, (γ') the Fed began paying interest to banks on funds they held in their reserve accounts at the Fed (IOR), and (δ') it started using new monetary policy instruments (tools).

The Federal Reserve utilizes four tools plus some new facilities of implementing monetary policy and managing short-term interest rates: (1) Open market operations, OMO, (2) the discount rate, i_{DR} , (3) reserve requirements, R_R (actually, reserve requirements ratio, r_R), (4) interest on required and excess reserves, IOR&ER;²⁴ also, (5) overnight reverse repurchase agreement facility, ON RRP,²⁵ (6) term deposit facility, TDF,²⁶ (7) expired policy tools,²⁷ and (8) the scorned and idle margin requirements tool (r_m), eq. (4).²⁸ Using these tools (instruments), the Federal Reserve influences the demand for, and supply of balances that depository institutions hold at Federal Reserve Banks. The interest rate on fed funds transactions is typically sensitive to the level of reserve balances in the banking system, [eq. (3)], and so changes made through these tools influences the fed funds rate, and consequently, banks' and investors' decisions and the financial market, eq. (6). Fed funds transactions neither increase nor decrease total reserves [eq. (7)], rather they redistribute reserves by using Fed-wire Funds services.

$$F_{cash} = r_m V_{securities} \quad (4)$$

$$R_E = f(i_{IOER}, i_{DR}, I) \quad (5)$$

$$V = \frac{EBIT(1-T)}{i_a} \quad (6)$$

$$R_T^d = R_R + R_E = r_R DD + R_E \equiv R_T^s = R_B + R^* \quad (7)$$

where, R_T^d = demand for total reserves, R_R = required reserves, R_E = excess reserves, r_R = required reserves ratio, DD = demand deposits, R_T^s = supply of total reserves, R_B = borrowed reserves, R^* = non-borrowed reserves, i_{IOER} = interest rate on excess reserves, i_{DR} = discount rate, I = investment opportunities, V = value of the firm, $EBIT$ = earnings before interest and taxes (profitability, competitiveness), T = corporate tax rate (fiscal policy),

²² It 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

²³ See, Wolla (2019).

²⁴ See, "Interest on Required Reserve Balances and Excess Balances", <https://www.federalreserve.gov/monetarypolicy/reqresbalances.htm>

²⁵ See, Overnight Reverse Repurchase Agreement Facility, <https://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm>

²⁶ In the [Policy Normalization Principles and Plans](#) adopted by the Federal Open Market Committee (FOMC) on September 17, 2014, the FOMC indicated that during the process of monetary policy normalization, the Federal Reserve intends to use other supplementary tools, such as the TDF, as needed to help control the federal funds rate and move it into the target range set by the FOMC. See, Term Deposit Facility (TDF), <https://www.federalreserve.gov/monetarypolicy/tdf.htm>

²⁷ During the financial crisis, the Federal Reserve established several facilities to provide liquidity directly to borrowers and investors in key credit markets. As the performance of financial markets has improved, the Federal Reserve has wound down some of the programs. They were the followings:

- [Money Market Investor Funding Facility](#)
- [ABCP MMMF Liquidity Facility](#)
- [Commercial Paper Funding Facility](#)
- [Primary Dealer Credit Facility](#)
- [Term Securities Lending Facility](#)
- [Term Auction Facility](#)
- [Term Asset-Backed Securities Loan Facility](#)
- [Maturity Extension Program and Reinvestment Policy](#)

See, "Expired Policy Tools", <https://www.federalreserve.gov/monetarypolicy/expiredtools.htm>

²⁸ The $r_m = 50\%$ since 1974. See, <https://www.frbsf.org/economic-research/publications/economic-letter/2000/march/margin-requirements-as-a-policy-tool/>

i_a = average cost of capital (interest rate, monetary policy), r_m = margin requirements, F_{cash} = Funds in cash for opening a margin brokerage account,²⁹ and $V_{securities}$ = market value of securities purchased.

In response to the crisis, as it was mentioned above, several new policies were enacted that altered the structure of the federal funds market in profound ways. 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 have a deposit rate closed to zero ($i_D = 0.05\%$) for more than eleven years. In addition, the Federal Deposit Insurance Corporation (FDIC) introduced new capital requirements³⁰ 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 excess reserves (IOER), which exceeds the federal funds rate, (George Selgin, 2017)³¹ eq. (7). When financial institutions have access to this low-risk alternative, they have less incentive to lend in the federal funds market, because $i_{IOR} > i_{FF}^{eff}$.

Lately, the Federal Reserve officials are weighing whether to use a new tool that could reduce the risk of a credit crunch in a downturn. The tool is known as *the countercyclical capital buffer* (Occhino, 2018)³². It allows the Fed to require banks to hold more loss-absorbing capital should the economy show signs of overheating, or to keep less of it during bad economic times. The buffer applies generally to banks with more than \$250 billion in assets, including firms such as JPMorgan Chase & Co., Bank of America Corp. and Citigroup Inc.³³ Unfortunately, there is an important monetary policy tool, which is inactive for a very long time. This is the margin requirements, r_m , (Kallianiotis, 2017a)³⁴ which could confine the financial market bubble.

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). 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 = \$1,586.845 billion. Lately, it is going up again.

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 (Graph 3a and Graph 1).

²⁹ See, "Cash or Margin Brokerage Account?" <https://www.thebalance.com/cash-account-vs-margin-account-357409>

³⁰ 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/regulations/capital/capital/index.html>

³¹ 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/>.

³² See, "Countercyclical capital buffer (CCyB)", BIS, <https://www.bis.org/bcbs/ccyb/>. See also, Occhino (2018). "Are the New Basel III Capital Buffers Countercyclical? Exploring the Option of a Rule-Based Countercyclical Buffer", <https://www.clevelandfed.org/newsroom-and-events/publications/economic-commentary/2018-economic-commentaries/ec-201803-countercyclical-capital-buffers.aspx>

³³ See, "Fed Considers New Tool for a Downturn", https://www.wsj.com/articles/fed-considers-new-tool-for-a-downturn-11565614800?mod=article_inline. See also, <https://www.wsj.com/articles/feds-quarles-floats-countercyclical-capital-buffer-changes-11567676701>

³⁴ See, Kallianiotis (2017a).

Graph-3a. St. Louis Adjusted Monetary Base

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; and on December 19, 2019 it was \$3,441.873 billion (reserves: \$1,649.453 billion and currency: \$1,792.420 billion).

Source: <https://fred.stlouisfed.org/series/BASE/> See, also, <https://research.stlouisfed.org/datatrends/usfd/page7.php>
<https://www.federalreserve.gov/releases/h3/current/>

As the Fed was buying these assets, the banks that were selling them saw their excess reserve (R_E) balances to become enormous. As a result, excess 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 3b).

Graph-3b. Monetary Base; Excess Reserves of Depository Institutions

With December 30, 2019, they continue to grow to $R_E = \$1,491.106$ billion.

Source: <https://fred.stlouisfed.org/series/EXCSRESNS>

In July 2019, they were \$1,378.447 billion. Lately (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. (Graphs 3a, 3b, 3c, and 3d).

Graph-3c. Monetary Base; Currency in Circulation

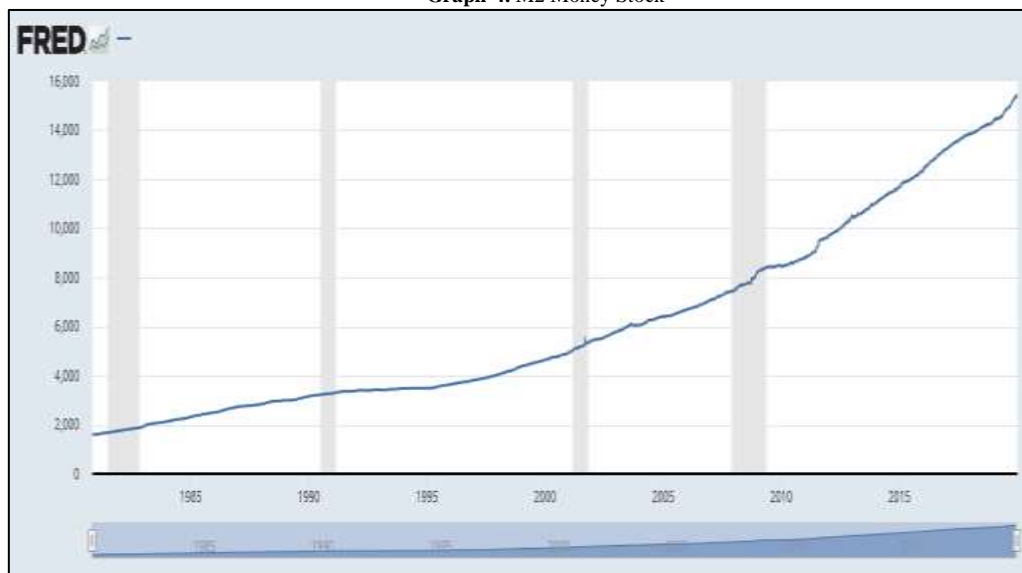


With December 30, 2019, C = \$1,796.397 billion.

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

The money supply (M2) has surpassed all its limits (Graph 4) and the DJIA had reached 29,348.10 on January 17, 2020 (Figure 1). Is this 32.16% p.a. growth of the stock prices (Ross *et al.*, 2019)³⁵ 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. Fed went back to a new zero federal funds rate, on March 16, 2020, to cope with the new economic crisis.³⁶

Graph-4. M2 Money Stock

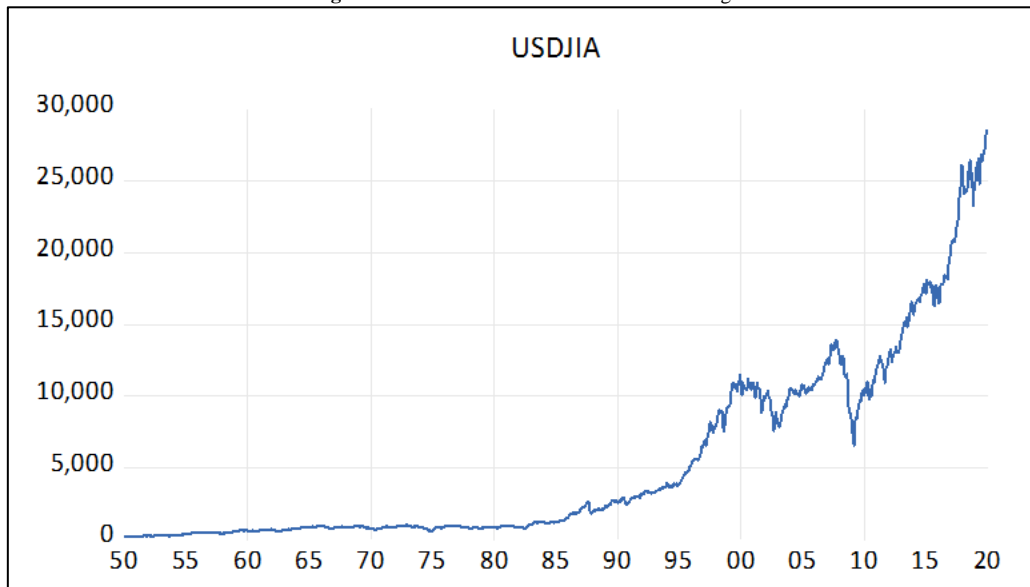


With December 30, 2019, M2 = \$15,427.9 billion and with April 9, 2020 reached M2 = \$16,668.9 billion..

Source: <https://fred.stlouisfed.org/series/M2>

³⁵ The stock market (DJIA) must grow by 9.686% p.a. ($= \bar{i}_{RF} + HRP = 0.986\% + 8.7\%$). See, Ross, Westerfield, Jaffe, and Jordan (2019, p. 311).

³⁶ The new target federal funds rate is again: $0.00\% \leq \bar{i}_{RF} \leq 0.25\%$ and the effective: $i_{FF}^{eff} = 0.05\%$. See, <https://apps.newyorkfed.org/markets/autorates/fed%20funds>

Figure-1. 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 annum).

Source: Yahoo/Finance

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.³⁷ In October 2008 (ἡ ἀποφράς ἡμέρα),³⁸ the Federal Reserve had begun to pay interest on reserves (IOR).³⁹ 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 ($i_{IOR} = i_{RF} + 0.20\%$) (Kallianiotis, 2020)⁴⁰. 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. 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 investments (Graph 5)⁴¹ and for this reason, they cause

³⁷ 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. See, <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 $D_{S-T} \downarrow \Rightarrow P_{S-T} \downarrow \Rightarrow i_{S-T} \uparrow$.

³⁸ 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).

³⁹ Interest on reserves (IOR=IORR+IOER) is the rate at which the Federal Reserve Banks pay interest on 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 5); but all these interests are paid by the taxpayers. 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 is 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 (Graph 6). But, these IOR are paid by the poor taxpayers. (Sic).

⁴⁰ 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 (2020, 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/regresbalances.htm>. Then, if banks are 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_E). Banks kept a deposit rate closed to zero ($i_D = 0.05\%$), which was giving a negative real deposit rate ($r_D = -1.536\%$). Now (January 2020), $r_D = -2.25\%$. 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 (Graph 5), banks cannot offer loans (Graph 6), 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 (2019a). Depositors are paying interest, instead of receiving, on their bank accounts ($r_D < 0$). (Sic).

⁴¹ 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

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. Hadjimichalakis (1982)⁴² Therefore, this policy is not only inefficient and ineffective, but bad (risky and unfair) for depositors, taxpayers and the economy (our financial system).

Graph-5. 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 and in 2019:Q4, $I = \$3,698.273$ billion.

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

Meanwhile, domestic institutions have been charging fees to discourage large investors from making large deposits with them (Grind *et al.*, 2014)⁴³. 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 to banks and to buy risky financial assets ($RP = 32\%$). These changes in monetary policy overturn and invalidate its ultimate objective, which is the prevention of financial crises and the improvement of social welfare.

and the income of Americans has fallen and unemployment is very high. (See, Footnote 58). 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 liberals agenda for the country: Russia => Racism => Recession => Revenge (against the country) => Reproach (climate) => Refer to (impeachment) => Restraint (globalization) => Coronavirus. The establishment allowed for 26 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 (Graph 6).

Graph-6. Commercial and Industrial Loans, All Commercial Banks



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

⁴² Banks supply deposits (deposit accounts). Deposits are supply-determined (a downward negatively sloped supply curve) by the banks. See, Hadjimichalakis (1982, p.3).

⁴³ See, Grind, Sterngold, and Chung (2014).

3. Testing Monetary Policy Rules

According to Taylor's (1993) original version of the monetary policy rule, the nominal interest rate should respond to divergences of actual inflation rates from *target* inflation rates and of actual GDP from *potential* GDP.

This Taylor's rule can be modified by using unemployment (u_t) instead of GDP as follows:

$$\bar{i}_{FF_t} = \pi_t + r_t^* + \alpha_\pi(\pi_t - \pi_t^*) - \alpha_u(u_t - u_t^N) \quad (8)$$

If inflation rate is above target, $\pi_t^* \cong 2\%$, the central bank raises the federal funds rate, which encourages financial institutions to increase interest rates on their loans and mortgages. But the higher loans rates discourage borrowing and spending and thereby easing the upward pressure on prices. If the unemployment rate is above the natural level ($u_t^N \cong 4\%$), the Fed reduces the federal funds rate to lower the cost of capital and it might increase investment, which will affect positively output and employment.

A second rule is Bullard's (2018), which is the following:

$$\bar{i}_{FF_t} = \rho i_{FF_{t-1}} + (1 - \rho)[r_t^* + \pi_t^* + \phi_\pi(\pi_t - 2\%) + \phi_u(u_t - 4\%)] \quad (9)$$

Both the above rules depend on the same macro-variables (fundamentals), inflation and unemployment. In our economy, a recession starts after a major financial crisis. A bear market is followed by a recession (Kallianiotis, 2015)⁴⁴. Thus, financial market plays a major role in market oriented economies and its optimal growth has a positive effect on investors' and consumers' confidence. The opposite happens, if growth is artificially enormous (abnormal bubbles). Kallianiotis (2019b), rule is also putting an extra term, the growth of the financial market (g_{DJIA_t}), as follows,

$$\bar{i}_{FF_t} = \pi_t + r_t^* + \alpha_\pi(\pi_t - \pi_t^*) - \alpha_u(u_t - u_t^N) + \alpha_{DJIA}(g_{DJIA_t} - g_{DJIA_t}^*) \quad (10)$$

where, g_{DJIA_t} = the actual growth of the DJIA index, $g_{DJIA_t}^*$ = the optimal (the bubble prevention) growth of the DJIA ($g_{DJIA_t}^* \leq 7\% \cong i_{10YTB} + 5\%$),⁴⁵ and $\alpha_\pi = 0.25$, $\alpha_u = -0.50$,⁴⁶ $\alpha_{DJIA} = 0.25$.

Now, by applying the recent data, we test the above rules of monetary policy. First, we use the Taylor's rule, eq. (8), to see if the target federal funds rate was the appropriate according to the rule. 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 seven years.

(α'). For the period 2008:12 to 2015:11, the ZIRR, (Kallianiotis, 2020)⁴⁷ the i_{FF} must have been:

$$i_{FF} = 1.586\% + 1\% + 0.5(1.586\% - 2\%) - 0.5(7.838\% - 4\%) = 0.46\%; \text{ but, it was between } 0\% \text{ and } 0.25\%$$

(average $\bar{i}_{FF}^{eff} = 0.129\%$), which was low.

(β'). From 2015:12 to 2019:12, the NR, the i_{FF} must have been:

$$i_{FF} = 1.971\% + 1\% + 0.5(1.971\% - 2\%) - 0.5(4.286\% - 4\%) = 2.8135\%; \text{ but it was between } 0.25\% \text{ and } 2.50\%$$

(average $\bar{i}_{FF}^{eff} = 1.268\%$), which was too low.

Thus, Taylor's rule recommends higher federal funds rate ($i_{FF} \cong 3\%$). This is also my view, testing eq. (8) the \bar{i}_{FF} must be $i_{FF} > 3\%$ to reduce the financial market bubble and to make the real rate of interest positive and the deposit rate above the inflation rate ($i_D > \pi$) and hopefully to prevent a new financial crisis.

Then, by using the Bullard rule, eq. (9), we have:

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

$$i_{FF} = 0.85(0.25\%) + 0.15[1\% + 2\% + 1.5(1.586\% - 2\%) + 1(7.838\% - 4\%)] = 1.14505\%; \text{ but it was } 0.129\%,$$

very low.

(β'). For the NR (2015:12-2019:12), the i_{FF} must have been:

With $\bar{i}_{FF} = 1.75\%$ (today's target rate):

$$i_{FF} = 0.85(2.00\%) + 0.15[1\% + 2\% + 1.5(1.971\% - 2\%) + 1(4.286\% - 4\%)] = 2.186\%, \text{ which is very low.}$$

⁴⁴ See, Kallianiotis (2015, pp. 40-41).

⁴⁵ The highest growth can be the Treasury Bill (3-month maturity) plus the Historic Risk Premium (HRP); about 10% per annum for the DJIA.

⁴⁶ The coefficient of unemployment are 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).

⁴⁷ The data are coming from Kallianiotis (2020, Table A1). For federal funds target rate, see, http://www.fedprimerate.com/fedfundsrate/federal_funds_rate_history.htm

Even Bullard's rule, who is a policy maker, President of St. Louis Fed, shows that the target federal funds rate is relatively low. Why? What is the purpose of this artificially low target federal funds rate? Can this prevent new financial crises?

Lastly, by applying the data to Kallianiotis rule, (Kallianiotis, 2019b)⁴⁸ eq. (10), which includes the growth of the financial market, we receive the following results:

(α'). From 2008:12 to 2015:11, the ZIRR, the i_{FF} must have been:

$i_{FF} = 1.586\% + 1\% + 0.25(1.586\% - 2\%) - 0.50(7.838\% - 4\%) + 0.25(9.952\% - 7\%) = 1.3015\%$, which was very low.

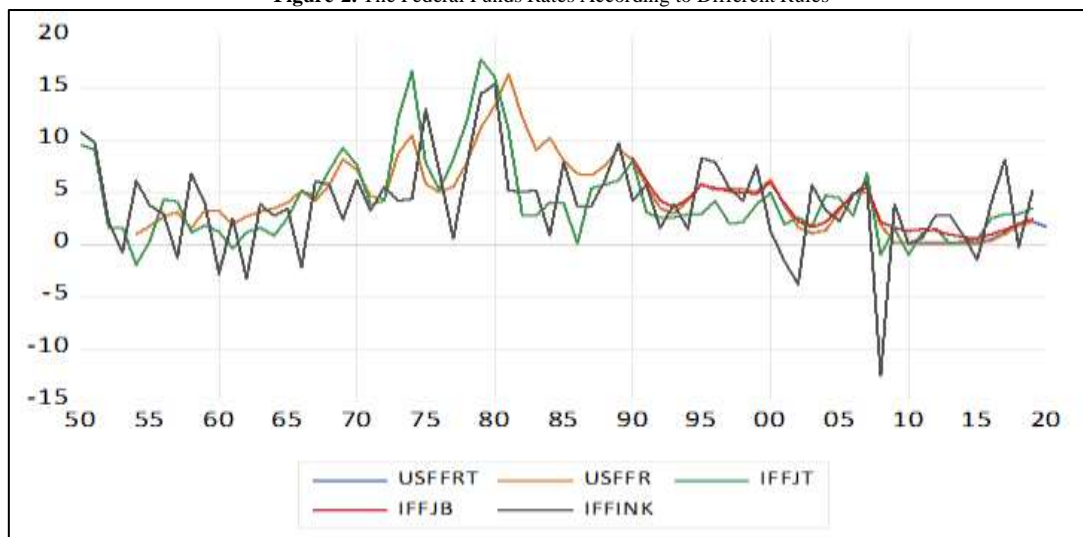
(β'). From 2008:12 to 2019:12, the NR, the i_{FF} must have been:

$i_{FF} = 1.992\% + 1\% + 0.25(1.992\% - 2\%) - 0.50(4.212\% - 4\%) + 0.25(11.671\% - 7\%) = 4.05175\%$, which is very low again. This is the current case, where $i_{FF} = 1.50\% - 1.75\%$ instead of being 4%.

Thus, the ZIRR and the NR are both having a very low average federal funds rate, ($0.129\% < 1.302\%$) and ($1.324\% < 4.052\%$) respectively, compared to these rates calculated above. These low average federal funds rates do not satisfy the ultimate objective of monetary policy, which is price stability (stability in the value of money), full employment, sustained real economic growth, moderate L-T interest rate (reasonable growth of the financial market), and equilibrium in the balance of payment (fair trade policies) (Kallianiotis, 2017a; 2019c)⁴⁹.

The empirical results and the above monetary policy rules show that the federal funds rate was and still is very low for over eleven years (Figure 2). The latest monetary policy has also overturned all the economic theories. It introduces the "new" dread-theories of the 21st century. We can see the low federal funds rate, the enormous liquidity (the immense money supply),⁵⁰ the negative real rates of interest,⁵¹ the low economic growth,⁵² the high unemployment,⁵³ and the low official inflation (very stranger and odd),⁵⁴ and the bubble in the stock market.⁵⁵

Figure-2. The Federal Funds Rates According to Different Rules



Note: USFFRT = U.S. Federal Funds Rate Target, USFFR = U.S. Federal Funds Rate (Effective), IFFJT = Federal Funds Rate Taylor Rule, IFFJB = Federal Funds Rate Bullard Rule, and IFFINK = Federal Funds Rate Kallianiotis Rule.

Source: *Economagic.com* and FRED. Calculations by the author

⁴⁸ See, Kallianiotis (2019b)

⁴⁹ See, Kallianiotis (2017a, p. 32 and 2019c, Chapter 2).

⁵⁰ Graph 4: The U.S. Money Supply (M2): was \$7,460.2 billion (1/14/2008) and today (4/9/2020), it is more than double: \$16,668.9 billion. See, <https://fred.stlouisfed.org/series/M2/29/>. Also, <https://www.bing.com/images/search?view=detailV2&id=9DFFEECC3FFB0D825DED843AF15F85CA107EBB4F&thid=OIP.YH-zy5ucv6KvZEADHuZi0wHaFK&mediaurl=https%3A%2F%2Ffred.stlouisfed.org%2Ffredgraph.png%3Fid%3DM2SL%26nsh%3D1%26width%3D600%26height%3D400&exp=418&expw=600&q=fred+m2+money+supply&selectedindex=0&ajaxhist=0&vt=0&eim=1.2.6>. Further, <https://tradingeconomics.com/united-states/money-supply-m2>. Furthermore, *Economagic.com*

⁵¹ See, Footnote 46.

⁵² See, Footnote 12.

⁵³ **Unemployment Data Series.** The official unemployment rate with November 2019 was $u = 3.5\%$. **The ShadowStats Alternate Unemployment Rate for December 2019 was 20.8%.** http://www.shadowstats.com/alternate_data/unemployment-charts. In addition,

The real U.S. unemployment rate is 4.4% above the official rate (8.1% in August 2019). See, Komlos (2019).

⁵⁴ Official inflation rate was 5% (2008) and SGS was 14%. Now, (December 2019), official 2.29% and SGS 10%. See, http://www.shadowstats.com/alternate_data/inflation-charts. There is no official TRUTH anymore. (Ἡ ἀπάτη τῶν Illuminati). If you are a follower of the "big liar", how is it possible to say the truth?

⁵⁵ See, Figure 1, above.

Lastly, testing correlation (ρ) and causality (\Rightarrow) between the monetary instruments, we have the following results:

(a) From 1950 to 2019:

$$\rho_{i_{FF}, M2} = -0.572 \quad (\text{liquidity effect}) \quad \text{and} \quad M2 \Rightarrow i_{FF} \quad (F = 2.446^*)$$

$$\rho_{i_{FF}, MB} = -0.582 \quad (\text{liquidity effect}) \quad \text{and no causality}$$

$$\rho_{MB, M2} = +0.941 \quad \text{and} \quad MB \Rightarrow M2 \quad (F = 9.769^{***})$$

(b) From 2008 to 2019:

$$\rho_{i_{FF}, M2} = +0.287 \quad (\text{no liquidity effect})$$

$$\text{and} \quad M2 \Rightarrow i_{FF} \quad (F = 11.774^{***}), \quad i_{FF} \Rightarrow M2 \quad (F = 3.483^{**})^{56}$$

$$\rho_{i_{FF}, MB} = -0.160 \quad (\text{liquidity effect})$$

$$\text{and} \quad MB \Rightarrow i_{FF} \quad (F = 5.201^{***}), \quad i_{FF} \Rightarrow MB \quad (F = 3.818^{**})$$

$$\rho_{MB, M2} = +0.858 \quad \text{and} \quad MB \Rightarrow M2 \quad (F = 2.409^*)$$

These results are in consent with all the others (Kallianiotis, 2019a)⁵⁷. Consequently, the latest monetary policy is incompatible and contradictory with the traditional monetary policies and economic theories. (*Sic*). Then, how these experiments can prevent a new financial crisis?

4. Social Implications of Monetary Policy and Financial Crises

The latest Fed's changes altered the fed funds market in a number of astonishing ways, including the types of financial institutions that were trading, the rates at which they were borrowing and lending, and the new tools fabricated by the FOMC that could effectively influence these market rates. Because banks were overflowed with reserves, their desire to borrow effectively vanished, and bank-to-bank lending largely disappeared.⁵⁸ However, once the Fed started paying interest on reserves to some (but not all) financial institutions, a new lending opportunity emerged. This Fed's anti-social "innovation" (paying interest of reserves) has kept the deposit rate closed to zero for twelve years and because we are living in a free market economic system, banks charge an interest rate on credit cards of 39.99%⁵⁹ and are paying 0.05% on deposits. Kallianiotis (2017a) suggests as optimal interest rates for our economy, the followings.⁶⁰

⁵⁶ This latest monetary policy has invalidated (inverted) the economic laws. (*Sic*).

⁵⁷ By testing the Phillips curve, $\pi_t = \pi_t^e + \psi(u_{t-1} - u_t^N)$, Kallianiotis (2019a) found as results:

(1) 2008:12-2018:09 (the last two regimes)

$$\pi_t = 1.002^{***} \pi_t^e - 0.058(u_{t-1} - u_t^N)$$

(0.091) (0.101)

$$R^2 = 0.221, SER = 3.433, D - W = 2.027, N = 252$$

(2) 2008:12-2015:11 (ZIRP Regime)

$$\pi_t = 1.243^{***} \pi_t^e - 0.477(u_{t-1} - u_t^N)$$

(0.121) (0.291)

$$R^2 = 0.273, SER = 3.424, D - W = 1.883, N = 167$$

(3) 2015:12-2018:09 (New Regime)

$$\pi_t = 0.579^{***} \pi_t^e + 0.154(u_{t-1} - u_t^N)$$

(0.175) (0.117)

$$R^2 = 0.154, SER = 3.297, D - W = 2.141, N = 85$$

The coefficients of unemployment ($\psi < 0$) for the sample periods (2008:12-2018:09) and (2008:12-2015:11) are negative but insignificant; for the period (2015:12-2018:09) the sign of the unemployment coefficient became positive and insignificant. Thus, these results show that the Phillips curve does not hold any more with the new instruments of monetary policy. A variety of different tests shows the ineffectiveness of the latest monetary policy and its disagreement with the traditional economic theories.

⁵⁸ See, Key Features of the Federal Funds Market, *Liberty Street Economics*,

<https://libertystreeteconomics.newyorkfed.org/2018/07/size-is-not-all-distribution-of-bank-reserves-and-fed-funds-dynamics/comments/>.

⁵⁹ This unreasonable, unethical, outrageous, and usurious interest rate is charged for the poor people by the unregulated and corrupted banks. Is this a social policy or a deception? The following statement is from one of my graduate students' answer for the following question: **Is the Risk Premium on our credit cards justifiable?**

"This is my ethical perspective on Risk Premium on credit cards. While pursuing my undergraduate degree, I worked for one of the most corrupt credit card companies. It is a sub-prime credit card company that preyed on vulnerable people with bad or no credit. The card would be sent out to consumers with \$198 in processing fees with a \$250 credit line. People did not read the

As it was mentioned and it is known to every saver, the deposit rate is closed to $i_D \cong 0\%$ ($i_D = 0.05\%$) since December 2008, more than eleven years. This has a negative effect on demand for deposits, but banks do not need deposits, they have all these strange excess reserves from the Fed. Deposits have declined in the U.S. banks.

Graph-7. Deposits, All Commercial Banks



Source: <https://fred.stlouisfed.org/series/H8B1058NCBCAG>

“Now, however, the average savings account pays only 0.10% annually—that’s one-tenth of 1%—and many of the country’s biggest banks pay less than that. If you were to put \$5,000 in a regular Bank of America savings account (paying 0.01%) today, in a year you would have collected only 50 cents in interest. That’s true for most of us, but banks themselves are earning 2.4% on their deposits at the Federal Reserve. These deposits, called ‘excess reserves’, include the reserves the banks got from our deposits, and on which they are paying almost nothing; and unlike with our deposits, there is no \$250,000 cap on the sums banks can stash at the Fed amassing interest. A whopping \$1.5 trillion in reserves are now sitting in Fed reserve accounts (Graphs 3a, 3b, 3c, and 3d).⁶¹ The Fed rebates its profits to the government after deducting its costs, and interest paid to banks is one of those costs. That means we, the taxpayers, are paying \$36 billion annually to private banks for the privilege of parking their excess reserves at one of the most secure banks in the world—parking them, rather than lending them out” (Ellen Brown).⁶² This policy tool is, if not anything else, a criminal policy against small savers (investors) and poor taxpayers. Political leaders have to do something for these corrupted and controlled private central banks. Their policies are ineffective for the economy, non-preventable for a new financial crisis, and anti-social for the people. But they benefit only large banks,⁶³ as follows:

With December 2019, we had:

$$(I) \quad \text{The total reserves are: } R_R = \$206.586 \text{ billion} + R_E = \$1,388.636 \text{ billion} = R_T = \$1,595.222 \text{ billion.}^{64}$$

small printed brochures and people would just activate these cards. People would use these credit cards and not realize that they only had \$52 to spend. At that point the card would be maxed out and the company began charging over limit fees of \$30 and an interest rate of 29.99%. Soon this was followed by \$35 late fees. I do not believe that a high Risk Premium is **morally** justifiable. I was the representative on the other end of the phone who listened to story after story. For example, an elderly person who purchased a prescription because he/she needed it; a young mother who put gas in her car; a disabled person who did not understand how the credit card worked. These were vulnerable people who were taken advantage of by a greedy, avaricious company. This credit card company did more than mitigate their risks. The company preyed on poor, uneducated people. As a side note, the owner of this company last year received an award for philanthropist of the year. This puts a real spin on what Americans views as value. This is an ethical/moral perspective on the horrors of unchecked free market capitalism.” [K. L. (FIN 508) Summer 2013].

Note: In the U.S., the risk premium can reach the level of: $RP = 40\%$ (a regressive tax on the poor). In EU, there is a cap on credit cards risk premium of: $RP = 15\%$.

⁶⁰ The optimal interest rate on deposits (savings accounts) must be: $i_{D_t}^* = \pi_t^e + 1\%$ and the optimal interest rate on loans (the highest) must be: $i_{L_t}^* = i_p + 5\%$, where i_D^* = the optimal deposit rate, π^e = expected true inflation rate, i_L^* = the optimal loan rate, and i_p = the prime rate.

⁶¹ See, Footnotes 38, 39, and 40 above.

⁶² See, Ellen Brown, “Why Is the Fed Paying So Much Interest to Banks?”, <https://www.truthdig.com/articles/why-is-the-fed-paying-so-much-interest-to-banks/>. See also, “2.4%, Why Is the Fed Paying So Much Higher Interest Rate to Banks?”, <https://www.econmatters.com/2019/04/24-why-is-fed-paying-so-much-higher.html>

⁶³ «... Θά καταργήσωμεν επίσης όλα τὰ χρηματιστήρια... Θ’ αντικαταστήσωμεν τὰ χρηματιστήρια διά μεγάλων ειδικών πιστωτικών ιδρυμάτων ὧν ὁ προορισμός θά εἶναι νά καθορίζωσι τήν τιμήν τῶν βιομηχανικῶν ἀξιῶν συμφώνως πρός τὰς βλέψεις τῆς [παγκοσμίου] κυβερνήσεως.» [Πρωτόκολλον ΚΑ’ (Π.Σ.Σ.)].

⁶⁴ See, Graphs 3a, 3b, 3c, and 3d above for their value overtime.

The $i_{IOR} = i_{RF} + 0.20\% = 1.52\% + 0.20\% = 1.72\%$.

Thus, Fed is paying total interest on these reserves (I_R) = \$1,595.222 billion x 1.72% = **\$27.438** billion per annum. This is a *bail out cost* that taxpayers are paying.⁶⁵

(II) Total deposits (D_T) = $D_S = \$9,801.1$ billion + $D_{S-DTD} = \$588.7$ billion = **\$10,389.8** billion.⁶⁶
 $i_D = 0.05\%$

Banks are paying an insignificant total interest on deposits (I_D) = \$10,389.8 billion x 0.05% = **\$5.195** billion per annum.

(III) The official inflation rate is (π) = 2.3%; then, $r_D = i_D - \pi = 0.05\% - 2.3\% = -2.25\%$

Thus, depositors are paying to their banks (*bail in*): \$10,389.8 x (-2.25%) = **-\$233.771** billion.

The SGS consumer inflation (1980-based)⁶⁷ is $\pi = 10\%$.

The true *bail in* is now: \$10,389.8 x (-9.95%) = **-\$1,033.785** billion p.a.

(IV) Banks can offer loans: $R_E + D_T = \$1,388.638$ billion + \$10,389.8 billion = **\$11,778.438** billion.

Banks' interest rate is from 3% (mortgage rate) to 39.99% (credit cards with bad credit scores).⁶⁸ The average $i_{CC} = 19\%$.⁶⁹ Then, the average loan rate $\bar{i}_L = (3\% + 19\%): 2 = 11\%$.

Banks are having an interest revenue (R_I) of \$11,778.438 billion x 11% = **\$1,295.628** billion p.a.

The conclusion, here, is obvious, the central bank is working for the banks and satisfies only their objectives, which are profitability and liquidity. This monetary policy is against poor depositors (bail in cost = \$1.034 trillion p.a. or the "official" bail in cost = \$233.771 billion) and poor taxpayers (bail out cost = \$27.438 billion p.a.), a pure anti-social policy and at the same time has created enormous bubbles in the stock market (a hidden new global crisis).⁷⁰ The saving rate is falling (Graph 8 and Figures 5 and 6) and the personal consumption expenditures are increasing (Graph 9 and Figures 3, 4, and 7). Thus, the household debt is going up.⁷¹

The Fed's current balance sheet is so huge (\$4,175.850 billion with January 15, 2020)⁷² that with an announced policy rate decrease, it could possibly generate surprising results and higher market risk and not significant improvement to the bail out cost (taxpayers) and bail in one (depositors). The level of banks' capital is another factor that must be considered by the regulators (central bank, FDIC, comptroller of the currency, etc.). A low capital level is increasing the risk of the bank and the cost of financial crises (by bailing them out); so the bank capital affects the real economy. Risk-averse consumers prefer higher capital levels because it increases the financial stability in the economy and the world. The tax-payers cannot bailout the corrupted and deregulated financial institutions in case of a crisis, as it happened in 2008 because it is completely unethical.⁷³ Firestone, Lorenc, and Ranish (2019) by evaluating the economic costs and benefits of bank capital in the U.S., they found that the optimal capital ratio is from just over 13% to 26% (Farla-e-Castro, 2019; Firestone *et al.*, 2019)⁷⁴. The current average capital ratio is 12.5% for the U.S. banks, which is relatively low.

Astonishingly, but very often lately in EU and in the U.S., the central bankers remind to politician and to the public that they are independent. (*Sic*). The former heads of the Federal Reserve made their case on August 5, 2019 for the central bank to remain independent and free from short-term political pressures,⁷⁵ an implicit rebuttal to President Trump's repeated criticism of this private institution. All four former still-living Fed chairs—Paul Volcker,⁷⁶ Alan Greenspan, Ben Bernanke and Janet Yellen—consigned an op-ed⁷⁷ underlining their belief that the

⁶⁵ Federal Reserve Unfunded interest since 1913 is \$10.772 trillion and now it is \$527.214 billion. See, <https://usdebtclock.org/>

⁶⁶ See, *Economagic.com*

⁶⁷ See, http://www.shadowstats.com/alternate_data/inflation-charts

⁶⁸ See, <https://www.economicshelp.org/blog/6775/debt/total-us-debt-public-private/> See also, <https://usdebtclock.org/>

⁶⁹ See, <https://wallethub.com/answers/cc/highest-credit-card-interest-rate-2140660307/>

⁷⁰ 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*). Is this the plan or not yet? See, Footnote 69.

⁷¹ The total personal debt is \$20.307 trillion x 11% = \$2.234 trillion annual interest on personal debt. See, <https://usdebtclock.org/>. Actually, the average person is paying taxes, interest, insurance premium and the rest of his income is consumed. For this reason his saving is negative (dissaving, borrowing).

⁷² See Graph 1, <https://fred.stlouisfed.org/series/WALCL>

⁷³ The total lost household wealth was between \$19.2 and \$22 trillion. See, <https://www.pbs.org/wgbh/frontline/article/how-much-did-the-financial-crisis-cost/> and https://www.huffpost.com/entry/financial-crisis-cost-gao_n_2687553

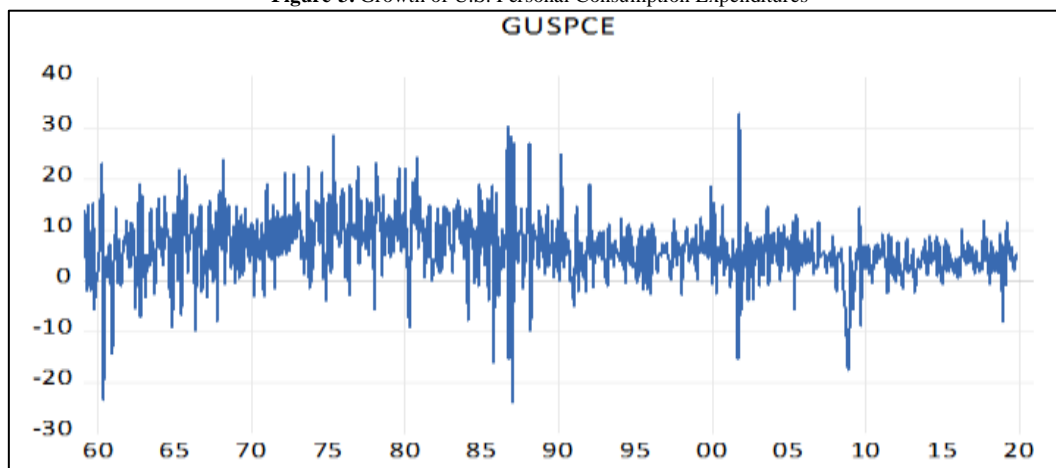
⁷⁴ See, Firestone, Lorenc, and Ranish (2019). See also, Farla-e-Castro (2019). Further, "What's a Countercyclical Capital Buffer?", <https://fredblog.stlouisfed.org/2019/09/whats-a-countercyclical-capital-buffer/>

⁷⁵ But, President Woodrow Wilson had said that the U.S. lost control of its financial system by allowing its Central Bank to be independent of the government (private): "I am a most unhappy man. I have unwittingly ruined my country. A great industrial nation is controlled by its system of credit. Our system of credit is concentrated. The growth of the nation, therefore, and all our activities are in the hands of a few men. We have come to be one of the worst ruled, one of the most completely controlled and dominated Governments in the civilized world -- no longer a Government by free opinion, no longer a Government by conviction and the vote of the majority, but a Government by the opinion and duress of a small group of dominant men." [Woodrow Wilson President of the United States (1913-1921)].

⁷⁶ Paul Volcker passed away on December 8, 2019. <https://www.sgtreport.com/2019/12/former-fed-chairman-paul-volcker-passes-away-at-92/>

central bank and its leader should be allowed to serve without political pressures or “the threat of removal or demotion... for political reasons.” “It is critical to preserve the Federal Reserve’s ability to make decisions based on the best interests of the nation, not the interests of a small group of politicians,” the former central bankers wrote.⁷⁸ This rhetoric is very good, but

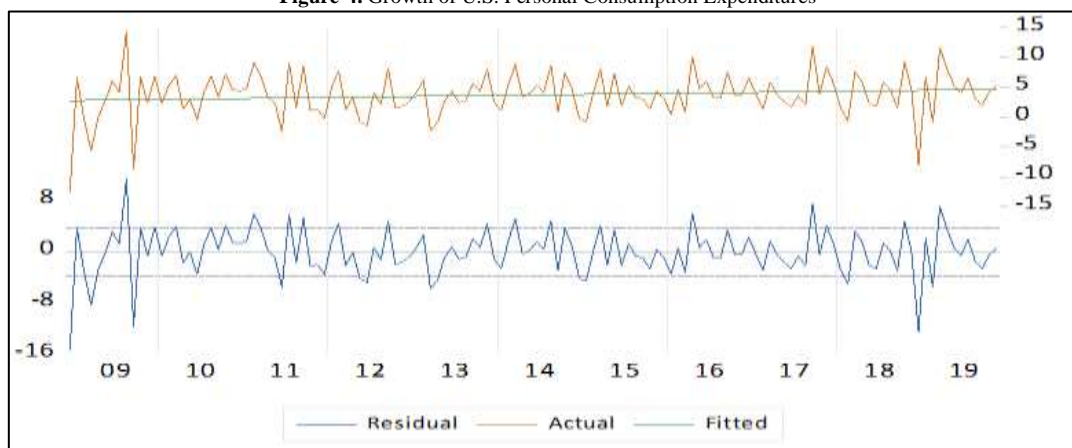
Figure-3. Growth of U.S. Personal Consumption Expenditures



Note: From 1959 to present: $\bar{g}_{USPCE} = 6.375\%$ and $\sigma = \pm 6.612\%$. From 2008 to present; the $\bar{g}_{USPCE} = 3.704\%$ and $\sigma = \pm 3.765\%$.

Source: Economagic.com

Figure-4. Growth of U.S. Personal Consumption Expenditures



Note: The Regression is:

$$g_{USPCE} = 1.036 + 0.014 * t$$

(1.606) (0.008)

$$R^2 = 0.022, \quad SER = 3.712, \quad F = 2.909, \quad D - W = 2.201, \quad N = 132$$

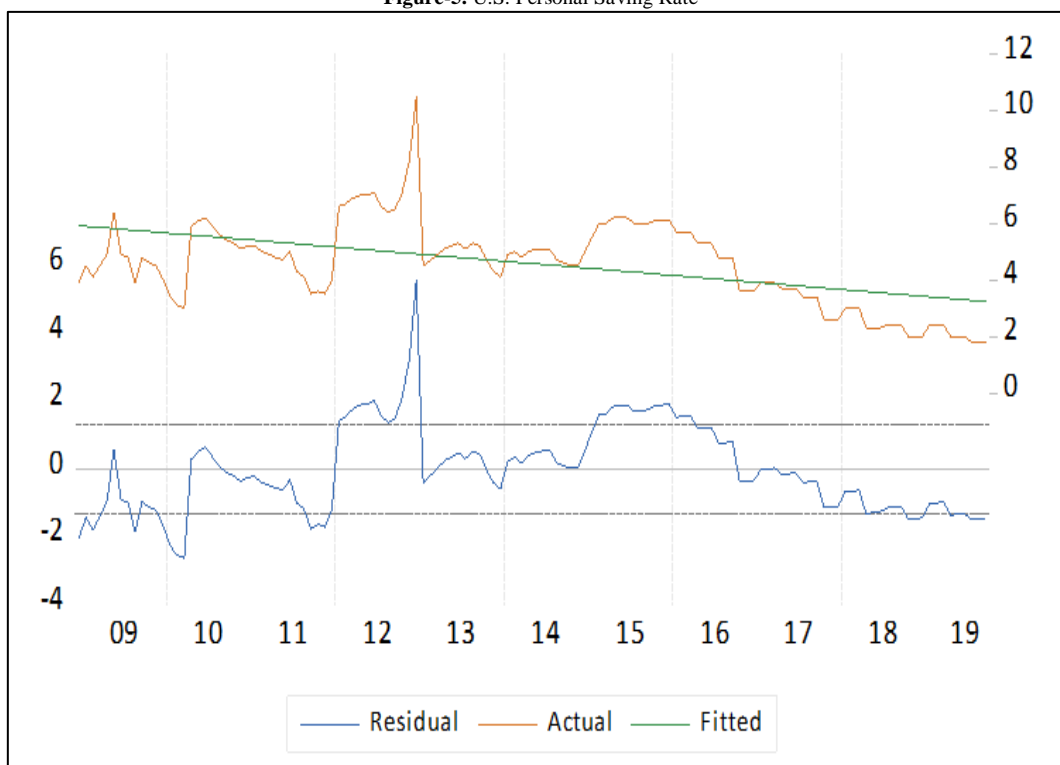
what we see so far, it is that Fed’s policies are made only for the speculative financial market and its participants. Their effects on the real economy are insignificant and many times negative by creating bubbles and accomplishing the next recession. If the central bank’s decisions were based on the best interest of the nation, it would have a policy to prevent financial crises and recessions and not to cure them, after their creation. Federal

⁷⁷ See, “America Needs an Independent Fed”, The economy functions best when the central bank is free of short-term political pressures, *The Wall Street Journal*, https://www.wsj.com/articles/america-needs-an-independent-fed-11565045308?mod=article_inline

⁷⁸ See, “Former Fed Leaders Plea for Central Bank’s Political Independence”. <https://www.wsj.com/articles/former-fed-leaders-plea-for-central-banks-political-independence-11565051192>. Unfortunately, “Our money is not our money. We rent it. We have rented it since 1781 when the Bank of North America gained control of the money supply in the closing days of the Revolutionary War. We need to own our money as citizens responsible for both the government and the economy of the United States.” See, Bob Blain, *The Root of United States Public and Private Debt*, 2017. Also, “Permit me to issue and control the money supply of a nation and I care not who makes its laws.” (Mayer Amschel Rothschild, 1744-1812). Further, “The privilege of creating and issuing money is not only the supreme prerogative of Government, but it is the Government’s greatest creative opportunity.” (Abraham Lincoln, 1862). In addition, “Until the control of the issue of currency and credit is restored to government and recognized as its most conspicuous and sacred responsibility, all talks of the sovereignty of Parliament and of democracy is idle and futile.” (William Lyon Mackenzie King, Canadian Prime Minister, 1874-1950).

Reserve Chairman Jerome Powell gave his most forceful warning yet (on August 23, 2019) about the risks to the U.S. economy

Figure-5. U.S. Personal Saving Rate



Note: The Regression is:

$$USPSR = 8.423^{***} - 0.021^{***} t$$

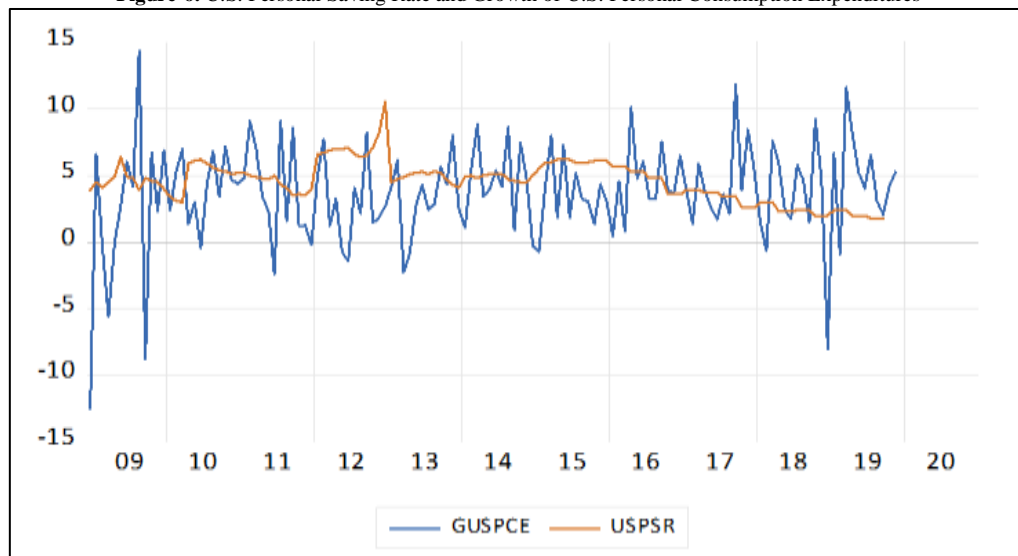
(0.574) (0.003)

$$R^2 = 0.267, \quad SER = 1.306, \quad F = 46.674, \quad D-W = 0.340, \quad N = 130$$

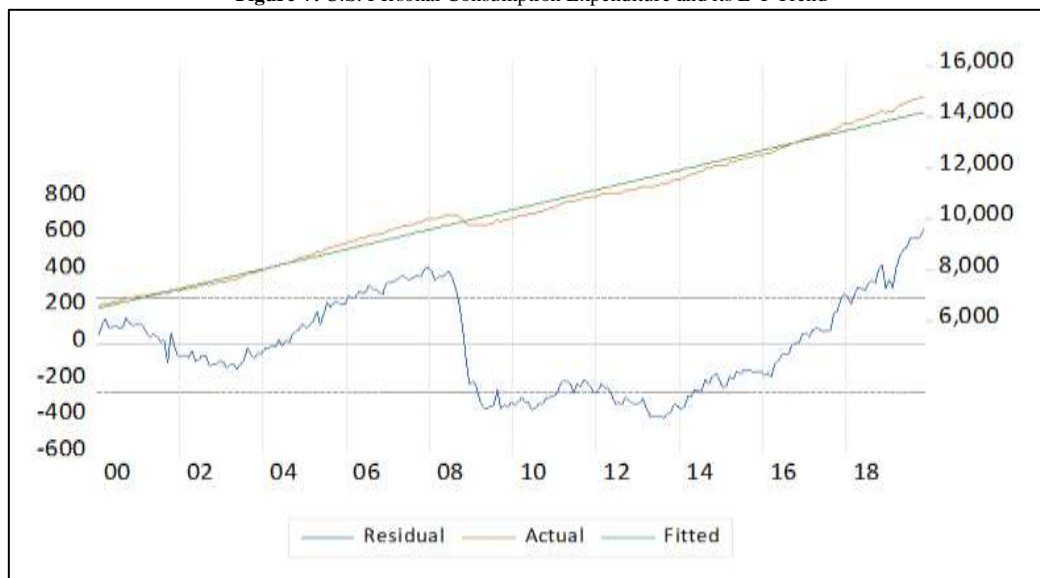
from escalating trade tensions and the limits to the central bank's ability to cushion any fallout. (*Sic*). He signaled that the central bank would follow its rate cut of July 31 2019.⁷⁹ On January 29, 2020, the FOMC decided to keep the federal funds at the same level;⁸⁰ but the Apocalyptic Plague (coronavirus) forced the Fed to reduce the target rate back to zero (March 16, 2020).

⁷⁹ See, "Fed Cuts Rates by a Quarter Point in Precautionary Move", Central bankers say move protects against risks posed by muted inflation, global growth concerns. https://www.wsj.com/articles/fed-cuts-rates-by-a-quarter-point-ends-portfolio-runoff-11564596200?mod=article_inline&mod=article_inline&mod=article_inline. See also, <https://www.wsj.com/articles/powell-says-fed-prepared-to-provide-stimulus-if-a-slowdown-hits-u-s-economy-11566568965>. Fed Chairman Jerome Powell's press conference on September 18, 2019 carried a subtle message for President Trump: If you are worried about an economic slowdown, find a way to cool down the trade war. See, "Analysis: Powell's Subtle Messaging to Trump on Trade Fight". Fed chairman mentioned trade 20 times at his news conference on Wednesday (9/18/2019). <https://www.wsj.com/articles/analysis-powells-subtle-messaging-to-trump-on-trade-fight-11568971800>. On January 15, 2020, the U.S. and China signed a Trade Agreement. See, *The Wall Street Journal*, January 16, 2020, pp. A1, A7, B1, and B12.

⁸⁰ Thus, from $\bar{i}_{FF} = 1.50\% - 1.75\%$ to $\bar{i}_{FF} = 0.00\% - 0.25\%$. See, <https://www.federalreserve.gov/newsevents/pressreleases/monetary20200129a1.htm>

Figure-6. U.S. Personal Saving Rate and Growth of U.S. Personal Consumption Expenditures

Furthermore, another proof, showing the control (by the economic elites) of the central banks, is coming from U.K. The globalists of the Bank of England are against the Brexit and tried to terrorize the British citizens to stay in EU by saying: “if they will leave the EU, there will be a global disaster.”⁸¹ How can we trust the central bankers, who do not believe in democracy? U.K.

Figure-7. U.S. Personal Consumption Expenditure and its L-T Trend

Note: The Regression is:

$$USPCE = 6,091.631^{***} + 32.282^{***} t$$

(36.314) (0.244)

$$R^2 = 0.987, \quad SER = 260.049, \quad F = 17,529.91, \quad D - W = 0.023, \quad N = 239$$

had a referendum and they voted in favor of leaving the oppressive EU (Kallianiotis, 2018)⁸². The best solution for the society will be to make all these central banks public; so they will work only for the people, for their nations,

⁸¹ TV News ANTENNA, 8/1/2019. See also, “Brexit: Day arrives for the UK to finally leave the EU after 47 years”, <https://www.9news.com.au/world/brexit-news-day-finally-arrives-uk-leaves-eu-live-updates-blog/57b16099-f01b-4b61-b6e7-fdb076d07671>. This is actually a success (a win) of democracy!.. See, <https://www.bing.com/search?q=wsj+brexit+arrives%2c+a+watershed+moment+for+britain+and+the+eu&FORM=AWRE>

⁸² This was the *United Kingdom European Union membership referendum*; also known as the *EU referendum*, the *European referendum* and the *Brexit referendum*, took place on June 23, 2016 in the UK and Gibraltar to ask the electorate if the country should remain a member of, or leave the EU, under the provisions of the [European Union Referendum Act 2015](#) and also the [Political Parties, Elections and Referendums Act 2000](#). The referendum resulted in 51.9% of votes being in favor of leaving the EU (17,410,742 votes). The government of that time had promised to implement the result, but the country was in the union for 3 more years, until January 31, 2020. Greece had also a referendum on July 5, 2015 and 61.31% vote NO to EU memoranda, but EU made it YES. Greece has to leave the Euro-zone, otherwise the country has no future.

and for their wellbeing and not terrorizing them and control (influence) their investment and economic decisions, their destiny, and their economic welfare (Kallianiotis, 2017b)⁸³. Undoubtedly, except a good monetary policy, the country needs a good fiscal policy and a fair trade policy. Countries must be independent, homogeneous, and sovereign nations, too. The unfair free trade policies have destroyed the U.S. and the EU economies.⁸⁴ A paradox is that the Federal Reserve stands ready to respond to climate-change related weather disruptions to the economy and is working to ensure banks' resilience from unexpected shocks tied to a warming global environment, Fed Chairman Jerome Powell told Congress in an April 2019 letter.⁸⁵ (*Sic*). The worst of all is that a former Fed official (ex-president of the N.Y. Fed), William Dudley, said, "central bank should act to thwart Trump's re-election". These liberals are reviling themselves with any audacity and without any shame anymore.⁸⁶ Lately, there were speculations that the Fed will cut the federal funds rate, due to the coronavirus.⁸⁷ Actually, the Federal Reserve has moved into overdrive to try to keep the U.S. economy from suffering lasting damage from the coronavirus pandemic. It announced an emergency interest rate cut back to zero percent on March 3, 2020 and rolled out new efforts, including slashing rates to zero and re-launching large-scale asset purchases.⁸⁸ The European Union and the Eurozone are in big trouble again (especially, Italy and Spain) and the ECB follows the Fed (Kallianiotis, 2018; Kallianiotis and Petsas, 2020)⁸⁹. Where is this controlled by the dark powers world going?

5. Conclusion: Monetary Policy and Financial Crises

In response to the financial crisis after its manifestation and not before its creation, the Federal Reserve⁹⁰ experimented with new tools (quantitative easing) and introduced new programs and policies to stabilize markets, restore liquidity, and spur economic activity in a conflicting and well planned heterogeneous⁹¹ and forcefully interdependence world. The results and their consequences are very difficult to measure and make the monetary policy questionable and of course, non-preventable of financial crises.⁹² However, a byproduct of these changes was

https://en.wikipedia.org/wiki/2015_Greek_bailout_referendum. This liberal EU is actually a controlled trap and not a union. See, Kallianiotis (2018).

⁸³ Unfortunately, lately, globalists' and ecumenists' "religion" is the Ecology (global warming); but last year's winter disappointed them with temperatures -50% F and heavy snow storms all over the north hemisphere. The rest of our "objectives" are all under their control even before the French Revolution (1789). See, Kallianiotis (2017b). Also see, <https://www.jacobinmag.com/2015/07/french-revolution-bastille-day-guide-jacobins-terror-bonaparte/>.

⁸⁴ See, Kallianiotis (2018).

⁸⁵ "Although addressing climate change is a responsibility that Congress has entrusted to other agencies, the Federal Reserve does use its authorities and tools to prepare financial institutions for severe weather events," Mr. Powell wrote in a letter to Sen. Brian Schatz (D., Hawaii), on April 18, 2019. "Over the short term, these events have the potential to inflict serious damage on the lives of individuals and families, devastate local economies (including financial institutions), and even temporarily affect national economic output and employment," Mr. Powell wrote. "As such, these events may affect economic conditions, which we take into account in our assessment of the outlook for the economy," the central bank leader said. Mr. Powell's letter came in response to a January 25, 2019 letter from Mr. Schatz (a Jew from the Democratic Party of Hawaii) in which, according to Mr. Powell, the senator urged the Fed to manage climate-change risks to the financial system and to prepare the banks it supervises for similar contingencies. (*Sic*). See, <https://www.wsj.com/articles/fed-readying-financial-system-for-climate-change-shocks-11557247667>

⁸⁶ See, "Former Fed Official Says Central Bank Should Act to Thwart Trump's Re-Election", William Dudley says Fed must consider politics, sparking blowback from economists. <https://www.wsj.com/articles/former-fed-official-says-central-bank-should-act-to-thwart-trumps-re-election-11566926950>. These people are very dangerous for our economy and the entire world. See also, https://en.wikipedia.org/wiki/William_C._Dudley. See more information regarding this liberal-globalist economist, <https://www.bing.com/news/search?q=William+Dudley+Of+The+Fed&qvt=William+Dudley+of+the+Fed&FORM=EWRE>

⁸⁷ See, "Fed rate cut in 2020 now possible as coronavirus spreads: Top economist". <https://www.cnn.com/video/2020/02/04/fed-rate-cut-in-2020-now-possible-as-coronavirus-spreads-economist.html>

⁸⁸ The U.S. central bank has more than \$6 trillion of assets on its books - the equivalent of more than a quarter of annual U.S. economic output before the crisis. Its stockpile of assets will grow much larger under the litany of programs it has launched, although some will be held in what are known as special-purpose vehicles, or SPVs, rather than directly by the central bank. Fed's assets from \$4.242 trillion on March 4, 2020, jumped to \$6.083 trillion on April 6, 2020. See, Graph 1 above. Source: <https://fred.stlouisfed.org/series/WALCL>

⁸⁹ See, Kallianiotis and Petsas (2020) and Kallianiotis (2018). Europe, in early April 2020, remains the epicenter of the coronavirus pandemic — where the outbreak, uncontrolled, morphed into catastrophe. Nearly, 50,000 dead and more than 600,000 infected. And the devastation is far from over and Euro-zone member-nations are going back to their previous debt crisis memoranda and austerities. This is the cost for the European citizens of this artificial inhumane union. See, <https://www.politico.eu/article/coronavirus-europe-failed-the-test/>

⁹⁰ Investors believe [central banks](#)—the last bastion of the technocratic, globalized elite—can use their limited ammunition to stave off recession. Yet central banks may be dragged into the competitive fray. See, "As Global Order Crumbles, Risks of Recession Grow", <https://www.wsj.com/articles/as-global-order-crumbles-risks-of-recession-grow-11565784000>. See also, Hellas, "Σᾶς σφάζουν μπροστά στά μάτια τοῦ Πλανήτη". Άνοιχτή Ἐπιστολή στοῦς Ἕλληνες, https://ellaniapili.blogspot.com/2017/03/blog-post_517.html?pref=bl

⁹¹ The best for a nation is the homogeneity of its citizens. «Τό Ἑλληνικόν, ἐόν ὁμαίον τε καί ὁμόγλωσσον, καί θεῶν ἰδρύματα τε κοινά καί θυσίαι, ἤθεά τε ὁμότροπα.» (Ἡρόδοτος, Herodotus; 484-425 B.C.). But, their plan is to destroy homogeneity in all nations by encouraging, supporting, and imposing illegal migration.

⁹² And of course, impossible to prevent or correct the economy during any other global crisis, like the current suspicious coronavirus crisis and the following global depression. The U.S. Federal Reserve tries to use creative means to counter the economic shock caused by the global coronavirus pandemic, but those measures must be matched by aggressive fiscal

that the fed funds market was dramatically altered, necessitating a new framework for monetary policy implementation. More recently, as the Fed began to unwind some of these programs, it was forced to reassess the long-run size of its balance sheet (and the tools it intended to use for monetary policy implementation) given the current economic and regulatory environment. It has chosen to maintain a balance sheet that is too large for the reserves needed, and to maintain this, it uses the administered (IOR and ON RRP) rates to achieve the target range. This has a negative effect on interest rate on deposits (real deposit rate is negative for more than eleven years) and all this social cost is transferred to the poor taxpayers and to the risk-averse depositors. (*Sic*).

The zero interest rate regime (ZIRR) and the new regime (NR) are both having very low average federal funds rates ($0.129\% < 1.302\%$) and ($1.324\% < 4.052\%$), compared to these rates calculated above, eq. (10), which do not satisfy the ultimate objective of monetary policy. Their biggest problem is the negative real rate of interest, their closed to zero deposit rates, which has a negative effect on savings (Graph 8), at the time that consumption is growing (Graph 9 and Figure 7) and the enormous bubble in the financial market (Figure 1),⁹³ which can be used by the “economic elites” to terrorize humanity. These monetary policies from 2008 up to now are unfair (redistribution of wealth), risky (creation of bubbles), ineffective (low growth and high unemployment), and suspicious (creeping inflation, new global financial crisis, etc.). Lately, this monetary policy had even inverted the yield curve.⁹⁴

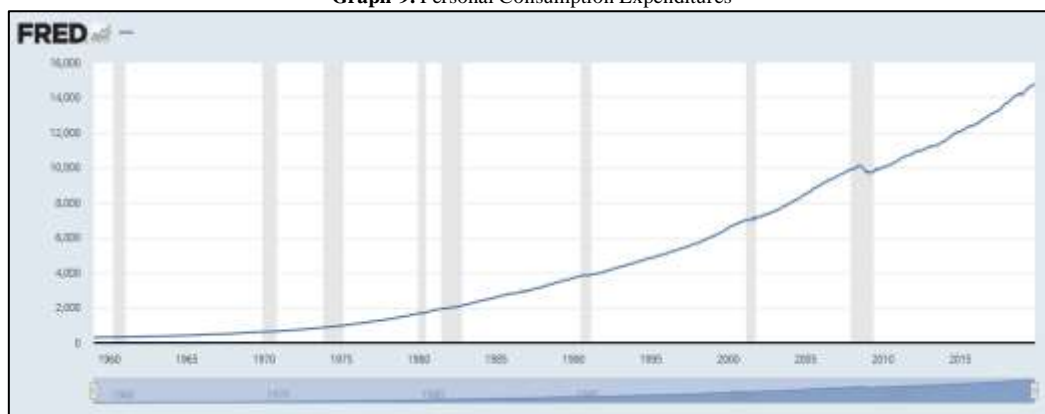
Graph-8. Net Saving as a Percentage of Gross National Income



Note: In 2019:Q3, the $NS = 1.8\%$ of the GNI and in 2019:Q4, fell to $NS = 1.6\%$. From 1959 to present: $NS = 7.066\%$, $\sigma = \pm 3.296\%$. From 2008 to present: $NS = 4.577\%$ and $\sigma = \pm 1.519\%$.

Source: <https://fred.stlouisfed.org/series/W207RC1Q156SBEA>

Graph-9. Personal Consumption Expenditures



Source: <https://fred.stlouisfed.org/series/PCE>

The empirical results show that the federal funds rate was and still is very low for eleven years. The latest monetary policy has overturned all the economic theories. It introduces the “new” dread-theories of the 21st century. Kallianiotis (2020, Table A1) gives the average values and the standard deviations of different variables during the ZIRR and during the current New Regime (NR). There, we can see the low federal funds rate, the enormous liquidity

action, which are more effective during these types of global catastrophes. See, <https://www.cfr.org/in-brief/how-fed-dealing-coronavirus-crisis>

⁹³ The DJIA was on January 17, 2020: 29,348.10 and its peak reached on February 12, 2020: 29,551.42. See, *Yahoo/Finance*. Also, <https://www.wsj.com/market-data/stocks>

⁹⁴ The 3-month T-Bills rate exceeded the 10-year Treasury bonds rate: $i_{3MT-Bill} = 1.900\% > i_{10YTB} = 1.577\%$. See, *The Wall Street Journal*, August 22, 2019, pp. A1 and B9.

(the immense money supply),⁹⁵ the negative real rates of interest, the low economic growth, the high true unemployment,⁹⁶ and the “low” official inflation (very strange and odd).⁹⁷ Also, Kallianiotis (2020, Tables A2 and A3) shows that monetary policy (its instruments, i_{FF} , MB , and M^s) have no major significant effects on the ultimate objective variables ($DJIA$, GDP , i_{LT} , P , and u). During 2008:12-2015:11, the decrease of the federal funds rate has reduced the official unemployment, but the growth of monetary base has increased unemployment. Then, during the current NR (2015:12-present), the increase in monetary base and money supply have a drastic significant effect on DJIA (an enormous bubble).⁹⁸ Also, the increase in i_{FF} and the reduction of MB have improved the growth of the GDP. The increase in money supply (M2) has a significant effect on prices (prices went up).⁹⁹ No effects on long term interest rates and unemployment. Then, monetary policy is ineffective.¹⁰⁰

Further, this monetary policy is responsible for the bubbles in the financial markets and their volatility. Also, this unique public policy can create recessions very easily at any point in time. The financial crises and the recessions are coming from monetary policies and from the speculative financial market, which destroy consumers' and investors' confidence and lead the economy to recessions (Kallianiotis, 2015)¹⁰¹. The public investment, the fiscal and trade policies can have drastic effects on the economy, especially, in the long run. In our economy, fiscal and trade policies also are not very effective because the other party (the Democrats, now) do not allow the administration to pursue an expansionary fiscal policy or a pro-American trade policy. Public policies can improve trade and aggregate demand (AD) and could improve growth, employment, and income for the country. But, the Democrats want the current President to fail, so they can win next elections. This is the “democracy” of the current century; actually, does not exist because there are no leaders, but only followers. (*Sic*).

Also, debts and deficits are enormous and there are no savings to reduce them (Graph 8, Figures 5 and 6). With an artificial low interest rate by the Fed, we see a low interest cost on these debts, which makes them so far sustainable, eq. (1). But these debts are going up because the Fed takes away the deposits (bail in) from the risk-averse savers and pays interest on banks' reserves by charging tax payers (bail out), which increase the debts. This monetary policy is a covered debt-creating and crises-encouraging policy with enormous bubbles in the financial markets. It seems that it is too late to do something to correct this destructive socio-economic-political system, which has a life of 380 years (since the British Revolution, then the French Revolution and all the other ones). Except, if the citizens (voters) of the world nations will wake up, as it happened in the U.S. with the 2016 Presidential elections and in Europe with the 2019 European Parliament elections. This awakening has to be constant and growing among the young people because the risks of our current system exceed its benefits.¹⁰² But, who will teach them, what is the best system for their future? Can the Ivy League Universities?¹⁰³ No! Unfortunately, their politically correct objective is exactly the opposite (σκοταδισμό).

⁹⁵ With January 6, 2020, the M2 was \$15,432.2 billion. See, M2. <https://fred.stlouisfed.org/series/M2/29/>. Also, <https://www.bing.com/images/search?view=detailV2&id=9DFFEECC3FFB0D825DED843AF15F85CA107EBB4F&thid=OIP.YH-zY5ucv6KvZEADHuZi0wHaFK&mediaurl=https%3A%2F%2Ffred.stlouisfed.org%2Ffredgraph.png%3Fid%3DM2SL%26nsh%3D1%26width%3D600%26height%3D400&exph=418&expw=600&q=fred+m2+money+supply&selectedindex=0&ajaxhist=0&vt=0&eim=1.2.6>. Further, <https://tradingeconomics.com/united-states/money-supply-m2>. Furthermore, *Economagic.com*

⁹⁶ See, **Unemployment Data Series**. Last Updated: January 10, 2020. **The ShadowStats Alternate Unemployment Rate for December 2019 was 20.8%**. See, U.S. Unemployment rate, http://www.shadowstats.com/alternate_data/unemployment-charts

⁹⁷ But the data show: $\rho_{M2,CPI} = +0.980$; $CPI \Rightarrow M2 (F = 7.153^{***})$. The official inflation rate with July 2019 was 1.8% and the SGS inflation (1980-Based) was 9%. With December 2019, the official inflation was: $\pi = 2.29\%$ and the SGS: $\pi = 10\%$. See, http://www.shadowstats.com/alternate_data/inflation-charts. Why they lie?

⁹⁸ The DJIA from 6,547.05 (March 9, 2009) reached 17,425.03 (December 2015), a 24.91% p.a. growth during the ZIRR and became 29,348.10 (January 17, 2020), a 17.11% p.a. during the NR. A total growth since 2009 is 22,801.05 points or an average growth of 32.16% p.a. See, *Yahoo/Finance*

⁹⁹ This can be seen from the correlation and the causality of these two variables (m2 and p): $\rho_{m2,cpi} = +0.982$; $cpi \Rightarrow m2 (F = 8.547^{***})$.

¹⁰⁰ See, Greg Ip, “The Era of Fed Power Is Over. Prepare for a More Perilous Road Ahead”. Central banks have long exercised influence over booms and busts, but their ability is shrinking. *The Wall Street Journal*, January 16, 2020. https://www.wsj.com/articles/shrinking-influence-of-central-banks-ends-decades-of-business-as-usual-11579103829?mod=trending_now_pos3

¹⁰¹ See, Kallianiotis (2015).

¹⁰² See, Report on the comprehensive economic policy response to the COVID-19 pandemic, <https://www.consilium.europa.eu/en/press/press-releases/2020/04/09/report-on-the-comprehensive-economic-policy-response-to-the-covid-19-pandemic/>. Also, *E.U. Backs Half-Trillion Euro Stimulus, but Balks at Pooling Debt*, <https://www.nytimes.com/2020/04/09/world/europe/coronavirus-european-union-bailout.html>. Further, “Italy Is Discovering that European Solidarity Doesn’t Exist”, <https://www.jacobinmag.com/2020/04/italy-coronavirus-crisis-european-union-euro>

¹⁰³ See, <https://www.universityreview.org/list-ivy-league-schools/>. See also, “Harvard Chemistry Chairman Charged on Alleged Undisclosed Ties to China”, <https://www.wsj.com/articles/harvards-chemistry-chair-charged-on-alleged-undisclosed-ties-to-china-11580228768>

In addition, the U.S. has two political problems; two parties that they do not agree in anything and a justice system that has more power than the elected President does. Also, it has two financial problems; the policy makers are acting in favor of the financial institutions and the markets and the elites in favor of globalization (global control) and against their countries' citizens. Then, the U.S. economy has two major problems; overconsumption (underproduction, waste of resources, and outsourcing) and lack of savings (dis-saving and borrowing).¹⁰⁴ These cause current account deficits and capital account surpluses, which devaluated the U.S. dollar and affected the financial markets, the interest rates, the national debt, the oil prices, and the inflation. We must learn that we cannot live beyond our means indefinitely. Actually, there is a vicious cycle in the economy. The policy makers (Fed and government) must have only one objective, the maximization of the social welfare of their citizens. This latest financial crisis started with an increasing risk in the financial markets and instruments (i.e., mortgage-back securities in August 2007).¹⁰⁵ Also, there were high energy prices, it continued with a deteriorating housing sector, it followed with an ill-functioning financial market (due to low federal funds rate), it reached a slowing consumer and business spending, and it ended to a severe recession (the first depression of the 21st century). Sachs (2008) said "the United States should approach its foreign policy using 'sustainable-development logic' rather than relying on 'militarized, us-versus-them, extremist-fundamentalism logic'".¹⁰⁶

Lastly, without an investment in sustainable development, without an increase in domestic production and reduction in imports, without a fair trade policy, and without pro-American (citizens) public policies, the U.S. will lose the competitiveness race. It will be difficult to compete with China and very soon with India, too. Even today (in 2020), the U.S. economic data, the political rivalry,¹⁰⁷ the global social problems, and the lack of communication among the world leaders are very disappointing.¹⁰⁸ The global uncertainty, the deregulation of financial markets, the private monopolists (no one respects the anti-trust laws anymore),¹⁰⁹ the corruption in business and politics (corporations do not pay taxes),¹¹⁰ the unfair free trade among nations, the illegal migration,¹¹¹ the technology and automation,¹¹² and the other serious global dependence from China,¹¹³ the coronavirus epidemic, which has caused serious destructive domestic problems, and all these are due to globalization and integration¹¹⁴ are changing our

¹⁰⁴ The income of the average person is spent on interest payments, taxes, and insurance premium. His monthly saving is closed to zero.

¹⁰⁵ See, "Credit crunch pinpointed to 9 August 2007 – the day the world changed", <https://www.theguardian.com/business/2011/dec/01/credit-crunch-pinned-august-2007>. See also, "What Caused the Mortgage Crisis?", <https://www.thebalance.com/mortgage-crisis-overview-315684>.

¹⁰⁶ These suspicious foreign policies, which have not benefited at all the U.S., have caused global destruction, millions of innocent civilians casualties, tens of millions of immigrants (dilution of homogeneity and demotion of cultures in nations), and tens of trillions of dollars national debt for United States. The question is here; who are these powers that force the U.S. to get involved to these inhumane and even anti-American actions?

¹⁰⁷ The Democratic Party does not believe in democracy and they try for three years to impeach President Trump, who was elected by the American people. Nothing is moving in the U.S. since the 2016 elections. Hundreds of millions of dollars (taxpayers' money) is spend by these committees and politicians to prove with the use of lies that the President committed Treason, Bribery, and other high crimes and misdemeanors. See, "The Impeachment Process in US Government", <https://www.thoughtco.com/impeachment-the-unthinkable-process-3322171>.

¹⁰⁸ United States has to improve its relationship with Russia. We have to awaken the citizens so they could become active citizens, otherwise there will be no hope.

¹⁰⁹ The EU levied a record €1.06 billion (\$1.56 billion) fine against Intel in May 2009, alleging the computer chip giant abused its dominant position in the microprocessor market. (*The Wall Street Journal*, September 22, 2009, pp. A1, B1, and B6).

¹¹⁰ The U.S. reduced the corporate tax rate from 37% to 21% since 2018. See, <https://www.latimes.com/politics/la-na-pol-gop-tax-plan-20171213-story.html>. GE paid no taxes; Goldman Sachs paid \$14 million last year. The GAO reported in 2008 that "two out of every three United States corporations paid no federal income taxes from 1998 through 2005." Companies have become all too astute at paying for loopholes, which allow them to shift profits abroad, or move their gains (on paper) to foreign low-tax/no-tax nations. The change in corporate taxes — not merely rates, but what they actually paid — over the past half century is astounding. (1) Corporate Taxes as a Percentage of Federal Revenue: in 1955 there were 27.3% and in 2010 only 8.9%. (2) Corporate Taxes as a Percentage of GDP: in 1955 there were 4.3% and in 2010 only 1.3%. (3) Individual Income/Payrolls as a Percentage of Federal Revenue: in 1955 there 58.0% and in 2010 became 81.5%. Anyone who is serious about closing the US deficit should consider the changes in what corporations pay in taxes and the rise of the deficit. See, <http://www.ritholtz.com/blog/2011/04/corporate-tax-rates-then-and-now/>.

¹¹¹ The U.S. deported a record 392,862 illegal immigrants in fiscal 2010, about half of whom had criminal records. See, *The Wall Street Journal*, October 7, 2010, pp. A1 and A6. Greece has about 2 million illegal immigrants. The country and its islands are sinking and her politicians ("followers") are sleeping. See, "The Greek Burden: the illegal immigration and refugee crisis in Europe", <https://sharylattkisson.com/2019/09/the-greek-burden-the-illegal-immigration-and-refugee-crisis-in-europe/>; <https://www.bing.com/images/search?q=the+illegal+immigrant+crisis+in+greece&qpv=the+illegal+immigrant+crisis+in+Greece&FORM=IGRE>.

¹¹² See, "FTC Commissioner: Antitrust Enforcement Isn't Answer to Tech Privacy Concerns", <https://www.wsj.com/articles/ftc-commissioner-antitrust-enforcement-isnt-answer-to-tech-privacy-concerns-11580419657>.

¹¹³ The U.S. and the world depend on China for medicine, medical supplies, and many other necessities. This is a true crisis of dependence and lack of self-sufficiency of the nations. These past policies were absolutely wrong and we must wake up as citizens. These puppets politicians that are in power since 1980 must go home and some of them, they must go to prison.

¹¹⁴ The U.K. Brexit is a positive movement of British to regain their independence and sovereignty. <https://www.usnews.com/opinion/articles/2016-06-22/britain-will-regain-full-sovereignty-by-leaving-the-eu>. It is amazing the controlled media's opposition regarding the Brexit from their fake news. (TN News ANTENNA, 1/31/2020).

economic, political, and social system.¹¹⁵ Many economic laws, traditional values, morality and ethics do not hold anymore and the central bank and government have to bail out and bail in all these untrustworthy financial institutions and oligopolistic businesses.¹¹⁶ We need a very strong economic stimulus, a fiscal policy to save some of our businesses and some workers from the current socio-economic destruction.¹¹⁷ The only prediction that we can do for the future, after the latest bad global recession¹¹⁸ and the current coronavirus-economic depression is that this new economic system will be the last in our socio-economic history, except if we (our leaders) will have the power to go back to a value oriented, spiritual¹¹⁹ and with moderation (μετρον) system. These corrupted people in financial markets needs some knowledge in value-oriented welfare economics and business ethics. The crises after 1960s are not only economic ones, but are moral, ethical, institutional, suspicious (planned), and political crises, which were expected by every prudent person after all these mistakes that were made after World War II. Loss of confidence in the global financial system can rarely be restored, especially for our generation. Very likely, a new system will be needed, with a new humane foundation that can engender new confidence. We wait to see. But, former Fed governors insist that the U.S. central bank must be independent.¹²⁰ Of course, they mean “independent” from the people and not from the market and financial institutions; thus, monetary policy will never be able to prevent financial crises because its policies are (liberal-globalist) pro-market and the markets are in favor of financial crises.

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¹¹⁵ President Trump has to cooperate with President Putin to find a solution for our falling apart world. They will find serious difficulties because the dark powers want the world to be divided, terrorized, and controlled, as it is now. But, these leaders must have the support of every prudent person. The controlled media (fake news) have done enormous damage to our poor pseudo-liberal misinformed people. The problem of the world is only one: ignorance.

¹¹⁶ European leaders rejected Obama's push for more global fiscal stimulus, saying the problem is lax regulation. (*The Wall Street Journal*, March 13, 2009, pp. A1, A3, and A5).

¹¹⁷ President Trump gave \$2.2 trillion stimulus package at the moment and there are plans for more money to small businesses and unemployed people. See, "Here's what's in the \$2 trillion stimulus package — and what's next", <https://www.politico.com/news/2020/03/25/whats-in-stimulus-package-coronavirus-149282>

¹¹⁸ We have to do something to right the sinking ship of the economy. The first priority are humans (citizens of the country) and then the other secondary objectives (economic philosophies, international obligations, allies, agreements, etc.).

¹¹⁹ The beginning of the wisdom is the fear of God and the ending is the love of God.

¹²⁰ See, <http://www.channel4000.com/nation/politics/former-fed-governors-us-central-bank-must-be-independent/1106097602>

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