Coalitions of Borrowers and Lenders, Government-Regulated Lender, Interest Rate and Safe Central Bank in Equilibrium

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Abstract: This paper models a free market economy with coalitions of borrowers and savers to obtain *Government-Regulated Lenders* (GRL) with private equity and private debt, unregulated and uninsured private banks, a *Safe Central Bank* and interest rate in equilibrium. If coalition of borrowers is excluded from the economy, no GRL obtains and private banks form a coalition to shape a central bank to set larger (usurious) lending rates than the equilibrium rate in the free market economy. The central bank so created (like the Federal Reserve established by a banking cartel in 1913) would then set interest rates by empirically estimating inflation from price data. Mega banks would then have incentives to rig the price data with highly leveraged trading based on cheap taxpayer-insured deposits and Fed funds.[2] The exorbitant lending rate so set could cause disequilibrium (instability) and depression. We show that continuance of Fannie and Freddie as private shareholder-owned regulated lenders is consistent with the "Unanimously Agreeable Rationale of Governance," presented in this paper. We also argue that winding down Fannie and Freddie and creating Federal Mortgage Insurance Corporation, as proposed by some U.S. Senators, is financially suicidal for taxpayers. *Rather the too-big-to-fail banks bailed out through Fannie and Freddie should pay a rescue premium to resurrect the twins to play their equilibrium role in the economy.*

[1] I am thankful to Irma Garcia for her suggestions and comments.
[2] See Acharya (2013).

I. Introduction

It is well-known that price should be determined in equilibrium between supply and demand in a free market economy. For example, the price of credit (interest rate) should be determined in equilibrium between suppliers of credit (savers) and borrowers. Borrowers include the (i) government that provides public service, (ii) business entrepreneurs that create private sector employment which raises tax revenues needed to fund public service, and (iii) households that support prices of produced goods and services and pay taxes for public services. Borrowers are, therefore, as important as the savers for determination of the equilibrium interest rate in a free market economy.

The extant models consider coalition of savers, but exclude coalition of borrowers to present a theory that banks must exist to channel savings efficiently from savers to borrowers. This theory holds even if coalition of borrowers is admitted in the economy. But this theory cannot rationally shape the central bank (Federal Reserve) as a coalition of banks to set the interest rate as opposed to determining the rate in equilibrium of a free market economy. The interest rate set by the Fed cannot constitute equilibrium because it excludes coalition of borrowers. The extant theory also cannot explain whether Sallie Mae should have been privatized or whether Fannie Mae and Freddie Mac should be wound down. Such serious national economic policies should not be shaped by lopsided analysis that excludes coalition of borrowers. These policies ought to be shaped only through rational analysis within a free market economy that allows coalitions of borrowers and of savers. This paper can now answer many arduous policy questions left unanswered so far.

This paper presents a *free market economy* which permits coalition of borrowers as well as coalition of savers. Both coalitions are necessary to determine the interest rate (price of credit) in equilibrium between credit suppliers (savers) and users (borrowers). A *Government-Regulated Lender* (GRL) with private equity and private debt, a *Safe Central Bank*, an interest rate and private banks obtain in equilibrium. If the economy is restricted to exclude the coalition of borrowers, the GRL does not obtain and the interest rate turns usurious as it exceeds the equilibrium rate of the free market economy. In the restricted economy, private banks still obtain due to coalition of savers, consistent with the results in the extant literature.[3] In the exclusionary economy, banks can form a coalition to shape a central bank for setting usurious lending rates. The outcome of the exclusionary economy explains the creation of the US Federal Reserve in 1913 by a cartel of mega banks that survived the banking panics of 1907. The Fed sets the interest rate by estimating inflation empirically based on price data. Mega banks have incentive to rig the price data with leveraged trading based on cheap insured deposits and Fed

[3] See, e.g., Diamond (1984), Ramakrishnan and Thakor (1984), and Williamson (1986).

funds.[4] Fed's empirical methods can, thus, result in exorbitantly high (usurious) lending rates that can precipitate economic disequilibrium (instability) and depression.

The extant literature shows why banks exist in the real world based on the following logic:[5] If the economy were primitive, i.e., devoid of financial institutions, disparate individual savers would separately search for potential borrowers and monitor the latter after lending. The aggregate cost of lending (due to separate searching and monitoring) across all disparate savers would be too exorbitant to make lending feasible. If, however, the savers formed a coalition to establish a financial institution (bank) that would search for and monitor borrowers after lending, the aggregate cost of lending would be substantially reduced to make lending and borrowing feasible. Lending and borrowing are essential for a modern economy to innovate and establish private enterprises for employment and to generate taxes to fund public services.

Existence of banks does not depend on whether the economy is restricted by excluding coalition of borrowers. The restricted economy cannot, however, obtain an interest rate (price of credit) in equilibrium between supply of credit by savers and demand for credit borrowers (households and businesses) or the nature of financial institutions and interest rates prevailing in a free market economy.[6]

The free market economy in this paper allows coalition of borrowers as well as coalition of savers. The model realistically assumes that businesses and households prefer more to less, and savers are free to allocate a part of their savings for keeping it absolutely safely while investing the rest in risky assets. One can show that such preference in a free market economy will necessitate the creation in equilibrium of a *Safe Central Bank* (SCB), not as a coalition of private banks, but as a fair central bank that serves the best interest of principals (businesses and households or taxpayers) of an economy, those who have net savings as well as those who have net borrowings.[7] The current scheme of government insurance of savings held in private banks

[4] See Acharya (2013).

[5] See, e.g., Diamond (1984), Ramakrishnan and Thakor (1984), and Williamson (1986).

[6] For existence of banks as coalition of savers, see, e.g., Diamond (1984), Ramakrishnan and Thakor (1984), and Williamson (1986), and for existence of safe central bank, see Acharya, S. (2003, 2005, 2008 & 2012).

[7] The idea of a coalition of borrowers should have naturally dawned on me when I was a net borrower, i.e., when I was young. But then I did not have the faintest idea of economic equilibrium or of the gaming by mega creditors. When I could ponder over equilibrium interest rates, I had already become a significant net creditor (though not anywhere close to the mega creditors) and practically could not fathom a potential coalition of borrowers impacting the determination of the equilibrium interest rate. I was enlightened about the extant models restricting the economic environment by excluding coalitions of borrowers only after observing how (i) Sallie Mae was privatized, (ii) student loan rates sky rocketed (I had enquired about a loan for my daughter in 2006 but was appalled about the quoted interest rate of nearly 14%), (iii) Fannie Mae and Freddie Mac were planned to be dismantled by policymakers, (iv) prices were blatantly manipulated by mega creditors to create economic cycles and volatile Fed interest rates, and (v) the Great Recession (financial catastrophe of 2008) occurred exactly as I foresaw through my observations.

raises the cost and lowers the interest rate on such deposits and is thus inefficient; such schemes do not obtain in first-best efficient equilibrium.[8]

The conclusion that banks must exist even within an exclusionary economy must have led a coalition of mega banks in the US to persuade the Congress for creation of the Federal Reserve as the central bank in 1913 to set the interest rate and to be the lender of last resorts to banks. But this conclusion does not imply how the central bank should set the interest rate fairly and rationally to maintain equilibrium (stability) between the suppliers (savers) and users (borrowers) of credit. The equilibrium interest rate cannot be determined within a model that excludes coalition among borrowers.

The absence of a free market economy equilibrium interest rate in extant models of exclusionary economies must have prompted lawmakers to let the central bank set the interest rate empirically to control inflation for price stability and to reduce unemployment for social stability. Central banks world-wide use price data to estimate an expected inflation rate to determine the interest rate for price stability. Banks serving the best interests of their creditors have the incentive, however, to rig the prices used in the central bank's model to estimate inflation.[9] The interest rate set by a central bank - created by and operating for a coalition of banks - cannot be fair and cannot maintain equilibrium (stability) among borrowers and lenders. The rates set by such central banks will tend to be usurious, i.e., larger than the free market economy equilibrium rate. Usurious interest rates lead to failure of leveraged businesses, loss of employment, decline of productivity of indebted workers, and decimated government tax revenues.

The events leading to the 2008 financial crisis show the danger of using an econometric estimator of inflation based on price data to determine the interest rate (price of capital) on which a capitalist economy depends. The mega banks have formed a coalition called the Clearing House, LLC. The present and past CEOs of the mega banks have virtually controlled not only the Fed interest rate policy but also the quantum of lending to other financial institutions, nonbanking businesses and households. The Fed's inflation estimator is not secret. All that the mega banks need to do to reap enormous profits (credits for them and their allies) at virtually no risk, under this system, is to follow the sequence of steps below:

1. Rig the Fed interest rate sufficiently low by depressing the prices used in Fed's inflation estimator. This forces the Fed to set an artificially lower interest rate to raise prices and avoid deflation.
2. Borrow enormously at the artificially lowered interest rate on deposits under their custody and from the Fed discount window.
3. Bid up the prices used in Fed's inflation estimator to force the Fed to raise interest rate artificially.

[8] See Acharya, S. (2003, 2008, 2012).
[9] Acharya (2013)

4. Then lend the cheaply borrowed funds to government, prime businesses and households, at the artificially raised interest rate.
5. The lending interest rate thus rises to as high a level as the borrowers can bear, i.e., until the economy reaches the precipice for crash.

The above mega banking shenanigans lead to overburdening of borrowers at higher (usurious) rates of interest than the equilibrium rate attainable in a free market economy which allows coalition of borrowers as well as coalitions of savers. Usurious interest rates eventually cause unsustainable debt loads on government, businesses and households. Heavily indebted household borrowers default rather than work hard when they see all their incomes taken away by creditors. Businesses shut down after eliminating workers. The government collects lower taxes as a result, but remains obligated to provide the largesse needed for survival of households. Many households are forced to depend on government largesse. The government can only print fiat money to meet its obligations and pay its bills. The central bank loses track of its primary goals: price stability, employment and guaranteed real value of fiat money. The economy then enters an uncontrollable depression. An economic depression (like the Great Depression) can be redressed only by shrinking the artificially bloated total credit to match a repayable amount aggregate debt. This occurs naturally and painfully after the depression wipes out the unredeemable (excess) credit in the system, unless policymakers act preemptively to alleviate the pain through a smooth transition into equilibrium.

The above crisis mirrors the absence of rational analyses of a free market economy in which coalitions of savers and coalitions of borrowers can be formed for determination of the interest rate based on supply of credit and demand for capital. A brief explanation of why research involving coalition of borrowers has not surfaced is as follows: Only creditors, not borrowers, can fund research. This asymmetry of funding may have dissuaded researchers from conceiving of rational analysis involving coalition of borrowers as well as coalition of savers to attain interest rate in equilibrium. Or, researchers are simply interested in proving the existence of banks in equilibrium even in an exclusionary economy.

Whatever be the reasons for excluding the coalition of borrowers from equilibrium in the economy between borrowers and lenders, the extant literature cannot answer whether government sponsored enterprises (Fannie, Freddie and Ginnie)–that were created by the US Congress to make long-term loans that private lenders could not do–should exist in their current form.[10]

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[10] After the bank foreclosure rule – obtained in a dynamic general equilibrium model (Acharya and Dreyfus (1989)) was enacted into law by the Congress, the Congressional Budget Director asked me in 1989 to consult on optimal public policy for the GSEs. Till now it was not clear to me whether GSEs should exist in equilibrium within a free market economy and, if they should exist, how they should be regulated. I was clear that the literature on existence of banks or other extant models do not answer the questions which the Congress and taxpayers consider paramount.

Lopsided analysis within a restricted economy that precludes coalition of borrowers poses a grave danger to all creditors (small and big) and to the system. The entire credit cannot be repaid by borrowers facing declines in their asset values and incomes due to rising unemployment and indebtedness caused by usuriously high interest rates imposed via an empirical process rigged by mega creditors.

This paper obtains new results in equilibrium within a free market economy that allows coalition of borrowers as well as coalition of savers. It also confirms the result that banks exist even within a restricted economy that precludes coalition of borrowers. These results answer serious questions raised by the Congress and taxpayers about whether the GSEs should continue and, if yes, how they should be financially structured and regulated; whether the central bank should continue and, if yes, what should be its goals. In particular, this paper shows the following results in equilibrium within a free market economy:

- There exist a *Safe Central Bank* (SCB) that does not grant any financial privilege to any saver or borrower, a *Government-Regulated Lender* with private equity and private debt, unregulated private banks with private equity and private debt, and an *equilibrium safe deposit rate* equal to zero.
- The SCB protects the integrity of fiat money by not creating new money in equilibrium and pays the equilibrium safe deposit rate on deposits kept under its custody.
- Every saver has an option to keep any part of his savings in *Safe Central Bank*, private banks or GRL.
- The SCB guarantees the savings kept under its custody.
- Neither the SCB nor the government guarantees savings kept under the custody of private banks.
- Deposits and debt of private banks are neither guaranteed nor monitored by government or SCB. No private bank is regulated by the government. The government announces that deposits and investments made in the private banks are risky and unprotected by government or by the SCB. This does not preclude private banks from forming their private regulator to monitor, insure and rate them.
- The *Government-Regulated Lender* (GRL) charges the borrowers a periodic lending interest rate equal to the equilibrium safe deposit rate plus the long-run loan loss rate plus annual dividend paid on equity per dollar of lending made. The annual dividend paid per dollar of equity is equal to that of the private banks, on average. The SCB monitors and regulates the GRL to ensure that the GRL maintains a minimum capital-to-assets ratio. The debt of the GRL is guaranteed by the SCB. The rate of interest paid on insured GRL debt is equal to the equilibrium safe deposit rate of zero.
- The *Safe Central Bank* is the lender of last resort for the GRL, not for the private banks.
- The rate at which *Safe Central Bank* may lend the GRL is equal to the safe deposit rate of zero.

Some members of U.S. Congress are currently preparing a bill to create a government-backed Federal Mortgage Insurance Corporation (FMIC) after abolishing the currently existing government sponsored enterprises like Fannie Mae and Freddie Mac. The FMIC is slated to provide government insurance only for the last sliver of loss on a mortgage loan, after the private mortgage loan issuer and servicer absorb "the first-loss position adequate to cover price declines as steep as those seen during recessions over the past century."[11] The proposed FMIC appears to entail only a small risk due to mortgage insurance to taxpayers. The risk is due to a potential discrepancy between the insurance premium collected by the FMIC and actual loss to it of providing the insurance. If created, the FMIC will become parallel to the existing Federal Deposit Insurance Corporation (FDIC) which was enacted to insure only a small part of all bank debt held, namely, individual deposits up to $250,000 per account. It was clear during the financial catastrophe of 2008, however, that the government had to insure all the previously uninsured bank debts and uninsured money market funds to stem the domino of panics, runs and crashing markets. The creation of FDIC allowed private banks to use insured deposits in highly leveraged risky bets to privatize profits and socialize losses. The losses to taxpayers were not merely bailout funds. They also included significant reduction in tax collection (raising national debt) as the economy nosedived due to market crash, unemployment and underemployment. The FMIC will likewise offer private banks the opportunity to deploy the incomes (debt repayments) received from insured mortgages to undertake bets in order to privatize yet more profits while piling up enormous risk and losses on the economy to ultimately force the Congress to insure all mortgage loan losses, *ex post*, not just the first-loss positions being guaranteed, *ex ante*. Like the FDIC insurance causes moral hazard inefficiency (leading effectively to blackmailing of citizens and their representatives during a financial crisis) and makes the system of money and finance second-best, unstable and unconstitutional, the FMIC will too do the same (Acharya (2012)). The system with the FMIC and FDIC will ensure a significant shortening of the time to the next economic instability and calamity – perhaps irreparably the next time. The system of safe central banking and government-guaranteed lender attained in equilibrium presented in this paper is, however, designed to obviate moral hazard gambling and privatization of profits by private banks with government guaranteed survival after coverage of their losses. This system will ensure that the borrowers pay an interest rate equal to the actual cost of funds including risk of losses to the GRL.

Absent coalition of borrowers and equilibrium GRL, private banks under FMIC will more likely than not charge a significantly higher rate of interest on mortgages than their cost of insurance, on average, as exemplified by the LIBOR scandal and major banks' call for yet higher Fed interest rate before the 2008 financial meltdown.

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[11] See, Bloomberg News, "Senators Near Plan to Abolish Fannie Mae, Shrink U.S. Backstop," by correspondent *Clea Benson - 2013-06-04T04:01:00Z*

Abolition of GRL and creation of FMIC are not supported by economic equilibrium. A system of money and finance predicated on FMIC after elimination of current GSEs (which act as GRLs) is bound to be systemically unstable.

II. The Model

The model has a free market economy like that in Acharya (2012) with stakeholders of firms and households maximizing their net-worth, free markets pricing securities by the arbitrage principle and a not-for-profit and efficient government minimizing its cost to taxpayers. Taxpayers will never support an inefficient for-profit government that profits through high taxes, debt and monetary expansion and causes inflation in the prices of food, fuel and energy on which they depend for survival. In addition, the free economic environment allows coalition of borrowers as well as coalition of savers. It assumes that firms and households (i) to prefer more to less, and (ii) to allocate a part of their net incomes for keeping absolutely safely and the remainder of their net incomes for investment in risky assets. The free economic environment permits the coalition of savers to seek the highest possible interest rate on their safe deposits and, likewise, the coalition of borrowers to pay the lowest possible rate on their debt. This model is consistent with the standard economic theory that riskier investments earn higher returns in equilibrium and that the risk is priced with the principle of arbitrage.

This model of free market economy subsumes different extant models that permit valuation of securities by arbitrage, existence of banks as coalition of savers, and creation of a *Safe Central Bank* (SCB) for absolutely safe custody of the part of the savings that savers want to allocate for absolutely safe keeping. Theorem 1 on existence of banks and Theorem 2 on creation of SCB presented in the following are mere restatements of the results already published in the literature.

Theorem 1: There exist private banks (as coalition of savers) in equilibrium.

Proof of Theorem 1: See, e.g., Diamond (1984), Ramakrishnan and Thakor (1984) and Williamson (1986).

Theorem 2: There exists a *Safe Central Bank* (SCB) in equilibrium. The government or SCB does not guarantee short-term deposits or long-term debt of private banks. The SCB lets savers hold any part of their savings under its custody, absolutely safely, with a guarantee that it will not create new money in equilibrium. No private bank is treated by the government or SCB as too-big-to-fail. No private bank is monitored or regulated by the government or by the SCB.

Proof of Theorem 2: See Acharya (2003, 2005, 2008 & 2012).

Discussion: The model in Acharya (2003, 2008 and 2012) does not explicitly have coalition of borrowers, does not obtain the existence of a *Government-Regulated Lender*, does not obtain the

equilibrium interest rate, but shows the existence of a *Safe Central Bank* (SCB) in equilibrium. The Federal Reserve and most central banks world-wide that print money are not equivalent to SCB obtained in equilibrium as per in Theorem 2. The following theorems present two novel results depending on whether the model's economic environment permits or bans coalition of borrowers: (i) A *Government-Regulated Lender* (GRL), a safe deposit interest rate equal to zero and a lending rate (equal to the safe deposit rate plus the costs of GRL operation) obtain in equilibrium within the free economic environment that permits coalition of borrowers. (ii) Banning (excluding) coalition of borrowers does not lead to an existence of a GRL and makes the lending interest rate usurious, which is defined as a rate greater than the equilibrium lending rate of the free market economy.

Let r denote the interest on safe deposits, R the lending interest rate on loans, and l the rate of default (loss) on loans in the economy. Other notations are presented within the statement of the following theorem.

Theorem 3: The free market economy model allows formation of coalition of borrowers in addition to coalition of savers to determine the rate of interest on safe deposits and lending rate in equilibrium between supply and demand for credit. Then the following results obtain in equilibrium.

a. There exists a *Government-Regulated Lender* (GRL) with private equity $E > 0$ and private debt $D > 0$. The GRL charges a periodic lending rate $R = (rD + dE)/A + c + l$, where A is the value of total loans (assets) of the GRL, l is the periodic loss (default) rate and c cost of operation per dollar of all loans made by the GRL, on average, d is rate of dividend rate paid per dollar of equity of GRL, and d is equal to the rate of dividend payout per dollar of equity of private banks, on average. The *Safe Central Bank* guarantees the GRL debt at no cost, but monitors to ensure that the GRL's E/A is greater than a minimum threshold, and the GRL pays its debt holders the safe deposit rate r.

b. The *Safe Central Bank* pays a periodic safe deposit rate of $r = 0$.

Proof of Theorem 3:

(a) The borrowers can either borrow from private banks that come to existence as per Theorem 1. The borrowers may also form a coalition to create a separate financial institution with private debt D and private equity E, by agreeing to pay a periodic rate of interest on their loans of A dollars equal to $R = (rD + dE)/A + c + l$, on average, and by seeking a guarantee of D dollars of GRL debt from the *Safe Central Bank*. The SCB will guarantee the GRL debt because it costs nothing to do so, as the GRL periodically earns $AR = rD + dE + A(c+l)$ which can pay fully a competitive periodic dividend dE on equity, cover fully the periodic loan loss of Al and cost of GRL operation cA on all loans and pay rD in periodic interest on guaranteed debt of the GRL. The guaranteed GRL debt holders are indifferent between lending the GRL and making safe

deposits in the SCB because either way they have absolute safety of their deposits. The SCB thus guarantees the GRL at no cost in the long-run. Since the risk of investment in equity of GRL is no more than the risk of equity in private banks, on average, the GRL's competitive dividend payout rate of d will induce private equity to invest in GRL as equity holders. To ensure that the GRL does not overpay dividends (at a rate higher than d), the SCB monitors the GRL and maintains a minimum capital-to-assets ratio of E/A to cover the cost of periodic audit and interest as proved in Acharya-Dreyfus (1989). The not-for-profit government will not own equity of the government-sponsored regulator.

(b) Since the SCB does not create new money, there is no inflation in prices, it sets $r = 0$ in equilibrium as no positive rate will ensure an agreement between the borrowers and lenders.

Theorem 4: If the model restricts formation of coalition among borrowers, the SCB and GRL will not exist within the model, but a central bank will emerge as a coalition of banks to set the lending interest rate usuriously, i.e., greater than R determined in Theorem 3.

Proof of Theorem 4: Absent the coalition of borrowers, the savers have no incentive (as they prefer more to less) to plead for formation of GRL or SCB. Savers will form coalition to create private banks as per Theorem 1 and pursue for a coalition of banks to serve as the central bank to set a higher interest rate on lending than R determined in Theorem 3. The lending rate in the exclusionary (restricted) economy will rise to as much as the borrowers can afford, i.e., until the economy reaches the precipice of a crash.

Discussion on Theorems 3 & 4: If the model of the economy excludes coalition of borrowers, a financial institution like the GRL presented in Theorem 3 will not exist. Such a restrictive (exclusionary) economy stifles the freedom of borrowers to form coalition and is prone to force the central bank to act as a federation of banks which are coalitions of savers. The lending interest rate so determined in the restricted economy will obviously be usurious (i.e., have a higher lending rate than the equilibrium rate R obtained in Theorem 3) unless the creditors are willing to sacrifice their preferences.

The history shows that creditors have rarely agreed to establish a free market economy to be induced to lend their credits at an interest rate that covers just the cost of their operation, as per Theorem 3. Starting in 500BC when an Indian lawmaker first called for abolishing interest on lending to the push of famous philosophers like Aristotle and Plato for zero interest rate and leading to the U.S. banning usurious lending, there has always been a tussle between the advocates of effectively voiceless borrowers and powerful creditors.[12] The extant literature on modern economics restricting only to savers and the concurring government policies have not been able to resolve this tussle in equilibrium between the supply and demand for credits because they have excluded the coalition of borrowers from the equation. Leaders like President Obama of USA and Prime Minister of India often talk about inclusive policies, but the system of

[12] See Acharya (2005) for details.

governance they preside is ironically guided by exclusionary models which leave the borrowers, who are as important as the creditors for employment, tax revenues and economic stability. The systemic lacuna causes economic depressions as if to restore long-run equilibrium among the borrowers and lenders of credit.

The Government Sponsored Enterprises (Fannie Mae, Freddie Mac, Sallie Mae and Ginnie Mae) are like the GRL in Theorem 3. The GSEs were created during the Great Depression when private lenders did not make sufficient long-term loans like 30-year home mortgages.

The Great Recession if 2008 is correctly considered by the Federal Reserve as worse than the Great Depression because of massive runs on $3.5 trillion of uninsured money market funds and $7.8 trillion of uninsured private bank debt. The Great Recession was caused due to pre-2008 government plans to dismantle the GSEs. The US economy nosedived as a result of this plan and the Great Recession was precipitated. The only reason for revival of the US economy post-2008 is the Federal Reserve's purchase and guarantee of GSE debt that stabilized the decimated housing market in which household borrowers had preserved most of their savings and lost. The post-2008 Fed actions are consistent with Theorem 3.

Despite the bidding by the mega banks (which had formed a coalition to create the Fed in 1913 to serve their interests), the post-2008 Fed has acted quite neutrally, almost like the equilibrium SCB presented in Theorems 2 and 3, by (a) setting the interest rate near zero, (b) guaranteeing and buying GSE debt despite persistent demand of Clearing House members and mega creditors to wind down the GSEs, (c) lending to non-banking business entities, and (d) not siding with the Clearing House in court cases filed by the CH to suppress the release of data on Fed lending of CH members during 2008.

That the Fed, US Congress and President viewed such unprecedented steps (by exploiting 'loopholes' in the Federal Reserve Act of 1913) as necessary to restore economic stability–despite vociferous call of mega creditors to dismantle the GSEs–justifies the significance of Theorem 3.

The calls of experts, made at the behest of mega creditors, to dismantle the GSEs are obviously based on an exclusionary (restrictive) economic model which includes coalition of creditors and omits coalition of borrowers, and which is, therefore, incapable of answering whether the GSEs must exist in equilibrium (needed for stability) in a free market economy as proved in Theorem 3.

The implications of Theorem 3 are strongly supported by the practical experiences of the U.S. since pre-Great Depression era until the post-Great Recession times. The U.S. economy entered the Great Depression in 1930's after private banks stopped lending enterprising businesses and households. The U.S. government created Fannie Mae as a part of the New Deal in 1938. The economy revived resoundingly thereafter. Then Ginnie Mae was started in 1968 and Freddie Mac in 1970 to expand the mortgage loan market. Sallie Mae was started in 1972 to offer long-

term student loans. The U.S. economy then witnessed unprecedented economic growth and prosperity. The process of privatizing Sallie Mae started in 1997. Sallie Mae was completely privatized in 2004. Then the U.S. government attempted to privatize the home mortgage market by dismantling or privatizing other GSEs. These attempts precipitated the Great Recession and financial instability, consistent with the implication of Theorem 3. As mega holders of Fannie and Freddie debt virtually withdrew from the home mortgage market in 2008, the Federal Reserve had to step in to buy mortgage-backed securities as well as GSE debt and insure money market funds and bank debts to restore financial stability, consistent with the implication of Theorems 2 and 3.

Fannie and Freddie suffered serious losses during 2008-2011 due to transfer of massive amounts of toxic mortgage-backed securities from mega private banks at the behest of the U.S. Treasury. Fannie and Freddie have lately succeeded in recovering funds from the private banks in lieu of these toxic securities. Fannie and Freddie have reported unprecedented profits in 2012 and expect such profits to continue in future. They have helped restore the housing and home mortgage market. They expect to repay the taxpayer funds soon.

The students are, however, overburdened with exorbitant lending rates due to privatization of Sallie Mae, as the indebted graduates cannot find sufficiently remunerative employment to repay their loans guaranteed by taxpayers. Taxpayers are locked to bailout the guaranteed student loans which have defaulted, while the private banks usurped massive profits due to usurious lending rates as a result of privatization of Sallie Mae. These consequences mirror the predictions of government inefficiency (avoidable cost to taxpayers) implied by Theorem 3. The U.S. government will have to restore Sallie Mae as a government-regulated lender according to Theorem 3.

The GSEs cannot simply be viewed as conduit for loans bearing lower lending rates. They help serve the primary national goal as follows: Taxpayers include those who face the brunt of inflation due to the government's monetary expansion, even though they may not pay much in direct income taxes. Taxpayers work hard to accumulate assets like home, land, financial holdings and cash to enjoy freedom from bondage. Taxpayers see national security as paramount to safeguard their hard-earned wealth against possible invasion and war. If national security is serious, the goal it serves (preservation of hard-earned wealth) cannot be non-serious. Preservation of hard-earned wealth should, therefore, be the ulterior national goal. Furthermore, since taxpayers trust only a government institution like the Pentagon for national security, they can prefer government (to private) financial institutions for preservation of their hard-earned wealth, absolutely safely.[13] Such preference was obvious after the 1907 banking panics when

[13] Decimation of trust of people in private financial institution was clear during the banking panics of 1907. People preferred to keep their hard-earned savings in real assets or cash under their pillows. Private financial institutions have foisted subterfuges on people (passed as law)

taxpayers chose real assets and cash under their pillows instead of deposits in private banks. The government provided federal insurance up to a limit on deposits made in private banks as a part of the Glass-Steagall Act of 1933. But this did not prevent panics in the uninsured $3.5 trillion in money market markets and $7.8 trillion in bank debts during the financial crisis of 2008. The government was forced to insure all previously uninsured money market funds and bank debts on an ad hoc basis to simply stem the domino of crashing markets in 2008. The ad hoc policy has led most households and businesses to channel their savings to government treasury securities.

Instead of ad hoc policies, the government should efficiently (at least possible cost) and for no profit accomplish the serious national goal of preserving hard earned savings that any taxpayer prefers to keep absolutely safely. Taxpayers never support an inefficient for-profit government, which profits through high taxes, debt and monetary expansion and causes inflation in the prices of food, fuel and energy on which people depend for survival.

To serve its national goal, a not-for-profit and efficient U.S. government cannot sign a contract to extract profits from the government-sponsored lenders like Fannie and Freddie. This means the actual agreements signed between the U.S. government and Fannie and Freddie during 2008-2012 to take away all the profits earned by the latter, after leaving a bare minimum capital reserve amount, should be voided because it is inconsistent with the national goal of taxpayers. The government should consider all the dividends (past and current) actually paid by Fannie and Freddie as repayment towards whatever taxpayer funds drawn from the U.S. Treasury by these GSEs so that they can rebuild their equity based on their own profits.

Once the US government voids its profit-making agreements with the GSEs, taxpayers will invest in GSE debt and equity to preserve their hard-earned wealth, like they did before the GSEs were taken over under conservatorship. The GSEs preserve wealth efficiently because pooling the risks of all loans under their purview diversifies away idiosyncratic risks of individual loans to attain a significantly lower aggregated risk than that of any smaller tranche of mortgage loans. The risk and cost to taxpayers of guaranteeing GSEs debt goes down dramatically as a result of such diversification. As the GSEs uniquely help accomplish the national goal of taxpayers, they should continue as the largest diversified government institutions for mortgage insurance and securitization.

Corollary to Theorem 3: The government and *Safe Central Bank* will not lend the private banks or private hedge funds in the free market economy with a coalition of borrowers present.

Proof of Corollary to Theorem 3: The equilibrium results of Theorem 3 obviate lending to private banks by the *Safe Central Bank* or by the government.

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like the federal deposit guarantee up to a limit (through the Glass-Steagall Act of1933) and blanket protection all bank debt and money market funds without limit since 2008.

Discussion on Corollary to Theorem 3: The government policy corresponding to Corollary to Theorem 3 is to not lend taxpayer-insured funds to private financial institutions. This policy was first proposed by the author in a memo to the US Congress and President in 2007. This memo later produced a paper (Acharya (2008)). The Dodd-Frank Act of 2010 did not discontinue the taxpayer (government) guarantee of deposits held under the custody of private banks. This Act rather increased the deposit insurance limit from $100,000 to $250,000 per account. The Dodd-Frank Act, however, bans proprietary trading by private banks using the taxpayer-insured funds through Volker Rule. This ban appears to mimic the implication of the Corollary to Theorem 3. But it is not easy to implement the ban on proprietary trading (Volker Rule) because banks cannot effectively segregate taxpayer-insured funds from the rest even through firewalls. The private banks have indeed complained about the difficulty of implementing the ban on proprietary trading based on taxpayer-insured deposits. The only option left for the government to maintain economic stability is to adopt the entire set of equilibrium policies implied by Theorem 3 and its corollary.

Of late, Fannie Mae and Freddie Mac have become *de facto* coalitions of borrowers and are raising enormous private capital from borrowers. How? The recently reported profits of Fannie and Freddie stem from relatively higher interest rates on mortgage loans paid by the borrowers than the cost of lending at these institutions. Fannie and Freddie profits thus represent transfers to the US Treasury from the *de facto* coalitions of borrowers that these institutions have become.[14]

The first and foremost principle of governance should be to not extract profits from citizens even surreptitiously.[15] According to this principle, the government should stop the transfers via dividends from the *de facto* coalitions of borrowers (Fannie and Freddie) as soon taxpayers fully recover their cost of funds lent to the GSEs. This principle is indeed consistent with your other actions on AIG, Citigroup and GM.

Perhaps, the US President and Congress were not briefed at the time of amendment of the original Treasury-Federal Home Finance Authority agreement of September 2012 about the enormous impending GSE profits and about the amendment being crafted to allow the government to usurp such profits, made from borrowers, as unseemly GSE dividends? According to media, the amendment was made to help Fannie and Freddie not borrow (when they make losses) to pay the Treasury the 10% dividend slated in the original agreement. It is simply impossible that the Treasury and FHFA did not know of the impending GSE profits in

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[14]The author presented this argument to the US President and Congressional leaders in a memo, dated August 15, 2013, entitled, "Fannie and Freddie are raising enormous private capital from borrowers" arguing that the GSEs have become de facto coalition of borrowers. This must have reformed the prior political thought process in winding down Fannie and Freddie, as reported by *Clea Benson & Cheyenne Hopkins (October 15, 2013), "Fannie Mae survival is back on the table in Washington," Bloomberg News,* http://www.bloomberg.com/news/2013-10-15/fannie-mae-survival-is-back-on-the-table-in-washington.html

[15] This principle is the basis Acharya-Dreyfus paper on optimal bank foreclosure rule which was adopted by the FDIC-IA 1991. This paper was published in the Journal of Finance in 1989.

late 2012 when they devised an amendment that essentially breaks the foremost principle of governance. Even small investors could foresee huge profits coming long before the amendment was conceived due to the dramatic reduction in the cost of funds by the Fed.

The US President has a goal of helping middle-class borrowers. The Treasury-FHFA amended agreement is antithetic to this goal because it makes unseemly transfer of wealth from middle-class borrowers to the rest who would otherwise have to pay higher taxes. Leaving aside such presidential goal of improving the plight of the middle-class borrowers because it may be viewed as partisan, everyone in both political parties should be worried about the biggest problems still facing the nation: (i) stability (equilibrium), (ii) wealth preservation, (iii) economic efficiency (competitiveness) and (iv) constitutionality of the system (rules and policies).

Borrowers preserve the wealth of creditors. The single most important underlying cause of the 2008 financial crisis was an unprecedented credit bubble–mostly due to the prevailing unstable, unconstitutional and inefficient system–outpacing the private borrowing capacity of households and businesses. Attempts to eliminate Fannie and Freddie simply precipitated the financial crisis in 2008 and then made the GSEs *de facto* coalitions of borrowers in equilibrium. Any attempt to dismantle the GSEs will only revive instability.

The US national goal should, therefore, be to not dismantle the GSEs, but to pursue for the foremost principle of governance, which for housing finance reform connotes (as the President and members of Congress have stated) inducing private capital to finance housing and removing the government from it except for mortgage loan guarantees and optimal regulation. Ironically, private capital to the GSEs has already flowed in a massive scale without any new legislation: borrowers have *de facto* formed coalitions and transferred their savings as profits to Fannie and Freddie to repay the taxpayer bailout funds and to accumulate as retained capital. The government can stay off the privately capitalized Fannie and Freddie by simply:

1. Collecting dividends from Fannie and Freddie as long as taxpayer funds lent to the GSEs are not fully recouped by counting dividends as repayments of bailout funds.

2. Scrapping the Treasury's senior preferred stocks and warrants after Fannie and Freddie have fully repaid all taxpayer funds in form of dividends and have retained adequate capital from their enormous profits (transfers from borrowers).

3. Ending the conservatorship of Fannie and Freddie once they are adequately capitalized and explicitly chartered by Congress as private lenders with government loan guarantees and optimal regulation.

The benefit to the mortgage borrowers due to a government-regulated lender (GRL) is a lower mortgage interest rate, on average, because of regulatory monitoring of GRL's dividend payout, executive compensation and adequate capital balance consistent with risk of loans being made by

the GRL. Should the borrowers own the GRL as a cooperative, in addition to getting the lower interest rate? The answer is 'no' because the borrowers, as cooperative owners of the GRL, will cause enormous moral hazard risk due to their incentives to set unsustainably low mortgage interest rates. Such risk will be unacceptable to other crucial stakeholders of the GRL: the debt holders and taxpayers due to government guarantee of GRL debt. Setting of mortgage interest rate and unacceptable moral hazard risk will cause disequilibrium (instability).

U.S. Congresswoman Maxine Waters has proposed a GSE reform bill to transform Fannie Mae and Freddie Mac as cooperatives (Financial Times, October 17, 2013): 'Ms Waters would maintain government involvement through a guarantee, paid for by the mortgage industry, to capitalise an insurance fund. In place of Fannie and Freddie, it creates a new co-operative-owned mortgage securities issuer, according to her aides. The bill is still in draft stages.'

Ms. Waters has not stated yet who the cooperative owners of the GSEs will be in her proposed bill. The borrowers can be natural cooperative owners of the GSEs. But making borrowers the owners of the GSEs will cause serious moral hazard risk and disequilibrium.

Can the cooperative ownership be offered to GSE debt holders without causing instability and without imposing moral hazard risk on taxpayers? The theorems in this paper show that the GSE debt will be guaranteed by the government. The government guarantee can be made partial if debt holders are allowed to take partial risk, say, first loss up to 10%. Giving cooperative ownership to government guaranteed debt holders (no matter whether the guarantee is partial) will give them incentives to set the mortgage interest rates at the highest level possible to avoid any loss to them. Such setting of mortgage interest rates by GSE debt holders would be inconsistent with equilibrium (stability) as per the theorems of the paper. The cooperative ownership of GSEs by the government-guaranteed GSE debt holders would rather impose enormous moral hazard risk on taxpayers; this would amount to frequent bailout of the GSEs to restore stability whenever the markets fail. One principal cause of market failure in 2008 was unsustainably higher mortgage interest rates tied to a rigged LIBOR that borrowers could not afford.

If both the mortgage borrowers and GSE debt holders become cooperative owners of the GSEs, they will not agree on any mortgage interest rate. It will lead to a failure of the GSEs on day one of such reorganization, unless either group dominates over the other, which would then lead to instability (disequilibrium) and moral hazard risk.

The only way out is to have the government regulators (assuming that they would act in the best interest of economic stability at least possible loss to taxpayers) monitor compatibility of the GSE mortgage interests rate, executive compensation and dividend payout by the GSEs with sufficient GSE capital consistent with loan loss estimates. The government guarantee of GSE debt makes regulators the primary custodians of taxpayers to maintain stability (economic equilibrium) and efficiency (least possible bailout cost).

III. Unanimously Agreeable Rationale of Governance

The prevailing rationale of governance assumes that individuals maximize the utilities of their wealth or consumption. This rationale has inextricably bonded the vast majority of households, their employers and governments with an estimated $100 trillion of debt worldwide. The gargantuan debt burden is the crux of the current global economic crisis. The vast majority of indentured borrowers cannot accept the prevailing rationale of governance that has caused their bondage.

No one including usurpers (robbers) will like to be usurped (robbed), even surreptitiously. This universal fact makes governance that precludes usurpation **unanimously agreeable**.[16] This memo illustrates how the U.S. can use the **unanimously agreeable rationale of governance** to set policy for the two home financing entities, Fannie Mae and Freddie Mac.

Foundation of the Prevailing Rationale of Governance: Robert Lucas won Nobel memorial prize in economics for rationalizing arguments−of Nobel colleagues Milton Friedman and Edmund Phelps and John Muth−that monetary stimulus (printing or borrowing new money and/or cutting interest rate on savings) raises future inflation while boosting employment only in short run, not long run.[17] Governments and central banks have followed this rationalization to inject frequent monetary stimuli to boost employment in short runs. This is how the staggering amount of debt has been created worldwide. The rationale underlying frequent short run monetary stimuli is Ken Arrow's Nobel memorial prize winning theory that individuals make choices by maximizing the utility of their wealth or consumption.

The unanimously agreeable rationale of governance stated above is necessary to resolve an apparently abstruse policy on Fannie and Freddie. Contrast the opposite preferences of creditors and debtors:

1. Creditors want to shut down Fannie and Freddie. If Fannie and Freddie are shut down, private banks will face less competition in home mortgage financing. Less competition means higher return on creditors' investments in mortgages made through private banks. With Fannie and Freddie eliminated, private banks will have larger home mortgage portfolios than that they currently have. Private hedge funds jointly owned by creditors and private bank executives can then use the larger home mortgage loan portfolios for greater leverage in trading to usurp others' wealth. Fannie and Freddie charters do not allow such private hedge funds for creditors.

2. Borrowers and the home building industry want continuance of Fannie and Freddie for as low an interest rate as possible to home mortgage borrowers in completion with private banks.

[16] http://pro-prosperity.com/Research/Governance-and-Most-Efficient-Competitive-Economy.pdf
[17] The Phillips curve (plot of employment against inflation) is sloping upwards in the short run, but is vertical in the long run. http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1995/press.html

Creditors and borrowers arrive at diametrically opposite choices based on maximization of utilities of their wealth or consumption. The government cannot, therefore, use the prevailing rationale of maximization of utilities of individuals to set a policy for Fannie and Freddie. The vast majority of borrowers will not accept the prevailing rationale for governance which has inextricably bonded them.

So, how should the government decide whether to continue or wind down Fannie and Freddie? Research shows that Fannie and Freddie−as private shareholder-owned entities, regulated like private banks−are necessary to attain equilibrium (stability), efficiency and fundamental fairness in the economy. [18] This equilibrium is remarkably consistent with the unanimously agreeable rationale of governance for the following reasons:

a. As shareholder-owned entities, Fannie and Freddie have the incentive to charge sufficiently higher mortgage interest rates than the cost of their funds and operation including salaries and benefits of their staff.

b. In equilibrium, private banks are allowed to compete with Fannie and Freddie to earn the same level of profits (or better if they operate more efficiently) on their equity investment in mortgage lending business. This allows creditors to earn at least the same rate of return on their mortgage investment at private banks as they can earn from such investment in Fannie and Freddie.

c. The equilibrium allows private banks to earn at least the same level of compensation for their executives as Fannie and Freddie offer to their staff to generate their profits.

d. In equilibrium, shareholders of Fannie and Freddie are required to hold as much capital as private banks and absorb the first-risk, as residual claimants, before the government steps in to protect guaranteed debt holders.

e. Directly or indirectly, private banks lend their allied hedge funds that trade to usurp others' wealth, surreptitiously. The unanimously agreeable rationale precludes guarantee of such private bank debt. Fannie and Freddie charters do not permit lending to private hedge funds. The unanimously agreeable rationale cannot, therefore, preclude government guarantee of their debts.

The extant punditry for winding down Fannie and Freddie is not logically founded in the prevailing rationale of governance. Such punditry is also inconsistent with the unanimously agreeable rationale of governance, presented here. The unanimously agreeable rationale of

[18] http://pro-prosperity.com/Research/Coalition%20of%20Borrowers.pdf

governance is constitutional, stable and efficient. The prevailing punditry to wind down Fannie and Freddie is unconstitutional, inefficient and unstable.[19]

IV. Federal Mortgage Insurance Corporation is financially suicidal for taxpayers.

Senators Tim Johnson and Mike Crapo have revived the Corker-Warner bill (a) to transfer all Fannie and Freddie mortgage assets to private banks at unstated prices and (b) to create a Federal Mortgage Insurance Corporation (FMIC) to offer taxpayer guarantee at unstated insurance premiums for the second 90% loss on mortgage loans issued and held by private banks.

This bill presumes no moral hazard in the banking and finance industry. It also presumes ability of regulators to monitor risk and determine fairly (a) the unstated prices of current Fannie-Freddie mortgage assets at which these assets are slated to be sold to private banks, and (b) the unstated mortgage insurance premiums to be paid by private banks.

In other words, the Johnson-Crapo-Corker-Warner bill presumes that the 2008 financial catastrophe did not occur and that such a catastrophe would never occur. In fact, this bill is consistent with the declaration of the president of American Economic Association in 2003 that the finance industry was invincible, i.e., immune to risk of Great Depression. In the same year, I had warned the Congress about a looming financial crisis due to moral hazard.[20] I had then proposed (i) a safe central banking policy and (ii) a consolidated bank capital requirement for bank holding companies to preemptively avert the crisis. The Congress adopted these policies in 2008, only after taxpayers lost trillions of dollars, millions of jobs were wiped out and many families ignominiously lost their homes.

Rampant moral hazard in the finance industry is the root cause of the economically debilitating financial crisis of 2008. Moral hazard is due to federally insured mega bank executives owning private hedge funds for them and allied wealthy and powerful creditors. The wealth and power stem from transfer of wealth from the rest of society through highly leveraged trading shenanigans based on federally insured cheap deposits and information garnered from order flows at market making subsidiaries. Even the U.K. Prime Minister, Gordon Brown, has admitted in a column in Washington Post in October 2008 that the financial crisis was due to undisclosed and irresponsible lending. One of my papers argues how lending federally insured funds to private hedge funds is financially suicidal to taxpayers.[21]

The FMIC will raise the moral hazard risk facing taxpayers to a gargantuan level. For example, a private bank issues pure toxic (liar) loans, gets the loan pool rated AAA by bribing rating

[19] My holding of a few Fannie shares is irrelevant to the epistemic truth of unanimously agreeable rationale of governance presented here.
[20] http://pro-prosperity.com/Global%20Economy%20Chatterbox/Warning-USCongress-In-2003-On-Home-Mortgage-Debacle.html
[21] http://pro-prosperity.com/Research/Sub-optimality%20of%20Lending%20Taxpayer%20Funds%20to%20Hedge%20Funds.pdf

agencies and then insures it by the FMIC for the bottom 90% of losses for, say, at most 10% of par value of the loans. The loans default 100%. The FMIC pays the bank 90% for the default coverage, ex post, while the private bank pays FMIC for insurance of10% of loan value. The private bank makes 80% of the par value of loans from taxpayers by taking no risk and by making no real loan. The idea of FMIC underlying Johnson-Crapo-Corker-Warner Bill is, thus, financially suicidal for taxpayers. If Fannie and Freddie operate as private-shareholder owned government-regulated lenders, they will not purchase such liar loans and will promptly sue private banks for selling such loans. FDIC has rarely, if at all, sued mega private banks. FMIC will also act like the FDIC as an agent, not regulator, of private banks. Fannie and Freddie have not hesitated in suing private banks to collect hefty settlements for mortgage fraud.

If the idea of the senators is to let the private banks and other creditors benefit from the current profits of Fannie and Freddie due to mortgage lending, they should have FHFA allow every investor including banks to purchase Fannie-Freddie mortgage backed securities. This freedom for investment in Fannie and Freddie securities indeed existed before the GSEs were taken over by the government through conservatorship. Resumption of this freedom to invest in Fannie and Freddie securities will allow banks, creditors and investors to have a skin in the game to gain the enormous profits accruing to Fannie and Freddie due to their efficiency in risk pooling. This necessitates scrapping of conservatorship and counting all payments (so-called dividends) made by Fannie and Freddie as repayment of loans made by the Treasury to the GSEs.

Fannie and Freddie were brought under conservatorship basically to buy the toxic private bank loans using taxpayer funds passed through Fannie and Freddie. Most of the $188 billion lent by the US Treasury to Fannie and Freddie and the internal cash reserves of the two firms written down by government decree were indeed given away by taxpayers, borrowers and shareholders to private banks during the 2008 crisis. Such give away vitiates the *Uniformly Agreeable Rationale of Governance*.[22]

The private banks now want to purchase the good mortgage loans held by Fannie and Freddie at throw-away prices after passage of the Johnson-Crapo-Corker-Warner Bill. This will amount to a transfer of wealth from taxpayers, Fannie-Freddie shareholders and borrowers to private hedge funds via private banks. Why should taxpayers, borrowers and Fannie-Freddie shareholders agree to such transfer of wealth to private hedge funds, owned and controlled by privileged mega banking executives and associated creditors? This bill is another scheme to privatize gains and socialize losses.

The argument that private banks do not have a level playing field to compete with Fannie and Freddie on issuance of mortgage loans is specious for the following reasons:

1. Privileged private banking executives and allied creditors own and operate private hedge funds to reap enormous profits by leveraging cheap federally insured funds at their

[22] http://pro-prosperity.com/Unanimously%20Agreeable%20Rationale%20of%20Governance.html

disposal and information from trade flows in their market making subsidiaries. Such privileged wealth transfer causes massive destruction of capital, i.e., accumulated value of labor of people who persevere to produce, create and serve to prop national security and currency.[23]

2. These privileged private hedge funds are not open to the vast majority of unprivileged investors. The profits of these funds are not shared with home mortgage borrowers. Very little of these profits, if at all, come as taxes to the public exchequer. In fact, the capital destruction caused by trading shenanigans of privileged hedge funds leads to unemployment and severe underemployment causing substantial decline in collection of taxs.

3. Privileged private banking executives and their creditors can invest in Fannie and Freddie securities to earn a share of profits coming from basically a higher interest rate on mortgages levied on borrowers than the cost of funds to Fannie and Freddie.

4. Fannie and Freddie do not operate private hedge funds for anyone.

The only purpose of the Johnson-Crapo-Corker-Warner Bill (dismantling Fannie and Freddie and creating FMIC) that one can infer rationally is to rip off taxpayers, borrowers and current Fannie and Freddie security holders for further aggrandizement of privileged private hedge fund owners. All the new lending standards in the bill can be adopted by Fannie Mae and Freddie Mac so that borrowers have no subsidy, according to my *no-subsidy mantra of governance to attain the most efficiently competitive economy*.[24]

This paper forms the basis of all crucial historical struggles faced by mankind, starting with Saint Vashistha proposing zero interest rate on fiat money in 500 B.C. Saint Vashistha is described as an Indian Lawmaker in British literature. He undoubtedly was the first recorded monetary economist. Philosophers Aristotle and Plato also sought zero interest rate on fiat money. Prophet Mohammed enunciated a new religion to establish a riba-free (interest rate free) system in 600 A.D. The Bible too adopted this philosophy in 1700 A.D.

For the first time, however, we now have a rigorous proof within a general equilibrium model of modern economics that the interest rate should be zero, that fiat money should not be artificially created and that a safe central bank be established for stability, efficiency and fundamental fairness.

One can now see how the epic war since time immemorial is being waged by those who have established a privileged system to create fiat money artificially and to usurp the same disproportionately and use their power of their credits so accumulated to further usurp the hard-earned savings of the vast majority that perseveres to produce, create and serve to prop national security and currency. **The privileged creditors want to levy an unsustainable interest rate on**

[23] http://pro-prosperity.com/Research/Sub-Optimality%20of%20Short%20Selling.pdf
[24] http://pro-prosperity.com/Research/Governance-and-Most-Efficient-Competitive-Economy.pdf

the others forced to borrow that money and perpetuate the system of robbery to never diminish their accumulated credits and power.

Incidentally, may I state that I did not hold any company's stock in 1991, when I found through research mimeographed at the Federal Reserve that the federal guarantee of bank debt was inefficient and unstable for the system of money and finance. I have now found a similar conclusion about the idea of FMIC presented here. This taxpayer/public guarantee is the root cause of moral hazard, instability and inefficiency of the system of money and finance, which also transgresses the constitutional tenet of fundamental fairness (Acharya, 2013).

V. War to Take Control of Home Mortgage

The revival of a defunct (Corker-Warner) bill which was tabled away a year ago shows that a mortgage war has erupted for taking control over about $8 trillion of home mortgage assets (loans) now held by Fannie and Freddie. These assets currently generate about $50 billion of annual profits, despite relatively moderate interest rates charged by the two government-sponsored enterprises. These profits represent the difference between the mortgage interest rate paid by borrowers and the cost of funds and operations of Fannie and Freddie. The profits are, thus, transfers from mortgage borrowers to Fannie and Freddie and then to Treasury through the profit sweep agreement signed in August 2012. The profits on the same mortgage loans would rise astronomically if they were held by private banks that need to charge much higher interest rates to cover massive executive compensations.

The **true opponents in the erupted mortgage war** are as follows:

A. Privileged creditors that own private hedge funds, which are co-owned and controlled by top executives of mega bank holding companies (BHCs) who are members of the Clearing House LLC and who are protected by the Federal Reserve Act of 1913. The FRA ordains that the Federal Reserve print new money for any privileged BHC before the latter becomes insolvent. By the FRA, no privileged BHC ever becomes insolvent. It seems obvious that privileged creditors include many lawmakers, as per sketchy news reports.

B. Unprivileged vast majority comprising (i) home mortgage borrowers, (ii) household investors, (iii) mutual funds, (iv) pension plans, (v) businesses, (vi) smaller banks and (vii) millionaire and billionaire hedge funds.

The Unprivileged vast majority will be crushed and the privileged few will become enormously richer and more powerful by the Corker-Warner-Crapo-Johnson Bill. How?

1. The Bill basically ordains that the government of *We the People* give away Fannie-Freddie mortgage loans to the privileged creditors and their private banks at prices unstated in the Bill.

2. Fannie and Freddie have purchased these mortgage loans by paying hefty premiums and fees to private banks to generate enormous profits for the latter.

3. Fannie and Freddie wrote off the toxic loans purchased mostly from privileged private banks and settled mortgage fraud cases after they were taken over by the government via conservatorship. They now have cleaned their books. Most of their current loans are creditworthy, generating hefty profits.

4. The Bill ordains the mega privileged banks as de jure Biggest Shorts ever created by mankind: after selling mortgage loans for enormous profits, these Shorts can buy back the good Fannie and Freddie mortgage loans at heavy discounts to gain net upfront windfall profits and a perpetual stream of annual income of at least $50 billion per year from home mortgage holders. The present value of a perpetual stream of annual incomes of $50 billion is $50 billion divided by .04 (cost of capital), equal to $1250 billion. The cost of capital is actually much less than 4% taken here to get a low-ball estimate of the present value of the income stream.

5. The Bill thus gives away an unseemly upfront profit due to unstated (hush-hush) discount on the $8 trillion of Fannie and Freddie mortgage loan portfolio and a present value of $1250 billion to the privileged few. **This give away is fundamentally unfair and unconstitutional.** It is going to exacerbate inequality to a far greater degree than the pre-Great Depression era inequality already reached in the economy. The Bill is a recipe for instability and inefficiency.

6. The Bill deprives all the unprivileged investors of the opportunity to invest in Fannie and Freddie securities like bonds and notes for interest income and common and preferred stocks for dividends.

7. The unprivileged home mortgage borrowers will pay a hefty price due to exorbitantly high mortgage interest rates and fees set by the privileged creditors and banks if the Bill passes.

8. **This Bill is a script for legalizing usury, which is currently illegal**.

9. Every aspect of the Bill which is crucial and material is unstated: price at which Fannie and Freddie loans will be given away to privileged private banks, the mortgage insurance premium to be levied by the FMIC and, more importantly, any regulatory rule needed to avert future financial calamity due to moral hazard.

10. To not legalize usury and to avert another financial calamity, the Corker-Warner-Johnson-Crapo Bill has to be completely abandoned, safe central banking has to be adopted and Fannie and Freddie should be released from conservatorship as private shareholder owned entities with their debts guaranteed by the government. Releasing Fannie and Freddie, cancelling the profit sweep agreement with Treasury, and relisting their stocks in NYSE will (a) allow every investor (including the currently privileged) to invest in their bonds, preferred stock and common stock, and (b) let the Federal Reserve sell off its agency debt holdings to all investors, and (c) restore much-needed confidence

of investors that the government will not confiscate their assets irrationally at the behest of the few privileged.

11. The vast majority of ordinary unprivileged Americans with no financial investments and no bank accounts and their political representatives now falsely presume that they are unaffected by unprivileged investors losing in the system of legalized robbery established by the privileged. But this majority bears the heaviest cost of all due to a loss of their incomes, jobs and homes when the unprivileged investors respond to their losses by winding down businesses, cutting pays of workers and firing employees. The economy then nosedives. The government then collects less tax from a shrunk pool of taxpaying households and businesses. The government or the central bank then prints money to meet its obligations. The cost of living then rises. It hurts the taciturn majority and their representatives the most.

All unprivileged Americans thus need to wake up to see the truth:

- Fannie and Freddie did not cause the 2008 crisis, as played out by media controlled by the privileged.

- The truth is that privileged private banks lowered their lending standards to create a lot of toxic and fictitious mortgage loans to sell them to Fannie and Freddie at hefty premium and fees, before the 2008 crisis.

- When Fannie and Freddie refused to buy the undocumented toxic loans, the privileged private banks pressured the then US Treasury to take over Fannie and Freddie under conservatorship. Fannie and Freddie were then forced to buy these toxic and fictitious loans.

- Private banks rarely sell their good loans to Fannie and Freddie. The privileged private banks have admitted their mortgage fraud by paying large fines to Fannie, Freddie and Treasury. After writing off those forcefully dumped toxic loans, Fannie and Freddie are enormously profitable. This proves that Fannie and Freddie would not have taken any assistance from the US Treasury if they were not forced to purchase toxic and fictitious mortgage assets from private banks.

- The financial catastrophe of 2008 was, thus, caused by reckless lending by private banks and their creditors. The privileged accumulated their credits mostly by usurping from the unprivileged majority through the established system of legalized robbery.

- Now that Fannie and Freddie have cleaned their books to generate huge profits, the same few privileged private banks and creditors that caused havoc for the unprivileged are compelling the Congress to take over the good Fannie and Freddie loans at hefty discount and an income stream currently valued at least $1.250 trillion by paying no price. It is inefficient, unstable and fundamentally/constitutionally unfair to grant such unseemly gargantuan reward to a privileged few, who ruined the unprivileged in 2008 and are hell-

bent to ruin any fair opportunity available to the unprivileged vast majority that ironically generates all the products and services necessary for the privileged to survive.

- The economy is guaranteed to crash sooner, rather than later, if Fannie and Freddie are dismantled by doling out their valuable mortgage assets to a few privileged creditors. The unemployment and underemployment rolls will swell.

- This Bill should be a wakeup call for all unprivileged Americans and their representatives in the government, even if they have no financial investments or bank deposits.

VI. Economic Misery Sans Fannie and Freddie

In a recent study, reported by the Wall Street Journal,[25] the US Congressional Budget Office has proposed to eliminate Fannie and Freddie (F-F) by raising mortgage lending fees sufficiently to make lending profitable for private banks. The CBO proposal is intended to let private banks take over mortgage lending business from F-F so that the F-F can be eliminated eventually.

The 'new' CBO proposal is yet another concoction to eliminate F-F with an utterly counter-factual presumption that mortgage borrowers are currently receiving subsidies. That subsidies are economically inefficient has been proved in a recent paper (Acharya (2011)). The fact is that the billions of dollars of profits - currently being generated by F-F and unconstitutionally (Acharya (2013)) swept away by the US Treasury through a profit sweep agreement unilaterally imposed in 2012 by the Treasury on F-F - are indeed subsidies from mortgage borrowers to (mostly privileged) taxpayers (who would have paid higher taxes otherwise) because of the higher interest rates paid by borrowers relative to the cost of capital and operation of F-F.

Whatever F-F 'received' from the US Treasury in 2008 – about $187 billion - was indeed a surreptitious transfer to the ailing private banks from (mostly unprivileged) taxpayers. F-F equity was badly hit by this forced subsidy-transfer through an orchestrated government fiat called 'conservatorship' of F-F.

F-F have not only repaid the $187 billion to the Treasury for the sins committed by bankrupt private banks. F-F have also been generating massive profits due to higher lending rates relative to the cost of their capital and operation. The housing sector has recovered because F-F have refinanced the mortgage loans with exorbitant mortgage interest rates being levied by private banks prior to the financial crisis.

At the current F-F lending rates and fees (which make F-F hugely profitable), private banks will only lose in mortgage lending business. Why? It is because private banks cannot recoup their lavish executive bonus, perquisite and pay or fund massive political contribution from mortgage lending business at the current F-F rates and fees. But the current F-F lending rates and fees

[25] "Life Without Fannie and Freddie," Review and Outlook, Wall Street Journal, December 26, 2014.

have been proved to be necessary for the recovery of the housing sector as well as the economy. In other words, lavish executive bonus, perquisite and pay and massive political contributions – which are huge subsidies enjoyed by the privileged but borne by the unprivileged - are factually unsustainable, economically inefficient and catastrophic.

By suppressing the truth underlying the real economic malaise, the 'expertise' in the CBO study as well WSJ commentary turns out to be factually fallacious, specious and dangerous to the US economy. The Financial Crisis Inquiry Commission has found in 2011 that that the financial catastrophe of 2008 was caused by the failure of the established experts in the academy, industry and government to see, e.g., that elimination of F-F is dangerous to the economy. It is, therefore, prudent to dissociate the failed expertise from fact-based government policy, such as: voiding the unconstitutional profit sweep agreement imposed on F-F, unilaterally by the Treasury–the government arm of the private banks–and recapitalizing and releasing F-F from conservatorship with a clear mandate to not subsidize either the privileged or the unprivileged citizens.

VII. Fannie and Freddie Deserve a Premium for Rescuing Too-Big-To-Fail Banks

Blindly biased and economically dangerous established expertise−freshly published by the U.S. Federal Reserve Banks and broadcast by the finance industry experts stationed at the U.S. Department of Treasury−proves once again the veracity of the Congressional Financial Crisis Inquiry Commission finding that the Great Recession of 2008 was caused by a failure of such expertise.

The Great Recession of 2008 is indeed the onset Great Global Depression with governments everywhere borrowing enormously and central banks printing oodles of money to fund welfare checks, instead of distributing breads, just to stay in power.

The basic issues - not addressed by any established expert include the following:

- The failure the U.S. Treasury Department to foresee the banking panics of 1907.
- The collective grand failure of the Treasury Department, other regulatory agencies (the Federal Reserve, the FDIC, SEC, CFTC and others created since 1907 to prevent future crises), established academic experts and financial industry mandarins in seeing the 2008 catastrophe coming, let alone avert it.

All the established experts, regulators and industry honchos have painted the 2008 crisis as an act of god (without defining god rationally[26]), thanks to a tome authored by an established expert at Yale published by the eminent Oxford University Press. They unequivocally asserted (but

[26] Acharya, S. (2015), "Diktat of Unanimously Agreeable Governance and Unified Philosophy Necessary for Individual Freedom," available at http://pro-prosperity.com/Diktat%20of%20Unanimously%20Agreeable%20Governance%20and%20Philosophy%20for%20Freedom.html

falsely) before the FCIC that no one in the academy, industry or government saw the 2008 crisis coming.

My rejoinder to the FCIC-about the lying by the mandarins of the established system of money and finance and about their suppression of the truth discovered in my research on systemic instability, inefficiency and unconstitutionality-must have prompted the FCIC to find that the 2008 crisis was indeed manmade (due to the failure of the established mandarins) and avoidable (if the policies I had proposed long before were adopted on time).

Instead of admitting failure and focusing on why the Treasury Department has borrowed recklessly and how the Fed has created money unprecedentedly, the established pundits continue falsehood and blind bias towards the same established but failed punditry. They need to recognize that the establishment has failed due to their blindly biased research and deliberate suppression of heretical discoveries: obtained in the most general equilibrium math model of the economy ever scripted in the literature (Acharya (2012)). The discoveries show that the established system of money and finance-embraced by regulators, propped by established academic experts and exploited by finance industry honchos for surreptitious usurpation of private wealth-is fundamentally unfair, unconstitutional, unstable and economically inefficient (Acharya (2013)). In plain language, the discoveries prove that the establishment has foisted a system (rules) of robbery of hard-earned private wealth by designing the rules with specious expertise.

The established expertise crashed in 1907 without a public discourse of the cause of the crash. The established expertise not only crashed in 2008. It also was exposed as the cause of the crash.

Here are the snippets of the latest glib punditry (myths) spread by established experts at the Federal Reserve Banks and their cohorts in the academy (one can search the internet to find the references to these papers):

A. Fannie and Freddie caused the 2008 crisis.
B. The amount of money returned by Fannie and Freddie to Treasury ($225.5 Billion) does not count as repayment of the $187 billion drawn from Treasury because they owe hefty premium for the enormous risk taken by taxpayers in bail out.
C. The profits of Fannie and Freddie are exaggerated because they are based on commitment by taxpayers to support them should they fail, i.e., they should be paying extra commitment fee to the Treasury for the support they received. Fannie and Freddie have got an enormous reduction in the cost of their funds due to Federal Reserve lending at low rates of interest.
D. Private capital is not flowing to the housing finance industry because of dominance of Fannie and Freddie.
E. Treasury would not recapitalize Fannie and Freddie because doing so will impose enormous risk on taxpayers and prevent reforming of house finance.

Here are the truths:

A. The financial crisis was caused by the biggest robbery of mankind: suppression of truths about systemic reform discovered and proposed since 1991 (Acharya (2012)) to stop grand robbery of hard-earned wealth by the too-big-to-fail (TBTF) banks supported by the Treasury, Federal Reserve and the embedded Academy.

- Briefly, an unprecedented bank foreclosure rule stipulating minimum capital requirement was enacted by the Congress in 1991, based on my research with J. F. Dreyfus at New York University (Acharya-Dreyfus (1989)).
- The TBTF banks surreptitiously broke this law as soon as it was enacted via their multi-tiered leverage of holding company structures with active support of regulators. As a financial economist at the Federal Reserve, I had heated arguments in 1994 with a top executives of a TBTF bank and Federal Reserve officials about the risk on taxpayers due to multi-tier leveraging at TBTF banks.
- Through their nefariously hidden leverage (shadow banking), TBTF banks imposed enormous risk on taxpayers and imploded in 2008.
- While I was at the Federal Reserve Board, economists there kidded me about no lawmaker ever understanding my general equilibrium math econ model to make any reform to avert surreptitious usurpation of private wealth that my research aimed at attaining. I left the Federal Reserve in 1995 to meditate on writing my math econ general equilibrium policies in plain language.
- I awoke to a reality that any profound truth should be explainable in plain language to common people and to their representatives and that no amount of sophistry or glib punditry supported by any amount of robbing could ever suppress the propagation of such truth. Only in 2003 did I succeed in doing so.
- I wrote to US Congress about safe central banking and other policies for reform in March 2003 (Acharya (2003)),[27] January 2005 and thereafter to avert a looming recurrence of the Great Depression that I saw coming. I also created a website, pro-prosperity.com, in 2005 dedicated to publication of my research ostracized by the established pundits.
- The established pundits could win a temporal pyrrhic victory by suppressing my career through sophistry. They resoundingly failed, however, to suppress the profound truth about them causing the 2008 manmade crisis. By not publishing such truths in the journals they controlled, they simply proved that their propaganda outlets too have failed to serve humanity.
- My experience vividly illustrates that truths that humans unanimously agree as profoundly necessary for preservation of their wealth for freedom cannot be

[27] Acharya, S. (2007), "Warning to the US Congress in 2003 about the Current Home Mortgage Debacle," available at http://pro-prosperity.com/Global%20Economy%20Chatterbox/Warning-USCongress-In-2003-On-Home-Mortgage-Debacle.html

suppressed by any glib punditry or sophistry: like the blind academic review to ordain established journals (controlled by established pundits sharing the robbed wealth)[28] (a) to reject papers that have uncovered inconvenient truths about the established system (rules) of robbery and (b) to simultaneously lobby with lawmakers to not consider research not published in the established journals in making or repealing rules.

The lesson for everyone is that no one can ever suppress propagation of truths (research findings) that the humanity unanimously considers significant for preservation of their hard-earned wealth for freedom. Any attempt to do so is silly and costly. That someone someday would certainly discover the existence of such profound truths should be obvious because of the proclivity of human genes to uncover such truths for survival. That I happened to be that individual at this time is purely incidental.

If the glib established experts are so confident about their rectitude that Fannie and Freddie caused the 2008 financial crisis, why is the Treasury Department hiding under 'executive privilege' pertinent papers related to the following?

- Conservatorship of Fannie and Freddie, after the Treasury Department repeatedly assured that the twins were well-capitalized.
- Massive write-down of deferred tax assets of Fannie-Freddie and imposition of unseemly high loan loss reserves (to force Fannie and Freddie 'take' unneeded loans from Treasury?).
- Forcing Fannie and Freddie to buy toxic private bank assets (about $400 billion according to a news story published by New York Times at that time), and proved by actual collection of hefty fines from TBTF banks for mortgage fraud.
- Imposing an order to sweep all profits of Fannie and Freddie at a time (September 2012) when they saw huge profits coming.

If the glib established experts are confident about the above actions of the US government, why is the Treasury Department claiming that releasing such documents would cause global financial crisis?

Omission of such fundamental questions in the Federal Reserve Bank and Academic papers is obviously deliberate to suppress the truth about the en masse failure of TBTF bank executives, of their gurus in the academy and of their advocates in government. Ironically, such research is funded by public money. The omision of crucial questions from research is nothing but wastage of resource on glib established punditry designed to obfuscate the public about the TBTF bank executives and government

[28] Acharya, S. (2010), "Blind Review of Academic Papers Unconstitutional and Detrimental to National Competitiveness," available at http://pro-prosperity.com/Blind-Review-Academic-Papers-Unconstitutional-Uncompetitive.html

officials forcing Fannie and Freddie into conservatorship to loot private equities in Fannie and Freddie and additional taxpayer funds channeled through these institutions to bail out the bankrupt TBTF banks. They robbed hard-earned private wealth everywhere and by all means to rescue the TBTF institutions hollowed out by a bunch of robbers. The robbers had actually fallen in the financial grave they had dug for others. But they could blackmail the Congress about saving the TBTF banks by robbing private wealth everywhere they could and by infusing additional taxpayer funds to these banks. They thus ensured continuance of the robbing game. The executives - using their TBTF banks as platforms to rob private wealth, while breaking the bank foreclosure rule via multi-layer leveraging - have now become too-big-to-be jailed. Their hope is that the public would not notice how they used the TBTF banks to pile enormous risks on taxpayers and privatized profits while breaking the bank foreclosure law.

B. Fannie and Freddie were used to rescue bankrupt TBTF banks and to save the privileged private hedge funds controlled by these banks. This is an unambiguous rational inference from the observed events since 2008 and from exercise of executive privilege to hide all the government papers related to these events. The glib established experts have not cited any of these papers (even if they were privy to them) and so cannot be considered credible, given their proclivity to be blindly biased towards the TBTF banks for self-interest.

The unambiguous rational inference (which I am willing to revise after the executive privilege is lifted and all documents are made public) suggests that the TBTF banks should pay a hefty premium to rebuild the surreptitiously usurped equity of Fannie and Freddie without any financial interest and that taxpayers need to preserve Fannie and Freddie as independent institutions.

C. Fannie and Freddie did not get any special favor as compared to the TBTF banks to refinance their debts. In fact, the 10% dividend, Senior Preferred Stock with 80% ownership by the government and subsequent profit sweep agreement for 100% dividend are all designed by the TBTF bank executives through their agents in the Treasury Department to eliminate Fannie and Freddie for pure self-aggrandizement and entrenchment in power by robbing and subjugating wealth creators. Their idea of "reform" is nothing but robbing and subjugating wealth creators.

D. The profits of Fannie and Freddie come from relatively higher rates of interest paid by home mortgage borrowers than the cost of funds and operation of the institutions. The reason for why the TBTF banks are unsuccessful in competing with Fannie and Freddie to make profits in home financing business is that they are top-heavy: heftily executive compensations, unseemly political contributions, and unwarranted payments to failed glib established experts, academies and media houses. The TBTF banks' attempts to charge mortgage borrowers usuriously high interest rates back fired in 2008 and depressed the

economy. This shows that the home mortgage borrowers are incapable of working hard (while remaining bonded) to fund lavish compensation and transfers to surreptitious usurpers: the glib academic experts, associated lawmakers and bank executives. Shutting down of Fannie and Freddie will only precipitously worsen the economic crisis.

E. Glib pundits have failed to note the reality that the enormous amount of private capital flowing to Fannie and Freddie are the massive profits coming from borrowers. Why is the Treasury robbing Fannie and Freddie of such capital, unless it has a premeditated plan to destroy them? It is as if the borrowers have formed a coalition to keep Fannie and Freddie in tact and that the TBTF bank executives and their advocates in government and academy have failed to break this coalition. The notion of private capital (propagated by TBTF bank executives and their agents in academy and government) is to take over Fannie and Freddie assets freely, mark their market values up by trading, and claim the net-worth so enhanced as their private capital.

F. It is blatantly irrational to claim that Fannie and Freddie retaining their capital will be risky to taxpayers. Such claims of a Treasury official depict presumption of stupidity of the public to not understand the risk to them. Maybe the Treasury official means enormous risk to TBTF bank executives and their patrons for having short-sold massive numbers of Fannie and Freddie shares which they did not own and which transferred massive amounts of wealth from pension plans, mutual funds, hedge funds and individual investors. Allowing natural recapitalization of Fannie and Freddie will force the short-sellers to cover their shorts and to surrender their unconstitutionally usurped wealth. It is possible that the Treasury official means that the only taxpayers that matter are those that have robbed others to build their wealth with a right to earn usurious interest rates from those who have been robbed and to pay as little tax as possible on their incomes. Taxing their income at the same equal rate paid by others is not the only means to restore fundamental fairness. Eliminating the system of robbery is vital for fundamental fairness, constitutionality, stability and efficiency.

If Fannie and Freddie were independent and regulated institutions, (a) the TBTF bank executives would not have issued junk and fictitious mortgage debt with a hope to dump it on these institutions for par value and (b) the agents of TBTF bank executives in Treasury would not have been able to force Fannie and Freddie into conservatorship to bailout the TBTF banks.

Glib punditry is now facing the heat. The fond hope to remain cocooned within the TBTF banks or in the academy funded by robbery seems to be dashed after November 2015 elections. The president of the Association of American University Professors has raised frightening alarms over the resounding victory of Republicans in November 2014. Republican governors have cut financial support to the academy. Massive student loans, sans good paying jobs after graduation, have bedeviled the academy and accentuated fear among established pundits that they really failed to establish a fundamentally fair, constitutional, stable and efficient system.

It seems as if an unbiased general equilibrium math-econ model of a selfless researcher has ultimately triumphed to prevail, notwithstanding efforts to purge him from the academy.

VIII. Conclusion

This paper has presented a theory of interest rate, *Safe Central Bank* (SCB) and *Government-Regulated Lender* (GRL) in equilibrium within a *free market economy* that allows the freedom to form coalition of borrowers as well as coalition of savers. The free market economy contrasts the extant models which consider only coalition of savers by excluding coalition of borrowers. If coalition of borrowers is banned in the economy, the interest rate cannot be determined in equilibrium between the suppliers of credit (savers) and users (borrowers) of credit. This lacuna in the extant literature may have led policymakers to create a central bank−as a grand coalition of banks that are coalitions of individual savers−to set the economy's interest rate to serve the best interest of the savers (creditors) without equilibrating with the demand for credit from borrowers.

A central bank like the Federal Reserve, created in 1913, uses an *empirical inflation estimator* based on data on prices of goods and services to ascertain the interest rate. But this estimator is prone to rigging of prices by mega creditors.[29] Mega private banks, for example, can use cheap Fed funds and taxpayer-insured deposits under their control for highly leveraged bets to influence the prices used by the Fed inflation estimator. The interest rate set by the Fed can thus lead to usurious lending rates that can cause disequilibrium (instability) in the economy. Usurious lending rates are defined to be larger than the equilibrium rate obtained within the free market economy that includes coalition of borrowers.

A free market economy that includes coalition of borrowers as well as coalition of savers produces profoundly significant results in equilibrium. These results can help answer myriad questions and resolve many confusions, arising among taxpayers and policymakers, like whether government sponsored enterprises (GSEs like Fannie and Freddie) should continue and, if yes, in what form and whether the Federal Reserve should continue, and, if so, what its goals should be, e.g. on monetary policy:

- *Safe Central Bank* (SCB), *Government-Regulated Lender* (GRL) and unregulated private banks obtain in equilibrium.
- The unregulated private banks can take deposits from savers and make risky investments without any government regulation or guarantee.
- The SCB or government does not insure deposits held in private banks.
- The SCB or government does not consider any private bank as too big to fail.
- The SCB gives an option to the savers to hold in SCB any part of their deposits they consider to keep absolutely safely.

[29] Acharya (2013).

- The SCB has the power to create new money by fiat and to set any interest rate. The SCB does not print new money and sets the interest rate on safe deposits at zero.
- The GRL raises equity and debt privately. The SCB insures GRL debt, but regulates payment of dividends on GRL private equity. The regulation restricts the GRL dividend payout ratio to that of private banks, on average, and requires the GRL to maintain a minimum capital-to-assets ratio.
- The rate of interest paid on GRL debt is zero, equal to the equilibrium rate on safe deposits held at SCB.
- The rate of interest charged to borrowers by GRL covers the equilibrium interest rate on safe deposits (which is zero), the loan loss rate and dividend payout rate, on average.
- It does not cost SCB to insure such a regulated and monitored GRL.
- These results obtained in equilibrium within a free market economy can insure stability of the economy by design.

The results obtained in the paper help explain why the US had to create institutions like the government sponsored enterprises (Fannie, Freddie, Sallie and Ginnie) to extricate the economy from the Great Depression. They also explain how the recent privatization of Sallie Mae and tacit plans for privatization or dismantling of Fannie Mae and Freddie Mac had led to an unsustainably high interest rate before the economy and housing markets collapsed in 2008, and how the Federal Reserve's volte face after 2008 to act like the equilibrium *Safe Central Bank* revived the depressed US economy. After the financial crisis of 2008, the Fed virtually mimicked the equilibrium SCB and the US government guaranteed Fannie and Freddie to mimic the equilibrium GRL as indicated by their actions stated below:

- The Fed dissociated from the Clearing House LLC through some loopholes in the Federal Reserve Act of 1913 to disclose details of its lending made to banks and nonbanks during the financial catastrophe of 2008-2009. The Clearing House appealed to the Supreme Court without the Fed joining the appeal to stop the disclosure. The Supreme Court rejected the appeal made by the Clearing House.
- The Fed insured the previously uninsured \$3.5 million of money market funds and \$7.8 trillion of bank debt.
- The Fed bought an enormous quantity of Fannie and Freddie debt when the private lenders stayed away after the crisis in 2008. The US government continues to insure Fannie- and Freddie-issued mortgage-backed securities, despite vociferous calls made by mega creditors and by allied experts to shut down or privatize Fannie and Freddie.
- The Fed took unprecedented steps to buy nonbank debt and mortgage-backed securities.
- Fannie and Freddie have reported unprecedented profits that can repay taxpayer bailout funds and rebuild their capitals to mimic the equilibrium GRL.

The equilibrium within a free market economy that permits coalition of borrowers and coalition of savers (presented in this paper) not only supports government-regulated lenders like Fannie,

Freddie and Ginnie. It also supports reversion of Sallie Mae as a government-regulated lender and creation of a new government-regulated credit card lender.

After this paper was widely circulated among economists, the US Congressional leaders as well as President, the idea of shutting down Fannie Mae and Freddie Mac–which was previously promoted with wide publicity by the banking industry lobbyists–appears to be shelved if not killed. Instead, the European Union has recently announced to import the US mortgage finance model pioneered by the GSEs.[30] This paper offers a sound economic theory supporting this model.

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