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Quantitative easing in the United States after the crisis:
conflicting views.

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Abstract

The paper deals with the conflicting interpretations of the monetary policy carried out by the Federal Reserve during and after the financial crisis of 2007-08. That policy has been labelled as quantitative easing. The first interpretation of that policy is that the central bank will continue to flood the market with money to cause inflation or at least inflationary expectations. A depreciation would eventually do the same job too. Another interpretation, partially based on Minsky's theory of investment, is that easy monetary policy carried out beyond the lender-of-last-resort intervention might have the aim of sustaining the price of investment and validating firms' plans. In other words, it would be complementary to fiscal policy with the aim of sustaining profits and investment. The problem is that the Kaleckian model Minsky was using hardly corresponds to the present situation of the U.S. economy. The interpretation here proposed is that the aim of monetary policy is the recovery of financial asset prices to sustain banks profits and to restore the value of household wealth. This design might be considered as successful if we look at the recent data. But those signals are not encouraging if we look at long term sustainability of policies. The recovery of stock prices has encouraged speculation on anything possible by the big banks. Moreover the recovery of financial asset prices in contrast to the slow motion of housing prices might increase the already high inequality in wealth distribution.

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1 Introduction

The paper deals with the conflicting interpretations of the monetary policy carried out by the Federal Reserve during the current financial crisis. This policy has been referred to as quantitative easing, because after interest rates have been lowered near the zero bound, the policy has consisted in the purchase of various types of assets from financial institutions, thereby greatly increasing banks' excess reserves and overall liquidity in the system. With interest rates unable to go any lower, the Fed has returned to a policy focussed on quantities (see Adrian and Shin 2009). This time however, unlike during the monetarist era, the problem is not to control some money aggregate but to expand as much as possible the supply of money and credit.

In the first section an overview of the main facts on the monetary policy carried out by the Federal Reserve during the 2007-2008 financial crisis will be given.

In the second section the liquidity trap view of the current depression will be explained and the monetary policy of the central bank will be introduced within this framework. The main thesis is the central bank will continue to flood the market with money to cause inflation or at least inflationary expectations. A depreciation would eventually do the same job too.

In the third section an interpretation of the Fed's monetary policy according to Minsky is attempted. An easy monetary policy carried out beyond the lender-of-last-resort intervention might have the aim of sustaining the price of investment and validating firms' plans. In other words, it would be complementary to fiscal policy with the aim of sustaining profits and investment. The problem is that the Kaleckian model Minsky was using hardly corresponds to the present situation of the U.S. economy.

In the fourth section I will argue that, if this model is modified in order to take into account the evolution of the economy, another possible explanation arises. The Federal Reserve and the government are simply sustaining financial profits earned by both financial and non-financial corporations. However, if no change in the economy occurs, this will set the conditions for another crisis. To date, no mechanism exists that would restore lending after the collapse of the originate and distribute system. In the originate and distribute system banks did not lend any more and held the loans on their balance sheets but instead were just selling the loans to other intermediaries that in turn were selling to finance themselves assets whose yield was linked to the loans interest revenue. Since most of these intermediaries did not survive the financial crisis at the moment this system is no more viable. While the few big banks that emerged after the US government interventions are enjoying huge profits on their trading desks, most local and small banks, whose main business is lending, are in trouble and often are compelled to go into bankruptcy. Conclusions will follow.

2 The monetary policy by the Federal Reserve during the crisis

The monetary policy carried out by the Federal Reserve during the financial crisis has consisted initially of very gradual decreases in the fed funds target rate. This rate has been lowered from 5.25% to 0.25%. These massive cuts notwithstanding, the situation in the inter-bank market has not improved at all and the market was virtually frozen for about one year. The reasons behind this failure of monetary policy are many. The problem from which financial institutions were suffering was one of insolvency rather than simply liquidity, thus institutions would not trust each other and would therefore not lend to each other, unless very short term. Moreover the inter-bank market had changed, becoming a market in which non-bank financial institutions were exchanging funds on the basis of repurchase agreements. The significance of the interest rate as a benchmark for the market had therefore been limited. Even traditional banks were preferring other tools for financing rather than inter-bank loans, where cost was linked to the federal funds rate (see IMF 2008).

Though the monetary policy response by the Federal Reserve has been quicker than that of other European banks (like the Bank of England and the ECB), the sequencing of interventions seems to indicate that the Central Bank had hardly understood the extent and the difficulty of the problem. The rate cuts, as we can see in the following table, were periodically following one another, leaving

the impression that the Fed did not grasp the situation developing on the money and short term securities markets, which had already deteriorated by July 2007, when the main traders practically ceased to do their job. Many scholars were aware that those markets were practically disappearing and that the consequences to the rest of the financial system, given the web of interconnections, were presumably enormous (see Dodd 2007). The Central Bank, however, seems not to have grasped that point, since it waited until September 2007 to cut the federal funds rate, and then only by 0.50%. We have to wait until the spring of 2008 to see the introduction of some measures, which bring relief to all markets that had virtually disappeared after the breakdown of intermediaries. The primary dealers lending facility was started in March 2008. Many other facilities that followed focussed on particular markets since markets were so segmented that the injection of liquidity at one end would never reach the other end of the system. From the end of 2008 through 2009, the Fed was engaging in a policy called quantitative easing. Since the interest rate had reached its lower zero limit, the Fed planned and implemented open market operations that potentially increased the supply of money and credit. In the last part of this year, it has started buying long term treasury securities in a massive amount in order to lower long term interest rates as well. An official of the Federal Reserve reports the secret of the apparent success of these operations is the size (see Sack, 2009). According to the authors, the Federal Reserve now has on its balance sheet a total of about \$1.8 trillion of treasury, agency, and mortgage-backed securities. These purchase programs were not aimed at providing liquidity but to keep private long term private interest rates at rates lower than they otherwise would be. First estimates find that the fed's purchases has lowered the long term interest rate on treasuries by 0.50%. while it has also lowered the rate on mortgage backed assets by 0.1% (see Sack, 2009). The secret of the success, as Sack writes, is size. The extent of the interventions has been very large with respect to the dimensions of the markets.

TABLE 1: Monetary policy measures by the Fed: Chronology

The monetary policy pursued by the Federal Reserve as a response to the global financial crisis has aimed at increasing the supply of money and credit and providing. Lower interest rates on their own were ineffective in resolving the problems caused by the financial crisis, mainly the freezing up of the interbank market. To complement lower rates, the Federal Reserve adopted a more aggressive policy of ad hoc interventions in various money markets by purchasing assets of different types with different maturities.

The reason behind this change in policy has been given by Ben Bernanke, chairman of the Federal Reserve, in a speech in which he writes explicitly that monetary policy is no more useful to fight the crisis if interest rates touch the zero bound. This was indeed what happened in the United States after one year of very lax monetary policy and thus it was necessary to change tools. The Central Bank had to be concerned with the liquidity trap that arises when interest rates are zero and thus it had to follow a policy that already in the '90s has been followed by the Bank of Japan in fighting the Japanese financial crisis. At that time the Japanese central bank was trying to get out of the liquidity trap by causing a rise in prices and a depreciation of the exchange rate. Nowadays the United States experienced both a very lax monetary policy and a depreciating exchange rate. Some scholars argue that they are following the same strategy once recommended to the Japanese to get out of the liquidity trap (see Kregel, 2008). That policy has been labelled quantitative easing.

3 Quantitative easing and the liquidity trap

The situation in which the economy of the United States has found itself after the financial crisis has been defined as a liquidity trap. The same expression had been used with reference to Japan's position in the 90s after the financial crisis. In particular Krugman (see Krugman 1998, 2008a) has in various occasions underlined that the liquidity trap is not an obsolete concept, but that it had been revived after the great crisis of 1929, namely in Japan in the '90s and in the United States in the last two years. He argues in his first article on liquidity trap that monetary policy is not ineffective during a liquidity trap situation as it might, and in fact is commonly, assumed. He argues that there is no reason to switch to fiscal policy as the only available tool. Monetary policy may indeed turn out to be effective if people believe that the increase in money supply will

7 aug 2007	Fed maintains target rate at 5.25%
18 sep2007	Fed lowers target funds rate at 4.75%
31 oct 2007	Fed lowers target funds rate at 4.50%
11 dic 2008	Fed lowers target funds rate at 4.25%
22 jan 2008	Fed lowers target funds rate at 3.50%
30 jan 2008	Fed lowers target funds rate at 3.00%
18 mar 2008	Fed lowers target funds rate at 2.25%
30 apr. 2008	Fed lowers target funds rate at 2.00%
16 set 2008	Fed target rate is maintained at 2.00%
8 oct. 2008	In conjunction with cuts by other central banks fed target rate lowered to 1.50%
29 oct. 2008	Fed lowers target funds rate at 1.00%
16 dec. 2008	Fed lowers target funds rate to a range 0-0.25%.
28 jan 2009	Fed target rate is maintained at 0.25%
18 mar 2009	Fed target rate is maintained at 0.25%
Facilities	Term auction facility introduced and the first auction takes place.
17 dec. 2007	Taf auction increased to 30 bn dollar every two weeks.
1 feb 2008	Term securities lending facility is introduced.
11 mar 2008	Primary dealers Credit facility is created
16 mar 2008	TLSF eligible collateral expands to include AAA rated ABS
2 may 2008	Lending to Fannie Mae and Freddie Mac at the primary credit rate is authorized.
13 jul 2008	84-day taf auctions are introduced and the ecb swap line is increased.
30 jul	Eligible collateral for TSLF and PDCF expanded.
14 set 2008	84-day taf allotments increased by 75 bn dollar, two forward taf auctions totalling 150 bn dollar introduced and total swap line doubled to 620bn dollar.
28 set 2008	Taf increased to provide 900 bn dollar of funding over year-end.
6 oct 2008	Commercial paper funding facility CPFF established.
7 oct 2008.	Money market investor facility MMIFF is established.
21 oct 2008	Talf established to provide loans collateralized by ABS.
25 nov 2008	Fed purchase of GSE direct obligations begins.
25 nov 2008	PDCF, AMLF, and TSLF are all extended through april 30 th .
2 dec 2008	
28 jan 2009	FOMC announces willingness to begin purchase of long-term Treasury securities.
3 mar 2009	TALF launch.
18 mar 2009	Announcement of a program to buy 300 bn dollar worth of Treasuries and to increase the purchase of agency debt.
19 mar 2009	Talf eligible securities expanded.
19 may 2009	Talf announces acceptance of legacy CMBS.

continue in the future and that as a consequence of this policy the price level in the long run will increase with respect to the current period. They must believe that the Central Bank is committed to generate inflation. If the central bank is not reliable in this purpose, for instance because it has a strong anti-inflationary reputation, this policy will not work (see Krugman 1998, p.4). The theory behind this assertion is not related to the Keynesian liquidity trap. Krugman (1998) states clearly that the liquidity trap concept stands by itself in any type of model. He addresses the question in an inter-temporal neoclassical rational expectations model in which the allocation of consumption between two periods depends on the time preference, on the nominal interest rate and on the price level respectively in the current and in the future period. In a model with fixed prices the main variable is the nominal interest rate. Thus, if the interest rate has reached the zero level and no negative interest rate is possible, monetary policy is ineffective. If, however, prices are flexible, then monetary policy may affect the inter-temporal allocation of consumption over the two periods by changing the actual and the expected inflation rate in future periods. Basically if future inflation is expected to rise then people will prefer to consume more in the present period than in the next one and this will stimulate the economy.

Krugman argues that a liquidity trap can occur even in a flexible prices economy and that it will not cause unemployment. In order to get inter-temporal equilibrium in such an economy a negative real interest rate is needed. This however can be reached by getting deflation in the current period. This in turn makes people think, on the basis of unchanged price level expectations in the long run, that in the next period the price level will increase again. Krugman (1998) writes explicitly:

“Of course, in a flexible-price economy even the necessity of a negative real interest rate does not cause unemployment. This conclusion may surprise economists who recall the tortured historical debate about the liquidity trap, much of which focussed on the question of whether wage and price flexibility were effective as a way of restoring full employment. In this model the problem does not arise - but the reason is a bit peculiar. What happens is that the economy deflates now in order to provide inflation later. That is, if the current money supply is so large compared with the future supply that the nominal rate is zero, but the real rate needs to be negative, P falls below P^ ; the public then expects the price level to rise, and this provides the necessary negative real interest rate. And to repeat, this fall in the price level occurs regardless of the current money supply, because any excess money will simply be hoarded without adding to spending. At this point we have a version of the liquidity trap: money becomes irrelevant at the margin.” (Krugman 1998, p.13-14).*

The important case is that of a Hicksian liquidity trap. Here output depends on consumption and insufficient consumption may constrain output. A liquidity trap may occur because people expect either that the price level will fall in the future or that next period's income will be lower than the current one. In both cases, to make people spend now may require a negative real interest rate, which is impossible to achieve with downward inflexible prices (see Krugman, 1998, p.15). This simple model may be extended to take into account investment, the state, and the open economy. The main conclusions however can be drawn just from the first simple model. Monetary policy becomes effective even when the nominal rate of interest is zero if the real interest rate can fall and indeed falls. Krugman (1998, p. 33) stresses this point:

“Second, whatever the specifics of the situation, a liquidity trap is always a product of a credibility problem - the belief by the public that current monetary expansion will not be sustained. Structural factors can explain why an economy “needs” expected inflation; they can never imply that credibly sustained monetary expansion is ineffective.”

The argument above can hardly be considered Keynesian. It is an extension of inter-temporal neoclassical theory of consumption allocation. Krugman (see 2008) confirms that his previous analysis of the liquidity trap may be applied also to the current situation in the United States. Yet, the claim that the Federal Reserve is committed to raising inflation in the long run cannot be taken seriously.

“It’s a curious thing that even now, when we are clearly in a liquidity trap, we still have a lot of economists denying that such a thing is possible. The argument seems to go like this: creating inflation is easy — birds do it, bees do it, Zimbabwe does it. So it can’t really be a problem for competent countries like Japan or the United States. This misses a key point that I and others tried to make for Japan in the 90s and are trying to make again now: creating inflation is easy if you’re an irresponsible country. It may not be easy at all if you aren’t.”(see Krugman, 2008, it is just a column on NYT see web address)

“What’s the answer? Huge fiscal stimulus, to fill the hole. More aggressive GSE lending. Maybe a “pre-commitment” by the Fed to keep rates low for an extended period — that’s a more genteel version of my “credibly promise to be irresponsible.” And maybe large-scale purchases of risky assets. The main thing to realize is that for the time being we really are in an alternative universe, in which nothing would be more dangerous than an attempt by policy makers to play it safe.” (see Krugman, 2008, idem)

The solution the central bank has at its disposal in order to get out of the liquidity trap then is to commit itself in a credible way to an inflationary policy in the long run. It seems from the last quotation by Krugman that all the measures taken by the Federal Reserve could be useful to pursue this goal.

The liquidity trap view has also been explained in a modern fashion by Krugman and Obstfeld (see Krugman and Obstfeld 2003) in their International Economics textbook. The starting point is that, when the rate of interest is zero, the central bank can no longer use monetary policy to stimulate the economy. This happens because even if the central bank tries to increase the money supply through open market operations this will not make interest rates fall. If interest rates are already at zero people will be indifferent between holding money and bonds. Thus they prefer to hold money rather than bonds and thus there will be an excess supply of bonds. Thus even if the central bank increases the money supply in order to depreciate the currency the exchange rate cannot increase if the rate of interest is zero. Thus this policy will not succeed in increasing output and relieve a depression. The right policy would indeed that of making the market believe that the long run future exchange rate will depreciate. This can be made either by expanding in a permanent way the supply of money or by anchoring the currency at a higher level. Only in this case can monetary policy be effective in increasing output.

The idea is that monetary policy can no longer stimulate the economy is because it cannot lower the interest rate beyond zero. Then the only way to act on the real side of the economy and reviving aggregate demand is through the trade balance channel. A depreciation will increase the foreign demand for domestic output if Marshall-Lerner conditions hold, and it will raise output thereby bringing us closer to full employment. Then the next question is how to get a depreciation. If you believe that the exchange rate in the long run is a monetary phenomenon then it is sufficient to increase the money supply and announce that it will be a long lasting policy. If this is not believed by the market, it is necessary to intervene in the market and cause a depreciation. In both cases the effectiveness of monetary policy will be resumed. This last case however does not suit well the United States, which is a big open economy and in which the domestic demand is far bigger than the external demand for domestic goods.

The policy pursued by the central bank may be criticized for different reasons. Krugman is arguing that it is right in so far as it creates inflation. Others may argue that it is wrong even if creates inflation. For example Kregel (2009) raises another question. The policy of getting lower and lower interest rates even at long maturities would not fulfil the main task that authorities have now, that of warranting some income to banks. Kregel (2009) recalls that the same reflation policy has been attempted after the 1929 world crisis and that it was abandoned for the same reason, that banks’ income fell because of the low interest rates. He distinguishes Greenspan’s policy from that pursued by Bernanke in that Greenspan paid attention at maintaining a spread between short and long maturities interest rates thus making possible for banks to gain from the spread. Bernanke did indeed the opposite in the two years before the crisis raising slowly but constantly the short term

interest rate while the long term one did not follow. This then caused an erosion of banks' profit margin, since they had long term assets and short term liabilities. The recent interventions of the Fed in short term money markets and the plan to extend this intervention even to financial assets with longer maturities will tend to lower both short and long run rates of interest for a long time. This policy, however, in Kregel's opinion, would not restore banks' profits since it does not increase their profit margin. The extension to longer maturities may benefit households, who have to repay their debt but this effect may be offset by the fall in interest earned on deposits (see Kregel 2009, p.15).

Kregel's article was written in April 2009. The latest news on banks accounting show that they are mainly gaining from their trading desks rather from their borrowing activity. This may be due to the ever flourishing speculation and to the prolonged use of the same derivatives that were used before the financial crisis. An interpretation of what happened until now might be that the central bank is not particularly interested in restoring the normal operations of banks and their profitability as resulting from that part of their activity but it is satisfied with the return of their balance sheets from red into black, whatever the means to reach this result. Even speculation may help in this! This would be confirmed by the fact that the same products, which were responsible for the financial chaos that has led to the crisis, cdo and cds, have not been banned or restricted. They are still present as part of portfolios of financial institutions. The markets for derivatives linked to the securitization of mortgages loans have indeed dried up because of the crisis in that sector; the industry however has now planned to open other business perspectives by employing the same tools like the CDS in the insurance industry (see Auerback and Wray 2009).

4 Quantitative easing as a policy to stabilize profits: a Minskyan analysis

In this section we shall deal with another possible interpretation of the quantitative easing policy, this time drawing on a very different theoretical background, the Minskyan analysis of financial crises and his considerations on the task of policy during the crises. His starting point, on which the analysis of the effectiveness of policy is built upon, is the macroeconomic model inherited by Kalecki. In the following we will shortly describe with some algebra this model, discuss the policy considerations that may be derived from it and whether it may be applied to the current crisis.

Equation 1 defines consumption as the sum of wages earned in the consumption goods and investment sectors. Profits in the consumption sector are equal to the price of consumption goods multiplied by the quantity minus wages multiplied by the number of employed workers (see equation 2). Profits in the consumption sector are equal to wages multiplied by the number of workers in the investment goods sector. Profits in the investment sector are calculated in the same way (see equation 3). By rearranging, we get the equation that shows that total profits are equal to investment. By introducing in this simple model, the state, consumption out of profits and the foreign sector one can rewrite the equation for profits. Profits would then depend on investment plus state deficit plus consumption out of profits minus saving out of wages and plus the surplus in the balance of payments (see equation 9).

$$\begin{aligned}
 (1) C &= W_c N_c + W_I N_I \\
 (2) \pi_c &= P_c Q_c - W_c N_c = W_I N_I \\
 (3) \pi_I &= P_I Q_I - W_I N_I = \pi_I \\
 (4) \pi_I &= \pi \\
 (5) P_I Q_I &= I \\
 (6) \pi &= W_I N_I + \pi_I = I \\
 (7) \pi &= I + Df \\
 (8) \pi &= I + Df + C\pi - sW \\
 (9) \pi &= I + Df + C\pi - sW + BPS
 \end{aligned}$$

The last equation (9) is a more realistic step in order to take into account how stabilization policy

might work. In the present environment, the state is an important economic agent and workers save while capitalists consume part of their savings rather than investing all of them.

Minsky concentrates on fiscal policy as the main stabilization tool in order to avoid a depression. Fiscal policy would stabilize profits through a double effect. The first is the obvious one whereby increased demand by the state sustains sales and thus in the above equation hinders that quantities fall, the other is through the effect on mark-ups. An increase in state expenditure should increase the mark-up (see Minsky, 1982, p.85, footnote 2 p.88-89). The total effect will be stagflation. Prices will be increasing even if demand is falling. Inflation is the way a big recession has been avoided in the 1970s. Every increase in expenditures on consumption goods financed by transfer expenses or profit income is inflationary. Inflation is one way to mitigate the payments on past debt. In the aggregate the unwise and risky behaviour of bankers and business men is repaired through an economic policy that convalidates profits. Public deficits lead to profits that convalidate past aggregate investment and the total liabilities of enterprises but the price to be paid for this result is a growing inflation and inefficient management techniques .

The current situation is such that, if one wants to use Minsky's theory to show the results of current policy, the effects of projected fiscal deficit on demand depend on the items on which state expenditures are used. Most of the current and future debt by the state stem out of measure that aim at supporting the financial system. Their weight even simply from the accounting perspective is difficult to assess (see IMF 2009). Now there is the proposal of stimulating the economy through various tools mainly tax cuts rather increases in state expenditure. In that sense it cannot be argued that the several measures that have been taken and that are being registered as negative items in the state balance will sustain the economy because they support aggregate demand and thus firms profits.

While in the traditional closed economy version of the equations above, it is simply investment that causes profits as underlined by Minsky himself, in contemporary capitalism other items such as fall in the saving ratio, state deficit and others appear to be more important in performing that task (see Toporowski 2008). Minsky's model, however, could be saved by arguing that all the monetary and fiscal measures undertaken until now amount to supporting or increasing the price of capital P_I . This would help to avoid a depression which would be triggered by the fall of the demand price of capital below the supply price of it in Minskian terms. The relevance of this strategy however would be weakened in an environment where investment does not play a big role in supporting aggregate demand. In the last decades, consumption, mainly financed by debt, has been the major imputus supporting the expansion of aggregate demand. One could imagine that this growth model must be definitely abandoned and that the crisis might offer an occasion to change and to switch to an investment driven expansion. In that case the most appropriate candidate to sustain that expansion would be public investment, perhaps in infrastructure according to the Keynesian public works tradition. So far, however, the only plans of the government are directed towards cutting taxes, not only for the richer people but also for the poorer ones, which would in any case support consumption by increasing disposable income.

As Toporowski (2008) argues, in the current financialized environment, the decline in the savings ratio becomes an important factor in sustaining profits. Another important point is that consumption remains the main item in aggregate demand, the fall of which triggers the downturn of the cycle. In particular inflation in asset-prices allows wealthy families to consume out of capital gains or by using the proceeds of selling inflated assets. Thus, while a part of families were suffering from low wages and high expenses for insurance and housing, another part, the most wealthy ones, were enjoying the gain of high asset-prices and used them as a means to finance consumption.

Thus since asset-prices were an important way to finance consumption and to increase aggregate demand, any policy that aims at raising these prices further, after the fall experienced during the crisis, will in fact sustain profits. Among asset-prices, one distinction must be made between the price of durable goods, such as housing, and the price of financial assets. Statistical data on housing prices show that their price needs a long time before reverting to pre-crisis levels. It is easier instead to make financial asset-prices rise again. In the United States, those households able to purchase a house in the last ten years before the financial crisis were mostly poor ones, towards which the so-called sub-prime loans were directed. Those households investing in financial assets instead were

wealthy families. By lowering all interest rates, even long terms rates, may help home owners pay less interest on variable rates mortgages if their income is sufficient to repay the debt, but the loss due to the fall in the value of the asset in comparison to the amount of the loan contracted may even induce them to voluntarily default.

With respect to financial assets, however, home owners overall will have little interest in them provided they invested their savings in housing. For wealthier families, the story is vastly different. While suffering real estate losses, they will enjoy the rise in asset prices, both bonds and shares. In this way the poor households who have contracted loans to buy a house will be hurt having only debt while the households whose net wealth is positive (assets minus debt) will gain both because of the return of assets values to higher levels and of a lower cost of debt.

5 Quantitative easing as a way to restore asset prices and consumption out of wealth

A third and more credible hypothesis is that the central bank does not simply want to make reflation and depreciation their only objective. Neither does it want to support an investment led growth or recovery, even less a public investment program. Rather, it wants only to restore the asset values, particularly bonds and shares, in order to save the balance sheets of financial institutions of all types, including pension funds and at the same time protect the wealth of most citizens. Since the wealth, however, is unevenly distributed this policy will perpetuate the current unequal distribution of wealth. Thus the unequal-consumption-based growth model would be perpetuated and the crucial role of finance in the economy would be perpetuated as well. The financialization model would not be challenged.

We can also look at the data on the recovery of stock prices and house prices, as well as on the wealth distribution to confirm the idea that the current strategy of the Federal Reserve is perpetuating the existing inequality in wealth distribution. Wolff (2007) defines marketable wealth (or net worth) as the current value of all marketable or fungible assets less the current value of debts. It is defined as the difference between assets and liabilities. In turn, assets are defined as the sum of gross value of owner-occupied housing, real estate, cash and demand deposits, other deposits and money market accounts, all types of bonds and other financial securities, cash surrender value of life insurance, corporate stocks and mutual funds, net equity in unincorporated business, equity in trust funds. Total liabilities in turn are defined as the sum of mortgage debt, consumer debt and other debt (see Wolff, 2007, p.5-6). Further Wolf (2007) calculates non-home wealth as net worth minus net equity in owner-occupied housing.

Wolff (2007) finds that non-home wealth is more concentrated than net worth, with the richest 1 percent (as ranked by non-home wealth) owning 42 percent of total household non-home wealth in 2004 and the top 20 percent owning 93 percent (see Table 2).

Table 2 : The distribution of net worth and non-home wealth (top 20%)

year	Non-home wealth	Net worth	Non-home wealth
	Gini coefficient	Top 20%	Top 20%
1983	0.893	81.3	91.3
1989	0.926	83.5	93.4
1992	0.903	83.8	92.3
1995	0.914	83.9	93.00
1998	0.893	83.4	90.9
2001	0.888	84.4	91.3
2004	0.902	84.7	92.5

Source: Wolff, 2007

Wolff stresses another point, which is relevant for the interpretation of the Fed's current monetary policy: wealth inequality is positively correlated to the ratio of stock prices to house prices (see Wolff,

2007, p. 13).

Given the trends in housing prices and stock prices registered in the last year one should expect a rise in inequality as a consequence of the monetary policy currently undertaken. In fact we can see that the major stock indexes show a recovery of almost 50% with respect to the pre-crisis level while the index of house prices shows a much weaker recovery rate.

This view seems confirmed by Weller and Lynch (2009), whose calculations of losses to households as consequence of the financial crisis. They find that total net worth as a percentage of after-tax income was more than 30 percentage points lower on average in 2008 than during the period from March 2001 to December 2007. Moreover, they argue that two-thirds of this loss was due to declines in housing wealth and the rest was caused by financial market losses (see Weller and Lynch, 2009; Weller and Holburn, 2009). Given the different distribution which we have seen between net worth and non home wealth this should enforce the conclusion that the more damaged by the crisis were those who on average own only a house and have some debt.

The recovery of stock prices, which is the major results of all the massive interventions in the market by the Federal Reserve, would worsen wealth inequality. In fact, it would help the financial institutions that do not lend but only gain from speculating on their trading desks and richest households, who may restore the value of their wealth. It does not improve, however, the situation of middle income and poor households, who have only home wealth and a debt, which is much higher than the current value of the house. The lowering of interest rate would not help substantially in reducing net debt.

6 Conclusions

Current monetary policy has evolved from traditional interest rate cuts to the so called quantitative easing, that is increase in quantities through open market operations after the interest rate has reached the zero bound. Its has evolved further comprising now of open market operations on long term maturities to lower long term interest rates as well.

In this paper we have examined two possible interpretations of this policy according to different theories. The first one is the renewed version of liquidity trap in the version given by Krugman and already applied to the Japanese crisis. This interpretation is mainly focussed on an inter-temporal consumption model with rational expectations or perfect foresight. Its main insight is that monetary policy can be effective even if interest rates are zero if it succeeds in governing long term expectations on inflation. In particular, the central bank, contrary to any wise purpose, should make people believe that it is and will be committed to an inflationary policy. Eventually also a depreciation that produces inflation in the future will do the job as well. Thus the liquidity trap ceases to be an old-fashioned concept. In the present context one could argue that all the quantities interventions by the central bank are aimed at creating inflation expectations.

The second interpretation is taken from Minsky's model. In this context a very accommodative monetary policy beyond the initial lender of last resort may be useful in sustaining the price of shares and thus firms' expected profits. This interpretation, though plausible, is in contrast to the current shape of business cycles. In recent business cycles, the booms and busts are not characterized by investment fluctuations but rather by consumption fluctuations. Minsky's theory of financial instability is still valid but the version of this theory based on a business cycle that depends on investment fluctuations does not fit current events.

Another interpretation is suggested here, that the aim of monetary policy is the recovery of financial assets to sustain banks profits and to restore the value of household wealth and eventually consumption. This design might be considered as successful if we look at the recent data. But those signals are not encouraging if we look at long term sustainability of policies. The recovery of stock prices has encouraged speculation on anything possible by the big banks and profits related to it. Moreover the recovery of assets' price in contrast to the slow motion of housing prices has increased the already high inequality in wealth distribution.

Bibliography

Adrian T. and H.S.Shin, 2009, Prices and Quantities in the Monetary Policy Transmission Mechanism, Federal Reserve Bank of New York Staff Report n. 396, October 2009.

Auerback M. and R.Wray, 2009, Banks Running Wild: The Subversion of Insurance by “Life Settlements” and Credit Default Swaps, Levy Economics Institute Policy Note 2009/9.

Dodd R., 2007. “Subprime: Tentacles of a Crisis.” *Finance and Development* (December): 15-19.

International Monetary Fund, 2009, Crisis-related measures in the financial system and sovereign balance sheet risks, *IMF Working Paper* July 2009.

International Monetary Fund, 2008, *Financial Stability Report*, October 2008, Chapter 2 : Stress In Bank Funding Markets and Implications for Monetary Policy.

Krugman Paul, 1998, *It's baack! Japan's slump and the return of the liquidity trap*, available on P.Krugman website:

<http://web.mit.edu/krugman/www/>. also published in *Brookings Papers on Economic Activity*, Economic Studies Program, The Brookings Institution, 1998, vol. 29(1998-2), pp. 137-206.

Krugman Paul, 2008a, Macro policy in a liquidity trap (wonkish) - Paul Krugman Blog - NY-Times.com 15 november 2008

<http://krugman.blogs.nytimes.com/2008/11/15/macro-policy-in-a-liquidity-trap-wonkish/>.

Krugman P. Obstfeld M., 2003, *International Economics Theory and Policy* 6th edition, Boston Addison Wesley

Kregel Jan, 2009, It's that “vision” thing Why the Bailouts Aren't Working, and Why a New Financial System Is Needed, *Public Policy Brief n.100*, 2009, The Levy Institute of Bard College.

Minsky H., (1982), *Can “it” happen again ?Essays on instability and finance*, Sharpe New York.

Sack B.P., *The Fed's expanded balance sheet*, Speech available on the website of the Federal Reserve Bank of New York www.ny.frb.org/speeches/2009/sac091202.html .

Toporowski, 2008, The Economics and Culture of Financialization, paper presented at the Paper presented to the Workshop on Credit and Debt in Present Day Capitalism, University of Manchester, on the 14 March 2008.

Wolff E.N., 2007, Recent Trends in Household Wealth in the United States: Rising Debt and the Middle-Class Squeeze, *The Levy Economics Institute of Bard College Working Paper* No. 502 june 2007.

Weller C. and A. Helburn , 2009a, Public Policy Options to Build Wealth for America's Middle Class, Political Economy Research Institute University of Massachusetts at Amherst Working Paper n. 210 november 2009.

Weller, C. and J. Lynch,. 2009b., “Fraying the Private Safety Net: Household Wealth in Freefall.” Washington, DC: Center for American Progress.