

# *The 2007 Crisis and Countercyclical Policy*

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## **Abstract**

**Purpose :** The purpose of the paper is to outline the global financial and economic crisis that began in 2007, together with the macroeconomic policy changes that were put in place as a result. The content is partly descriptive and partly analytical.

**Design :** The content is partly descriptive and partly analytical.

**Findings :** The paper sets out the history of the financial and economic crisis to date

**Originality :** This is determined by the subject matter, and consists mainly in the manner in which the material is presented.

**Keywords:** housing, structured finance, crisis, recession, policy

**Classification:** Research Paper

## **THE 2007 CRISIS AND COUNTERCYCLICAL POLICY**

### **1. Introduction**

The financial crisis that emerged in 2007 was the most significant in nearly eighty years, and the leading proximate cause of the current global economic downturn, the steepest since WWII. Factors other than the credit crunch contributed to the recession. An international redistribution of purchasing power associated with rising oil prices, and high household indebtedness in some developed countries, were also relevant influences. Household debt in the U.S. for example, rose from 65% of GDP in 1997 to 100% ten years later.

The past three decades have been marked by a global movement towards free-market capitalism in both social democratic and centrally planned countries. This paradigm shift was grounded in the understanding that more competitive markets would enhance rates of economic growth and living standards. Activist fiscal measures were no longer taken to be an appropriate part of countercyclical policy in the industrialized countries : the multipliers of increases in government purchases and reductions in taxes were seen as too constrained by the crowding out of private expenditure, and the lags between the formulation of policy and its results thought too great, for discretionary fiscal actions to be considered as effective tools. Informed monetary policy, on the other hand, was accepted as the instrument that would preserve the liberalised world from the old cycle of boom and bust. Asset prices would incorporate all past and current information, and financial markets would allocate capital efficiently. Accompanying the new political economy was the belief ‘that the enlightened self-interest of owners and managers of financial institutions would lead them to maintain a sufficient buffer against insolvency by actively monitoring their firms’ capital and risk positions’ (Greenspan, 2009a).

In this atmosphere, financial conditions that facilitated the 2007 worldwide crisis materialized: some existing financial regulation was abandoned, and financial innovation that was insufficiently monitored took place. Constraints on international movements of capital were widely relaxed. The Financial Modernization Act, 1999 was, perhaps, the most important deregulatory measure introduced in the U.S. in the period preceding the crisis. This new legislation repealed the Glass-Steagall Act,

1933, that had prevented U.S. entities from combining any pair of the three activities : investment banking, commercial banking and insurance business. The result was the creation of financial services conglomerates with inadequate expertise in some areas of their businesses. (Tymoigne, 2009, p.4).

The crisis was marked by the determination of governments around the world that the deflation and depression of the 1930's, subsequent to the Wall St. crash of 1929, should not be repeated. This paper outlines both the advent of the crisis and the policy response evoked by it. The financial crunch was itself precipitated by events in the U.S. housing market. The next section of the paper looks at the recent U.S. housing bubble and how it may have come about. The role of structured finance in promoting the U.S. house price bubble is considered in section 3. This is followed by sections on the financial crisis, the recession, the policies introduced to combat the economic downturn and the Keynesian nature of that response. Section 8 considers what Keynes's own policy prescriptions might have been. Section 9 contains some concluding remarks.

## **2. U.S. house price bubble**

Booming U.S. house prices since the end of the twentieth century, together with the financial arrangements associated with house purchase, eventually led to the credit crisis of 2007. According to the U.S. Census, between 1997 and 2005, the number of owner occupied homes in the country rose by 11.5%, while over the same period, the real price of residential property, as measured by the Case-Shiller house-price index, rose by more than 80%. Many of the new home owners were subprime mortgagors, borrowers who were attracted to the housing market by enticing terms being offered by lenders, but whose creditworthiness did not conform to the high standards traditionally required by the U.S. government-sponsored enterprises (GSE's), Fannie Mae, Ginnie Mae and Freddie Mac. By 2006, the value of subprime mortgages granted was around \$600 billion, or 22% of all the mortgages originated in that year. Rising house prices encouraged the construction of new homes; the fraction of the U.S. GDP represented by investment in residential property increased to 6.3% in the final quarter of 2005. Partly as a result of the number of new homes supplied the Case-Shiller index reached a peak in the middle of 2006. Thereafter, U.S. house prices fell until May 2009.

What caused the bubble in U.S. home prices between 1997 and 2006? Monetary policy is an obvious area in which to seek an explanation. In the middle of the 1990's the Federal Reserve adopted an easing stance, lowering the federal funds interest rate from 6% in February, 1995 to 4.75% at the end of 1998. This was not a very dramatic reduction, however, and Robert Shiller (2008, p.57) proposes that the genesis of the housing bubble is to be found elsewhere. More specifically, his suggestion is that during the 1990's, a shift of individuals' aspirations towards greater materialism took place. Whereas traditional ethics suggested hard work as an appropriate personal goal, the newer thinking stressed successful investment as well. The housing bubble was then propelled onwards through a process of social contagion, which was itself encouraged and supported by the observation that house prices were in fact rising (Shiller, 2008, pp.41-47). Residential property provides particularly fertile ground for such a ripple effect. Whereas investment in many other asset classes requires access to specialist knowledge, everybody has housing needs and, consequently, some familiarity with the property market.

But while lax monetary policy may not account for the way a bubble in U.S. housing began at the end of the twentieth century, it was clearly important to the manner in which it developed. U.S. interest rates were relatively low in the early years of the present century. Judged by historical standards, the interest rate policy of the Federal Reserve was exceptionally easy between the years 2000 and 2006 (Taylor, 2008). Over part of this period, from the beginning of 2001 to the middle of 2003, the federal funds rate was reduced from 6.1/2% to 1% . The consequences of the large and growing deficit on the U.S. current account over the period also had a bearing on the country's interest rates. Dollars acquired by non-U.S. residents as counterpart of the external deficits were invested in U.S. capital markets. Large amounts of these dollars were accumulated in the form of U.S. Treasury Bonds by foreign Central Banks, especially those of the oil exporting countries and the Far East, in pursuit of the goal of limiting the appreciation of their currencies on the foreign exchange market. These U.S. capital inflows exerted downwards pressure on U.S. interest rates and led to a brief inversion of the U.S. Treasury yield curve at the end of 2005 and the beginning of 2006. Low rates on safe U.S. assets encouraged private investors to assume greater risk in pursuit of higher returns (Setser, 2009)

Low interest rates in the U.S. influenced monetary policy in other countries. Given interest rates elsewhere, a fall in U.S. interest rates encourages capital outflows from the U.S. and, thus, an appreciation of non-U.S. currencies in terms of the U.S. dollar. In order to protect the international competitiveness of their countries' tradable commodities, some non-U.S. Central Banks followed the Federal Reserve's handling of interest rates. In this way, the boom in U.S. house prices was transferred to other countries, notably Britain, Ireland and Spain.

The availability and cost of mortgages are influenced not only by the general level of interest rates but, in addition, by the manner in which house purchases are financed. The American secondary market for mortgages existed even before 1900 (Kothari, 2006, p.328) It received a fillip in the 1970's and 1980's when the U.S. GSE's Freddie Mac and Fannie Mae, which had been established in order to facilitate home ownership by buying mortgages from local originators, began to securitize their assets, and sell the resulting bonds to investors (Kothari, 2006, p.110). Because they are supported by flows of mortgage payments as collateral, such securities may be referred to as 'mortgage backed' (MBS's). By bundling different mortgages together, securitization dilutes idiosyncratic risk, as well as making mortgages available as assets to investors other than those specifically engaged in housing finance. Non-GSE MBS's, backed by nonconforming mortgages, were first issued in 1977 by Bank of America in association with Salomon Brothers (Kothari,2006, p.330). From the middle of the 1980's securitization was gradually applied to forms of loan other than mortgages.

### **3. Housing finance**

Structured financial products, typically collateralized debt obligations (CDO's), and initially introduced in the early 1980's, developed the concept of securitization further. In managing risk, bankers may assemble pools of assets in a portfolio. Pooled assets may comprise bonds, mortgages, other sorts of loan, or some combination of these. Portfolios are then 'structured', that is, divided into tranches or slices, each slice representing a different level of risk and reward. By classifying tranches in an order of priority in relation to payoffs, securities can be created that are much safer than any of the individual assets in the portfolio. Any losses on the pool are charged first against the most junior or 'equity' tranche which, thus, becomes the riskiest tranche and, as such, yields the highest returns to investors. At the other extreme, the safest

tranche, and that providing the lowest returns, is known as the senior or super-senior tranche. In terms of both risk and reward mezzanine tranches lie between these two extremes. Holders of middle ranking securities sustain losses only when these reach levels that are not totally covered by the more junior tranches. Tranches may be tailored so as to achieve specific credit ratings. For example, senior tranches may be designed to conform to the requirements of the virtually risk-free AAA rating set by agencies such as Standard and Poor's, Moody's or Fitch Ratings. In recent years, the creation of triple A rated structured bonds has greatly widened the pool of assets accessible to investors confined to this standard. Equity tranches, or toxic waste, are not normally rated. The alchemy whereby risky assets are converted into risk free securities can be carried a stage further by the creation of CDO squareds, which involves bundling together the riskier tranches of existing CDO's in a portfolio that is then sliced and rated

In the United States in the early 1990's only 'prime' mortgages were used in the creation of mortgage-linked structured products (Tett, 2009, p.111) This restraint ended with the increase in mortgages that did not meet these requirements, an expansion that was then further encouraged by the financing changes. Almost two-thirds of U.S. subprime mortgages have been securitised (Brender and Pisani, 2009, p.80). By pooling and tranching more than half the value of such loans could be transformed into triple A rated bonds. Ratings appeared to make it possible for interested parties to compare the credit worthiness of mortgage backed structured products with that of other rated assets.

Rating agencies were confronted with the question of how default risks of the assets in a pool were interrelated. This problem was widely thought to be resolved by David Li's (2000) Gaussian copula model of default correlation. Adoption of Li's model was followed by a vast increase in the creation of structured financial products, including securities in which subprime mortgages were prominent.

For this expansion in activity to take place, structured securities had to be of sufficient interest to originators and investors alike. Structured products broadened the range of assets over which investors could exercise choice. They also provided attractive yields in a period when returns on alternative assets were low. Structured finance appealed to potential issuers both because it made offloading risk possible and because it was a very profitable business. The appeal of these products to investors

meant that the various tiers of a portfolio could be sold for a value that exceeded that of the aggregate of all the individual assets included in it (Duffee, 2007, p.16).

Many structured securities remained within the banking system. The equity tranche was often retained by the issuers so that the servicing of the underlying loans could be overseen, though this was not invariably the case. Some of the most senior tranches, on which returns were low, were not always able to attract outside investors. These then also remained with the banks, where, however, they were advantageously deployed. Banks were able to lower their capital requirements, relative to total assets, while complying with the Basel Accords on bank regulation, by shifting structured products to off-balance sheet special investment vehicles (SIV's) or conduits and, thus, extend their activities (Brunnermeier, 2009, pp.80-81). SIV's were financed by the sponsoring banks and, using their repayments on mortgages and other loans as collateral, by sales of short and medium term commercial paper. Because they lent long and borrowed short, SIV's were exposed to a liquidity risk and were, therefore, also provided with back-stop credit lines by the sponsoring banks. It was thought that the triple A rating of senior CDO products ensured that these credit lines would never be activated.

The profitability of structured finance added to competition among mortgage originators and led to lower mortgage rates, though these were two to three hundred basis points higher for subprime borrowers than to on prime loans. To encourage house purchases, loan-to-value ratios were increased, while interest only loans and 'teaser' rates, that is, mortgage rates that were relatively low for an initial period of two or three years, were common. The required credit standing of potential mortgagors was relaxed to the point where loans were granted to house purchasers devoid of income, assets or employment, the so-called NINJA borrowers. Because exposure to default risk could be minimized through the packaging of mortgages and the dispersal of the resulting products through capital markets, lenders had little motivation to check the credit status of borrowers, though this disincentive effect was mitigated to the extent that the toxic waste was retained. Emphasis on short-term gain was intensified by the system whereby bankers were awarded bonus payments, typically dependent on current profits or share-price performance. The result of these conditions in credit markets was greatly to increase the number of subprime borrowers and to intensify the boom in house prices.

American structured products were marketed throughout the globe. The U.S. was by no means the only supplier of this form of debt. As well as Wall St. and Connecticut, London was also a major centre of structured product origination and distribution (Tett, 2009, pp. 116-117).

#### **4. Crisis**

The house price boom in the U.S. and elsewhere constituted only one part of a global boom in asset prices. The crisis when it came, however, began with problems in the U.S. subprime housing market where mortgage default rates were rising noticeably by the beginning of 2006 (Tett, 2009, p.144). The house price falls that followed later in the year were self-reinforcing. High loan-to-value ratios meant that the crumbling prices eliminated the equity of many householders in their properties. The result was to encourage further delinquencies, which led to additional falls in house prices, from which still more defaults accrued. The upshot was a general downwards spiralling of property values.

As property prices declined, the adverse impact on the returns to investors in securities backed by subprime mortgages, particularly on those of investors that were highly leveraged, became evident. Most structured products were rarely traded, so that valuation was not straightforward, but estimates of their values were available. These showed that the values of mortgage-backed securities were declining (Tett, 2009, p.199-200). From around the middle of 2007, the rating agencies steadily downgraded structured products, including securities they had originally rated triple A (Brunnermeier, 2009, p. 83; Coval, et al., 2009, p.5). The problem with Li's Gaussian copula model became apparent : it did not allow for the variable nature of correlation. The negative revision of credit ratings depressed the values of mortgage-backed securities further.

Credit spreads, the difference between the returns on risky assets and the risk free rate, began to widen in July 2007 (Cecchetti, 2009, p.57). By then it was becoming clear that investors in mortgage-backed assets, including banks, were about to suffer vast losses. Moreover, declining prices for mortgage-linked securities raised doubts about structured products generally (Coval, et al., 2009, p.23). Losses by banks would reduce their capital which, under regulatory arrangements, is required to support bank lending. On August 9th, the French bank BNP Paribas suspended redemptions from

three of its funds because it could no longer provide firm valuations of assets of these funds that were backed by U.S. subprime mortgages.

Financial distress had been in evidence prior to this event. From early in 2007, investors in mortgage-backed assets had begun to report losses. In June, 2007, for example, losses related to subprime mortgage securities, aggravated by high leverage, forced a hedge fund associated with Bear Stearns to be liquidated, while a second was kept afloat only with the aid of an injection of \$3.2 bn. by Bear. But the action of BNP Paribas intensified the financial turmoil. Subsequently, commercial banks no longer felt able to trust either their own or each others' balance sheet figures. The interbank lending market froze, and the London Interbank Offer Rate (LIBOR), the interest rate at which banks lend to each other and that to which many bank loan rates, including some mortgage rates, are linked, increased. The quantity of asset-backed commercial paper outstanding dropped, making it necessary for the banks to honour the credit pledges made to the institutions that issued this paper (Cecchetti, 2009, p.60). The crisis brought about the (temporary) collapse in the market for structured products; this was virtually dead by the middle of 2008 (Coval, et al., 2009, p.5).

High-profile victims of the crisis included Bear Stearns, which was absorbed by J.P. Morgan Chase in March, 2008, Northern Rock which was nationalized by the British Government in September, 2007, HBOS which became part of the Lloyds Banking Group in September, 2008, Lehman Brothers which declared bankruptcy also in September 2008, the American International Group in which the U.S. Government has acquired an 80% equity stake, and the Royal Bank of Scotland, more than 70% of which is now owned by the British Government. Bank of America Merrill Lynch, Citigroup and the Lloyds Banking Group all received bailout funds. The liquidation of Lehman Brothers was followed by an implosion of share prices around the world, and the resulting loss of wealth dwarfed that associated with mortgage linked securities.

## **5. Recession**

Contraction of financial services constituted an immediate adverse effect of the credit crunch on real output and employment, particularly in the two major centres, the U.S. and the U.K. The effect through the curtailment of banking services was more widespread. Lending rates were influenced by the rising LIBOR; constraints on the

amounts of credit available were, however, more important to potential borrowers. Because of their need to deleverage and to limit the risk on their balance sheets, commercial banks were unwilling to lend to individuals or businesses. The cessation of the 'originate- and-distribute' system of banking meant that non-bank investors in asset-backed securities were no longer in effect supplementing the credit granted by banks. Unavailability of credit inhibited investment as did constraints on consumption imposed by rising unemployment, negative wealth effects resulting from declines in asset values and, in the U.S. and parts of Europe, high levels of household indebtedness.

Declines in house prices had direct effects on economic activity. In the U.S. construction was severely affected by the bursting of the domestic house-price bubble. Increases in interest rates by the Bank of England and the European Central Bank in the pre-crunch period, together with excessive building in some areas, contributed to the ending of house price booms in the U.K., Ireland and Spain during 2007/08 and the building industries in these countries contracted as well.

Throughout much of the world, declines in GDP began in 2008. At the same time, in large parts of the world economy, deflationary expectations replaced inflationary expectations. Structured financial products having been dispersed internationally, losses on these securities were global as well. More important for countries heavily reliant on exports to generate domestic income such as Germany, China and Japan was the severe downturn in world trade that followed in the wake of the credit crunch. Around the middle of 2009, the World Bank was expecting global trade to shrink by 9.7% in the course of the year, and the world economy to contract by 2.9%. By the third quarter, however, the world economy appears to be growing again, while the IMF is predicting a smaller decline in global output, 1.1%, during 2009. This improvement in world economic conditions and prospects is closely related to the massive policy shifts of governments that followed the financial crisis.

## **6. Policy response**

Barry Eichengreen and Kevin O'Rourke (2009) calculated that the economic shock to the global economy occasioned by the 2007 credit crunch was as great as that of the financial crisis of 1929-1930 that preceded the Great Depression. What differs this

time, however, is the policy response, the result of a consensus among governments that the world economy should not undergo another depression like that of the 1930's. As market failure on a grand scale, the financial and economic crisis that began in 2007 dented the prevailing wisdom that minimal official intervention promoted economic efficiency. Following the innovative stance adopted by Ben Bernanke, the Chairman of the Federal Reserve, and an expert on the Great Depression, the crisis provoked swift and forceful responses from governments and central banks. Commencing in August 2007, the Federal Reserve reduced its discount and federal funds target rates steadily until the lower bound of approximately zero was reached in December, 2008. U.S. commercial banks, however, displayed their customary unwillingness to avail themselves of the depressed discount rates by borrowing through the Federal Reserve's discount window for fear of being branded financially distressed. Their lending policies, therefore, remained restricted, while credit spreads continued to be stubbornly wide.

Conventional monetary policy procedures having proven ineffective, the Federal Reserve resorted to less orthodox actions. In December, 2007, it introduced the Term Auction Facility (TAF) whereby commercial banks could bid for funds from the Federal Reserve while maintaining anonymity. Three months later, the Term Securities Lending Facility (TSLF) made it possible for primary dealers to borrow Treasury securities from the Federal Reserve using a wide range of assets as collateral. At the end of 2008, the Federal Reserve launched the Term Asset-Backed Loan Facility (TALF) to promote the extension of credit to consumers and small businesses, and announced the Mortgage-Backed Securities (MBS) Purchase initiative in order to help the housing market. In March, 2009, it embarked upon a programme of quantitative easing, thereby expanding the money stock by purchasing Treasury securities.

Similarly, the Bank of England and the European Central Bank reduced their key interest rates to 0.5% and 1%, respectively, and resorted to less orthodox monetary policy actions. In April, 2008, the Bank of England introduced its Special Liquidity Scheme with the aim of improving the liquidity of banks by allowing them to swap high-quality mortgage-backed and other securities for U.K Treasury Bills. The Bank of England, the European Central Bank and the Bank of Japan have all engaged in quantitative easing.

Monetary policy initiatives were accompanied by expansionary fiscal policies in order to stimulate output and employment. At the end of 2008, the Troubled Assets Relief Program (TARP) was introduced in the U.S. Under the Program, the purpose of which was to strengthen the American financial system, the U.S. Treasury could purchase up to \$700 billion worth of 'troubled' assets including mortgage related securities. The U.K. bank bailout scheme of autumn 2008 permitted the U.K. Treasury to provide banks with up to £50 billion in order to strengthen their balance sheets, in return for preference shares.

Other fiscal plans have been announced, President Obama's stimulus package of \$787 billion and China's of \$586 billion being the most notable. Fiscal stimuli and bank bailouts, combined with the impact of the recession on tax revenues, have resulted in some very large budget deficits. The projected deficit for the fiscal year 2009 in the U.S. amounts to 12.5% of GDP, while in the U.K. the budget shortfall for the financial year 2009-2010 is estimated at an equally extraordinary 11.65%. These figures are unprecedented in peacetime. In both countries, large government deficits are forecasted to continue for some years in the future. The countries that make up the Eurozone are required by the EU's Stability and Growth Pact to limit budget deficits to less than 3% of GDP, though this constraint has been somewhat relaxed in response to the economic downturn. Collectively the Eurozone's governments are expected to be in deficit by 4% of GDP over 2009. This number covers a wide variety of figures for the individual countries. In Ireland, for example, the deficit is estimated to reach 11% of GDP.

Extending financial sector supervision is under discussion. Ensuring adequate capitalization of commercial banks is expected to be the main focus of impending regulatory changes (e.g., Braithwaite, 2009). Other suggestions include a U.S. recommendation that lenders be required to retain a percentage of any loans that are securitized and sold off to investors, or 'skin in the game.' Further U.S. proposals include reinstating some version of the Glass-Steagall Act, and adding to the Federal Reserve's remit so that it encompasses overall financial stability objectives. Regulatory submissions may incite controversy. For example, Mervyn King, the Governor of the Bank of England, insists that retail and investment banking should be separated in the U.K (Kavanagh, 2009). The British government remains equally strongly opposed to such a split.

## **7. Keynesianism redux**

Implicitly, many of these countercyclical actions reject the proposition that the capitalist system, accompanied by standard Central Bank actions and relaxed regulatory regimes, is sufficient to maintain industrialised economies at their trend rates of economic growth with full employment and low inflation, so that additional government stabilizing measures are unnecessary. In the wake of the 2007 financial crisis, policy makers abandoned the stance of the preceding decades, and reverted to more active intervention in the economic system in order to avert the perceived danger that, otherwise, the global economy would lapse into another Great Depression. The reinvigoration of discretionary fiscal policy was encouraged by the belief that the significance of the lags associated with fiscal activism faded in the light of the projected length of the economic downturn (Feldstein, 2009), as well as by the problems in credit markets such as the reluctance of commercial banks to lend, and the lower bound on central bank key interest rates. Many unorthodox measures, both fiscal and financial, were specifically formulated in order to deal with the crisis.

The assumption by governments in the advanced democracies of responsibility for demand management, full employment and the functioning of the economic system generally, in the aftermath of WWII, is termed ‘Keynesianism.’ Similarly, the movement away from this programme in the 1970’s and 1980’s and towards greater reliance on monetary policy is referred to as one towards ‘monetarism.’ The recent interventionist stance of governments is supported by Keynesians. More classically minded economists, however, suggest that some policy moves, especially large stimulus plans, are misguided.

The Keynesians’ case for government action was outlined by Paul Krugman in the New York Times (2009) for the case of the U.S, the country with the greatest stimulus plan, in the following terms : With the federal funds rate at zero, the U.S. economy is in a liquidity trap. Domestic investment is too low and, with inflation also low, the real interest rate cannot be reduced further. Private consumption expenditure is constrained by falling employment and high household indebtedness. Restoring full employment, therefore, requires that taxes be reduced and government spending increased. As long as the economy remains in a liquidity trap, public sector borrowing will not crowd out private expenditure.

John Taylor (2009a) has raised a central issue in relation to the part of stimulus spending that reaches consumers directly through tax rebates and government transfers : in accordance with the permanent income hypothesis, in the short run, temporary boosts to consumers' incomes are largely saved rather than spent. Robert Barro (2009) suggests that the multiplier of government purchases is little above zero in peacetime. The Keynesian position is also questioned by Niall Ferguson (2009) who argues that fiscal deficits of the size planned by the U.S. Administration, in combination with the attempt to finance them by new issues of bonds, will raise long-term interest rates and, thus, render the stimulus plan self-defeating. Krugman agrees that financing such large government deficits constitutes a problem.

Government debt to GDP ratios large enough to give rise to questions of solvency raise public sector borrowing rates. Already in 2009, Standard and Poor downgraded the sovereign debt of Spain, Ireland, Greece and Portugal, and lowered its outlook on that of the U.K. from stable to negative. Some commentators, including Taylor (2009b), have raised the possibility that U.S. Treasury Bonds might also, eventually, lose their triple A rating. President Obama's fiscal plans, combined with bond financing imply a doubling of the ratio of U.S. government debt to GDP from 41% at the end of 2008 to 82% by 2019. Taylor estimates that without a change in policy, the ratio could reach 100% in a further 5 years, at which point the AAA rating of U.S. Treasury bonds would be in jeopardy. He further points out that given planned government expenditure, to eliminate the fiscal deficit by 2019 would require a politically unfeasible 60% increase in taxation.

Thus, Taylor and Ferguson both suggest that additional government debt brought about by U.S. fiscal deficits will be monetized, and that inflation will result. If by 2019 all money prices in the U.S., including the price of foreign currency, are doubled, the ratio of the country's government debt to GDP will be 41%, as at the end of 2008. In addition, the burden of U.S. Treasury securities currently held by non-Americans will be halved. Taylor sees the current Federal Reserve program of quantitative easing as indicating that the projected fiscal deficits will be financed by money creation. Alan Greenspan (2009b) has also warned about the danger that inflation may result from the projected U.S. fiscal deficits.

## 8. Keynes and the Keynesians

While contemporary Keynesians support the fiscal and monetary policy changes introduced to combat the recession, the interesting question arises as to whether these measures are true to Keynes's own views of appropriate policy design. Keynes, the greatest economist of the twentieth century, provided the macroeconomic model with which to analyse the effects of fiscal and monetary policy on the economy. In *Can Lloyd George Do It?* ((1929)1972) and *The Means to Prosperity* ((1933)1972), he advocated large-scale loan-financed public works in order to increase employment. However, the views of the more mature Keynes on expansionary fiscal policy were tempered by the need to control inflation. According to T.W. Hutchison (1977,p.11), in 1937, Keynes questioned the wisdom of a further government stimulus to the U.K. economy when unemployment was around 12 per cent, though Richard Kahn (1977, p.49), interpreted Keynes to mean that he would worry about inflation only if the unemployment rate were to fall to between 6 and 7 per cent.

But Keynes loathed deflation as well as inflation. In *A Tract on Monetary Reform* ((1923), 1971 p. 36), he famously remarked that 'inflation is unjust and deflation is inexpedient' Inflation was unjust because it altered the distribution of wealth between the classes (Keynes, 1971,p.3) Already in 1919, Keynes ((1919), 1971, p.148; White and Schuler, 2009) had agreed with the sentiment that he ascribed to Lenin 'that the best way to destroy the capitalist system was to debauch the currency.' Deflation was inexpedient because it induced contractions in economic activity. Both evils were to be resisted, though hyper-inflation apart, Keynes castigated deflation as the greater of the two, 'because it is worse, in an impoverished world, to provoke unemployment than to disappoint the *rentier*.' ((1923), 1971, p.36). In the *Tract* (p.147), he proposed that price stability should be the primary aim of monetary policy, though exchange rate stability might be aimed at as a secondary objective. The issue of price stability remained central in *A Treatise on Money* ((1930), 1971) with Keynes retaining 'a preference for a policy today which whilst avoiding deflation at all costs, aims at the stability of purchasing power as its ideal objective' (volume 2, p.145).

Yet, during the boom in the aftermath of WWI, Keynes advocated strong anti-inflationary policy, although unemployment might result (Skidelsky, 1992, 38- 40) and, later, in 1942 (1977, pp. 184-85), maintained that he would then give the same advice should similar circumstances arise. Faced in practice with price rises that he

deemed unacceptable, apparently it was not deflation that Keynes avoided ‘at all costs,’ but inflation. Indirect evidence that Keynes might not object to low rates of inflation is, perhaps, provided by the wartime remark of James Meade ((1941), 1988, p.180), a close associate of Keynes, and attached to the Economic Section of the (U.K.) War Cabinet Secretariat 1940-1947, to the effect that there was much to be said for ‘a moderate upward trend of prices in the years following the war.’ . . .

The advent of WWII saw Keynes arguing resolutely against inflation as a means of paying for it. Because it would enrich the already rich and impoverish the poorer classes, he rejected fiscal drag as an aid to paying for the war effort (Keynes, 1940, p.29). Instead he advocated constant prices, to be brought about through subsidies if necessary, and an agreement with the unions whereby in return for a fixed cost of living, wages would not be raised. (Keynes, 1940, p.33).

One might deduce from Keynes’s work, therefore, that he would have advocated caution in relation to to-day’s large-scale budget deficits and the quantitative easing by which they are partly financed. However, given his propensity to change his mind ‘[w]hen the facts change’ (quoted by Malabre, 1994, p.220) it is impossible to predict with any degree of assurance what his prescription might have been in 2007/08 when the world economy appeared to be threatened with a repeat of the 1930’s depression and deflation.

## **9. Conclusion**

The movement towards ever freer markets that followed the 1970’s was dealt a severe blow by the financial turbulence of 2007 and its repercussions. The immediate catalyst for the crisis was the reversal in 2006 of the U.S. housing market boom, and the resulting collapse in the value of mortgage-backed securities widely held by financial institutions not only in the U.S., but worldwide. Governments and central banks of the larger economies were faced with the choice of allowing the global economy to slide into a depression resembling that of the 1930’s or engaging in unorthodox fiscal and monetary policies. In the event, and in varying degrees, in the advanced and part of the developing world the latter route was chosen. Standard action having proven inadequate, novel and risky policy initiatives were introduced.

Despite the recent stabilization of the world economy, problems remain. Of total financial-sector losses estimated by the IMF at \$2.8 trillion in the U.S., Europe and

Asia between 2007 and 2010, much remains to be written off. Moreover, the formulation and implementation of ‘exit strategies,’ withdrawing fiscal stimuli and reversing the non-standard financial and monetary policies of the past couple of years, remain a challenge for governments and central banks. Putting such strategies in place too soon risks plunging the world economy back into recession. Too much delay, on the other hand, will mean adding to the mounting government debt, exacerbating the hazard of inflation, and rendering future exit strategies still more problematic.

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