Instability in the US: It Is Not Debt but the Lack of It

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Financial crises and their lessons are quickly forgotten; this time is no exception. The true problems of the us economy, to which the rating agencies have turned a blind eye, persist to this day. Now Standard & Poor's states that a very large government debt poses a systemic risk and calls for more stringent fiscal austerity. S&P has got the numbers and the rationale wrong. The systemic risk resides on a public debt that is too small for what is required to climb out of the Great Recession.

The United States (us) economy is in the doldrums and the compass offered by Standard & Poor's (s&P) points in the wrong direction. The sovereign long-term debt of the us was downgraded by a notch on Friday, 5 August, a few days after a congressional deal was struck to raise the debt ceiling by \$2.4 trillion, provided austerity measures of a similar amount were taken between 2013 and 2021.

In this article, the s&P pronouncement (s&P 2011a) will be inspected on three levels: premise, underlying analysis and expected result. This will be followed by an examination of public sector debt in the context of a financial crisis, drawing mostly from H Minsky and W Godley, further illustrated empirically with the help of the flow-of-funds accounts of the us. This analysis points to the conclusion that public sector debt in the us is potentially destabilising, not because it is too large but rather too small for the task at hand.

Triple Fallacy

First, the s&P downgrade was premised on an alleged lack of reliability of the austerity programme and thus the potential inability of the government to stabilise debt dynamics. The view that government debt dynamics depends on an ex ante austerity programme is incongruous with the lessons (re-)learned during the current global financial crisis, lessons, which as in other financial crises in history are forgotten soon afterwards, as Galbraith (1994) vividly highlighted. It should thus be restated that the stability of public debt dynamics hinges on gross domestic product (GDP) growth, business and consumer confidence, and systemic stability. Indeed, the escalation in us government debt observed in the last couple of years is almost entirely due to the collapse of the financial system, the massive confidence shock and a fall of GDP growth on a scale not seen in the post-war decades. Curiously, in an earlier statement the same rating agency made a more informed assessment when it citied as a most important destabilising factor the risk of a recession combined with a potential (private) financial sector impairment which could cause an estimated up-front fiscal cost of 34% of GDP (S&P 2011b).

Second, the rationale in the s&P assessment refers to a rising public sector debt burden (presumably becoming unbearable beyond an identifiable point), given modest reductions in discretionary spending, no changes in tax policy and a trend growth of GDP of 2.5% in a downside scenario. Taken together, this is hard to square with the facts. In a preliminary statement released to us Treasury officials, no less than \$2 trillion were missed in the calculations which had led s&P to claim that a \$4 trillion and not \$2.4 trillion debt reduction programme was required (Bellows 2011). Logically, after this error was corrected, only a \$2 trillion debt reduction programme would turn out to be required, less than what the "debt ceiling deal" of \$2.4 trillion was offering.

In addition, there is no convincing evidence of debt rising to an unbearable level. In the narrow sense in which all of the public debt is accounted on a gross basis, the total debt at present amounts to about 95% of GDP. But after netting out the "debt owned to itself" (mostly the Federal Reserve), the us public sector owes to the private and external sectors about 60% of GDP (see for example, UN/DESA 2011a). If "financial" assets (like gold reserves, foreign currency, state bonds, etc) are discounted from the calculations, one can obtain a more meaningful estimate of net debt. Weeks (2011) shows, based on Organisation for Economic Cooperation and Development (OECD) figures, that such net public debt is about 40% of GDP (data to end of year 2010). Furthermore, many observers highlight that debt payments, rather than debt stocks, more accurately represent the burden of debt, since this is what has effectively to be paid each year out of the public sector budget.

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On this count, Weeks (2011) notes, again using OECD tables, that debt payments of the US government, which were 1.6% of GDP in 2010, represent the smallest proportion of GDP among the largest developed countries, except Japan which paid 1.4% of GDP. Pollin (2011) shows that federal debt payments, which represent about 7% of total outlays in 2011Q1, are near historic lows by virtue of the very low and declining yields on Treasury bonds.

Not only the basic accounting but also the macroeconomic analysis of s&P is wide off the mark. Even the postulated 2.5% trend growth of gpp in the downside scenario seems unreasonable after assuming, as s&P does, a continuing deleveraging of the private sector and the fiscal austerity anticipated in the plan of reducing \$2.4 trillion of government spending from 2013 to 2021. According to the National Income and Production Accounts (NIPA) of the us, after nearly recovering strength throughout 2010 on the back of the fiscal and monetary stimuli of the previous year, private consumption had been weakening significantly over the last two quarters, and had actually contracted in June. A similar statement could be made about the quarterly pattern of private investment. A continuing deleveraging of the private sector implies efforts towards more saving, not more spending. This will be particularly the case for the sizeable proportion of the household sector that faces total or partial unemployment, or foreclosure. The contribution of government spending to real gdp growth has turned negative since the end of 2009, as the stimuli are fading away, and such a contribution is probably going to turn more negative once the planned cuts in discretionary spending from end 2012 onwards kick in. Likewise, the contribution of net exports to real GDP growth has been negative since the first quarter of 2010, at an average rate of -0.3%. Thus, all components of GDP growth are showing a tendency towards either contraction or stagnation, resulting from factors that are assumed to persist, like more fiscal austerity and private sector deleveraging.

Third, the s&P statement contains misleading messages for policymakers as well as investors. For policymakers, the expectation is that the downgrade will lead to more stringent fiscal consolidation. Failing a clear signal in that direction, s&P promises a further downgrade in the near future. The message to investors is obvious, a downgrade, meaning a greater risk of default, invites a flight away from us Treasury securities and should trigger a pressure upwards on its interest rate. This is a dangerous gamble, and the inability of the s&P to draw the full implications of its decision highlights the fallacies contained in the premise and rationale of the s&P position discussed above. If the us administration embarks on a stronger fiscal austerity route, it is likely to impart a harder shock on effective demand. With no other credible drivers of growth in the horizon, the plausible scenario will be a severe and protracted recession, with more unemployment, a continuing decline in asset prices, less government revenues and a greater inability to reduce the fiscal deficit. Else, the threat of default and higher interest rates will significantly increase the costs of servicing the debt, resulting in even larger deficits or compensating cuts on discretionary spending with, again, more contractionary effects. Furthermore, a flight away from us Treasury bills is likely to cause chaos in global exchanges and stock markets. With rampant uncertainty and instability in world financial markets - which usually transmit into asset price falls - balance sheets will continue to weaken and the pressure towards deleveraging in the us and major economies will be greater.

Farcical Assumption

What is more, the verdict of s&P will be proven false as long as investors keep in mind that the assumption of a potential default of the us debt is farcical. The us is obliged by its own constitution to pay its debts fully, and it will certainly be able to do it insofar as it enjoys the privilege of issuing debt in its own currency. Indeed, so far the s&P verdict has already been disproved by the facts. In the days following the downgrade, the yield on long-term treasuries actually declined as the downgrade added uncertainty to an already cloudy global economic environment and investors worldwide rushed towards "safe havens", among which the downgraded Treasury bills remain on top of the list.

In sum, the inherent fallacies in the decision by s&P to downgrade us long-term public debt adds to a sense of disbelief in the rating agency, a disbelief that has grown dramatically during the global crisis. Indeed, to many observers in policy and academic environments, s&P and the other major rating agencies, Moody's and Fitch, were noteworthy contributors in creating the financial dislocations that led to the recent global crisis. There are two major reasons why these agencies understated the risks that were being built into the financial system under their guidance: first, they are informed by economic theories that underplay the existence and nature of systemic risks, and second, their advice is driven by market incentives vitiated by a conflict of interests, as they could extract financial benefits from favourable risks appraisals of their clients (Epstein and Pollin 2011). Thus, it is to be hoped that the misstep of s&P in downgrading us long-term debt based on faulty premises and analyses encourages us lawmakers to implement the so-called Franken provision of the Dodd-Frank bill approved in 2010, leading to the creation of an oversight board, or a suitable alternative to the current arrangement, like a "public credit rating agency" as Epstein and Pollin suggest.

'Ultimate' Role of Public Debt

As the action of s&P is questioned by this and a number of other studies, there emerges a need to provide a more effectual assessment of the public debt of the us. To such task this and the next section are devoted. In the first place, a theoretical approach suited for the analysis of debt in situations of financial instability is offered. The obvious entry point is Hyman Minsky's description of the "liquidation phase" that followed the Great Depression and other major financial crises (Minsky 1985, for a biographical sketch; and Minsky 1986, 1964, for a rigorous treatment of the concepts proposed below).

Major domestic private sectors in the US could be said to be in a "liquidation phase", which is characteristic of a "long wave of financial instability" that follows from a severe crisis: they must cut debt obligations as their net worth continues to weaken because asset prices keep falling or do not

rise fast enough from their trough. With incomes falling or stagnant, paying back debt by cutting costs and spending turns into a lengthy and tortuous process as these measures cause more unemployment and make a depression deeper and long-lasting, eroding confidence even further. Alternatively, asset restoration, i e, the accumulation of assets that are not dependent on price swings and are not vulnerable to defaults, should be the preferred means by which private agents can regain balance sheet strength. This enhances the ability

of the private sector to add to the spending stream, sustaining income generation and employment, while avoiding successive waves of asset bubbles and implosions. In this path to recover from a financial crisis, the ideal instrument is government support in the form of public debt, ie, government liabilities that are transferred to the balance sheets of private sector agents as their assets. These are identified by Minsky (1964) as "ultimate liquidity", since they are robust to asset price swings and default risks.

Table 1: Debt Figures of Main Domestic Sectors in the US

| | (1) | (2) | (3) | (4) |
|---|------------------------|------------------|-------------------------------|-----------------------|
| | Household | Firms | State and Local Government | Federal Government |
| 1 (a) Per cent growth of debt | etock (sa. ar | nualises | | dovernment |
| Average 2005-07 | 9.0 | 10.4 | 9.1 | 5.2 |
| 200801 | 3.5 | 8.6 | 5.1 | 9.5 |
| 2008Q2 | -0.1 | 7.0 | 1.6 | 7.4 |
| 2008Q3 | -0.4 | 4.9 | 3.7 | 37.0 |
| 200804 | -2.1 | 1.0 | -1.1 | 36.1 |
| 2009Q1 | -0.7 | -0.3 | 5.6 | 24.4 |
| 2009Q2 | -1.8 | -2.3 | 4.2 | 28.9 |
| 2009Q3 | -2.3 | -4.3 | 5.7 | 19.0 |
| 2009Q4 | -1.9 | -3.9 | 3.6 | 11.9 |
| 2010Q1 | -3.0 | -0.4 | 5.7 | 20.5 |
| 2010Q2 | -2.2 | -1.3 | -1.4 | 24.4 |
| 2010Q3 | -2.0 | 1.1 | 5.4 | 16.0 |
| 2010Q4 | -0.6 | 1.9 | 7.9 | 14.6 |
| 2011Q1 | -2.0 | 4.0 | -2.9 | 7.8 |
| 1 b: borrowing flow by sector (sa, annualised, US\$ billions) | | | | |
| 2005Q1 | 1,027 | 593 | 201 | 394 |
| 2005Q2 | 1,248 | 644 | 129 | 241 |
| 2005Q3 | 1,212 | 615 | 215 | 244 |
| 2005Q4 | 1,211 | 833 | 142 | 348 |
| 2006Q1 | 1,392 | 913 | 107 | 319 |
| 2006Q2 | 1,355 | 899 | 135 | 195 |
| 2006Q3 | 1,071 | 632 | 160 | 99 |
| 2006Q4 | 900 | 1,139 | 212 | 121 |
| 2007Q1 | 948 | 1,013 | 237 | 291 |
| 2007Q2 | 939 | 1,302 | 213 | 109 |
| 2007Q3 | 842 | 1,349 | 163 | 320 |
| 2007Q4 | 721 | 1,226 | 152 | 229 |
| Average (2005-07) | 1,072.1 | 929.8 | 172.2 | 242.5 |
| 2008Q1 | 485 | 910 | 111 | 485 |
| 2008Q2 | -9 | 759 | 37 | 390 |
| 2008Q3 | -51 | 535 | 82 | 1,978 |
| 2008Q4 | -293 | 109 | -24 | 2,104 |
| 2009Q1 | -103 | -32 | 125 | 1,550 |
| 2009Q2 | -252 | -259 | 95 | 1,951 |
| 2009Q3 | -310 | -478 | 132 | 1,371 |
| 2009Q4 | -266 | -423 | 84 | 903 |
| 2010Q1 | -409 | -47 | 134 | 1,602 |
| 2010Q2 | -295 | -139 | -34 | 2,003 |
| 2010Q3 | -271 | 123 | 129 | 1,396 |
| Average (2008q4-2010q3) | -417.9 | 205 | 1,690.2 | 1 222 |
| 2010Q4 | -76 | 205 | 191 | 1,320 |
| 2011Q1 | -271 | 435 | -72 | 736 |
| 'Debt deflation 2011q1':cont (\$bn annualised) | raction of bo 1,343 | rrowing i 495 | relative to aver 244 | age 2005-07 -493 |

Arguing for asset restoration of private balance sheets by issuing public sector debt in the recovery from a recession is, in practice, broadly equivalent to calls for fiscal stimuli, as put forward by many authors (Pollin 2010; Stiglitz 2011; UN/DESA 2010, 2009). The role of the fiscal expansion is to sustain aggregate demand while the private sector lags behind in recovery and until it is capable of generating income and spending at the pace required. Indeed, to the extent that government debt results from fiscal deficits, and especially when deficits are fully channelled into spending, their role is twofold. By means of the employment that the government creates directly, or by the purchases and service contracts issued against private entrepreneurs, the government raises private income by at least the full value of the spending. Simultaneously, the bonds issued by the government to finance the expansion become counterpart assets for the private sector (Godley 1999; Godley and Izurieta 2002; Wray 2011). Failing continuing support from the public sector, the us would be repeating the same mistakes of Japan during its "balance sheet recession" (Koo 2003, 2011) thus creating the conditions for a lasting stagnation as that of Japan in the last two decades, a situation that closely resembles the "long wave of liquidation" and financial instability earlier described by Minsky.

Minskyan Lesson

The most appropriate Minskyan lesson for the current state of the us economy is that the risk of financial instability cannot primarily be excessive debt, since that has already triggered a recession and the unravelling has taken the form of a massive deleveraging which continues to this day. Rather, the instability may well result from the fact that asset restoration does not happen at a fast enough pace to shortcircuit the loss of wealth and further deleveraging that prevents the main domestic sectors from resuming new borrowing, investment and spending. Since the creation of public debt is creation of "ultimate assets" for the private sector, then the critical empirical question is whether the current pace of public debt accumulation is sufficiently strong to avert or diminish the risk of systemic instability contained in the deleveraging tendencies of the private sector. The approach is diametrically opposite to that proposed by s&P (whether the "liability" of the public sector is too big and the risk of default can lead to instability).

The US Government Debt Problem

In what follows, lacking a fully-deployed debt deflation model mapped into a sufficiently disaggregated institutional matrix of debt stocks and flows, the empirical assessment of the public debt of the us will be based on inferences from flow-of-funds statistics. Table 1 shows the growth of debt (1 a) and the flow of net borrowing (1 b) by the main sectors of the us economy over the period 200501 to 201101, taken from Tables D 1 and D 2 of the latest issue of Flow of Funds Accounts of the Federal Reserve (June 2011). Table 1 is divided into two periods, 2005-07 and 2008Q1 onwards. To recall, the years 2005-07 corresponded with the end of a period in which the us economy was growing at the trend level. Arguably, growth depended on the household sector's over-indebtedness in a housing bubble; a process that was deemed

unsustainable (Baker 2010; Cripps, Izurieta and Singh 2011; Godley, Papadimitriou and Zezza 2007; Taylor 2010). But for as long as it lasted, and in the absence of an alternative structure of aggregate demand, economic growth at the trend level was sustained by the pace of household borrowing shown in column (1) of Table 1. During the period 2005-07 (captured with average calculations of growth rates and the full series of borrowing flows) the household sector accumulated debt at an average pace of 9% per year, roughly in line with an annual average increase of net borrowing of \$1,072 billion (about 8% of gdp).¹

The financial behaviour of the household sector was extraordinary considering that up to the early 1990s the sector was borrowing at a moderate pace since it was a net saver, providing additional sources of finance for the business sector. But debt accumulation patterns of the business and government sectors during the same years, captured in columns (2) to (4), were relatively in line with those of earlier decades. Indeed, these years followed the investment crash of 2000-01 which caused the recession that subsequently mitigated business borrowing patterns, and the fiscal stimuli of the early 2000s enacted by the Bush administration that later led to a moderation of public sector deficits as economic growth recovered. Yet, in these cases, the norm was an accumulation of business sector debt at a pace of 10% per year, broadly corresponding with net borrowing flows of about \$900 billion a year; while total government debt would be growing by a net flow of about \$400 billion a year.2

In brief, during the period prior to the recession, trend GDP growth was fuelled by about \$2.1 trillion a year of private sector borrowing.³ Counterpart balance sheet assets (not shown here) included real estate and fixed capital, shares and other financial instruments and derivatives – all of which were subject to considerable price fluctuations – and public debt. Judging from the size of the flows in Table 1, the accumulation of public debt liabilities on the asset side of private sector balance sheets ought to have been comparatively small during the immediate pre-recession years.

But with the recession, which was inevitably triggered by a collapse of the asset

side of the balance sheets of the private sector, the urge to regain solvency was overwhelming. Thus, the previous pace of borrowing collapsed, more precipitously for the household sector than for the business sector, as shown by the large negative net flows in the first two columns of the table for the quarters 2008Q4 onwards. In the process, the massive creation of government debt, more dramatically of the federal government than state and local governments which face additional constraints for credit creation, ought to have played a critical countervailing weight on the asset side of private balance sheets, thus averting a free fall of debt deflation. Worthy of note are the magnitudes of government debt creation from mid-2008 to mid-2010, averaging about \$1.7 trillion per year, or \$1.3 trillion above the norm experienced in the previous period. And yet, during the same period, there was a contraction of total private sector debt of about \$400 per annum, or \$2.5 trillion below the norm of the earlier period.⁴ A change of such magnitude was not ever registered since the Flow of Funds accounts started in 1952. From this aggregate picture a first conclusion emerges: the degree of public debt creation during the crisis seemed inadequate to cope with the extraordinary shock experienced by the combined private sector, to the extent that a significant deleveraging has continued despite the relatively large creation of ultimate assets in the form of public debt. Admittedly, had the intervention of the public sector been smaller, or the size of the public sector itself smaller and thus incapable of such a large intervention, a far deeper and more lasting private sector deleveraging would have occurred and instead of a recession we would have witnessed a depression of unprecedented proportions.

A further observation pertains to the most recent period, as it seems that the pace of private sector deleveraging is softening and so is the pace of public sector debt creation. Indeed, total public sector debt creation in 2011Q1 amounted to an annual rate of \$650 billion, about one-third of the average of the last two years and only \$250 billion above the average of what was typically the case before the recession (calculated in the last row of

Table 1: a debt deflation of \$244 billion by state and local governments and a debt expansion of \$493 billion by the federal government). Besides, the trend of debt creation over the last few quarters is one of an unambiguous decline. To the critical reader, this begs the question of why s&P raises its voice of alarm of a rising debt burden now that public debt is decelerating. More relevant, however, is to extract a second conclusion from the most recent data: despite the additional injection of \$250 billion of public sector debt into the system, net borrowing of the private sector as a whole remains \$1.8 trillion per annum below the pre-crisis pattern,5 that is, the pattern which was then allowing a trend growth of gdp. In terms of debt growth, a growth of federal debt of 7.8% (annualised), which is dampened by a contraction of debt of state and local governments of 3%, ought to be compared with the norm observed in the pre-crisis period, that is, growth of 5 and 9% on average, respectively. On this comparison alone, current patterns of public debt growth seem hardly exorbitant. What is more, the household sector continues to deleverage at a pace of 2% per annum, compared with debt growth of 9% in the pre-crisis period, while the business sector is acquiring debt but at two-fifths of the pace in the pre-crisis period. In sum, public debt creation is, to the present day, insufficient to facilitate the restoration of balance sheet strength of the private sector and, in view of its continuing pace of deleveraging, the deceleration of public sector debt seems premature.

Straightforward Message

Putting these two conclusions together, the message is straightforward: the problem with public debt creation in the us since the recession took hold is that it is inadequate rather than excessive for the task at hand. This proposition is extracted from inference drawn from aggregate borrowing patterns of the last few years,

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by comparing a period of economic growth at the trend level and relatively high employment with the subsequent period of recession and looming high unemployment. Turning this statement into something more familiar, and referring to the double role of a fiscal deficit as providing a stimulus to aggregate demand and as creator of assets for the private sector as mentioned above, it could be said that the size of the fiscal stimuli was not sufficient to compensate for the extraordinary retrenchment of private sector spending that was earlier fuelled by borrowing.

But there should be no implication from these conclusions that the full pace of private sector borrowing prior to the crisis ought to be restored; on the contrary, farreaching adjustments were called for at the time (Godley 1999; Godley and Izurieta 2002; Papadimitriou et al 2004; Izurieta 2005). Likewise, in the aftermath of the global recession, calls were also made to avoid reigniting world economic imbalances which were the manifestation of the excessive private sector borrowing in the us (un/desa 2009 update; 2011b; Cripps et al 2011). The statement made on basis of the flow-of-funds evidence presented here is not about how to re-engineer the forces of economic growth in the us and the need to restore wage growth and household income. Such strategies could and should be pursued, and their necessary ingredients are more and higher-quality public sector involvement in economic, financial, social and regulatory matters, as well as a greater degree of international policy coordination to help manage macrofinancial matters and avert global imbalances. But these considerations are beyond the purpose of this article which is meant to highlight that asset restoration in the form of public debt creation since the onset of the crisis was only a fraction of what is needed, proceeding at a pace that poses the risks of extending for a long period the wave of liquidation and of causing a debt deflation spiral. Therein lays the true source of financial instability in the us of today.

NOTES

1 The growth of debt outstanding is not on a oneto-one relation with the flow of net borrowing; gross and net figures are not directly comparable and holding gains and changes in volume also compound the calculation.

- 2 Though the table shows distinctively the two branches of the General Government, no attempt is made to calculate the net flows by assuming away a proportion of transfers internal to the public sector. This section intends to question whether public sector debt is sufficiently large and therefore it is methodologically more prudent not to reduce the value of public sector debt by assumption.
- 3 The table does not net out flows between the main private sectors, but this is of secondary importance for the argument made here.
- It surely did not escape the reader's attention that in this analysis the trillions of dollars of injections by the Federal Reserve into the financial system and Government Sponsored Enterprises are ignored. But since most of such programmes (TARP QE1, QE2) channelled funds between the Fed and the financial sector, with admittedly negligible spillovers into the main sectors of the real economy, that part of the analysis can be justifiably assumed away,
- 5 It is worth noticing that the business sector has started to regain a mild pace of positive net borrowing, but at a pace which is short of the period of moderate balance sheet growth (2005-07) by about half a trillion dollars a year.

REFERENCES

- Baker, D (2010): False Profits, Recovering from the Bubble Economy (Sausalito, CA: PoliPoint Press).
- Bellows, J (2011): "Just the Facts: S&P's \$2 Trillion Mistake", US Department of the Treasury Notes, 6 August.
- Cripps, F A Izurieta and A Singh (2011): "Global Imbalances, Under-consumption and Over-borrowing: The State of the World Economy and Future Policies", *Development and Change*, 42(1), February, pp 228-61.
- Epstein, G and R Pollin (2011): "Regulating Wall Street: Exploring the Political Economy of the Possible", PERI Working Paper Series, No 256, March.
- Galbraith, J K (1994): The Short History of Financial Speculation (New York: Penguin).
- Godley, W (1999): "Seven Unsustainable Processes, Medium-term Prospects and Policies for the United States and the World", Levy Economics Institute Strategic Analysis Series, September.
- Godley, W and A Izurieta (2002): "The Case for a Severe Recession", *Challenge Magazine*, Vol 45, No 2, March-April, pp 27-51.
- Godley, W, D Papadimitriou and G Zezza (2007): "The US Economy: What Is Next?", Levy Economics Institute Strategic Analysis Series, April.

- Izurieta, A (2005): "Hazardous Inertia of Imbalances in the US and World Economy", *Economic & Politi*cal Weekly, 20 August, pp 3739-50.
- Koo, R (2003): Balance Sheet Recession: Japan's Struggle with Uncharted Economics and Its Global Implication (New York: John Willey & Sons).
- (2011): "The Age of Balance Sheet Recessions: What Post-2008 US, Europe and China Can Learn from Japan 1990-2005", paper presented at the "Institute for New Economic Thinking", Conference, Bretton Woods, New Hampshire, 18-21 April.
- Minsky, H (1964): "Longer Waves in Financial Relations: Financial Factors in the More Severe Depressions", The American Economic Review, Vol 54, No 3, May, pp 324-35.
- (1985): "Beginnings", BNL Quarterly Review, Vol 38, No 154, September, pp 211-21.
- (1986): Stabilising an Unstable Economy (New Haven: Yale University Press) (re-printed by McGraw Hill 2008).
- Papadimitriou, D, A Shaikh, C dos Santos and G Zezza (2004): "Is Deficit-Financed Growth Limited?", Levy Economics Institute Strategic Analysis Series, April.
- Pollin, R (2010): "Austerity Is Not a Solution", Challenge Magazine, Vol 53, No 6, November/ December, pp 63-97.
- (2011): "US Government Deficits and Debt Amid the Great Recession: What the Evidence Shows", PERI Working Paper Series, No 263, August.
- S&P (2011a): "United States of america Long-Term Rating Lowered to 'AA+' on Political Risks and Rising Debt Burden; Outlook Negative", Global Credit Portal – Ratings Direct, 5 August.
- (2011b): "United States of America 'AAA/A-1+'
 Rating Affirmed; Outlook Revised to Negative",
 Global Credit Portal Ratings Direct, 18 April.
- Stiglitz, J (2011): "How to Make the Best of the Long Malaise", Financial Times, 9 August.
- Taylor, L (2010): Maynard's Revenge: Keynesianism and the Collapse of Free Market Macroeconomics (Cambridge, MA: Harvard University Press).
- UN/DESA (2011a): "Monthly Briefing World Economic Situation and Prospects", No 33, 14 July (New York: United Nations Department of Economic and Social Affairs).
- (2011b, 2010, 2009 update): "World Economic Situation and Prospects" (New York: United Nations Department of Economic and Social Affairs).
- Weeks, J (2011): "The Size of the US Public Debt", Social Europe Journal, 12 August.
- Wray, R (2011): "Money in Finance", Levy Economics Institute Working Paper Series, No 656, March.

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