

Fiscal Responsibility: What Exactly Does It Mean?

Draft of remarks prepared by Jan Kregel for the Will Lyons Inaugural Lecture, Franklin and Marshall College, 23rd February, 2010.

Some Personal Reminiscences

I will start by reminiscing about my experience as a graduate student in the 1960s. I entered Rutgers University in January of 1966. This was the period of the Cambridge Capital and Growth controversies that pitted Cambridge, Mass (MIT) against Cambridge England. Virtually every week a new article was circulating pointing out logical errors in the other side's reasoning. What Shackle called "the Years of High Theory". As graduate students we watched the battle with the same interest as a close-run pennant race.

So you can imagine the excitement when it was announced that Paul Samuelson, the captain of the MIT side, was to come to Rutgers to present a Graduate Seminar! We were sure we would witness another salvo in the battle of the giants. And you can also imagine the disappointment when Samuelson announced that his talk was going to address the major economic problem on the minds of the average citizen: government deficit spending! This was the spring of 1966. The deficit for the year would come out to a massive $\frac{1}{2}$ of 1 per cent and government debt in the hands of the public was below 35 per cent of GDP!

Recall that this was the period after John Kennedy's highly successful election campaign which was based on the 'Dual gaps': the missile gap with the Soviet Union and the "GDP gap". While the former turned out to be fictitious (the CIA was no better at counting missile than weapons of mass destruction) the latter was dealt with after Kennedy's death (and after the gap had also been more less closed) by the tax cuts engineered by Walter Heller as head of the Council of Economic Advisers in the Revenue Act of 1964. Of course, we now know that by 1966 the official figures hid a substantial amount of off budget expenditures for the conflict in SE Asia.

Thus Chapter one of the Report of the Council of Economic Advisers was entitled "Approaching Full Employment" while Chapter two dealt with "The outlook for cost-price stability". The unemployment rate in 1965 had nearly reached 4 per cent and inflation was below 2 per cent. Wage and price guideposts that had been notionally in place since the stagflation of the late 1950s were reinstated: a simple incomes policy in which hourly wages were to keep step with average productivity and prices to mirror labour costs at constant markups. Viet Nam is referred to in the Report, but only to argue that the economy's exceptional performance was not a result of war expenditures, estimated interesting enough at a half a per cent of GDP – the same figure as the deficit! Of course, it was this exceptional growth and employment performance that kept the deficit at extremely low levels, and that allowed the ratio of outstanding debt to decline.

I bring up this episode, not because it represents an example of successful fiscal policy – as you will recall it very quickly came to ruin as the war expenditures distorted expenditure figures and brought demand well above with rising inflation and external imbalances that broadly discredited Keynesian fine-tuning policies, but rather because it indicates the confusion in popular opinion concerning the operation of government fiscal policy. Despite the clear success of the policy (and notwithstanding Ken Galbraith's insistence that direct government expenditures would have been preferable to tax increases) Samuelson argued that public opinion was still concerned at the size of the deficit and debt.

Today we are again witnessing public opinion that is less and less supportive of the current government's stimulus policies despite the fact that they have provided a floor under what could have been a collapse in income and employment similar to that of the 1930s. Not only have critics argued that the policy has not worked since unemployment has continued to rise after its introduction, the administration seems to have accepted the idea that current levels of the deficit and debt as a share of GDP are excessive. Recall that the current deficit for 2009/1020 is around 10 per cent and the ratio of debt to GDP is in the range of 60 per cent – figures in the mid-range of post-war US experience, but at the low end of the range for a war economy.

This raises the question that I want to discuss tonight: what constitutes "fiscal responsibility" on the part of the government and on the part of economists? And to whom should the government be responsible in the design of its tax and expenditure policy? These are crucial issues because getting the answer wrong has enormous consequences – In 1966 the failure to reign in policy laid the ground work for the inflation that brought the stagflation of the oil crisis, and today a failure to recognize the need for additional stimulus may mean periods of prolonged unemployment for the 8 million or so Americans who have been the major casualty of the current crisis.

Some Erudite Historical Background

Answering this question in the twenty-first century is more difficult than it might have been in the 17th or 18th century. Basically this is because modern economics treats the economic role of government as an afterthought, or an appendage to the analysis of the characteristics of the behaviour of the private sector in a free market economy. Consider the standard macroeconomic textbook. It opens with a model of two aggregate agents: households and firms who undertake decisions on how to maximize intertemporal consumption streams given expected incomes and decisions on how to maximize intertemporal profits by investing in capacity to produce those consumption streams. All of this takes place without any formal role for government or any explicit role for external trade or foreign capital flows. At best households recognize that their disposable income will depend on taxation, and return on

investments may depend on foreign competition, but there is no introduction of the decision making process of either the government or the foreign sector.

But, this gets the historical and logical order of things exactly backwards. It is difficult to find a country that existed without a sovereign ruler and some form of government long before the existence of a private property based market economy. Indeed many of these pre-Hellenic societies were matriarchies! In addition most economies were built on their exploitation of foreign trade long before they built up any sort of private market for consumer goods or engaged in investment in manufacturing. The Netherlands, Portugal, Spain and even England built their economic power on the exploitation of foreign lands through foreign trading companies. In general, the sovereign exercised close control over any domestic market activity. In fact, the first exchange markets were held in public places on stipulated dates at the pleasure of the Sovereign precisely because of the fear that commercial activities would allow the accumulation of private wealth to challenge the power of the landed aristocracy that supported the Sovereign.

The transition from the periodic public markets to bilateral exchange in private markets (the botteghe oscure) is detailed in Braudel's monumental *Civilization and Capitalism*. But it took a sustained propaganda effort to elevate the commercial trader and the private market to respectability of the landed aristocracy, not to mention manufacturing. The classic literary reference here is Tommaso de Lampedusa's *Il Gattopardo* – given cinematic reality by Burt Lancaster.

For economists the locus classicus of this public relations effort Bernard de Mandeville's famous *Fable of the Bees* lauding the public benefits of private vices. It is interesting to note that here it is the unintended benefits that profligate spenders following their private market vices in comparison to the nefaste consequences of parsimonious savers.

"The Root of evil, Avarice,
That damn'd ill-natur'd baneful Vice,
Was Slave to Prodigality,
That Noble Sin; whilst Luxury
Employ'd a Million of the Poor,
And odious Pride a Million more."
Envy itself, and Vanity
Were Ministers of Industry"

But, there was a clear role of government in this process of justifying the benefits of the market:
"So Vice is beneficial found,
When it's by Justice lopt and bound;
Nay, where the People would be great,

As necessary to the State,
As Hunger is to make 'em eat.
Bare Vertue can't make Nations live [430]
In Splendour; they, that would revive
A Golden Age, must be as free,
For Acorns, as for Honesty.

It is thus clear that Mandeville's ideas went well beyond the simplistic formula: private vices = public virtues. Instead selfish market behaviour might lead to collective good but only if those in government could channel the different passions at the root of human action in the direction of public benefit. It is thus that "Private Vices by the dextrous Management of a skilful Politician may be turned into Publick Benefits."

Mandeville adopted this position in order to criticize those who preached the benefits of traditional values of parsimony and circumspection, idealized as a society in which individuals could live a virtuous life in harmony as they pursued truth and beauty. In contrast he supported a larger scale commercial society based on the division of labour and technical progress that would allow per capita incomes to grow more rapidly.

The members of traditional society, Mandeville asserted, "shall have no Arts or Sciences, or be quiet longer than their Neighbours will let them; they must be poor, ignorant, and almost wholly destitute of what we call the Comforts of Life, and all the Cardinal Virtues together won't so much as procure a tolerable Coat or a Porridge-Pot among them: For in this State of slothful Ease and stupid Innocence, as you need not fear great Vices, so you must not expect any considerable Virtues. Man never exerts himself but when he is rous'd by his Desires."

It is the large mercantile society, in which the behaviour of men is driven by individualistic motivations, that favours the progress of wealth and with it the very enrichment of human personality. Together with laws, education and the very fact of being accustomed to community life were important, since through them the different passions may be directed towards the collective good. In a sense, the interplay of well-balanced passions constituted a sort of 'invisible hand' that guaranteed the progress of society, even if this was not the immediate objective of individual actions. This invisible hand was not, however, a necessary result of individual actions: it was itself a conscious construction, through which the abilities of those responsible for governing society manifested themselves.

The opposition between these rival interpretations of society was raised in Albert Hirschman's book, *The Passions and the Interests*. In a subsequent article he noted "the favorable side effects that the emerging economic system was imaginatively but confidently expected to have, with respect to both the character of citizens and the characteristics of statecraft. ...particularly the ... expectation ... that the expansion of the market would restrain

the arbitrary actions and excessive power plays of the sovereign, both in domestic and in international politics.

Since this approach is based on the presumption that the private market provides better solutions because it reflects individuals' interests, the role of government is limited to those actions which structure private vices in such a way that they produce "public benefits". This is the approach of Mandeville as well as Adam Smith and the Classical schools of economists, as Lionel Robbins and Warren Samuels have persuasively argued. This approach limits the role of government to what are now termed "market-failures", that is those cases where government regulation cannot channel private vices to produce public benefits, or those cases in which externalities create conditions in which exclusion of benefits is impossible so that private vices or market provision would be impossible. These are what have now been termed pure public goods. Within this rather limited category Adam Smith, the supposed champion of the market, managed to find justification for government action in "public agencies, in stamping cloth and conducting assay tests on precious metals, to ensure that they been inspected for quality, that it should manage the currency and coinage, run the post office and general supervise markets and contract-making through an independent judiciary, and provide wholly or in part a national education system – and make a start on dealing on palliative care with "obnoxious diseases" like leprosy. All this, plus "facilitating commerce" by public works."

Hirschman pursues the problems surrounding the modern activities of government by quoting Fred Hirsch: "With macromanagement, Keynesian or otherwise, assuming an important role in the functioning of the system, the macromanagers must be motivated by 'the general interest' rather than by their self-interest, and the system, being based on self-interest, has no way of generating the proper motivation;"[p. 128]"

Here is the source of difficulty with the definition of responsible government fiscal policy when the government is presumed to be an economic actor itself. Consider the powers that the US Constitution attributes to congress in Section 8 - Powers of Congress: The Congress shall have Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States; To borrow money on the credit of the United States; To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes; To establish ... uniform Laws on the subject of Bankruptcies throughout the United States; To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures; To provide for the Punishment of counterfeiting the Securities and current Coin of the United States.

All of these powers presume the role of the Federal government acting through a representative, democratically elected Congress as an economic actor. Indeed, all it does is to

recognize the powers that were vested in the Sovereign under non-democratic governments and restricts them the democratic representatives of the electorate, rather than to the President to ensure that that office not take on royal privilege (or at least until the Bush-Cheney Administration). The Constitution further ensures that these powers shall not reside in the individual states in Section 10: Powers prohibited of States. No State shall enter into any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit¹; make any Thing but gold and silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts, or grant any Title of Nobility.

In undertaking these activities, especially the activities of taxation and borrowing, the government clearly has an impact on the way private vices will be channeled to contribute to the public benefit. The question is how best to do this? Should government undertake the “Bare Vertues that cant make nations live?” Or should it become a “Slave to Prodigality” to take the extreme version representing deficit spending? It is interesting that it is the former position that has become dominant. Government should be frugal not prodigal. That economists have come to accept the idea, not only that the private household should be run on the basis of frugality, but that the “public household” should be so managed, is clearly a departure from the historical debate that was meant to justify the benefits of the market economy.

Some Simple Philosophy

Now, it seems obvious that this approach not only contradicts this long Classical tradition, but that it suffers from two major fallacies. The unintended consequences of human actions, so well put in Mandeville’s fable finds its modern form in the fallacy of composition: what is true of the actions of a single individual need not be true of all individuals. The frugality of individual households need not translate into frugality for the aggregate of households.

The second is my favourite philosophic fallacy of misplaced concreteness: to mistakenly consider the aggregate result of the decisions of actual entities as a final reality capable of independent conscious action. This is also often called anthropomorphism, the attribution of human characteristics to something that is clearly not human. Thus, the assumption that the “government” should act in the same way as a human household. This is a fallacy that pervades much of aggregate economics since the transformation of Keynes’s *General Theory* into macroeconomics based on economic aggregates that are presumed to have discoverable behaviours of their own. For example the determination of aggregate consumption by means of

¹ A bill of credit is some sort of paper medium by which value is exchanged between the government and individuals. Money is a bill of credit, but a bill of credit need not be money. An interest-bearing certificate that was issued by Missouri, and usable in the payment of taxes, was thus ruled to be an unconstitutional bill of credit.

the identification of the aggregate propensity to consume. This is a point that has been stressed by Austrian economists, and has been at the basis of the idea of a “microfoundation” of macroeconomics. Unfortunately, it is a remedy to a fallacy!

Thus, when we are told that the government should arrange its affairs in the same way a virtuous family would do by operating a fiscal policy that generates a budget surplus, this is a clear contradiction of the Classical role of government in ensuring that private vices produce public benefits. But, it also commits the fallacy of misplaced concreteness for it attributes to an aggregate of actual political entities a final reality in which it is considered to act as if it were a single individual. The major contribution of public choice theory and other works in this area such as that of Mancur Olsen, to point out that individuals compose these political entities and there is no reason to believe that they should not act in their own self-interest which may not be that of the polity. The error here lies in the presumption that there was no political organization which would, in Mandeville’s terms, channel these interests to the public welfare.

A similar argument is applied to the existence of government debt resulting from a prodigal fiscal policy. Here it is argued that the restitution of the debt will place a burden on “future generations” or more precisely our grandchildren (note that the interests of celibates are conveniently left out of account). Here too we find the fallacy of creating a concrete final entity in the form of an anthropomorphic “future” generation that will have to repay the debt prodigally created by its ancestors. But, even if the future generation could be appropriately defined it would have to engage Doc Brown to allow Marty McFly to for “back to the future” to make the required payments on behalf of the prodigal grandparents. If the debt is incurred today, but it is to be resolved in the future, the future resources to pay off the debt would have to be transmitted back to the present in order for there to be any burden in terms of lost consumption by the future generation! If it cannot be time-transmitted then it stays in the future, unless our grandchildren decide to engage in a gigantic potlatch and burn the resources and declare the debt to be extinguished.

It is perhaps easier to understand the argument in a different way, following Jevons dictum that in economics “bygones are forever bygones”. This idea was originally developed to debunk the idea that costs of production determine value on the grounds that selling price will be determined by present market conditions, irrespective of the costs that may have been borne in the past to produce the goods. If prices are set in the market today, then whatever happened in the past is irrelevant.

The same is true of national output. Irrespective of the size of the existing debt burden on future generations, consumption in the future will be determined by national income in the future. Our grandchildren can consume neither more nor less than future income irrespective of the size of the inherited debt. This is not to say that the existence of debt will not have any

impact. Clearly if the debt has caused national income to be higher than it might have been then future income will be higher than it might have been. This is clearly not a burden. This was precisely Mandeville's point.

The existence of debt will also have an impact on the distribution of future national income with debt holders having a larger claim than non-owners. If this has an impact on demand there may be an impact on income, but it is not in the form of a burden that has to be paid across generations. It all takes place within the same cohort of the population, and in the aggregate Abba Lerner's aphorism holds good. For the non-owners: $I = O$, for the owners $U = O$. Since the two sides must be equal $I = O = U = O$ which solves out to $U = Me$. No net impact on the size of future income in the aggregate, only on its distribution.

Thus, the argument that prudent household management should provide the exemplar for good government management errs in attributing to government a final reality that is not present.

Some Simple Accounting that is not Boring

This brings us to the impact that the prodigal government's deficit will have on national income. This used to be a relatively straight forward proposition based on the existence of a positive Keynesian employment multiplier. All this has now somewhat surprisingly been called into question. Thus, it is necessary to go back to first principles to look at the argument that lies behind the multiplier and the implications of the fallacy of composition.

We are all familiar with the circular flow of income. This idea antedates the concept of the multiplier and can be found in books written during the 1920s such as Foster and Catchings' *Money*.² In simple terms the circular flow is a diagrammatic representation of flow of funds accounts showing the sources and uses of funds for various sectors of the economy. Households have credits (sources of funds) that consist of wage incomes they receive from firms that employ them and the sales of other services. For firms these same flows appear as debits (uses of funds) representing the costs of labour and other inputs used to produce output. Households have debits represented by their expenditures on the goods and services they buy from firms, while these expenditures show up in firms' credits representing the sales of their output to households.

² In 1922 Foster published an account of the circuit flow of money in the *American Economic Review* which included a diagram of the Circuit of money flowing in one direction and goods flowing in the opposite direction. The idea was to keep the economy running smoothly by matching consumer income, thus money to spend, with the amount of goods available for sale. Foster apparently adapted the Circuit Flow of Money diagram from a statistician, but the diagram was originated, as far as we know, by an amateur economist, Nicolas Johanssen around the turn of the century.

Now if a virtuous household is one that saves, that is, that has more credits than debits in its flow of funds account, by the law of double entry this means that firms will have debits that are greater than their credits. In other words, its sales do not cover costs and it makes losses. Thus household saving corresponds to firms' losses (or "dissaving") in a consistent flow of fund accounting framework. But, we have simply rediscovered Mandeville's law of unintended consequences. Virtue in the form of household saving leads to firms' losses and bankruptcy, loss of employment, loss of household incomes and a decreased ability to save.

We might find a way out of this accounting constraint if there is a banking system which would lend to firms to cover their losses by borrowing the savings of the households. But, this is a Catch-22 situation, sometimes called a Ponzi scheme. If households ever decide to dissave by seeking to call in their loans, the firms will be unable to pay and have to declare bankruptcy. No real saving would in fact have taken place, since the savings cannot be converted into any other good or asset and would only cause loss of incomes. Thus, in a market based economy firms can only exist over time if they make profits, that is, they have to save. But this implies that households must be dissaving. This is just a reversal of the Catch-22 since households cannot dissave without borrowing and they will not be able to repay these debts for if they try to do so firms profits will disappear and households will lose their incomes.

Now the traditional escape from this Catch-22 dilemma caused by unintended consequences or the fallacy of composition, is to introduce an autonomous source of demand for firms' output and a source of household expenditures: autonomous investment. Investment expenditures provide household wage incomes without increasing consumption goods output for sale to households and workers in the investment sector buy consumption goods that they do not produce. Thus, if the amount that households desire to save is just the amount that firms decide to invest, it is possible for both households and firms to be virtuous for households can save and firms can make profits by investing in additional capacity, leaving both able to satisfy their intended expenditure plans. Formally, household credits are the wages and other sales for the production of consumption and investment goods output while their debits are their expenditures on consumption goods, the difference representing a balancing debit: saving. For firms their credits are the sale of consumption goods and their debits are costs of production of consumption goods and the purchase of investment goods, the difference is a credit: borrowing from households to finance the investment.

However, note that this is only possible when there is an exact coincidence of savings and investment intentions. Households intend to save the same portion of their incomes as the proportion of national income that firms intend to invest. The problems arise when there is an imbalance between firms' and households' intentions to save. What happens if households want to save more than firms want to invest? Firms' sales fall short of output, there is excess

capacity created by the investment and firms will cut back on future investment as well as cut back on current employment. The same result, unintended consequences of a decision to save leads to lower incomes and thus lower savings. Households are unable to achieve their intended savings. Here the result is not bankruptcy but either an unsustainable expansion and inflation or a collapse of output and employment that has no natural limit. Again, the market is functioning appropriately in response to the signals that are being received by firms and households, only it is not capable of coordinating savings and investment decisions. There is an aggregate constraint on individual actions that no individual can influence.

Solving this failure of the market to coordinate independent decisions of households and firms requires an agent that is not bound by pure market principles and budget constraints. This is where the objectives of government fiscal policy become important. If government is to behave as any other market participant, falling output will mean falling tax receipts and a rising deficit. If the response is to apply the principles of virtue, the reaction should be to increase taxes or reduce expenditures. But, this simply reinforces the market generated disequilibrium – producing a bigger boom and inflation or a bigger recession and loss of employment. More importantly the government is here making it more difficult for private agents to achieve their intentions. Is the government's objective of frugality more important than those of its citizens? Answering this question will determine the responsibility of its fiscal policy: to balance its own accounts, or to act in order to allow the private sector to achieve its objectives.

Responsible Government Fiscal Policy; Validating Private Sector Decisions

If the government acts not as a self-interested individual, but in order to allow citizens to achieve their intended expenditure decisions, it must engage in policies that support private sector decisions in such a way that they lead to public good. It should act to coordinate and offset the incompatible combination of firms' and households' intentions. If households follow the rule of virtue and seek to save too much, then the government should run a fiscal deficit that is just equal to the shortfall between households' desires to save and firms' expectations of profits. By doing so it can allow each individual to achieve his desired objective. But, it also avoids the loss in income that would result from the mismatch. Here the government can intervene to make private vices into public virtue by encouraging prodigality when the private sector desires to be frugal. Government prodigality is the equivalent of supporting public virtue! This is the fiscal policy of a responsible government, responsible to insure that private sector decisions can be achieved rather than thwarted by the law of unintended consequences.³

Flows of Funds, Balance Sheets and Jobs

³ Nota bene: the proposition is reversible: if the private sector desires to save too little, then the government must run a surplus – a prodigal private sector required a frugal government.

It is important to note that the action of government here is to influence the budget constraint or the size of the credits of both households and firms by creating a sufficiently large debit in its flow of funds account. It is important to note that here is no guarantee that this will have any particular impact on the level of employment. That is a question of technology and on the balance sheets of households and firms. Let us focus on the balance sheet aspect.

Whenever an economic unit has a flow of funds account imbalance it will build up stocks of assets or liabilities. As seen above, when households intended savings are excessive compared to the intentions of firms they had to lend to firms. This creates a number of asset and liability balance sheet entries. Firms had to issue liabilities. If they borrowed from a bank the bank records an asset. If the bank borrowed from households then it has a liability which is matched by a household asset. In this case the loans were just financing losses and only had value as long as households continued to save and lend. They did not represent the creation of any real purchasing power. This is another aspect of Jevons's law: bygones are forever bygones. Once the money was lent there was no guarantee it would be reimbursed at any particular value.

What if households had been planning to use their savings to finance their retirement consumption? It is likely that the discovery that their savings had no real value would lead to a change in intended savings behaviour. Households would reduce their consumption so that government dissaving would have to increase in order to validate these intentions and maintain current levels of output. In this case, an increase in the government deficit would simply go to replace the lost expected purchasing power of the household savings and avoid an additional decline in output and profits. The positive impact on employment would be minimal; it would just prevent a loss of income and employment. It is for this reason there is no strict connection between government deficits and employment.

This is similar to what is happening currently, only with one substantial difference. The first is that instead of experiencing a goods' price inflation, the economy went through asset price inflation. Instead of dissaving and borrowing to buy current output for current consumption, households bought assets, in particular houses. Now, a goods' price inflation generally tends to be dampened by policy, but in modern times they are hardly ever reversed. In the post-war period we have had short periods of deflation, but never a sustained period of falling goods prices. Thus the impact of a goods' price inflation is usually felt in the flow of funds accounts. Prices go up, which has an impact on the debits of households and the credits of firms, and if they are followed by an adjustment in wages to meet cost of living increases there is also an adjustment on the credits of households and the debits of firms. Depending on the lag between the two, firms may be better off for awhile until households' incomes catch up, but on

average over time balance is maintained, which is why it is so difficult to bring a wage price spiral to a halt. Someone will be on the losing side when stabilization of prices takes place.

On the other hand, asset prices may both increase and decline for substantial periods of time. If assets are financed by borrowing they have a peculiar impact on balance sheets. This is because the liabilities that finance assets are not at all flexible. There is no average balancing out as in a goods' inflation. When a firm's debits are greater than its credits on flow of funds account it may be facing a liquidity shortage which it seeks to finance by borrowing or selling assets or reducing expenditures. When a household loses employment it means that its credits on flow of funds account fall below its debits and it has to cut expenditures. This of course makes firms less liquid and leads to further declines in employment.

As the size of dissaving in firms rises this will eventually lead to a fall in the return on its assets and thus a fall in the price of its assets below the liabilities used to finance them. At this point it becomes insolvent and is required to declare bankruptcy. This creates a negative feedback on flow of funds accounts for households. When a household's assets, such as its house falls below the outstanding mortgage liability it is insolvent as the sale of the house could not extinguish the debt. Here the response is either default, which places even greater pressure on house prices, or an attempt to build up other assets, for example by reducing dissaving or increasing desired savings.

The economy is currently facing disequilibrium in both sets of accounts that are feeding off each other. We could characterize current economic conditions as a flow of funds disequilibrium because both households and firms have intentions to increase their savings to meet declining credits (sources of funds). The decline in output and employment has meant that some household no longer have any credits aside from unemployment insurance. In addition there is the balance sheet disequilibrium in which the value of firms' and households' assets have fallen below the liabilities that finance them. This leads to default, bankruptcy or attempts to generate other credits by increasing savings intentions. Finally, since the households have financed their assets with liabilities – mortgages financed by financial institutions, these institutions also face conditions in which their assets have a lower value than their liabilities and they are seeking to build up credits. It is the law of accounting that not all of the components of the private sector can be increasing their credits at the same time to repair the insolvency on their balance sheets. This can only be done if the government creates a debit position through a deficit that is equal to the desired increase in credits of the private sector.

Responsible Fiscal Policy in the Current Economy

How is a responsible government to respond to these needs of its citizens to increase their credits? To channel private vices into public benefits? The largest imbalances are in the

households' balance sheets and in their flow of funds accounts. To meet these disequilibria would require government dissaving of an equivalent amount. However, what the government did was to move first to meet the disequilibrium in the banks' balance sheets and only subsequently to deal with the problems of households' balance sheets. And this was done indirectly, through the stimulus bill which provided for an increase in total income credits, but not necessarily those with balance sheet imbalances. While this helps households overall, it was insufficient to meet the balance sheet disequilibrium, given the increasing flow of funds disequilibrium created by falling employment levels. Thus firms continued to adjust by reducing output and employment and despite a near \$800 billion stimulus package, unemployment continued to rise.

This has caused some to argue that this means that the policy was mistaken. But, as seen above, in conditions of balance sheet disequilibrium there is no clear rule on the impact of spending on employment. Indeed, the correct answer is that the best policy would have been direct operations on balance sheets and flows of funds. What might this have looked like? First, the support given to banks could have been linked to equivalent relief given by banks to households through renegotiation of the value of their mortgage liabilities. Banks were given support to allow them to write down the value of their assets invested in housing, the counterpart to these assets are households' mortgage liabilities. They could have been written down at the same time. Remember the basic difficulty in balance sheet disequilibrium is due to the fact that asset prices move, but liabilities do not.

Next, the government could have had a direct impact on flows of funds of households by ensuring that they had a minimum credit position through a government guaranteed employment program. This would have set a floor under household incomes and prevented the excessive savings intentions brought about by the crisis. These income support programs have been experimented in a number of countries and would have provided a backstop to the decline in asset values.

This leaves the question of the size of the government deficit required to do this and the impact on outstanding debt. It is estimated that from \$12-17 billion has now been committed to support the financial system. The size of the sub-prime mortgage market was never more than \$2 or 3 billion. Direct intervention would have been much cheaper.

Government EMPLOYMENT guarantee programs which would imply An income and an employment floor to the flow of funds accounts have been costed at around 1 per cent of national income. Again, much less than is currently being spent in the governments' stimulus package. The cost of a responsible government policy would certainly not have been large and would have been less than current policies.

But what would have been the impact on overall government debt? As seen in the flow of funds accounts, the debts on government flows of funds emerge as credits on the accounts of households and firms. Remember $U = Me$? They offset balance sheet losses or support flow of funds, all of which generate credits on government account. But, even more important is the fact that the government cannot default on its debt. It does not have to raise dollars from the private sector in order to finance any of its expenditures, and thus it need not do so to repay debt.

Thus, in current conditions in which households, firms and financial institutions are seeking to increase saving, it would be irresponsible for government to attempt to run deficits and reduce the outstanding indebtedness.⁴ Were it to do so it would simply drive more firms to balance sheet insolvency and flow of funds illiquidity. It would only drive more households into unemployment and balance sheet insolvency and default increasing the decline in asset prices. It was such irresponsible fiscal policy that produced the Great Depression. A responsible government would not less this happen again.

⁴ Of course such a policy would be responsible if the private sector were seeking in aggregate to dissave. But this is unlikely to be the case until household and firms have rebuilt their balance sheets and the value of their assets.