THE MACROECONOMICS OF DEBT REDUCTION AND RECOVERY AFTER THE FINANCIAL CRISIS IN THE ADVANCED CAPITALIST ECONOMIES

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Abstract

The economic stagnation that presently characterizes most advanced capitalist economies is unusual. While there have been periods during the post-war years of slow growth and contractions in output, they have normally resulted from attempts to control inflation, and once it had been tamed recovery was robust. The situation today is very different, not only because the bulk of advanced economies are affected simultaneously, but because the stagnation is a consequence of a huge financial crisis that has brought a "balance sheet depression". A strong recovery is predicated on reducing private sector debt, and this is a complex process. Moreover, there are different ways in which it may be achieved, and some are much more effective and efficient than others. The governments of most advanced countries are adopting the least effective and efficient policies, and, if they continue to do so, slow growth and high unemployment are likely to be long enduring.

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There are at least four major economic issues raised by the financial crisis and its aftermath. First, what caused the crisis? Second, how should the financial sector have been treated during the crisis? Third, how is recovery best promoted? Fourth, how can the robustness of economic systems be increased to inhibit such a crisis and 'great recession' from occurring again? This article considers only the third problem because it is the most pressing issue. In addition, it focuses on the advanced capitalist economies of North America, Western Europe, Scandinavia, Australasia and Japan. This is because macroeconomic theory has been fashioned with these economies as its main concern, because advanced capitalist economies still dominate the world economy, and because they have been among the hardest hit by the crisis and recession.

Most advanced capitalist economies are in a severely depressed condition, with national output significantly below what could be produced, high unemployment and, at best, very slow growth. Moreover, there is good reason for believing that these conditions will persist for many years if present policies continue. The stagnation is the result of a huge financial crisis which has brought significantly reduced asset values, resulting in lower investment and consumption expenditures as households and companies have acted to reduce debt. For the most part, debts are fixed in money value while the assets which these debts may have financed have declined in value, and it appears to those who believe themselves or their companies to be excessively indebted that, while they cannot influence asset prices, it is within their power to pay down their debts as well as being prudent to do so.

All this makes the current situation unusual compared with other episodes of slow growth in the postwar years. Of course, there have been many periods of recession, but usually they have been brief because they were the result of central banks attempting to control inflation through orthodox monetary tightening and fiscal retrenchment. As soon as inflation was thought to be tamed, monetary and fiscal policies went into reverse and recoveries were typically rapid. Circumstances after a serious financial crisis are very different. The process of reducing debt (or, as it is often called, deleveraging) which they set in motion depresses the economy for many years. The empirical evidence on this is clear, and has given rise to the term "balance sheet depressions". Not until private debt to income ratios decline significantly is it likely that economies will fully recover. Therefore the question arises, how is this process of debt reduction best facilitated?

National Income accounting is a useful framing device to tackle this question. The three basic equations are

$$G+I+C+X-M = GDE \qquad (1)$$

$$V_a+V_b+...V_n = GDP \qquad (2)$$

$$W+I_n+P+R = GDI \qquad (3)$$

In equation (1) G stands for aggregate government expenditure on goods and services, I for aggregate investment expenditure, C for aggregate consumption expenditure, X for aggregate expenditure on exports, M for aggregate expenditure on imports, and GDE for Gross Domestic Expenditure (also known as aggregate demand). In equation (2) V_a is the value added in sector 'a', and analogously for the other subscripts, so the sum of all V's constitutes aggregate value added in the economy as a whole. The value added in any sector is the difference between the value of its output (sales) minus the value of the outputs from other sectors that it uses as inputs. GDP represents Gross Domestic Product, (or aggregate output), and will equal the sum of all value added in the economy. In equation (3) W stands for total wages, I_n for total interest, P for total profit, R for total rents, and GDI for Gross Domestic Income. It is assumed throughout that all magnitudes are 'real' even though they are measured in money. In other words, they are magnitudes corrected for any inflation of deflation unless otherwise explicitly stated.

Equations (1), (2), and (3) are each identities in that they are true by definition. This is because G, I, C, X and

M are defined in such a way as to exhaust expenditures; W, In, P, and R are defined in such a way as to exhaust incomes; and value added is defined in such a way that the sum of value added from all the sectors of the economy equals the value of final goods and services produced. In other words, there is no expenditure that does not fit into one or other of the expenditure categories; there is no final output that is not a sum of value added; and there is no income that does not fit into one or other of the income categories. Of course, each equation can be true for different values of the variables, but they will always be true because of the way expenditures, outputs and incomes are defined.

Furthermore, it is always true that

$$GDE = GDP = GDI \qquad (4)$$

The expenditures that constitute GDE are expenditures on final goods and services, and, since for every purchase of final goods and services there must be a sale of final goods and services, aggregate expenditure must equal GDP. In turn, GDP must equal GDI because the value added in any sector of the economy is equal to the wages, interest, profit and rents paid in that sector, and GDI is the total of these incomes from every sector of the economy.

Nonetheless, in the current depressed circumstances there is also an important economic principle operating behind these equations: the size of GNE determines the size of GNP which determines the size of GNI. Intuitively, this seems to state the direction of causation wrongly. Surely, it may be thought, while it is the value of aggregate output that determines total income, it is this income that determines the level of aggregate expenditure. But this intuition is actually wrong. While current income has a significant influence on the consumption expenditures of low income groups, the expenditure decisions of governments, companies and most consumers can move independently of current income and generate changes in GDP and, therefore, GDI. This autonomous character of expenditures derives from two features. First, governments do not have to spend all the taxes they raise, while companies and consumers can save from their incomes. Second, governments, companies and consumers can borrow and thus gain purchasing power additional to income.   Typically the governments of advanced capitalist countries can sell new securities without difficulty, and most companies that wish to finance investments through issuing bonds, or taking out bank loans, can do so. Furthermore in modern capitalism the bulk of households have an abundance of credit sources available to them. For all those who make decisions on expenditures - governments, companies and consumers - there will be borrowing limits, but most are also well inside the constraints they face. Since imports are purchased by the government, companies and households, they too depend on expenditure decisions that are not rigidly tied to income, while exports depend on the expenditure of foreigners. And since at present output in virtually all advanced countries is well below potential, any increased expenditure will bring an increase in output and income. In other words, in the depressed conditions that currently prevail, increased expenditures will have "real" effects and will not be inflationary until the full employment of labour and other factors is achieved.

At this point, it may be objected that lending can only be undertaken by those who save from their incomes, so that income does indeed constitute an invariable constraint on expenditures since in aggregate it is true that borrowing must equal lending. In other words, it might be thought that 'some' can get access to purchasing power above their incomes only because the expenditures of 'others' are less than their incomes. However, the reality of the situation in modern capitalism (and in not-so-modern capitalism too) is that governments can gain access to purchasing power by borrowing the idle money balances of companies and consumers, which exist independently of saving from current income. Moreover, government and financial institutions can themselves create purchasing power by creating money. Governments do not need tax revenue, or to borrow, to do so, and banks do not need a prior flow of profits, or to borrow, in order to lend the money they create. Both governments and financial institutions can supply purchasing power, and at a cost significantly below the value of the money so produced. How much governments do this is a matter for them to decide, and there is also a wide degree of latitude to the choices that financial institutions make as to how much money they will produce.

This is not to say that the total output of an economy and the income it provides may not constitute an upper limit to GDE, but they do so only as maximum GDP, and the maximum GDI associated with it. Or, stated

alternatively, the maximum aggregate expenditure is limited by the productive capacity of the economy, and thus by the available factors of production and technology. However, in the conditions prevailing at present, GDE can act as the driving force of growth in GDP and GDI because economies are operating well below potential and are not close to their maximum output and income levels. Of course, some decision makers may choose to limit their expenditure according to current income, even when current income is below that associated with maximum output, and they will be especially inclined to act in this way when they seek to reduce debt. But in aggregate there is no imperative for governments, companies, and consumers to do so. Furthermore, as will become clear below, retrenchment in aggregate spending will have the effect of reducing current income even further, so making any reduction in debt either impossible or more difficult to achieve. This is one of the many paradoxes revealed by modern macroeconomics.

We can now return to the question of how debt reduction is best facilitated. Given what has just been said about the direction of causation from GNE to GNP to GNI, equation (1) is most useful for analyzing this question, but it is often even more useful if it is rearranged through the use of two other identities.

$$C = Yd - S \qquad (4)$$

$$Yd = Y - T \qquad (5)$$

where Yd stands for disposable income, S for savings, and T for taxes.

Substituting (4) and (5) into (1), and rearranging, yields

$$(G - T) + (I - S) + (X - M) = 0 \qquad (6)$$

We can now use these equations to explore some of the ways in which the reduction of debt can occur and with what consequences in each case.

The most obvious way debt reduction by households and corporations might occur is through an increase in saving (S). However, equation (4) indicates that this will reduce C and, unless there are compensating increases in the other components on the left hand side of equation (1), output and income must decline in consequence. Equation (6) is even more illuminating on the question of by how much they will decline. As an illustration of the basic idea using simple assumptions and convenient numbers, imagine that households and companies decide to raise their savings by saving 20% of their income instead of the 10% they saved previously, and that they do so rigidly whatever happens to income. Assume also that GDI is $1000 billion, so that households and companies decide to increase savings from $100 billion to $200 billion. If no other element in equation (6) changes in response to the change in saving behavior, the equation makes clear that the intentions of households and companies will not be realized and they will fail to increase their actual savings. What will occur instead is that income will decline by $500 billion, resulting in savings of $100 billion, not $200 billion, which is exactly the same magnitude as before the attempt to increase savings was made. More generally, GDP and GDI will always contract enough to thwart plans to increase savings unless other expenditures rise. This will be true irrespective of the exact relationship between savings and current income. So the question becomes, in the present circumstances how are the other variables on the left hand side of equation (1) likely to change in response to an increase in S?

One possibility is that attempts to increase S will bring about an increase in investment (I) by reducing interest rates. In normal circumstances, increased savings will have a tendency to reduce interest rates either by providing more funds to financial markets or through the contractionary effect on income that results in a lower demand for money balances held to finance purchases. Either way, a reduction in interest rates will make the financing of investment cheaper, so increasing it. But in the current circumstances of most advanced capitalist countries, this mechanism is severely impaired because short term interest rates on safe securities are close to zero, and long term rates are very low. In other words, these economies are close to the lower bound of interest rates, and the effect of increased savings on interest rates and investment will be very small. Thus, if no other variable changes in response to the attempt to increase savings, the overwhelming effect will be the decline in GDE, and hence in GDP and GDI.

An attempt to increase savings will also affect (X - M). X is unlikely to change much because exports are determined by the expenditures of importing countries, and the impact on the exchange rate as a result of the interest rate changes just discussed is likely to be very small for the same reason that the effect on investment is small. However, a reduced consumption of imports (M) is highly likely to occur because it would be unusual for savings to take place at the expense of domestic consumption alone. Thus there will be a countervailing expansionary effect on GDE. But since the decline in imports and rise in exports will most likely be only be a fraction of the increase in savings, there will still be some contraction in GDE, and therefore in GDP and GDI. Moreover, since the (X - M) of all countries added together must be zero, because the exports of one country must be the imports of others, any increase of (X - M) in one country will only decrease (X - M)s elsewhere, and by the same magnitude. So the total effect of changes in the balance of payments of all countries would be zero as a result of an attempt to increase saving, and the net impact on world output and world income (the sum of all GDPs and GDIs respectively) would be contractionary.

Finally, an attempt to increase savings will certainly affect (G - T), but it will do so only through the effect an increase in savings has on reducing GDI. All advanced capitalist countries have public expenditure and taxation systems that respond automatically to a change in income. A decline in GDI will bring about an increase in (G - T) as tax revenues fall and transfer payments to the unemployed and underemployed rise. However, the countervailing effect of a rise in (G - T) is most unlikely to fully compensate for the decline in income that induced it, so there will still be some remaining decline in GDI. Furthermore, the increase in (G - T) will also increase public debt if any deficit is financed by borrowing (as opposed to an increase in the money supply). There is, then, a shifting of debt from the private sector to the public sector. As we will see in a moment, this is unlikely to be a serious problem at present in most advanced economies, but the increase in public debt shows the impossibility of all decision makers – government, companies and consumers - reducing debt simultaneously through increased savings. For example, assuming for simplicity that (X - M) = 0, any decline in (I - S) must be compensated by a rise of equal size in (G - T). Thus, an increase in saving will bring debt reduction in the private sector only by raising public debt by an equal amount beyond what it would have been in the absence of the increased saving.

We have now considered the effects of an attempt to reduce debt by increasing savings will have on all the other elements in equations (1) and (6). But there are four other processes relevant to the issue of debt reduction that are likely to be operating and which are not shown in these equations. First, there could be some increase in outputs and incomes through productivity growth, which will most likely continue even under depressed conditions. This will make the contraction in income consequent on an attempt to increase saving by a specific magnitude a contraction from a higher level of income to a higher level of income. Second, debt reduction can occur in a relatively benign manner if companies substitute equity for debt. Third, any contraction in income that does arise from attempts to reduce debt will raise the rate of bankruptcies which, of course, destroys both debt and the assets that this debt represents. But this symmetry in destruction will have a non-neutral impact on production and income as bankruptcy can be a very costly and lengthy process, which is disruptive of established economic relations and brings increased unemployment. Obviously, in times of rapid growth, bankruptcies can be functional in releasing resources for employment in more productive activities, but equally obviously, there is no rapid growth in the advanced economies at the present time. Fourth, loans from financial companies are likely to fall, which will also reduce debt and assets simultaneously, as banks raise their standards of credit worthiness for borrowers during depressed conditions. This 'credit crunch will constrain consumption expenditures and investment expenditures to some degree, and thus reduce output and income below what they otherwise would be. However, it is difficult to generalize as to the overall effect of these four processes beyond saying that debt reduction and/or recovery will tend to be facilitated by productivity growth and by the substitution of equity for debt; and will tend to be inhibited by bankruptcies and tighter credit rationing. Since each of these four processes can occur at variable intensity, the combined effect is determinate only with knowledge of the specific force of each process.

All of the analysis in the preceding five paragraphs assumes that the state is passive so that any change in (G - T) results from the expenditure and taxation policies already in place. The effect of the change in (G - T) is stabilizing because the policies reduce the contraction in GDP and GDI that would otherwise occur, but in the present circumstances the chances are that any attempt by companies and consumers to reduce debt by

increasing savings will be contractionary to some extent. Thus the question obviously arises of what more the state can do to facilitate debt reduction among companies and consumers while containing the contractionary effects of the increase in savings involved in the debt reduction process.

On the monetary side there are four possibilities. Orthodox monetary policy involves what are called 'open market operations' whereby the central bank sells or buys short term government securities to raise or lower short term interest rates and alter the cash reserves of commercial banks in an attempt to reduce or expand their creation of credit. Clearly expansionary monetary policy has little or no traction at present because most of the advanced capitalist countries that are monetarily sovereign, with central banks under domestic control, are at or close to the zero bound of short term interest rates, and commercial banks have excess reserves so any further increases in these reserves will not enlarge the credit available from commercial banks. However, central banks can expand the activity to longer term securities in order to reduce long term rates. This is referred to as 'quantitative easing' and it has some potential.. But not much: long term rates are very low, and money and safe securities are almost perfect substitutes. This means that the maximum impact on interest rates, and therefore on interest sensitive expenditures is very small. And even to get that small effect requires huge purchases of bonds by the central bank, which although not a problem in itself, seems to frighten people into believing that hyper-inflation will occur as a result. It won't, because the effect of quantitative easing on expenditures will be small so, given the extent by which outputs fall below potential, aggregate demand will not rise sufficiently to cause any inflation. Furthermore, if and when the recovery strengthens to the point where inflation begins to be a problem, open market operations and quantitative easing can go into reverse, eliminate excess money balances and raise interest rates to contain it.

Those advanced capitalist economies in the Euro zone, which are not monetarily sovereign, obviously cannot implement any monetary policy themselves. This is a disadvantage, but it could be overcome if the European Central Bank engaged in quantitative easing. To some extent, like other central banks, it has already done so, but, also like other central banks, so far on an insufficient scale. Moreover, for those economies in the Euro zone which pay a high risk premium on their sovereign debt, monetary expansion by the ECB which targeted the securities of those countries paying high interest rates could reduce the premiums and help their recovery (or, at least, reduce the contraction that is occurring). Again this has been done to some extent, but so far the scale has been woefully inadequate. All central banks have been excessively conservative, but none more so than the ECB which often acts as if the priorities of the pre-crisis era continue unchanged, with the control of inflation as the principal problem.

Open market operations and quantitative easing can also be applied to the securities denominated in foreign currencies, which will bring a devaluation of the domestic currency, and thus promote exports and curtail imports. However, this can only work if other countries do not the same. If they do, they can neutralize the exchange rate effects and the consequences will be the same as if all the countries simultaneously engaged in open market operations and quantitative easing in securities denominated in their own currencies. If one country is lucky enough not to provoke reactions, most of the expansionary effects will come at the expense of other countries because exports are the imports of others and imports are their exports, so the expansionary effects for the world economy as a whole will only be those resulting from the single monetary expansion affecting interest sensitive expenditures, and, as we have seen, this will be weak.

While in all probability open market operations and quantitative easing will be non-inflationary in the present depressed conditions, a central bank could attempt to raise inflation by raising its inflation target. If this succeeded in increasing the actual inflation rate it might well have an expansionary effect by eroding the real value of existing debts as well as reducing real interest rates. Of course, it would also reduce the real value of the assets held by the creditors of the devalued debt, but, because it is primarily excess debt that is constraining an expansion of aggregate demand, the overall result would be expansionary. In other words, because debtors' expenditures are 'balance sheet constrained' in a way that those of creditors obviously are not, eroding the real value of debt and reducing real interest rates would be expansionary. The problem is, however, that raising the inflation target is not going to have much effect on actual inflation. Using open market operations and quantitative easing is most unlikely to be powerful enough to allow the central bank to increase actual inflation, so raising the target inflation rate will be irrelevant in present circumstances.

However, an even more radical departure from conventional policies, going well beyond quantitative easing, could work. A central bank has the capacity to do what any other financial institution does. It can make loans, trade in bonds and equities, provide insurance, and so on, and it might do so on non-commercial terms. Some of these measures were used during the financial crisis but they could also be employed now and have a huge effect on debt reduction while simultaneously maintaining aggregate demand, as well as promoting inflation if that was thought desirable. The problem is that it could also bankrupt many existing financial institutions. Given the kid glove treatment of financial companies during the crisis, and their continuing undercapitalization, any bankruptcies would best be dealt with by nationalizing the insolvent companies and then orchestrating their expertise behind the strategy. However, the political opposition to this would be ferocious. All the evidence from the recent financial crisis suggests that governments are reluctant to impose any significant costs on the financial sector of their own economies, and the presumption has to be that finance represents a potent countervailing power capable of inhibiting radical action of this kind.

In contrast to monetary policy, fiscal policy provides options that are both powerful and feasible in most advanced capitalist countries. It can be seen directly from equations (1) and (6) that an increase in (G - T) will increase output and income so allowing there to be more saving, which will accelerate debt reduction in the private sector while reducing the disruptive effects of bankruptcies. It will do so the more powerfully, the more expenditure increases and the more tax decreases favour those groups with low savings propensities and provide enhanced incentives for investment. Concentrating the increased expenditure on infrastructure will also promote the recovery of the private sector by raising productivity. And, if it is thought desirable, aggregate demand might be expanded to the point that makes credible an increase in inflation targets by the central bank. Nonetheless, there is a paradox here: private debt is reduced because public debt is increased, yet the overall effect on GDP and GDI is not neutral. The reason is that debt is not homogenous. In current circumstances, excessive private debt is the problem and increasing public debt contributes to the solution. To say that "it is impossible to solve debt problems by increasing debt" is both superficial and wrong because not all debt has the same economic effects.

It is true though that this strategy of expanding budget deficits is not risk free. It works only by increasing public debt, and there are constraints on doing so. The states of most advanced capitalist countries seem to be well inside these constraints at the present time, being able to easily sell their securities at exceedingly low interest rates. But, although it is impossible to say exactly what public debt to GDP ratios will raise the default risk premium in these countries, the constraint will become inhibiting at some point. And states do not want to be anywhere near such a point because prudence requires them to keep some deficit capacity to meet unexpected emergencies in the form of natural disasters, armed conflict and so forth. Thus, for the strategy to fully work, a self induced recovery of the private sector must begin in earnest before the constraint on public debt begins to seriously inhibit the state's capacity to run deficits. In other words, the strategy requires that there occur sufficient debt reduction in the private sector to raise confidence enough so that the increased rates of return inherent in the productivity increases and depreciation of existing capital, which have occurred during the recession, will promote private expenditures to the point where the state can begin to scale back. When such a recovery occurs the state can rein in deficits and allow accelerated economic growth to reduce the public debt to GDP ratio. If and when aggregate demand rises above the level required for full employment and becomes inflationary, budget surpluses (where (G - T) is positive) can be used to contract aggregate demand and pay down public debt.

Those periods in the postwar years where public debt to GDI ratios have fallen significantly in advanced capitalist countries have predominately been ones in which economic growth has operated on the denominator, and not where fiscal retrenchment has reduced the numerator. But nowhere in the postwar years has there been such a deep and long lasting recession that has affected virtually all advanced capitalist countries simultaneously, and for most of these years the interconnections between economies was less pronounced than it is today. Ideally, then, inducing recovery through the expansion of state budget deficits and other measures should occur as a multilateral coordinated endeavor. That would reduce the chance of encountering deficit risk premium and maximize the probability of success. But, since states are sovereign, are in varied circumstances, and adhere to different beliefs about the importance of 'sound money' and 'fiscal rectitude', such coordination will be minimal at best. Much more likely is a continuation of what is occurring now: governments will develop their own plans separately, and many will be fiscal austerity programs that are

exactly the reverse of what is required. Any country that does seek to generate a robust recovery via fiscal deficits and unorthodox monetary policies will, therefore, find their chances of success reduced. It is more likely that countries 'going alone' will encounter constraints on raising public debt earlier than if it were a common practice, and there is therefore a greater chance that any recovery in the private sector of such an economy will become insufficiently vibrant.

Some advanced capitalist countries already have had austerity forced upon them, as with Portugal, Ireland, Greece and Spain, while others, like Britain and Germany, have chosen it in the belief that it is the appropriate strategy for all to adopt. Sometimes, in justification for this, references are made to countries in the postwar years which adopted austerity plans and rejuvenated their economies; Canada in the mid 1990s is a favoured example. But appealing to this empirical evidence is beside the point in present circumstances of deep and general recession where orthodox monetary policy is impotent. Canada did significantly reduce (G - T) during the 1990s, but it contained the contractionary effects by reducing interest rates, promoting investment and exports, and cutting imports, which worked because there was much space for interest rate reductions and the world economy was growing rapidly. Replication of this success in the current situation is not possible because circumstances are completely different: interest rates are close to rock bottom and most advanced economies are depressed.

It is also true that there are other arguments in favour of austerity programs but, for the greater part, they are nonsense. Three such propositions are clearly such. Thus, it is claimed that increasing government debt will "burden future generations". Quite aside from considering the presumption that future generations should not be burdened, increasing the public debt that is held domestically passes on to future generations' assets of the same value as the corresponding debts. For companies and consumers, government securities are just as obviously assets as they are debts and there is no burden to pass on. Another favoured argument is that successful businesses and households show that the accumulation of debt is a road to ruin. Apart from the fact that successful companies and households show no such thing, there is the more important fact that states are generally not like companies and households, because they manage economic systems that are much more closed than these units of the private sector. In modern capitalism, consumers and producers are not akin to peasant households, where much of their own economic activities are absorbed by themselves. They are, instead, relatively open systems, in which most of their inputs are purchased externally and most of their outputs are also sold externally, making the feedback effects on themselves of their own individual expenditure restraints minimal. But each country as a whole is relatively closed, so the feedback effects of economic decisions are huge. Thus, as we have seen previously, if in aggregate companies and households decide to save more, they will generally fail to realize all of their plans because they will induce a reduction in their own aggregate income. Modern macroeconomics developed precisely to treat these feedback effects, which are ignored in most microeconomics. Finally, it is claimed that austerity programs will increase "confidence". In those cases where austerity is not forced, which is the situation in the majority of advanced capitalist countries, the argument just made makes it hard to see how, and no alternative mechanism of causation beyond hand waving is provided by those who adhere to this claim. Moreover, surveys of business and consumer confidence show that worries are currently centered on deficient aggregate demand and unemployment, not the debts and assets of the state.

There are other arguments that favour austerity programs which are valid in special cases. If a state does meet a constraint on borrowing, or such a barrier is imminent, it must cut back or, alternatively, take radical action to change the rules of the game. Also, if aggregate demand exceeds aggregate supply when the economy's resources are fully employed the state must reduce (G - T), or induce a reduction in (I - S) and (X - M), if it is to eliminate excess demand and so contain inflation. But neither of these circumstances presently prevails; most state finances are not close to encountering borrowing ceilings or meeting premium charges to cover market calculations of the increased risk of default, and full employment of resources is the objective, not the reality.

There is only one argument in favour of austerity that is relevant at the present time, and this concerns the moral hazard inherent in all macroeconomic expansion programs. It can be sensibly argued that increasing quantitative easing, running bigger deficits, and expanding the activities of central banks into new areas do carry with them some negative consequences regarding incentives. They exacerbate moral hazard problems by

softening the consequences for those with excessive debts, so generating expectations that similar mistakes in the future will occasion the same response and, thereby, encourage inappropriate behaviour. As a result, it may be further argued that some degree of conservatism in economic policy is called for, even though austerity will mean that economic recovery is weakened.

However, there are important issues omitted from consideration in this argument. In particular, it fails to recognize that the institutions of modern capitalism are riddled with problems of moral hazard. Debtors' prisons have long been abolished, most economic activity takes place in corporations which are managed by employees, not owners, limited liability applies to all corporate obligations, bankruptcy procedures are often attempts at socioeconomic engineering, and welfare programs and business subsidies proliferate. In short, capitalism today, especially in the richest and most economically successful countries, cannot sensibly be called a system of competitive free enterprise and rugged individualism, where the choices of people and companies primarily affect only themselves and self-help is the principal remedy for any mistake. Were these features to return, the advanced capitalist countries would be less rich and less successful because companies and consumers would engage in far more risk averse behaviour, resulting in lower productivity. Moreover, many of the moral hazard problems inherent in the institutions of modern capitalism were at the root of the excessive debt accumulation in the private sector that occurred prior to the financial crisis, and after which has brought the 'great recession'. Consequently, it makes little sense to pick out one set of moral hazard problems, treat them in isolation and recommend subordinating any recovery in the major economies to their elimination. It is preferable to address moral hazard problems more comprehensively at a later date, so as to take account of their interconnections and their resistance to anything more than partial remediation.

The promotion of austerity is often associated with the recommendation to liberalize labour markets. The idea is to eliminate wage rigidities, so allowing unemployed workers to more easily find employment through reductions in wages. At the very best, the outcome would bring only a marginal improvement in employment because job vacancies in advanced economies have fallen as unemployment has risen, thus showing that the major problem is a deficiency in aggregate demand, not inappropriate wage levels. Moreover, even this positive effect may be negated by the feedback effects on GDE and the price level. Reductions in wages would induce a decline in aggregate demand that would be contractionary. And reductions in wages would also increases the chance of deflation, which would raise the real value of debt and real interest rates, so inhibiting spending in anticipation of further falls in the price level, and promoting bankruptcies.

Finally, there is an extreme "leave it to the market" stance in which it is claimed that recovery is certain as long as a wholesale elimination of regulations is coupled to radical austerity. This might be called a faith based approach to policy because it ignores the economics applicable to fully competitive and completely unregulated market system, which provides compelling reasons why such a system will malfunction.. The fact that those responsible for economic policy in recent years were ignorant of these results, or chose to ignore them, also helps to explain why economic management before the crisis was so inept.

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