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A modern monetary perspective on the crisis and a reform agenda

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1. Introduction

In this paper, we develop an understanding of the origins of the current global economic crisis from a modern monetary theory (MMT) perspective. This understanding is used to detail an operational plan for the future structure of the banking system and government financial conduct which will reduce the risk of a crisis of this type from recurring.

The neo-liberal belief that self-regulated financial markets and budget austerity would provide the conditions for sustained prosperity has been categorically undermined by the current economic crisis. These events and the policy responses that followed have created the conditions for a major paradigm shift away from the free market deregulation era that has dominated since the 1970s. All the logic that justified government cut backs in the last three decades; the run-down of public infrastructure; the harsh treatment of welfare recipients; the wasteful privatisations, and the rest of the neo-liberal litany that served to transfer wealth from poor to rich and create a disadvantaged underclass has been rendered without credibility by these events.

The crisis has categorically re-affirmed the lesson that we learned during the Great Depression - free markets" do not work effectively. While the conduct of policy in the Post-World War 2 period up until the mid-1970s reflected this understanding, in recent times, under sustained pressure from the free market lobby, governments have been bullied into significant deregulation. The policy folly of the last few decades shows that governments need to firmly steer the ship along the lines outlined in Abba Lerner's writings on functional finance (see Lerner, 1941, 1943, 1944 and 1951).

Consistent with the neo-liberal assertion that fiscal policy is ineffective, monetary policy was initially relied on to address the crisis. Interest rates plunged and quantitative easing exercises were undertaken. This strategy failed because the underlying theory was flawed. There was plenty of liquidity in the banking system and banks did not need deposits to make loans (see Mitchell and Muysken, 2008). Missing was the confidence among credit worthy borrowers to seek loans from the banking system. Lowering the price of credit does not tell prospective borrowers that they will be able to sell what they produce.

Conversely, the crisis has demonstrated the effectiveness of fiscal policy to stimulate output and instil confidence among investors of continuing growth. It has demonstrated *that there is no financial crisis so deep that cannot be dealt with by public spending* (see Juniper and Mitchell, 2008). Yet, major resistance against the use of fiscal policy remains evidenced by an almost hysterical response by some commentators and politicians. Much of that hysteria reflects a failure to understand the options available to a sovereign government in a modern monetary system.

The paper is organised as follows. Section 2 outlines the origins of the economic crisis. Section 3 considers the opportunities that a government has under a gold standard monetary system compared to a non-convertible monetary system. Section 4 outlines some operational principles that should govern national policy formation given that we operate in a fiat monetary system. Section 5 concludes.

2. The origins of the economic crisis

2.1 Overview

A good way to understand the origins of the current economic crisis in Australia is to examine the historical behaviour of key macroeconomic aggregates. The previous Federal Government claimed they were responsibly managing the fiscal and monetary parameters and creating a resilient competitive economy. This paper considers this to be a spurious claim and argues that the pursuit of budget surpluses actually created an economy which was always going to be susceptible to a crisis of the type the World is now experiencing.

The global nature of the crisis has arisen because over the last 2-3 decades most Western governments including the Australian government succumbed to the neo-liberal myth of budget austerity and introduced policies which allowed the destructive dynamics of the capitalist system to create an economic structure that was ultimately unsustainable. Once this instability began to manifest it was only a matter of time before the system imploded – as we have seen over the last two years.

In this section, a graphically-based narrative traces out the causal chain through which the crisis manifested. Much of this section is motivated by the theoretical framework outlined in Mitchell and Muysken (2008).

2.2 Sectoral balances

Consider the national accounting identity for the three sectoral balances:

(1) $(S - I) \equiv (G - T) + (X - M)$

Equation (1) says that total private savings (S) is equal to private investment (I) plus the public deficit (spending, G minus taxes, T) plus net exports (exports (X) minus imports (M)), where net exports represent the net savings of non-residents. Thus, when an external deficit ($X - M < 0$) and public surplus ($G - T < 0$) coincide, there must be a private deficit. While private spending can persist for a time under these conditions using the net savings of the external sector, the private sector becomes increasingly indebted in the process.

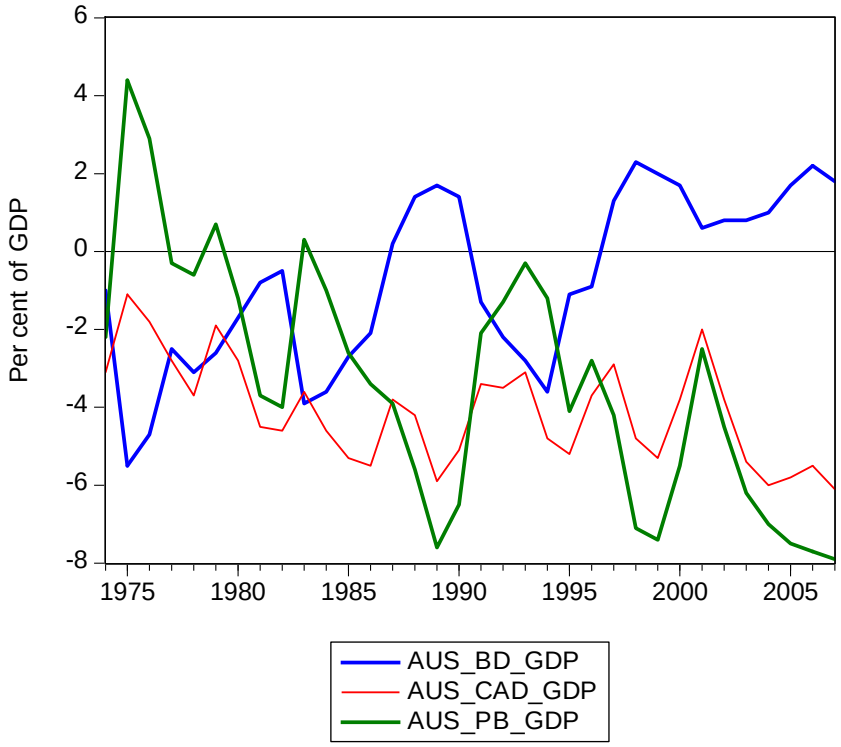
The sectoral balances framework provides another way of viewing the national accounts and allows us to see empirically the interaction between fiscal policy and private sector indebtedness. In a modern monetary economy where the government issues its own currency with a floating exchange rate, it follows as a matter of national accounting, that the sovereign government deficit (surplus) equals the non-government surplus (deficit). The failure to recognise this relationship is the major oversight of neo-liberal analysis. In aggregate, there can be no net savings of financial assets of the non-government sector without cumulative government deficit spending. The sovereign government via net spending (deficits) is the only entity that can provide the non-government sector with net financial assets (net savings) and thereby simultaneously accommodate any net desire to save in the unit of account and hence eliminate unemployment. Additionally, and contrary to neo-liberal rhetoric, the systematic pursuit of government budget surpluses is necessarily manifested as systematic declines in private sector savings.

With an external deficit (current account) the only way that the economy can continue to grow if the government sector is running surpluses is if the private domestic sector undertakes increasing levels of indebtedness. The deteriorating debt to income ratios which result will eventually see

the system succumb to ongoing demand-draining fiscal drag through a slow-down in real activity.

Figure 1 shows the sectoral balances for Australia as a percentage of GDP. While the current account deficit has fluctuated with the commodity price cycle, it has continued to deteriorate slightly over the longer term. Accordingly, the dramatic shift from budget deficits to surpluses from the mid-90s onwards was mirrored by a corresponding deterioration in private sector indebtedness.

Figure 1 Sectoral balances, Australia, 1974 to 2007, per cent of GDP



Source: RBA Bulletin database.

So the growth in the Australian economy after 1996 was fuelled by the private domestic sector maintaining its spending via increased leverage. This was an unsustainable growth strategy because ultimately the private deficits became so unstable that bankruptcies and defaults forced a major downturn in aggregate demand. At that point the fiscal drag compounds the problem. The solution is that government has to be in deficit for the private balance to be in surplus given a relatively stable current account deficit.

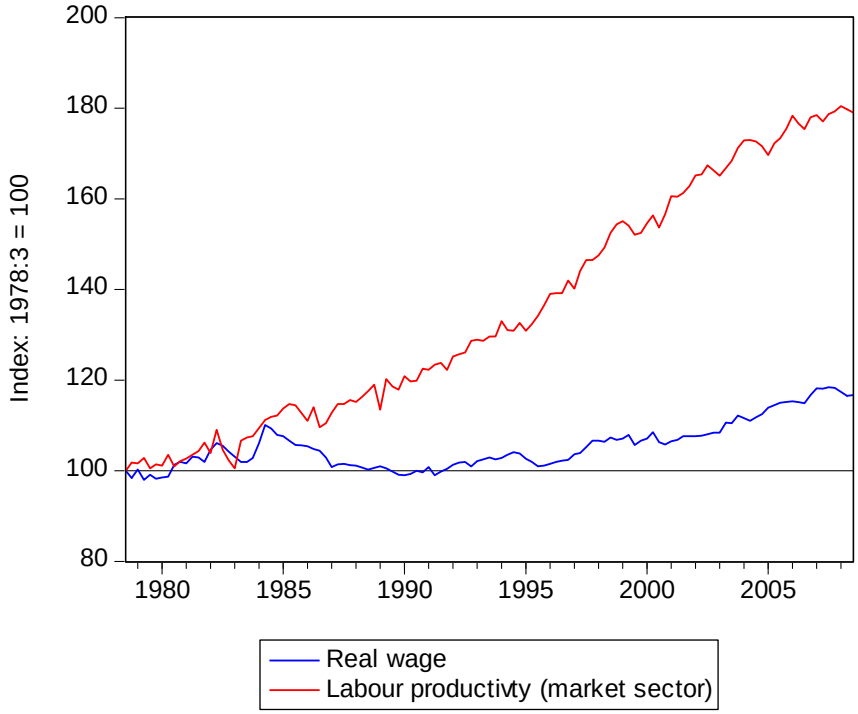
We interpret the slightly worsening current account deficit as signifying an increased desire by foreigners to place their savings in financial assets denominated in Australian dollars. This desire means that that the foreign sector will allow us to enjoy more real goods and services from them relative to the real goods and services we have to export. Exports are always a "cost" while imports are "benefits". As long as there is a foreign desire for our financial assets, the real terms of trade will provide net benefits to Australian residents which manifests as the current account

deficit. An external deficit presents no intrinsic problem despite views by the orthodoxy to the contrary.

2.3 Real wages and labour productivity trends

Figure 2, shows the relationship between real wages and labour productivity growth between 1978 and 2009. The two series are set to 100 in February 1978 and indexed thereafter. It is clear that real wages have failed to track GDP per hour worked (in the market sector) – that is, labour productivity.

Figure 2 Real wage and labour productivity indexes, Australia, 1978-2009



Source: RBA Bulletin database. Real wages are average weekly earnings deflated by the Capital Cities CPI; labour productivity is GDP per hour worked in the market sector.

Real wages fell under the Hawke Accord era which was a vehicle designed to redistribute national income back to profits in the hope that the private sector would increase investment. By its centralised nature, the Accord only served to reinforce the bargaining position of firms by effectively undermining the traditional trade union movement skills – those practised by shop stewards at the coalface. Under the Howard years, some modest growth in real wages occurred overall but nothing like that which would have justified by the growth in productivity. In March 1996, the real wage index was 101.5 while the labour productivity index was 139.0 (Index = 100 at Sept-1978). By September 2008, the real wage index had climbed to 116.7 (that is, around 15 per cent growth in just over 12 years) but the labour productivity index was 179.1.

What happened to the growing gap between labour productivity and real wages? The gap represents profits and shows that during the neo-liberal years there was a dramatic redistribution of national income towards capital. The Federal government (aided and abetted by the state

governments) helped this process in a number of ways: privatisation; outsourcing; pernicious welfare-to-work and industrial relations legislation; the National Competition Policy to name just a few of the ways. Figure 3 depicts the summary of this gap – the wage share – and shows how far it has fallen over the last two decades.

Figure 3 Wage share of national income, Australia, 1978-2009, per cent

Source: RBA Bulletin database.

The question then arises: if the output per unit of labour input (labour productivity) is rising so strongly yet the capacity to purchase (the real wage) is lagging badly behind – how does economic growth which relies on growth in spending sustain itself? This is especially significant in the context of the increasing fiscal drag coming from the public surpluses which squeezed purchasing power in the private sector since around 1997. In the past, the dilemma of capitalism was that the firms had to keep real wages growing in line with productivity to ensure that the consumptions goods produced were sold. But in the recent period, capital has found a new way to accomplish this which allowed them to suppress real wages growth and pocket increasing shares of the national income produced as profits. Along the way, this munificence also manifested as excessive executive pay deals that have received prominence in the daily media over the last decade or so. The solution was found in the rise of financial engineering.

2.4 The rise of the financial engineer and rising household indebtedness

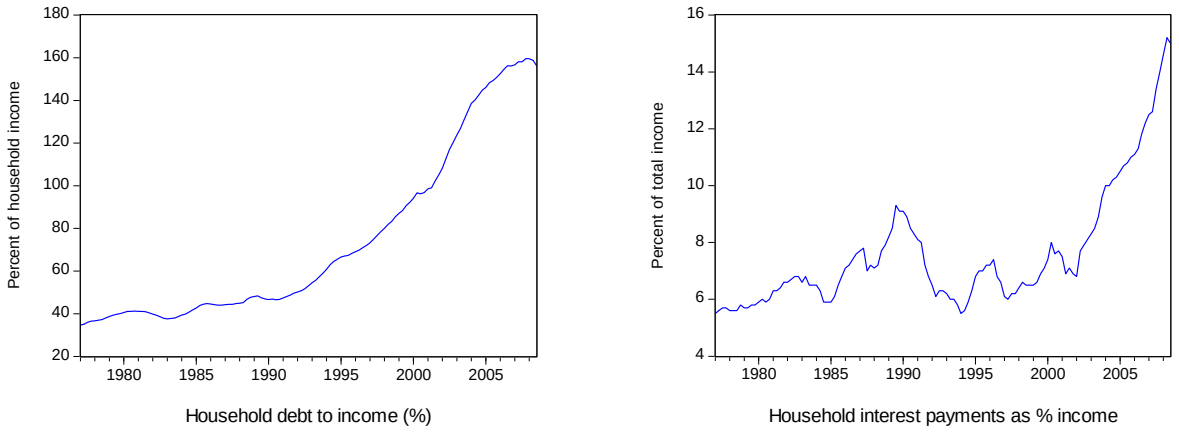
The realisation dilemma outlined in the previous sub-section was found in the rise of "financial engineering" which pushed ever increasing debt onto the household sector (see Figure 4). Capital found that they could sustain purchasing power and receive a bonus along the way in the form of interest payments. This seemed to them to be a much better strategy than paying higher real wages. The household sector, already squeezed for liquidity by the move to build increasing

federal surpluses were enticed by the lower interest rates and the vehement marketing strategies of the financial engineers. The financial planning industry was in tune with the urgency of capital to push as much debt as possible to as many people as possible to ensure the "profit gap" grew and the output was sold. And greed got the better of the industry as they sought to broaden the debt base. Riskier loans were created and eventually the relationship between capacity to pay and the size of the loan was stretched beyond any reasonable limit. This is the origins of the sub-prime crisis.

It is not difficult to link these dynamics to the current crisis, which began in the US as their real estate boom collapsed. Since 2000, the US financial engineers had loaned massive amounts to drive the boom. To increase their profits further, they penetrated into the riskier segments of the market - the so-called sub-prime loans. The bet was that even high risk borrowers would be able to re-finance on higher property values and avoid default. This bet turned out to be very unsound. As the housing price bubble burst and increasing numbers of borrowers faced negative equity, defaults and foreclosures rose dramatically. The extent of the exposure was at first unknown but we now know that many investment banks had borrowed huge amounts to purchase the mortgage-backed securities which were derived from the initial unsound loans.

Another factor has been the so-called credit-default swaps which are akin to insurance contracts. They are totally unregulated and provide the holder with a guarantee against loan default. Trillions of dollars of these swaps were written against risky mortgage loans. The problem was that once the loans soured, and the holder of the swaps started to seek their "insurance payment", the many financial institutions that had issued them could not honour their obligations.

Figure 4 Household debt perspectives, Australia, 1978-2009, per cent



(a) Household debt to income ratio

(b) Household interest payments to income ratio

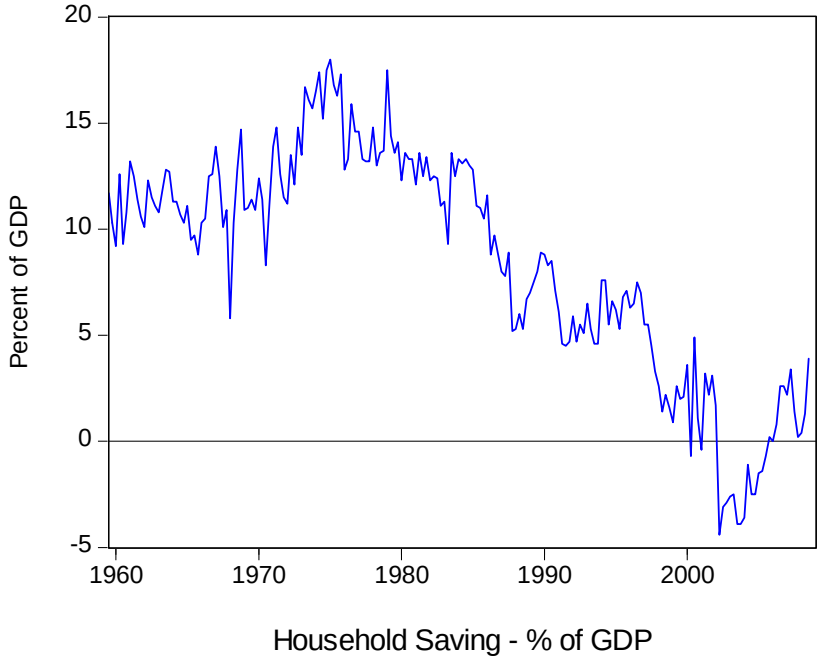
Source: RBA Bulletin database.

Figure 4 shows two perspectives of the increasing household indebtedness in Australia. The left hand panel shows the spiralling in the debt to disposable income ratio which stood at 69.1 per cent in March 1996 and by September 2008 had risen to a staggering 156.1 per cent. It was often argued by the Government, the RBA and so-called financial industry experts during the build up period that there was no call for alarm because wealth was growing along with the debt. The reality is that the debt was increasingly used to purchase assets with volatile prices and the

current crisis has wiped off a significant proportion of the wealth created during that period but the nominal debt remains. The right panel shows the servicing burden (interest payments as a percentage of disposable income). This ratio has risen from 5.7 per cent in March 1996 to 15 per cent in September 2008, further squeezing the real living standards of the household sector.

Figure 5 shows how this growth strategy drove the household saving ratio into negative territory as the liquidity squeeze from the budget surpluses finally took its toll. The unsustainability of the growth strategy was highlighted once the household sector started dis-saving.

Figure 5 Household saving ratio, Australia, 1978-2009, per cent



Source: RBA Bulletin database.

The only thing maintaining growth was the increasing credit which, of-course, left the nasty overhang – the precarious debt levels. It was only a matter of time before this would eventually unwind as households realised they had to restore some semblance of security to their balance sheets by resuming saving. Further, this increased precariousness of the household sector meant that small changes in interest rates and labour force status would expose them to the heightened dangers of insolvency much more quickly than ever before. Once defaults started then the triggers for global recession would fire and the malaise would spread quickly throughout the world. This viewpoint was expressed by modern monetary theorists (including this author) in the late 1990s as these trends became clear. We were often criticised by neo-liberal commentators for "crying wolf" and they referred us to the fact that nominal wealth was continually rising faster than the debt accumulation. As noted previously, the nominal wealth stocks have been severely diminished in the current crisis but the nominal debt and the servicing commitments remain to burden the individual households and to place a brake on aggregate demand.

3. Convertible and non-convertible currency systems

The economics policy options that arise under convertible currency-fixed exchange rate systems bear no relation to those which are available under the fiat currency-flexible exchange rate systems that prevail in most economies today.

3.1 Gold standard – convertibility and fixed exchange rates

Under a gold standard, a currency's value is expressed in terms of a specified unit of gold and there was convertibility between the paper currency and gold at the going parity. The monetary authority agreed to maintain the "mint price" of gold fixed by standing ready to buy or sell gold to meet any supply or demand imbalances. Further, the monetary authority had to maintain stores of gold sufficient to back the circulating currency (at the agreed convertibility rate).

Gold was also the principle method of making international payments. Accordingly, as trade unfolded, imbalances in trade (imports and exports) arose and this necessitated that gold be transferred between nations (in boats) to fund these imbalances. Trade deficit countries had to ship gold to trade surplus countries. Those enjoying an inflow of gold could expand the money supply (issue more notes) because they had more gold to back the currency. This expansion was in strict proportion to the set value of the currency in terms of grains of gold. The rising money supply would push against the inflation barrier (given no increase in the real capacity of the economy) which would ultimately render exports less attractive to foreigners and the external deficit would decline.

For the external deficit nation, the loss of gold reserves forced their government to withdraw paper currency which was deflationary and pushed up unemployment. The latter improved the competitiveness of their economy which also helped resolve the trade imbalance. But the deficit nations were forced to bear rising unemployment and vice versa as the trade imbalances resolved.

Under the gold standard, the government could not expand base money if the economy was in trade deficit. It was considered that the gold standard acted as a means to control the money supply and generate price levels in different trading countries which were consistent with trade balance. Monetary policy became captive to the amount of gold that a country possessed (principally derived from trade). Variations in the gold production levels also influenced the price levels of countries.

In practical terms, the adjustments to trade that were necessary to resolve imbalances were slow. In the meantime, deficit nations had to endure domestic recessions and entrenched unemployment. So the gold standard introduced a recessionary bias to economies with the burden always falling on countries with weaker currencies (typically as a consequence of trade deficits). This inflexibility prevented governments from introducing policies that generated the best outcomes for their domestic economies (high employment).

After World War 2, the IMF was created to supersede the gold standard and the so-called gold exchange standard emerged. Convertibility to gold was abandoned and replaced by convertibility into the USD, reflecting the dominance of the US in world trade. This new system was built on the agreement that the US government would convert a USD into gold at $USD35 per ounce of gold. This provided the nominal anchor for the exchange rate system.

Under the Bretton Woods fixed exchange rate agreement, there remained two types of countries – those with external deficits and those with external surpluses. The former faced continual

downward pressure on their exchange rate because the supply of their currency was always greater than the demand for it (via trade). As a consequence, the governments of these countries were forced to continually deflate their domestic economies, because monetary policy had to defend the exchange rate. Fiscal policy then had to be passive to avoid the stop-go growth patterns that were common. The domestic deflation arises because the governments had to purchase the excess supply of currency in the foreign exchange markets to maintain a balance between supply and demand at the level appropriate to hit the agreed parity.

The first problem such a government faced was a shortage of foreign reserves which it required so that it could keep buying up its own currency in the foreign exchange markets. But the domestic impacts – the resulting stagnation (high unemployment) also created massive political problems for the governments. Taken together the incentive then was to devalue the currency (which was permitted under the Bretton Woods system).

The problem then was that other countries became disadvantaged by the devaluation of one currency and the incentive then existed for what were called "competitive devaluations" – which in net terms were clearly counter-productive.

So under the Bretton Woods system, all the adjustment pressure was on the external deficit countries because they faced continual currency collapse. There was clearly a disincentive for surplus countries (given they had conned their populations into believing that shipping away more real goods and services than they received back via imports was a "good thing") to increase their own imports and restore some balance in world trade.

The surplus countries also stockpiled foreign currency reserves which insulated them from any currency crises and their central banks would sterilise the domestic impacts of the net exports boom by issuing bonds (to drain the domestic currency expansion that was occurring in the foreign exchange markets as the government kept the parity from rising).

Taken together these tensions were unsustainable and that is why the fixed exchange rate system collapsed in 1971.

3.2 A fiat monetary system

The move to fiat currencies fundamentally altered the way the monetary system operated. This system has two defining characteristics: (a) non-convertibility; and (b) flexible exchange rates. Economic policy ideas that prevailed in the previous monetary systems (based on convertibility) are no longer applicable in a fiat monetary system. Most of the analysis appearing in macroeconomics textbooks which then permeates into the public debate is derived from 'gold standard' logic. MMT is applicable to the operations of the fiat monetary system.

First, under a fiat monetary system, "state money" has no intrinsic value. It is non-convertible which means that you can take a $1 note to the government and in return you will get a $1 note back. So for this otherwise "worthless" currency to be acceptable in exchange some motivation has to be introduced. That motivation emerges because the sovereign government has the capacity to require its use to relinquish private tax obligations to the state. Under the gold standard and its derivatives money was always welcome as a means of exchange because it was convertible to gold which had a known and fixed value by agreement. This is a fundamental change.

Second, given that the relationship between the commodity backing (gold) and the ability to spend has been abandoned and that the Government has become the monopoly issuer of the fiat

currency in use (defined by the tax obligation) then the spending by this government is revenue independent. It can spend however much it likes subject to there being real goods and services available for sale. This is a dramatic change. The argument that the government has to get revenue from taxation or borrowing to "finance" its spending is false under a fiat currency system. This logic only applies to a gold standard or convertible monetary system.

Irrespective of whether the government has been spending more than revenue or less, on any particular day the government has the same capacity to spend as it did yesterday. There is no such concept of the government being "out of money" or not being able to afford to fund a program. How much the national government spends is entirely of its own choosing. There are no financial restrictions on this capacity.

This is not to say there are no restrictions on government spending. There clearly are – the quantity of real goods and services available for sale including all the unemployed labour. Further, it is important to understand that while the national government issuing a fiat currency is not financially constrained its spending decisions (and taxation and borrowing decisions) impact on interest rates, economic growth, private investment, and price level movements.

Under a fiat currency system, if the government sets limits on its own spending – for example, a rule restricting real growth of spending to be 2 per cent – then this is purely voluntary. It might be a sensible rule given the scale of nominal demand relative to real capacity but it is purely voluntary. These rules, however, usually arise from some misperception that the size of the budget deficit is a concern or the growth in public debt is a concern. However, neither concern is relevant to any matter of substance, and, instead reflects an ideological dislike for government activity.

Third, in a fiat currency system the issuing of debt by the monetary authority or the treasury has to serve other purposes. Accordingly, it serves a interest-maintenance function by providing investors with an interest-bearing asset that drains the excess reserves in the banking system that result from deficit spending. If these reserves were not drained (that is, if the government did not borrow) then the spending would still occur but the overnight interest rate would plunge (due to competition by banks to rid themselves of the non-profitable reserves) and this may not be consistent with the stated intention of the central bank to maintain a particular target interest rate.

Importantly, the source of funds that investors use to buy the bonds is derived from the net government spending anyway (that is, spending above taxation). This is a fundamental departure from the gold standard mechanisms where borrowing was necessary to fund government spending given the fixed money supply (fixed by gold stocks). Taxation and borrowing were intrinsically tied to the government's management of its gold reserves. So in a fiat currency system, government borrowing doesn't fund its spending. It merely stops interbank competition which allows the central bank to defend its target interest rate.

The flexible exchange rate system means that monetary policy is freed from defending some fixed parity and thus fiscal policy can solely target the spending gap to maintain high levels of employment. The foreign adjustment is then accomplished by the daily variations in the exchange rate.

4. Operational design of a modern monetary system

4.1 Overview

This section outlines from the perspective of MMT, what changes would help restore and sustain macroeconomic stability once economic growth returns. Most of the proposals outlined are applicable to all sovereign governments (those states that issue their own fiat currency and run flexible exchange rates) although in certain situations we refer to the institutional arrangements in place in Australia.

4.2 The role of the national government

Before we establish specific arrangements that should apply to financial markets and the interaction between government and non-government, we need a clear statement of purpose for any national government. Some of the erroneous reasoning in the media and that which arises in the broader debate stems from a lack of clarity about what it is that the national government should be doing on our behalf.

From the perspective of MMT, the national government, which is the monopoly issuer of the currency, has a charter to advance public purpose (welfare) at all times even if, in doing this, specific private interests are impeded. In general, the advancement of public interest will provide a sound basis for private benefit also. But at times this will not be the case.

From that broad charter, full employment and price stability, poverty alleviation and environmental sustainability become the most significant expressions of public purpose. These policy goals are necessary conditions for an economy to perform to its potential.

4.3 Conduct of Treasury

The Department of Treasury in any country implements fiscal policy on behalf of the elected government. At present most governments have voluntary arrangements in place (some of which are enacted in law) which resemble the constraints they faced under the gold standard. These relate to constraints on net spending and the necessity to match net spending $-for-$ with borrowing from the non-government sector (either domestically or foreign). These arrangements are a denial of the opportunities that a fiat monetary system offers the elected government. They open the government to criticism from the conservative elements in the society who equate the government budget with the household budget.

It is clear that these arrangements have had an ideological slant. In a speech from the Deputy Chief Executive Officer of Australian Office of Financial Management, a division of Treasury established to manage government debt, the transition from the tap to auction system was discussed. Referring to the so-called captive arrangements, where financial institutions were required under prudential regulations to hold certain proportions of their reserves in the form of government bonds as a liquidity haven, McCray (2000) says:

> … the arrangements also ensured a continued demand from growing financial institutions for government securities and doubtless assisted the authorities to issue government bonds at lower interest rates than would otherwise have been the case … Because such arrangements provide governments with the scope to raise funds comparatively cheaply, an important fiscal discipline is removed and governments may be encouraged to be less careful in their spending decisions.

Under constant pressure from those opposed to government policy activism, the Federal government sought to change the system of debt-issuance to voluntary limit what it could do in terms of fiscal policy. This was the period in which full employment was abandoned and the national government started to divest itself of its responsibilities to regulate and stimulate economic activity.

McCray (2000) describes this transition:

> The reduced fiscal discipline associated with a government having a capacity to raise cheap funds from the central bank, the likely inflationary consequences of this form of 'official sector' funding … It is with good reason that it is now widely accepted that sound financial management requires that the two activities are kept separate.

So the imposition of voluntary constraints was driven by the ideological view that there had to be fiscal discipline. This also arose during a period when monetary policy became the dominant tool for counter stabilisation and narrowed its focus to inflation targeting. Under this policy framework, fiscal policy became a passive player (see Mitchell and Muysken, 2008).

Of-course, the way the concept of "fiscal discipline" was constructed was biased towards the government running surpluses and reducing its command of the economy's resources. Accordingly, the pursuit of fiscal discipline manifested as spending restraint, particularly in the areas of social welfare and public goods (education, health etc) and tax reductions, particularly for high income earners.

The voluntary constraints, in turn, creates political constraints on the government such that it is pressured to maintain high rates of labour underutilisation for the last 35 years in most countries because they are unable to run deficits that are required to match the saving desires of the non-government sector and therefore generate sufficient jobs. As a consequence, aggregate demand has been restricted and even undermined in recent decades by the pursuit of budget surpluses and the non-government sector has been pushed into dis-saving (and increased indebtedness).

These voluntary constraints thus lead to unsustainable outcomes but the costs of the dysfunction that follows are borne mainly by the less advantaged groups in the society.

The way ahead is to abandon all voluntary constraints on net spending and the institutional machinery that has arisen to implement these constraints (for example, the Australian Office of Financial Management). This change would explicitly recognise the differences and advantages that a government in a fiat monetary system has over one operating in a convertible currency system (gold standard) and create behaviours and institutions that allowed the government to exploit those advantages.

Specifically, Treasury should stop issuing debt instruments – that is, the government should refrain from public borrowing. Such borrowing is unnecessary to support the net spending (deficits) given that the national government is not revenue-constrained. The borrowing also contributes nothing positive in terms of advancing the primary goals of the national government specified in Section 4.2.

The manifestations of this would be that net public spending in pursuit of full employment would manifest as cumulative excess reserve balances at the central bank. Some readers will immediately ask: so this will be the "printing money" option that is spelled out in the macroeconomic textbooks. But the operational reality is that it has nothing to do with "printing money". All government spending occurs in the same way – altering bank account balances in

the private sector or issuing cheques that end up in bank account balances. What the government does in addition to this operation does not alter the fact that government spending ultimately adds reserves to the banking system. Taxation – is just the reversal of the spending processes (debiting bank accounts) and drains bank reserves. Further, in the case of debt issuance, the government only really borrows as part of monetary policy – to manage the reserve impacts of the net spending and allow the central bank to maintain a positive target rate of interest at the short end of the term structure which, in turn, conditions the longer maturity interest rates.

So by issuing public debt, the central bank drains excess reserves and stops any interbank competition which drives the overnight rate towards zero (or whatever support rate the central bank offers banks on overnight reserves).

It is clear that excessive issuance of debt leads to higher investment rates than would be the case if there was no debt issued and it is hard to imagine why this would be seen as being economically beneficial. If the government wants the private sector to have less spending capacity at any particular time, then it can use taxation increases to accomplish this goal.

Further, the government can always instruct the central bank to pay a return on excess reserves if it wanted to maintain a positive overnight interest rate. However, as we will discuss in the next sub-section, typically the central bank should run a zero interest rate policy which would make the payment of interest on overnight reserves redundant.

We should further understand that the issuance of Treasury bonds acts like corporate welfare for purchasers who are typically financial institutions and foreign governments. Why should they enjoy a risk-free government annuity? There is no wider public purpose that can be gained from this. The futures traders use the government bond as a pricing vehicle (as the risk-free asset). But why couldn't they develop a private benchmarking asset to fulfill the same function but which wouldn't carry the public transfer of funds connotation? The answer is that they clearly could and their continual claims that the government has to issue debt to maintain financial stability in futures markets etc are just special pleading and are spurious.

What about sovereign funds? These involve the national government via its treasury speculating in financial markets through the purchase and sale of financial assets. There is no public purpose that can be achieved by using net spending to build stockpiles of financial assets. Typically, this behaviour is constructed as the government "storing its surpluses" in some asset for later use – to permit some future liability (public pensions, public service superannuation, ageing-society demands etc) to be "funded" more easily. But, of-course, that logic is inapplicable to a sovereign government in a fiat monetary system which is not revenue-constrained. Saving for a household involves them sacrificing current consumption in return for a larger than otherwise flow of future consumption. However, a sovereign government does not have to sacrifice current spending in order to be able to spend in the future. The only constraint on a sovereign government's spending are the real goods and services that are available for sale and the need to balance nominal growth in aggregate demand with the real capacity of the economy to absorb it.

The purchase of the financial assets is thus not "storing surpluses" – it is just plain government spending – in the case of a sovereign fund, on financial assets instead of other uses that the spending could be put to – such as, better schools, better hospitals, higher employment, more generous research funding etc. While the true test of the benefits of any government spending is what you might be doing otherwise with the spending, It is difficult to imagine that it could ever be "better" to buy shares in some company as a speculative venture rather than to improve public

education or health. Further, we know that great discoveries come from research. Perhaps the next dollar spent by the government on research in the university system will discover the cure for cancer! That will never come from speculating on the share price of a telecommunications company (using the Australian Future Fund as an example).

Thus, as an operational rule, the treasury should be banned from purchasing speculative financial assets and noting that the central bank would be excluded from this rule.

4.4 Conduct of the Central Bank

The central bank should manage the liquidity (cash) system to maintain a zero overnight interest rate as a permanent feature of the monetary system. All adjustments to aggregate demand are better made using fiscal policy. A zero interest rate policy would reduce the rates right across the term structure and would be beneficial to investment, output and employment. This policy would to some extent alter the behaviour of saving (positive interest rates reward savers) but any desired adjustments to the behavioural changes (reduced saving) can be accomplished via fiscal policy.

Forstater and Mosler (2005) argue that the 'natural' short-term rate of interest is zero in a modern monetary economy because it is the rate of interest which would emerge if the non-government sector was net saving in the unit of account and the government was maintaining full employment. As a matter of national accounting this would require the government sector to be running continuous budget deficits which would generate excess overnight reserves in the commercial banking system. Accordingly, the central bank would have to do something 'artificial' like selling government bonds to alter the 'natural' tendency to zero overnight rates, which would arise from competition in the interbank market.

A further reform should focus on the relationship between the central bank and the member banks (those who have reserve accounts with the central bank). At times the central bank lends to its member banks. This lending should never be constrained and should be priced at whatever the current rate for lending to banks is. No special arrangements are needed to facilitate this. For example, the US Federal Reserve currently requires collateral from the banks it lends to despite the fact that the assets used already fall under the Federal regulative ambit. The point is that as long as the regulator is ensuring the assets held by the banks are viable then demanding collateral is a waste of time.

Some analysts think that if the central bank restricts its lending to the banks, then this will serve to restrict credit. If it is thought that there is too much private borrowing then this would suggest that the central bank should not offer unlimited loans to the member banks. But once we reject the "money multiplier" view of the world, then we learn that commercial bank lending is not reserve-constrained (as it is in the text book models). That is, banks lend to any credit worthy customer and worry about getting the necessary reserves after the fact. So constraining the central bank lending to the banks will not alter their own lending. What will happen though is that the rate it lends to banks and its target interest rate will be affected. The central bank has to offer whatever reserves are demanded by the commercial banks if it wants to maintain control over these two rates. Further, by making this offer the interbank market would disappear and that eliminates the inefficient process of banks borrowing and lending reserves between each other.

4.5 Asset bubbles and a zero interest rate policy

Some readers might consider a zero rate of interest policy would not provide the central bank with a defence in face of asset price bubbles. The proposition is that if the central bank maintains a zero target interest rate then lending rates will be so low that there will uncontrollable asset bubbles. However, as long as fiscal policy is used sensibly a zero interest rate policy is unlikely to be destabilising.

As an example of how fiscal policy drives asset bubbles we can consider the very generous tax treatment that real estate investors receive in Australia. Yates (2009) found that tax concessions to the wealthy serve to price others out of the property market. Henry (2009) also suggests that there is a 'significant asymmetry' in the tax system in favour of property speculation. Negative gearing in Australia (the capacity to tax deduct losses on investment properties) clearly distorts the housing market and inflates asset prices. Those with high incomes can gain very significant tax concessions by purchasing several investment properties and running them at a loss (thereby reducing their current taxable income), and then, eventually, cashing in on the capital gain sometime in the future.

What would happen if negative gearing was eliminated? First, investors would be forced to bear all the costs associated with the investment and as such the assessment of capital gains would become more important. If, in turn, the capital gain is taxed more rigorously then the speculative market for housing would be mostly eliminated. People will still compete for the scarce assets but within a much different cost-benefit environment which would put a brake on the speculative excesses (for example, owning multiple properties).

Second, while many pro-negative gearing lobbyists (such as the Property Council) argue that the rental property availability would decline if negative gearing was abolished, they usually ignore the provision of public housing and never consider the obvious solution for low-income earners – a publicly-provided fund for house purchase.

This is particularly relevant in the context of the other main source of housing price inflation in recent years - the first-home buyer grant scheme. This fiscal policy initiative designed to help low-income families acquire housing has led to the capitalisation of the subsidy into the price on offer. Its failure suggests that a non-market system of provision is required if the government wants to help people at the lower end of the housing market.

Public housing has been subjected to the neo-liberal attacks on government spending over the last 20 years or so and waiting lists remain very high. There is a huge shortage of low-end housing stock in Australia as a result (Australian Institute of Health and Welfare, 2009). The latest data shows that over the last decade there has been a 5 per cent drop in the provision of public housing as governments have adopted neo-liberal strategies to force more private ownership/rental. As at 2007-08 (latest estimates) there were 178,000 people waiting for public housing and the delays can be years.

It is reasonable to conclude that many of the housing problems in Australia have resulted from poor design and implementation of fiscal policy. An appropriately designed taxation system with targetted policies to stop housing speculation would be far more efficient at controlling asset price bubbles than using the blunt end of monetary policy.

Monetary policy is a very inefficient policy tool. It cannot discriminate across regional space. We have seen that in recent decades a booming capital city can be accompanied by stagnant

regional and remote economies. And the considerable regional disparities in economic performances have persisted even during the growth spurt. In cases like this, when, say a major city (for example, Sydney) is booming and housing prices are escalating, increasing interest rates impacts severely on the stagnant areas of the country. A well-targetted fiscal instrument, mostly in the form of specific taxation measures that can discriminate by region and demographic-income-property cohorts, would not encounter these issues.

Further, if public housing is considered undesirable as a solution the federal government (with some constitutional reforms) could set up a fund to allow access to cheap mortgage instruments to low-income families and allow them to purchase housing (publicly- or privately-provided) with minimal distortion to the price distribution. MMT tells us that the federal government can always afford to do this.

4.6 Operational guidelines for banks

The only useful thing a bank should do is to facilitate the payments system and to provide loans to credit-worthy customers. Attention should always be focused on what is a reasonable credit risk. Several regulative suggestions are indicated in this regard.

First, banks should only be permitted to lend directly to borrowers. All loans would have to be shown and kept on their balance sheets. This would stop all third-party commission deals which might involve banks acting as "brokers" and on-selling loans or other financial assets for profit. It is in this area of banking that the current financial crisis has emerged and it is costly and difficult to regulate. Banks should go back to what they were.

Second, banks should not be allowed to accept any financial asset as collateral to support loans. The collateral should be the estimated value of the income stream on the asset for which the loan is being advanced. This will force banks to appraise the credit risk more fully.

Third, banks should be prevented from having "off-balance sheet" assets, such as finance company arms which can evade regulation.

Fourth, banks should never be allowed to trade in credit default insurance.

Fifth, banks should be restricted to the facilitation of loans and not engage in any other commercial activity.

5. Conclusion

This paper has provided a MMT perspective on the current crisis tracing it to the pursuit of budget surpluses and neo-liberal reforms which deregulated labour and financial markets and drove a wedge between the real wage and labour productivity growth. Rising private indebtedness filled the gap and permitted economic growth to continue – until households began defaulting on the debt and resumed saving.

The return to deficits has been the first step in recovery as the deficits have "financed" private savings by stimulating income growth and allowing households to restore some health to their household balance sheets. The next step in the recovery process has to be to realign real wages to ensure they grow in proportion to labour productivity. That will allow spending levels to be maintained with sustainable levels of household debt. The household sector cannot dis-save for extended periods.

In designing the policy framework that will sustain growth in employment and reduce labour underutilisation these tenets have to be central. It also means that the massive executive payouts both in the private and public sector have to cease and more realistic distributional parameters have to be restored.

But there is an urgent need to go beyond these short-term recovery responses and change the way our real economy interacts with the financial system and the way the government sector interacts with the non-government sector.

The paper has also sketched some desirable reforms to the way government operates and the way the financial markets should be regulated.

References

Australian Institute of Health and Welfare (2009) *Public rental housing 2007-08*, January.

Forstater, M. and Mosler, W. (2005) 'The Natural Rate of Interest Is Zero', *Journal of Economic Issues*, XXXIX(2), June, 535-542.

Henry, K. (2009) 'Towards a better taxation of savings', Address to the Australian Conference of Economists Business Symposium, October 1, 2009 available at http://taxreview.treasury.gov.au/Content/Content.aspx?doc=html/speeches/09.htm.

Lerner, A. (1941) 'The Economic Steering Wheel', *University of Kansas Review*, June.

Lerner, A. (1943) 'Functional Finance and the Federal Debt', *Social Research*, 10, 38-51.

Lerner, A. (1944) *The Economics of Control*, New York, Macmillan.

Lerner, A. (1951) *The Economics of Employment*, New York, McGraw Hill.

Juniper, J. and Mitchell, W.F. (2008) 'There is no financial crisis so deep that cannot be dealt with by public spending', in Wrightson, G. (ed.) *Labour underutilisation, skills shortages and social inclusion, Proceedings of the 15th National Conference on Unemployment*, December, 64-77.

McCray, P. (2000) 'The Australian Government Bond Market', paper presented to *Asian Development Bank Conference on Government Bond Markets and Financial Sector Development in Developing Asian Economies*, March, available from http://www.aofm.gov.au/content/publications/speeches/2000-03-28-1/SpeechToADB_Paper.asp.

Mitchell, W.F. and Muysken, J. (2008) *Full employment abandoned: shifting sands and policy failure*, Aldershot, Edward Elgar.

Yates, J. (2009) *Tax expenditures and housing*, Brotherhood of St Laurence and the Australian Housing and Urban Research Institute, September, available at.http://www.bsl.org.au/pdfs/Yates_tax_expenditure_and_housing_2009.pdf.

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