A Critique of Modern Monetary Theory (MMT)

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November, 2013

ABSTRACT

This paper provides a broad critique of the economic theory known as "Neochartalism" or Modern Monetary Theory (MMT). The critique is taken from the perspective and understandings of Monetary Realism.

Introduction

Neochartalism, also known as Modern Monetary Theory (MMT) is an interesting and relatively new arm of Post-Keynesian Economics (PKE) that has developed in recent decades and has become quite popular in the last few years largely on the internet. As an arm of PKE there is much that is correct within MMT, but there are also some newer contributions made by the "neochartalists" that render the theory flawed and inapplicable to the modern monetary system.

MMT Overview

MMT is made up of four key components: 1) Wynne Godley's sectoral balances; 2) GF Knapp's State Theory of Money; 3) Hyman Minsky's Employer of Last Resort (the MMT Job Guarantee – hereafter referred to as the JG); and 4) Abba Lerner's Functional Finance. MMT advocates combine these ideas to create a dynamic and thought provoking school of economics. Although the theory is sympathetic to much of Post-Keynesian Economics the theorists made substantial additional contributions to the general PKE framework. It is my position that much of this "new" framework is erroneous when applied to the modern monetary system and has a tendency to mislead.

To understand why MMT does not currently apply to the modern monetary system in the USA it is best to understand how they design a government centric view of the money system in much the same way that all other neoclassical economists do. In this paper, I will show how MMT designs a reserve centric or state centric view of the money system when the reality is that we have an almost purely endogenous or private bank controlled money system. The following figure will help in summarizing the following argument and understanding why MMT's foundation is fundamentally flawed and inapplicable to the modern monetary system.

The MMT Monetary System	The Actual Monetary System
"Money" comes purely from the government. Deposits are "not money".	Bank deposits are the dominant money and are created by private banks.
Central bank reserves are the "top" of the money hierarchy.	Central bank reserves facilitate clearing of interbank payments and merely support bank money.
The money system exists for public purpose first, private purpose second.	The money system exists for private purpose first, public purpose second.
Government taxes "destroy" money.	Government taxes redistribute existing bank money.
Government is a "money monopolist.	Government has outsourced money creation to private banks.
The history of money begins with governments.	Money is found in societies pre-dating organized government and even in primitive species.
The Fed and Treasury are consolidated into "the state".	The Fed and Treasury are specifically separate entities with the Fed & private banks designed to disperse money creating powers away from the Executive Branch .
Government "net financial assets" play the central role in the private sector's health.	The key to private sector health is private output which is supported by the issuance of private financial assets which represent over 80% of the private sector balance sheet in the USA.

(Figure 1 – Overview of MMT Flaws Relative to the Actual Monetary System)

At times over the years MMT advocates have attempted to claim that their views are purely consistent with the endogenous money views, however, MMT is clearly a state centered theory of money as has been made clear by several comments by its founders:

"MMT begins with the government" – Warren Mosler, the original founder of MMT, stating that MMT specifically begins with the government. Any sound understanding of the economy should actually start with the private sector as government is little more than leveraged entity whose powers exist almost entirely as a result of the strength of its private sector.

"a currency-issuer government under flexible exchange rates sits at the top of the hierarchy" – MMT advocate and professor Scott Fullwiler stating that reserves and government money sit atop the "hierarchy or money" and are central to the money system. This is false as reserves facilitate the use of bank money and exist entirely for the purpose of supporting the inside money system.

"After all, that's what it is all about, right? From inception, the purpose of the monetary system is to move resources to the public sphere." – Professor Randall Wray stating that the entire purpose of the money system is for public purpose (ie, government spending). This is false as a money system exists primarily so the private sector can transact in the means of private purpose. Public purpose is a secondary feature to the majority of transactions that occur on a daily basis in the private sector. And in fact, without private production and taxable revenues the public sector cannot even exist in the first place.

"Under the metallist vision, the state takes a back seat to the market. The chartalist theory, however, places the state on center stage". Stephanie Kelton clearly stating that the state is the center of MMT.

In the following sections I will describe how this state centered view of the world is wrong and why MMT does not actually apply to the US monetary system or most modern monetary systems.

Errors of Description and Prescription

MMT is often described as having descriptive and prescriptive components, but as a whole MMT is one tightly knit comprehensive macro theory which is "inherently progressive". It is an all encompassing theoretical view of the world that offers answers to the macro issues of full employment and price stability.

Although MMT certainly has powerful descriptive pieces, without the prescriptive policy approaches such as the MMT Job Guarantee you are simply not describing the world as MMTers envision it because you are no longer offering the comprehensive macro answers that MMT is specifically designed to provide. Pavlina Tcherneva made this very clear recently:

"Though clearly there is an aspect of MMT that is purely descriptive, I have always considered this division between the descriptive and prescriptive part of MMT to be a fundamentally flawed dichotomy."[i]

Bill Mitchel has made similar comments in this regard:

"The reality is that the JG is a central aspect of MMT because it is much more than a job creation program. It is an essential aspect of the MMT framework for full employment and price stability."[ii]

Warren Mosler refers to the JG as the "base case for MMT:
"It's about recognizing 'JG' is the 'base case' for fiat money in general."[iii]

The problem with intermingling description and prescription is that it ultimately ends up providing a highly biased perspective of the money system. In most cases economists build a policy view around how the government can resolve certain problems in the economy. For instance, Monetarists focus on how the central bank can be utilized to reach full employment and price stability which results in a biased view of the importance of reserves. Keynesians tend to focus on government spending which places undue emphasis on the Treasury's operations. And MMTers focus on how the Job Guarantee can be used to resolve problems which leads them to ultimately build a focus around the state. In this regard, MMT makes the same mistake most neoclassical economists do by misunderstanding the endogenous nature of the monetary system and instead building a state centric monetary view.

Like most modern economic schools of thought, MMT offers some superb insights into some of the actual workings of the modern monetary system, but given its "inherently progressive" nature MMT actually requires dramatic changes to the system to be applicable in its entirety.[iv] This is one of many internal inconsistencies that render the foundation of MMT flawed. They claim that the theory "describes operational realities" (status quo), but that the theory itself is "inherently progressive". Clearly, that's internally inconsistent since you can't be "describing" status quo (what is) while needing a progressive overhaul for the theory to be entirely applicable. For instance, in order for MMT's operational views to become consistent with the institutional framework the Fed and Treasury would need to be combined and the US government would need to halt many of the policies that impose real funding constraints on the Treasury. This consolidated government view (combining the Fed and Treasury into one entity) is central to the MMT understandings, but ignores the reality that this distinction is "self imposed" for good purpose and alters the actual operational realities at work here.

In a recent "reply to critics" Randall Wray and Eric Tymoigne argue that the "self imposed" constraints make no difference because the accounting is the same whether you consolidate the Fed and Treasury or make some of the other alterations that MMTers often engage in.[v] This might be true, but the accounting behind a bank loan is the same in Communist China as it is in the USA, but it would be entirely naïve to argue that a state controlled banking system is the same as a privately owned banking system. But this is the exact equivalent of what MMT tries to argue. This is a highly misleading and counterproductive way to present the monetary system.

Ironically, MMT falls into the same trap here that neoclassicals do by referring to a set of institutional structures as though they have already been changed to adhere to their views even though they clearly have not. Ironically, post Keynesian Joan Robinson once criticized neoclassicals for this, saying:

[neoclassicals often view the world] "where somehow the future has already happened" (Robinson 1979: xiii)

This flawed view can be seen in their many conflicting statements on the subject. Some MMTers say the theory is "inherently progressive", but others try to claim it has nothing to do with politics. Fullwiler says that MMT is not a theory of the state entering the realm of politics:

"[MMT is] a state theory of money, not a theory of the state (that would be the realm of politics and political theory, by the way)."[vi]

MMT makes the same mistake Robinson criticized neoclassicals for by discussing the monetary system as though their views are not inherently political or requiring political changes. This results in MMT often blurring the lines between what they *want* and what we *have*.

MMT is an "inherently progressive" theory of the monetary system that requires dramatic overhauls (combining Fed and Treasury, eliminating bond sales, making fiscal policy the primary policy lever, creating a national Job Guarantee, etc) to be a completely accurate description of the actual monetary system we have. The current monetary construct has very real constraints that make many of MMT's points void in relation to describing how the current system works. This explains their adoption of two conflicting explanations (the "general" and "specific" cases) of the monetary system. Importantly, the US monetary system is structured in a specific manner that negates many of the state centered views that MMT espouses. When attempting to understand this system it is crucial to keep the laws and specific institutional structures in mind so as to provide the correct perspective of the various relationships, spheres of power as well as checks and balances.

MMT Misunderstands the Importance of Modern Endogenous Money

In the MMT world, money is chartal money or state money. In his book, Understanding Modern Money, Wray elaborates:

"Chartal, or modern money is 4000 years old, and it is our proposition that the analysis contained in this book is not merely a special case….but rather it can be applied much more generally to the entire era of chartal, or state money. Instead of trying to locate the origins of money in a supposed primitive market originally based on barter, we find the origins in the rise of the early palace market community, which was able to enforce tax obligation on its subjects."

To MMT, "modern money" began with the state and the enforcement of obligations. MMT simply ignores the fact that the origin of money was established in human society well before governments. Because money is a "creature of the state" in MMT the state always plays the most central role in MMT. But money is merely a social tool and misunderstanding the origin of this tool misunderstands its purpose and proposed uses. The organization and structuring of money into fiat through state organizations did not change the essence or nature of money. It merely changed the way the tool is organized and structured. But it did not change the fact that money is a social construct and that governments are merely one element of society.

The state exists not as an entity that can or should impose its will and powers on the people. It exists as an entity by the people and for the people. It is not an exogenous entity whose powers should always be taken to an extreme just because it might have the capability of achieving certain things. The fact that government's CAN do something does not always mean it SHOULD. But MMT often takes these views to an extreme when it's convenient to their policy agenda saying the government CAN therefore it SHOULD. This position has also been criticized by post-Keynesian Perry Mehrling:

"Wray recounts some of this history (pp. 61-69, 98-102) but misses its significance. The significant point is that our government is our creation. It is only able to tax us to the extent that we allow it to do so. Its taxing authority arises not from its raw power but from its legitimate authority. Further, our state arises out of a thriving private civil society, not the reverse, as the colonial parable would have it. Our state is not a king demanding bounty, and consequently the argument that the power to tax is the source of money's value does not seem very compelling."

More importantly, this conflates the reality that banks are the primary issuers of money in the modern monetary system. The US government, for all practical purposes, has outsourced the issuance of money to private profit generating entities. Their money is not "state money" at all. It is their liability. This system is almost entirely endogenous and designed around money created inside the private sector and not public sector forms of money.

Knapp's State Theory of Money only applies in the broadest sense in a system like the USA. In a system like the USA, where the banks control the price and quantity of money, the state has very little control over the quantity of money. Banks must operate within the rules and boundaries established by the government, but that does not mean they are necessarily government entities or merely acting on behalf of the government. In countries like the USA the government has determined the unit of account (the US Dollar), but other than that the US government actually has far less control over the money supply than most presume.

MMT often claims to understand the history of money, but they often ignore the actual history of money in the USA, the system they most often discuss. For instance, in the USA prior to the Federal Reserve System, the USA was dominated by a "free banking" system that issued money as liabilities of private entities. These notes were accepted as money and backed by no federal backstop. The only reason the Federal Reserve System was created was because a series of banking crises in the 1800's led to the need for a federal clearinghouse where banks could more systematically clear their interbank payments. MMT constructs their view around the reserve system as though this has always been in place or as though it is of some central importance to the monetary system. They place the reserve system squarely at the top of their "hierarchy of money" without ever acknowledging that the Fed was formed as an add-on to the private banking system to serve primarily as a clearinghouse for a payments system that was already in place. And while the Reserve system certainly gives the government more control over money than it previously had, it is crucial to understand that the modern Federal Reserve system exists as a support mechanism around the banking system.

In trying to makes these sorts of inconsistencies more consistent, MMTers use two conflicting descriptions of monetary operations. They use a "general case" and a "specific case" to explain why the government "spends first" in their general case and actually procures funds first in the specific case. This is an evolution in MMT ideas that obscures and hides the fact that MMT's long-held positions on "operational realities" are in fact shifting, misleading and largely designed around one policy agenda. Fullwiler says:

"[Modern money theorists understand that there are legal constraints on the Treasury]—the key is to understand what "deficits or Fed lending logically precede tax payments and bond sales" does and does not mean. That is, when MMT'ers say the latter, they are effectively saying "deficits or Fed loans logically precede taxation and bond sales as an operational reality of the monetary system" (the general case), and this and the statement "the Treasury must have positive balances in its account prior to spending under current law" (the specific case) are in fact not mutually exclusive. Both can be and are true—the government can and does require itself through its own self-imposed constraint to obtain credits to its own account at the Fed that were created via previous deficits or Fed lending before it spends again."

It's completely inconsistent and illogical to argue that the two views are "not mutually exclusive". One is a description of our reality (the way things actually are) while the other is a description of an alternate reality (the MMT government self funding view). The general case is a simple case of the government being a self funding entity while the specific case is the government determining itself as a user of bank money. These are not the same thing and in fact involve a very different set of understandings, flow of funds, accounting and institutional structure.

In the MMT world taxes do not "fund" spending. Instead, the government need not tax to spend or sell bonds to spend. But this thinking misconstrues endogenous money. As Minsky once stated, anyone can create money, but the trouble is in getting others to accept it. Money is accepted when the issuer has credit. And credit is a direct function of output and income. If the government did not have a productive output base to tax it would have no credit. Who would buy bonds from a government that could not tax its private output? Who would buy bonds from an entity that could never repay those bonds?

Anyone who issues money in an endogenous system must be able to find willing holders of their liabilities. This is as true for a state as it is for a private citizen. The key difference between a household and a government is that once a private citizen cannot fund its liabilities it is deemed bankrupt. The state, however, will not deem itself bankrupt and is generally not susceptible to such laws (except in rare cases like Greece where it has essentially outsourced its own monetary sovereignty). Instead, when a state cannot find willing holders of its liabilities it will suffer a currency crisis or an inflation crisis. The fact that the state can always "fund" itself by printing more money or having the Central Bank fund its liabilities is a powerful and important understanding, but it does not preclude the state from having to fund its liabilities by finding willing holders.

MMTers sometimes say things like "taxpayers do not fund anything". But this is like saying that my income does not fund my spending so long as I can find willing holders of my debt. I am essentially issuing money simply by finding a lender who will hold my deposits (a new loan is the equivalent of issuing the bank a new asset to fund some spending). That is, if I could perpetually find new lenders then I would have no need for an income. You could even say that my income doesn't "fund" my spending because I can spend without having any income. But this is obviously silly because output and income gives one credit. If a sovereign currency issuer could not tax some level of output then they would have no credibility. They would essentially be bankrupt because no one would hold the liabilities of an entity that has no chance of being able to repay those liabilities since there is no output base upon which those liabilities can be given value. Although a sovereign government has unique powers it is not immune to the reality that it can run out of willing holders of its liabilities.

In this sense, it is rather meaningless to say that the state doesn't "fund" its spending because just like any other liability issuer it most certainly needs to find willing holders of its liabilities. The state, just like all issuers of money, must be able to find willing holders of its liabilities which means that, for all practical purposes, it most certainly funds the liability side of its balance sheet. After all, in the extreme case where it could not obtain funds from the private sector via taxes then no private sector party would desire holding bonds. This would leave their money worthless just as we often see in the case of a hyperinflation. The ability to tax a productive private sector is precisely what gives money value in the first place.

In the original MMT text, Mosler's "Soft Currency Economics" bond sales were described as nothing more than a "reserve drain:

"The imperative behind federal borrowing is to drain excess reserves from the banking system, to support the overnight interest rate. It is not to fund untaxed spending. Untaxed government spending (deficit spending) as a matter of course creates an equal amount of excess reserves in the banking system. Government borrowing is a reserve drain, which functions to support the fed funds rate mandated by the Federal Reserve Board of Governors."

This has obviously been proven wrong as Quantitative Easing has resulted in a banking system awash in excess reserves and the Fed has maintained interest rates simply by paying interest on reserves. Bond sales are clearly still occurring in this environment and serving to help the Federal government procure bank money. So the MMT "reserve drain" story is clearly incomplete. The payment of interest on reserves should have altered the way the government actually borrows and spends since this is clearly not a "reserve drain". But that didn't happen. The government still sells bonds to procure bank money just as it did before.

Oddly, at times in MMT's history, they have described the specific case with great accuracy. In a 1998 paper by Stephanie Kelton (then Stephanie Bell) she describes how the state issues bonds to finance its spending by obtaining bank deposits.[vii] This monetary design places the banks firmly in the center of the monetary system as it requires the state to obtain bank deposits before it can ever credit its account at the central bank. In other words, this is a clear and obvious distinction in operational realities that is specifically different from the MMT consolidated government view. The Bell 1998 view is the actual flow of funds through the system and contradicts the usual MMT story (as Kelton says in a foot note). But then she goes wrong when she states:

"it would be impossible to collect dollars from the private sector unless they had first been spent into existence by the public sector"

This statement is categorically false and one that MMTers often use. Because they claim that all dollars come from the government they illogically claim that taxes cannot be paid unless the government spends first (in MMT taxes "drive money"). Most of the dollars used to pay taxes come from banks who create them independent of government constraint when they create loans. These are private entities whose liabilities are not state liabilities. In order for MMT to be accurate and entirely consistent with endogenous money the entire banking system would need to be nationalized so that all bank liabilities were state liabilities. There is simply no such thing as the government needing to spend first in order for there to be money.

Another conflated aspect here is with regards to the idea of "money" itself. MMTers will avoid use of the term "money" as best they can because they don't really have a clear definition of money at all (though they claim to be experts at defining precisely what it is). This becomes particularly confusing when they include government bonds as net financial assets to be the same thing as reserves or deposits. In an effort to show that the US government is already a self financing entity (which it is most certainly not) they will blur the line between issuing bonds and issuing straight bank deposits as a self funding entity in their counterfactuals. But banks deposits and bonds serve totally different purposes under the current design. One is the "real" money while the other is a claim on the "real" money. Like all securities issued by public or private entities, bonds are merely a claim on a cash flow generated by the underlying entity. But MMT distorts this reality to claim that government bonds are somehow the same as deposits or cash. This is just one of the many ways MMT distorts definitions to make their alternate reality somehow closely resemble our actual reality. Some MMTers, as cited later, will even claim that bank deposits are not even money. But this makes no sense. One of the main reasons why Post-Keynesians focus so much on endogenous money is because it is bank deposits with which real economic transactions primarily occur. In other words, at the point of sale, where prices are actually influenced, bank deposits are the dominant form of money. But MMT turns the focus on high powered money which is a secondary feature to inside bank money when viewed through any practical economic transaction. This misconstrued view results in much the same mistaken view of the world that neoclassicals suffer from (by actually ignoring bank money or diverting attention from bank money in favor of high powered money).

This position is further confused in MMT where they blur the definition of "money". In fact, in MMT a Treasury Bond IS money. They state:

"A dollar bill is just a Treasury bond without duration and without an interest payment. In other words, they're pretty much the same."

Saying they're "pretty much the same" is sloppy and cuts corners in understanding why these instruments exist. Dollar bills exist to facilitate the use of a bank account whereas T-bonds exist to allow the government to procure funds from the private sector. This sort of imprecision is common in MMT as they gloss over important details in favor of vague understandings that make inconsistencies appear less important than they are.

While a bond IS money in MMT (it's actually just a financial asset denominated in USD with very low levels of moneyness), bank deposits are definitely NOT money in MMT:

"It is necessary to distinguish between money as a measuring unit and those assets denominated in the money of account. Thus, bank deposits are not money, but are denominated in the social unit of account—that is, money (the dollar in the US)."

One of the more bizarre contradictions in MMT is Warren Mosler's thinking behind the outstanding stock of private sector financial assets. Mosler calls these investment vehicles a "demand leakage". He says:

"The massive pools of funds (created by this deadly innocent fraud #6, that savings are needed for investment) also need to be managed for the further purpose of compounding the monetary savings for the beneficiaries of the future. The problem is that, in addition to requiring higher federal deficits, the trillions of dollars compounding in these funds are the support base of the dreaded financial sector. They employ thousands of pension fund managers whipping around vast sums of dollars, which are largely subject to government regulation. For the most part, that means investing in publicly-traded stocks, rated bonds and some diversification to other strategies such as hedge funds and passive commodity strategies. And, feeding on these "bloated whales," are the inevitable sharks – the thousands of financial professionals in the brokerage, banking and financial management industries who owe their existence to this 6th deadly innocent fraud."

This is odd for many reasons. First of all, Mosler accumulated his wealth running a hedge fund and acting as one of the "sharks" who fed off this system. So it's a strangely hypocritical position for him to take. But more alarming is the basic misunderstanding behind this concept. Mosler is essentially falling for the "cash on the sidelines" myth. Anyone who understands financial markets knows that all securities issued must be held by someone. The issuer cannot just issue new securities unless there is demand for those securities. In a primary market this issuance helps to fund investment. And investment is the cornerstone of saving and output. But the sense that Mosler discusses has to do with secondary markets where securities are merely exchanged by various buyers and sellers on exchanges. These are not demand leakages because they are money that has already been "put to work". Money does not get trapped in retirement accounts. Money always flows through secondary market financial assets. Money does not go into stocks, it goes through stocks. And these stocks are held in the account whether they are retirement accounts or regular brokerage accounts. The savers have accumulated income in excess of their desired spending and have willingly decided to allocate those funds to some vehicle that generates a return. Mosler's comments imply not only that saving is bad, but that there would be less saving if there were fewer outstanding vehicles in which to invest. That is entirely false as these securities would not even have been issued were there no demand for them in the first place.

This is also contradictory in the way MMT presents government deficits. MMT often uses the sectoral balances to show how the government's deficit is the non-government's savings. Of course, the deficit is funded via t-bonds which are securities which must always be held by someone at some point. But MMT does not present these securities as a "demand leakage", but instead as some sort of net benefit to the private sector. They're correct that these securities are a net benefit to the private sector, but so too is the stock of private financial assets. A corporation that issues stock provides a vehicle through which it can raise funds for investment while also providing the buyers a vehicle through which they can save. The corporate sector's financial assets are the non-corporate sector's saving. To portray this as though it's some sort of net drag on the private sector while only government securities are a net benefit is not only a misinterpretation of some basic transactional functions of financial markets, but also egregiously misleading with regards to how various securities benefit us all. It's particularly alarming given that these instruments are the cornerstone of private sector investment, which is the engine that keeps the entire economy moving forward.

MMT Understates the Importance of Monetary Policy

MMT is a fiscalist view of the world meaning that they are advocates of fiscal policy at all times. When combined with the state money view, they often overlook the importance of the private credit money system. This leads to a dogmatic rejection of monetary policy and any effect the central bank can have over the money supply. This leads MMTers to believe that the rate of inflation could be entirely controlled through fiscal channels. I find this view flawed in many ways and is once again conflating a world MMT wants (the consolidated Fed and Treasury view) with the world we have (where monetary policy and fiscal policy are two distinctly different things).

MMT advocates a permanent 0% Fed Funds Rate which would essentially eliminate the Federal Reserve as an inflation fighting tool. Additionally, MMT believes their Job Guarantee (a large scale government employment program) can serve as a "price anchor". Although I sympathize with the idea that fiscal policy can be enormously powerful and monetary policy has a tendency to be a blunt instrument, I think we need to take a more balanced view on both approaches with the idea that it's better to have a policy tool and not need it than to need it and not have it.

There are several core flaws based on a misunderstanding of the monetary system here. The first is based around the state money view where money is a "public monopoly". Since MMT views money as a "simple public monopoly" they say that the price of money can always be controlled by the government. Mosler says:

"the price level is necessarily a function of prices paid by the government of issue when it spends, and/or collateral demanded when it lends."[viii]

This flawed view is due to the fact that MMT views all money as being issued by the state or merely an extension of state powers. So they incorrectly refer to the state as the money monopolist even though the state actually issues very little money in our current system and banks do almost all of the money issuing. This government centric view of the world leads them to believe the government can and should control the price level even though the money supply is almost entirely controlled by the banking system.

This sort of thinking also ignores the various transmission mechanisms available through the central bank's policies. MMT focuses mainly on the interest rate channel and the bank lending channel. But this ignores seven other channels according to Mishkin: the Exchange Rate Channel, the Tobin Q Channel, the Wealth Effects Channel, the Balance Sheet Channel, the Cash Flow Channel, the Unanticipated Price Level Channel and the Household Liquidity Effects Channel. Before rejecting monetary policy entirely, it would be helpful for MMTers to explain why all of these transmission mechanisms are flawed.

I would add that MMT vastly overstates the impotence of the interest rate channel as interest rates can have powerful effects over private investment and the issuance of credit demand. The money supply is endogenous and the Fed, by making overnight loans more or less expensive, can indeed alter the profitability of loans which can have dramatic effects on the business cycle and the credit cycle. It is not a coincidence that 9 of the last 10 recessions in the USA have been preceded by inverted yield curves. In the MMT world where money comes from the state and banks are mere issuers of the states IOUs, this reality is vastly understated.

Current accounts are not a concern?

MMT downplays the potential risks of running large, persistent current account deficits[ix] and the global imbalances (or in MMT "what imbalances?"[x]) and the demand leakages that result[xi]. MMT also exaggerates their view that all nations have the option to remain sovereign in their own currency. Monetary Realism doesn't always view large current account deficits as sustainable as they require ever larger global imbalances, larger budget deficits and potentially result in a reduced standard of living. Further, the concept of a "sovereign currency issuer" is not applicable in all cases, but MMT suffers from a clear case of extrapolating the developed world's "exorbitant privilege" out to all nations.

The first point of importance here is that not all nations have the option to remain sovereign in their own currency. For instance, many nations that lack resource wealth or sufficient domestic demand have few options on the foreign trade front. A nation without resource access is essentially forced into purchasing foreign resources which might require the accumulation of foreign denominated debts. Or a nation without sufficient domestic demand might find that an export strategy is their only viable economic option and could find that a currency peg is their ideal choice to sustain competitiveness. The options in such scenarios are essentially – eliminate sovereignty and accept the potential risks or suffer a lower living standard.

MMT often makes sweeping statements that nations should remain sovereign no matter what, but this is not always realistic. The world is not so simple and not all nations are in the position to remain sovereign although MMT generally points to very strong developed nations like the USA to present their examples. This is merely one form of exorbitant privilege that misrepresents reality. A simple example is the current regime in China. China has long been an export driven economy with weak domestic demand. And they have run a currency peg in order to optimize what they believe is in the best interest of their nation – maintaining a favorable RMB/USD exchange rate. Now, in the MMT world China is not really sovereign because they are running an economic strategy that requires them to obtain USD's. But the alternative situation is for China to allow the RMB to rise in value against the USD and hurt their domestic economy before they are in a position to generate strong domestic growth from domestic demand. So China chooses to reduce their sovereignty by running a currency peg because they believe it is in the best interest of their nation to do so. As you can see, the world is not so simple as the one MMT describes. There are times when it is in the best interest of a nation to utilize a strategy involving the accumulation of foreign currency. MMT might counter that that is a choice, but it is not really a choice for some nations. For many nations there is no choice because this is the optimal strategy for economic prosperity. There are ample examples of such instances throughout history.

As for nations who are sovereign – the risks are not eliminated despite the claims by MMTers that a nation who issues its own currency has neither a solvency risk nor a foreign currency risk. For instance, budget deficits can exacerbate current account deficits so it's easy to imagine a society that turns increasingly into a society of consumers as opposed to producers. In the words of Nicholas Kaldor:

"If (a large trade deficit is)continued long enough it would involve transforming a nation of creative producers into a community of rentiers increasingly living on others, seeking gratification in ever more useless consumption, with all the debilitating effects of the bread and circuses of Imperial Rome"

If one views the global economy as a whole, we should not seek merely to consume and import from our neighbors. As a whole, this sort of mentality is dangerous since global acceptance of this policy would certainly lead to a reduction in the overall quality of production. If the entire world tried to consume without producing then the overall quality of output would be diminished. This point is again downplayed by MMTers in an attempt to bring the focus back to the state and the importance of government spending (MMT explicitly downplays the importance of private investment). The matter is simply not that black and white in all circumstances. There are times, when even a sovereign currency issuer, can be constrained by unusual circumstances.

MMTers often refer to exports as a "real benefit" and imports as a "real cost" based on the idea that the exporter receives pieces of paper rather than consuming their own domestic production. But this is a highly misleading perspective. For instance, in the case of the China/USA relationship the USA is receiving goods that will largely end up in a landfill in 5 years while China is receiving real jobs, real skills, and real investment as a result of the production boom. These are very "real benefits" in the eyes of this emerging nation. The USA on the other hand simply becomes a consumption led economy losing jobs, losing skills with a deteriorating production base. MMT focuses on this view in order to be able to promote their fiscalist view of the world. For instance, if the USA became a current account surplus nation they could run budget surpluses in perpetuity like Singapore or Norway does. But MMT would never support such a position because then one could argue that there's no need for government budget deficits or a Job Guarantee program. MMT would never support such a position and as a result, we often see MMTers demonizing current account surplus countries. Of course, when taken as a whole, current account deficits require current account surpluses somewhere else so it's entirely illogical to argue that current account deficits are good when they require current account surpluses somewhere else by accounting identity.

This is all problematic from an MMT perspective because MMT views these risks as less than benign. In fact, MMT goes so far as to claim that a nation need not even produce that which it can consume from abroad while also claiming that "the higher the trade deficit the better".[xii] The fact is, without increased government spending to offset the demand leakage the higher trade deficit is a persistent risk. And this all assumes that the spending results in productive output and not a positive feedback loop resulting in a case of "bread and circuses of Imperial Rome".

As mentioned above, MMT achieves this permanent deficit spending position by arguing that current account deficits are superior to current account surpluses. Of course, in sum, the world cannot only run current account deficits so MMT focuses on exceptional cases like the USA whenever possible and repeatedly demonize any government running a current account surplus. In doing so, they are able to argue that persistent budget deficits are a must and that they're a "real benefit" to the USA. As mentioned above, this view is very narrow. Singapore and Norway, two extremely healthy economies, run persistent current account surpluses and budget surpluses. But you would never hear an MMT advocate promote such an economic position because then the walls of the theory and the central fiscalist components become totally void of value.

More recently, some MMTers have started to change their tunes on this position. For instance, in a 2003 text Wray says "*a balanced budget is the theoretical minimum that a government can run continuously*".[xiii] More recently Wray has stated: "*MMT is agnostic regarding the fiscal position of a monetarily sovereign government per se.*"[xiv] This sort of inconsistency and doubletalk is something that is common within MMT. Their views are often shifting or entirely contradictory. This doesn't help provide clarity or credibility to the theory.

MMT Misunderstands the market based money system

"We would thus insist that any modern circuit should begin with the recognition that the "bank money" created at the beginning of the circuit is denominated in the State's money of account. Further, recognizing that banks use HPM for clearing (more specifically, the reserve balance portion of HPM), the circuit should also begin with HPM." – Wray, Kelton, Fullwiler

One of the most fundamental misunderstandings within MMT is the idea of where money comes from and how we use it. In MMT all money is essentially state money. That is, all money is an IOU of the government who is the issuer in MMT. This is not consistent with the reality where the US government, for example, has outsourced the creation of money to private for profit banks. As a result, the government, BY CHOICE , is not only a currency ISSUER (for instance, an issuer of notes, coins and reserves), but a USER of private bank money as well. The US government could, in theory, take back this power and issue its own money free of the banking system (or by nationalizing the banking system), but it does not do this. Consistent with the free market ideals in the USA as well as the dispersion of power through checks and balances, the USA's money supply has been privatized. That is, private for profit banks create most of the money in the monetary system and do so almost entirely independent of any government control. A change to the MMT "general" case would require a sweeping change in the laws and the way our government is actually structured. It would, in essence, give the government unconstrained control over the money supply.

A good example of the erroneous MMT position is in a 2013 introduction to MMT by Warren Mosler (see minute 4) where Mosler states:

"If you've got a dollar in your pocket, where did it come from? Your first hint is it came from the Treasury Secretary. Unless it's counterfeit, it came from the government. And they've spent it, and they haven't taxed it yet."[xv]

There are two crucial errors in this commentary. First of all, ALL cash is what MR calls "outside money". It comes from outside the private sector because it is created by the US Treasury and issued through the Federal Reserve System. Most of our money is created by banks as debt. We call this "inside money" because it comes from inside the private sector. The way cash comes into existence is simple. Cash facilitates the use of inside money account holders. What does that mean? It means that you need an account in inside money to ever draw down or access cash. For instance, if you take out a loan and the bank deposits funds in your account you can then go to the ATM to draw these funds down and buy a new car or whatever. Technically, the government creates those physical dollars, but the actual money (the inside money account) came from the bank, not the government because the inside money preceded the outside money! Cash is always a facilitating form of money to bank money.

The second error in Mosler's description is the concept that the cash was "spent" into the economy. It absolutely was not spent into the economy ever. The only way cash gets into the system is when a member Fed bank tells the US Treasury that it needs cash because its customers demand more withdrawals for cash transactions. So the member Fed banks order cash from the US Treasury who prints it up and ships it to the banks. The US Treasury does not "spend" it into existence. It comes into existence because the customers of member Fed banks desire more cash via ATMs (for example) and the member Fed bank meets this demand by ordering the cash from the Fed (who gets it from the US Treasury) so their customers can spend cash for convenience purposes. So the cash comes from the Treasury, but not through spending, but through the desire from someone who already has an inside money account to draw that account down. Again, inside money precedes outside money. Mosler gets it backwards and assumes that outside money or cash just magically appears in the economy through the government's spending policies. No, it appears in the economy through the actions of the banks and their customers.

The system we reside in is designed so that private competitive entities distribute money in what is really a market based system and not a truly state money system. This is structured by choice, but it is the structure of the system we have today. This feature results in dual money issuers – banks and the government. This is unlike China's state banking model (which is actually very close to MMT's state money system). The USA's model is more market based with competitive private banks and a clear separation in types of money (outside and inside money). The primary purpose behind this is dispersing the power of money creation away from the government. That is, the private market actually controls the majority of money creation through a market system. As a result, the government is a user of bank money and borrows and taxes private funds to obtain bank money so it can then spend. MMT notes that this is a choice, but it's an incredibly pertinent choice as it changes the entire structure of the way the monetary system is designed and how money is created, dispersed and utilized.

MMT often states that the government is "not revenue constrained", as in, "taxes don't fund spending". This concept is void of value in terms of understanding the institutional design of the money system. The US money system is designed in a way that the government must obtain inside bank money from the private sector before it can spend. This is paramount in understanding the flow of funds through the economy. The government does not merely decide how money is spent and print it at will. The government procures funds from its private sector in much the same manner that a private corporation does so. It either charges fees (as banks do) or it sells bonds. In either case, the goal is to obtain inside money from another entity in the economy so it can then provide another entity with inside money.

This places a special importance on productive output and the ability to tax. The government must be able to procure funding in the form of tax payments or bond sales because our monetary system is designed in such a manner that banks create almost all of the money and the government determines itself as a user of bank money. Of course, the government has the extraordinary power of taxation which gives it powers that no private entity has, but this should not distort the fact that the government is still designed as a user of inside money. It's simply a user of inside money that has few, if any problems obtaining inside money and can always fall back to issuing outside money in an absolute worst case scenario.

The story is different in MMT though. In MMT all money is state money so the state would never borrow back its own IOU. MMT achieves this view by focusing on reserve settlement as opposed to focusing on the point of origin for most money (as debt as inside money). MMT consolidates the Fed into the Treasury and then states that the taxation process results in the government obtaining its own IOU which nets out to zero. They argue that the government can't "have" money after taxation because of this. Therefore, it must be the creator of money when it spends. This makes no sense though. If you net out all the financial assets in the world at book value then they net to zero. Does it make sense to say that the entire global economy does not "have" money? Of course not. But this is the logical equivalent of the paradigm MMT constructs.

This clearly misrepresents the way the monetary system is designed. If the MMT case were true then the state would simply spend without procuring funds in the first place (which it doesn't!). The MMT position is only relevant if private banks are part of the government issuing money on behalf of public purpose, but they are clearly private profit driven entities who issue money for private purpose. As a result, the government, by law, obtains inside money, transforms it temporarily to outside money (via reserve settlement) and then spends the inside money back into the private sector. Starting with reserve settlement is exactly the same as assuming that cash just magically appears in the private sector without someone first drawing down an inside money account. The US Treasury, by law, must always obtain inside money before it can obtain credits in its TGA account at the Federal Reserve. There is a clear flow of funds here just like there is when you draw down an ATM balance.

The fact that government must procure funds can best be seen during most hyperinflations. During a hyperinflation tax receipts generally decline and the deficit explodes as spending continues (in many cases the government becomes a pure MMT entity where it just prints up notes to spend as opposed to first procuring inside money). The government will then create money by monetizing its debt because there is no demand for the currency. This occurs because the government is unable to cover its spending with tax receipts. In other words, the government has lost the ability to procure funds from the private sector. So the idea of an sovereign currency issuer being unconstrained by revenues is a concept that is largely void of value. In MR we describe the fact that the autonomous currency issuer can't "run out of money" due to institutional design (a government does not technically "run out of money" in a hyperinflation), but this is a very different concept than saying the government is not revenue constrained because it implies that the government is the issuer of all money in all instances.

MMT also states that inflation is only a problem at full employment when the output gap has been minimized. But this is not historically consistent. There have been plenty of cases of hyperinflation where the output gap widened and the economy operated at less than full employment resulting in inflation. This is because the MMT model uses a flawed assumption revolving around the output gap. MMTers just assume that growth will continue at a trend rate so any output gap can be "filled" by having the government fill it. But history has shown that declines in output are often due to a structural change in the economy or a reduction in the quality of overall output. This supply side problem cannot merely be "filled in" with government spending. In fact, history shows that when government's counteract this problem it often leads to the high inflation as structural supply has declined and any increased demand causes inflation. History shows that many inflations and hyperinflations occur outside of full employment with an output gap so the general vagueness of the MMT "true constraint" is a major weakness in the theory.

Further, this idea that "taxes don't fund spending" implies that resources aren't actually being allocated in a specific way when the government taxes and spends. In the MMT world it's as if taxes don't really go anywhere. But these are real resources that are really being allocated to specific budget items. For instance, when the US government taxes us and bails out Wall Street that is real resources used and diverted from other potentially more beneficial uses. The idea that taxes don't fund spending implies that the government doesn't utilize private sector resources in a specific fashion.

MR views the State Theory of Money as incomplete and often used to justify the monopolist argument that MMT advocates. MMT often engages in strange examples of an authoritarian monopolist holding a gun to our heads[xvi], starving children[xvii] or forcing students to perform community service in order to graduate[xviii]. This derives from the view that the government's currency is only as good as its ability to enforce its acceptance. As Mosler says:

> "The currency is only as good as the government's ability to enforce tax payment."

MR views this position as narrow, misleading and inconsistent with the current system. Instead, MR views money as a pure social construct which is not a construct of some exogenous government holding a gun to our heads or threatening us, but rather it is a construct of the people, by the people and for the people. The currency users can always reject the money of issue and there is no monopoly power that gives the state power over the people in this regard. But MMT's monopolist view is based largely on this concept that money is a creature of law or the state and should therefore be issued in quantities or set by price as a monopolist would. Further, the currency is not given value by men holding guns over it, but by the actual productive uses it provides us as a medium of exchange. This means that money's value is actually rooted in the strength and quality of private output. A government without a productive private sector cannot even organize or institutionalize a form of money in the first place. In fact, the system in the USA is specifically designed to avoid this concentration of power. Ultimately, the currency is only as good as the willingness of the people to transact in that currency. Enforcement plays only a secondary role to the far more important role of the currency as a viable means of exchange for goods and services. If the social construct is not seen as a viable tool for exchange then no amount of enforcement can halt its demise.

MMT states that the government has a natural monopoly on money because it establishes what money is and who can distribute it. This might be true, but it does not change the fact that the US government has legislated its monopoly away to private banks. Any monetary presentation which misconstrues the fact that banks dominate the money system as it is presently designed is woefully lacking in accuracy and relevance.

When one understands that the banking system issues most of the money in our system and the concept of a monopolist is an abuse of the terminology, it becomes clear that the MMT position has flaws in it. For instance, MMT will arrive at specific policy ideas based on the concept that, if the monopolist doesn't set the price or quantity of the money, then there will be unemployment. Remember, in MMT money is merely a creature of law so it doesn't matter to them if the government outsources money creation to banks because they'll state that the government gave them that power to begin with. It's like stating that the government is the "monopolist of financial advice" because it requires financial advisors to obtain a state issued license. Of course, it is the financial advisors themselves who actually distribute the financial advice so while they might be constrained by some regulatory requirement the state is not therefore the "monopoly supplier" of financial advice. The responsibility of issuing and dstributing financial advice is regulated in the public domain but controlled and distributed entirely by the private domain. Calling the business of financial advisory a "state monopoly" is incoherent and illogical.

As stated elsewhere, monopolists control price and/or quantity. If the government does not control the price and/or quantity of the majority form of money in the system then it is not a monopolist and has far less power than it believes. Indeed, the government has legislated its monopolist powers away to the banks and they now determine price and quantity. The power to issue the license to issue the money does not make the government a monopolist over anything except the licenses. And that's not where the real power is. The real power is in the ability to issue the money in the first place. As a result of legislating this monopoly power to the banks the government has been forced to support and facilitate the role of banking in the economy. Banks are so powerful that they can issue unjustified quantities of loans and if the government does not use their taxing authority to support the banking system it can result in systemic failure. Anyone who understood what occurred in 2008 knows that the banks brought the US financial system to a halt and the government had no choice but to bail the money oligopolists out. This is the result of having legislated the power of money creation away to the banks. **The real power is in having the right to issue the money, not in issuing a license to issue money!**

For instance, let's pretend GM has the legal authority to determine the only types of cars that can be used on US roads. So it designs a specific type of car, determines the rules of the road and all that good stuff. But then, GM goes to private autoshops and gives them the blue prints for the cars and tells them they can make the cars in the quantity and price of their choosing and keep all of the profits. That's how banking in the USA works. The government determines the type of money that can be used, sets the rules of the payments system, but allows the banks to control both price and quantity of the product while keeping all of the profits for themselves. The idea that the government is a monopolist because it issues the right to the banks to create the money is largely irrelevant here. The real power is in earning the profit from making the money and via setting price and quantity as any monopolist would.

Of course, this concept could be applied across many things. It could imply that the government is the speed monoplist because it sets speed limits, or the education monopolist because it charters schools or the food monopolist because it regulates how food is distributed or really the monopolist of just about anything since regulations touch most goods and services in the economy. This is an abuse of the actual reality and terminology involving the idea of a "monopolist". For instance, if one were to state that full employment is the domain of the state because it regulates the labor system then we might be inclined to believe that society is better off by having the government provide jobs for everyone. In fact, this is the conclusion MMT reaches.

The concept of a monopolist due to legal powers is misguided and overstretches the actual responsibilities that a government has simply because it has *some* legal powers. But MMT takes the concept to an illogical extreme to imply that because the government has some authority that it then has overarching authority over virtually everything and therefore responsibility for everything. This sort of thinking could lead one to believe that the government is the monopolist of just about everything since it regulates many things within the economy. After all, if regulations and legal power are automatically equal to monopoly power then the concept of a command economy would obviously always be more applicable and appropriate than any alternative. But to state that this concept is an abuse of our reality is a vast understatement and abuses the ideas and policy options that could potentially produce greater living standards

MMT further conflates the point on state money by claiming that banks are merely agents of the government that issue money in service of public purpose. In addition to consolidating the Fed into the Treasury (which explicitly ignores the specific checks on balance of power that are created) MMT also assumes that banks are essentially a part of the government. Warren Mosler says:

"I would say, as banks, they are agents of government…because they have strict regulatory requirements…much like the military they have strict rules of engagement…"

First of all, the military is not owned for the purpose of private profit. It is a purely public purpose arm of government. Second, saying that regulation means the banks are part of government is highly misleading. That could be extended to almost any entity in the country because the government regulates all corporations to some degree. Mosler is stretching the truth to make MMT appear more palatable.

The reality is that banks are privately owned, privately managed institutions that *primarily* serve PRIVATE PURPOSE and not public purpose. This is a clear contradiction in much of the MMT work. MMT often vilifies banks and bankers, but when discussing this monopolist idea they claim banks are agents of the government who serve public purpose. Clearly, there's a conflict in these ideas. This is because banks are issuers of money serving private purpose and not public purpose. **The entire existence of a market based money system like the one designed in the USA is at odds with MMT's state theory of money. So MMT has no choice but to attack the banks because their very existence voids the MMT idea that all money comes from the government.**

Mosler says banks exist for "public purpose":

"*U. S. banks are public/private partnerships, established for the public purpose of providing loans based on credit analysis*."[xix]

But this is a strange comment because Mosler's colleague Randall Wray states that banks don't necessarily serve public purpose under the current regulatory/corporate structure:

"*In the run-up to the Global Financial Crisis, there was much talk of aligning the interests of the top management of these firms with that of shareholders. This could be consistent with the public purpose, although that is not at all guaranteed*."[xx]

Of course, private banking is not designed to serve public purpose (except in a narrow sense). Although the government conducts monetary and fiscal policy through the banking system private banks exist for one primary purpose – to generate a profit for their owners. This is not necessarily in the interest of serving "public purpose". Public purpose, in case we're unclear is government action intended to benefit the populace as a whole. This is certainly not the business private banks are in. Most of the large banks in the USA are publicly traded corporations and serve only one master – their shareholders, not the "public as a whole". The reality is that we have a very powerful banking oligopoly that serves its owners and not public purpose. We have banks who issue their own form of money at will.

MMT often villainizes the banking system or the "rentier class", but this position is vastly overstated and even obscured. Rentier capitalism was a Marxist term that demonized unproductive land owners who charged rents. Although MMTers don't refer to "rentier capitalism" directly (they prefer to call it Minsky's "money manager capitalism") the idea is similar. In MMT the financial industry is not a productive cog in the capitalist machine. Mosler, for instance, has stated that the financial sector produces nothing of real value:

"*I don't agree that the financial sector produces real value. at least I've never seen any come out of it in the last 40 years*."[xxi]

This is a *dramatic* misrepresentation of the financial sector's role in the economy. The financial sector is the oil that greases the engine of capitalism. Yes, it's true that bankers are not innovators in the same sense that Thomas Edison was, but that does not mean they are not serving a crucial role in the economy by helping entrepreneurs find new financing to start a business, by extending credit to a student who is making a substantial investment in their own education or providing credit for the homeowner who doesn't have $500,000 cash in hand to purchase a new home where they will reside and raise a family. I often like to use the analogy of a machine to describe the monetary system and the financial sector plays a crucial lubricating role in the smooth functioning of this machine.

While the state theory renders the banking system unnecessary there is no need to villanize the banks to the degree that MMT does. In fact, the banking component serves a crucial role in the monetary system by dispersing the power of money creation away from government, providing price discovery, smoothing the payment process, helping regulate loan creation and numerous other services. As previously discussed, the logical MMT base case is a fully vertical component with a nationalized banking system. This would provide the government with a true money monopoly.

Our system is designed in such a manner so as to fragment power across different entities. Banks, while often villainized by MMT, play an important role in dispersing the power of money creation *away* from the government. The issue today is not that banking is an inherently evil industry or that the industry does not serve a meaningful and positive role in the economy, but rather that the powers of the banking system are often without proper oversight. Because banks are granted extraordinary powers they should be subject to extraordinary regulatory oversight. This would rein in the banking sector and the potential risks it generates in the economy while also maintaining the dispersion of power (which would not exist in a truly state system).

There is no “money monopolist” in a system where banks are provided such vast powers. It is true that the government COULD create a full money monopolist (state controlled banking much like China has), but that is simply not the system as is designed in the USA today. In advancing this claim MMT advocates will often state that “money is a public monopoly”[xxii] or that the “currency” is a “public monopoly”[xxiii] and they therefore go on to justify the government as a “price setter”[xxiv] or “employer of last resort” (hire all the unemployed who want to work). But these are very misleading statements. Wray says:

“*we should view “money” as a public monopoly. We can apply the theory of public monopolies to money to provide an alternative view of its source and importance in the modern economy*.”[xxv]

This is problematic in that it applies the idea of a monopolist to the private banking system where private banks wield enormous control over the supply of credit and the price of credit. A true monopolist controls both supply and price. But the government controls neither in the private banking system. They have only a very loose influence over both. There is no “monopoly supplier of money” in such a system. If anyone is the monopoly supplier of money it is the private banking system. The current structure of our monetary system is designed so that the private banks issue most of the money in what is truly an oligopoly run by private banks. It is anything but a government monopoly. MMT would respond by focusing on the reserve system and the idea that the government is accepting its own IOUs when it taxes:

“Sovereign government really can’t borrow, because what it is doing is accepting back it’s own IOU’s. If you have given your IOU to your neighbour because you borrowed some sugar, could you borrow it back? No, you can’t borrow back your own IOU’s.” – Wray

This thinking is predicated on some enormous assumptions. The most important of which is the theory that all money is state money. As described above, all money is not state money. Most money is in fact “inside money” or bank issued money. Outside money, or government money is relatively minor when compared to bank money. If you eliminate this idea that all money is state money and that the private banking system is provided the responsibility to competitively distribute most money then suddenly the story changes dramatically and the government becomes a user of money by virtue of the way the system is designed (with banks as private money issuers).

Also of importance there is this idea that all money is an IOU denominated in the natonal currency. The modern money supply, being endogenously created by banks, is designed to expand elastically as the needs of the economy grow. Money’s primary function is in the process of exchange. That is the essence of money. MMT implies that banks merely issue IOUs denominated in the national currency, but I would argue that the banks actually issue the dominant money. After all, in the real economy it is bank money which dominates the real economy and influences prices, output and employment. State money like reserves and cash only play a facilitating role in some transactions and interbank payment settlements.

As shown, banks do not redeem their IOUs. Again, MMT creates a money multiplier relationship between reserves and loans where one does not exist. It is pure doublespeak as they tell us banks lend without being reserve constrained, but then change their story to build a hierarchy of money and create the illusion of a relationship where there is none. In the MMT primer Wray says:

"There is one big difference between government and banks, however. Banks often do promise to convert their liabilities to something. You can present a check to your bank for payment in currency, what is normally called "cashing a check", or you can simply withdraw cash at the Automatic Teller Machine (ATM) from one of your bank accounts. In either case, the bank IOU is converted to a government IOU. Banks normally promise to make these conversions either "on demand" (in the case of "demand deposits", which are normal checking accounts) or after a specified time period (in the case of "time deposits", including savings accounts and certificates of deposits, known as CDs—perhaps with a penalty for early withdrawal)."

Again, MMT is drawing everything back to reserves or base money. It is not the traditional money multiplier, but a similar version of it where banks are merely users of government money and are simply making promises that give you access to the "real" money, base money, which is government issued. But this concept is meaningless in the modern monetary system. A bank's liabilities in the form of deposits do not merely give you access to base money. In fact, base money is becoming an increasingly less important form of money. The fact that bank deposits are a liability of the bank simply means that the bank is liable to process the payment you might request. So, if you settle a payment for a good or service with an entity that banks at the same bank or a different bank your bank is liable to transfer that deposit liability to the entity receiving the payment. This transaction may or may not settle through the reserve system, but it does not mean that the bank liability is merely an "IOU" for base money. In most cases, consumers don't want the base money. They simply want the deposit. The deposit is where the point of sale occurs and where the economy is impacted in terms of prices, employment and output. The idea that banks are merely "leveraging" reserves or giving you access to base money is an alternative version of the confused neoclassical money multiplier. As previously mentioned, you cannot even obtain cash before having a bank account so the idea that deposits are leveraged from base money is inapplicable. Further, a bank does not need reserves or base money to even be capable of making loans so this idea of "leveraging" is inapplicable to begin with. If a bank is "leveraging" anything it is leveraging its own capital which is derived from its profits and not merely from its ability to obtain reserves. Lending has nothing to do with reserves or high powered money though so this idea of "leveraging" in MMT is an attempt to create a connection between high powered money and bank money where there really is none. It's an alternative and even more muddied version of the money multiplier than the neoclassical version.

Wray is right that anyone can create money (I could technically say anything is "money"), but not anyone can create new widely accepted purchasing power denominated in dollars – in fact, you'll likely go to jail if you do it). The primary issuers of new dollars are private banks in what is really a privatized money system. The government has outsourced the creation of money to the private banking system. And banks issue this money without "leveraging" reserves or redeeming money (which is a totally inapplicable concept in terms of operational realities).

Further, this idea of conversion making government liabilities superior to the aggregate banking system's liabilities implies that money somehow derives its value from government. But money does not derive its value from government as can be seen in the case of any hyperinflation. It derives its value primarily from the quality of private output. So when MMT says that bank deposits are IOUs of the government's money they are only telling a partial story. Yes, it's true that bank deposits trade at par with government money and can be readily converted into government currency, but this does not mean bank deposits derive their value entirely from government. After all, without output the government cannot tax or create viable liabilities. Therefore government is actually subordinate to the private sector which is why equities tend to outperform government bonds during a hyperinflation. Equities, which are actually a form of private sector issued financial assets, tend to far outperform currency over long periods of time specifically because private output is so essential to the value of money. Bank money, in the aggregate, derives its value from private output and not from government. Just like government money derives its value from private output. Therefore, it's illogical to argue that the aggregate banking system and its liabilities are not pari passu with government. This is not to say that government does not play an important role in supporting the banking system's credibility and viability, but we must maintain some semblance of balance here.

Of course, MMT has stated that the currency or “outside money” is the ‘real” money and that we are just using IOU denominated in the currency that can be converted into the currency.[xxvi] But this concept is largely void of value. Not only does bank money trade at par with currency at all virtually times (because it is supported by state laws, regulations, bank funded FDIC insurance and private output), but the idea of convertibility is largely void of value for any practical purpose. Economic agents are not seeking to convert their money into cash or reserves in most instances. Transactions occurring in the real economy occur in bank money and it is bank money that “rules the roost” of transactions at the point of sale. We are not seeking to “convert” money into state money in any realistic sense. In fact, it is the deposit money we all want and even the US Treasury obtains and redistributes this bank money because of this fact. More importantly, however, the modern banking system is devised in such a way that private bank money dominates as the medium of exchange and trades at par primarily because the private banking system, in the aggregate, is extremely stable and ensures that users of this system can make payments at par using this system. There are obvious support mechanisms embedded in the modern system (such as the Fed, the interbank payment system, FDIC insurance, etc), but private banking has a long history of establishing a par based deposit system. In fact, private banks once established their own forms of clearinghouses and insurance to stabilize these systems. The modern system is no doubt more stable, but we should not confuse facilitating or stabilizing features as necessary features.

MMT uses this monopolist terminology to give the impression that there is some sort of hierarchy of power within the monetary system which the government resides at the top of. The reality is that fiat currencies are always built on a hierarchy that is based primarily on private sector production and not state powers or state moneys (what MR refers to as outside money). Yes, it is true that acceptance value plays an important role in defining the unit of account and medium of exchange. But this plays a secondary role to quantity value and the purchasing power of this money. MMT designs this state centric view to give the impression that US Dollars are the dominant form of money in the economy because of the state’s power to enforce its use. The reality is that the US Dollar is the dominant form of money in the economy because there is enormous private production that supports this money. The entire story in MMT is in fact backwards.

Interestingly, MMT often highlights that a monopolist’s powers are about price and not just quantity. As Mosler states:

"With today's central banking and monetary policy with its own currency, it's always about price (interest rates) and not quantities."

This is an accurate description of the way the Fed operates because the Fed is the monopoly supplier of reserves to the banking system. The Fed, however, is not the price setter of all credit Rather, the Fed sets a "target rate" and the market determines the spread from there. The price of your personal credit is largely dependent on your creditworthiness as a borrower and not just the state's powers over money. The state does NOT control the price of credit, therefore it is not the monopolist on the money supply. But MMT takes the idea of a "money monopolist" and extrapolates it out across the system to apply monopolist powers where it is convenient.

When it comes to credit the government wields only a loose control via the "target interest rate" (the Fed Funds Rate) and other measures. Congress could theoretically enact a fully state money system, but the reality is that we don't reside in what MMT refers to as a fully "vertical" system (Fed & Treasury combined with nationalized banking system - a system *some* of MMT's founders are already advocates of - though others claim bank nationalization is not an MMT principle). Despite this, evidence of bank nationalization within MMT is well founded:

Bill Mitchell, MMT founder: "nationalisation of the banking system is a sound principle to aim for."[xxvii]

Tom Hickey, proprietor of MMT website MNE: "I personally favor nationalizing most "retail" banking"[xxviii]

Joe Firestone, MMT enthusiast: "As for the present banking system, I'm all for changing it, but I'd just like to nationalize the banks and place them under Treasury."[xxix]

Rodger Mitchell, Monetary Sovereignty Founder: http://mythfighter.com/2012/05/12/at-long-last-are-we-ready-to-end-private-banking[xxx]

Wray has advocated community development banking in the USA which is pseudo-nationalization.[xxxi]

Wray has recommended nationalization or receivership several times during the financial crisis, most recently in Europe: "the smart thing to do would have been to default on all the external debt and nationalize the banking sector. (Some say that would have been illegal within the framework of the EU; so be it!)"[xxxii]

Other MMTers like Mosler and Fullwiler are less dogmatic about their anti-bank position. Of course, Mosler is a shareholder in several banks and has worked in banks all his life and Fullwiler has expressed his opinion that he's not against private banking though he doesn't seem to have fully realized how private banking is actually at odds with the idea of "money for public purpose". This internal disagreement creates inconsistencies within the theory that are highly problematic.

When viewed through nationalization, the state theory renders the horizontal component unnecessary. So if taken to its logical extreme, the monopolist argument would render the government the price setter of **all** money including credit. Mosler understands that the existence of banks as price setters is a purely political choice:

"This introduces an entirely different set of incentives vs publicly owned institutions. And the choice between the two, and the two alternative outcomes, is a purely political choice."[xxxiii]

But MMT will not take the monopolist argument to its logical extreme by arguing that the government should be the monopolist on all forms of money. MMT chooses not to take this position and instead cherry picks which prices should and should not be fixed by the government. This inconsistency raises red flags for the monopolist argument and renders it very weak and politically motivated. If the state theory is taken to its logical extreme then MMTers should fully support a state controlled credit system with the government as price setter for all forms of money. But they wisely choose not to take this stance because it would render the entire MMT position a political non-starter.

With regards to the money monopolist and the price setting function – this is *another* inconsistent position by MMT and often contradicted depending on their political preference. For instance, MMTers understand that the natural rate of the overnight interest interest is zero, but don't believe that the Fed should be the price setter of overnight loans even though they say it is the reserve monopolist. Instead, they prefer for the Fed to leave rates at their "natural rate" of zero and instead prefer to focus purely on fiscal policy to control the price level and achieve full employment. But when it comes to net financial assets MMT invokes the monopolist argument in favor of price setting. But they will never say that the government should be the price setter of all net financial assets (I presume because it would be politically unpopular).

This idea is further muddied by MMT's position that the government should be consolidated into the Fed + the Treasury. But for some reason when it comes to monopolist powers they break-up the entities and often reject the Fed's monopolist powers and various policy options offered to it through these powers. MMT is rarely in favor of the Fed using its supposed monopolist as reserves powers and are in fact in favor of the Fed ceasing in their setting of interest rates. This is inconsistent with the overall monopolist argument and gives the appearance that they are merely trying to promote a fiscally based policy while downplaying or minimizing the potential powers of the monetary side.

MMT also makes the same contradiction when discussing the Euro crisis. They rightly understand that the problem in Europe is that none of the nations are currency issuers. They are strategic users of the Euro because the ECB is not a politically or institutionally integrated entity. But MMT often refers to the ECB as a currency issuer, but when discussing the USA they do not generally refer to the Federal Reserve as a currency issuer, but refer to the US government as a currency issuer. In fact, MMT states that the US Treasury creates money. This is not an accurate portrayal of the institutional designs in place. The USA is only a strategic currency issuer because its central bank can be harnessed by the government. The Federal Reserve is in fact the currency issuer in the USA just as the ECB is the issuer in Europe. But MMT consolidates the Fed and Treasury in their models and then describes the US government as a whole as a currency issuer.

MMT also makes the exact same mistake neoclassicals make with the money multiplier by claiming that the reserve system is the top of the money hierarchy. Bill Mitchell has explained the MMT idea that clearly shows how they try to create a government centric view of the money system based on this vague idea of banks "leveraging" high powered money:

"Modern monetary theorists consider the credit creation process to be the "leveraging of high powered money". The only way you can understand why all this non-government "leveraging activity" (borrowing, repaying etc) can take place is to consider the role of the Government initially – that is, as the centrepiece of the macroeconomic theory. Banks clearly do expand the money supply endogenously – that is, without the ability of the central bank to control it. But all this activity is leveraging the ***high powered money*** *(HPM) created by the interaction between the government and non-government sectors."*

In his criticism of MMT Professor Marc Lavoie references the use of the term "leverage" in MMT literature:

"the bank-money-supply process is horizontal; it can be thought of as a type of 'leveraging' of the hoarded vertical fiat money.

…

Personally, I don't see how anything can be gained by making references to vertical components or to leveraged horizontal components, but these expressions keep being used. They ought to be left aside."[xxxiv]

Of course, banks don't lend or "leverage" reserves or high powered money. Loans create deposits and banks do not create new loans based on their prior reserve balances. This is contrary to the money multiplier which MMTers also reject. But the use of the term "leverage" is intended to create a 1:1 relationship between state money and bank money when there is none. This is all intended to bring the illusion of an all powerful state that wields a "money monopoly" when the reality is that the banks wield substantial and independent control over the monetary system. There is absolutely no "leveraging" of HPM occurring here. Banks create money independent of their reserve position with the government. But in an interesting way, MMT, just like neoclassicals, builds a theory around HPM instead of the banking system where the focus should be.

MMT has responded to criticism of their use of the word "leveraging" claiming that banks "leverage" central bank currency by promising to deliver state money on demand:

"*Banks necessarily leverage CB currency, because they acquire asset position by issuing financial instruments that promise to deliver CB currency on demand or on some contingency at a later date."*[xxxv]

This is not accurate. A bank loan is not a promise to deliver central bank currency. In fact, banks, in the aggregate, never have enough central bank money to be able to deliver currency to their customers and the banking system could not operate if their customers all demanded their deposits in cash. The banking system, in the aggregate, is not obligated to deliver all of your bank deposits in cash on demand and in fact, will avoid allowing customers to demand all their deposits in cash form. Bank deposits are a promise to deliver you a bank deposit on demand. Banks earn a profit by managing a payments system and ensuring that their assets earn more than their liabilities. Banks are not in the business of making sure that their customers can access all of their deposits in currency form and in fact could not even operate if that were the case so the MMT position here is obviously erroneous. The banking system, in the aggregate, is entirely incapable of delivering all of its customers deposits on demand so this idea of "leverage" is extremely misleading to begin with. It's simply a more nuanced form of the neoclassical money multiplier.

An even more confused version of this idea of "leveraging" exists in Wray's seminal text "Understanding Modern Money" where he states that bank lending "can be thought of as a type of "leveraging" of the hoarded vertical fiat money". He specifically defines fiat as "Treasury coin, Federal Reserve Notes, bank reserves". This is better known as high powered money. But more recently, the argument has shifted to include ALL government net financial assets including Treasury bonds in this argument. Wray goes on to claim that "a reduction in government spending can generate a 'short squeeze', where the borrowers of banks are not able to obtain sufficient money to make payments on loans". This argument is incoherent though. The money to pay for past loans in a fiat money system does not come from the government. It comes from future lending and income spent. There is nothing unsustainable about a system based on credit where there is sufficient income to meet interest payments. The problem with a credit based system is that there are demand leakages in addition to the inherent cyclical reality of modern economies that result in periods of boom and bust. MMT is trying to imply that the private credit based money system cannot exist without state money. State money does indeed help support the private credit based monetary system, but it is hardly at the mercy of government in all instances.

This position is further confused in MMT where they blur the definition of "money". In fact, in MMT a Treasury Bond is money. They state:

"A dollar bill is just a Treasury bond without duration and without an interest payment. In other words, they're pretty much the same."

But while a bond is money in MMT, bank deposits are definitely NOT money in MMT:

"It is necessary to distinguish between money as a measuring unit and those assets denominated in the money of account. Thus, bank deposits are not money, but are denominated in the social unit of account—that is, money (the dollar in the US)."[xxxvi]

In a 2012 interview, however, Mosler contradicted Wray saying:

"Bank loans create bank deposits to the penny…it's a bank liability and we tend to call that money under certain definitions of money."[xxxvii]

In a recent article Mosler and MMT again redefine an important concept in finance – this time, "debt". Mosler says:

“*The govt. allows those unused tax credits to be held in three forms- as actual cash, as cash balances at the reserve bank, or as balances in securities accounts at the reserve bank called Treasury securities. The total of the three is the national debt. The national debt is simply the total tax credits spent but not yet used to pay taxes.*”[xxxviii]

This makes very little sense as it pertains to any traditional understanding of “debt”. The national debt represents securities that have been issued to finance operations. Debt is issued for a specific reason – in the case of the USA Treasury Bonds are issued because the US Treasury is a user of private bank money as well as central bank money. By law it must obtain these monies before it can spend. And one way it does so is by selling bonds to obtain inside money and outside money. These bonds exist for a very specific reason and are classified as debt securities because they represent this specific legal and institutional structure. To classify reserves and cash in the same definition as bonds is entirely illogical and is a sloppy attempt to gloss over institutional and operational realities that are an inconvenience to the MMT view.

For a school that claims to be based in large part on endogenous money they certainly don’t believe that endogenous money is even money at all. Rather, the entire theory is built around a government centric view of the world that is not so different from a reserve centric money multiplier type view of the world espoused by most neoclassical economists.

In fact, MMTers are essentially quantity theorists who believe that the supply of money is determined both endogenously AND exogenously. This is largely consistent with traditional Monetarists and quantity theorists. Fullwiler says:

“MMT is also a quantity-theoretic model of changes in the price level. The differences are (1) net financial assets of the non-government sector, rather than traditional monetary aggregates, are the MMT’ers preferred measure of “money,” and (2) desired leveraging of the non-government sector is akin to what one might call “velocity.” In MMT, the two of those together (net financial assets of the non-government sector relative to leveraging of existing income) set aggregate demand and ultimately changes in the price level, at least the changes that are demand-driven.”[xxxix]

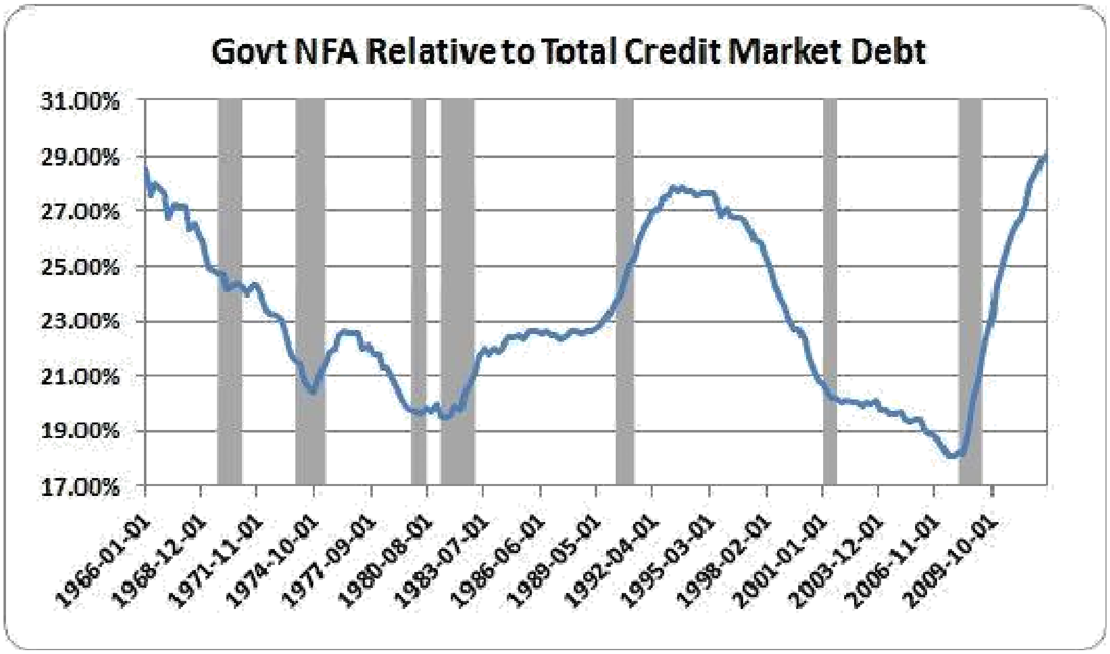
In other words, outside money or those forms of money issued purely by the government are the “preferred measure” of money in MMT. As Wray stated, bank deposits are not money, but in the MMT view, things like Treasury Bonds are money. This not only confuses basic definitions (T-bonds are a financial asset and security issued specifically to obtain money and are not a form of money in the same sense that bank deposits serve as a medium of exchange), but also exposes

MMT as being an exogenous view of money. They are not endogenous money theorists in the traditional sense. MMT is actually much closer to an exogenous view since they believe the government should inject the proper amount of "preferred money" via deficit spending and net financial asset issuance.

The "T-bonds are money" view is also confused within MMT because MMT views "money" as that which is accepted for payment of taxes. But I actually called the IRS in the United States about this and they confirmed that they would not accept a Treasury Bond for a tax bill, nor would they convert the T-bond on my behalf. I was instructed to convert the bond first into a cashiers check, bank deposits, money order, physical cash or some other means of payment. Therefore, the IRS doesn't even consider a T-bond to be "money" despite MMT's claims otherwise.[xl]

This again brings us back to the government centric view of the world. Of course, the government does not create the primary form of money in the private sector (bank deposits) so this reserve centric view of the world cannot be right. The government creates cash (which can only facilitate the use of inside money by allowing an inside money account to be drawn down, e.g., via ATM withdrawal). The government also creates reserves, but the non-bank private sector does not use bank reserves for purchases and banks don't leverage reserves. Additionally, a government bond is a promise to deliver dollars. And the government does not deliver outside money for your use. It will deliver bank deposits in much the same way that a private sector corporation might deliver bank deposits to you upon bond expiration. This creates further confusion. If a t-bond is money then where do we draw the line on money? Is a AAA rated bond issued by Berkshire Hathaway a form of money? Is a stock certificate money? I would argue that these are instruments with varying levels of moneyness, but have a substantially lower level of "moneyness" than something like a bank deposit. After all, you can't buy a sandwich with a t-bond, stock certificate or corporate bond. But MMT blurs the lines on these definitions (again) in order to force a square peg into a round hole.

This flawed MMT position can also be seen through better understanding the history of net financial assets in the US economy. As you can see below, there is no discernible relationship between total credit outstanding and government net financial assets. Periods of high NFA relative to debt have been consistent with both financial instability and periods of instability. The way MMT emphasizes this idea of "leveraging" is both a misuse of the term and a misleading portrayal of the relationship between NFA and total credit.



(Figure 2 – Government net financial assets relative to total credit market debt)

MMT further conflates this point by emphasizing net financial assets and the fact that banks cannot create net new financial assets. They often claim that money is "destroyed" when a loan is repaid. Wray says:

> "When IOUs complete their journey back to their issuers, they are destroyed."

But this is only true in the narrowest sense. In the aggregate, loans are not being repaid and money is not being "destroyed". Loans are largely rolling over in what is a perpetual increase in assets and liabilities within the private sector as private sector net worth expands. Just like the federal government doesn't "pay down" its debt, neither does the aggregate private sector over the long-term (though this idea should not be confused with the differences in having a solvency constraint which all private sector actors do). The private sector liabilities grow perpetually along with the real economy:

(Figure 3 – Total Outstanding Loans and Leases)

MMT takes this state theory and monopolist view to an extreme in a similar way to metallist's (believers in the gold standard and fixed exchange rate systems take their faith in the market based system to extremes). Chartalists say:

"*Under the metallist vision, the state takes a back seat to the market. The chartalist theory, however, places the state on center stage*".

Or said differently:

"*We would thus insist that any modern circuit should begin with the recognition that the "bank money" created at the beginning of the circuit is denominated in the State's money of account. Further, recognizing that banks use HPM for clearing (more specifically, the reserve balance portion of HPM), the circuit should also begin with HPM.*"

As explained previously, we don't have a money system with the state on "center stage" **or** the state taking a "back seat to the market". We have a hybrid system where private banks wield huge control over the price of money and the supply of money and this is combined with a state control on *components* of money that have a huge influence but not a monopolistic influence on all money.

MMT further conflates this point by claiming that all payments settle in high powered money rendering it the top of this hierarchy. For instance, in a recent presentation Kelton says:

"*here's an example. Suppose that you go out to dinner and you purchase your meal with your Visa card. Is that the final payment? No. You get a bill in the mail from Visa, and what do you do? You write them a check. Is that the final payment? Well, maybe the last time you see anything happen, but it's not the final payment. At the end of the day, Visa doesn't want your check. It doesn't want what you've written down. What it wants is a credit to its bank account and that happens as that check goes through a clearing process and Visa's bank account is credited with reserves. What are bank reserves? Government IOUs. Federal Reserve money. government money. Only the government's money can discharge a payment as final means of payment. We are the users of the government's currency* (Kelton; 2010)."

This clearly displays a fatal flaw in the MMT hierarchy of money argument. MMT far exaggerates the importance of the reserve system in settling payments as an excuse for all money being "state money". According to this thinking, one might believe that private transactions do not even matter since they don't "settle" as the "final means of payment". Of course, the logic is completely wrong here. First, the example makes no sense since Visa does not issue credit cards or receive payments. Visa facilitates electronic funds transfers. Banks and finance companies use Visa branded cards to allow these transfers to be processed. Kelton does not even have the most basic facts right. But more importantly, when you go to dinner, final payment is settled in whatever the restaurant accepts. The restaurant gets paid in bank deposits in most cases, not reserves. In fact, it cannot be paid in reserves and could not use the reserves even if it *could* be paid in reserves because the restaurant does not have an account at the Fed. Further, if this transaction occurs at the same bank then **the bank will not even alter its reserves**. I.e., there is no "final settlement" in the "government's currency". The fact that banks are required to maintain some level of reserves has absolutely nothing to do with the fact that the restaurant accepts payment in bank deposits. The entire example is illogical and an attempt to create a relationship between bank and government money where there is none.

MMT also conflates the institutional design of the monetary system by consolidating the Fed and Treasury into the same entity in their accounting descriptions. In doing so, they are able to claim that tax receipts are settled in bank reserves which are a liability of the Federal Reserve which would mean the government is accepting its own liability (which is not legally true). They will claim that this means the tax payments "destroy" money and the spending "creates" money. Of course, the Fed and Treasury are not the same entity so the entire accounting is flawed from the start, but this still blurs the actual way the taxing and spending process works to begin with. There is a very specific flow of funds that occurs within the money system that helps us understand how the system functions. As the NY Fed has described:

"The Treasury maintains its primary account for making and receiving payments, the Treasury general account (TGA), at the Reserve Banks. An increase in the balance of that account means that funds have moved from depository institutions' accounts at the Banks into the TGA. This movement of funds reduces the amount of reserves in the banking system. Conversely, a decrease in the TGA means that funds have moved from that account to depository institutions, thereby increasing the amount of reserves in the banking system."[xli]

The Fed has also described this specific flow of funds:

"The Treasury's receipts and expenditures affect not only the balance the Treasury holds at the Federal Reserve, they also affect the balances in the accounts that depository institutions maintain at the Reserve Banks. When the Treasury makes a payment from its general account, funds flow from that account into the account of a depository institution either for that institution or for one of the institution's customers. As a result, all else equal, a decline in the balances held in the Treasury's general account results in an increase in the deposits of depository institutions. Conversely, funds that flow into the Treasury's account drain balances from the deposits of depository institutions. These changes do not rely on the nature of the transaction. A tax payment to the Treasury's account reduces the deposits of depository institutions in the same way that the transfer of funds does when a private citizen purchases Treasury debt. Both actions result in funds flowing from a depository institution's account into the Treasury's account."

In order for the TGA account to ever obtain a positive balance the Treasury must procure funds via taxes or bond sales. MMT really starts the settlement process with the transactions in reserves where they settle at the central bank. But this ignores the reality of what happens. The Treasury/Central Bank does not simply "create" funds as MMT implies. There is a clear flow of funds that occurs in this process whereby bank deposits flow from the private sector into the government's account, allowing it to spend and then results in an equal bank deposit on the other end in the banking system. From start to finish, the flow of funds begins with the creation of money in the form of a loan which creates deposits. The issuing bank has an asset which results in the creation of a deposit liability. If this deposit is used to pay taxes then the government most definitely does not "destroy" the loan made in inside money or bank money. It simply redistributes the loan's resulting deposit through the system where government spending results in the crediting of a bank account (and the original loan asset remaining in the banking system). It is best to think of most transactions in our money system as starting in inside money and ending in inside money. Money is created primarily by banks when loans are made and can only be destroyed by banks when loans are repaid. When MMT focuses on reserves it's a lot like saying that cash transactions mean bank accounts don't matter. Of course, cash is obtained by having a bank account and withdrawing funds in what is a clear flow of funds so you might obtain cash from someone else, but they ultimately obtained it from someone who drew down a bank account. Like MMT's reserve centric settlement process, the idea that the cash "funded" your transactions is an illusion. The funding source was the creation of a bank deposit and the cash simply facilitates the users of these accounts.

One can also see MMT's flawed reserve centric view of the world by understanding the distinction between inside money and outside money. Inside money, as mentioned, is bank money (deposits created via loans). Outside money includes cash, coins and reserves. MMT will state that a tax payment is money being "destroyed" because the bank no longer has a deposit liability and instead obtains a reserve credit which is then used to "fund" the Treasury General Account. Said differently, inside money has been transferred to outside money within the reserve system. This outside money is then transformed back into a deposit when the government spends. Thus, MMT calls this "money printing" and has referred to the tax payment as "unprinting". But this is inconsistent with the actual flow of funds described previously. The US Treasury is pari passu with the banks within the interbank system. It is a user of the reserve system in settling payments. Describing government taxing and spending as "creation" and "destruction" of money is the same as stating that banks "destroy" and "create" money when they settle interbank payments through the reserve system as both the Treasury and the banks are users of the Federal Reserve system. Of course you wouldn't say interbank payments are "money printing" because that would make no sense. The interbank system allows for the transfer of inside money through the use of outside money. The US Treasury is not unique in the way this occurs through the standard interbank process.

MMT will first consolidate Fed and Treasury and then claim that the reserve system's cash settlement of taxes implies the "destruction of money". But this cannot be right because the money was created via a loan (which created a bank deposit) and the loan absolutely was not destroyed in the process of government taxation. Therefore, the money system requires that inside money to be redeposited into the system, which is precisely what the US government does. It does not destroy or transform inside money. It simply redistributes it through the system.

In a mythical world the Fed could just credit the TGA account, but in the real world this is not what occurs (though MMT's reserve settlement explanation is essentially the creation of a new deposit). What occurs is a debiting of a private bank account, a crediting of the TGA account, and the subsequent crediting of a bank account. In other words, the government is a user of bank money in that its account at the Fed must be funded via taxes or bonds before funds can be disbursed. Inside money does not get transformed, destroyed or created in this process. It merely flows through the system. Blurring this process due to what is actually monetary policy and reserve maintenance procedures completely distorts the flow of funds that is occurring in the monetary system through these processes. Government taxation does not destroy inside money in any meaningful sense. And spending does not create inside money. Blurring this process through the distortion of the reserve accounting process entirely misconstrues the actual flow of funds and the fact that banks dominate the monetary system through their creation of inside money. MMT, by consolidating the Fed & Treasury and claiming that banks leverage horizontal money, completely distorts this reality into something it would only be in an entirely different type of monetary system in which the government were a true issuer of all money.

There are also multiple legal misrepresentations in the MMT description of the money system. As previously discussed, the constraints imposed on the US government from being a money monopolist or having monopoly powers are very specific in the way the institutions are designed in the USA. MMT is often sloppy with terminology referring to the "state" as having monopoly powers over the money supply or the right to determine who can issue money. But this confuses the specifics in the laws that determine who has the power.

The Executive Branch does NOT have a monopoly over money as MMT implies. Article 1 of the Constitution refers to the Congress and its powers, Article 2 concerns the powers of the Executive branch, Article 3 refers to the judicial system and Article 4 refers to the states and their powers. The Fed was designed as an independent agency by the Congress to serve as a check against the power of the President (and his Treasurer, by extension) with regards to the power of monopoly over the money supply. In designing the Fed system the President was specifically forced to share his powers (and those of his Treasury Secretary) with the private banking system and the Federal Reserve. Just like the other branches of government, the Fed serves as an important check against the Executive Branch. But MMT consolidates the Fed into the rest of government thereby misconstruing the powers of the Fed and implies that the Treasury has monopoly power over money. The Treasury Secretary or President has no power to veto a Fed decision due to its specific design as an agency outside of the "the state". So the MMT consolidated view distorts a very specific legal construct that exists specifically to avoid the power consolidation that MMT needs to be relevant. The MMT consolidated government view gives the Executive Branch powers it does not actually have. This is a blatant misrepresentation of our reality.

In addition, the MMT view seems to completely misunderstand the structure of the Federal Reserve. As a whole, MMT is highly critical of the private profit generating actions of banks and bankers. But they also claim the Fed is a public purpose serving entity. But the Fed is not structured like a public purpose serving entity. In fact, its directors are primarily bankers. Class A and B directors are all elected by the member banks so the leadership structure within the regional Fed banks is dominated by private bankers. Whose interests do you think these bankers serve? The public's interests or the shareholders they must answer to on a quarterly basis? In my view, it's a bit naïve to claim that this entity is a purely government run institution serving public purpose when its leadership structure is dominated by the same private profit motivated bankers that MMT is so fond of criticizing.

MMT's "general case" just assumes that there is no legal restriction in place against the Executive Branch. They assume the Executive Branch (or its Treasury) can control the banks and their power over money. What's interesting is that the State Theory of money specifically states that money is a "creature of law" but MMT blatantly misconstrues the laws that are in place.

They might further respond by stating that the government has monopoly powers over the right to issue bank charters, but this is also misconstrued because the states (small S) also have the power to issue bank charters. At times, MMTers will refer to states as "currency users", but in this case there is an obvious contradiction in which the states are the issuers of bank charters which means they are somehow atop a legal power that MMT sees as being more important than the right for banks to create deposits. Clearly, this is doubletalk and makes very little sense from any rational perspective. The entire MMT construct is a sloppy generalization of the actual designs that have been put in place for specific reasons. So the justification of the state as a "money monopolist" is completely irrelevant.

MMT ignores the widely understood notion of the independent central bank. That is, the Fed is "independent within government" as the Fed itself has explained:

"The Federal Reserve System was structured by Congress as a distinctly American version of a central bank, established to carry out Congress′ own constitutional mandate to "coin money and regulate the value thereof." The Fed is a decentralized central bank, with Reserve Banks and branches in 12 districts across the country, coordinated by a Board of Governors in Washington, D.C. The Fed has a unique public/private structure that operates independently within government but not independent of it."

The Fed is not part of the centralized government. It is specifically designed to be independent of the Executive Branch as well as the legislative branch. Consolidating it into the Executive Branch as MMT does is to defy the actual reality we have. It is an incoherent presentation of what actually exists and it totally ignores the history of the Fed's creation and the laws that define how it operates.

Furthermore, it's helpful to understand why the "specific case" even exists. Why isn't the government the distributor of all money as the general case posits? One of the primary reasons why the "specific case" exists is because the USA is built around a market system where money is controlled by the private sector and not an authoritarian government monopolist. Saying that the "specific case" is consistent with the "general case" is completely incoherent. Like saying that murder is illegal, but is consistent with the view that that murder laws are a legal construct "self imposed" by the government and therefore don't apply to government in some "general case". That's a vast misrepresentation of our reality. Laws exist for specific purposes and specifically define the structures and boundaries within which we operate in reality.

Much of this confusion derives from MMT's consolidation of the Fed and Treasury. But this is a false premise. The fed is clearly defined as neither a public nor private entity. As the Fed has explained:

"The Federal Reserve System fulfills its public mission as an independent entity within government. It is not "owned" by anyone and is not a private, profit-making institution.

As the nation's central bank, the Federal Reserve derives its authority from the Congress of the United States. It is considered an independent central bank because its monetary policy decisions do not have to be approved by the President or anyone else in the executive or *legislative branches of government, it does not receive funding appropriated by the Congress, and the terms of the members of the Board of Governors span multiple presidential and congressional terms."*[xlii]

The Fed exists primarily to support private competitive banking. It actually enacts all policy via the banking system and must therefore help sustain a healthy private banking system before it can ever achieve public purpose of full employment and price stability. Therefore, the Fed is clearly an entity that serves private purpose before public purpose. In fact, the Feds mere existence renders MMT void in the current system.

It's also important to note that what is a clear cut current law is the no overdraft law which states that the US Treasury cannot run an overdraft on its account at the Federal Reserve.[xliii] This means the MMT theory cannot be correct because the only way the US government can obtain funds at present is if it taxes or sells bonds thereby allowing the crediting of its TGA account. In theory (yes, MMT) the government could just credit its own account. But the current system does not allow this.

Frankly, I don't think a change in the law would matter much because it doesn't change the flow of funds that is described above by the Fed. There is a very clear flow of funds from the private sector to the public sector back to the private sector. The TGA account does not obtain credits without a private account first being debited. Whether this settles in US government liabilities is irrelevant. The US government cannot legally run an overdraft in its account at the Fed and can only fund this account by debiting the accounts of private sector accounts. To obscure this process as the "destruction" and "creation" of money is to misinterpret the importance behind the actual flow of funds that occurs in the system. It creates an erroneous illusion of money creation when the reality is that taxes result in a private debit, public credit and then spending results in a public debit and private credit. This is not destruction and creation. It is a redistribution.

More importantly, the Federal Reserve system exists in large part to facilitate the smooth settlement of payments in a multi-bank system (this payment facilitation process includes the funding of the federal government). The very creation of the Federal Reserve System was to maintain private competitive for profit banking (read, privatized money creation) with government as a facilitating role in helping to set policy that influences the cost of inside money while also supporting the value of inside money through a central clearing house. As the Fed has explained:

"By creating the Federal Reserve System, Congress intended to eliminate the severe financial crises that had periodically swept the nation, especially the sort of financial panic that occurred in 1907. During that episode, payments were disrupted throughout the country because many banks and clearinghouses refused to clear checks drawn on certain other banks, a practice that contributed to the failure of otherwise solvent banks. To address these problems, Congress gave the Federal Reserve System the authority to establish a nationwide check-clearing system."[xliv]

The Fed system was created to support the private for profit banking system. In fact, the Fed system is modeled on the New York Clearing House model which was a privately managed clearing house for bank payment settlement prior to the Fed. After the crisis of 1907 the government got more involved in the process to help oversee and manage the process. The result of this was the Fed.[xlv]

But make no mistake, the creation of the Fed did not magically nationalize all the banks or make them all servants of public purpose just because reserves settle with Fed accounts. This is a vast misrepresentation of the facilitating purpose of the Federal Reserve System. The Fed was created to support inside money. MMT's claim that reserves sit atop the hierarchy of money is patently false. Reserves only exist as a support mechanism to inside bank money. That is the only reason for their existence. Something that facilitates cannot possibly take the lead role in the monetary system. It is like saying that a crutch is more important than the legs that carry most of the burden. The order of importance is wrong here with MMT essentially stating that the crutch is suddenly more important than the man (the government is more important than the private competitive banking system which feeds almost all of the money to the economy that results in economic output).

The simplest refutation of MMT can be seen in a one bank system. In a one bank system controlled by the state there would be no need for a Fed because there would be no interbank settlement. This is actually the world MMT creates by consolidating the Fed into the Treasury. They create what is essentially a one bank form of system. But this system is entirely inapplicable to our actual monetary system. In our system the banks dominate the money system and issue almost all of the money. The government facilitates this private money system and the Fed helps settle interbank payments through the use of the Fed Funds market. If there were a single national bank then this system would be unnecessary. But it exists in present form because private banking dominates the money system and is inherently fragile. Therefore, this Federal entity helps facilitate and support a private bank controlled monetary system. If we had a true MMT world there would be no need for the Fed and the interbank market. Clearly, that's not the world we have!

The only time reserves are used for payment settlement is when there are multiple banks involved in which case the reserve system is utilized to streamline payment transfer. This system was established due to what was essentially rogue banking from the 1800′s when some banks would not clear payments from other banks during crisis. By bringing settlement into a central location the Fed substantially bolstered the banking system. So it's clear that the Reserve system exists to support private banking, not to establish some sort of state money system where the state issues the money or where reserves sit atop a hierarchy that is similar to the money multiplier. The Federal Reserve System exists explicitly to support private banking and a market based money creation system. The very existence of the Fed means MMT's theory is falsely presented. If we had a true money monopolist there would be no need for a Federal Reserve.

Further, some banking systems don't even have reserve requirements and operate fully functional banking systems with minimal reserve requirements. But MMT exaggerates the role of reserves in settling payments in order to bridge the divide between the private banking system and the government's management of the payments system. They stretch the truth in order to create a "future [that] has already happened" and bring the state "back to center stage".

The Federal Reserve System sustains a competitive private banking system while allowing for a unified payment structure through the reserve system. **If all money was truly state money there would be no need for the Reserve system in the first place.** Ie, the reserve system's very existence is to facilitate the private competitive nature of inside money and a large facet of this involves helping the government procure funds without disrupting the competitive nature of the interbank/private banking system. So the idea that "taxes drive money" because tax settlement occurs in reserves is purely contradictory and void of value. This is why MMT would like to eliminate the Fed and consolidate the system. Without what is essentially a one bank system the MMT paradigm is untrue. **The reserve system and outside money exists almost entirely to facilitate the competitive private nature of inside money. The very existence of a reserve system at all renders the MMT description void.**

Mosler is fond of stating:

"There can't be a reserve drain without a reserve add"

This is true except there can't be a reserve drain without a reserve system in the first place and. And the reserve system only exists because we have private banks issuing money. If we had a one bank system there would be no need for a reserve system to settle interbank payments.

MMT builds their hierarchy to give the impression that money is accepted as payment due to government decree. But this is only true in a narrow sense. Fiat moneys are accepted because they are supported by underlying production. Indeed, when a currency collapses it is almost always due to the fact that the productive base of the economy has collapsed and not because the government has failed to support its currency through enforcement of the law or exercising its powers. For instance, President Mugabe did not run out of guns and soldiers in Zimbabwe. He ran out of a productive economic base. Another example is the US Dollar. Why is the US Dollar viewed as the world's reserve currency? It is primarily due to the fact that holding these dollars is a claim on up to $16 trillion of global output. Fiat moneys are backed by a productive base first and government powers in a secondary sense.

A more recent case of where MMT goes wrong in this understanding is Iran's recent hyperinflation. The Iranian government did not run out of the ability to tax or to enforce taxation. What happened in Iran is that it no longer became viable to hold Rial's when foreign sanctions reduced exports of Iran's primary resource – oil. Not only does this hyperinflation disprove the idea that "taxes drive money", but it also invalidates MMT's thinking that any nation can be autonomous in their own currency.

Interestingly, MMT founder Randall Wray has explicitly contradicted the idea of the hierarchy. In "Money as a Public Monopoly" Wray said this regarding bank money:

"*The bank money (a banker) creates while running the bank into the ground is as good as the government currency the Treasury creates serving the public interest*."

This obviously contradicts the idea that there is a hierarchy of money or that bank money is somehow lower than government currency. But MMT has spent years building these ideas without realizing that Wray's comments here are totally accurate – banks are private money issuers who issue money that is every bit as useful (even more so) and important as government currency. Bank money trades pari passu with state money. It does not require conversion into reserves. It only requires a productive output base, an institutional design rendering it the dominant means of payment and a legal system that supports its credibility.

Do Taxes "Drive Money"?

MMT advocates will often claim that "taxes drive money". Although important, taxes and enforcement alone are not enough to maintain a stable monetary system and cannot be proclaimed to sit atop the hierarchy of money demand. GF Knapp, the founder of the State Theory of Money understood this idea and in fact argued that "money is a creature of law". The first line in his book "The State Theory of Money" says:

"MONEY is a creature of law. A theory of money must therefore deal with legal history."[xlvi]

This is interesting from the MMT perspective because they will often claim that the only thing that renders MMT incomplete are "self imposed" constraints. In other words, the laws that constrain a government (for instance, from being able to print money without first procuring it via bond sales or taxation) are somehow inapplicable because they're "self imposed". Of course, all laws are "self imposed" and provide as guidance for how money can and cannot be used. But one cannot claim that money is a creature of law (using Knapp's State Theory) and also claim that "self imposed" constraints do not apply to that nation. That is obviously contradictory. Of course, the "self imposed" constraints are not mere figments of our imaginations. They are the equivalent of having a government whose shoe laces are tied in certain times and those laces are indeed tied for particular reasons. They're called "checks and balances" and in the case of MMT, the "self imposed" constraint stops the Executive Branch from having a full money monopoly. Describing the world without the "self imposed" constraints is describing an alternative reality in which the government's checks and balances have somehow been removed. That's illogical and inapplicable to what actually exists.

Money is ultimately driven by output. What money really gets you is some end. In the case of modern fiat monetary systems money is primarily a tool or a medium of exchange that allows you to purchase output. The end is not a tax payment or the elimination of a debt. The end is the ownership of output. We use this tool to obtain output. The tax is always secondary. So it is impossible for taxes to drive money. If anything output drives money.

It's also important to note other primary drivers of money. Economist Hal Varian has described the use of a prominent form of money as a "network effect". The reason why we use a particular form of money is primarily because others use money. In the USA the dominant form of money is bank deposits because bank deposits are the dominant form of money that populates the US payments system. That means if you want to engage in the US economy you must be able to access the private banking system to obtain the deposits that are most widely accepted as a medium of exchange. Like the utility of a fax machine, bank deposits are useful so long as others use them.

This can also be proven by understanding a few real-life examples. An interesting case occurred in Iraq following the first Gulf War when the Iraqi Dinar was replaced by Saddam Dinars. Here's how Hal Varian describes it:

"After the gulf war of 1991, Iraq was divided in two: the south ruled by Saddam Hussein, the north governed by the local Kurds. Mr. Hussein needed money to finance government spending, and in the time-honored tradition of dictators, created it himself.

The government could not import more of the bank notes then in use, because of United Nations sanctions, so Mr. Hussein ordered the local printing of a new currency. In May 1993, the Central Bank of Iraq announced that citizens had three weeks to exchange their old 25-dinar notes for the new "Saddam dinars," which bore his portrait.

During the next few years, so many Saddam dinars were printed in southern Iraq that they became virtually worthless. The face value of cash in circulation rose from 22 billion dinars in 1991 to 584 billion in four years, and inflation averaged about 250 percent a year over that period.

Residents of northern Iraq could not exchange their notes. The 25-dinar notes continued to circulate and became known as the "Swiss dinars," because they were printed with plates made in Switzerland.

The fact that the Swiss dinars continued to be used at all speaks to the power of social conventions. The Kurds in the north despised the Baghdad government, and would have much preferred to have their own currency. But there was no government in place powerful enough to mandate a currency change, so they kept using the old Swiss dinars by default.

The Swiss dinar was in fixed supply, while the Saddam dinar was flying off the printing presses, so it is not surprising that the Swiss dinar quickly became more valuable. By spring 2003, it took 300 Saddam dinars to buy one Swiss dinar."

Not only does this case study prove that a government mandate alone cannot give money value, but it proves that taxes are not enough to drive the use of a particular form of money.

Bitcoin is a more recent form of electronic money that proves facets of the MMT thinking erroneous. This is a payments system that exists entirely without government or taxes. It makes for an interesting thought experiment. If there was no such thing as taxes then could we have a system that was merely regulated by independent entities and specifically devised around one form of money? Bitcoin proves that this is entirely possible. That is, a payments system with a specified form of money that is the only means of final payment, is sufficient to make a particular form of money the dominant medium of exchange. Of course, that's deviating from our reality in which taxes and public purpose are very real, but it's an interesting thought experiment and puts doubt into the idea that taxes are a necessary component of demand for money.

It's also important to understand that fiat money might be a creature of the state and its laws, but the state is ultimately a creature of the people. Resources precede taxation so while taxation plays a crucial role in binding a monetary system with public purpose they are by no means the only link (or even the most important link) in the chain. Rather, money is driven by many factors with credit or trust in this specific form of money being a primary driving factor of money. This faith is not built on the shoulders of the government, but rather it is built on the shoulders of private producers and consumers.

State monetary systems are merely an evolution of money as debt from unspoken bonds to formal institutionalized constructs with laws, taxes, and systemic infrastructure as the framework for a specific type of money. In a constitutional republic like the USA we **choose** how our government and hence our monetary system exists. Our system is specifically fragmented to avoid the capture of power by any one entity. We use the government as a form of partnership to better our collective living standards. The creation of money and our monetary system exists to mobilize resources in an **efficient** and **accepted** manner so as to help improve collective living standards. Demand for money is ultimately an extension of this societal understanding of which taxes, laws and systemic infrastructure merely help to organize the institution of state money. The existence of the state also plays a crucial role in helping to establish trust in the currency. But the state alone cannot force the private sector to trust state money.

It's imperative to understand the payments system in a monetary system when discussing what drives money. Ultimately, the moneyness of money-like items is derived from its acceptability as a final means of payment. MMT takes this to mean that the final means of payment is taxes, but that is not always the case. Tax receipts actually represent a very small portion of the transactions within a system. What really drives the use of money in a system is the way a certain system is driven by the structure of the payment system. For instance, in the USA, the private banks are the issuers of money in the payments system and in order to engage in that payments system you must obtain bank deposits. While the government plays an important role in dictating the use of this system and designing the “rules of the game” inclusion in this payments system does not REQUIRE the payment of taxes. It merely requires involvement by doing business with a private bank. Since most transactions in a modern money system occur within the banking system it is clearly the organized payments system that “drives” money and not merely the tax system.

Based on this understanding, we disagree with the notion that money has “value” or is “driven” by the idea that it is accepted at state pay offices for tax purposes. For instance, the MMT statement that ”the value of certain money derives from its acceptance at state pay offices” is incomplete, misleading and at odds with our style of government. As JM Keynes stated, “money is the *measure* of value, but to regard it as having value itself is a relic of the view that the value of money is regulated by the value of the substance of which it is made, and is like confusing a theatre ticket with the performance”. Ultimately, money derives its value from the quality of the goods and services that the public is able to efficiently mobilize and not the authority of the state in requiring payment of taxes or enforcing laws. Further, the creation of state money is not merely an extension of the government’s authority, but is an extension of the understanding that state money is a tool that can be used by its citizens to improve collective living standards.

It’s best to think of money like a theater ticket. The government essentially determines the thing that gets you into the show (in our case, the USD is how you access the US payments system), but it outsources the creation of this thing to private entities. In a representative republic we can think of the theater users as nominating a group of people who make the laws that dictate some theater rules (govt) so the owners don’t abuse their ownership status, but importantly, these governors don’t own the theater because they prefer to outsource it to a group of private entities who they think can better serve it through a market based ticket issuing process. This group of nominated officials (government) also collect fees in order to provide some public purpose for the theater’s users (like vender services, for instance). But the theater is actually owned and run by a for profit group of entities (banks).

The money that gives you access to the theater doesn’t have value because you pay fees inside the theater with it (taxes). It has value primarily because the show has value (the aggregate supply/demand of production) and because the theater company maintains its supply and demand in a responsible way (credit issuance in our system). It should be obvious that no one would want to attend the show if it was bad so enforcement of tickets is more than a secondary issue. Taxes don't "drive money" as MMT implies.

MMT essentially claims that the tickets have value because the venders in the theater charge you fees (taxes for public purpose). Bear in mind, the theater company in our system is the banks, not the government, since the government doesn't actually issue the money. The MMT presentation is a highly misleading government centric view of the money system that distorts what really gives money its value. More importantly, they distort the institutional design of our money system in order to promote a particular policy agenda that can be more easily reinforced if you think the govt is the center of the money system.

Horizontalism, Verticalism, Outside Money and Inside Money

As is seen in this paper, MMT often uses confusing terminology and overly simplified metaphors in their descriptive component of the monetary system. One of the confusing uses is that of "vertical" and "horizontal" money. These terms can be confusing for some economists because the MMT community does not use them in the traditional sense as Basil Moore first used them in his book "Horizontalists and Verticalists". MMT does the same thing using the traditional terminology of "inside money" and "outside money". MMT often refers to "inside money" in a form that is not traditional. For instance, in this piece Warren Mosler says:

"*The dollar is a 'closed system,' what's called a case of 'inside money' due to the fact that they all come from government and/or its designated agents (apart from counterfeits).*"

This is incoherent though. "Inside money" is bank issued money issued inside the private sector and "outside money" is government issued money (notes, coins and reserves). The whole purpose of this terminology is to make a clear distinction between the two forms of money that are in existence. Claiming that all money is state money or trying to establish banks as "agents" of the government confuses the actual workings of money under the current institutional design. MMT confuses these terms as they've been used in economics for decades. The two forms of money are entirely different with inside money being that of the private banking system and outside money being that of the government. In our monetary system, inside money is the far more dominant form of money. Outside money merely plays a facilitating role.

The MMT Job Guarantee is Based on Flawed Operational Reasoning

MMT has described their "Job Guarantee as their "most important policy", "central" to MMT and the "base case" for MMT.[xlvii] MMTers describe unemployment caused via taxation as the "base case" for understanding the monetary system and use the state monopolist argument to claim that only the government can create full employment and price stability via an army of government employed workers. MMT will often justify the use of a government job program based on the idea that the government is the money monopolist and simply hasn't issued enough money for all the people to be employed. Mosler states explicitly, that the cause of unemployment is the budget deficit not being large enough:

"Involuntary unemployment is evidence that the desired H(nfa) of the private sector exceeds the actual H(nfa) allowed by government fiscal policy.

To be blunt, involuntary unemployment exists because the federal budget deficit is too small."

He further adds:

> *"The currency is a simple public monopoly, and the excess capacity we call unemployment- people looking to sell their labor in exchange for units of that currency-is necessarily a consequence of the monopolist restricting the supply of net financial assets."*

Since MMT uses this government centric view of the world they conclude that unemployment is ultimately caused by a lack of government supplied saving and must therefore be fixed by the government. That is, if the government doesn't spend enough to meet the private sector's demand for "net saving" (as defined by MMT) then unemployment will result. MMTers often say things like "there was never enough net government spending to accommodate desired H(nfa)."[xlviii] This can't be right though. Unemployment is not the result of a lack of government spending in a capitalist system. Some involuntary unemployment is the natural state of a capitalist system where capitalists will hoard profits over time and fail to maintain zero involuntary unemployment because it would be unprofitable for them to always maintain such an environment. Capitalists, in the aggregate will never maintain zero involuntary unemployment because that assumes that capitalists can manage aggregate demand and aggregate supply in such a manner that the market always clears at full employment. As prudent profit hoarders, capitalists might come close to generating full employment, but they will never maintain zero involuntary unemployment.

But most importantly, this has nothing to do with net financial assets and the government's deficit. It is not the deficit that causes the unemployment. It is the capitalists that cause the unemployment. For instance, if all of the capitalists in America decided, out of the kindness of their hearts, to pool together 11 million minimum wage incomes they could easily eliminate unemployment overnight. Unemployment, in a capitalist system, is not a problem of government, but distribution. Capitalists do not always distribute their earnings in a manner that leads to full employment. This is the natural state of capitalism. It has nothing to do with not enough NFA and in fact, more government spending is likely to enrich the capitalists even further as government deficits drive corporate profits to a large degree.

In other words, MMT's "base case" is based on a misunderstanding of the operational realities of a capitalist system. Their most important policy and most important understanding is based on a completely flawed version of the way the monetary system actually operates.

This point is even more muddied by a common contradiction in MMT. While also claiming that unemployment is caused by a lack of government NFA issuance, MMTers also vilify the wealthy with alarming regularity and in doing so they will often claim that NFA (Treasury bond) is "welfare for the rich" ".[xlix] So which is it? Does the government not spend enough or does it spend too much "welfare" into the hands of the wealthy? Obviously, both positions cannot be consistent.

But that's not all. There's another interesting contradiction in this view of T-bonds as form of "net saving" for the private sector. While MMTers say NFA is how the private sector "net saves" they also support shortening the duration on bonds to 3 months with a 0% overnight rate.[l] A 0% government issued bill is not allowing the private sector to "net save". It is simply supplying the private sector with a cash-like instrument that they will inevitably trade away in favor of other higher interest bearing instruments in order to reduce potential lost purchasing power. This could actually increase the outstanding balance of private sector credit instruments as the government would not be supplying the necessary risk free interest bearing bonds to support private sector saving.

MMT also argues that it could implement the JG to control the rate of inflation, but these views are overstated as well. MMT states that the JG could serve as a "price anchor", but this view is wrong. As shown in Roche (2012) and LaJeunesse (2009) a JG would not serve as a "price anchor" at all, but would instead serve as a "price buoy".

"During robust economic times, buffer stocks offer little prospect of abating wage pressures in the primary sector. Since buffer stocks target a minimum price of labor, an earnings floor if you will, and do not create a wage ceiling they will have little impact on the primary sector wage demands. Capitalists will be able to maintain a significant degree of labor market segmentation, allowing them to avoid hiring from outside the primary sector. As such they will avoid payroll expansion and attempt to squeeze more from existing workers in the form of longer hours and greater work intensification. One only has to look at the history of commodity prices (such as oil) to realize that buffer stocks do not place a ceiling on prices. Buffer stocks may mitigate priceswings, but they tend to prop prices up rather than restrain them, particularly when the commodity is in short supply. Buffer stocks, therefore, do not serve as a price anchor but rather as a price buoy. That is, they represent an earnings floor rather than an earnings ceiling. Public and private sector employees alike will still face pressure to work long hours under a job guarantee – either to maintain insatiable consumption desires or to retain jobs that offer long hours on a take-it-or-leave-it basis. Such behavior would most certainly become inflationary as Mitchell and Wray (2005) concede when they write, 'if the government decides not to deflate demand, the ELR pool still allows the economy to operate with higher aggregate demand and lower inflation pressures, although inflation can still result.'"[li]

Perhaps most importantly, MMT appears to misunderstand or underestimate the potential risks from a state of full employment. If the JG is a price buoy then this could not only create higher sustained inflation, but could also result in a watering down of the productive base. After all, what will the extra 10-20 million employed spend their time doing? If they are not contributing to the productive base of the economy then there is the risk that these kinds of economic programs could actually cause deterioration in output. This is particularly true in lesser developed nations. And in fact, in the two nations where a national JG have been implemented (India and Argentina) inflation and currency crises have been consistent problems.

MMT Downplays the Importance of Private Investment

MMT lacks emphasis on the idea that producers matter as much, if not more than consumers in the effort to create better living standards in the world. In fact, the MMT research is almost entirely based on increasing aggregate demand, the social safety net, the job guarantee and other forms of government spending. Though perhaps unintentional, this is short-sighted as it is production that ultimately affords us the true holy grail of economics – time. It is through innovation, creativity, productivity and growth that we are able to consume *more* in the future.

Some of MMT's primary advocates are vocal about the fact that they don't care about economic growth. Bill Mitchell has explicitly stated that he doesn't even think a nation needs to grow to be prosperous:

"A lot of readers write to me questioning why I consider economic growth to be important. It is a complex topic and beyond a single blog – especially one that I am writing late this Friday afternoon. ***The short response is that I am not pro-growth."***

MMT takes the stance that consumption is superior to production arguing that because we prefer to consume then that's what we should seek as a societal goal:

"There is a strong presumption, especially from the progressive side of the political debate that manufacturing – or what you produce – defines the capacity for a nation to enjoy growth in real wages and therefore standards of living.

…I take a more experiential viewpoint. People prefer to consume than to work. What we consume is more likely to give us joy than what we produce especially if the latter is in the context of exploitative capitalist production relationships.

…Clearly it is more complicated but in general I do not think you need a manufacturing sector to enjoy strong growth in material living standards and perhaps a polluting manufacturing sector erodes the capacity to enjoy broader concepts of growth and well-being.

…from a monetary perspective I don't think worrying about external deficits is valid.

…Is it necessary to produce goods if you can consume them via trade?"[lii]

MMTers make no attempt to hide their disdain for capitalism. Wray is broadly noted referring to all capitalists are "undertakers", a vast generalization intended to politicize and stoke a negative connotation:

"Personally, I like the original term for capitalist, applied by the "father" of economics, Adam Smith, to the businessman: the "undertaker". Today, we mostly limit the term to the capitalist engaged in the business of death, but I think it is appropriate to reclaim the term for all our capitalists. It is the undertaker who does most of the bidding of the efficiency fairies—continually striving to weed out the inefficient, the unproductive, the unfit.

He proclaims himself to be the "job creator", but as we know, a good undertaker—like Mit–is a job destroyer. That is what the Darwinian process is supposed to do: increase efficiency by destroying jobs. It has long been understood—since the days of David Ricardo—that the "machine process" is a net job destroyer as we replace human labor with machines. It is true that new lines of business plus new markets open up job opportunities, but our undertakers will immediately begin to destroy as many jobs as they can in the quest to increase productivity. There is no market force to ensure that on balance new jobs are created more quickly than the undertakers can destroy them. And destroying jobs also destroys markets for the output of the remaining workers—so the natural market force is always destructive (Schumpeter called it "creative destruction"). All of our undertakers really are in the business of death."

This is a disconcerting and extremist view of reality. We reside in a society in which we are rewarded based on the value of our productive contribution to that society. Those who are innovative and highly productive are (*usually*) rewarded for giving much to society. Those who are not are not rewarded. This is the essence of a capitalist economy. And it is the very foundation upon which greater living standards are achieved. Whether one realizes it or not it is primarily through the optimization of time and labor that we achieve greater living standards. If we all gave surf lessons for the rest of eternity our living standards would stagnate. We generate improving living standards through the efficient use of resources resulting in the optimization of time. The world of beach bums consuming everything and producing nothing is a fantasy. How does time optimization via production increase living standards? When Alexander Graham Bell invented the telephone he was indeed destroying the jobs of the messengers. But in creating the phone he made us all substantially more productive. He gave us all more time to consume other things, just like a washing machine means you can consume or produce instead of spending 3 hours lugging your laundry back and forth from the river. This is the essence of how the entrepreneur creates future jobs, future demand and improves living standards. Comparing these people to undertakers is a crime against logic and an insult to anyone who has ever *undertaken* the risk to start a new business.

More importantly, consumption and production are two sides of the same coin, but it is through production that we grow the coin. It is through production that we create many of the great innovations that improve our living standards and provide us with more time. In addition, it is through consumption and demand that producers generate the incomes to produce. None of this is to imply that Monetary Realism doesn't appreciate consumption (or public purpose) or the power of deficit spending, but as mentioned above, we view consumption and production as two sides of the same coin rather than a tug-of-war. Maintaining a balance and focus on each is important and we will use our focus on MR to emphasize that a nation is not wealthy only because it can consume a great deal or because its government spends money, but also because it can produce a great deal. MR seeks to provide a more balanced perspective not only in this regard, but in regards to all aspects of the monetary system.

MMT Often Misrepresents Wynne Godley's SFB to Generate a Government Centric View of the World

As we know by now, MMT is designed around the state theory of money, intends to "bring the state back to centre stage" and believes the monetary system exists to move resources from private to public domain. We've touched on the many reasons why these views are extreme or misguided. But it's important to touch on another powerful visual tool that MMT often uses to promote this view – Wynne Godley's sectoral balances.

The sectoral balances is a view of the economy through the relationship of flows. It is generally presented with a private, public and foreign sector view and broken down using the following GDP equation:

$$\mathbf{GDP = C + I + G + (X - M)}$$

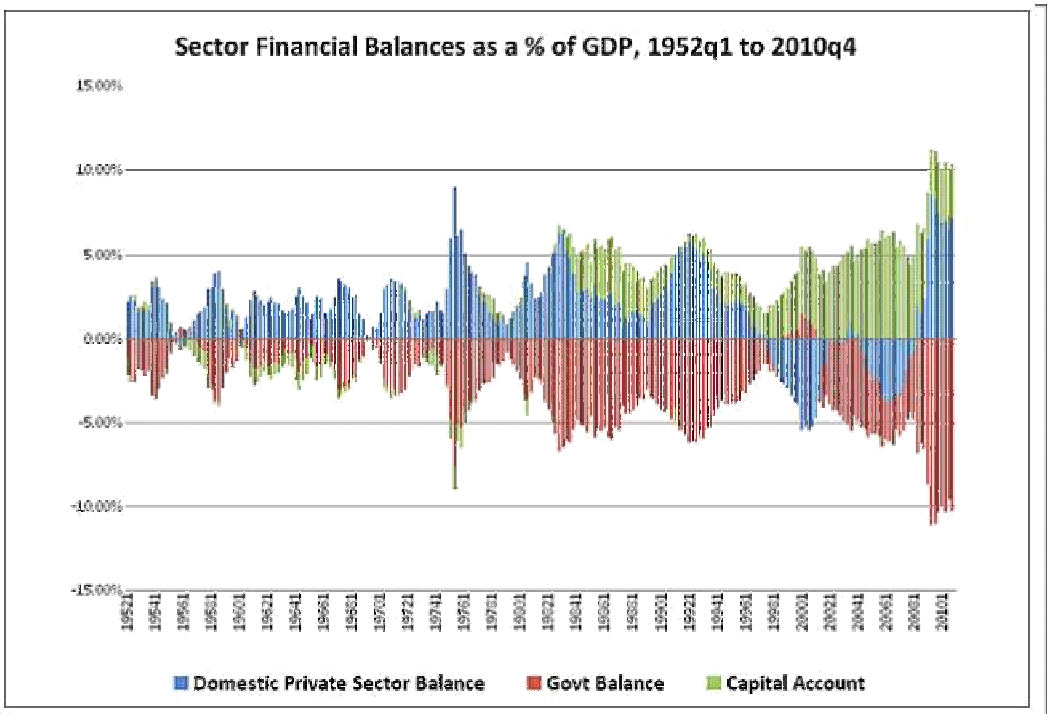
MMT alters this equation to show how the sectors net to zero:

$$\mathbf{(S - I) + (G - T) + (X - M) = 0}$$

MMT will present this to show how the government's spending is the non-government's saving. Generally something like this:

$$\mathbf{(S - I) = + (G - T) + (X - M)}$$

They will then present this chart to present this view of the world:



(Figure 4 – 3 Sector Financial Balances)

This is a powerful visual and accounting based presentation of the economy and its various components. Unfortunately, it is limited in what it really tells us. MMT uses a 3 sector SFB model that offers an ex-post snapshot of economic activity. The view is intended to provide a static government centric view of the impact of deficit spending on the economy with the implication that government spending is crucial to economic growth. While it's true that deficit spending can facilitate private sector growth in various ways, it's also important to maintain perspective here. The 3 sector view completely obscures the private sector interrelationships and the complexity and importance of these relationships. This is crucial in understanding the monetary system because the growth of the economy is driven primarily by these private sector transactions.

MMT will often use a closed economy example to show that **(S-I) = (G-T)**. In other words, they show that government spending IS private sector saving. Viewing the closed economy through the **(S – I) = (G – T)** lens completely ignores the reality of the world which is **S = I + (G -T) + (X – M)**. The private sector does not only expand through government spending or trade. It grows its real wealth through S primarily by maximizing Investment. Looking at the sectoral balances through (S-I) treats investment just like consumption. This is a fundamental error as investment creates wealth. MMTers do this to promote their fiscalist agenda and provide a government centric view of the world. They will often claim it is the centerpiece of their "accounting consistent framework", but their presentation of it is deeply misleading and inaccurate.

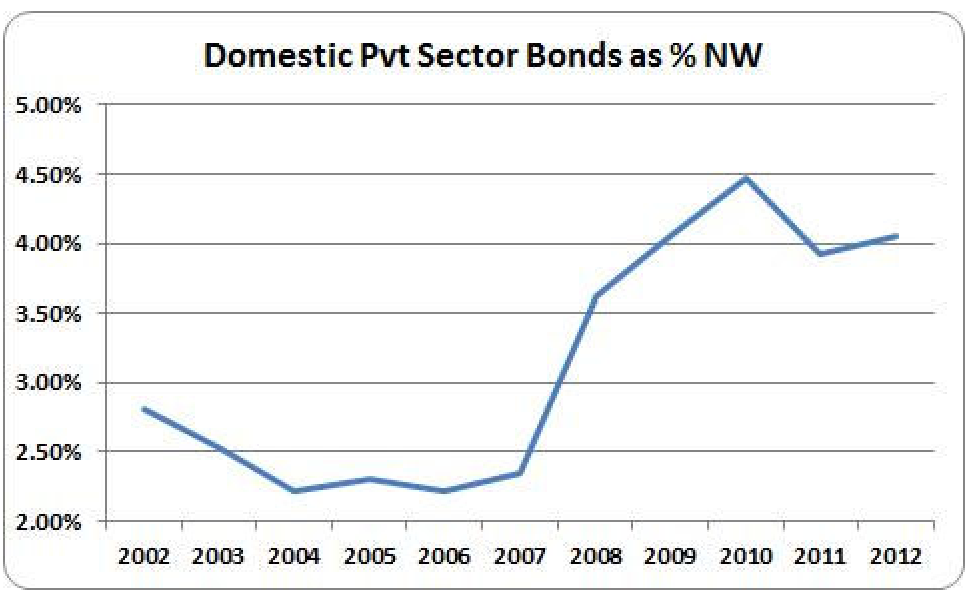
MMT often uses the sectoral balances equation to proclaim things like "Without a government deficit, there would be no private saving."[liii] Or with a current account deficit and budget surplus the private sector experiences a "net loss".[liv] Similarly, Bill Mitchell has stated "It is not possible for the private sector to save **overall** with a current account deficit and a budget surplus. Some households or firms might be saving but as a sector that is not possible."[lv]
These statements are categorically false and used to rationalize policy approaches in MMT that may or may not be productive, but contribute to budget deficits. More importantly, these kinds of statements are based on a completely confused alternative perspective of private saving.

Much of the confusion in this discussion comes from MMT changing *another* definition. In the MMT world net saving is (S-I). But in the rest of the accounting and economics world net saving is as the OECD defines it. "Net saving is net disposable income less final consumption expenditure."[lvi] The OECD definition comes from the United Nations system of national accounts, and is consistent with the BEA definition too. It's also consistent with every economic school apart from MMT. For all these economists, saving is "income less consumption", and for the private sector this is "S". This is in contrast to the MMT definition of saving as "income less spending", which is S-I. The economist or layperson who learns this from an MMT economist will come away not understanding that the economy is built on a stock of financial assets, not a stock of government net financial assets, which is the primary takeaway from understanding the net finanical assets are created through government spending. This is not to imply that net financial assets don't matter, but the MMT view again tries to create a government centric view of the world where NFA matters most when the reality is that the stock of assets built up by the private sector far outweighs NFA in terms of balance sheet importance and real economic importance.

If you took this definition to an extreme you could build thousands of different "net" views of the economy. For instance, the corporate sector creates net financial assets for the non-corporate sector. The non-bank financial sector creates net financial assets for the non-bank financial sector. These sorts of private sector assets play an infinitely more important role in the overall health of the economy than government bonds do, but you won't hear that version in MMT texts because it distracts from their government centric portrayal of the system.

The MMT view results in a deeply flawed view of the world in which there is essentially no difference between Investment and Consumption. By treating all investment and consumption as "spending", MMT makes a fundamental error and arrives at the conclusion that we have to increase G-T, to increase S. If instead, we recognize that wealth is increased primarily by I, and S can be increased by I, then we arrive at a whole different list of policy recommendations and a much more realistic view of the world which focuses on the fact that the private sector is the creator of most of the stock of financial assets that matter most to the economy.

In the MMT world, all money comes from the government so if the issuer of money does not make the money available then how can it be saved? They present this view through the consolidated private sector view of S = (S-I) or Saving NET of Investment as opposed to the traditional definition of Saving. Of course, as we've shown above, all money does not come from the government. The private sector's balance sheet is built primarily on these private transactions that create its net worth. For instance, the USA's private sector has a net worth of $100T+. This stock is accumulated almost entirely through private sector transactions. These assets did not originate with the government. As of 2012 the public sector's net financial assets represent about $4.5T of this total (ie, that's a meager 4.5% since most government debt is held by the foreign sector as well as the government itself). Now, $4.5T is not an insignificant piece of the pie, but again, the balance and perspective must be maintained in this discussion or one will come to believe that it is government spending which drives growth when it is actually private sector transactions that drive growth and steers the overwhelming amount of assets that build the backbone of private sector equity.



(Figure 5 – Domestic Privately Held Government Bonds as % of Net Worth)

Most of our savings is funded through the creation of private investment. When someone takes on debt to invest in a new business the bank does not dissave to help fund this investment. Bank loans create deposits. Banks in the modern monetary system are not reserve constrained. They are capital constrained. So a bank does not have to dissave to create a new loan for new investment. Yes, it results in no gain in net financial assets (the loan creates a liability for the borrower and an asset for the bank), but it's incredibly misleading to imply that this process cannot still help the private sector as a whole. In fact, this process is the primary way that the living standards of the private sector increase because that business owner will invest in his/her new business, hire new employees, innovate, create new goods and services and increase overall output. In doing so, the corporation might issue stock or issue debt along the way. These securities will be held by the public as a claim on the business's future cash flows. They are savings to the private sector. And most of our savings is made up of these private sector liabilities like corporate bonds, money market funds or common stock. They are liabilities of corporations and assets for the rest of the private sector. But MMT nets out Investment thereby overlooking the importance of the private sector in this process. They instead focus on the net financial assets provided by the government.

This same error can be seen in Randall Wray's latest book "Modern Money Theory" in which he uses the two sector model to describe how:

"if the government always runs a balanced budget…the private sector's net financial wealth will be zero"

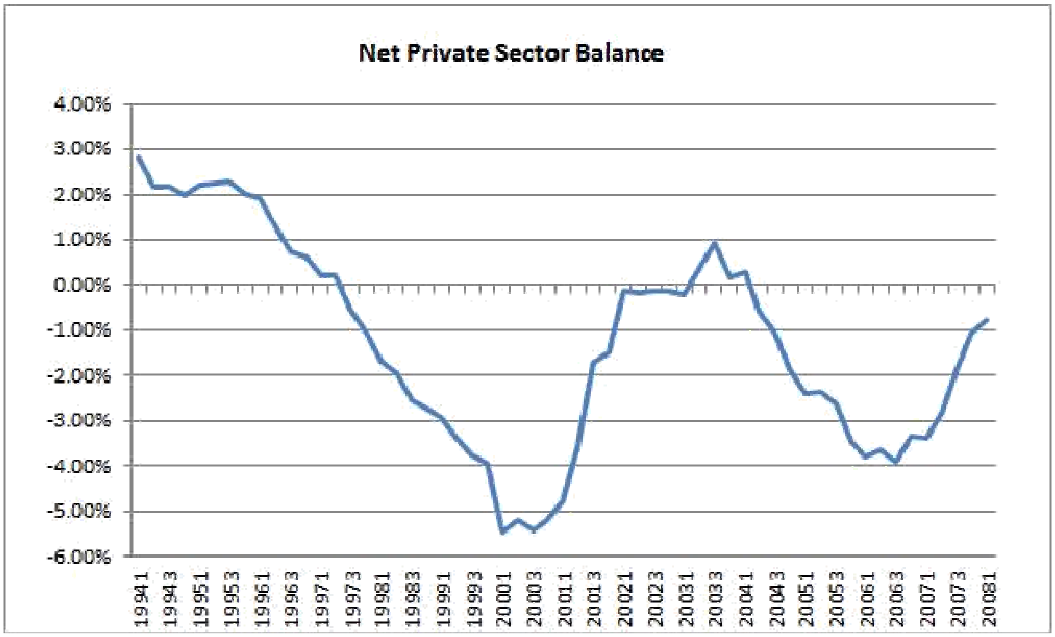
Wray is making several mistakes here. First, he is neglecting the reality that financial assets are not the only thing that contribute to net worth. Indeed, financial assets are largely just claims on non-financial assets and it is these non-financial assets that contribute largely to our net worth. A farmer does not need government spending to turn 2 cows into 3 thereby increasing his net worth. More importantly, financial assets do not all trade at book value and in most cases many of these assets trade well above their book value. This results in a substantial net worth component in the private sector's balance sheet.

More recently, Stephanie Kelton has said that "the national debt is the equity that supports the entire global credit structure".[lvii] This is highly misleading. As previously mentioned, in the USA alone, the domestic private sector has a net worth of over $100 trillion. Of this, just 4.5%

is represented by the government's debt issuance. The domestic private sector's holdings of government debt are extremely low relative to the composition of the entire private sector balance sheet. This is not an insignificant amount, but designing an entire paradigm around this component and its influence is misleading to say the least. But more importantly, this entire concept is misleading. There is no such thing as government debt being "equity" in a global sense because all financial assets net to zero in a global sense. At the most basic level in a global system net worth = non-financial assets plus the market value of financial assets. So public debt cannot be "equity" in the aggregate system. And to place this "equity" as the cornerstone of the private sector's balance sheet is extremely misleading as it implies that government spending necessarily contributes positively to private sector net worth at all times (which is clearly not true given the fact that government spending can, at times, be highly destructive to the aggregate economy).

If anything "supports the entire global credit structure" it is the continuing private sector output that is largely represented by the issuance of private sector assets. As MR states, it is indeed investment that is the backbone of private sector equity, not government debt. After all, it is output that holds the entire monetary system together and private output is, by a wide margin, the dominant driving force there. The financial assets, like corporate debt and common stock, represent the core pieces of the private sector's balance sheet and overall net worth.

MMT's government centric view is a narrow view of the world. For instance, in the 15 year period between 1993 and 2008 the private sector ran a persistent negative balance average -1.5% (see chart below). Over this same period household net worth increased by 150% and nominal GDP increased by a staggering 105%![lviii lix] Of course, MMT's SFB model nets out private investment which grew by 100% over this period. So, despite the lack of a substantially negative private balance, the domestic economy actually did remarkably well during a period in which MMTers like Randall Wray were consistently calling the US Economy a "contained depression" (as soon as the early 90′s). 15-20 years later the economy entered a crisis and the MMTers all claimed they got "everything right". All it took was nearly two decades of being wrong….



(Figure 6 – The 3 Sector Private Sector Balance 1994-2008)

The other problem MMT presents here is completely ignoring the importance of real assets. As MR notes, investment is the backbone of the economy. Why? Because it is through investment that real assets and real improvements in living standards are primarily achieved. For instance, when someone invests $100K to build a home they might do so by taking out a bank loan. MMT would say the bank loan nets to zero. But when the home is built and the loan is repaid the private sector has a real asset that increases their net worth by $100K (more or less depending on the market value of the home). Our economy is built on real assets like homes, machines, inventories or other assets like corporate stock that don't show up in MMT's "net zero" equations, but are the backbone of the economy and the way we improve our living standards. Real assets do not "net to zero". So MMT's version of the world where "Private balance + Gov't balance + Foreign balance = 0″ only applies to financial assets. MMT distorts this reality to focus on (S-I) so that the novice economist will come to believe that the private sector is always better off via government spending. This is not necessarily true though.

This brings us full circle. MMT often states that a sovereign government has no solvency constraint and is not revenue constrained. This is true in the sense that the government has a printing press, but that's hardly a controversial understanding. What's not understood and articulated in the MMT literature is why the government's printing press has any power to begin with. A government ultimately derives its taxing powers from the strength of the private sector. After all, if there are no private sector resources to tax then the government cannot obtain the tax revenues. Of course, the government's central bank could simply fund the government. So the government can always print its own money to spend. But it's not the printing press that will sustain economic growth, but the real economy's output. Government can play a positive role in helping generate output, but it could also play a negative role in generating output. And that's the real solvency issue regarding government spending. A government who pays all of its citizens to sit on their couches all day doing nothing will inevitably bankrupt its own private sector in the sense that they will spend while output will stagnate. So it's not about understanding that a government has a printing press, but understanding how government can both positively and negatively impact the private sector through the use of its printing press. A government in a democratic nation does not derive its power from its ability to enforce power, but from the people who give it that power in the first place. MMT often gets this relationship backwards acting as though the government printing press is more powerful than the private production line.

Conclusion

MMT is an extremely intriguing and illuminating theory of modern money that helps one better understand many of the key principles of Post-Keynesian Economics. Unfortunately, the theory is susceptible to political overreach and a flawed attempt to establish validity behind the State Theory of Money and the concept that "taxes drive money". In the end, this results in thought provoking, but flawed theory of money.

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