**MMT, post-growth economics, and avoiding collapse**

Stephen Williams and Samuel Alexander

**Introduction**

The ever-expanding global economy has crossed safe planetary boundaries and is in dangerous ecological overshoot, creating fragile conditions that raise the prospect of civilisational collapse this century (Turner 2019; Ripple et al 2017, 2020). In recent decades robust and diverse ‘post-growth’ literatures have emerged which have recognised the existential threat posed by limitless growth on a finite planet (Daly 1997, 2014; Meadows et al 2004; Lawn 2016; Kallis 2017). At its broadest, this heterodox group of economic thinkers call for planned contraction or ‘degrowth’ of the energy and resource demands of overdeveloped economies, with the aim of creating ‘steady state’ or ‘zero-growth’ economies that operate within the sustainable carrying capacity of the planet. With humanity as a whole already in ecological overshoot by about 75 per cent, with no sign of a voluntary plateau on the horizon, the case for rapid but controlled degrowth in many countries seems obvious if incalculable human suffering is to be avoided – not to mention the ongoing suffering and destruction of other species and ecosystems (Steffen et al 2015; Ripple et al 2017). Nevertheless, in societies that celebrate increases in gross domestic product (GDP) as the primary indicator of economic and social progress, it is clear that any transition ‘beyond growth’ would involve profound economic, cultural, and political transformations.

Even as the evidential case for a post-growth economy continues to strengthen, the profound but necessary changes needed to create such an economy have been, and will continue to be, resisted. As a species, we may have evolved over millennia in cooperative and supportive groups, but that does not guarantee the necessary critical thinking skills for long-term projections and accurate risk analysis. Instead, we seem to be hampered by our less noble character traits: greed, ignorance, denialism, wilful blindness, and no doubt other human frailties that frustrate calls for change. Some would even argue that the capitalist economic system itself has various ‘growth imperatives’ built into its structure (e.g. Binswanger 2009), which may or may not be true depending on the version of capitalism being discussed (Lawn 2011; Blauworf 2012).

However, another major reason preventing post-growth economic policies from being embraced is the dominant macroeconomic paradigm that informs policy choices. Since at least the 1970s, the dominant paradigm has been neoclassical economics, which replaced Keynesianism. This is the macroeconomics still taught in most universities, with Gregory Mankiw’s *Macroeconomics* (2018) textbook being the exemplar. In this chapter we outline a fast-emerging alternative macroeconomics called Modern Monetary Theory (MMT) that we believe is superior and will come to replace the current theory. Prominent advocates offer a preliminary definition in the following terms:

MMT provides an analysis of fiscal and monetary policy applicable to national governments with sovereign, non-convertible currencies. It concludes that the sovereign currency issuer: i) does not face a ‘budget constraint’ (as conventionally defined); ii) cannot ‘run out of money’; iii) meets its obligations by paying in its own currency; iv) can set the interest rate on any obligations it issues (Nersisyan and Wray, 2019).

Given that MMT attempts to describe how monetary systems work, rather than being a policy platform, it is neither inherently pro-growth nor post-growth, as they are policy positions for individual nations depending on their ideology and the size of their economies. However, we argue that MMT is the most accurate description available of the interplay of macroeconomic forces, and it should therefore be used in the formulation of policies, rather than the conventional, but flawed, neoclassical model. The global crisis initiated by the COVID-19 pandemic has brought the currency-issuing capacity of governments into sharp focus, accelerating interest in MMT (e.g. Kohler 2020; Von Drehle 2020).

We contend that when MMT is understood, post-growth policy options expand dramatically and become more viable, while the dominant neoclassical model is seen to be a kind of ideological straitjacket. Accordingly, MMT should be of interest to everyone concerned with sustainability – including degrowth and steady-state economists – who have, as a group, mostly neglected MMT (but see, Lawn 2017). While we may raise as many questions as we answer, we hope this brief overview provokes a broader discussion about MMT and the policies it can engender.

**What is macroeconomics?**

Macroeconomics is the study of the cause-and-effect relationships between aggregate economic data relating to inflation, the labour market, wages, output, productivity, income, savings, taxation, debt, and so on. Ideally, it should also explain the nature of money, the role of treasuries and central banks, and the limits to government spending. If accurate, it should produce models that are highly predictive. It should not be a set of policies or an ideology, but should facilitate accurate predictions about likely outcomes if certain policies are adopted – for example, the likely inflation rate if the government tried to reduce unemployment. In the real world there is likely to be some overlap between pure macroeconomic theory, on the one hand, and policy positions, on the other, such as we see between neoclassical economics and neoliberal policies (Quiggin 2012, p.3).

If macroeconomics is an attempt to correctly describe the interplay of various economic aggregates, then we must search for the most accurate theory, regardless of whether we aspire to growth or non-growth. At the same time, we acknowledge that no theory can claim to be entirely value-free if it has political, economic, or social implications (Washington 2018a). Contrary to some post-growth advocates, however, we cannot simply choose between competing macroeconomic theories based on a supposition that one will more likely produce post-growth outcomes rather than another (Svartzman, Dron, and Espagne 2019). Instead, we must choose the theory that most closely represents how economies actually function, mostly by empirical analysis (factual information) and buttressed by its predictive record. Growth, steady state, or degrowth then come through policy choices, political ideology, and biophysical limits, informed by the best macroeconomic theory.

In practice, overturning failing paradigms turns out to be extremely difficult, not least because of the resistance exerted by those who benefit from maintaining the status quo (Cahill 2011). Even so, there are strong indications that neoclassical economics is increasingly on life support, demonstrated, before the pandemic of 2020, by central bankers increasingly calling on governments to use fiscal policy to achieve economic targets; and government intervention as the pandemic spread.[[1]](#footnote-1)

We argue that the rising star of macroeconomics – MMT – is profoundly different to the failing orthodoxy (see Appendix 1 for a comparison table). In particular, it recognises national governments’ massive power to shape and control their economies: either to expand them, maintain them in a steady state, or shrink them. In so doing, such a government can also better control such things as wealth distribution and environmental management. No longer would there be a need for ‘money-starved’ national governments to continually pacify multinational corporations, financial markets, or credit-ratings agencies, as if the governments were beholden to them. They are not beholden, because the currency-issuing government does not need their money for revenue. Fears of all-powerful economic actors who might, for instance, withdraw financial capital from a territory, are shown to be largely the invention of those who benefited from the fear. We will not argue that a more accurate macroeconomics like MMT is a sufficient condition for a post-growth or sustainable economy, since those outcomes would arise from policy choices, not MMT itself. But, as we will seek to show, MMT enables those policy choices in a way that mainstream macroeconomics does not.

Mainstream growth assumptions are predicated on the belief that we would inevitably be faced with decreased wellbeing, mass unemployment and even a severe depression if we invite permanent recessions by not continuing with exponential expansion (Jackson 2009, p. 49). This would appear to invite a difficult choice between two evils – either business as usual leading to socio-ecological collapse, or unplanned and chaotic economic contraction with the well-known range of problems that emerge when growth-dependent economies involuntarily enter a contraction. Among mainstream economists, the dominant response to this tension is to claim that there is an elegant solution: pursue ‘green growth’ (e.g. OECD 2019; CSIRO 2019) achieved by decoupling economic growth from environmental harm through efficiency gains and technological advancement (as discussed by Jackson 2009, p. 67; Victor and Jackson 2015).

The problem is that evidence on decoupling overwhelmingly shows that green growth is a myth (as discussed in the introduction to this book; see also, Victor and Jackson 2015; Hickel and Kallis 2019). The best solution for economies in overshoot is *controlled* biophysical contraction (degrowth to a steady-state), achievable, we argue, through the insights of MMT that show monetary-sovereign governments can exert fine control over their economies to minimise harm, such as mass unemployment, leading to the ultimate goal of a steady-state system. This can only be done by a macroeconomic theory based in reality – including biophysical reality (Washington 2018a) – rather than myth. We now turn to that macroeconomic theory, which focuses on real-resource constraints rather than perceived fiscal constraints.[[2]](#footnote-2)

**Introduction to MMT**

MMT developed out of an academic post-Keynesian internet discussion group in the mid-1990s.[[3]](#footnote-3) It is a macroeconomic theory profound enough in its implications to usher in a new societal paradigm (Mitchell 2017). It is now seriously challenging the dominant theory, with the latter usually called neoclassical (or neoKeynesian). For convenience, MMT can be summarised into a set of principles that we will outline, although readers seeking more detail should seek out the MMT undergraduate textbook (Mitchell et al 2019). This new body of knowledge draws on many ideas from the past, while marrying them with more recent experience, especially the post-gold-standard era from the early 1970s onwards, when US president Nixon abandoned the Bretton-Woods system. Again, it is essential to understand that MMT is not a set of policy prescriptions, but is a description of how economies function today, regardless of whether they are growth or post-growth economies, and regardless of whether governments are aware of MMT or not.

MMT begins by separating nations into those that are monetary sovereign and those that are not. To be a monetary sovereign, a nation needs four things: (1) its own currency; (2) a floating exchange rate; (3) no significant government borrowings in foreign currencies; and (4) a central bank setting interest rates. By being a monetary sovereign – as Australia, the USA, Japan, Canada, and the UK are – a nation’s government will have maximum policy space to advance whatever programs it thinks desirable. This is largely because such a government can never be forced to become insolvent: it can always pay any liabilities when they fall due (and social security payments) simply by crediting the relevant bank accounts. It can never legitimately say it does not have the money for this or that policy – such as creating a net-zero-emissions economy – since it creates the funds by spending them into existence. Note that monetary sovereignty is distinct from political sovereignty.[[4]](#footnote-4)

Most nations, including many in Africa, South America, and Europe, are non-monetary-sovereign in the MMT sense, and so they do not have the policy options open to countries like Australia. Not surprisingly, many experts in the MMT community are actively encouraging these countries to become monetary sovereigns – or in the case of European countries that use the euro, to regain their sovereignty. Once a country achieves monetary sovereignty, the following principles apply to its national government.

The government creates new money whenever it spends, usually by electronically crediting bank accounts in the private sector. Note that it is not spending tax receipts.[[5]](#footnote-5) Every dollar the government spends is a new dollar created at the time of spending. Spending must come first, and taxation comes second.

Federal taxes are best understood as merely offsetting government spending, rather than funding it. Using the metaphor of a bathtub to represent the economy, federal spending is equivalent to water entering the bath via the tap. Taxation is money draining from the bath via the plug hole, so that the tub does not overflow. If the government spends too much, or taxes too little, too much inflation will occur (overflow). Taxes are also important to penalise undesirable activities (smoking, pollution) and to limit wealth inequality (through progressive taxation).

The national budget (better described as the fiscal balance) is merely an accounting outcome that shows the difference between government spending and taxation. There is no reason to favour a surplus over a deficit since the government is not equivalent to a household or a business. Indeed, a federal deficit in any period is exactly equal to the non-government surplus because the two sectors must sum to zero (Mitchell 2019a p. 86). When the government runs a deficit, it does not need to borrow funds from the non-government sector, so there is no absolute need for government ‘debt’. When the government voluntarily sells bonds to match its deficit, idle money (reserves) in one account is transferred into another account with better interest. Under current arrangements, this ‘soaking up’ of reserves helps the central bank achieve its target interest rate (Mitchell 2019a p. 326). The government can always pay the interest, or buy the bonds back, but such bond sales are largely unnecessary anyway and can be seen as a carry-over from the gold-standard days.

Monetary policy, which is the adjustment of interest rates by the central bank, has limited effect on the economy, since there are winners and losers from every adjustment. Fiscal policy – government spending and taxation – is the primary lever of economic control. The central bank is not independent, as mainstream theory claims, but is always under the stewardship of the government that gives effect to its operations.

With respect to the labour market, policymakers only have two choices: to use a buffer stock of unemployed to control inflation (as the mainstream prefers) or use a buffer stock of employed workers via a ‘job guarantee’ program to control inflation. MMT prefers that latter on both moral and efficiency grounds (Hail 2018, p. 219). In the job guarantee, workers not employed in either the private or regular public sector, are offered a job in their local community at the minimum wage, complete with holidays, sick leave and so on. This job should be useful work – for instance environmental restoration – that the private sector usually will not do. Besides offering a liveable wage, it is designed to maintain the skills and dignity of the worker until they can be re-employed in the regular economy. The job guarantee sets the minimum standards for work that the private sector has to at least match. Importantly, the government could set fulltime working hours at any level via the job guarantee to help create a non-growth economy (Tcherneva 2018).

Most importantly, MMT – through what we believe is a correct understanding of money and its creation (Mitchell et al 2019, p. 137) – places an emphasis on available real resources in the determination of wealth, health and sustainability, with money merely being a kind of point score of who has a claim to what resources. As such, it makes little sense to encourage foreign financial capital into a country like Australia, as if there is a shortage of money. Similarly, it makes little sense to maximise the export of real resources (wealth) in exchange for money, as if the latter was the more desirable item. While trade is a complex subject, MMT basically sees exports as a cost and imports as a benefit.

In sum, government spending, like all spending, is limited by inflation, which in turn is governed by the amount of real resources that can be sustainably put to productive use – creating output and then consumption (Mitchell et al 2019, p. 520). As ecological economists, however, we particularly emphasise that this ‘throughput’ should be scientifically assessed and kept within sustainable ecological limits, and ideally well within those limits, to avoid *un*economic growth (Daly 2014).

The implications of this understanding of macroeconomics are profound. So-called federal government debt is not really debt in the normal sense, so increasing GDP (growth) to reduce the debt as a percentage of GDP is non-sensical. Second, a national government budget outcome – either surplus or deficit – is not improved in any meaningful sense by increasing tax receipts relative to government spending, so running an immigration program to achieve a net increase in taxation is pointless. Third, the federal government can eliminate involuntary unemployment and underemployment whenever it chooses by offering meaningful paid work to all through a job guarantee (Mitchell et al 2019, p. 301). It follows that a technical recession need not result in mass unemployment, a mortgage-default crisis, and a positive feedback into an ever-deeper recession. Thus, three major reasons for forever expanding the size of an economy are shown to be flawed.

MMT also puts into doubt the following, just to name a few:

* the need for universal superannuation
* the need to increase the age when people can claim the age pension
* government support for the private health insurance system
* the need to privatise government assets to ‘improve’ budget outcomes
* the need to encourage foreign investment
* the need to promote exports, including encouraging foreign students to enrol in universities
* the need for private education and training organisations
* the need for private employment agencies
* the need to rely on the private sector to build and run essential services like electricity generation, communications, ports, roads, and banking
* the need for governments to sell bonds or other securities (so-called government debt)

After considering some criticisms of MMT in the next section, we proceed to explain how an acceptance of MMT could facilitate a degrowth transition to a steady-state economy, and conclude with a list of policy options that are more defendable and achievable through an understanding of MMT.

**Criticisms of MMT**

Prominent critics of MMT include well-known economists such as Paul Krugman, Olivier Blanchard, Lawrence Summers, Greg Mankiw, Kenneth Rogoff, and Ann Pettifor (Mitchell 2019a; Harvey 2019). Invariably, the critics do not correctly define what MMT is (see generally, Tymoigne and Wary 2013; Mitchell 2019a). The most common criticisms include the following.

*If introduced, MMT would lead to high inflation, or even hyperinflation*

MMT is not something that can be introduced; it is a macroeconomic theory that seeks to explain what already exists. Policies based on an understanding of MMT could be inflationary or deflationary, depending on the policies. MMT makes it clear that all spending is potentially inflationary, regardless of whether the spending is public or private. Inflation occurs when demand rises relative to the productive capacity of the economy (demand-pull inflation), not because governments run budget deficits (Mitchell et al 2019, p. 254). Cost-push inflation is also possible, if the cost of production increases, but that is not inherently a government spending issue.

*MMT only applies to the USA because it issues the world’s reserve currency*

This false argument is repeated by Naomi Klein (2019, p. 283) in a reference to US Congresswoman Alexandria Ocasio Cortez’s plan to pay for a Green New Deal. But MMT theory applies to all countries, including countries in the European Union that have lost monetary sovereignty by adopting the euro. MMT shows how countries without their own currency have a budget constraint, unlike monetary sovereigns like Australia.

*MMT is nothing new – we’ve known it all along*

This tends to be said by people wanting to defend their reputations, or the reputation of the mainstream in general, by claiming that MMT is not a genuinely new macroeconomics that could disrupt the dominant paradigm (see Mitchell 2019b). It is true that MMT builds on the work of Hyman Minsky, Michal Kalecki, Abba Lerner, Wynne Godley (and others), but it is more than a rehash of old ideas (Hail 2018, p. 141). As with most criticisms of MMT, the critic will usually not have an adequate grasp of the theory. What’s more, questioning the originality of MMT’s claims tells us little about its veracity.

*MMT says budget deficits don’t matter*

A federal budget deficit (or surplus) does matter in the sense that either outcome could be too big or too small, depending on other factors in the economy. More correctly, MMT says countries like Australia should never aim for a particular budget outcome, but should let the outcome rise and fall to achieve desirable ends like ecologically sustainable full employment and increased wellbeing. Since budget deficits do not need to be funded by borrowing money or selling assets, there is no accumulating debt burden for future generations (Mitchell et al 2019, p.333). In short, it serves no useful purpose to balance the budget over some arbitrary economic cycle.

*MMT is ‘printing money’ which everyone knows is highly inflationary*

In mainstream economics, it is thought that a federal government mostly spends tax receipts. If it wants to spend beyond that, it either has to borrow money through bond sales or sell assets (Mitchell et al 2019, p. 333). As a last resort it might ‘print money’, which usually means creating new money without borrowing. This is thought by mainstream economists to be highly inflationary and addictive for imprudent governments. But MMT proponents claim all of the above is false, and the government only spends one way – namely, every dollar the national government spends is a new dollar (literally spent into existence), whether that is acknowledged or not. According to this logic there can be no special case of money printing when ‘revenue’ runs out.

*Our country has laws that would prevent MMT-type spending*

As discussed by Mitchell (2018), critics sometime claim that certain laws in certain countries – such as government debt ceilings and budget appropriation laws – would prevent some governments from engaging in the type of spending necessary to build renewable-energy infrastructure, offer free tertiary education, free healthcare and so on. However, as the MMT position emphasises, such laws are voluntary restraints that can be removed if the legislature decides that the spending would increase social and ecological wellbeing (Mitchell et al 2019, p. 337). In 2020, in response to the pandemic, we are now seeing these voluntary restraints removed as governments spend large amounts to counteract the loss of private spending. Once policy-makers realise that fiscal and budget outcomes are not the limiting factor, but that sustainable resource use is, misconceived laws with an austerity bias (such as debt ceilings) are more likely to be repealed. Even constitutions can be amended if there is enough support for the change.

*MMT is ideologically biased towards growth*

Finally, some in the sustainability movement dislike MMT because (a) they see it as an optional policy platform instead of macroeconomic principles attempting to describe reality; and (b) they think, if it was widely accepted, it would result in an acceleration of the ever-increasing money supply that they (quite rightly in our view) associate with perpetual economic expansion (Mitchell 2012). With respect to (a), we have explained that it is not a policy platform, but is descriptive rather than prescriptive. We are all forced to choose, consciously or unconsciously, between competing macroeconomic theories, and the failed neoclassical paradigm, besides not explaining actual outcomes (such as Japan’s high government debt and low inflation), has no inherent benefit for post-growth policies. In respect to (b), it is policy choices allowed by the macroeconomic paradigm that determine the size of the economy, such as the policy of allowing private banks to increase the money supply through their lending. MMT insights provide maximum control by maximum policy choice – to either expand an economy or to shrink it. It is essential not to confuse pro-growth policies offered by many MMT advocates with MMT itself.

**How MMT could facilitate post-growth economics**

If we are to stop or reverse the expansion of economies in the overdeveloped world, we must address the main reasons for their growth. These reasons include 1) concerns about national government debt; 2) concerns about national government budget balances; 3) concerns about recessions and resulting unemployment; and 4) concerns that financial markets will punish a government that does not meet market expectations. From the perspective of MMT, these concerns are largely wrongheaded, so the growth imperative is greatly diminished.

*Government debt.* A key reason for continually increasing a country’s GDP is that it reduces the government debt as a percentage of GDP (assuming the debt does not increase as much as GDP), where government debt reduction is assumed to be a good thing. However, advocates of MMT argue (Mitchell et al, 2019, p. 326) that monetary-sovereign nations never need to borrow: selling government securities (so-called debt) to match a budget deficit is stated as being unnecessary, (although it helps the central bank meet its interest-rate target by soaking up reserves). But even if the securities are sold (they are actually auctioned in the first instance) there is no great imperative to buy them back or grow the economy to make the debt seem relatively smaller. The simplest thing is for the national government to stop selling these risk-free investments that amount to corporate welfare.

*Budget outcome.* Increasing a country’s population via migration will not only increase its GDP but is believed by the mainstream to ‘improve’ federal budget outcomes: because of their relative youth, migrants will pay more in taxes compared with their welfare claims (Australian Treasury and Department of Home Affairs 2018, p. 35). Former Australian prime minister Tony Abbott’s then chief of staff, Peta Credlin, explained how immigrant numbers were ramped up in chaotic pre-budget meetings to get the ‘right’ budget projection, with zero thought to sustainability (van Onselen 2018). Yet MMT shows that aiming for any particular budget outcome is foolish, meaning one of the core assumptions driving Australia’s high migration policy is foolish. Ultimately, the government has limited control of the budget outcome anyway, since it cannot accurately forecast tax receipts, welfare payments, or the non-government sector’s desire to net save rather than spend. This leads to the MMT position that governments should try to balance the economy, not the budget.

*Recessions.* Continually increasing GDP avoids technical recessions and associated increases in labour underutilisation (unemployment and underemployment). But according to MMT, a national government can achieve full employment (1-2 per cent unemployment and zero underemployment) via a government job guarantee scheme. It follows that the government could largely ameliorate the otherwise destabilising effects of economic recessions by making sure that wealth and income was distributed more fairly, just as it could when transitioning from a fossil-fuel economy to a renewable-energy economy.

*Financial markets.* The main fears here are that bond ‘vigilantes’ will no longer want government securities if the government is seen to be financially reckless (big budget deficits and/or low or no growth). However, this has not been seen in practice (as the case of Japan shows (Mitchell et al 2019, p. 29); and we have previously said that the government does not need to sell securities anyway. Second, and more serious, is the fear that the government’s currency will be devalued by speculative currency traders in a non-growth scenario. The MMT response is capital controls, where the government simply blocks the currency transfers (Mitchell et al 2019, p. 398). Ultimately, a government’s currency will always be attractive in a democratic nation where the rule of law prevails, corruption is minimised, natural capital is protected, and where health, education and skill levels are high.

As long as a society uses money as a medium of exchange, it is necessary for policymakers to understand such things as the nature of money, how it is generated, what are the limits to its generation and spending, what is the nature of central bank and commercial bank operations, and what are the implications for money generation at various levels. Since the abandonment of the Bretton-Woods system and the gold standard in the early 1970s, mainstream neoclassical economics has failed to provide an adequate description of these things. Now, with a new financial crisis in 2020 caused by a pandemic, the mainstream is struggling to make sense of government new-found power and largess, while the MMT community simply point to the MMT literature. When policymakers better understand the cause-and-effect relationships in macroeconomics, including currency operations, it is more likely they will accept the possibility of a controlled descent towards a steady-state system, vouchsafed by government fine control. We have briefly outlined how MMT provides that understanding of government control.

We believe that without MMT, policymakers who advocate for things such as a Green New Deal, or even stronger sustainability measures, will be restricted by notions of a government budget constraint; the fear of the necessity to raise taxes to fund government spending; the fear of government debt and insolvency; and a fear of financial markets that might choose to inflict punishment by not buying government debt and/or devaluing a nation’s currency. MMT, as a coherent macroeconomics, states that these concerns are largely, or totally, unfounded. If MMT were to be accepted, we maintain that policy options such as the following are more likely.

**Policies for a sustainable, post-growth economy**

Governments in the neoliberal era have gradually abandoned what we think are their main responsibilities (Murphy 2020). These responsibilities include ensuring a healthy natural environment; full employment with price stability; and increasing general levels of wellbeing. In short, governments have failed to understand, let alone address, sustainability.[[6]](#footnote-6) Extreme wealth inequality, which they have allowed to run rampant, is not consistent with sustainability (Daly 2013). Ideally, the size of any economy should be reduced to near the optimum (that is, smaller than the maximum ecologically sustainable size) where cost-benefit curves are at their maximum distance from each other (Lawn 2017).

Without making any claims about the list of policies below being complete or uncontroversial – and due to space constraints, we have stated rather than defended them – here are some bold ideas for facilitating a degrowth transition to a steady-state economy (see also, Daly 2013; Alexander 2016) which are supported by an MMT position on macroeconomics:

1. Declare a state of emergency that goes beyond the climate emergency to encompass the unsustainable nature of society as a whole and the risk of collapse. This would mean that all government decisions would need to address the new priority of sustainability (including the social- and ecological-justice dimensions). MMT focuses on the availability of sustainable real resources as the limit to government spending. It also removes the imperative to (a) grow the economy to ameliorate government debt; and (b) increase the number of taxpayers to ‘improve’ budget outcomes. It should not be surprising, therefore, that MMT is strongly associated with the movement for a Green New Deal, given it acknowledges that resources need to be used sustainably (Nersisyan and Wray 2019, 2020).

2. Establish a permanent statutory office whose sole task would be to advise government, and the public, on the path to sustainability (Washington 1991). It would coordinate the work of other bodies, such as climate change, agriculture and energy authorities. A key task would be facilitating the design and construction of a 100 percent renewable-energy system. MMT, unlike neoclassical economics, accepts that resources need to be used sustainably. Therefore, if policymakers accepted MMT, they would be more likely to establish such offices, especially when its recommendations (for instance, to reduce economic growth) would be less problematic than under a neoclassical framework.

3. Enact a bill of rights (or charter of rights) that explicitly acknowledges rights to a healthy natural environment. In so doing, enact a plan to reserve at least 50 per cent of terrestrial and aquatic territory for non-human species (Wilson 2016; Dinerstein et al 2017), ensuring all key ecosystems were protected. Pay farmers (or give tax subsidies) if they adopt the best regenerative practices that protect the environment. We have explained above how MMT undercuts the imperative to continually expand an economy. We have also said that MMT emphasises that real resources need to be sustainably managed.

4. Explore a range of wellbeing measurement tools (e.g. Genuine Progress Indicator, see Lawn 2016) that would become the primary focus of government reporting, especially at budget time, and during election campaigns. MMT acknowledges that ‘’conventional market-based measures of national income as indicators of well-being are flawed in several ways’’ (Mitchell et al 2019, p. 520), and most ecological economists see the value in alternatives like the Genuine Progress Indicator.

5. Stabilise the human population as quickly and ethically (in line with accepted human rights) as possible (Engelman 2016) to ensure the rights of both human and non-human creatures, now and into the future, and plan for a controlled decrease in the human population. Excess accommodation would eventually be bought by government to control real estate prices. We gave the example of how positive net migration policies are flawed insofar as they are based on myths about ‘improving’ budget outcomes (via more tax receipts) and facilitating economic expansion. With an increasing focus on sustainably managed real resources, population numbers beyond an optimum level will dilute provisioning of these resources, leading to reduced income per capita and/or unacceptable incursions into natural capital.

6. Introduce gradual tax increases over a period of, say, 10 years, so that personal annual income greater than $1 million is taxed at 100 per cent (i.e. a maximum income, see Washington 2018b), together with an otherwise highly progressive tax regime.[[7]](#footnote-7) At the same time, introduce a progressive inheritance tax to remove extreme wealth.

7. Vastly expand the regular public service as government nationalises banking, ports, airports, essential services such as electricity generation and distribution, and natural monopolies. In particular, employ the vast knowledge and experience of the indigenous population to manage protected natural areas (Dinerstein et al 2017). Ensure that critical government agencies such as the CSIRO, Australian Bureau of Statistics, Bureau of Meteorology, tax office, federal police and courts, hospitals, and publicly-funded media are properly resourced.

8. Introduce a federal job guarantee (Mitchell et al 2019, p. 301) to eliminate involuntary unemployment and underemployment and control inflation. This scheme will set minimum pay and working conditions that the other employment sectors would need to at least match. It will also set normal hours for the working week, which we suggest could be initially four days. This scheme should be seen mostly as a safety net for those workers who are temporarily not wanted by regular employers (public and private), although a minority of people would likely be semi-permanent in the scheme.

9. Gradually decrease the retirement age to 60, while ensuring the age pension meets people’s needs, especially those in rental accommodation. This will likely mean expanding public and social housing – this will not be difficult as the population stabilises and slowly decreases. Disabled persons should receive similar protections. Stop promoting superannuation and gradually remove all tax concessions associated with it. The age pension should be seen as the normal and adequate retirement income.

10. Do not means-test free services such as education, health care, and so on, but provide them as a citizen’s right. This will eliminate much unnecessary bureaucratic checking on the one hand, and the temptation to deceive on the other – not to mention resentment by those who would otherwise miss out on benefits paid to others. If a person has considerable assets or income, tax them at a higher rate (see point 6 above).

11. Increase the range of fee-free services to include childcare, vocational training, and higher education. Cancel all student debt. Add dentistry to Medicare. Like the following policies, the government can pay for this (if there are idle real resources) and tax accordingly to avoid inflation.

12. Increase higher education funding by increasing tenured teaching and research positions while eliminating the need for researchers to rely on industry support. In short, stop politicising higher education. The same can be said of once-great research institutions such as the CSIRO.

13. Establish government-owned and co-operative manufacturing ventures (where the private sector is absent) to reduce reliance on trade – both imports and exports – with the aim of creating a more self-sufficient nation. In so doing, legislate for rethink, repair, re-use and recycling in manufactured goods (using the waste hierarchy).

14. Increase restrictions on foreign investment in line with the new state of emergency (degrowth to optimum size) and the knowledge that foreign financial capital is not required.

15. Work internationally to cancel unconscionable debt owed by developing nations. Increase foreign aid (especially that which targets women’s health and family planning), international cooperation, and the transfer of cleaner technology, so that poorer countries can quickly increase their sustainability and stabilise population.

Again, we make no claims about this list being exhaustive or uncontroversial. In fact, it barely scratches the surface of the restructuring that would be required to initiate and manage a degrowth transition to a steady-state economy. The policy ideas above are merely illustrative of the types of options that open up when the political economy of sustainability is viewed through the lens of MMT.

**Conclusion**

We believe the discipline of ecological economics provides the best overall framework for understanding the relationship between economic activity and biophysical limits, and should replace the neoliberal framework (Daly 2014; Kallis 2017). Its tools will help us determine the optimum size of any economy, recognising that the optimum size could change somewhat with, for example, technological improvements and population levels. But within that framework, and subject to its principles of living within biophysical limits and maximising wellbeing, there is still a need for an accurate macroeconomics.

MMT has been called ‘macroeconomics done properly’ (Harvey 2019). Whether a society wants to increase the size of its economy, stabilise it, or reduce it to an optimum size, it will benefit from the most accurate macroeconomic theory to dispel false assumptions and give policymakers predictive confidence. Mainstream macroeconomics has failed to do that.

As we have argued, advocates of MMT outline how and why monetary sovereign states have many more policy options available to them than the mainstream allows. Such nations have massive power compared with the private sector, if only they would use it (as the 2020 pandemic is demonstrating). Rather than set policy to placate the bond markets, currency speculators, and corporate greed in general, the national government can concentrate on maximising human and non-human welfare (Washington and Maloney 2020) through a fairer distribution of sustainably-managed resources in the knowledge that business interests will always seek to invest in stable, democratic nations.

Once it is understood that government can have fine control over the economy using the levers of monetary and fiscal policy – but especially the latter – it becomes clear that a just (or green) transition is more easily achievable than currently thought. For rich, overdeveloped nations, that means a degrowth transition of planned economic contraction, leading to, somewhat paradoxically, increased wellbeing. Our view is that MMT is the best available macroeconomics to facilitate the transformation – and to avoid collapse.

**Appendix 1**

Comparison of neoclassical theory and MMT as applied to monetary-sovereign nations (complied by the authors).

|  |  |
| --- | --- |
| **Neoclassical** | **MMT** |
| Little or no focus on money sovereignty | Essential focus on money sovereignty |
| Does not prioritise theory of money | Prioritises theory of money |
| G’ment is like a household, has budget constraint: ‘sound finance’ | G’ment nothing like a household, no budget constraint (except inflation, sustainability): ‘functional finance’ |
| Continual budget deficits accumulate and will lead to higher taxes, inflation, possible insolvency | Continual budget deficits do not accumulate; spend up to full employment and no further |
| G’ment must fund spending with tax receipts, borrowing, asset sales | G’ment does not ‘fund’ its spending, never needs to borrow its own money |
| G’ment can ‘print’ new money in exceptional circumstances | G’ment spends new money into existence whenever it spends (never prints money) |
| G’ment borrowing (bond sales) ‘crowds out’ private-sector borrowing, investment | No ‘crowding out’ as banks will lend to any credit-worthy customer by lending money into existence (do not lend deposits) |
| G’ment must sell bonds to match deficit, at mercy of bond vigilantes | Bond sales are optional, used to soak up excess reserves so central bank can achieve overnight interest rate target |
| G’ment collects taxes, then spends them | G’ment spends, then collects taxes (as an offset). Taxes are destroyed, not spent |
| Monetary policy is best tool to control economy | Fiscal policy is best tool to control economy |
| There is a natural rate of unemployment where inflation is stabilised (NAIRU) | No natural rate of unemployment |
| Market determines unemployment rate | G’ment determines unemployment rate |
| Use buffer stock of unemployed to control inflation | Use fiscal policy, buffer stock of employed workers in job guarantee pool (on minimum wage) to control inflation |
| Central bank is independent of G’ment | Central bank is part of G’ment |
| Market, central bank sets interest rates | G’ment can set interest rates at any level, including zero |
| Usually a need for foreign financial capital | G’ment and its agents (private banks) can provide all financial capital |
| G’ment should respect credit-rating agencies | G’ment should ignore credit-rating agencies : cannot be forced to default |
| G’ment should fear sudden and deep currency depreciation | G’ment can implement capital controls if speculators dump currency |
| Little fear of resource depletion due to human ingenuity, substitution | Management of real resource constraint determines wealth, inflation, sustainability |
| G’ment is at mercy of international forces, large corporations, financial sector | Citizens, via elected G’ment, are masters of country’s destiny |

**References**

Alexander, S. (2016). ‘Policies for a Post-Growth Economy.’ *MSSI Issues Paper* No. 6, Melbourne Sustainable Society Institute, The University of Melbourne.

Australian Treasury and Department of Home Affairs (2018). ‘Shaping a Nation: population growth and migration over time’ Available at:

<https://research.treasury.gov.au/sites/research.treasury.gov.au/files/2019-08/Shaping-a-Nation-1.pdf> (accessed 20 February 2020)

Binswanger M. (2009) ‘Is there a Growth Imperative in Capitalist Economies? A Circular Flow Perspective’ *Journal of Post-Keynesian Economics* 31(4): 707-727.

Blauwhof, F. (2012). ‘Overcoming Accumulation: Is a Steady-State Capitalism Possible?’ *Ecological Economics* 84, pp. 254-261.

Cahill, D. (2011). ‘Why Does Neoclassical Thinking Still Dominate Economics?’ *The Conversation* (17 October 2011). Available at: <https://theconversation.com/why-does-neoclassical-thinking-still-dominate-economics-3861> (accessed 20 February 2020).

CSIRO, (2019). ‘Australian National Outlook 2019’. Available at <https://www.csiro.au/en/Showcase/ANO> (accessed 9 April 2020).

Daly, H. (1997). *Beyond Growth: The Economics of Sustainable Development*. Boston: Beacon Press.

Daly, H. (2013). ‘Top 10 policies for a steady state economy’. CASSE The Daly News. Available at <https://steadystate.org/top-10-policies-for-a-steady-state-economy/> (accessed 11 April 2020)

Daly, H. (2014). *From Uneconomic Growth to a Steady-State Economy*. Cheltenham, UK; Northampton, MA: Edward Elgar.

Dinerstein, E., Olson, D., Joshi, A. et al, (2017). ’An Ecoregion-Based Approach to Protecting Half the Terrestrial Realm.’ *BioScience* 67(6): pp 534-545.

Engelman, R. (2016). ‘Nine Population Strategies to Stop Short of Nine Billion’. In: Washington, H. and Twomey, P., eds. *A Future Beyond Growth: Towards a Steady State Economy*. Routledge, London, UK: pp. 32–42.

Hail, S. (2018). *Economics for Sustainable Prosperity.* London: Palgrave Macmillan.

Harvey, J. (2019). ‘MMT: Sense or Nonsense?’ *Forbes* (5 March 2019). Available at: <https://www.forbes.com/sites/johntharvey/2019/03/05/mmt-sense-or-nonsense/#602a54585852> (accessed 20 February 2020).

Hickel, J. and Kallis, G. (2019). ‘Is Green Growth Possible?’ *New Political Economy*. DOI: 10.1080/13563467.2019.1598964

Hutchens, G. (2108). ‘Number of Australians who Earned More than $1m a Year Yet Paid no Tax Surges 30%.’ *The Guardian* (27 April 2018).

Jackson, T. (2009). *Prosperity Without Growth: Economics for a Finite Planet*. London: Earthscan.

Kallis, G. (2017). ‘Radical Dematerialization and Degrowth.’ *Philosophical Transactions of the Royal Society A*. 375: 20160383: pp. 1-13.

Klein, N. (2019). *On Fire: The (Burning) Case for a Green New Deal*. New York: Simon & Schuster.

Kohler, A. (2020) ‘Accepted Wisdom out the Window as Government Takes Control’. *The Australian*, 28 March 2020.

Lawn P. (2011). ‘Is Steady State Capitalism Viable? A Review of the Issues and an Answer in the Affirmative*.’* *Annals of the New York Academy of Sciences* 1219(2011): pp. 1-25.

Lawn, P. (2016). *Resolving the Climate Change Crisis: The Ecological Economics of Climate Change.* Singapore: Springer.

Lawn, P. (2017). ‘MMT and Ecological Sustainability’. Lecture organized by the Binzagr Institute for Sustainable Prosperity. Available at: <https://www.youtube.com/watch?v=Cfk418pC54E> (accessed 20 February 2020).

Mankiw, N. G. (2018, 10th ed). *Macroeconomics.* New York: Worth Publishers.

Meadows, D., Meadows, D., Randers, J. (2004). *Limits to Growth:* *30-Year Update*. White River Junction: Chelsea Green Publishing.

Mitchell, W. (2012). ‘MMT and environmental sustainability – part 1’. Available at <http://bilbo.economicoutlook.net/blog/?p=22222> (accessed 7 April 2020).

Mitchell, W. (2017). ‘Paradigm shift – not from The CORE Econ Project – as mainstream as you will get’. Available at <http://bilbo.economicoutlook.net/blog/?p=36855> (accessed 9 April 2020)

Mitchell, W. and Fazi, T. (2017). *Reclaiming the State; A Progressive Vision of Sovereignty for a Post-Neoliberal World*. London: Pluto Press.

Mitchell, W. (2018). ‘Where do we get the funds from to pay our taxes and buy government debt’. Available at <http://bilbo.economicoutlook.net/blog/?p=38885> (accessed 7 April 2020).

Mitchell, W., Wray, L.R., & Watts, M. (2019). *Macroeconomics*. London: Red Globe Press.

Mitchell, W. (2019a). ‘A conga line of MMT critics – marching into oblivion’. Available at <http://bilbo.economicoutlook.net/blog/?p=41727> (accessed 7 April 2020).

Mitchell, W. (2019b). ‘The mainstream old guard tell it as it is – and how different that is to MMT’. Available at: <http://bilbo.economicoutlook.net/blog/?p=41869>

Murphy, R. (2020). ‘The Financial Times has abandoned neoliberalism – and they must never be allowed to forget this’. Available at <https://www.taxresearch.org.uk/Blog/2020/04/04/the-financial-times-has-abandoned-neoliberalism-and-they-must-never-be-allowed-to-forget-this/> (accessed 8 April 2020)

Nersisyan, Y., & Wray, L.R. (2019). ‘How to pay for the Green New Deal’. Working Paper No. 931, Levy Economics Institute.

Nersisyan, Y., & Wray, L.R. (2020). ‘What MMT is, and why we should not wait for the next crisis to live up to our means’. Available at <http://multiplier-effect.org/what-mmt-is-and-why-we-should-not-wait-for-the-next-crisis-to-live-up-to-our-means/> (accessed 7 April 2020)

OECD, (2019). *OECD Work on Green Growth*. OECD.

Quiggin, J. (2012). *Zombie Economics: How Dead Ideas Still Walk Among Us*. Princeton: Princeton University Press.

Ripple, W. et al. (2017). ‘World Scientists’ Warning to Humanity: A Second Notice’ *BioScience*, 67(12): pp. 1026–28.

Ripple, W. et al. (2020). ‘World Scientists’ Warning of a Climate Emergency’, *BioScience*, 70, Issue 1, 8–12.

Ruml, B. (1946). ‘Taxes for revenue are obsolete’, *American Affairs*, Winter Number, VIII(1). Available at <https://www.constitution.org/tax/us-ic/cmt/ruml_obsolete.pdf> (accessed 10 April 2020)

Steffen, W. et al (2015). ‘The Trajectory of the Anthropocene: The Great Acceleration.’ *The Anthropocene Review* 2(1), pp 81-98.

Svartzman, R., Dron, D., and Espagne, E. (2019). ‘From Ecological Macroeconomics to a Theory of Endogenous Money for a Finite Planet’ *Ecological Economics* 162: pp. 108-120.

Tcherneva, P. 2018 ‘The Job Guarantee: Design, Jobs, and Implementation.’ Levy Economics Institute of Bard College. Working Paper No. 902.

Turner, G. (2019). ‘Is a Sustainable Future Possible?’ *Journal and Proceedings of the Royal Society of NSW* 152(1): pp.47-65.

Tymoigne, E., & Wary, L. (2013). ‘Modern Money Theory 101: A Reply to Critics’, Working Paper No. 778, Levy Economics Institute of Bard College.

van Onselen, L. (2018). ‘Credlin blows lid on how ‘fraudulent’ migrant intake is set’, *MacroBusiness* (13 March 2018). Available at: <https://www.macrobusiness.com.au/2018/03/credlin-blows-lid-on-how-fraudulent-migrant-intake-is-set/> (accessed 20 February 2020).

Victor, P. and Jackson, T. (2015). ‘Toward an Ecological Macroeconomics’. In. Brown, P. and Timmerman, P. (eds). *Ecological Economics for the Anthropocene*. New York: Columbia University Press.

Von Drehle, D. (2020) ‘So long, balanced budgets. Everyone’s into endless spending now’, *The Washington Post*, 8 April 2020. Available at <https://www.washingtonpost.com/opinions/so-long-balanced-budgets-everyones-into-endless-spending-now/2020/04/07/1e2d49f2-78f5-11ea-9bee-c5bf9d2e3288_story.html> (accessed 9 April 2020)

Washington, H. (1991). *Ecosolutions*: *Environmental Solutions for the World and Australia*. Tea Gardens, NSW: Boobook Publications.

Washington, H. (2018a). ‘Harmony – not Theory’ *The Ecological Citizen* 1(2): pp. 203-10.

Washington, H. (2018b). *Positive Steps to a Steady State Economy.* CASSE NSW.

Wilson, E. (2016). *Half-Earth: Our Planet’s Fight for Life.* New York: Liveright Publishing.

1. For instance, in 2019, the outgoing president of the European Central Bank, Mario Draghi, said new ideas like MMT needed to be looked at: <https://www.bloomberg.com/news/articles/2019-09-23/draghi-says-ecb-should-examine-new-ideas-like-mmt> [↑](#footnote-ref-1)
2. In 2005, even US Federal Reserve chairman, Alan Greenspan, admitted under oath that the US government could create unlimited money, and that the main issue was real resources: <https://www.youtube.com/watch?v=DNCZHAQnfGU> [↑](#footnote-ref-2)
3. A collection of scholarly papers on MMT is at <http://www.levyinstitute.org/topics/modern-money-theory-mmt>. A primer for the general reader is at <https://neweconomicperspectives.org/modern-monetary-theory-primer.html>. Journalistic articles are at <https://wecanhavenicethings.com/about/>. An expert blog is at <http://bilbo.economicoutlook.net/blog/>. [↑](#footnote-ref-3)
4. We will use the words currency and money interchangeably, since this chapter is pitched at an introductory level. [↑](#footnote-ref-4)
5. This was understood by US Federal Reserve chairman Beardsley Ruml in the 1940s (see Ruml). [↑](#footnote-ref-5)
6. For instance, the UN Sustainable Development Goals, which Australia endorses, call for ongoing economic growth. [↑](#footnote-ref-6)
7. About 13,000 Australians earn $1 million or more a year (Hutchens 2018). [↑](#footnote-ref-7)