An assessment of modern monetary theory

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Introduction

Modern monetary theory (MMT) is a so-called heterodox economic school of thought which argues that elected governments should raise funds by issuing money to the maximum extent to implement the policies they deem necessary.

While the foundations of MMT were laid in the early 1990s (Mosler, 1993), its tenets have been increasingly echoed in the public arena in recent years. The surge in interest was first reflected by high-profile British and American progressive policy-makers, for whom MMT has provided a rationale for their calls for Green New Deals and other large public spending programmes. In doing so, they have been backed up by new research work and publications from non-mainstream economists in the wake of Mosler's work (see, for example, Tymoigne *et al.* (2013), Kelton (2017) or Mitchell *et al.* (2019)). As the COVID-19 crisis has been hitting the global economy since early this year, the most straightforward application of MMT's macroeconomic policy agenda – that is, money-financed fiscal expansion or helicopter money – has returned to the forefront on a wider scale. Some consider not only that it is "time for helicopters" (Jourdan, 2020) but also that this global crisis must become a trigger to build on MMT precepts, not least in the euro area context (Bofinger, 2020).

The MMT resurgence has been accompanied by lively political discussions and a heated economic debate, bringing fierce criticism from top economists including P. Krugman, G. Mankiw, K. Rogoff or L. Summers.

This short article aims at clarifying what is at stake *from a macroeconomic stabilisation perspective* when considering MMT implementation in advanced economies, paying particular attention to the euro area. The relevant points are summarised in the form of Frequently Asked Questions for didactic purposes. Specifically, we address the following questions: What exactly is MMT all about? How do MMT's theoretical foundations compare with the consensus approach? Is MMT workable in practice? Why has MMT been so popular in recent years? Does MMT share something in common with the Eurosystem's asset purchase programmes (APP and PEPP)? Is a temporary switch to MMT principles realistic in the euro area in the context of the COVID-19 crisis?

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1. What exactly is MMT all about?

MMT is a macroeconomic doctrine in that it is concerned with the operation of the economy as a whole. MMT not only draws up a macroeconomic policy agenda but it also discusses several other aspects, such as a theory of money (often described as neo-chartalism), national income accounting tenets or a labour market programme (a so-called job guarantee). From such a comprehensive exercise, one can extract two closely related building blocks to summarise the thinking about macroeconomic stabilisation:

- A government that is the monopoly supplier of its currency never has to default because it can always meet its domestic currency-denominated payment obligations by issuing money.
- A government should use fiscal policy to achieve full employment with price stability, without specific regard to any increase in public deficit or debt.

Against this background, the government can dispense with one aspect that is, however, instrumental in the conventional organisation of advanced economies, namely the issuance of government bonds to finance the fiscal deficit. Fiscal deficits must be systematically financed by "printing money", namely expanding base money (which is made up of the currency in circulation and the reserves that banks hold at the central bank as their ultimate means of settlement). Furthermore, since the central bank's job mostly boils down to accommodating fiscal needs, the elected fiscal authority and the central bank shall at any time be consolidated into a single "monetarily sovereign government". This, therefore, is another departure from the consensus approach which relies on (operational) independence for the central bank¹.

Chart 1

Typical example of the impact of a net increase in the fiscal deficit on the public sector using simplified balance sheets¹

MMT view Monetarily sovereign government		Consensus view			
		Elected fiscal authority		Independent central bank (CB)	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Other assets	Base money 🔨	Account at the CB	Government bonds ↑ held by the public	Government bonds	Base money
	Government bonds held by the public	Net equity of CB Other assets	Government bonds held by the CB	Other assets	Government's account
	Net worth ↓		Net worth ↓		Net equity

¹ The arrows indicate movements due to the impact of a net increase in the fiscal deficit (that is, a net increase in government (interest) expenditure or a net decrease in taxation) on the public sector balance sheet items. Movements are judged against the counterfactual situation (no net increase in the fiscal deficit), all other things being equal. We consider here in both cases that the net increase in the fiscal deficit is associated with an immediate deterioration in the public sector balance sheet. This excludes financing of public investment programmes which serve to accumulate assets and which could lead to a strengthening of the government balance sheet (as long as the return on those assets exceeds the cost of funding them).

The MMT doctrine further prescribes that fiscal deficits can be sustained as long as substantial inflationary risks do not emerge. And, while discretionary increases in taxes must be used as the reference weapon in the fight against inflation, the government also needs to take advantage of the large array of instruments at its

¹ Because macroeconomic stabilisation requires cooperation between the fiscal authority and the central bank in any case, MMT proponents consider that the conceptual consolidation of the public sector into a single entity shall apply, disregarding any existing institutional arrangement (Tymoigne et al., 2013). The rules governing the relationships between the elected fiscal authority and the central bank are, however, likely to affect the balance sheets and macroeconomic outcomes of public interventions (the straightforward example being that the solvency of an independent central bank and hence, ultimately, its capacity to support the economy are determined by such rules: see, e.g., Reis (2015)), which may call for a separate balance sheet analysis of both public agencies.

disposal to be "directly involved continuously over the cycle" (Tymoigne *et al.*, 2013). Structural labour market programmes and wage scales, as well as credit controls or pricing mechanisms, are all tools that should enable the government to do so.

As regards monetary policy, the MMT doctrine requires to set permanently at 0 % (or, at any other level sufficiently close to the lower bound on nominal rates) the interest rate at which the reserves that banks hold at the central bank are remunerated. As public borrowing costs are maintained at their minimum level, this provides the best support for public spending to achieve full employment with price stability (Mitchell, 2009a). Doing so in principle implies that the cost of servicing the government's liabilities is kept below the growth rate of the economy: that enables the former not to grow without any bound, regardless of the level of the deficit or outstanding liabilities (Fulwiller, 2013). Such an assessment of interest rate growth differentials has been featuring recently in the mainstream debate as well (see also Blanchard (2019), De Grauwe *et al.* (2019) or Wren-Lewis (2019)).

2. How do MMT's theoretical foundations compare with the consensus approach?

The functional finance roots of MMT point to an unconventional monetary-fiscal assignment that should have equivalent macroeconomic outcomes as the consensus assignment, at least in theory

Broadly speaking, the MMT doctrine is not unconventional as regards how the macroeconomy works¹, what macroeconomic stabilisation policies should aim for and what instruments are in the policy toolbox.

Full employment and price stability are central targets from a macroeconomic stabilisation perspective, both under the consensus approach and under the MMT doctrine. Both approaches assume a macroeconomic environment where (not too) low and stable inflation is consistent with full potential output. This means that any policy aiming for the objective of full employment with price stability must be countercyclical: it becomes expansionary when aggregate spending falls short of potential output, countering high unemployment and possibly deflation, while it turns contractionary to fight against the induced inflationary drift when aggregate spending has been pushed beyond what the real capacities can absorb at full potential. Besides macroeconomic stabilisation, public debt sustainability should also be safeguarded, the meaning of which varies from its strongest form (the debt level is bounded by an exogenously given level, as is the case in some advanced economies ²) to its weakest (the rise in debt should not become unbounded, which is typically what is induced by the MMT tenets).

Just like under the consensus approach, the MMT doctrine is based on a policy toolbox that includes, on the one hand, monetary policy using the interest rate as its main instrument and, on the other hand, fiscal policies that are reflected by changes in taxes and public expenditure. And, as both policies affect aggregate spending dynamics and the debt dynamics, the two can in principle be used for addressing the two targets.

Where the MMT doctrine departs from the consensus approach is hence on the prescribed assignment of responsibilities to the different policies in the pursuit of macroeconomic stabilisation. The policy assignment that is advocated by the MMT doctrine primarily relies on Lerner's initial insights (Lerner,1943) and on Minsky's further reflections (see, e.g., Minsky (1963)) as regards what one can refer to as the *functional finance approach*

¹ For an assessment of how MMT theory of money compares with the consensus view, see Lavoie (2011).

² For instance, the Stability and Growth Pact sets limits of 3 % of GDP for deficits and 60 % of GDP for debt for the European Union Member States.

to fiscal policy. This heterodox macroeconomic doctrine calls for public finances to contribute to the general interest of achieving full employment (and thereby price stability), by conducting countercyclical fiscal policy to help constrain any persistent fluctuations in aggregate spending 1.

On monetary policy, two functional finance viewpoints have been developed. On the one hand, it is considered that monetary policy can in principle set the interest rate at whatever level it likes based on distributional motives since the systematic fiscal adjustment approach should contribute to stabilising the debt at any given rate². On the other hand, and as already explained, the viewpoint that has been adopted by most MMT proponents is that monetary policy setting the rate at a low level ensures that the rise in public debt does not follow an explosive path: debt sustainability is definitively at stake for monetary policy.

Chart 2 A classification of the functional finance and the consensus approaches 1



¹ Derived from Javadev and Mason (2018).

In today's parlance, the functional finance approach would mean fiscal dominance: fiscal considerations determine monetary policy choices. It opposes the monetary dominance prevailing under the consensus approach: the latter being a regime where monetary policy, conducted by an independent central bank, is given a price stability (and in some jurisdictions also full employment) mandate. Under monetary dominance, political trade-offs set the balance between taxes and public expenditure so as to keep the debt sustainable: public finances are *sound*.

When both approaches adopt the same definition for debt sustainability, Jayadev and Mason (2018) demonstrate that "orthodox policy macroeconomics and [functional finance] can in principle be seen as two routes to the same goals: a combination of monetary and fiscal policy that will achieve full employment levels of output while preventing the debt ratio from rising indefinitely".

In practice, whether for the functional finance or the consensus approach, both the policies' commitments to strictly stick to their assigned mandates and their effectiveness at addressing the respective objectives are key to making sure the macroeconomy is effectively put on track towards equilibrium. Any limitations in these areas may risk the economy drifting towards unpredictable outcomes (i.e. the hatched areas in chart 2)³, such an assessment bearing similarity with Leeper's analysis (1991) on monetary and fiscal policy interactions.

¹ Strictly speaking, a lot of incarnations of the functional finance approach assume that the stabilisation role of fiscal policy would de facto imply perpetual budget deficits so as to support the productivity growth of the economy while accommodating for private agents' savings desires (see, e.g., Wray (2018)). The MMT doctrine is no exception: for further details, see section 4.

² Fulwiller (2013) writes that it can be "show[n] that any rate of interest [...] is consistent with a stable debt ratio and [the] functional finance "rule". The key is to recognize that the functional finance rule will always reduce spending whenever the deficit would otherwise be too large for potential GDP or the inflation target to be achieved and that this rule also coincidentally generates a stable debt ratio".

³ Jayadev and Mason (2018) clarify that cross effects are also of importance to assess whether the economy will effectively converge: in general, convergence applies in case the policies have larger effects on their respective assigned target than on the other target.

3. Is MMT workable in practice?

MMT is likely to be associated with commitment problems and other practical issues, with as a result inflationary drifts and/or financial instability

MMT's preference for the unconventional policy assignment to achieve full employment with price stability reflects its conviction that the elected government (using taxes and public expenditure) is better equipped than the central bank (using the interest rate) to address fluctuations in aggregate spending.

MMT proponents stress that fiscal multipliers – that is the responsiveness of economic activity to fiscal impulses – are maximised in an environment where the policy rate is kept permanently close to its lower bound. Such high effectiveness would be coupled with a high degree of flexibility to respond to the state of the economy because it is assumed that structural fiscal programmes – that could be thought of as enhanced automatic stabilisers – must prevail, thereby overcoming the inherently slow fiscal decision-making process. Furthermore, the interest rate is considered as a "blunt instrument" (Mitchell, 2009) for macroeconomic stabilisation purposes because it works through altering incentives, which is regarded, under the MMT doctrine, as a very indirect way to get traction on consumption and investment. MMT proponents further emphasise the likely distributional impact of interest changes on creditors and debtors to explain that such changes would most likely result in a net null effect on aggregate spending. If there is any net impact, it is considered that it can go against the direction intended under the consensus approach (i.e. in the MMT view, raising the interest rate tends to be inflationary while low rates are deflationary). And, in any case, it suffers from substantial transmission lags, which must be balanced against the apparent faster decision-making process of the central bank.

Building on MMT precepts, there are nevertheless signs that the MMT doctrine may face practical limitations that could lead its policy assignment to diverge from the intended functional finance approach, letting the economy drift into unpredictable outcomes. In the following, commitment problems are distinguished from other practical issues.

3.1 Commitment problems

One of the most powerful arguments against giving elected governments responsibility over macroeconomic stabilisation is that they have many incentives to be procyclical, for instance with fiscal savings being constrained in boom periods because of political agency problems that are worse in corrupt democracies (see, e.g., Alesina et al. (2008) or Lane (2003)). Regardless of the state of the economy, elected representatives are also subject to political myopia: they prefer short-run fiscal expansions associated with short-term political gains while discounting the typically longer-run inflationary consequences of unrealistic output goals. And, when the government and its agencies can finance their expenditure using money creation rather than through bond issues, they may at some point use the apparent "easy money" process for non-productive purposes: monetary financing can favour what Kornai (1986) coined as a "soft budget constraint" syndrome.

Like the experience of monetary dominance regimes, rules that constrain undesirable incentives and enforce the commitment of government agencies to their respective targets – in this case, a mandate of full employment (not beyond that) for elected representatives without interference from the central bank – seem of utmost importance.

The immediate post-WWII experience in the US has been illustrative of the failure of governments to credibly commit to the central objective of full employment with price stability. It was agreed at that time that discretionary fiscal programmes should contribute to the recovery, while the central bank made sure that the latter were financed at favourable conditions through its control of the yield curve. But, eventually, the US

government's attempt to push the economy further after productive capacities had been fully restored resulted in high inflation. In more recent history, a lot of Latin American countries, including Argentina and Venezuela, or jurisdictions like Zimbabwe are also emblematic examples of functional finance aspirations failing to ensure sound economic development and sustainable growth with stable prices. Specifically, Edwards (2019) shows that most Latin American populists from the 1970s to the current period have referred to precepts very close to those praised by MMT proponents, including for instance the idea that the government should not worry about defaulting given its power to issue money or care about deficits until inflationary risks emerge. While featuring only a loose commitment to the central full employment price stability objective, these experiences often resulted in runaway inflation and macroeconomic collapses.

Moreover, expectations matter in determining macroeconomic outcomes. For instance, if private agents do not fully believe in the government's commitment to implement fiscal consolidation when inflation gets too high, rising inflation expectations can easily emerge if government spending programmes proliferate. When such expectations are sufficiently widespread, they can lead to a sudden and uncontrolled increase in actual inflation. That will require the government to implement an even larger – and hence more unpopular – fiscal consolidation to rein in excessive inflation.

3.2 Other practical issues: full employment emphasis, zero interest rate policy and exchange rate feedback effects

The MMT doctrine puts the emphasis on achieving full employment, with the implementation of labour market structural programmes at the core of its stabilisation agenda. This should not make a difference with central banks targeting price stability to the extent that stable prices are consistent with full capacity output. But economic inefficiencies, for instance due to monopolistic positions, can cause the natural level of output (that is, the level to which the economy converges through market forces) to lie below its potential level, which corresponds to the level that is socially optimal. Under misguided notions about potential and natural unemployment levels, policy-makers may try to address sub-par growth and employment through inappropriate policies focusing on supporting demand, rather than improving the supply side of the economy. Trying to aim for potential while the natural level is lower can lead to soaring inflation, triggering in turn upward inflation expectations (Mankiw, 2019).

Besides, the constant zero interest rate policy that is suggested by the MMT doctrine can also be problematic. Because bank reserves are the ultimate means of settlement between banks, their rate of remuneration is a key determinant for broader financial conditions in the economy. Hence, a constant zero interest rate policy becomes synonymous with permanent cheap funding whatever the economy's fundamentals, which in turn can encourage excessive risk-taking. For banks, this includes extending lending to borrowers with poor credit scores. And, as low rates are often associated with a flatter yield curve, the policy could also lead to profitability issues in the banking sector, further favouring the search for yield, not to mention that it could also seriously endanger the business model of other financial institutions like pension funds. Eventually, the permanent zero interest rate policy is thus likely to contribute to asset bubbles and risks for financial stability ¹.

Acknowledging that the MMT policy agenda does include the promotion of financial stability, but preferably via structural policies for lending by the private sector, credit controls and public lending institutions, does not necessarily lead to a better assessment. In such an environment, financial stability risks might be contained despite the zero interest rate policy, but possibly at the cost of financial repression: the low borrowing rate (below the effective rate implied by credit controls and other regulations) only benefits the government. In the longer term, it means that the public sector might grow on the back of shrinking private sector initiatives.

¹ Here, we disregard the risks of locking the economy into unproductive activities as the permanent zero interest rate policy might also be associated with substantial shares of zombie firms and the increasing prominence of M&A transactions.

Finally, when applied in an open economy, MMT policy prescriptions could encourage financial instability or unstable macroeconomic outcomes through their feedback effects on the exchange rate (Palley, 2014). Pursuing an independent monetary policy that entails systematic monetary financing of deficits is likely to be associated with substantial depreciation pressures¹. And it is likely that this will exacerbate the inflationary pressures (i.e. in the form of imported-inflation effects) as the foreign exchange rate will be quick to incorporate the fears of high inflation when the commitment to inflation-consistent behaviour of government is not credible. Also, while MMT proponents consider permanent strict capital controls as stabilising devices in such a context (departing from a floating exchange rate regime would break the currency sovereignty principle on which most MMT precepts build), it remains difficult to see how such capital controls would at the same time allow for a steady accumulation of public debt. Thus, in practice, the ability of a government to sustain steady deficits for macroeconomic stabilisation purposes when it is subject to exchange market constraints could be severely constrained.

4. Why has MMT been so popular in recent years?

Because the last few years' constellation of economic factors has done the marketing ...and probably some people expect it to last forever

More than ten years after the onset of the global financial crisis and the deep recession that followed, the world economy is still struggling to return to normal. The sluggish balance sheet repair and persistent desire for savings by the private sector are all factors that have kept global growth subdued. Also, despite the unprecedented period of low (policy) rates and the massive asset purchases made by central banks, inflation has remained low in most advanced economies. The last few years' bouts of recovery have steadily been challenged by continued uncertainty, which contributed to maintaining the desire for private savings at very high levels. Most recently, the COVID-19 crisis has been forcing governments to expand their budget deficits and build up even more public debt, on top of the increase under the 2008-2010 stimulus packages.

At the same time, the recent period has also been associated with a steady rise in the (perceived) need for more fiscal spending. On the one hand, the patchy economic improvements of the last few years have generally failed to tackle the rising relative poverty and inequalities in countries like the US. On the other hand, all over the world, and especially in advanced economies, the public authorities are increasingly expected to play a catalytic role for investment and innovation in the green transition challenge, which, in the view of some observers, would require mobilising unprecedented volumes of public spending for many years to come.

Such a constellation of economic factors has been instrumental in MMT's popularity. MMT provides a story to explain the current gloomy situation while suggesting that some ammunition is readily available both for counteracting the lingering economic malaise and for tackling key structural challenges lying ahead. According to MMT proponents, the current low inflation demonstrates that central banks have been too conservative and reluctant to push the economy closer to its full potential for too long, before running out of ammunition to do more. They also believe the subdued inflation signals that there is still room in the economy for higher fiscal deficit spending so idle resources are again mobilised for productive use without inducing inflation risk, at least for some time. And the fiscal space to do this is largely available in that any rise in public debt (be it monetised or not) would incur a (persistently) low cost of servicing: public debt only matches private agents' large desire for savings.

¹ It follows from the impossible trinity that a government that pursues an independent monetary policy with free movement of capital will allow for fluctuations in its exchange rate.

One major caveat to this kind of observation is that it takes too simple a view of the inflation process. Even if one cannot deny that inflation has fallen short of expectations for several years in many advanced economies, the case for linking it mainly to the effect of real factors (i.e. under-employment) is not that straightforward. Nominal factors – pertaining to the process of how agents form expectations and determine wages and prices – can also play a role, and several studies have shown that this has been the case in the euro area and the US over recent years (see Corsello et al. (2019) for the euro area or Nautz et al. (2015) for the US). Most of these factors are likely to be of a temporary nature, reflecting the long-lasting fallout from the crisis (e.g. inflation expectations follow an adaptive process and can become more sensitive to past inflation after several years of low records). Besides, while the relationship between unemployment and inflation may be flat(ter) at a given state of the economy, it need not remain flat when economic conditions gradually improve: trying to push unemployment increasingly lower with higher fiscal expenditure in a (slow) recovery context could hence lead to abrupt shifts in inflation.

This notwithstanding, the MMT narrative on the global macroeconomic context of the last few years points to one very relevant aspect: in a low growth, low (under-employment-induced) inflation, low interest rate environment, fiscal policies can play a more important role with respect to macroeconomic stabilisation. Since monetary policy may run out of steam in stimulating aggregate spending when operating close to the lower bound on nominal interest rates, there can be merit in going "more direct" with fiscal expenditure. And, as the expectations channel becomes key if one wants to push the real interest rate further down while the nominal rate is constrained, the idea to allow for temporary money-financed fiscal expansions that are likely to fuel (more) inflation expectations is also contemplated on the corner of mainstream thinking, i.e. outside the MMT context (see also Turner, 2015).

But that does not mean one should give up on monetary dominance and permanently switch to the functional finance approach. It means accepting that the government will commit to larger fiscal deficits until inflation gets back to its target.

Eventually, any remaining idle resources will be absorbed by government interventions. A caveat to that is that such spending may also boost the supply side of the economy. In doing so, it could maintain a permanent pool of idle resources that can be mobilised in a non-inflationary manner. But while studies demonstrate that such supply-side channels can be important, not only in the long term but also along the cycle (Deroose *et al.*, 2019), evidence is scarce as to whether they could systematically dampen the inflation risks induced by repeated fiscal expansion.

Related to that, there is every indication that the green transition challenge as well as the fight against poverty should better be framed in terms of the necessary fiscal reallocation they require, rather than being associated with stand-alone public spending programmes that would rely on a de facto permanent pool of idle resources. While the potential of these programmes to boost the supply side of the economy should not be overlooked, such huge structural challenges would ultimately (be it now or when servicing the associated debt) need to be financed either by raising taxation or cutting expenditure elsewhere to keep any inflationary pressures under control. It is rather a matter of fiscal arbitrage that does not need to be related to any specific policy assignment for macroeconomic stabilisation.

Overall, if the risk of crowding out private investment by public expenditure appears limited at a given state of the economy, it is not necessarily set in stone. The real responsiveness of private spending could improve, for instance if the public spending is a catalyst for business confidence improvements (Buiter, 2019). From the debt sustainability angle, it also means that the borrowing rate can end up above the growth rate of the economy (because people become less willing to hold large volumes of their wealth in safe products), marking an end to the reverse snowball effect on public debt.

If anything, only the expectations that the "low growth, low inflation, low interest rate" context could last forever, trapping the economy into secular stagnation, could be conductive of a more solid support for the

MMT way out. In such circumstances, as monetary policy permanently loses traction on economic activity, the monetary financing of (a share of) the then structural fiscal deficit to be incurred is among the ultimate policy options that are left. But the policy options also include incurring permanent debt-financed fiscal deficits while keeping the interest rate on the government debt very low forever or breaking the interest rate lower bound by abolishing cash (Turner, 2015). Disregarding the expectations or political constraints that each policy option might entail, the money-financed and debt-financed options should be equivalent, however. All that matters in such circumstances pertains mostly to the fiscal choices that would be made when incurring higher fiscal deficits so that the structural imbalance between savings and investment can be overcome at some point ¹.

5. How does MMT compare with the Eurosystem's asset purchase programmes (APP and PEPP)?

Both share the same objective but differ in their approach

The asset purchase programmes that the Eurosystem has conducted in the past years (APP and PEPP)² and MMT both expand the monetary base dramatically and have similar objectives: both aim at stabilising the economy. Eurosystem asset purchases have been designed to bring back inflation to its target during periods when the Eurosystem's conventional instruments approached their limits. And, following MMT precepts, any money creation should focus in principle on funding programmes that contribute to achieve full employment with price stability.

However, their approaches to the macroeconomic stabilisation objective differ. In a context where the policy rates have approached their lower bound, Eurosystem asset purchases seek to weigh more directly on longer-term interest rates, those being the most relevant rates for affecting private agents' investment and consumption decisions. While the purchases entail overwhelming volumes of government bond securities, they have primarily met the need to intervene in deep and liquid markets whose conditions serve as a benchmark in the pricing of a much larger spectrum of other longer-term assets and borrowing conditions in the economy. At the same time, sub-programmes like the corporate securities purchase programme (CSPP) where non-government bonds are purchased have also been instrumental in providing an incentive for sustained private investment, which further demonstrates that it is a primary channel for monetary policy transmission. Furthermore, the Eurosystem's asset purchase programmes were decided and calibrated at the sole initiative of the independent Eurosystem, without any consultation of the national governments.

By contrast, under the MMT doctrine, the elected government takes the lead. Most of the central bank activity is geared towards providing the former with ample and cheap financing on a permanent basis without accumulating any assets as a counterpart for the transaction. In principle, neither government bond issuance nor repurchases by the central bank are deemed necessary on a large scale because printing money and taxation are the preferred tools to deal with macroeconomic stabilisation.

¹ Summers (2014) argues that "Appropriate strategies [to counter secular stagnation] will vary from country to country and situation to situation. But they should include increased public investment, reduction in structural barriers to private investment and measures to promote business confidence, a commitment to maintain basic social protections so as to maintain spending power and measures to reduce inequality and so redistribute income towards those with a higher propensity to spend".

² For more details on the ECB's Asset Purchase Programme (APP) and the ECB's pandemic emergency purchase programme (PEPP), see https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html and https://www.ecb.europa.eu/mopo/implement/pepp/html/index.en.html, respectively.

6. Is a temporary switch to MMT principles realistic in the euro area in the COVID-19 crisis context?

The euro area is certainly not the best candidate, but it does not mean that the policy mix challenge must be overlooked in the face of the COVID-19 crisis

MMT proponents acknowledge that the euro area jurisdictions do not meet the requirements for a fully-fledged MMT regime. One key assumption under the MMT doctrine is indeed that the government operates under currency sovereignty, which implies that it can issue domestic currency – or, by extension, domestic currency-denominated debt – at will to cover any financial obligation 1.

The euro area Monetary Union context that features one independent central bank with the Union-wide inflation as a target and 19 elected governments with their respective budgets logically puts "hard financial constraints" on euro area jurisdictions' public spending. Euro area monetary policy considerations also determine the cost of funding euro area countries' debt, not only the countries' own respective governments or national central banks. Besides, from a legal perspective, the Treaty on the Functioning of the European Union (TFEU) guarantees the institutional independence of the European Central Bank (ECB) and the Member States' national central banks (Article 130) and prohibits the monetary financing of European governments by the ECB and by the national central banks (Article 123). Overall, the consolidation of the public sector into a monetarily sovereign government is in the euro area context far from straightforward.

That said, there is at the current juncture a broad consensus that macroeconomic stabilisation requires an active role – and even *instrumental role* – for fiscal policy. The liquidity, and potentially solvency, gaps that the COVID-19 crisis and its fallout have brought into private balance sheets need to be filled. And, while interest rates have been at record low levels for some time now, Eurosystem monetary policy risks being insufficiently supportive should the discounting of pandemic risks further encourage precautionary savings in future and put additional downward pressure on the natural interest rate.

As we made clear in more general terms above, this does not mean one should move to a regime of fiscal dominance and give up monetary dominance.

Therefore, one must make sure that public debt remains on a sustainable path, especially once monetary policy is expected to raise policy rates to counteract any inflationary risks that might emerge. This may involve, for instance, governments of today fully exploiting the central-bank-induced flattening of the yield curve by (further) extending the maturity of the debt that they issue to support the economic recovery. Also, the exit from any more cooperative monetary-fiscal strategy after private balance sheets have been shored up must be well-timed and carefully managed, otherwise there is a risk of being perceived as "implementing MMT through the backdoor", which could fuel inflationary and/or financial stability concerns. Against that background, recent innovative proposals, like those from Yashiv (2020) or Bartsch *et al.* (2019) – where the contingencies when closer fiscal-monetary coordination is required for achieving full employment with price stability are explicitly stated and where a proper governance framework is implemented – can provide insightful ideas but also need careful scrutiny to avoid any unpleasant surprises during the exit from them.

¹ Lavoie (2011) clarifies that "there are degrees of currency sovereignty, the highest being a country where the domestic currency is the unit of account, where taxes and government expenditures are paid in this domestic currency, where the central bank is unhindered by regulations, where the public debt is issued in the domestic currency, and where there is a pure floating exchange rate regime."

Since clear institutional arrangements between the Eurosystem and the national governments are key to preserve the Eurosystem's independence and its commitment towards its price stability mandate in "normal times", they are even more crucial in "exceptional circumstances". Provided they are in place, substantial fiscal and monetary support for the economy can help a sound and sustainable recovery in the near future without jeopardising the Eurosystem's price stability mandate in the more distant future.

7. Conclusion

Modern monetary theory prescribes an assignment of responsibilities to fiscal and monetary policies in the pursuit of macroeconomic stabilisation that differs from the consensus assignment: the elected government should be made responsible for achieving full employment with price stability, while the central bank should only accommodate its needs in doing so.

While, in theory, such policy assignment can also put the macroeconomy on track towards equilibrium, there are reasons to think MMT precepts can lead in practice to substantially worse macroeconomic outcomes compared to the consensus institutional arrangement that features an independent central bank with a price stability (and in some jurisdictions also full employment) mandate. Inflationary risks and financial stability risks would be major concerns in an MMT world. Overall, the MMT doctrine tends to overlook the commitments that policies should take and the impact of private agents' expectations on economic outcomes. In today's context, the theory's appeal might rely too much on the persistence of the "low inflation, low interest rate, low growth" context.

The recent increased need for further fiscal support in the midst of the COVID-19 crisis context justifies an indepth reflection about the appropriate monetary-fiscal policy mix to support a fast and sound economic recovery. Doing so does not mean that monetary dominance should be abandoned, and MMT recipes taken on board. Avoiding being perceived as opening the MMT Pandora's box is key: that will minimise the risk of having to make a painful choice between high inflation and severe fiscal consolidation in the (distant) future.

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