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How do we finance the corona debt? Attempt to find a "right" answer to a "wrong" question from the perspective of Modern Monetary Theory (MMT)¹

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The year 2020 was marked by the Covid 19 pandemic and its economic consequences. In Germany, the government deficit and the debt ratio rose to an estimated 5% and 75% of GDP, respectively, as a result of the decline in economic activity. The current development also suggests that GDP will not return to the pre-crisis level of 2019 in the coming years. In order not to jeopardize the economic recovery from the pandemic by returning to a rigid austerity course, it is now of particular importance to say goodbye to misconceptions regarding the financing and sustainability of government deficits. The GDP growth measure should be replaced by the unemployment rate plus the Agenda 2030 targets and additional indicators built on Raworth (2017). This is the only way to set the course for an economic policy for the 21st century.

The wrong question

The "financing question" ultimately aims at whether the increase in government debt could become a problem in the long run, if governments are unable to repay the debt in the future or replace it with new debt. This thinking is essentially based on neoclassical theory, which still dominates economics textbooks.

According to this theory, a state can finance itself by (i) collecting taxes, (ii) issuing government bonds or (iii) having its expenditures paid for by the central bank. However, only case (i) ensures (long-term) sustainable government financing. Case (ii) can lead to an explosive path of the government debt ratio if spending is too high. As the debt ratio rises, private investors would demand ever higher interest rates, which would have to be covered by further borrowing. If insolvency is feared, the state will no longer receive any money and insolvency would be inevitable. Central bank financing (case (iii)) would supposedly lead to certain hyperinflation.

Today we know, however, that the tripling of the US government deficit from about one trillion dollars (2019) to three trillion dollars (2020) was no problem. The government deficit in the second quarter of 2020 was 27.5%. The interest rate on US government bonds fell, inflation remained low and even the external value of the US dollar increased. Obviously, the increase in government debt has not led to any of the problems feared by the standard textbooks.

This development is in line with the ideas of Modern Monetary Theory (MMT).ⁱ It sees the government deficit as a purely statistical variable, which is the result of economic activity and should therefore not be made a target variable. This is also true because the state cannot directly control the tax revenues it receives anyway. In the Corona pandemic, for example, these turned out to be much lower than expected.

Modern Monetary Theory

Modern Monetary Theory was launched almost exactly 25 years ago by US investor and race car designer Warren Mosler. His essential insight was that a modern currency is a state monopoly. Today, this is mostly delegated to (state-owned) central banks, which act as the bank of the state. They pay the

government's bills by increasing banks' balances with the central bank, which in turn credit deposits to payees. Since central banks act as creators of currency, they cannot "finance" their spending at all - new money (both deposits and central bank balances) is always created when they spend on behalf of the government. This also applies to the Federal Republic of Germany within the euro area: the Bundesbank makes all expenditures on behalf of the federal government.ⁱⁱ

Only at the level of political rules can a "financing" of government spending be constructed. Thus, the central account of the federal government (at the Bundesbank), which is debited when government spending takes place, must be balanced at the end of the day. This account is filled by tax revenues and sales of government bonds. However, this is not "money" in the physical sense, but merely a score to offset income and expenditure. If the score is not negative at the end of the day, the Bundesbank can spend on behalf of the federal government by increasing the central bank account of one bank and reducing that of the federal government. From a purely technical point of view, however, this is not necessary in this way - anyone who wants to increase an entry in a balance sheet obviously does not have to "save up" the figures that are entered there in advance.

The state (incl. its central bank) creates its currency according to its own political rules. Since it promises nothing more than to accept the currency for the settlement of tax debts and for all other payments to the state, they are ultimately tax credits (Ehnts and Paetz 2019). The state spends money at the federal level and subsequently withdraws it from circulation via tax payments. Since a state with its own currency can always make its payments, deficits should therefore not form the basis of economic policy rules (Kelton 2020). Government financial deficits are inevitably accompanied by equal financial surpluses in the private sector.ⁱⁱⁱ Instead of a government deficit, one could therefore also speak of a surplus in the private sector. An alternative definition of government debt would then be: "tax credits held by the private sector".

The capacity of an economy is only limited by its available resources - not by the available means of payment. Of course, this does not mean that all usable resources should be consumed. What the available possibilities should be used for and to what extent depends on the economic policy objectives. According to Mosler (1997), these are full employment and price stability and should be supplemented by sustainable resource use.

The inflation rate is essentially determined by the development of unit labour costs. If the economy is approaching full employment, wages can be expected to rise more rapidly and drive up unit labour costs. In the case of under-utilisation, on the other hand, an acceleration of price development is not to be expected. The inflation rate can in principle be reduced by higher unemployment, but ultimately depends on wage negotiations between employees and employers. The level of employment is in turn determined by effective demand.

Private spending depends essentially on long-term expectations. Since the influence of interest rates on the demand for investment goods is rather subordinate, the central bank is overburdened with stabilizing an economy and needs the support of fiscal policy. This is especially true in crises, where long-term expectations about future sales are naturally low.

The state can also influence the development of the general price level through prices in public transport, the health system and other areas, as well as through the minimum wage and wages in the public sector. The legal framework for collective bargaining also influences the development of unit labour costs and prices via the trade unions.

Monetary, fiscal and wage policies should all be geared towards achieving the goals of full employment and price stability. On the other hand, transferring the goal of stable prices to the central bank alone and causing a rise in unemployment with a regular austerity policy, which leads to a tendency towards falling inflation rates, is not expedient. Since the question of financing does not arise for a government with its own currency, an austerity policy is not necessary as long as the economy is underutilized.

Current developments confirm MMT

That a government cannot become insolvent in its own currency, provided the central bank cooperates, is currently particularly evident in the UK. In the pandemic, the Bank of England (2020) grants the British government the possibility to overdraw the so-called Ways&Means account. Additional government spending is then not linked to the sale of interest-bearing government bonds to the private sector. This illustrates that, thanks to the currency monopoly, a state does not need any revenues to spend. The issuance of government bonds is merely optional and can be used to reduce the central bank balances of banks, if desired.

In Canada, this "direct government financing" has been in place for decades. The fear of rising inflation outlined above did not materialize. According to Becklumb and Frigon (2015, 1-2), the Canadian central bank typically retains about 20% of all government bonds. In return, it credits the government's account with the corresponding equivalent value. The authors classify this transaction as "internal", since bonds that the government holds with itself are no more a liability than a promissory note issued against itself. Andolfatto (2020) of the St. Louis Federal Reserve Bank argues similarly for the USA. For a long time, voices have been growing in central banks that question the conventional view of government financing.

Developments in the Eurozone also confirm the theoretical considerations of MMT. Economists such as Randall Wray or Wynne Godley have criticized from the beginning that the strict deficit rules of the euro area stand in the way of an appropriate economic policy (see e.g. Godley (1992)). In fact, the unemployment rate has never fallen below 7% since the euro area came into existence. The inflation target has also been achieved sporadically at best over the past decade. Full employment and price stability depend much more on government spending than most economists want to admit.

In the meantime, the European Commission has probably also realized this and swiftly suspended the Eurozone rules based on government deficits after the outbreak of the pandemic. As early as March 2020, the general exit clause was activated so that deficits would no longer be sanctioned. Also in March 2020, the European Central Bank (ECB) assumed the role of "lender of last resort" by launching the Pandemic Emergency Purchase Programme (PEPP). This allows it to buy government

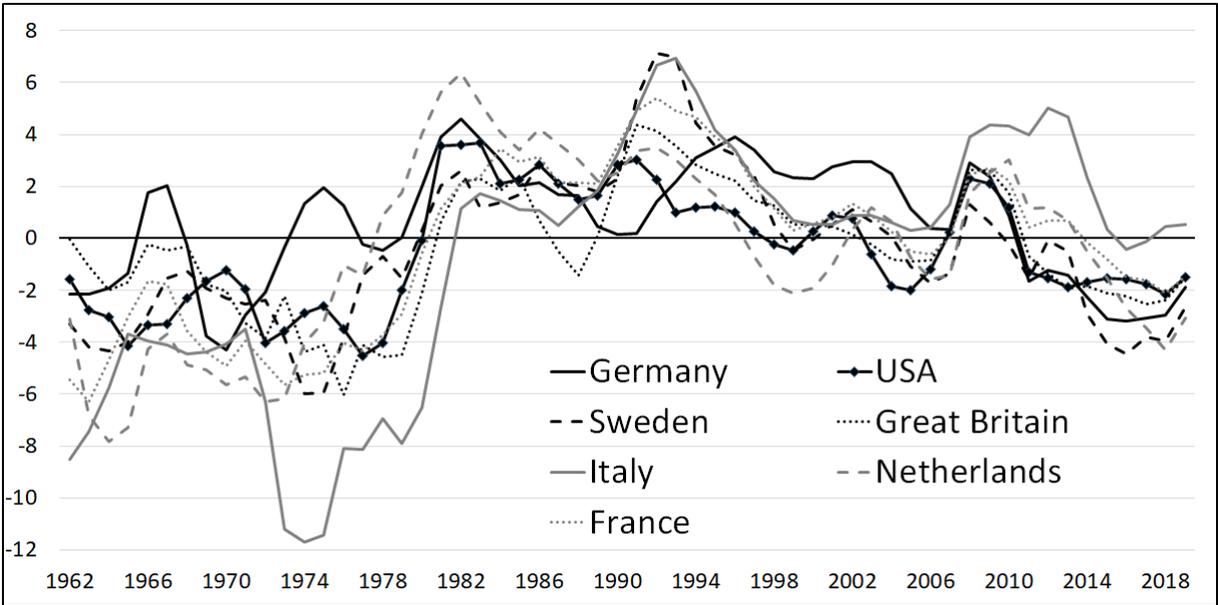
bonds virtually without limit, reducing their default risk to virtually zero. In this way, a renewed euro crisis with rising interest rates on government bonds from the periphery could be avoided.

Debt, interest and growth

In the Handelsblatt, Tom Krebs (2020) calls for "a European fiscal rule that limits the level of debt". The Economist (2020), on the other hand, calls in an editorial for making the deficit limits dependent on the unemployment rate and suspending them in the event of increased unemployment.^{iv} Blanchard et al. (2020) also argue for a modification of the European fiscal rules, because the dynamics of debt ratios are too complex to be assessed on the basis of a single indicator (the debt ratio). They call for qualitative standards to prevent an explosive path of government debt ratios, more country-specific analysis and greater fiscal space.

We will show below that even this analysis falls short. An explosive debt path is ruled out in our view, provided the central bank cooperates. It is usually argued that for the long-term stability of the debt ratio, the GDP growth rate must be higher than the interest rate on bonds. The following chart shows that this was the rule until the 1970s.

Fig. 1: Spread between 10-y bond yield and GDP growth rate, selected countries (moving three-year average in percent)



Source: Ameco.

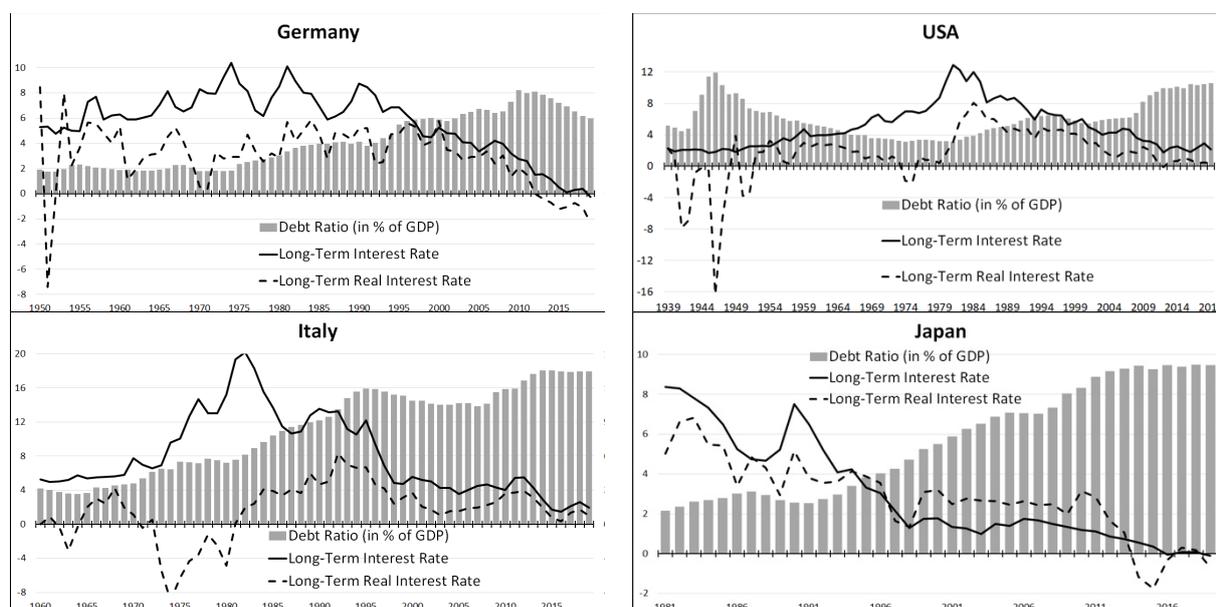
However, after the oil price crises caused inflation rates to rise significantly in most industrialised nations, central banks decided to fight even the smallest sign of inflation with sharply rising interest

rates. Combined with the decline in government spending to stabilise employment, this led to decades of rising unemployment and falling growth rates.

After the financial crises of 2001 and 2007/8, however, interest rates in most nations fell back below the growth rate. The central banks depressed long-term interest rates with bond purchases, as this was the only way they saw themselves in a position to fight the great recession. However, since fiscal policy in the euro area followed the austerity course again in the following years and falling interest rates in a recessionary environment do not produce any appreciable increase in the demand for investment goods, the euro area has never been able to recover from the financial crisis, even with negative interest rates (cf. Ehnts and Paetz (2021)).

As mentioned at the beginning, proponents of low debt ratios fear that interest rates on government debt will rise as soon as the debt-to-GDP ratio increases. The following chart shows, however, that such an increase has not occurred in the past despite rising debt ratios. The reasons for this are, on the one hand, the lower inflation rates, which have led to a falling interest rate level, and the (implicitly given) signal of the central banks to buy government bonds without limit if necessary. The latter has assured buyers of government bonds that their money is safely invested and thus eliminated the risk premiums due to a possible default.

Figure. 2: Yields for 10-y government bonds and debt to GDP ratios for selected countries



source: Ameco and FRED; own calculations

Nevertheless, there is in principle the risk that if interest rates rise again in the future, the debt ratios will follow an explosive path. However, interest rates will only rise again after the crisis has been overcome and therefore growth and inflation rates will rise again.

Rethinking fiscal sustainability

Commentators such as This is money (2020) also argue that bonds owned by the state central bank should no longer be included in the national debt.^v After all, the government pays the interest and the repayment principals to its own central bank. If this point is taken into account, the stability condition must also be reconsidered. When buying government bonds, the central bank increases the reserves of the commercial banks. Since the (long-term) interest on government bonds is usually higher than the interest that the central bank pays for the banks' reserve assets, this increases their profit, which in turn is paid back to the government. A stable debt ratio can therefore also be achieved if the interest on government bonds is above the growth rate, because part of the interest payments flow back to the government anyway. Furthermore, the debt ratio, which only takes into account the bonds owned by the private sector, corresponds only to the share of bonds not held by the central bank in the total debt ratio.^{vi}

Regardless of the level of the debt ratio, the solvency of a government depends exclusively on the political rules that are drawn up at the European level on the basis of the concept of “fiscal sustainability” (see Fullwiler (2016, p. 14)). For this purpose, reference values for deficits (3% of GDP) and debt levels (60% of GDP) are given. A robust negative relationship between the level of national debt and the real growth rate of an economy has not yet been proven. Breuer and Colombier

(2020) emphasize that empirical studies would therefore not be suitable for guiding fiscal policy. Since insolvency is also ruled out as long as the central bank fulfils its function as the lender of last resort, the European requirements for deficits and debt ratios are both arbitrary and unnecessary. Since economic development is also influenced by government spending, the reference values de facto limit economic growth.

The ECB is currently making purchases on the secondary market to ensure that government bonds are viewed as risk-free. In combination with the suspension of the Stability and Growth Pact (SGP), there are currently no de facto spending limits for the governments of the euro zone. However, a reduction in debt to the EU benchmarks is already being considered. The Stability Council (2020, p. 2) predicts: "In the years 2022 and 2023, with the expected reduction in the general government structural funding deficit by more than 0.5% of GDP, the benchmark for European budgetary surveillance will be to reduce the structural budget Deficit met". Since government surpluses have to go hand in hand with private deficits for a given trade balance, this strategy cannot work if the private sector should also want to reduce expenditures after the pandemic due to higher debt (or lower savings). In this case, there is the threat of another lost euro decade if both the state and the private sector try to cut their spending at the same time.

The future of the Eurozone

In order to allow the governments of the Eurozone to make the necessary expenditures to prevent a further self-inflicted collapse of the Eurozone, the ECB must permanently assume the role of lender of last resort. To this end, the PEPP programme, for example, could be made permanent. A return of interest rate differentials and the corresponding dynamics with the end of a partial default as in the case of Greece, on the other hand, would create a downward spiral that could cause some member states to leave the euro area.^{vii} If the role of lender of last resort is one of the official and permanent tasks of the ECB, a sovereign insolvency of the euro area member states - and thus also the liability issue - would be ruled out once and for all. This would also mean that interest rate spreads and the "bank-sovereign doom loop" would disappear forever.

However, if the SGP were to be reactivated before GDP and unemployment rates have returned to pre-crisis levels in all member states, this would show that the EU Commission and Council continue to follow the old patterns of thinking. This also applies to the many national debt brakes that stand in the way of an expansionary fiscal policy and should be abolished. Furthermore, the imposition of "structural reforms", as demanded by the Spanish government, among others, within the framework of the Next Generation Programme, should be abandoned (El Pais 2020). The EU Commission has already lost a lot of trust with similar conditions in recent years. In the context of its austerity policy in the 2010s, for example, the Italian government was recommended dozens of times to reduce spending in the health sector.

This crisis should therefore not be used to transfer further competences to Brussels in order to force a renewed austerity policy and reinforce the loss of confidence in the European institutions. Instead, in the context of fighting the Corona pandemic, it would make sense to use national expenditures to have vaccines developed and distributed to the population through the health system. Since the ECB can produce euros free of charge and without bounds, the limits lie in the real resources, but not in the

supposedly "scarce" money. The main indicator to be used in the future instead is the unemployment rate. With regard to GDP growth, we should use other targets like those of the Agenda 2030 indicators. Raworth (2017) presents a useful framework to think about the challenges that need to be addressed. Stiglitz et al. (2009) provide further ideas about measuring economic performance and social progress. Price stability will stay as a goal of economic policy.

New monetary and fiscal policy

Since the oil price crises, central banks have immediately stifled an economic upswing by raising interest rates on any suspicion of rising inflation rates. While the "interest rate hammer" was effective and inflation rates fell, the same cannot be said of the interest rate cuts. They spurred asset prices, but did not lead to a sufficient recovery in the labour market. Thus, unemployment rates continued to rise with each economic cycle.

In contrast, we advocate "soft" management as long as there is no sign of a steady increase in the inflation rate. Instead of reacting immediately to every upswing with drastic interest rate hikes by the central bank, the state can reduce demand by deferring investments or reduce wage increases for state employees. The automatic stabilisers also dampen inflation, as more purchasing power is siphoned off in the upswing through higher tax revenues. In the Eurozone, it would currently be necessary to assign the stabilisation of economic development more to national fiscal policy, although a coordination of economic policy would also be desirable.

The inflation target of 2% can only be achieved if unit labour costs grow faster. Higher government spending can also contribute significantly to this if it strengthens the bargaining power of workers over bottlenecks in the labour market.

Consequences for international trade and exchange rates

Higher demand, via additional imports, could cause the euro area's net exports to fall. Should a trade deficit arise, however, this would not be a cause for concern with a flexible currency. An increase in foreign currency liabilities could, at worst, lead to a depreciation of the euro, which would tend to counteract the deficit. Since these foreign currency liabilities arise in the private sector, the debt sustainability of governments is not affected. Since the euro has so far fluctuated smoothly against the currencies of trading partners without inducing seriously disruptive imported inflation, we are confident that a more expansionary economic policy will not have a significant impact on inflation.

Dullien and Tober (2019), on the other hand, argue that "[w]hen, however, the government continuously covers its debt service with newly created money, [...] a continuous expansion of the money supply ... would mean a continuous devaluation in portfolio theory via exchange rate effects". Four arguments speak against this view. As shown above, the central bank can always prevent an explosive path of the debt ratio. Covering the debt service on bonds held by the central bank is merely an internal accounting operation that does not affect the money supply in the private sector. Second,

the developments of money supply and exchange rates do not correlate in the way claimed. Third, an exchange rate always involves two countries. If the government deficits in other countries were to increase equally (which is by no means unrealistic), no effect would be expected anyway.

Fourth, the development of the money supply depends on a variety of factors. If, after the pandemic, the private sector were to use the revenues from an increase in government spending, for example, to repay loans that had to be taken out during the crisis, money would be destroyed and an increase in the money supply would be counteracted. The currencies of Norway, Sweden and Denmark exemplify that high government spending does not necessarily have to be accompanied by a devaluation of the currency. A "continuous devaluation" would therefore not be expected if the Eurozone were to agree to a Green New Deal. However, if a government were to continue to increase its spending permanently, even at full capacity, inflation is inevitably to be expected, which can lead to devaluation. This is not, however, a policy advocated by MMT proponents.

How to design the socio-ecological transformation democratically?

In view of climate change and its consequences, it does not seem advisable to further intensify the use of raw materials and energy. The state should therefore act in a guiding and coordinating way and must not be led by deficits and debt levels. Without higher government spending, we will not be able to manage the necessary ecological transformation. The ideologies of the 20th century must be overcome. Neither the state nor the market alone will be able to solve our problems. Moreover, it is necessary to reunite society, which is currently threatening to break apart due to increasing inequality. The social exclusion that accompanies inequality leads to more aggression and violence, as Bauer (2011) shows.

The "Overton window" seems to be open again, as it was in 2009/10. A reactivation of the Maastricht rules in combination with a debt reduction based on national debt brakes would plunge Germany as well as the Eurozone into a recession or even depression within a few years. The latter is to be feared especially if the ECB's PEPP is terminated and the interest rates of the government bonds of Southern European countries would rise again. Against this background, it is necessary to establish adequate macroeconomic management instead of getting bogged down with the useless question of financing government spending.

MMT, as a description of our monetary system, can help to find such an approach. Just as environmentalists and engineers should understand how a petrol engine works, politicians and citizens should understand the monetary system. Only then can the desired path be chosen democratically from all the possibilities for shaping the future.

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ⁱ Elements of the MMT can be found among others in post-Keynesian publications such as Helmedag (2018, 54-90).

ⁱⁱ Incidentally, this has nothing to do with any “independence” of the central bank, however defined. The Bundesbank is the main bank of the Federal Republic of Germany and has always made all payments to the Federal Government.

ⁱⁱⁱ In an open economy, a national deficit can also lead to surpluses abroad.

^{iv} In Ehnts (2019), the same proposal was made against the background of double-digit unemployment rates in the countries of the euro zone.

^v This is in line with post-Keynesian stock-flow-consistent models, in which the financial relationships of an economy are consistently mapped with the help of double-entry bookkeeping (see Godley and Lavoie (2007)).

^{vi} In order to keep interest rates low, it is usually sufficient to provide credible assurance that this function is being fulfilled. This can be seen by the falling interest rate differentials for government bonds in the euro area after Mario Draghi's announcement that he would do anything to stabilize the euro area and the implementation of the OMT program of the ECB after 2012.

^{vii} Moreover, interest rate differentials are difficult to reconcile with fair competition among euro member states, as this article shows here: <https://www.socialeurope.eu/it-is-the-ecbs-jobs-to-close-spreads>, accessed February 15, 2021.