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Financing COVID-19, Inflation and the Fiscal Constraint

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ABSTRACT

The COVID-19 pandemic is producing an economic depression that, however, could be substantially reduced if the state in each country, besides making the required health spending, compensates the companies and households that are losing with the social distance and lockdown policies. Governments, however, limit their expenditures not to increase the public debt. There is, however, the possibility that central banks buy new securities from the Treasury to finance such exceptional spending. Considering several economic constraints that policymakers face, this policy will not conflict with the inflation constraint. Money is an endogenous variable that does not cause but just validates a going inflation. It conflicts partially with the fiscal constraint, but avoids the increase in the public debt. And, in this case, it does not have the bad consequences of fiscal indiscipline—excess demand that, successively, causes increases in imports and current account deficits that appreciate the national currency, accelerate inflation, and lead to currency crises. Monetary financing of the COVID-19 will not cause any of these three evils.

KEYWORDS Government spending; monetary financing; inflation constraint; fiscal constraint

JEL CLASSIFICATION E3; E6

The COVID-19 pandemic is producing an economic crisis that may turn bigger than the Great Depression of the 1930s. Its severity may be gauged by the number of deaths, the fall of production, the fall in the states' revenues, and the rise of unemployment and poverty, but it will vary from country to country depending on how much the states have spent to face it and how well they spent. The flattening of curve of new cases and the reduction of the number of deaths, while a vaccine or an effective medicament is not found, require increasing the capacity of the health system, and lockdowns which, combined with mass testing, will allow the reduction of the former. These actions have a cost in terms of state spending in health care, which is relatively small and should not be limited in any way, but it is high when the problem is to neutralize the economic losses the pandemic is causing: the fall of GDP, the bankruptcies of companies, unemployment, hunger among the poorer, and the fall of tax revenues. How far should each government go in increasing its spending to reduce such losses or economic costs? Nobody knows for sure the net costs (here understood as the additional spending costs vs. the lockdowns costs plus the fall in

state revenues), but two things are certain: first, the state should not ‘economize’ by reducing the lockdowns and testing, because the more successful countries are the ones that are effective in stopping the diffusion of the disease; second, the more the government spends countercyclically by providing a minimal income for people, or by subsidizing the companies that have not laid down their employees or whose revenues have dramatically fallen, the less will be the depression the country will face.

Countries, however, face a fiscal constraint. How, then, to assure that their governments put aside any austerity and spend what is required? If the country has a very sound fiscal condition, its government is likely to expend what is necessary anyway. In most cases, however, they will not. The short-term fiscal constraint will be stronger than what is rational in health and in economic terms. In this article, my objective is to discuss this issue in four sections. In the first section, I will focus on the variety of outcomes that countries are achieving and their relationship with government spending. In the second, I will discuss how to finance such spending: with orthodox private financing or monetary financing—the state issuing money—and I will opt for the later. In the next section, I discuss the economic constraints governments face, particularly the inflation constraint, and I will argue that monetary financing will not cause inflation. Finally, in the fourth section, I will reaffirm the importance of the fiscal constraint if we associate it to the exchange rate constraint; I will argue, from a new-developmental point of view, that before government spending causes inflation (because the economy reached full employment), it may cause the increase in imports above exports, the increase in the current account deficit, and the ensuing appreciation of the exchange rate. Yet, I remark that the fiscal constraint cannot be defined just by saying that the public deficit must be balanced; the public debt must also be kept under control. I argue that in the case of the COVID-19 financing, monetary financing will take more fully in consideration the fiscal constraint than private financing and the ensuing huge increase in the public debt.

Different Outcomes

How effectively are countries controlling the spread of the virus? China, where the pandemic began in December 2019, held a very effective lockdown, controlled the spread of the disease, so that the deaths today (May 12) total only 4634, while in the United States, which has a population a quarter smaller, the deaths already total 109,448, and are expected to increase considerably more because the diffusion of the virus started there later than in China.¹ The diffusion factor (the average number of infected persons by someone with the disease) is falling in the rich countries of Europe. It is below 1.10 in Germany, France, Italy, and Spain, and still 1.23 but falling in the United States and the United Kingdom. It is under control in Turkey, Vietnam, and Argentina, while still very high in Russia (1.079) and Brazil (1.45). Such outcomes are related to the policies adopted by each country and the compliance by people. In the United States, the outcome have been bad and in Brazil worse while its respective presidents resisted to act. In Brazil whose president made difficult the job of the federal states’ governors to impose social distance, the death toll is already 33,688, while in Argentina whose president has adopted a firm defense policy against COVID-19, we only have 588 deaths. The negative results in the biggest

¹This information is from the website worldtermometers.info, May 2, 2020.

countries in Europe are also dreadful—United Kingdom and Italy with more than 33,000 deaths, Spain and France with more than 29,000 deaths, while Portugal, Denmark, and Germany present better results.²

There are many questions that people ask. How many cycles will there be? How long will the pandemic last? Why did China control the virus so much better than Western countries? The immediate answer I hear is that this is an authoritarian regime. It is undoubtedly authoritarian, but should democracy be blamed for the bad results in the West? Denmark, New Zealand, and Argentina are countries whose political regime are democratic but have also controlled the spread of the coronavirus. And to a lesser extent, Germany too. A perhaps better explanation is that in countries in which neoliberal individualism has gone far, where the main logic is that of the competition of everyone against everyone, as is the case of the United States and of Brazil, the results proved to be worse.

In the last 40 years, within the framework of neoliberalism, individualism has become hegemonic, 'the only value in town', while the idea of solidarity has lost ground. A society in which this happens is a sick society. When a pandemic like this happens, we see how important the state is, how it is our great instrument of collective action. We see why only by defining sensible laws and having a capable state apparatus to enforce them (the two constitutive elements of the state) we can build a true nation and a healthy society. In modern capitalist societies, the state is the fundamental institution, because it is the constitutional system and the organization that guarantees it. It can be a mere instrument of the ruling class, but, in the framework of democracy, it can turn to the construction of a solidarity system. Rich countries advanced in this direction in the Golden Years of capitalism, but since the 1980s the neoliberal ideology turned dominant and the social and moral regressions have been huge. China is not a democracy, but this pandemic has shown that there is more solidarity there than in most Western countries.

Many people wonder what the world will be like after this crisis. Will it abandon neoliberalism? In fact, it has been abandoned since the 2008 Global Financial Crisis. But in countries like the United States and the United Kingdom, where individualism excelled, instead of being replaced by a social, developmental, and environmental capitalism, which is the real alternative to neoliberalism, it is being replaced by right-wing nationalist populism, where besides solidarity, rationality is absent. A similar thing happened in Brazil where, in reaction to 12 years of a center-left government (something that had never happened before in this country), its elites turned radically neoliberal and supported the infamous Bolsonaro government only because before the election he choose as his minister of the economy an economist radically liberal. As Lopes (2020), who is following closely the diffusion of the COVID-19, argues, Brazil is an outlier: 'Brazil is in the way of becoming one of the infected countries in the world which is converging to stability'. A real genocide is starting here due to the obstacles that the federal government is imposing on the isolation of people.

How to Finance?

What will the economic cost of this crisis be? The International Monetary Fund (IMF) forecasts a fall in world Gross Domestic Product (GDP) of 5%, but I believe it will be

²The data of this paragraph refer to June 4, 2020; the source is Worldmeter and Lopes (2020).

greater. And in all countries, economists are predicting a major increase in the public debt. There are two ways of financing the high public expenditure required: either by issuing Treasury securities and selling them to the private sector, or by selling them to the central bank. The former alternative is a usual system and involves increasing the public debt; the latter means that the government is 'printing money', an alternative that makes people shiver because it should mean increasing inflation and allowing the state to spend without constraints. Yet, given the exceptional character of the pandemic, the fact that the increase in the money supply will not cause inflation, and that, if well regulated, issuing money will not be subject to constraints, I defend the second alternative. The first measure, by increasing the public debt, will compel citizens, especially the poorest, to pay it through endless policies of fiscal adjustment. Besides, a large increase in public debt can lead the less developed countries to default and force them to ask for a demoralizing restructuring or debt reduction. It is true that the payment of the public debt may be not so costly if the government is able to keep the interest rate below the growth of GDP, but this effort will force the country to adopt fiscal austerity and experience low growth rates for many years. The United Kingdom had this experience: after the First World War, its debt rose to 140% of GDP, leading the government to engage in a policy of fiscal austerity that led to a high primary surplus during the 1920s. As *The Economist* noted, the results were disastrous. Austerity slowed growth: output in 1928 remained below 1918, while public debt continued to rise to 170% of GDP in 1930.³ After the Second World War, the United Kingdom reduced its public debt from 259% in 1946 to 43% of GDP in the 1980, but its growth rate in the period was substantially lower than the growth rates of France, Germany, and Italy. The United States also reduced its public debt from 112 to 26% of GDP in this same period but did that while keeping a satisfying growth rate—which was possible because this country experienced an enormous growth with the war.

This is a very serious crisis that affects mainly social minorities and the poorest. The short-term challenge that governments face is to make the required spending. The possibility of financing the COVID-19 expenditures without increasing the public debt is important to all social classes and all types of countries. If policymakers know that issuing money will not increase public debt nor cause inflation, they will have more freedom to spend what is really needed, instead of spending 'what they can'. If they insist in not believing that this is possible, or if they are policymakers in Eurozone countries which do not have the power to issue currency, they are likely to spend less than what is necessary. There is still no definitive data on how much the big countries are spending on COVID-19, but there are already good studies. According to a study by the Fundação Getúlio Vargas's Brazilian Institute of Economics (IBRE), there are large variations. Considering only government programs, we have that some countries such as Australia, Canada, Japan, are spending a lot (respectively, 10.1, 9.1, and 6.8% of GDP), while others such as Italy, France, and Spain are spending little (respectively, 1.2, 2.0, and 2.7% of GDP).⁴ I do not think this is by chance. Countries that are spending less are exactly those that made the big mistake of creating the euro and lost monetary policy autonomy. We saw this

³*The Economist*, 'How deep will downturns in rich countries be?' April 16, 2020.

⁴Source: Laboratório de Política Fiscal do IBRE/FGV. Data from April 26, 2020.

very clearly in the Euro Crisis (2010–2015) and it seems that we are seeing this again in the COVID-19 Crisis. Germany, in this study, is an exception, spending 6% of GDP, but we know how the country's fiscal account is managed—with extreme rigor—aiming at huge current account surpluses and a competitive manufacturing industry. And how competent its prime minister, Angela Merkel, is.

After the 2008 global financial crisis, the central banks of rich countries got involved into quantitative easing. The objectives were to increase the supply of money or the liquidity of the economic system, reduce the interest rates, and encourage companies to invest. The last objective was not met, but a fourth and unintended consequence was a major decrease in the public debt of the countries that practiced it. In the case of Japan, whose debt was immense, the reduction caused by quantitative easing was enormous: the Central Bank of Japan holds 85% of Japan's so-called 'public debt', so it was reduced by 77%; the reduction in the public debt of the United States was smaller, 12%, and that may be a reason why American economists did not pay much attention to the fact.⁵

But does monetary financing not imply increasing the public debt? This is not what we see when examining the evolution of the 'public debt' of the countries that have performed quantitative easing. The public debts of Japan, United States, United Kingdom, Switzerland, Sweden, and the countries of the Eurozone have not been properly adjusted. The fact that the Treasury and the central bank are part of a same state was not considered because economists love fictions; because they want to discourage 'irresponsible public spending', and because public accounting rules continue to be governed by outdated concepts; these rules put the central bank out of the state, something that was only true in the early history of central banks when private banks took on the role of central banks.

Orthodox economists reject monetary financing; for them, the only alternative to finance state expenditures which are not covered by current revenues is by getting indebted with the private sector. They say that the costs of COVID-19 will be high, but 'there is no magic'—after the pandemic, countries will have to resume fiscal austerity. There are good reasons for fiscal discipline, but, in financing the COVID-19 expenditures, monetary financing makes more sense. That was what the rich countries did after the 2008 crisis by adopting quantitative easing. And it is what some of them are doing again, although not saying it, to finance the spending associated with the pandemic. In the case of quantitative easing, the purchase of public and private securities was made with the aim of increasing the liquidity of national economies, but the purchase of public securities had the, perhaps, unexpected consequence of reducing public debt. I say 'perhaps', because it is difficult to believe that in Japan, where the original public debt was immense and the quantitative easing was equally immense, the Japanese were not aware that they were reducing their debt. In the current case, in addition to increasing liquidity, this purchase should aim not at reducing the public debt, as it happened with the quantitative easing experience, but to finance expenses with COVID-19 without increasing this debt. According to IMF projections, at the end of this year the public debt of the rich world is expected to increase from 106 to 122% of GDP. In relation to Brazil, the forecast generally made is for an increase from 78 to 90% of GDP. In any case,

⁵My calculation is based on the well-founded information of Kate Allen and Keith Fray (2017) 'Central banks hold a fifth of their governments' debt', *Financial Times*, August 15, 2017.

the huge state expenditures thus required while the states' revenues are falling will mean large fiscal deficits and, if monetary financing is not adopted, a sizable increase of the public debt and, after the crisis, years and years paying such debt.

Economic Constraints

My defense of monetary financing of the COVID-19-related expenditures poses two immediate questions. Wouldn't such monetary financing cause inflation? Worse, am I suggesting that the state can spend as much as governments want? I begin with the second question. I am not saying that the economic constraints including the fiscal constraint should be ignored. To be a competent policymaker, an economist must be aware of the constraints he faces. But the fiscal constraint is not the only economic constraint nor the main one. In this section, I will discuss shortly the main economic constraints countries face, and particularly the inflation constraint. And, I will argue that in the present case this constraint will not be reached. In the next section, I will discuss just the fiscal constraint.

The Expected Rate of Profit

A number of constraints define a capitalism economic system. The classical political economists and particularly Marx knew the main, the all-encompassing economic constraint is the *rate of profit*, or, more precisely, it is the expected entrepreneurial profit rate—the expected profit rate minus the cost of capital. Economic development, the rate of growth, depends on investments, which, on its turn, depend on the motivation of companies to invest, which, finally, depend on a satisfying profit rate. Economic growth is a historical process of capital accumulation with incorporation of technical progress, or of increase of productivity coupled with improving standards of living—a process in which the state and the state-owned enterprises account for a share of total investment. At the very beginning of the growth process, this share is usually high, because the main investments required are in the infrastructure and in the basic inputs industry, and because the state has more access to credit than the business entrepreneurs. But, as the economy develops, the private sector becomes financially stronger, while growth requires innovations in new products and new services and the whole economic system becomes increasingly sophisticated. From this moment on, investment depends on the creativity and managerial capability of business entrepreneurs, whose initiatives only the market system is able to validate and coordinate efficiently. Thus, the private sector sees its share of total investment increase to around 80%, subject to the condition, naturally, that the expected profit rate remains satisfying—able to motivate the companies to invest.

Thus, in a capitalist society the profit constraint is the main constraint. Actually, it is a constraint that defines capitalism. The profit rate does not need to be 'high' but cannot be 'low'; it must be *satisfying*—a concept that I take from Herbert Simon. If we had to define capitalism very shortly, we would say that it is the mode of production where business entrepreneurs accumulate capital, aiming to achieve a profit. Maximum profit? In principle, yes, but this is a meaningless concept in business terms; companies know the constraints of the market and do not aim at a

vague maximum profit, but the possible profit that they project in their budgets. Which is a satisfying profit rate if it falls in the interval that companies view sufficient to continue to invest and expand production in a given country and time; it is the minimum rate of profit that motivates companies to invest. The satisfying profit rate is a convention or historically localized institution. It is higher than microeconomics' 'normal' rate of profit; it is also higher than the profit rate of the company that stops innovating and just invests to modernize the plant and keep producing goods and services whose demand ceased to expand. It is a 'reasonable' rate of profit.

The Wage Constraint

The wage constraint is defined in two ways; on the supply side, by how much wages may increase while remaining consistent with a satisfying profit rate; on the demand side, how much they may not increase without causing a fall in the demand. In both cases, it is a constraint subordinated to the profit constraint—to a satisfying profit rate. On the supply side, considering stable the output-capital ratio, this limit is the increase in labor productivity. At the time of classical political economists, the wage constraint was 'physical' because the assumption was that the cost of reproduction of labor, which was defined as subsistence level, defined the wage rate. Today, it is a relative constraint, because wages continue to be basically determined by the cost of reproduction of labor, but this cost is socially defined, and it increases as the level of education and acquisition of professional capabilities increase. Thus, as they are above the subsistence level in rich countries, wages can increase or fall. From the 1980 neoliberal turn to today, wages of nonqualified workers remained stagnant or increased less than productivity, while high salaries increased strongly, and the profit rate of the corporations remained relatively satisfying to their managers and their stockholders. The new competition represented by developing countries exporting manufactured goods, which began in the 1970s, is one of the causes of the quasi-stagnation of low wages; another was the acceleration of technical progress and the increase of the size of the large corporations, which increased the demand for the rising techno-bureaucratic social class while reduced the demand for low-skilled workers. Both causes are on the supply side. What about the demand side? Wages increasing below productivity loosened the demand for consumption goods, which needed to be compensated by something. The main strategy was to increase credit to the lower classes, which kept demand relatively strong, but was one of the main causes of the 2008 global financial crisis. The return to neoclassical economics and the rise of neoliberal ideology were instrumental to legitimate the quasi-stagnation of low wages and the increase of inequality that have characterized that period.

The Demand Constraint

Some could argue that a well-behaving market assures automatically a satisfying rate of profit. But this is not true either theoretically or empirically. On the theoretical side, Schumpeter argued definitively that perfect competition and the corresponding normal flow of goods and services just produce 'normal profits', which are

essentially equal to the interest rate. Entrepreneurs require a higher rate of profit, which only innovations can assure—innovations yielding a monopolistic advantage. Keynes, starting from a different perspective, revolutionized economics when he showed that in capitalist economies supply does not automatically warrant demand as the classical and neoclassical claim, but suffers from a chronic insufficiency of demand that dampens the expected profit rate for long periods and makes investments unattractive, or just unviable. In the system of economic constraints that I am trying to depict, *effective demand*—the willingness and ability of consumers to purchase goods—is also a main economic constraint closely associated to the profit constraint. The economic literature on this constraint is enormous. Its empirical verification, more than satisfactory. There is nothing to add to this literature except the issue of the *access to demand*, but this problem is part of the following constraint—the exchange rate constraint.

The Exchange Rate or Competitiveness Constraint

Besides the Keynesian argument on the insufficiency of demand, there is a second theoretical reason why the expected profit rate is not always satisfying. As New Developmentalism has been arguing from the 2000s, many countries may live with an overvalued exchange rate in the long run combined with an exchange rate cycle defined by a sharp devaluation in the successive currency crises and an appreciated exchange rate in between. This fact makes room for the *exchange rate constraint*. The exchange rate should make monetarily competitive those companies that are technically competitive, but it often does not. Competitive domestically and internationally. When a company utilizes the best technology available, it is *technically* competitive; when, in addition, the exchange rate is intertemporally competitive and the 'country-costs', i.e. the tax and infrastructure costs, are similar to the ones in competing countries, this company is *economically* competitive. The idea that the policymaker can ignore the exchange rate problem in order to encourage the companies to increase its technical competitiveness is often heard but makes no sense.

Why does the exchange rate in developing countries show the tendency to be overvalued in the long term? There is one basic reason, the general adoption of two habitual policies, with the exception of those East Asian countries that, in the 20th century, were able to catch up and become rich. I refer to the mistaken policies of growth with foreign indebtedness and of using the exchange rate as an anchor to control inflation. The long-term overvaluation of the exchange rate in the first habitual policy is an unintended consequence; in the second, an express objective. Both involve current account deficits and require high interest rates to attract capital. The growth with foreign indebtedness policy, the so-called growth with 'foreign savings' policy is the usually failed attempt to incur current account deficits hoping that they are associated to imports of capital goods that will increase the investment rate of the country. Failed because the overvaluation turns the capable companies in the country uncompetitive and discourages them while it encourages consumption. The second habitual policy—transforming the exchange rate into a monetary anchor to control inflation—also involves overvaluation and, so, is as self-defeating as the first habitual policy. This is not the place to go back to the argument that the new-developmentalists economists have been developing to explain this tendency to overvaluation and how impeditive they are of investment and growth.

In the developing countries, the two referred habitual policies and the matching current account deficits cause the overvaluation of the exchange rate because the deficit will be financed by the net capital flows. It is true that capital flows are highly speculative, but this in the short run. In the long run, assuming constant international reserves, the net capital flows will be equal to the deficits and will represent an extra supply of foreign money which will appreciate the country's currency. And, these additional capital inflows will keep it appreciated while the current account deficit is kept running. Something that may last for a long time, because the local policymakers have 'good' arguments in their favor and, what is likely to be more important, the support of the economists and international agencies in the North. The arguments derive from something that seems obvious ('it is natural that capital rich countries transfer their capitals to capital poor countries') but it is far from being true. It would be true if we lived in a global state where there would not be various moneys and their corresponding exchange rates. Or if, for some magic, the excess of capital inflows over the capital outflows did not cause the appreciation of the recipient country.

In relation to rich countries, the exchange rate combined with the current account represents also a major constraint, except, apparently in the United States which issues the dominant currency-reserve and, in consequence, benefits from the 'exorbitant privilege' of having as much current account deficit as it wants. This country profits from this privilege in incurring sizable current account deficits since the 1960s. But the constraint is there, not in the form of currency crises (this is impossible), but in the form of long-term overvaluation of the dollar and loss of competitiveness of the American manufacturing industry.

In the framework of globalization, competitiveness is today a key constraint that I associate with the exchange rate constraint. There is a technical and a macroeconomic, or exchange rate, competitiveness. Microeconomics takes care of the technical competitiveness; macroeconomics must take care of the exchange rate competitiveness. Both are necessary conditions for economic development but are not always together. Technical competitiveness is a long-term economic problem, exchange rate competitiveness a relatively short-term problem. Good institutions, well-functioning markets, education, investment in infrastructure, technological policy, and industrial policy are means to technical competitiveness. A capable macroeconomic policymaking sees the exchange rate constraint as fundamental to the extent that it is the only means to guarantee exchange rate competitiveness. To try to achieve macroeconomic competitiveness by acting on microeconomic variables, by making markets more competitive, as orthodox economists argue, or by engaging in industrial policy, as many heterodox economists propose, is a big mistake. There is a relationship between the two forms of competitiveness, but they are relatively autonomous, and require independent policies.

The exchange rate constraint should not be confused with the 'balance of payments constraint'. Raúl Prebisch, used Engel's law,⁶ the problem of the two income-elasticities minor than one, to show the competitive disadvantage that the countries exporting primary goods faced, and to argue for his project of industrialization or, in Spanish, 'cambio estructural'. Hollis Chenery was the first to provide an equivocal

⁶The Engel's law states that as income rises, the proportion of income spent on food falls even if absolute expenditure on food rises. It is named after the German statistician Ernest Engel.

interpretation of this problem with the two gaps model to be 'resolved' by attracting foreign capitals.⁷ The second was Anthony Thirlwall, who elegantly formalized the model of the two perverse income-elasticities, thus opening room for innumerable econometric studies confirming what was obvious.⁸ Yet, 'Thirlwall's law', besides also favoring capital inflows, allowed for a 'model of growth' in which the growth of global foreign trade would limit the rate of growth of the country—something very far from the experience of the few countries that, in the 20th century, successfully caught up and are today rich countries. The real balance of payment constraint in developing countries is not the perverse elasticities, but the tendency to the overvaluation of the exchange rate, which is not endogenous to the economic system, but policy caused.

The Inflation Constraint

Another major economic constraint is the inflation constraint. There is nothing new on this theme since the early 1980s model of inertial inflation, but as I am defending the monetary financing of the COVID-19, it is time to discuss whether the increase of the money supply above the increase in the aggregate supply causes inflation; second, if printing money makes a difference, independently of private financing or monetary financing (the central bank or the private sector buys the new securities issued by the Treasury) the increase in government spending involves the increase in the quantity of money. In both cases, there is the same increase in the outstanding credit, and, therefore, in the money supply, which varies in accordance with the volume of credit. If the government decides for private financing, where will the private sector find resources to buy the bonds offered by the government? The rentier capitalist has no cash available and will go to the financial sector to borrow money. Thus, the money supply will increase anyway.

The increase of the money supply is not the cause of inflation, where 'cause' is understood as a factor that accelerates a given rate of inflation. First, because the money supply is endogenous, as Keynesian theory, as well as Modern Monetary Theory (MMT) and New Developmental Theory (NDT) claim. In the time of Keynes, this was not so obvious because then the golden standard had not yet been abandoned and money was still, apparently, a commodity-money. Since, however, 1971, when the American government removed the last vestige of the golden standard by terminating the convertibility of the dollar to gold (which was just assured to other countries, not to the private sector), the virtual or trust character of money turned evident. The variation in an economy's quantity of money is an endogenous variable. The central bank may influence, but not determine, it by buying bonds issued by the Treasury, by defining the reserve ratio the banks are required to lend, by reducing or increasing the interest rate, but the quantity of money rather depends on government spending and on changes in the total volume of credit. That is the reason why the role of the money supply in the inflation process is not to cause or accelerate inflation but to sanction or validate the going inflation by ensuring, via the credit increase, that the real (and required) liquidity is maintained.

⁷Chenery and Bruno (1962).

⁸Thirlwall (1979).

There is, however, an old fear of ordinary people that the state's monetary financing will cause inflation. And, there is the quantitative theory of money that supported this idea—an old and worn-out economic myth. Which, most likely, originated from ancient times when inflation was called not the increase in prices but the uncontrolled increase in the amount of money in the economy.⁹ This myth was resurrected by monetarism, the first attempt neoclassical economists made of developing a macroeconomic alternative to the Keynesian macroeconomics where aggregate supply, not aggregate demand, was the relevant variable. The basic claim of monetarism was that if central banks firmly controlled the supply of money, inflation would be controlled. In the economic literature, there is an identity, the equation of exchange ($MV = Yp$), in which M is the amount of money, V is the velocity of money or the number of times that money circulates in one year, Y is the national income, and p is the inflation. It is an identity because it starts from the definition of the velocity of circulation of money ($V = Yp/M$). Monetarists, however, transformed this identity into a theory—the quantitative theory—by assuming that the velocity of money is constant and claiming that the increase in M causes the increase of inflation, p .

Such theory is apparently true because there is a close correlation between the quantity of money and inflation, but, first, V is not constant, the velocity of money is extremely variable, changing with the economic cycle.¹⁰ Second, there is no reason to say that it is the increase in M that causes the increase in p ; it makes more sense to say that it is the increase of inflation that requires the nominal money supply to increase. A national economy needs a level of liquidity or quantity of money proportional to its GDP to work—to allow that the transactions occur smoothly. When, for some reason, inflation increases or accelerates, the nominal supply of money will have to increase so that the real quantity of money—the liquidity of the economy—is preserved. To understand that, it helps to view the required monetary liquidity of the system with the amount of lubricating oil that allows a machine to run smoothly, without friction. Thus, the nominal quantity of money is endogenous and, given a required real quantity of money, it is inflation that requires its increase to remain constant in real terms. Keynes did not say this verbatim but showed that the amount of money in an economy is endogenous. Here in Brazil, I learned the endogenous character of money from Ignácio Rangel, who came up with this idea on his own observing the Brazilian reality of the early 1960s.¹¹ Among the post-Keynesians, Basil Moore, in 1979, theoretically showed the currency's endogeneity.¹² The theory of inertial inflation, in the form in which it was developed in Brazil (the country that had the longest and most radical experience of this type of inflation), showed this definitively in the 1984 paper that more broadly defined this theory, 'Accelerating, maintaining, and sanctioning factors of inflation', states this in the title

⁹According to the *Online Etymological Dictionary*, inflation, in the 'monetary sense of "enlargement of prices" (originally by an increase in the amount of money in circulation) was first recorded in 1938 in American English'.

¹⁰In the United States, in the Great Depression, it bottomed out at 1.15 times; from 1959 through the end of 2007, the velocity of the money stock averaged 1.86 times with a maximum of 2.21 times in 1997 and a minimum of 1.66 times in 1964. Since 2007, the velocity of money has fallen dramatically as the Federal Reserve greatly expanded its balance sheet, i.e. engaged in quantitative easing; in the first quarter of 2016, M2 velocity was just 1.46 times.

¹¹Rangel (1963).

¹²Moore (1979).

itself.¹³ The accelerating factor of inflation may be a supply or demand shock, but in most cases and logically is the excess demand in relation to supply; the formal and informal indexation of prices is the inertial or maintaining factor, which makes inflation resistant to the usual policies adopted to control it; and the formal and informal indexation of the economy is the sanctioning factor that keeps the real quantity of money constant in an environment in which inflation is reducing the nominal quantity of money.¹⁴ As to the empirical rejection of monetarism, quantitative easing has definitely demonstrated that monetarism does not make sense. Central banks in rich countries bought directly from the Treasury and the private sector around US\$15 trillion without increasing the rate of inflation.

Why, then, does the quantitative theory of money have such a long history? First, because it is apparently true. Second, the increase of the money supply is a determinant of inflation for an etymological reason: originally the word 'inflation' simply meant the increase of the amount of money in circulation.¹⁵ The power of an etymological tradition is strong. Third, a political economy reasoning: inflation above 3 or 4% a year is bad to all but is especially bad to rentier capitalists and financiers; it is worse for them than to productive capitalists whose prices can be changed with the inflation. Thus, they support any policy that seems hard against inflation, even if it does not work or works poorly.

The Fiscal Constraint

I close the analysis of economic constraints and the COVID-19 with the fiscal constraint. My understanding is that this is a main constraint, and that financing the required government spending by issuing money will not signal indifference but compliance with it in so far as it will be a way of protecting the fiscal condition of each country that uses it.

The fiscal constraint is an obvious and the most well-known constraint. Usually the day to day duty of good finance ministers is to protect the Treasury from rent-seekers and to keep the fiscal budget balanced. And, it is something that economic history confirms. Countries that were successful in economic terms—that are rich countries today—all complied with fiscal discipline, be they like the United Kingdom, France, and the United States, who realized their industrial and capitalist revolution in the 19th century, or like Japan and South Korea who did it in the 20th century. Maybe it is considering this fact, but more likely due to their hypothetical-deductive method which dispenses with empirical verification, that orthodox economists contend that an austere fiscal policy defined this way (a balanced budget) is the only legitimate policy.

Why should this be true? The traditional argument goes in this way: if fiscal discipline is maintained, the market will take care of the rest; if it is not, the state will

¹³Bresser-Pereira and Nakano (1984 [1987]), 5–21.

¹⁴This is why, in their basic paper on this theory, Bresser and Nakano (1984 [1987]) called the money supply 'the sanctioning factor of inflation'.

¹⁵Inflation is originated from the Latin, 'inflatio', which meant 'blowing', 'flatulence', 'inflammation'. According to the Online Etymological Dictionary, 'inflation meaning "action of inflating with air or gas" is from the seventeenth century; the monetary sense of "enlargement of prices" (originally by an increase in the amount of money in circulation) was first recorded in 1838 in American English'. <https://www.etymonline.com/word/inflation>, June 6, 2019.

spend more than what it gets, it will incur a fiscal deficit, financing the deficit with increasing debt, the money supply will increase, and inflation will follow. This is false because the market *does not* take care of the rest, and because the increase of the supply of money does not cause inflation. The liberal orthodoxy offers two additional reasons. First, that public investment will crowd out private investment. But this depends on the industry the state invests. If the state invests in the same competitive sectors that the private sector invests in, crowding out will be inevitable. Contrarily, if it invests in infrastructure and in basic inputs industries, the two non-competitive industries to which public investment is supposed to be oriented, it will create demand and promote private investment in the companies supplying goods and services to these two sectors. Second, fiscal discipline would be required 'because the state may go bankrupt'—this explanation makes no sense. A nation-state is not a company; if it is indebted in its own currency, it will never go bankrupt because it can always issue money and pay its debts; if it is indebted in foreign money, the problem is more serious, but New Developmentalism is adamant in condemning that countries and their governments become indebted in foreign money. Only in very special occasions, when the economy is rising rapidly, the investment opportunities increase and the marginal propensity to consume falls while the marginal propensity to invest increases, only under such exceptional conditions is the rate of substitution of foreign for domestic savings low and foreign finance makes sense.

Let us now go to better reasons to limit government spending. A first reason, a well-known and good reason, is inflation. If, by increasing government expenditure and incurring a public deficit, the country's aggregate demand exceeds potential supply, inflation will occur, and the expenditure will have to be reconsidered. This, however, is not the case of the COVID-19 required spending, as we saw in the last section. A second and more general reason where government spending should be carefully and firmly controlled is that, OK, 'there is no free lunch', but there is free rent seeking. The greed in relation to government spending is always enormous because it is free. In any circumstance, even when it is necessary to increase public spending, as in the present case, one of their main tasks for competent economic policymakers is to defend the Treasury. As soon as the government relaxes fiscal discipline, the social contract that requires everybody to law-abiding and reasonably committed to the public interest is also relaxed, and the probability of wrong spending and corruption increases.

The third reason involves the combination of the exchange rate and the fiscal constraint, to which I give great relevance: governments should adopt fiscal discipline to avoid that the increase in demand cause a current account deficit and the appreciation of the national currency. In this case, irresponsible government spending does not cause inflation because the country resorts to additional imports and incurs a current account deficit. This third reason derives from NDT, where the exchange rate constraint, which we could also call current account constraint, plays a key role. Excessive government spending, which disregards the fiscal constraint, will create, successively, three evils: first, the increase in the current account deficit and the appreciation of the national currency; second, the increase in inflation; and third, a currency crisis. The economic history of the countries that developed consistently is also a history of fiscal discipline. Not because fiscal largess leads the country to bankruptcy, nor because public investment crowds out private

investment, but because good politicians and policymakers combine theory (which is always unable to consider all possibilities) and intuition to take their decisions, and because they know that fiscal discipline is part of the social contract that every nation requires to build a good and developed society. A social contract that may contain a national development project when the country grows fast and catches up. By causing a current account deficit and the appreciation of the national currency, fiscal indiscipline seriously harms a country's monetary competitiveness, causes inflation, and, in the extreme case, the accumulation of current account deficits increases the country's foreign debt and may push the country to a damaging currency crisis. Actually, fiscal and current account discipline go together. If the rise in fiscal expenditure increases effective demand above domestic supply, this does not lead to inflation unless the economy is in full employment but causes a current account deficit that is a negative factor in the growth process. And, they usually lead to the 'twin deficits' condition while the exchange rate do not turn overvalued. Once this happens and the country presents a high current account deficit, the government engages in fiscal adjustment, the fiscal deficit falls, but often it does not fall enough to make the country recover its monetary competitiveness.

Thus, we are back to the exchange rate constraint, not because the government of the country is engaged in the mistaken pursuit of growth through foreign savings policy, which results in exchange rate populism, but because it is irresponsibly spending more than what it collects, thereby giving shape to fiscal populism. Or because the two populist processes reinforce each other.¹⁶ In synthesis, the fundamental reason why countries must keep their fiscal account balanced is the exchange rate constraint—it is to keep the country internationally competitive. Companies in each country are supposed to be technically competitive, but, in addition, the country must ensure an exchange rate that most of the time is competitive. Current account deficits mean that the country is consumption-oriented rather than production-oriented; it means that people valorize immediate consumption and are not concerned with capital accumulation and growth.

Thus, there are good reasons to comply with the fiscal constraint, but how should we define it? Is it just the pursuit of a balanced budget? Or does it also involve keeping the public debt under control and relatively low? This is not the time to discuss fully these questions, but one thing should be stressed: the public debt is not the outcome of the simple accumulation of public deficits. When, for instance, the central bank bails out banks in a crisis, the cost is not considered in the deficit. The central bank's gains or losses out of variations in the exchange rate are also not considered in the deficit but are in the public debt. In given moments, countercyclically, we know that budget deficits are the right way; they are not an attack to the financial health of the country. Now, considering the huge and extraordinary expenditures that the COVID-19 requires, which policy is more damaging from the perspective of the fiscal constraint: to recur to monetary financing and keep the public debt untouched, or to recur to private financing and create a huge fiscal burden for the future? In the second section of the article, I already discussed the evils associated to the increase of the public debt.

¹⁶Economic populism is here to spend irresponsibly; it may be fiscal populism, when the state spends more than what it gets and incurs chronic fiscal deficits, or exchange rate populism, when the nation-state spends more than what it gets, and the country incurs chronic current account deficits.

Conclusion

Summing up, in the context of the COVID-19 pandemic, countries should not limit government spending in the name of the fiscal constraint. It is now more important to save the lives of people, their jobs, and the survival of companies, and, with this objective in mind, not to economize—something that governments will do if they consider that the huge expenditures required will mean a bigger public debt. For that reason, and to avoid a large debt burden in the near future, I defend the monetary financing of the COVID-19 expenditures.

To justify this, I shortly summarized my view of the basic economic constraints in capitalist societies. They are the profit constraint, the demand constraint, the exchange rate constraint, the wage constraint, and the fiscal constraint. First, I showed that the monetary financing of the high COVID-19-expenditure will not cause inflation. Second, I gave a special standing to the fiscal constraint, and added a new and fundamental reason why it is a real constraint (excessive spending may, before it reaches full employment and causes inflation, determine a rise in imports, a current account deficit, and the appreciation of the national currency). In fact, monetary financing will not involve chronic current account deficits, it will not involve easing or weakening the social contract, and it will avoid a major rise in the public debt.

By defending the fiscal and the exchange rate constraints, I did not defend ‘fiscal austerity’—a right-wing orthodox policy that heterodox economists strongly criticize. My definition of austerity is certainly narrower than the populist definition which identifies it with fiscal discipline. Fiscal austerity, for me, is two things: first, to reject the policy of countercyclical fiscal deficits, and, second, when the economy faces not only inflation but also foreign disequilibrium, to engage only in fiscal adjustment as if the country was a closed economy, instead of using the macroeconomic tools to depreciate the national currency and, in this way, distributing the costs of the adjustment between the salaried people and the rentier capitalists.

MMT, which also views the money supply as endogenous, and clearly stresses that a nation-state cannot go bankrupt, often deduces from this correct premise that the state does not face a fiscal constraint. As Warren Moses remarks, ‘Government fiat money necessarily means that public spending need not be based on revenue’. Randall Wray, in turn, in his major book on MMT, asserts that ‘sovereign governments don’t need to borrow their own currency in order to spend’. These two statements are only partially true and are dangerous. They open room for straightly denying the fiscal constraint. MMT economists have been innovatively and seriously contributing to the critique of neoclassical, or orthodox, fiscal austerity, but what Keynes already said on that matter is enough. I doubt that even progressive politicians will adopt their views on economics. If they are not carefully measured, the corresponding policies can easily cause loss of international competitiveness, inflation, and, with the exception of the United States, currency crises. The capable politicians and policymakers that led today’s rich countries to grow and catch up usually were courageous and innovative but also prudent economists. Although heads of government may, under specific circumstances such as the present ones, resort to money financing without incurring any risks, they must be absolutely aware of this. Good politicians should not be willing to offer the post of finance minister to economists who do not take the financial constraint seriously.

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