CORONAVIRUS AND THE ECONOMY - A POLICY BRIEF
UPDATED 5th April 2020[1]

Contents

ABSTRACT

(1) The coronavirus is both a public health and economic crisis. Its medical solution involves people staying at home and businesses closing temporarily. This acts as a contractionary shock on both the demand and supply-side, and it antithetical to economic recovery. Coupled with the landscape of large corporate debt levels, the economic outlook looks rather pessimistic.

(2) The initial shocks are problematic by themselves, but the bigger concern is the longer-run dangers - private and corporate debt could stifle the recovery if defaults and bankruptcy increases in the meantime.

(3) There are a set of policy responses necessary to maintain liquidity and solvency for individuals, firms and the financial sector. The monetary response should be primarily directed towards liquidity provision in order to maintain the circulation of the economic system. The fiscal policy ought to bear the weight of providing life support during the next few months of economic inactivity for individuals and firms, reducing that time period via healthcare improvements, as well as bringing the economy back to life afterwards.

[1] an earlier summary from late March can be found at tmychow.com

1. Introduction

(1) COVID-19 was first confirmed in Wuhan, China by the WHO in late December 2019. By the start of April 2020, nearly a third of the world's population is now under lockdown.

(2) In the last week of March, 6.6 million people filed unemployment claims in the USA, an all-time high since the Department of Labour began counting in 1967. Combined with the week before, 10 million Americans have lost their jobs - more than the 9 million across the entirety of the 2008 financial crisis.

(3) Throughout March, SP 500 fell 12.5 percent, its single worst month since October 2008. Investors went from selling off developing world investments to selling off riskier developed world corporate bonds to selling off, at least for a while, US Treasury bonds.

(4) It is within this context of confusion and calamity that the coronavirus's impact on the global economy and possible mechanisms of alleviation are considered. Because the public health response of social distancing conflicts with economic performance in the short-run, the measure necessary are unique and unlike any economic crisis in collective memory.

(5) It is first necessary to detail what the actual economic harm from the coronavirus is - this is separated into first-order shocks and second-order mechanisms of perpetuation. Then it is possible to understand the shape of a response package, as well as the specific monetary and fiscal measures required. Once all of this has been considered, a clearer picture of the economic outlook can be discerned.

2. The Initial Shocks

(1) The coronavirus pandemic has first-order implications on demand and supply.

(2) On the supply side, workers are currently unable to go to work due to a variety of reasons: transport infrastructure may be shutdown, they may be self-quarantining or they may have been instructed to stay at home under lockdown. Although some workers can work from home, they may be doing so less productively. This results in a significant reduction in the productive capacity of the economy.

(3) On the demand side, citizens staying at home has reduced the number of consumers for a few sectors. Most notably, shops, restaurants, airlines and various tourism-related businesses have all suffered significant slowdowns. Even other businesses have faced deficient demand as consumers cut into their spending due to their incomes falling.

(4) Combined together, this represents an economic contraction of staggering proportions. Analysts have suggested that in Q2 2020, there could be a 34% annualised quarter-on-quarter fall in US real GDP.[2] In terms of unemployment, some estimates have it rising to 32% in Q2.[3] Although this is a back-of-the-envelope calculation, even models based upon unemployment claims numbers has an estimate of the USA reaching 17% unemployment in the next few weeks.[4]

(5) To put that into context, the unemployment rate was at 3.5% before the coronavirus, peaked at 10% during the Great Recession and 24.9% at its worst in the Great Depression. This would suggest an economic collapse beyond anything that anyone alive will remember. And worryingly, that is just the tip of the iceberg.

[2]Phillips, Hatzius and Gale (2020), *The CARES Act and its Impact on the US Economic Outlook*, Goldman Sachs
[3]Faria-e-Castro (2020), *Estimates of Next Quarter's Unemployment Rate*, Federal Reserve Bank of St. Louis
[4]Rodgers and Stettner (2020), *True March Jobless Rate*, The Century Foundation

3. The Second-Order Propogation

(1) The direct supply and demand-side impacts are overshadowed by second-order mechanisms of deterioration, via government policy exacerbating the slump and via the current balance sheet situation.

(2) Governments are mandating lockdowns and border controls. Although crucial in flattening the curve, this will aggravate the existing collapse by further reducing consumer spending.

(3) The nature of personal and corporate balance sheets is one where most firms have little in cash reserves and where a significant proportion of the population lives paycheck to paycheck, with little in the form of savings. For example, nearly 40% of American adults would have difficulty covering an unexpected expense of $400 with their savings, with 12% being unable to pay for it at all.[5] It is also one where there are historic levels of corporate debt, with companies used to the cheap lending conditions of the past decade and being accustomed to refinancing loans. For many of these over-leveraged firms, it is unlikely that they will be able to roll over their debt in these adverse lending conditions. The easy access to credit has also propped up many inefficient firms that would otherwise have been forced to restructure, resulting in an accumulated level of fragility which is very susceptible to real shocks. Indeed, nearly 40% of global corporate debt was at risk of non-payment if a shock only half as severe as the global financial crisis occurred.[6]

(4) The total amount of non-financial corporate debt at the end of 2019 reached an all-time high of $13.5 trillion, with the average annual global issuance between 2008 and 2020 being double the rate between 2000 and 2007. 51% of these bonds are rated BBB, the lowest rating for investment-grade bonds, and much higher than the 39% between 2000 and 2007. Junk bonds have also grown to 25% of new bonds being issued. There is now over double the amount of corporate debt in real terms compared to December 2008, with lower quality bonds dominating.[7]

(5) Consequently, even a temporary economic shutdown could cause a significant rise in bankruptcies and defaults. Even those that do not become insolvent will likely spend a long time paying off the debt, which in itself slows down the recovery due to reduced corporate spending.

(6) The firesale of what they have could devalue even safe assets, hurting responsible investors such as pension funds. Coupled with this is the possibility of many BBB bonds becoming downgraded to non-investment status, which means that more conservative portfolios e.g. mutual funds may be compelled by regulation to sell them off and buy safer assets. This rush to safer assets lowers yields, meaning that banks have less to lend out, squeezing credit lines for many businesses.

(7) This financial risk is an international one - when there is panic, money stops flowing into developing countries. For one, any investors are likely to seek safe haven with safer assets in developed countries. This depreciates the domestic currency, making imports more expensive. Furthermore, traditional inflows of income such as remittances, commodity exports and tourism are likely to dry up. Thus, developing countries, with underdeveloped bond markets and weak public finances, will be less able to engage in extensive public and private spending.

(8) Indeed, the debt-to-GDP ratio of emerging economies has risen by from 70% to 168% since 2007. This could make funding responses to the coronavirus or stimulating the economy afterwards difficult. The danger of such high debt burdens is evidenced by the fact that around half of the 521 national episodes of rapid debt growth since 1970 have resulted in financial crises.[8]

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[5]Durante and Chen (2019), *Report on the Economic Well-Being of U.S. Households in 2018*, Federal Reserve Board
[6]Adrian (2019), *Global Financial Stability Report Press Briefing*, IMF
[7]Celik, Demirtas and Isaksson (2020), *Corporate Bond Market Trends, Emerging Risks and Monetary Policy*, OECD
[8]Kose, Nagel, Ohnsorge and Sugawara (2020), *Global Waves of Debt: Causes and Consequences*, World Bank Group

4. Where We Stand

(1) The coronavirus's threat to the economy is distinct. It is not simply a situation of deficient demand as Keynes described the Great Depression. Nor is it a financial crisis, where the bursting of an asset bubble leads to a credit crunch. Instead it is a crisis of household incomes and corporate revenues. This means that mitigating this adverse shock in income is important.

(2) At the same time, the financial crisis made it clear that cash is king. The coronavirus has suffocated cash inflows for the foreseeable future, meaning that it is equally vital that this hit to growth doesn't spiral into a liquidity crisis.

(3) Finally, there needs to be a consideration for the long-run. That means helping shorten the period of economic inactivity by supporting the medical response, as well as maintaining the productive capacity of the economy for recovery afterwards.

(4) As such, the response ought to 1. substitute for lost income 2. guarantee the functioning of the financial sector 3. support essential businesses and the healthcare system. This involves both providing liquidity i.e. the provision of credit and postponement of financial obligations, as well as supporting solvency i.e. transfer of real resources.

5. The Monetary Response and its Limits

(1) Monetary policy ought to lower the costs of borrowing and maintain lines of credit. The primary mechanism is to lower the interest rate that central banks charge commercial banks, as well as encouraging regulatory forbearance, whereby banks have lower reserve requirements and capital/liquidity buffers. Forward guidance provided by the central bank is also a useful psychological mechanism to calm the markets.

(2) This is supplemented by the use of quantitative easing. By purchasing various assets from commercial banks and investors, it increases the amount of liquidity within the financial system. Since many interest rates are dependent upon the long-term yields on government bonds, purchasing those long-term government bonds lowers their yield and thus the interest being paid by many households and firms. Furthermore, the lower government bonds yields ensure cheaper borrowing for the government, allowing more fiscal room.

(3) Buttressing this is the expansion of QE beyond traditional purchases of government bonds and agency mortgage-backed securities to include corporate debt. Alongside an expanded QE program is the creation of new central bank facilities, such as the provision of a liquidity backstop for commercial paper and for the repo market to ensure they don't choke up. The former is used by firms to fund short-term costs, while the latter provides short-term liquidity for financial actors.

(4) Further supplementing this is the direct supply of liquidity to firms by assisting in the creation of new corporate bonds, municipal and local debt, as well as asset-backed securities (backed by student loans, car loans, credit car loans etc).

(5) Liquidity provision can be extended internationally via dollar swap lines between central banks, especially from the Federal Reserve, in order to ensure an abundance of dollars in the global financial system. Depending on the state of developing countries, it may become necessary for central banks to purchase emerging market bonds or for multinational institutions to engage in debt relief, given the $2.7 trillion in debt developing countries have to pay back by the end of next year.[9]

[9]UNCTAD (2020), *The Covid-19 Shock to Developing Countries*, United Nations

(6) For example, the Federal Reserve has lowered interest rates to 0%, providing forward guidance that it would remain there till the economy [had] weathered recent events'. It committed to an unlimited amount of asset purchases and set up the PMCCF, SMCCF, TALF, MMLF and CPFF - an alphabet soup of various Fed credit facilities. It also lowered the costs of dollar swaps with other central banks.

(7) The Bank of England has done similarly, both lowering its base rate and using its Asset Purchase Facility to engage in QE. It has extended liquidity provision to banks charging lower interest rates and to those that lend more to SMEs, while also buying up short-term commercial paper to fund businesses via the joint BoE-Treasury Covid Corporate Financing Facility.

(8) Internationally, the European Central Bank similar began using its Pandemic Emergency Purchase Fund to buy up various assets, while ECB President Christine Lagarde had her own Draghi moment by declaring 'no limits to [her] commitment to the Euro'. The IMF has set aside $50 billion to lend to countries facing exigent financial circumstances (with around $700 billion more in its back-up lending capacity), while the World Bank has pledged $12 billion for hard hit developing countries.

(9) Combined together, these steps are crucial in preventing the situation from spiralling into a financial panic and ensuring that credit is readily available - however, central banks are somewhat limited in their effectiveness. This is because interest rates are already low, limiting the extent to which central banks can change the incentive to lend. It is also because banks may not pass on the increased provision of credit, making contingent lending important.

(10) Furthermore, even a limitless provision of cheap credit would at best ensure the problem doesn't propagate into the financial system and perhaps mildly mitigate the liquidity challenges of some firms. But for most cash-strapped businesses, countering the effects of consumers staying at home, workplaces closing and firms cancelling spending plans requires more than just lending alone, making fiscal policy crucial in this regard.

6. The Fiscal Response and its Limits

(1) Fiscal policy ought to take the lead in this crisis, and it is uniquely positioned to resolve all three demands outlined, in a way that monetary policy cannot due to its focus on liquidity.

(2) Firstly, fiscal policy should attempt to provide a substitute for the inevitably lost income of households and firms. This involves the creation of wage subsidies as well as the expansion of unemployment benefits and other social safety nets. Secondly, it should ensure that individuals and firms remain solvent. This can be via tax relief for firms, whether it is by delaying payment or cancelling it altogether. Thirdly, it should support the medical recovery, by subsidising testing and medical costs, as well as funding the production of medical equipment like PPE or ventilators.

(3) The USA's $2.2 trillion CARES bill has several components. It is sending a one-time payment of $1,200 to everyone with income below $75,000 per year, which is phased out till incomes of $99,000 per year. There is an expansion of unemployment insurance by 13 weeks and an additional $600 a week for 4 months, with the plan including freelancers, furloughed workers and gig economy employees. This is on top of state-provided unemployment insurance, which is $385 a week on average.

(4) For businesses with fewer than 500 employees, alongside a payroll tax credit, there is a provision of $367 billion in loans, with those loans being forgiven if they paid their employees for the duration of the crisis. For firms more generally, this is buttressed by $500 billion in loans, conditional upon no stock buybacks until a year after the loan is repaid and retaining 90% of workers for 6 months.

(5) Finally, there is $150 billion for state and local governments and $150 billion for healthcare. Part of that can be used to pay for the Defence Production Act, whereby Trump can order a company to produce goods in the interest of national security, as he has by getting General Motors to make ventilators.

(6) In the UK, Chancellor Rishi Sunak announced a similar set of measures with a few key differences. Like in the USA, there is a package worth £330 billion comprised of loans to firms hurt by the coronavirus and cash grants to 700,000 small businesses. However, unlike in the USA, the government will pay 80% of wage for those who have been furloughed due to the coronavirus for up to £2,500 a month for at least three months, including self-employed workers. That is equivalent to paying up to the median wage.

(7) Perhaps most importantly, he has been clear in his determination, saying that he has the legal authority to "offer whatever further financial support necessary". Combined together, these all represent enormous fiscal commitments that will help individuals and businesses stay afloat. Compared to 2008, when even a $787 billion stimulus was difficult to pass in the USA, this is a big step forward.

(8) But these programs aren't the complete solution. The latency alone is a problem, with some estimating that paychecks may only arrive in mid-April. Given 12% of Americans don't file taxes, the mechanisms by which people could get the paychecks is complicated. The unemployment insurance is likewise imperfect, because it lasts till around July, when the crisis is unlikely to be over.

(9) Similarly, the small business loans in the USA are unnecessarily conditional and confusing, covering expenses up till the start of June at best. Compared to the British and Danish models of direct subsidies, it is likely to make some businesses reluctant to get help. The state and local loans are also too small, and are likely insufficient to forestall budget cuts.

(10) In this vein, fiscal responses likely will be needed again - and all of this could be avoided if there were an automatic stabilisation mechanism. One idea is the 'Sahm Rule', which reflects the fact that historically, when the unemployment rate over the past three months rises at least 0.5 percentage points above the average over the past 12 months, a recession is imminent. This could be implemented as giving a paycheck to individuals every month the employment-to-population ratio of working age adults is below 80.5%, which is where it was before the coronavirus.

(11) A similar principle could be used to loans and grants to state and municipal governments, as well as for unemployment insurance payments. The former would better provide local aid, which is crucial for the 27.9 million not covered by medical insurance, while the latter is loosely what Senator Michael Bennet has proposed in his bill.

7. The Outlook Going Forward

Ultimately, the best case scenario is where the economy goes into deep freeze for a few months, while fiscal and monetary policy sustain necessities, before the economy bounces back quickly via the pent-up demand. The worst case is an economic calamity alongside a medical one, with the consequences of bankruptcies and unemployment lasting long after the crisis is over. Leaders around the world cannot afford to be complacent, and assume that they have exhausted their options. There is reason to be optimistic - the scale of the threat is sufficiently large that there appears to be consensus for an unprecedented and aggressive response. But even after the virus is tamed, the most optimistic outlook of the world afterwards is still a difficult one, where the road to recovery is not smooth at all.