J. McAndrews, Economic and Financial Responses to the Coronavirus

March 15, 2020

James McAndrews[1]

What principles should guide our government's responses to the economic fallout of the Covid-19 pandemic?

To answer the question, it helps if we have a good model of what is happening.

Perhaps the best way to think about the effects of Covid-19 on the economy is to use one of the best models in economics: the circular flow. One can picture the circular flow as a sort of M.C. Escher-like stream, always flowing downhill and yet in a circle. Workers flow to businesses, products and services flow out of businesses to consumers, the consumers are workers who flow to businesses, etc., in a healthy widening gyre.

Above this flowing activity is another circular flow—a halo of sorts—that represents financial flows. Expenditures from consumers flow to businesses; wages, rents, and interest flow to workers, landlords, and lenders.

Markets can be thought of as traffic signals located in the stream that help everyone flow at the right pace and to the right place. Markets help workers get to the right businesses, they help businesses find the right equipment, they help determine how big consumers' expenditures will be, help businesses decide whether to expand or contract production, and so on. The traffic signals in the financial stream also help direct loans to businesses and households, provide incentives for individuals to save, and set the rate of interest—the trade-off between consuming now or saving for the future. Banks can be thought of as straddling the two streams, active in financial markets, but lending directly to households and businesses to finance real investment.

The government, including the central bank, is on the island around which the circular stream and its halo flow, connecting with the broader stream via canals. Some workers flow to the government, and services such as schools, roads, courts flow out to households and businesses from the government. Importantly, in the financial stream, taxes flow to the government, and payments from the government flow to households and business, via social security, crop support payments, wages and rents, expenditures for medical inputs, etc.

With that model in place, let's think of the Covid-19 risk, and the containment measures that are now necessary to prevent widespread transmission of the disease, as a leak of workers, businesses, and consumers from the circular flow into a pond nearby the circular stream. Fewer workers flow to businesses, less production of goods and services flow to consumers because of the leakage of those factors into the still pond. Furthermore, the financial stream suffers a similar leak. Much of the expenditure of those quarantined does not take place, businesses do not earn revenues, and workers don't earn wages.

One might imagine that this sudden leakage from the stream is manageable. Suppose, for instance, that half of all people go into quarantine for a few months, and, moreover, all payments to and from those people were held in abeyance during the period of quarantine—a sort of temporary payment and interest Jubilee. Then we might imagine that the flows around the circular stream and its halo would continue unimpeded, although on a diminished basis.

Several factors make such a Jubilee unworkable. In general, the leakage from the circular stream is disruptive to the flow with some people earning income but not spending, and others not earning but needing to spend. These imbalances will cause impedance and turbulence in the flow of economic and financial goods and services. We can group these factors into four broad categories: unbalanced flows, prices and expectations, contractual rigidities, and rejoining the stream.

Unbalanced flows: Flows of expenditures must still occur for households in quarantine, but their productivity is diminished while they are away from work. While some people can work from home, many cannot. So where does the money for their expenditures come from? This is an example of an unbalanced flow: expenditures must be made, but no source of income is flowing into the household. The same is true for businesses: many businesses cannot produce (such as airlines, for example) but must still make expenditures to maintain equipment and pay other necessary costs. Such unbalanced flows require a source of funding from outside the circular flow, as individual households and businesses with limited wealth cannot sustain expenditures for long without corresponding inflows of income.

Prices and expectations: The traffic signals that help route the flow of workers, goods and services, loans and savings, i.e., markets, rely on expectations of how many of those factors are needed. Those expectations are human sentiments—they are based on experience, foresight, and the usual patterns of behavior. But given the sudden leakage from the flow and the resulting imbalances in flows, expectations will be more disperse and markets will not perform as smoothly as is usually the case. These “start/stop” moves can lead to a further slowing of activity around the stream.

Contractual Rigidities: A lot of the traffic in the stream is guided by past agreements, or contracts. Those contracts include home mortgages, leases, credit card loans, employment contracts, etc. Like the stockpiles of wealth that allow individuals and businesses to continue expenditures even without an offsetting flow of income, these contracts have their limits. They often do not have a “reset” button; in general, if a homeowner misses too many payments on her mortgage, she defaults, and ownership of the house passes to the owner of the mortgage. The reasons why the homeowner missed the payments usually does not matter, even if there is a systemic medical emergency, such as a pandemic, that prevents the homeowner from going to work and to earn income.

Rejoining the stream: Once one has left the circular flow of economic activity, it requires some significant force to rejoin it. It can require getting a new job, finding new customers, doing business in a new way, and, crucially, having the confidence that one is not endangering others, such as one’s customers or family members, by venturing out into the stream of activity. These actions to get a new job, find new customers, establish new ways of doing business, are all costly. The people and businesses in the still pond have not had a flow of income to provide for their expenditures, and the extraordinary expenses of rejoining the stream will be additional shortfalls for them.

As we review policies to limit the damage to the economy, we should first recognize that without policies directed at maintaining the circular flow there is a risk that because of the impediments to the flow we just reviewed, the flow could continue to diminish, and because of the costs to rejoin the flow many people and businesses could become stuck in the still pond of a stagnating economy. So, without vigorous policies to support economic activity the flow could remain only a trickle, even after a possible diminution of the Covid-19 threat.

What can be done about this? Some ways to get the flows going again involve monetary policy – increasing government spending, monetizing that spending, monetizing mortgages, increasing the ability of banks to create more money. But other government actions are also required including adjustments to contract obligations, transfer payments, providing actionable data on risks, encouragement and help in matching workers and businesses once the quarantines are lifted. More than monetary policy alone will be needed to counteract the contraction of the flow of economic activity. We need to counteract each of the impediments identified above in order to restore the economic flow.

1. Income support policies to counteract unbalanced flows

In all private companies and families there is a limit to the financial losses that they can sustain. After the limit is reached, the company is bankrupt, and must suspend its payment of debt. It may have to stop its operations if its revenues aren't sufficient to cover its operating expenses. As we seek to curtail the spread of the virus by limiting travel and large gatherings, many businesses will leak from the circular flow and sustain losses.

It is important to distinguish systemic risks to the economy from other risks. A systemic risk is one that threatens a large part of economic activity. In this crisis, the suspension of large gatherings touches almost every business and threatens the systemic stability of the economy. In such a case, it falls to a source of funding from outside the stream—i.e., the public sector, which can draw on future taxes to finance current spending—to replace that income and provide those services or the recuperative powers of the economy may be permanently damaged.

Further, it is apparent that usually prudent actions by individuals—to avoid sick days and excessive medical tests for fear of the loss of income or the costs involved—are perverse in the case of a pandemic. The public sector should assume these costs immediately.

With so many widespread declines in economic activity, from travel, sports, manufacturing, restaurants, and many others, a good way to approach this loss of income is to provide immediate income support to individuals, especially those with low incomes and wealth, who face significant hardships if their income is interrupted. Emergency provision of Medicaid, food stamps, and other government benefits to a much broader population would be especially helpful. Extended unemployment benefits too will be important for people who exit the flow of economic activity through job loss.

Another component of maintaining the economy’s capacity to function would be to provide guarantees for new debt offerings by businesses, especially those industries hit by the quarantine, going forward. Such guarantees need to be carefully designed to provide the right incentives for businesses to expand when demand for services are revived, to help them rejoin the flow of economic activity.

2. Monetary policies to address prices and expectations

Governmental policy is crucial in guiding expectations of participants in markets. This is clear in many venues. An example of the need for coordination are the actions of governments in shutting down schools, and reopening them; that coordination allows whole populations to plan for their child-care and family meals. More broadly, if private agents' pessimism and liquidity constraints lead to prices that portend future disaster, the government can assist society by reassuring the public that, at a minimum, it will provide goods and services in the future, and will avert disaster.

Some of these actions can be done through the central bank. Last week, for example, the Federal Reserve announced its willingness to lend in large amounts against Treasury collateral to private broker-dealers on favorable terms to support the borrowers' business in dealing in Treasury securities. The market for Treasury securities is one of those traffic signals—an important one—that assist in moderating the flow in financial markets.

Accommodative monetary policies will be needed to reassure people that they can borrow on favorable terms now. To support that belief, the Fed should restart the program to purchase mortgage-backed securities (MBS) guaranteed by Fannie Mae and Freddie Mac. Furthermore, because of the uncertain value of many loans now on the books of banks, the Fed should also restart the Term Auction Facility, which provides longer-term financing to banks against the collateral of bank loans. That will support the willingness of banks to lend more freely. Those programs should be seen in the light of the confidence and guidance they convey to the public, just as much as they function directly on interest rates and amounts lent.

The Fed has an important role in keeping the financial flows moving; if the financial flow is impeded the flow of economic activity is also disrupted. But the Fed must ensure that nonfinancial firms can receive loans, even if the private financial system is in disarray. It should restart the Commercial Paper Funding Facility, which lends to nonfinancial firms directly against firms' new issuances of commercial paper—short term borrowing by firms. So long as that commercial paper is rated highly, the Fed should help support the flow of credit to nonfinancial firms; again, this policy is, at least in part, to instill confidence that firms can borrow in the future if needed, as much as it is to funnel needed funds to firms now.

Other monetary policy moves are needed for the economy that is diminished by the leakage from the circular flow. Interest rates should be lowered to their effective zero lower bound. Purchases of Treasuries should be expanded. There are novel policies that will be required to address problems that are not yet apparent.

3. Mediation and debt workouts to address contractual rigidities

The administration has announced a temporary waiver of payments of interest on student loans held by federal agencies. Such contractual flexibility is an example of what is likely to be needed on a much broader scale by workers and companies whose jobs and business are interrupted and removed from the circular flow of economic activity. While a widespread Jubilee of debt forgiveness may be neither feasible nor effective, delaying interest payments, writing down principal amounts, and other compromises by debtors and creditors can be very effective in keeping debtors from defaulting while maintaining the long-term viability of debts.

Banking supervisory policy is important in allowing banks to continue to finance debt that is in arrears, so it is important for bank supervisors to provide and to implement guidance to banks that relax some of the strict rules on classifying debt as delinquent. Fiscal policy to provide alternative sources of income to debtors to assist them in meeting their obligations is vital.

4. Grants and data to address rejoining the stream

In addition to fiscal support to people and businesses that have been excluded from the stream of economic activity by the threat of Covid-19, fiscal support will be needed to assist in financing some the activities necessary to get people back into the flow of economic life. The longer economic activity is interrupted, the more important will be this part of the policy response. Policies to sponsor job fairs, advertising them, and providing grants to businesses to reopen businesses may prove very beneficial in assisting the restart of economic activity.

To reopen a business, an owner must have the confidence that its activity won’t endanger its customers, and similarly, in going back to work, a worker must have the confidence that by doing so, she is not threatening her family with an infection of Covid-19. To be blunt, providing such confidence will require real data on the prevalence of the virus, necessitating widespread testing for it; it will not be provided by self-congratulatory pronouncements from glad-handing government officials. This should be a key policy by governments at all levels.

The Covid-19 crisis has quickly drained much of the dynamic activity from the circular flow of the economy into a still pond of isolation, worry, and expense. Our government is needed to supply income and promises of future support throughout the economy to combat this systemic stop in activity and to lay the foundation for a resumption of the normal flow of economic activity. Carefully designing policies to ameliorate rigid contract terms in debt and other contracts, to guide expectations, assist markets to function and to avoid excessive pessimism, to provide income, food, and medical support to those made destitute by the crisis, and to build ramps for everyone to rejoin the flow of economic participation is of utmost importance for us to emerge from this crisis with a strong economy.

---

[1] TNB USA Inc. and Wharton Financial Institutions Center. In this essay, I confine myself to general economic and financial policy responses to prevalence and threat of Covid-19. We must aggressively work to contain the spread of the virus itself, in large part to protect the capacity of the medical system to function in its role to treat patients afflicted with Covid-19 and other diseases. I will focus in this essay of economic and financial policies, and not address the important public health issues involved.

Special Edition: Money in the Time of Coronavirus

Special Edition: Money in the Time of Coronavirus

Prompt for Discussion

Contributors: Katharina Pistor, James McAndrews, Saule Omarova, Mark Blyth, Jamee Moudud, Elham Saeidinezhad, Dan Awrey, Fadhel Kaboub, Leah Downey, Virginia France, Lev Menand, Nadav Orian Peer, Robert Hockett, Carolyn Sissoko, Jens van 't Klooster, Oscar Perry Abello, and Gerald Epstein

Download PDF

The financial strains brought by the coronavirus outbreak feel strangely reminiscent of 2008, and yet, markedly different. In the United States, at the writing of this prompt, the S&P 500 has crashed 25%, and the federal funds target rate is once again moving towards the zero bound. The treasury securities market is in disarray, and the Federal Reserve is set to increase its repo lending by over one trillion. In Washington, the administration's insistence that concerns were overblown is now replaced with negotiations over the size and shape of a stimulus package. "I don't want to use the b-word", said a senior administration official about plans to support distressed industries, like airlines. The b-word is, of course, bailout.

So far, so 2008. But the monetary dynamics we are witnessing in the time of corona also take us into new territory. The proximate cause of the crisis past came from within the financial system itself: the housing credit bubble and abuses in subprime lending. The corona crisis, on the other hand, emerges from a material threat to human health. Where the 2008 crisis revealed the vulnerabilities of *financial* globalization, the corona crisis is disrupting the global *production* system, upending supply chains, and threatening shortages in essential inventories.

We wonder about the extent to which the policy arsenal of 2008 can contain the dislocations currently occurring, and what, exactly, stimulating consumer demand means when the consumer herself is in quarantine. Moreover, the crisis response to the corona crisis is taking place within an institutional setting that was itself reshaped by the 2008 crisis reforms. As corona strains unfold, it remains to be seen whether the promise of financial resilience will be borne out, or whether fundamental design flaws left in place will frustrate reformers’ efforts.

In this Special Edition Roundtable, JM invites contributors to provide live analysis of money in the time of corona, here in the U.S., and around the world.

***

Contributions

June 29, 2020
[Roundtable Wrap-up]
Sannoy Das, Harvard Law School

May 21, 2020
[Human Capital Bonds and Federal Reserve Support for Public Education: The Public Education Emergency Finance Facility (PEEFF)]
Gerald Epstein, University of Massachusetts Amherst

May 12, 2020
[The Fed Should Bail Out Low-Income Tenants and Not Just Banks and Landlords]
Duncan Kennedy, Harvard Law School

April 29, 2020
[Getting to Know a Brave New Fed]
Oscar Perry Abello, [Next City]

April 10, 2020
[The Problem with Shareholder Bailouts isn't Moral Hazard, but Undermining State Capacity]
Carolyn Sissoko, University of the West of England

April 2, 2020
[Crises, Bailouts, and the Case for a National Investment Authority]
Saule Omarova, Cornell Law School

March 31, 2020

Why the US Congress Gives Dollars to the Fed
Jens van 't Klooster, KU Leuven and University of Amsterdam

March 26, 2020
A Fire Sale in the US Treasury Market: What the Coronavirus Crisis Teaches us About the Fundamental Instability of our Current Financial Structure
Carolyn Sissoko, University of the West of England

March 25, 2020
The Democratic Digital Dollar: A 'Treasury Direct' Option
Robert Hockett, Cornell Law School

March 22, 2020
Derivative Failures
James McAndrews, TNB USA Inc. and Wharton Financial Institutions Center

March 20, 2020
The Case for Free Money (a real Libra)
Katharina Pistor, Columbia Law School

March 19, 2020
The Monetary/Fiscal Divide is Still Getting in Our Way
Leah Downey, Edmond J. Safra Center for Ethics at *Harvard University*

March 18, 2020
Is Monetary System as Systemic and International as Coronavirus?
Elham Saeidinezad, UCLA Department of Economics

March 17, 2020
[Here We Go Again? Not Really]
Dan Awrey, Cornell Law School

March 16, 2020
[Repo in the Time of Corona]
Nadav Orian Peer, Colorado Law

March 16, 2020
[Beyond Pathogenic Politics]
Jamee K. Moudud, Sarah Lawrence College

March 15, 2020
[Economic and Financial Responses to the Coronavirus]
James McAndrews, TNB USA Inc. and Wharton Financial Institutions Center

---

J. McAndrews, Derivative Failures

March 22, 2020

James McAndrews, TNB USA Inc. and Wharton Financial Institutions Center

> *In wild periods of alarm, one failure makes many, and the best way to prevent the derivative failures is to arrest the primary failure which causes them.*
>
> *Walter Bagehot, Lombard Street*

One failure makes many, wrote Bagehot, the dean of financial crisis analysts. When economies are in wild alarm, as in the fall of 2008, a failure, like the Lehman Bros. failure, can reverberate throughout the financial system, causing a wave of rescue efforts and other failures.

Our current crisis and its anxiety are borne of a different cause. Large parts of the economy have been shuttered, not because of financial stringency or economic insufficiency. Instead, conscious decisions have been made that to save lives it is necessary to close shop.

Bagehot’s words have a different interpretation now: the best way to overcome the crisis is to arrest the spread of Covid-19, the primary failure. Surely, arresting the spread of Covid-19 through means other than social distancing remains many months away. We are left with the question of how best to prevent, or, if unsuccessful in prevention, to cope with the derivative failures.

That reduced economic activity is a derivative failure of the spread of Covid-19 demands different reactions from policy makers from more familiar recession scenarios, often caused by excessively tight monetary policy. Further, with policy rates in many advanced economies near or below zero, the room for a several percentage point drop in policy rates doesn’t exist. What steps are crucial to counter the deepening social distancing recession?

First, we must support, protect, and direct resources to the health sector to maintain and even increase its capacity. Second, outside of the health care sector, much economic activity need not be stimulated at present; instead it needs to continue to be suppressed. Third, we must work in every dimension to prevent hardship to those who are suffering—those who have or will lose their employment or income, who are isolated from necessary support, or are laboring in difficult circumstances. Finally, it is important now to preserve the knowledge and capital, much of it human capital, in society in general and also in firms.

The two elements of assisting those who have lost employment and income and preserving society’s ability to recover once the primary failure is arrested, have been the subject of many essays in this series and elsewhere. There are many laudable suggestions. In the remainder of this essay, I’ll discuss how governments might best preserve the ability of firms to survive the crisis.

As Dan Awrey pointed out in his essay, the Federal Reserve’s recent expansion of lending is welcome in that it is designed to “prevent dislocation within private money markets from triggering the failure of otherwise healthy banks and other financial institutions, along with the consequent withdrawal of lending, deposit-taking, and other key financial services.” These recent actions by the Federal Reserve are important building blocks in preserving the financial services that all modern economies rely on.

The Fed's actions alone cannot preserve the ability of many nonfinancial firms to survive a long period of inactivity. The Federal Reserve's lending is based on counterparties delivering collateral to the Fed. That collateral consists of loans to firms, but for the firms to receive the loans in the first place, the lender must be confident in the firm's ability to repay. In the current crisis and as the slowdown continues, that confidence to lend will disappear. To maintain the confidence of lenders, there is an urgent need for Congress to provide assistance with pandemic insurance, in a fashion similar to the Terrorism Risk Insurance Act in 2002. Many lenders will refrain from lending if borrowers don't have insurance for business interruptions caused by pandemics, but we'll need the federal government to provide reinsurance to private insurers.

Some adjustments to the Fed's programs can improve their efficacy during this slowdown. The joint U.K Treasury and Bank of England program for lending to firms, the Covid Corporate Financing Facility, has many features worth emulating here in the U.S. It measures firms' credit quality prior to the spread of the pandemic; it allows firms that had not before issued commercial paper to participate in the facility; it uses measures of credit quality beyond those of ratings agencies; it allows firms of relatively lower credit quality to participate in the facility; finally, it aims to match market pricing prior the economic shock from Covid. The U.K.'s CCFF is open to all firms that "make a material contribution to the U.K. economy." Broadly inclusive features like those should be adopted by the Federal Reserve for its CPFF.

Firms also face the specter of paying interest and principal on their existing borrowing. Without the ability to refinance those borrowings and to borrow additional amounts to make interest payments, many won't have the revenue to sustain the required principal and interest payments. Financial regulators have issued helpful guidance to banks to continue to support businesses and households Nonetheless, as the slowdown continues the confidence to lend will surely be drained from the circular flow of economic activity, limiting the efficacy of the Fed's lending programs and guidance.

Consequently, much more must be done to preserve firms in the face of the slowdown. Simply providing funds to specific firms now, as is currently being discussed in Congress with respect to the airlines, is not likely to be effective. We have little idea how long the slowdown will persist, and we have not assessed which firms are crucial to any anticipated recovery. Spending resources injudiciously now may prevent us from applying those same resources in more effective ways in just a few months.

Some principles can assist us in determining which firms should be a priority for extraordinary government assistance. Like the auto firms in the wake of the global financial crisis, firms that have both significant employment and high capital intensity are vital to preserve. Firms with high capital intensity are difficult to replicate, and this is true for firms that employ highly skilled workers, that is, firms that have high human capital intensity. A second principle is that firms that provide inputs to others are likely more systemic in their operation than those that provide final goods. For example, a computer chip manufacturer is likely more systemic than a computer manufacturer. Finally, extraordinary assistance should only be considered if broad-based, widely available facilities to help most firms are already in place.

It is difficult to make the determination of where to focus resources as such triage decisions are most excruciating. But the government will make such decision according to some principles. It is vital that the government should make its principles explicit, so that people can understand the reasons the government is acting and can better forecast future interventions. In general, society needs to examine, through democratic methods in Congress, which firms are harder to replace than others, and which are more systemic in their effects on other firms and focus its preservation efforts on those firms.

Notwithstanding how difficult it was to replace the auto firms given their importance to the economy, the auto firms were put through bankruptcy in 2008-2014 and continued to operate. That approach was possible, in part, because many other firms were not also in the same straits as the auto firms. New policies to reorganize the finances of systemically important firms that cannot service their debt will have to be considered.

The current crisis will strain our finances, but it may strain our imaginations even further. How to deal with the derivative failures caused by an extended shutdown of the economy without impairing the ability of the economy to recover is one such challenge. We should avoid a rush to throw money at industries randomly. Instead a pledge to preserve the economy, to direct resources at particular industries and firms, and to do so in a deliberative and democratic way, is likely to be more effective in addressing the failures that will result from this abrupt recession.