

Understanding the Economic Shock of Coronavirus

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As the coronavirus continues its march around the world, governments have turned to proven public health measures, such as social distancing, to physically disrupt the contagion. Yet, doing so has severed the flow of goods and people, stalled economies, and is in the process of delivering a global recession. Economic contagion is now spreading as fast as the disease itself.

This didn't look plausible even a few weeks ago. As the virus began to spread, politicians, policy makers, and markets, informed by the pattern of historical outbreaks, looked on while the early (and thus more effective and less costly) window for social distancing closed. Now, much further along the disease trajectory, the economic costs are much higher, and predicting the path ahead has become nearly impossible, as multiple dimensions of the crisis are unprecedented and unknowable.

In this uncharted territory, naming a global recession adds little clarity beyond setting the expectation of negative growth. Pressing questions include the path of the shock and recovery, whether economies will be able to return to their pre-shock output levels and growth rates, and whether there will be any structural legacy from the coronavirus crisis.

Darker outlook, less visibility

The window for social distancing — the only known approach to effectively address the disease — is short. In Hubei province it was missed, but the rest of China made sure not to miss it. In Italy the window was missed, and then the rest of Europe missed it too. In the U.S., still constrained by insufficient testing, the early window was also missed. As the disease proliferates, social-distancing measures will have to be enacted more broadly and for longer to achieve the same effect, choking economic activity in the process.

Another wave of infections remains a real possibility, meaning that even countries that acted relatively quickly are still at risk every time they nudge their economies back to work. Indeed, we have seen some resurgence of the virus in Singapore and Hong Kong. In that sense, only history will tell if their early and aggressive responses paid off.

At present, the economic outlook for late actors looks bleak, having caught politicians, policy makers, and financial markets off guard. What happened in the last four weeks was not part of the risk calculation. Forecasts won't help much here. For example, consensus estimates for initial unemployment claims in the U.S. were around 1.6 million this week, but the figure came in at 3.28 million — an historically unprecedented figure, about five times greater than the largest weekly increase in the global financial crisis. Notoriously unreliable at the best of times, forecasts look especially dubious now as there are simply too many unknowable aspects:

- The virus' properties are not fully understood and could change.
- The role of asymptomatic patients is still imperfectly understood.
- The true rates of infection and immunity are therefore uncertain, especially where testing is limited.
- Policy responses will be uneven, often delayed, and there will be missteps.
- The reactions of firms and households are uncertain.

Perhaps the only certainty is that any attempt at a definitive forecast will fail. However, we think examining various scenarios still adds value in this environment of limited visibility.

Examining the shape of the shock

The concept of a recession is binary and blunt. All it says is that expectations have flipped from positive to negative growth, at least for two consecutive quarters.

We think the bigger scenario question revolves around the shape of the shock — what we call “shock geometry” — and its structural legacy. What drives the economic impact path of a shock, and where does Covid-19 fit in?

To illustrate, consider how the same shock —the global financial crisis — led to recessions with vastly different progressions and recoveries in three sample countries:

- V-

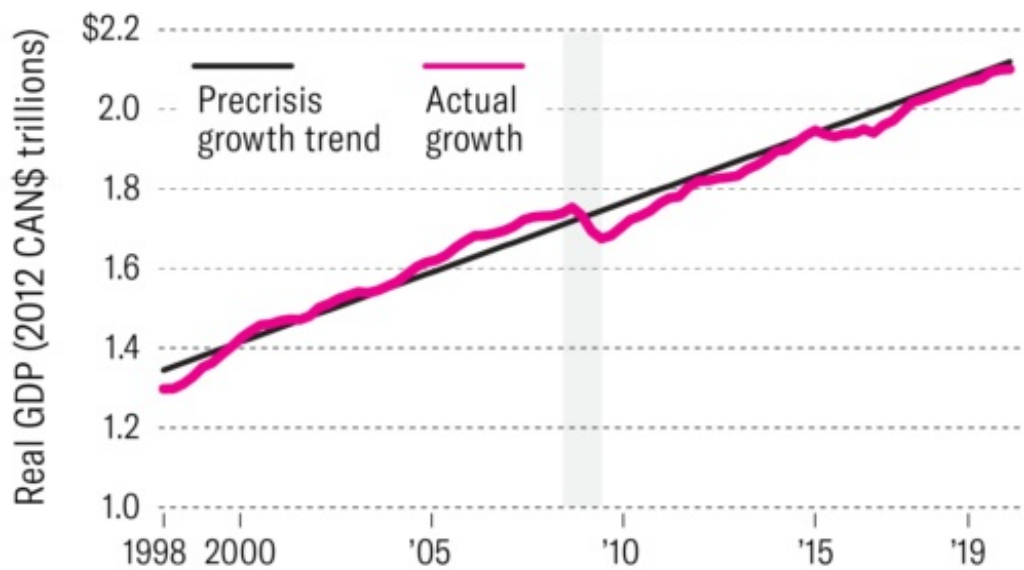
Example's Shock & Recovery

shape.
 In 2008,
Canada
 avoided
 a
 banking
 crisis:
 Credit

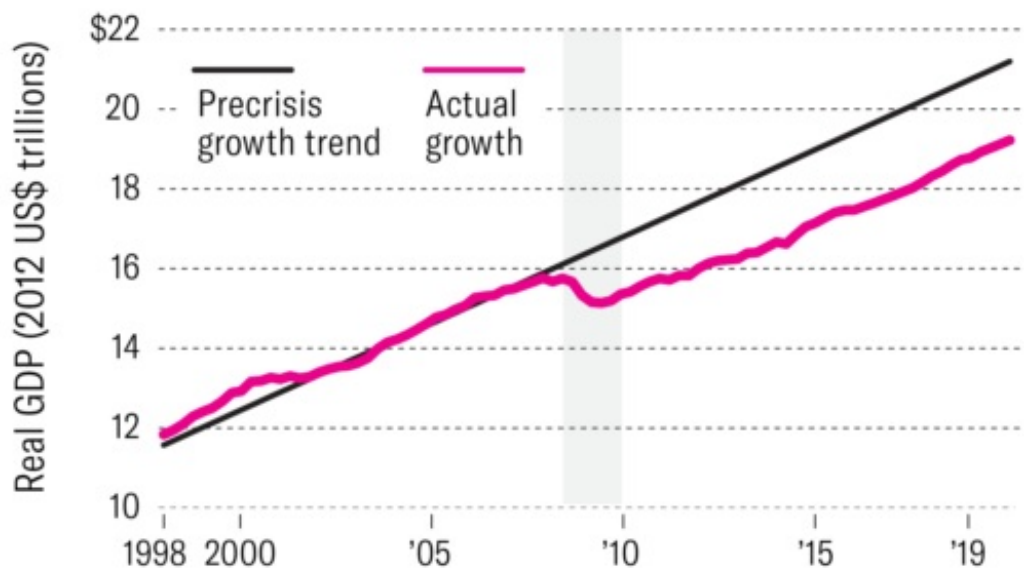
Economic Shock: 3 Examples

The concept of a recession is binary and blunt. The bigger-scenario question revolves around the shape of the shock and its structural legacy. To illustrate, consider how the 2008 global financial crisis delivered recessions in three sample countries, yet followed vastly different shapes in terms of shock progression and recovery.

V-shaped (Canada)

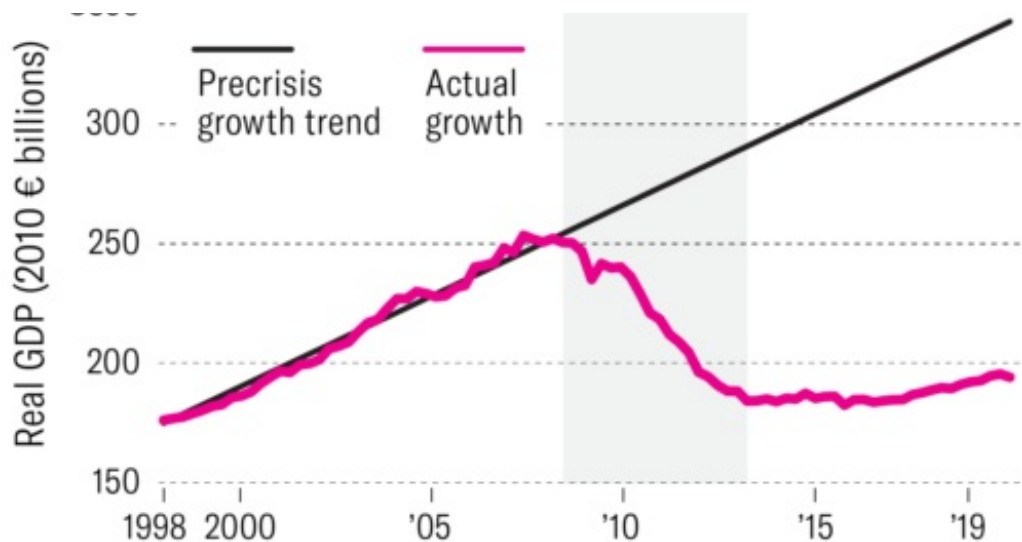


U-shaped (United States)



L-shaped (Greece)





Source: Statistics Canada, NBER, BEA, Hellenic Statistical Authority, BCG Center for Macroeconomics Analysis



continued to flow, and capital formation was not as significantly disrupted. Avoiding a deeper collapse helped keep labor in place and prevented skill atrophy. GDP dropped but substantially climbed back to its pre-crisis path. This is typical of a classic “V-shape” shock, where output is displaced but growth eventually rebounds to its old path.

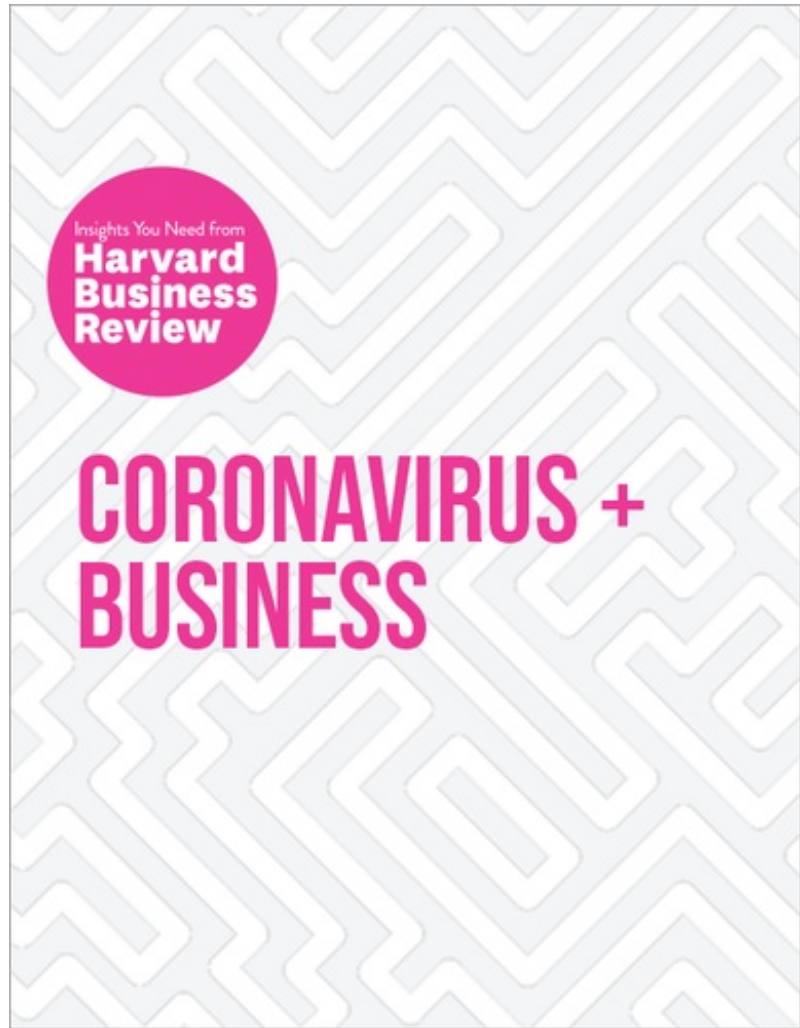
- **U-shape. The United States** had a markedly different path. Growth dropped precipitously and never rebounded to its pre-crisis path. Note that the growth *rate* recovered (the slopes are the same), but the gap between the old and new path remains large, representing a one-off damage to the economy’s supply side, and indefinitely lost output. This was driven by a deep banking crisis that disrupted credit intermediation. As the recession dragged on, it did more damage to the labor supply and productivity. The U.S. in 2008 is a classic “U-shape” — a much more costly version than Canada’s V-shape.
- **L-shape. Greece** is the third example and by far the worst shape — not only has the country never recovered its prior output path, but also its growth rate has declined. The distance between old and new path is widening, with lost output continuously growing. This means the crisis has left lasting structural damage to the economy’s supply side. Capital inputs, labor inputs, and productivity are repeatedly damaged. Greece can be seen as an example of L-shape, by far the most pernicious shape.

So, what drives “shock geometry” as shown above? The key determinant is the shock’s ability to damage an economy’s supply side, and more specifically, capital formation. When credit intermediation is disrupted and the capital stock doesn’t grow, recovery is slow, workers exit the workforce, skills are lost, productivity is down. The shock becomes structural.

V, U, L shocks can come in different intensities. A V-shaped path may be shallow or deep. A U-shape may come with a deep drop to a new growth path or a small one.

Further Reading

Where does the coronavirus shock fit in so far? The intensity of the shock will be determined by the underlying virus properties, policy responses, as well as consumer and corporate behavior in the face of adversity. But the shape of the shock is determined by the virus' capacity to damage economies' supply side, particularly capital formation. At this point, both a deep V-shape and a U are plausible. The battle ahead is to prevent a clear U trajectory.



Understand the damage mechanisms

Keeping the geometries above in mind, this leads to two questions about the Covid-19 shock:

- What is the mechanism for damage to the supply side?
- What is the policy response to prevent such damage?

Classically, financial crises cripple an economy's supply side. There is a long history of such crisis, and policy makers have learned much about dealing with them. But coronavirus extends liquidity and capital problems to the real economy — and does so at unprecedented scale. As though the twin risk of financial and real liquidity shocks were not enough, they are also interrelated, raising the stakes.

Let's look in more detail at the two paths for Covid-19 to deliver structural damage in a U-shaped scenario:

- **Financial system risks.** The unprecedented Covid-19 shock has already generated stress in capital markets, triggering a forceful response from central banks. If liquidity problems persist and real economy problems lead to write-downs, capital problems can arise. While from a policy perspective we may know the solutions, bailouts and recapitalization of banks are politically controversial. In the case of a financial crisis, capital formation would take a huge hit, driving a prolonged slump with damage to labor and productivity as well.
- **Extended real economy “freeze.”** The truly unprecedented possibility. Months of social distancing could disrupt capital formation and ultimately labor participation and productivity growth. Unlike financial crises, an extended freeze of this magnitude damaging the supply side would be new territory for policy makers.

The financial and real economy risks are interrelated in two ways: First, a prolonged Covid-19 crisis could drive up the number of real economy bankruptcies, which makes it even harder for the financial system to manage. Meanwhile, a financial crisis would starve the real economy of credit.

It is fair to say the risk profile of the Covid-19 crisis is particularly threatening.

While there is a policy playbook for dealing with financial crises, no such thing exists for a large-scale real economy freeze. There is no off-the-shelf cure for liquidity problems of entire real economies.

Two Economic Supply-Side Threats from Covid-19

The Covid-19 shock uniquely raises liquidity and capital risks in both the financial system *and* the real economy simultaneously.



Source: BCG Center for Macroeconomics analysis



Innovating out of the shock

It is important to recognize that none of the shock scenarios outlined above will be inevitable, linear, or uniform across geographies. Countries will have considerably different experiences for two reasons: the structural resilience of economies to absorb such shocks — call it destiny — and the capacity of medical researchers and policy

makers to respond in new ways to an unprecedented challenge — call it innovation. Can they create novel interventions, at unprecedented speed, that will break the intractable and unattractive tradeoff between lost lives and creating economic misery?

On the medical side: It's clear that a vaccine would reduce the need for social distancing and thus relax the policy's chokehold on the global economy. But timelines are likely long, and so the focus may well have to be on incremental innovation within the confines of existing solutions.

Examples of such innovation may be found across the entire medical spectrum: on the therapeutic end, existing treatments may prove effective in fighting the disease. Several dozen existing treatments are currently being evaluated. On the other end of the spectrum, organizational innovation will be needed to free up capacity to meet the demand for resources, such as the optimal mobilization of medical professionals, repurposing of spaces for treatment, and changes to triaging medical care to prioritize the Covid-19 crisis.

On the economic side: In the U.S., politicians have passed a \$2 trillion stimulus package to soften the blow of the coronavirus crisis. But policy innovation also will have to occur. For example, central banks operate so-called "discount windows" that provide unlimited short-term finance to ensure liquidity problems don't break the banking system. What is needed now, today, is a "real economy discount window" that can also deliver unlimited liquidity to sound households and firms.

The emerging policy landscape includes many worthwhile ideas. Among those are "bridge loans" that offer zero-interest loans to households and firms for the duration of the crisis and a generous repayment period; a moratorium on mortgage payments for residential and commercial borrowers; or using bank regulators to lean on banks to provide finance and to rework terms on existing loans. Such policy innovation could have meaningful impact in softening the virus' impact on economies' supply side. Yet it also needs agile and efficient execution.

We think there is a chance for innovation to prevent a full-blown U-shape, keeping the shock's path closer to a deep V-shape than would otherwise be possible. But the battle is underway, and without innovation the odds are not in favor of the less damaging V-shaped scenario.

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