Post-Pandemic Economy: Building a Bridge

A Publication of BMO Capital Markets Economic Research • Douglas Porter, CFA, Chief Economist, BMO Financial Group

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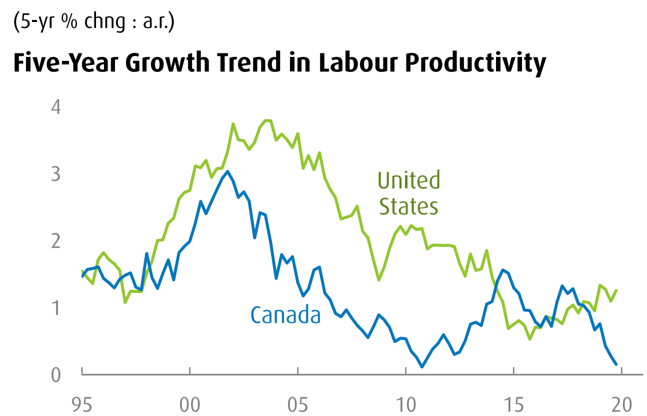
While policymakers, markets, and businesses are all still dealing with the effect and extent of the deep economic downturn, attention is turning to what the economy will look like after the storm. Much of the debate is focused around the shape of the macro recovery, with many dismissing the prospects of a V-shaped rebound. And we would readily allow that many sectors and industries face a long, grinding recovery, and some businesses may never fully return to 'normal'. While parts of the North American economy may partially open in May, there is a risk that we could be looking at 18 months of rolling shutdowns. However, just because the economy will look different and there will be some activity lost forever does not imply that this rules out a broader recovery.

Some sectors will naturally rebound quickly as distancing measures lighten, and others could even see accelerated growth in the new circumstances. So, instead of focusing on the negatives and the downside risks—as some are wont to do—we would prefer to highlight some of the opportunities for the future, which could help support and reinforce the economic recovery on the other side of the deep chasm we are crossing.

Chart 1
Productivity Gap



Sources: BMO Economics, Haver Analytics

Specifically for Canada, the nation has long struggled with weak productivity relative to its key peers, and lagged generally on the innovation front (*Chart 1*). Some of the changes that have been abruptly foisted upon businesses and workers by the shutdowns may be the spark that helps close that gap. Just one small, but illustrative, example is the rapid-fire innovations that Statistics Canada has unveiled amid the crisis, delivering detailed economic information in a much more timely basis. Even in our business, people are talking about changes made in the past month that took days or hours which, in "normal" times, may have taken months or years.

We turn below to **some sectors that may be fundamentally changed by broad developments that could unfold as a result of this unique episode**, and discuss some potential opportunities in the years ahead. One over-arching theme is that the crisis may accelerate and accentuate some trends that were developing in any event. However, it may also lead to some adjustments that may not have happened otherwise:

1

Supply-Chain Dynamics

Ultimately, firms will still look to minimize costs and produce and source as efficiently as possible. Accordingly, one must be somewhat sceptical over just how permanent changes in buying behaviour may become. However, there is the strong possibility that regulatory changes and government procurement adjustments could prompt more domestic production of medical supplies, drugs, and some resource products.

From a business perspective, there will at the very least be an extensive re-examination of supply chains, and the possible shortening of such—to the benefit of manufacturing activity in North America. As well, given the vulnerability exposed by this year's events, firms could invest in building some redundancy into systems. This type of outlay may support targeted capital spending, even though capex aimed at expanding capacity is likely a long way off for the broader economy. In addition, while we are not here to ring the death knell on just-in-time inventories, many firms may look at maintaining greater stockpiles of raw and intermediate materials in the future, giving at least a temporary boost to **inventory accumulation**. The review of both supply chains and inventory stockpiles was already under intense scrutiny in the wake of recent trade wars—the pandemic has likely accelerated and intensified those reviews.

The jarring shifts in consumer demand associated with the outbreak have also exposed weaknesses in retailers' logistics systems. This issue is particularly acute in Canada, where the retail and logistics sectors have traditionally lagged their more productive U.S. counterparts. IDC Canada found that 77% of Canadian retailers did not have a strategy for innovation in 2018. The crisis may highlight the need for firms to adopt data analytics to improve their ability to handle sudden changes in demand. Large companies have actively been pursuing these strategies for a while now. Walmart, for instance, is now using a shared ledger with its food suppliers to identify changes in demand from their point-of-sale technology, which has made their logistic systems more efficient. The integration of real-time purchase data into a firm's supply chain strategies has significant scope to allow the retail sector to realize efficiencies in both logistics and to better provide customer engagement through dynamic responses to changes in demand. The scope for further technology investments in the retail and logistics sectors in Canada could not come at a more critical juncture, especially to meet requirements for the rapidly growing e-commerce demand and realize cost efficiencies.

2

Remote Working

They say necessity is the mother of invention. With many employees forced to work remotely to flatten the outbreak curve, companies have been compelled to expand telecommuting capabilities so that millions of workers have access to corporate networks. With effective remote-working capabilities now in place, many companies could discover that it's simply cheaper to maintain a significant portion of staff at home, with possibly little attendant loss in productivity. This could eventually serve up savings from forgone office space, travel expenses and overhead. About one-third of employees can work remotely at least for some time, and this ratio is closer to three-quarters for employees in professional, technical and financial services. According to Global Workplace Analytics (GWA), remote working in the U.S. has been growing about 10% per year for a decade, while the Federal Reserve estimates the share of the labour force working remotely has tripled in the past 15 years. GWA estimates the average company saves about US$11,000 for each employee that works remotely for half the year due to better productivity, less absenteeism and lower real-estate costs. It also estimates that employees working remotely for half the time can save from $2,500 to $4,000 annually on commuting and food expenses. Still, the jury is out on whether telecommuting will actually work for most companies. Productivity, and possibly worker morale, may suffer if employees feel isolated for long periods of time. Some employees simply prefer the camaraderie and rapid information flow of an office environment. Nonetheless, more firms may need to consider transforming their workplace along remote lines to stay competitive.

The pandemic has forced a rethink of many roles that were never thought suitable for telecommuting. At the very least, this enforced "work-from-home" policy has introduced options that were never thought possible. Operating from home has drummed up demand for specialized **office equipment and furniture.** This includes home office supplies, desks, chairs, printers, laptops, tablets, and cellphones. Demand has surged for services such as **VOIP connections and greater bandwidth**. Technology is critical for effective telecommuting. We've seen a huge increase in web conferences and group chat sessions to keep conversations and discussions flowing, using a variety of now-familiar applications. As time goes on, we'll realize the limitations of some of these applications, while security will remain an issue—no one wants an uninvited guest crashing their virtual meeting.

If there is one silver lining in this global pandemic, it's that people have been forced out of their comfort zones and into realizing that they are capable of changing old habits and learning new technologies that can enhance productivity and save money for both employees and companies.

3

E-commerce and Mobile Banking

To most retailers, the abrupt downturn in the economy feels like a depression, but not for those with a strong on-line offering, who are hiring staff and boosting wages to manage the surge. Long before COVID-19, bricks-and-mortar stores were challenged by mushrooming e-commerce. U.S. on-line retail sales grew at an average annual rate of 15% between 2012 and 2019, accounting for 11% of all retail spending last year. Fewer commoditized products are thriving offline, even clothing, especially with the increased ease of returning items and faster delivery times for e-commerce. More malls are repurposing to survive the online threat. Many small business owners have moved their operations online during the pandemic, including fitness instructors providing remote exercise lessons and doctors diagnosing illnesses. Some may opt to continue operating in the lower-cost online world long after the pandemic passes, potentially saving on rent and overhead. Self-quarantining has driven more shoppers to download online shopping apps, which could drive a more permanent shift in consumer behaviour, notably among seniors. Apart from grocery stores, pharmacies and specialized service providers, many retailers will need to depend on online sales to survive the pandemic. Longer term, they will need to provide a robust online experience to meet the demands of a more technically savvy shopper.

In the banking sector, customers who were previously somewhat reluctant to transact online likely appreciate more of the benefits of doing so now, in terms of convenience and savings in time and money. A survey commissioned by the Canadian Bankers Association in December 2018 found that 91% of Canadians think new technologies have made banking more convenient, and three-quarters use **online and mobile banking** to conduct most of their transactions. These figures have likely only increased since then, especially so during the social distancing. As more transactions migrate online, financial institutions may restrain their physical footprints without sacrificing customer service, even as in-branch banking remains a vital method for conducting complex transactions and establishing close relationships with clients.

4

Robotics and AI

The enforced social distancing of millions of workers has highlighted important opportunities for further adoption of robotics and AI in the workplace. As Amazon's aggressive hiring during the pandemic has demonstrated, technology is still an imperfect substitute for human workers, even in workplaces where robotics and AI play a key role. However, technology is increasingly used to *complement* labour. At Amazon, robots now move packages between workers, increasing productivity.

Some of these adoptions will represent an acceleration of trends that were already underway. In the retail sector, the use of self-serve kiosks for ordering is not new, but the desire to limit human contact could shift consumer preferences toward shopping and eating at venues offering these features. Having robotics take over human tasks can reduce a firm's wage bill in settings where margins are tight and labour is a major component of costs, or where labour shortages have been a persistent issue.

COVID-19 will also have implications for the use of **technology and robotics in public health**. Robotic and communication technologies have the potential to significantly reduce contact between patients and medical practitioners, which has been an important mode of transmission during the current outbreak. Technologies that enable telemedicine and automate patient monitoring, sample collection, and testing could go a long way toward keeping front-line health care practitioners safe. Remote technologies would also enable distant medical personnel to assist those in infection hotspots, which would improve the ability of the health care system to respond effectively during the early stages of an outbreak.

Robotic technologies could also be deployed as part of efforts to monitor and contain future outbreaks. On the monitoring front, automated systems could be used to monitor individuals' body temperatures in public areas and at border crossings, giving authorities valuable real-time information about the spread of infection. Robotic systems could also be well-suited to sterilizing public areas and hospitals, which would help to reduce the spread via surface contact without putting additional personnel at risk.

5

Commercial and Residential Real Estate

The unprecedented broad-based shutting of economic activity poses an enormous challenge for the commercial real estate sector. Many tenants are scrambling to make rent payments or work out arrangements with landlords, especially in segments such as Main Street commercial/retail, where foot traffic and services have been all but reduced to zero. Longer term, the sector could be reshaped by some of the aforementioned trends, creating challenges in some segments, but opportunities in others.

In the **office segment**, more widespread adoption of remote working, even on a rotating basis, will open up more vacancies than otherwise would be the case. While this represents a cost-cutting opportunity for some firms, landlords and office-oriented REITs could see rents pressured. In major markets where longer-term economic shifts have driven demand for such real estate—think technology and professional services in markets like Toronto and Vancouver—the pressure might be less noticeable, at least in prime areas, as space is quickly absorbed. But, in markets that were already struggling —Calgary's vacancy rate is currently 24%—this will pose an additional challenge.

On the flip side, increased online shopping will continue to **drive demand for industrial and warehouse space**. Cap rates in the Toronto industrial sector had compressed to record-low levels before the shock, according to CBRE, and sat below retail cap rates by the widest margin ever. The latter will continue to be pressured upward. Indeed, this shock could very well accelerate this longer-term trend that was already unfolding in the commercial real estate market. As an illustration, employment in wholesale trade, transportation and warehousing has grown at twice the rate of that in traditional retail over the past decade in Canada.

In **residential real estate**, longer-term shifts could be more subtle. We continue to believe that the biggest urban centres will remain well-supported by demographic and employment-driven demand. But, real estate in more rural locations could draw increased interest for a few reasons. First, if the move toward remote work indeed increases as expected, it could open up an affordability valve by allowing households to settle beyond what are typical commuter-friendly (and increasingly expensive) locations. Also, densification has been the norm in many regions over the past decade (partly policy-driven), but the ongoing social-distancing practice runs counter to that trend. The current experience could alter preferences, causing households to place more value on large lots and rural settings, and could even bolster investment demand for workable farmland.

6

Real-time data

The evolution of the information age has created a vast amount of data on the behaviours and activities of people, places and things. Indeed, millions of gigabytes of data are reportedly generated every day, creating an opportunity for "big data" analysis. Given the quantity of information, this looks to be an area where the power of artificial intelligence could be further harnessed. Despite an apparent treasure trove of potential information, there's precious little available on a real-time basis in Canada. In fact, while Statistics Canada has an excellent reputation among statistical agencies, the Canadian data are often viewed as "old news" by the time they are released. Most activity figures are released between one and two months after the end of the reporting period. That has left policymakers and economists with little information to assess the damage from COVID and the related shutdown of sectors of the economy. The current crisis clearly shows the potential value of real-time data…from how the pandemic is progressing, the potential for contact tracing, the first order impact on the economy, etc.

One example of change is at Statistics Canada, where the unprecedented situation has prompted the agency to create a new data point: a Nowcast of March and first quarter real GDP. Those figures were released April 15, but would usually be seen for the first time at the end of May. While the Nowcast has a sizeable margin of error and no underlying quantitative details, the more timely release will provide a better understanding of how deep the COVID-driven recession is going to be. If this release is successful, we could see other reports from StatsCan released on a timelier basis, even if just preliminary figures. The data are there, it's just a question of harnessing them and ensuring that appropriate privacy and legal issues are accounted for. Firms that can harness and analyze these "big data" will likely have increased opportunities in a post-pandemic world, where real-time information has an even greater value.

7

E-learning

Education reinvented? With global learning institutions essentially shut down, faculties have been forced to move online, kick-starting an unprecedented educational "test". Even after the pandemic is over and the dust settles, the use of e-learning is unlikely to revert to the status quo ante. The virus should accelerate the disruption and could trigger a revolution in how education is delivered and received. In the end, the change could provide greater access and convenience for students (including those in remote locations) at lower costs for governments and private schools. With education technology having its watershed moment, there are plenty of opportunities. First, learning management system (LMS) software is a $182 bln industry according to reportlinker.com and is only poised to catapult from here. Used to deploy and track online learning, end users are not limited to just educational institutions. Businesses, too, will increasingly turn to LMS to offer employee training and skills improvement programs. Second, mobile learning software enables learners to access digital content on the go. Game-like language learning apps are likely to be at the forefront of this realm having spent years improving the personalized and gamified experience of self-paced study. Lastly, analytics software will become more vital and prevalent as the need to measure learning effectiveness increases. Although the traditional classroom model won't disappear anytime soon, blended learning approaches that encompass e-learning should become the new norm. As the entire globe experiments with a new style of instruction, e-learning is bound to revolutionize education.

8

Tourism and travel

This is a sector that clearly faces a long work-out and potentially severe adjustments. Consumer behaviour and psychology are extremely tough to model, but note that U.S. air travel took four years to return to pre-9/11 levels after that traumatic event. While some individuals are likely willing to quickly return to prior behaviour, for many others this will take years. Moreover, there is the reality that we can't know when some or all of the cross-border travel restrictions will be eased. For example, even in the Schengen zone in Europe, officials are looking at a continued closure of travel until at least September. However, this will likely not dim the desire of people to travel in some form. The potential result of this could be more local, domestic travel—and more driving vacations, especially with reduced gas prices, fuelling demand for related products and services. Beneficiaries could include motels and eating spots in smaller locations, service centres, and even RV dealers and manufacturers (normally highly cyclical industries).

9

AI Vehicles

While this is more of a distant prospect, the need for distancing amid the pandemic may accelerate the demand and urgency for self-driving delivery vehicles. The demand for autonomous vehicles by businesses, and acceptance by consumers, will likely surge once life returns to normal. The Mayo Clinic has been using self-driving shuttles to move COVID-19 tests around their Jacksonville campus. The ability to limit human exposure to hazardous material and free up staff to focus on more important tasks shows the potential value of autonomous vehicle adoption. However, to have a real impact, such technology would need to operate without a human driver trailing the shuttles and be able to expand beyond a contained physical environment devoid of pedestrians and other vehicles.

The rising use of delivery services for food and groceries over the past month has underscored the importance of limiting human-to-human contact. Rather than gig economy workers having to worry about their own health and safety (and their customers'), food and household supplies could show up at your door via **drone**. At the moment, most companies testing these concepts remain in the pilot phase in controlled outdoor environments (e.g., university campuses). But with the potential for shutdowns to be extended until a vaccine is available, the need for wider deployment could put pressure on one major hurdle to adoption—regulation. In another space, Rwanda has been using **drones to deliver medicine** to rural parts of the country since 2016.

10

Preparedness by Businesses and Consumers

As business closures and stay-at-home orders proliferated alongside the spread of COVID-19, the panic buying that emptied store shelves and the shortages of personal protective equipment that put healthcare workers and others at risk became harsh reminders of the importance of preparedness for governments, businesses and households. And, it's not just about preparing for the next pandemic. Before the faces of exasperated healthcare workers flooded the media, there were the faces of exasperated firefighters battling Australian bushfires, which also reminded about the need for preparedness owing to extreme weather events caused by climate change. We judge that outlays and activities related to preparedness will become a permanent fixture on the economic landscape.

For **households**, this involves establishing, replenishing and maintaining emergency pantries and precautionary savings. Emergency pantries would include non-perishable food and other essential household items, and, without increased household budgets, these purchases would likely supplant outlays on non-essential goods and services.

The rule of thumb about **maintaining emergency savings** to cover at least three months' worth of living expenses could increasingly become more common. However, in an environment of extremely low interest rates, consumers will be looking for higher-yielding, but still-safe options such as money market funds that invest only in short-term government securities or repos fully collateralized by government securities. As household funds are diverted to saving, this could compound with outlays on emergency pantries to act as a more persistent drag on non-essential outlays.

The **household saving rate** was 3.0% in 2019 Q4 and had been drifting up from a low of 1.8% a year earlier. While not an ideal measure, the saving rate can reveal trends in precautionary savings, and that trend was low in Canada prior to the crisis and was on a secular downtrend since the early 1980s. At the very least, the crisis and sudden income losses may reinforce the need for precautionary savings among households. The long-run median savings rate since 1961 has been 5.5%, and that could be where we converge on in the years ahead.

Bottom Line: The crisis in some sense has brought the future into the present, rapidly and sometimes harshly accelerating changes that were already in train. There is no doubt that some sectors face long-term challenges as a result of the shutdowns and distancing measures, as well as some potentially fundamental changes in consumer behaviour and psychology. But at the same time, in classic creative destruction fashion, there will be some sectors that strengthen and step into the gap. The main message is that economies are resilient, and people and businesses can be incredibly resourceful in the face of challenges—don't underestimate the ability to recover from this tough period.

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