Quarterly Economic Forecast

The Dirty Dozen: Your Questions Answered

September 17, 2020

Contributing Authors

Beata Caranci, Chief Economist | 416-982-8067
Derek Burleton, Deputy Chief Economist | 416-982-2514
James Marple, Managing Director | 416-982-2557
Sohaib Shahid, Senior Economist | 416-982-2556
Leslie Preston, Senior Economist | 416-983-7053
Sri Thanabalasingam, Senior Economist | 416-413-3117

This edition of the Quarterly Economic Forecast is in a Q&A format to address top issues related to the economic backdrop. It starts with the international and policy context (Questions 1 to 5). It then narrows the field to the U.S. and Canada (Questions 6 to 10). Questions 11 and 12 are on potential upside and financial risks. Summary economic and financial projections start on page 12.

Questions & Answers

1. With economic data now available for the first half of 2020, how bad was it?
2. How has the global economic outlook shifted with the recent pickup in COVID-19 cases?
3. How are emerging markets faring relative to advanced economies?
4. Which letter of the alphabet is the recovery most resembling? Is economic momentum tapering more or less than expected?
5. How important is ongoing fiscal stimulus to the shape of the recovery?
6. How has the divergence of U.S. virus contagion from most other advanced economies impacted its economic fortunes?
7. What could a Biden presidency mean for the financial and economic outlook?
8. Canada has performed relatively better than the U.S. in terms of managing the virus, what about economically?
9. Can the housing market remain divorced from the broader economy?
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11. How would the economic outlook change if a vaccine goes into production by the end of this year or early next?
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Q1. With economic data now available for the first half of 2020, how bad was it?

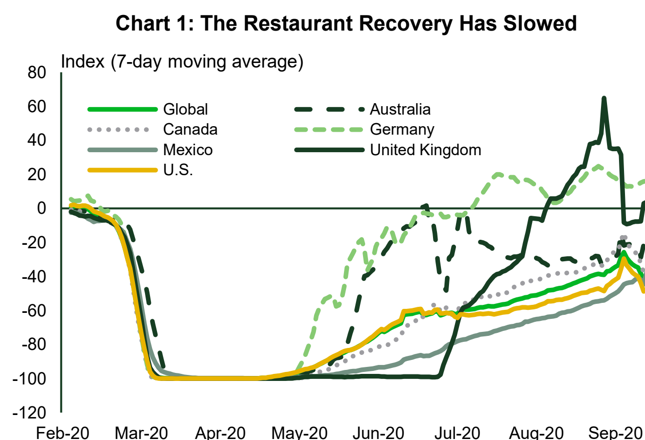
- For most major advanced economies (AEs), the pullback in the second quarter was the largest in the post-war history of available quarterly economic data. Table 1 (below) shows the change in GDP relative to a year ago.
- The United States outperformed much of the rest of the world (albeit slightly). Europe, where lockdowns were the most stringent, suffered the biggest setbacks. Canada's performance was roughly in the middle of the major-economy pack with real GDP 13% below its year-ago level.
- Emerging markets (EMs) were also hard hit by the health crisis, which was worsened by capital outflows and dollar shortages. The crisis has amplified idiosyncratic weaknesses within some EMs, particularly Argentina, India and Turkey. India and Brazil – two of the biggest EM economies after China – saw their output contract by 23.9% and 11.4% year-on-year, respectively.
- In contrast, China was first-in-first-out of the health crisis, causing Q2 GDP to grow by 3.2% relative to the same period last year. However, this came after a 6.8% year-on-year contraction in the first quarter – China's first contraction since 1976 (the end of the Cultural Revolution). Notwithstanding these improved data, the recovery has been uneven, with investment recovering faster than consumption, and supply recovering faster than demand.

Table 1: Historical Economic Contractions in Second Quarter

Q2 GDP Growth	Year/Year % Change
United States	-9.1
Japan	-10.1
Canada	-13.0
Euro Area	-14.7
Germany	-11.3
Italy	-17.7
France	-18.9
Spain	-22.1
United Kingdom	-21.7
China	3.2

Source: Haver Analytics, TD Economics
As at September 17, 2020

Chart 1: The Restaurant Recovery Has Slowed

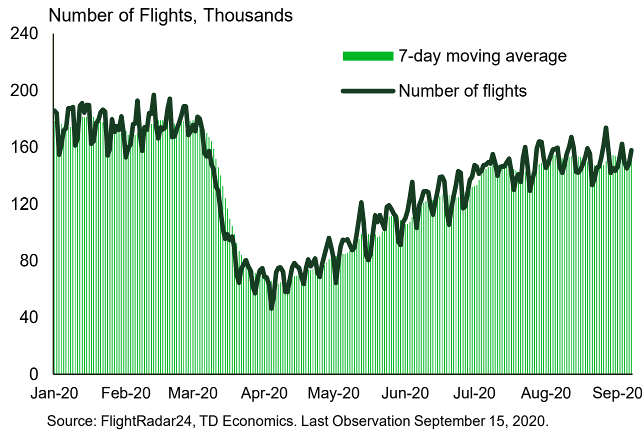


Source: Open Table, TD Economics. Last Observation September 15,2020.

Q2. How has the global economic outlook shifted with the pickup in COVID-19 cases?

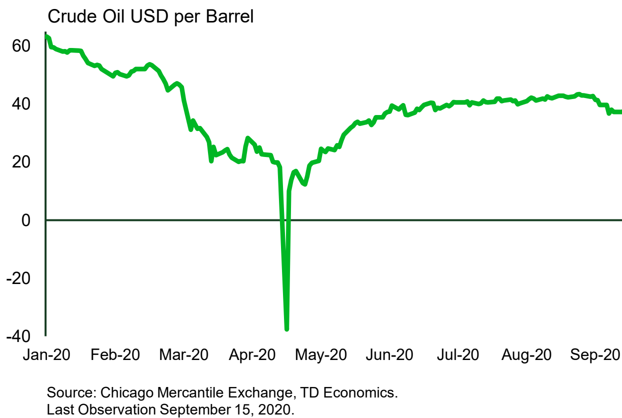
- Most AEs succeeded in bending the COVID-19 curve by applying economic lock-down measures, but many now face a resurgence in cases. This will slow the pace of the global economic recovery. As yet, there is no data evidence to suggest it will throw the recovery into reverse. Importantly, outbreaks have been more localized in nature and the government policy response has generally been targeted to adjustments of high-touch activities, such as indoor restaurants and bars in high-risk areas, instead of broad nation-wide lockdowns.
- Mandated usage of face masks appears to be a substitute for more extensive lockdowns, where conclusive evidence has emerged that it is a useful tool in limiting the spread of the virus. Increasingly, jurisdictions are mandating mask usage within indoor public spaces, which is helpful in giving consumers the confidence to return to retail outlets and support the recovery.
- But, until a vaccine is available, consumer behavior is expected to remain conservative. The service sector, which was the pandemic's first casualty, bears the greatest near-term risk. Recent data show a stalling in retail activity and hours worked. This is notable in the airline and restaurant industries, which are most at risk of rollbacks in policies and consumer confidence when virus cases expand (Charts 1 and 2).

Chart 2: Aviation Sector Recovery Has Also Stalled



Source: FlightRadar24, TD Economics. Last Observation September 15, 2020.

Chart 3: Oil Prices Are Recovering but Remain Well Below Pre-pandemic Levels



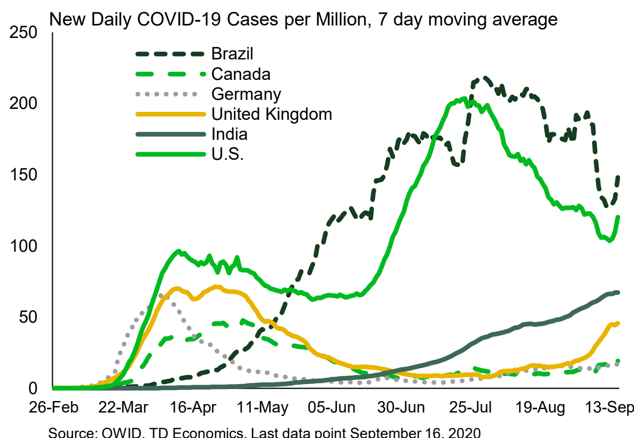
Source: Chicago Mercantile Exchange, TD Economics. Last Observation September 15, 2020.

Q3. How are emerging markets faring relative to advanced economies?

- Unlike most AEs, EMs cannot afford the luxury of prolonged lockdowns. Therefore, restrictions have remained relatively lax across EMs, despite there being few signs of the virus abating. While this has lessened economic disruptions, EMs are in the midst of a major health crisis that is not going away any time soon.
- Most major EMs – Brazil, India and South Africa – continue to struggle with putting a lid on new cases. In fact, nine out of the ten countries with the most COVID-19 cases are EMs. The EM recovery is also being weighed down by a major surge in infections in Latin America as it becomes the world's worst affected region and home to nearly half of the world's new cases.
- The pandemic is also exposing EMs' structural and cyclical vulnerabilities. Argentina, Brazil and Mexico were already decelerating into the start of 2020. Mexico had been in a recession for two years, while Brazil was already underperforming. Disruptions from the pandemic have made matters worse in deepening these trends.
- Persistently weak prices of a number of key commodities, including crude oil, have also exacerbated EM difficulties, especially in Latin America and the Persian Gulf (Chart 3). Commodity price softness further deteriorates government finances and raises the risk of sovereign defaults. This is especially true for countries with large deficits or where reserves are insufficient to meet financing needs (like Argentina, South Africa, Turkey).
- The 7.0% pull-back in the trade-weighted dollar against major EMs since its peak in March 2020 has provided some offsetting support to EMs that have high exposure to greenback-denominated debt.

Q4. Which letter of the alphabet is the recovery most resembling? Is economic momentum tapering more or less than expected?

- The recovery in the level of economic activity is very much U-shaped still, even if double-digit growth rates give the impression of a V. We continue to characterize the cycle as looking like the Nike Swoosh, reflecting a compromise between the two shapes.
- The pandemic's path and reopening patterns reinforce our view that after an initial burst of activity, the restrictions on activity (both voluntary and mandated) will leave a wide gap between pre and post pandemic levels of GDP.
- The two-stage nature of the recovery – an initial, rapid but partial recovery followed by a more prolonged absorption of the remaining slack – presents a risk around supply/demand imbalances. Should manufacturers and others extrapolate the first phase, there is a risk that an inventory overshoot could result, slowing growth. This is an acute risk for Canada given already elevated stock-to-sales ratios pre-crisis. However, the strong shifts in spending patterns away from services and towards goods in both Canada and the U.S. should limit this factor. Elsewhere, however, it remains a downside risk.
- As noted above, momentum is also being impacted by a resurgence in cases (Chart 4). In general, AEs that are witnessing a sharper uptick in new cases, such as Spain



and France, are also seeing more evidence of a slowing recovery. The slowdown is not happening to the same extent in EMs. With only a few exceptions, most are continuing to ease restrictions. Even those EMs (Indonesia, Philippines) that have re-imposed restrictions still exhibit a "higher threshold" than AEs (i.e. more tolerance for new cases), with policy rollbacks occurring when already weak healthcare systems approach levels of being overwhelmed.

Q5. How important is ongoing fiscal stimulus to the shape of the recovery?

- Policymakers around the world have taken unprecedented fiscal measures to support households and businesses. These reflect a combination of liquidity and solvency measures, including government loans, loan guarantees, wage subsidies, debt repayment breaks and tax and social security deferrals. These supports are essential to keeping economies afloat and minimizing the demand-side shock. They are also consistent with the "swoosh" recovery imbedded in our forecast.

  Other developments have recently occurred to further thicken the floor under the downside risks. In particular, EU member states received a major confidence boost through the approval of the €750 billion ($884 billion) EU recovery plan, of which 52% will be in the form of grants (Chart 5).

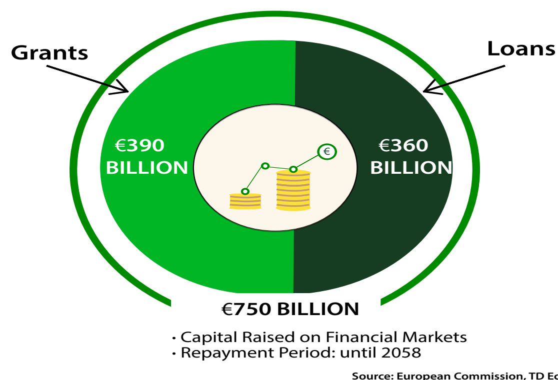
  The plan will provide much needed relief to countries hit hardest by the pandemic, especially those with limited fiscal space. Countries in the southern periphery – like Italy and Spain – will receive a larger piece of the pie than initially thought, which boosts our outlook for these countries.

  Most of the funds will start being distributed around the second half of 2021 and will not lift the immediate economic outlook through direct effects. However, there are positive indirect effects at play in the near term via the positive spillovers to bond yields, equities and business sentiment.

  The recovery plan is a first step towards a fiscal union, as it sets a precedence of shared fiscal obligations across EU countries. The plan has also led to a thinning of borders among member states. Thick borders in the past have hindered the EU's ability to bounce back from recessions.

- In the United States, the CARES Act provided crucial financial support to households, businesses and state and local governments through the spring to prop up consumer spending, prevent mass scale renter evictions and limit a wave of bankruptcies.

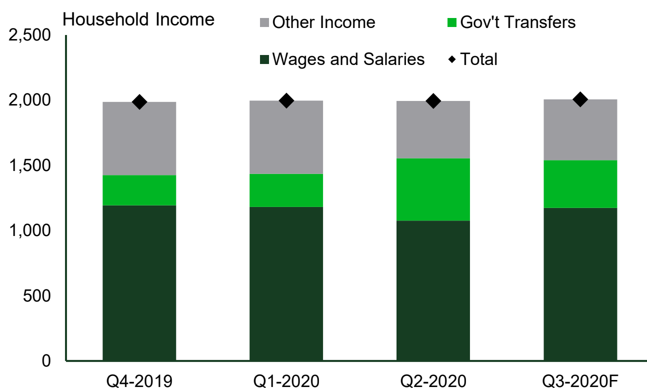
- Congress has been negotiating another relief package, but the outcome is uncertain. In the meantime, President Trump has issued an executive order to continue the weekly unemployment top-up called PUC at $300 per week, reduced from the CARES Act level of $600, which expired at the end of July. This top up is set to come out of FEMA's disaster relief fund and is limited to $44 billion. At current unemployment levels, this would only last about six weeks. Our forecast assumes that Congress does reach a limited deal, which includes another round of relief cheques ($270 bn) and expanded unemployment benefits of $300 per week,



but no additional assistance for state and local governments. A different package would present corresponding upside or downside risks to our forecast.

- In April, we estimated the shortfall to state and local government finances to be about $200 billion. Since then, the deteriorating situation in several states suggests the total will be much higher, likely as much as $500 billion (around 2.5% of GDP).
- States and municipalities have already begun an ill-timed cost cutting process. In one such move, Florida slashed $1 billion from its current fiscal year budget, with cuts directed at affordable housing, education and social services. Similarly, Maryland cut $413 million from its budget, the bulk of which was aimed at higher education, and signaled more could be coming. In New York, officials are waiting to see how the next stimulus package unfolds, but warned that without additional support, a 20% cut to main funding entities, such as schools, local governments and hospitals, would be inevitable.
- Overall, the hit to state and local government finances could amount to a two to five percentage point drag on the level of GDP over the next several years, assuming fiscal multipliers are similar to that of the Great Financial Crisis.
- In Canada, fiscal supports have been equally vital to maintaining spending and avoiding financial distress. Ongoing government support will be crucial in preventing an "income cliff" as CERB begins to expire this month. A two-pronged approach is being taken. The Emergency Wage Subsidy has been broadened and extended, and the government will be rolling out a revamped EI program and other new income supports to mitigate the impact of CERB ending for those who are still facing challenges and wouldn't typically qualify for EI. Government spending has more than offset the pandemic shock this past spring, and its importance to the overall recovery cannot be understated (Chart 6).

Chart 6: CERB and Other Programs More than Offset Employment Losses



Source: Statistics Canada, TD Economics.

- Extraordinary spending has resulted in extraordinary borrowing. Although debt levels within the U.S., Europe, Canada and others have grabbed a lot of attention, a significant degree of risk resides with the historically less-stable EMs. In the first quarter alone, EM debt ratios rose to a record 230% of GDP with $3.7 trillion coming due at the end of 2020 and about 17% denominated in foreign currency. Investors may begin to wonder how EMs deeply scarred by this pandemic will generate the economic growth to pay for this pandemic bill. If their ability to repay comes into question, it could lead to a solvency and liquidity crisis, or worse, lead to EMs being cut off from global capital markets (à la Argentina in 2001).
- Among AEs, fiscal constraints are also becoming apparent, prompting some European countries to roll back measures such as wage subsidy schemes. For example, France and Austria have tightened their schemes whereby the government continues to pay wage subsidies at a lower rate (80-90% instead of 100%), while employers pay the remainder. The UK wage subsidy scheme is officially slated to end in October, but the government has already asked employers to contribute to an increasing share of their employees' wages.

    These schemes have played an important role in keeping large-scale layoffs at bay. For example, headline jobless rates in the EU compared to pre-virus levels in February have increased by only 0.7 percentage points (to 7.2% in July).

    Ending these schemes prematurely could lead to mass dismissals and undo some of the gains made by the labor market. Fortunately, in the fall, EU governments should be able to access funds through SURE – the European Commission's €100 billion ($118 billion) loan program, aimed to backup national wage subsidy schemes. More than half of EU's 27 member states – including Italy and Spain – have already requested funds through the program. If countries decide to stop their wage subsidy schemes (financed by national govern-

ments), the SURE program could be a stop-gap solution until the EU recovery plan funds become ready next spring/summer.

Q6. How has the divergence of U.S. virus contagion from most other advanced economies impacted its economic fortunes?

- The U.S. performed better than other AEs in the first half of the year, but several high-frequency measures of economic activity suggest a loss in momentum in the summer following a surge in infection rates. Indicators of mobility and consumer spending had flattened but have improved very slightly more recently. Initial jobless claims have also been drifting slightly higher in recent weeks.

  The New York Fed Weekly Economic index is a measure that combines several indicators and scales them to align with year on year economic growth. It shows that broader economic growth has continued to improve despite a small hiccup in July (Chart 7).

  Some slowing in economic growth would have occurred naturally even in the absence of a resurgence in the virus in southern states. The substantial rebound in jobs and economic activity immediately following the re-opening of the economy was not a sustainable pace given the ongoing restraints placed on businesses. However, there are signs that the U.S. is slowing more than other advanced economies like Canada and Europe.

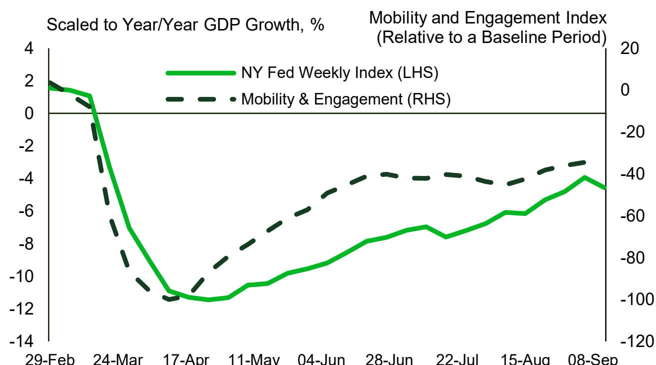
- Slowing does not mean contracting. There were welcome surprises in recent months that suggest media reports may embed more pessimism than the data itself. For instance, the labor market continued to add more jobs than market expectations in August, albeit at a more modest pace than May and June. The unemployment rate fell to 8.4% (from 10.2%), slightly better than we expected at the time of the June forecast.

  The forward-looking ISM Manufacturing index improved more than expected in August, although the Services index did ease, likely reflecting a delayed response to the more restrained recovery in services amid renewed restrictions in many areas of the country.

- One possibility behind why high frequency data show a levelling off in spending in July and August is that the rebound in May and June was incredibly strong. That handoff assures a double-digit pace of growth for the third quarter. Our tracking for the quarter (at nearly 30% annualized) is slightly higher than what we had projected in June. The loss of momentum shows up more in growth in the fourth quarter, which we expect to return to a more "normal" 2.8% annualized. This would still put the U.S. on track to lag Canada and Europe where high-frequency data has driven an upgrade to Q3 tracking.

- However, much will depend on the next round of government relief. Congress has not yet reached a deal, but we think it is reasonable they will eventually agree to some further support. We assume roughly $400 billion in further fiscal assistance, split between another round of relief cheques and additional unemployment benefits of $300 per week. That is down from $600 per week under the CARES Act. Failure to enact additional support risks deepening the demand-side shock of this cycle, which until recently was largely contained to a supply-side impact due to businesses and household income supports. This would not just lower the near-term growth trajectory, but also result in more longer-term scarring to the job market. Second, the ongoing delay of a fiscal package could induce more precautionary savings behavior even once funds are provided.

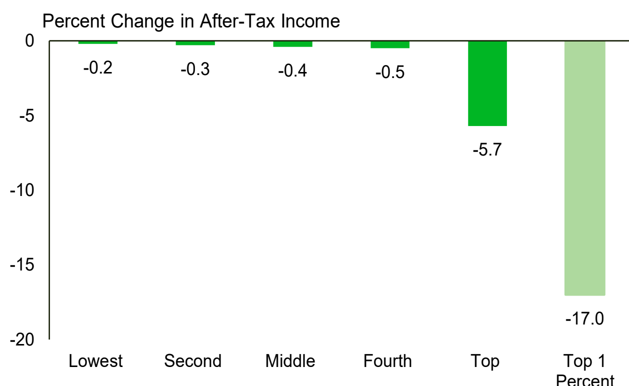
Chart 7: Mobility Lost Momentum Through Summer, but GDP Still Gaining Ground



Source: FRB New York, Dallas Fed, TD Economics. Last data point September 12, 2020

Q7. What could a Biden presidency mean for the financial and economic outlook?

- Polls currently place Democratic presidential candidate, Joe Biden, ahead of President Trump, but considering the surprise result in 2016 and many more weeks until the election on November 3rd, nothing is set in stone.
- Despite Biden being characterized as a moderate Democrat relative to his primary rivals, his platform contains material tax increases amounting to approximately $4 trillion over ten years, weighted towards higher income taxpayers and businesses (Chart 8). These increases would likely be at least modestly negative for economic growth, but the overall impact will depend on how efficient the redistribution of additional tax revenues is towards Biden's comprehensive and progressive spending agenda. Spending commitments are still rolling out and there is no official aggregation of the total (there appears to be some overlap between various dollar amounts cited in the media). Spending on infrastructure, clean technology, grants for R&D, "buy American" government procurement and various spending increases related to "caregiving," outweigh the revenues raised by the tax increases, implying more expansive fiscal policy and increased budget deficits provided programs are well executed, tax hikes are not jarring to those impacted and financial markets do not show undermined confidence. Importantly, ongoing deficit spending could lead to a negative investor response.
- In terms of financial markets, equity markets tend to have a short-lived boost following a Republican candidate win and setback following a Democratic win.



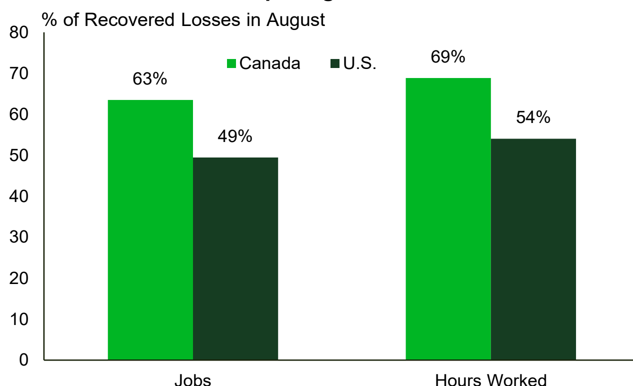
Still, risk assets tend to do better in the year following an election, relative to non-election years. Also, equities have tended to outperform in years following a split Congress and underperform when parties sweep the White House and Congress. Of course, financial markets in 2021 will have the additional (and perhaps dominant) influence of whether successful COVID-19 vaccines have been identified and widely distributed.

- The make-up of Congress will also determine how much of Biden's agenda can be implemented. Given the intended tax increases, markets would likely react more negatively to a Democratic sweep in Washington. However, Republicans may still maintain control of the Senate, which will make it difficult for Biden to implement his agenda.
- Apart from taxes and spending, a Biden presidency is unlikely to be a panacea for the protectionism and "America first" stance of the Trump Administration. Ditto for the soured relationship with China.
- Biden has criticized Trump's handling of the relationship with China and the tariffs (though he has not explicitly said he would remove them). He has also cited a need to "get tough with China" when it comes to intellectual property theft and has called for American companies to re-shore production. In contrast to Trump, he has also stressed the importance of working with U.S. allies when dealing with China.
- Like previous Democratic candidates, Biden's platform contains "buy American" government procurement commitments ($400 billion). Therefore, a certain degree of protectionism is likely to persist under President Biden even if the approach differs from the current administration. However, in the past, Biden has supported NAFTA and the TPP.
- For Canada, at the margin, higher personal and corporate tax rates in the U.S. should improve Canada's relative tax competitiveness. However, the potential for "buy American" provisions in government procurement would be negative for Canadian businesses hoping to win U.S. contracts and may result in a tit-for-tat reaction. Buy American provisions were also part of the American Recovery and Reinvestment act of 2009, but Canada gained some exemptions for large projects and where there was no American supplier readily available (see link).

- On the surface, a Biden Presidency could have negative consequences for Canada's energy sector. Biden has been critical of Canada's "tar sands" and has promised to scrap the Keystone XL pipeline. (Even under pro-pipeline President Trump, the project has faced legal challenges and has not yet been built). Unlike Trump, Biden is committed to act on climate change (plans to achieve net zero emissions by 2050, and carbon pollution free power sector by 2035) through a variety of measures, which may level the playing field a bit for Canadian businesses operating with a carbon tax. Still, his plan does not include an explicit carbon price through either a tax or cap and trade system.

Q8. Canada has performed relatively better than the U.S. in terms of managing the virus, what about economically?

- A generally stricter level of social distancing measures in Canada has meant a deeper decline in economic activity in the first half of the year relative to the U.S. (a 38.7% annualized contraction in Q2 and 13.4% in the first half of the year relative to the fourth quarter of 2019). However, as new case counts have fallen below spring levels and re-openings continue with little resistance or adjustments, the economic data has improved markedly. Statistics Canada's early indicators point to solid momentum heading into the summer, further confirmed by data on auto sales, resale housing, and others. As a result, an even stronger rebound in the third quarter than previously expected appears underway (preliminary tracking: +47.3%).



- Canada is ahead of the U.S. in the race to regain pre-pandemic employment with about two-thirds of the jobs lost regained through August (compared to 55% in the United States). Unlike the U.S, a similar pattern can be seen across regional economies as recoveries have so far mapped well to the easing of restrictions on economic activity (Chart 9).
- Still, economic momentum will be tested by several factors. The first challenge will come via the transition from CERB to a "parallel EI" system. Final payments for CERB will be sent this month. New income support measures (see summary), aimed at those that would otherwise not qualify for EI (such as the self-employed) will be available by month's end. These new measures are about 20% less "generous" than the CERB, but still provide a solid backstop to household incomes, particularly when compared to the alternative. These measures are important because, behind this all, a harsh reality remains that for many significant industries, a sustainable, meaningful recovery is difficult to achieve in the absence of a wide vaccine distribution.
- Like other jurisdictions, the Canadian recovery will not be even across industries. TD spend data and other sources have shown clear substitution away from areas such as travel and recreation, towards home improvement and other categories.

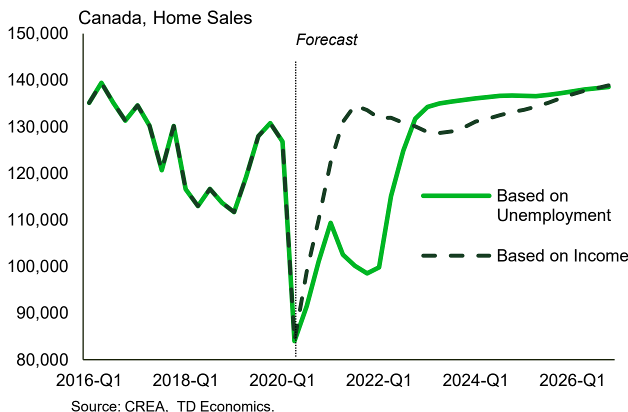
Q9. Can the housing market remain divorced from the broader economy?

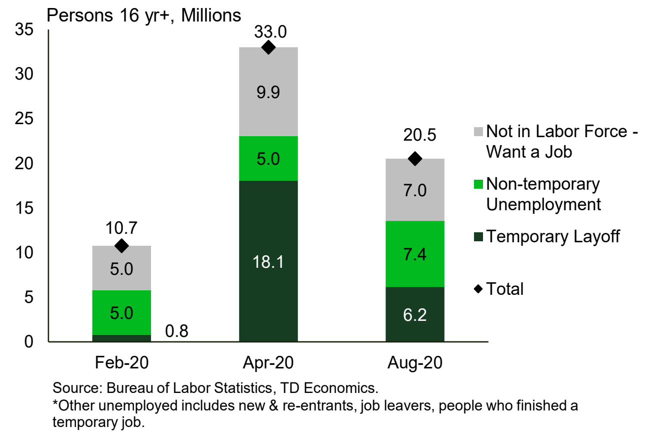
- North American housing markets have become disconnected from other economic headlines, as sales and prices have advanced at double-digit rates even as the unemployment rate hit historical highs.
- Falling interest rates have boosted affordability, but in addition to this key driver, housing activity is stronger than most standard forecasting models would suggest. Delving into the details, the reasons for this outperformance are likely attributed to:
- Very different job market outcomes by income level. In Canada, there was a near-13% employment gap for the lowest-wage workers in August; for all other employees, it was just 0.9%. Home ownership is strongly correlated with income. The same phenomenon is evident in the U.S.

- Relying on the unemployment rate suggests that housing activity should have remained weak, whereas the income statistics are more consistent with the rise in activity observed this summer (Chart 10).
- The lack of the typical spring market led to a large degree of pent-up demand. Strong sales gains in June, July, and August, have just brought the cumulative total back in line with historic norms;

  U.S. demand may be receiving additional support from millennials. Unlike Canada, home ownership rates within this cohort are lower than past generations at the same ages (see report).
- The durability of housing remains an open question. On the price side, there is little-to-no evidence of forced selling, which is keeping markets tight and price growth high. However, deferrals will begin to expire this fall, potentially leaving some households forced to sell.

  The roll-off of forbearance programs also creates a risk to fourth quarter consumption in Canada as funds saved during the payment holiday period are re-directed into mortgage payments.
- Thus, near-term strength in housing should eventually give way to a more "normal" pace of both sales and price growth to reflect lingering pandemic impacts and, importantly, less organic demand thanks to below-trend population growth.
- The same risks exist in the United States against a backdrop that exhibits even lower housing supply. With years of relatively muted construction, the inventory of homes for sale is at historical lows relative to the size of the population.





Q10. What is the risk of temporary job losses becoming permanent?

- In the initial sudden stoppage in the economy, most unemployed people were on temporary layoff, but as people have been called back to work, unemployment has taken a more permanent shift.

  In the United States, the number of unemployed people who do not expect to remain "temporary" has risen since April (Chart 11). This has risen to 14.4 million (about 8.6% of the adjusted labor force) when we add in people who are not counted as part of the labor force but would like a job (many people are likely not searching for work given shutdowns in their industry.)

  It's reasonable to assume that some portion of the 6.2 million workers currently being cited as "temporary layoff" will become permanent. Some evidence already resides within sectors like travel and entertainment, which are starting to lay workers off permanently.

  Canada also shows evidence that temporary losses are giving way to permanent ones. Temporary unemployment was 54% of total unemployment in April. That share has since fallen to below 20%. Many of those who could be quickly recalled have already benefited, consistent with TD Economics' view that the pace of job gains is set to moderate as we enter autumn.

Q11. How would the outlook change if a vaccine goes into production by the end of this year or early next?

- A full economic recovery is not possible without a vaccine or an effective and widely available treatment that materially reduces the risk factors. Until then, flareups in new cases – as seen around the world – will be the status quo.
- Our baseline forecast assumes vaccine becomes available by the summer of 2021, with a wider distribution in the second half of the year. This is consistent with WHO's recent assertion that vaccines won't be available for widespread usage until mid-2021. Should a vaccine go into production by early next year, it will slightly raise our growth forecast for 2021, particularly during the first half and especially for AEs that are most likely to be the first to receive/distribute it. The U.S. Centre for Disease Control has already asked states to prepare for vaccine distribution by November, however, widespread distribution is only likely to take place next year.
- The immediate impact of the vaccine will be seen in certain consumer-facing services sectors like restaurants, malls and travel. The vaccine will also strengthen business investment as companies restart investing in the future and allow policymakers to relax restrictions.
- The good news is that there are currently more than 170 vaccine candidates under investigation, with six already in the final stage of trials. Russia has already claimed a win in the vaccine race, although it is unlikely to be adopted by most AEs. However, Russia is in talks on exporting the vaccine or licensing production with 20 countries including Brazil, India and Turkey. The Philippines, Saudi Arabia and the United Arab Emirates (UAE) have also agreed to conduct clinical trials for the Russian vaccine. More transparent data on the formulation, testing and efficacy of the Russian vaccine may make more EMs open to its usage.
- While the vaccine is likely to expedite the economic recovery, we caution in overestimating its immediate impact next year:

  Despite promising reports on vaccine development, the timing of mass distribution remains uncertain. For example, the UK Chief medical officer recently stated that a vaccine for mass use is unlikely to be ready before end-2021. The pandemic has demonstrated that countries become inward-focused when hit with a major shock, especially when it comes to critical drugs and medical supplies.

  Whenever a vaccine does come on the market, its scarcity would force countries – at least initially – to be more protectionist with it. This "vaccine nationalism" would place some countries (primarily AEs) at the top of the list for access and a faster economic recovery. Some AEs – for example, the U.S. and UK – have production capability. Others – such as Canada and Japan – have secured significant orders that would cover a sufficient portion of their populations.

  However, even with vaccine production, the outstanding question remains whether it will have public confidence and who would be prioritized for distribution. Surveys across the world already indicate a significant share of individuals may be reluctant to receive a vaccine. In addition, it remains to be seen if vaccines will be partially protective for a short period (like the flu vaccine) or highly protective for a life-time (like a measles vaccine).

Q12. What is the implication of lower for longer guidance from central banks?

- The Federal Reserve and Bank of Canada have both indicated no current appetite to cut rates into negative territory and will rely on forward guidance, quantitative easing and other approaches as their main policy levers. These tools are now the main instruments to push longer-term yields down and have so far been effective, with the US Treasury and Canada 10-year yields, hovering around 0.65% and 0.55%, respectively. Mortgage rates and investment grade corporate bonds are yielding between 2% to 3% in the U.S. and Canada. The effect can already be seen within housing markets.
- We have clear guidance from central banks that interest rates will remain low for the next two to three years, if not longer. The Federal Reserve has further confirmed this when it released an outline of its new policy framework. It will now be assessing the labor market with respect to its 'shortfalls' and will utilize flexible average inflation targeting. This is a departure from the past were the Fed would tighten monetary policy if the unemployment rate dropped to historic lows and if the rate of inflation was on track reach 2%.

The Fed will now permit both the labor market and inflation to run hot as it keeps monetary policy accommodative for longer than it otherwise would have. The Bank of Canada is also assessing its policy framework and we expect it to announce a similar adjustment to that of the Fed. These changes result in delayed future rate hikes (now starting in 2024) and a slower path to neutral rates. For these long-run anchors, we have penciled in 2.0% for the Federal Reserve and 1.75% for the Bank of Canada. This forecast takes into account the risk that the current pandemic-induced recession will have a structural impact on the economy. It also accounts for what we observed in the prior cycle, when policy rates above 2% materially slowed interest rates sensitive sectors, such as housing.

- This forecast implies that 10-year yields won't return to the highs of the previous cycle. We expect U.S. and Canada 10-year yields to gradually rise to just above 2% over the next four to five years. That would remain a full percent lower than the peak seen in 2018.

  Market pricing is even more pessimistic. Based on futures, investors expect the Fed to raise rates to just 0.5% over the next ten years. This would imply that 10-year yields remain near current levels. This is dire and we would caution that yields are vulnerable to a swift market re-pricing should economic data improve. At the same time, should a move be too far and too fast for the central bank's comfort, some deliberate action would likely occur with targeted asset purchases.

- From the perspective of an investor, bond yields offer very little expected return. The prospect of such low real yields (and negative real yields in the case of government debt) is pushing investors up the risk spectrum. Equities have been a favoured landing spot, causing many to question the lofty valuations of major equity indices. The S&P 500 current price-to-earnings ratio is at 29, well above its historical average of 15.

- Nevertheless, investors continue to shift into equities. The expectation that profits of large publicly traded corporations will recover in the next two years combined with an expectation that rates will remain at extremely low levels has raised the net-present value of future income and therefore shifted up equity valuations. This does raise financial stability risks, but these are down on the priority list of central banks at the moment.

- At the same time, some of the recent moves in financial markets have been aided by the relative success of countries controlling the coronavirus. For example, the U.S. trade-weighted dollar has depreciated substantially since late March, as optimism has returned to countries that have been more successful at re-opening their economies. This has caused an unwinding of prior flight to safety flows, which initially favored the greenback. Advance economy currencies have benefitted more from this trend than EM currencies.

  Currencies such as the euro and British pound have been notable outperformers over the last few months. Partly contributing to this trend has been the fact that these economies were further ahead in their reopening timeline, and have not experienced a second wave of COVID-19 infections to the same degree as what has occurred in the U.S. We believe the U.S. dollar's depreciation has been a little too strong and too fast, especially against the pound which is facing growing uncertainty surrounding Brexit. That said, we do see the dollar deprecating against the currencies of America's major trading partners over the long-term.

  The Canadian dollar has come out a big winner over the last few months. At 76 US cents, the loonie is trading right around its fair value. As such, there would need to be further evidence of economic growth outperformance or another leg up in commodity prices to justify higher valuations for the loonie.

U.S. Economic Outlook

Period-Over-Period Annualized Per Cent Change Unless Otherwise Indicated

	2020				2021				2022				Annual Average			4th Qtr/4th Qtr		
	Q1	Q2	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F	20F	21F	22F	20F	21F	22F
Real GDP	-5.0	-31.7	29.8	2.8	2.9	2.7	4.3	4.1	3.1	3.0	2.7	2.3	-4.0	3.4	3.3	-3.5	3.5	2.8
Consumer Expenditure	-6.9	-34.1	38.5	2.6	2.6	2.6	4.3	4.3	2.9	3.0	2.8	2.6	-4.3	3.9	3.3	-3.4	3.5	2.8
Durable Goods	-12.5	-1.2	79.8	-5.4	3.2	2.8	10.5	6.9	2.2	2.4	2.2	2.3	5.9	9.4	4.2	10.1	5.8	2.3
Business Investment	-6.7	-26.0	11.2	1.4	2.3	2.4	5.3	5.8	5.3	5.9	5.7	4.6	-5.6	1.7	5.3	-6.1	3.9	5.4
Non-Res. Structures	-3.7	-33.4	-24.1	-10.3	0.3	1.0	3.0	3.5	3.5	4.3	5.2	5.0	-12.1	-7.2	3.7	-18.7	1.9	4.5
Equipment & IPP*	-7.5	-23.7	23.1	4.4	2.8	2.7	5.8	6.3	5.7	6.3	5.9	4.6	-3.7	4.1	5.7	-2.4	4.4	5.6
Residential Investment	19.0	-37.9	56.9	9.8	1.2	0.0	1.1	1.1	1.5	1.5	1.6	1.2	3.3	4.9	1.3	6.2	0.9	1.5
Govt. Expenditure	1.3	2.8	-2.3	-4.6	-0.1	0.6	0.7	0.2	0.4	0.2	0.5	-0.2	1.3	-0.8	0.4	-0.8	0.4	0.2
Final Domestic Demand	-4.6	-27.7	27.0	1.4	2.1	2.1	3.7	3.6	2.7	2.8	2.8	2.4	-3.3	2.8	3.0	-2.9	2.9	2.7
Exports	-9.5	-63.2	80.0	22.0	8.1	5.8	5.6	5.3	4.4	4.3	4.0	3.8	-11.1	8.8	4.7	-7.5	6.2	4.1
Imports	-15.0	-54.0	85.8	13.4	9.6	6.6	4.0	4.6	4.5	4.0	3.7	3.6	-10.5	9.7	4.3	-4.7	6.2	3.9
Change in Private Inventories	-80.9	-286.4	-138.0	-95.4	-41.3	-4.1	15.9	38.0	60.2	67.5	66.5	65.2	-150.2	2.1	64.9	--	--	--
Final Sales	-3.6	-28.5	25.2	1.8	1.7	1.9	3.8	3.7	2.6	2.8	2.8	2.3	-3.1	2.5	3.0	-3.2	2.8	2.6
International Current Account Balance ($Bn)	-417	-563	-651	-636	-664	-711	-728	-754	-792	-799	-801	-808	-567	-714	-800	--	--	--
% of GDP	-1.9	-2.9	-3.1	-3.0	-3.1	-3.3	-3.3	-3.4	-3.5	-3.5	-3.5	-3.5	-2.7	-3.3	-3.5	--	--	--
Pre-tax Corporate Profits including IVA&CCA	-39.9	-37.7	536.6	-74.7	-12.6	-1.0	5.7	-8.4	-1.8	0.5	1.1	0.0	-2.8	-10.1	-1.2	-11.9	-4.3	-0.1
% of GDP	9.4	9.3	13.7	9.6	9.2	9.1	9.1	8.7	8.6	8.5	8.4	8.3	10.5	9.0	8.5	--	--	--
GDP Deflator (y/y)	1.7	0.6	1.0	1.0	1.0	1.8	1.5	1.5	1.6	1.8	1.9	2.0	1.0	1.5	1.8	1.0	1.5	2.0
Nominal GDP	-3.4	-33.3	34.3	4.4	4.4	4.0	6.1	5.9	5.0	5.0	4.7	4.4	-2.9	4.9	5.2	-2.5	5.1	4.8
Labor Force	-1.0	-13.4	5.9	2.4	1.8	1.8	2.5	1.5	1.3	1.3	1.0	0.8	-1.5	1.5	1.4	-1.8	1.9	1.1
Employment	0.4	-40.0	22.9	6.4	3.4	2.0	4.1	5.1	3.1	2.6	2.3	1.9	-5.7	2.5	3.2	-5.8	3.6	2.5
Change in Empl. ('000s)	134	-18,209	7,086	2,211	1,206	726	1,455	1,820	1,118	973	866	695	(8,574)	3,582	4,729	(8,778)	5,207	3,652
Unemployment Rate (%)	3.8	13.0	9.0	8.3	7.9	7.7	7.2	6.4	6.0	5.6	5.3	5.1	8.5	7.3	5.5	--	--	--
Personal Disp. Income	3.9	44.4	-19.2	22.8	-29.5	4.5	4.5	4.0	5.4	4.6	4.0	3.7	8.0	-3.6	4.5	10.5	-5.4	4.4
Pers. Savings Rate (%)	9.6	26.0	14.9	18.1	9.5	9.4	9.0	8.6	8.7	8.6	8.4	8.2	17.1	9.1	8.5	--	--	--
Cons. Price Index (y/y)	2.1	0.4	1.3	1.4	1.9	3.4	2.7	2.5	2.2	2.2	2.1	2.1	1.3	2.6	2.2	1.4	2.5	2.1
Core CPI (y/y)	2.2	1.3	1.6	1.7	1.8	2.7	2.2	2.1	2.1	2.1	2.1	2.1	1.7	2.2	2.1	1.7	2.1	2.1
Core PCE Price Index (y/y)	1.8	1.0	1.3	1.4	1.4	2.1	1.8	1.8	1.8	1.8	1.8	1.9	1.4	1.8	1.8	1.4	1.8	1.9
Housing Starts (mns)	1.48	1.06	1.44	1.34	1.34	1.35	1.35	1.36	1.36	1.36	1.37	1.37	1.33	1.35	1.37	--	--	--
Real Output per hour** (y/y)	0.9	2.8	4.6	2.8	2.6	0.3	-1.5	-0.6	-0.2	-0.2	0.0	0.6	2.8	0.2	0.0	2.8	-0.6	0.6

F: Forecast by TD Economics as at September 2020

* Intellectual Property Products. ** Non-farm business sector.

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, Census Bureau, TD Economics.

Interest Rate Outlook

	2020				2021				2022			
	Q1	Q2	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Fed Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3-mth T-Bill Rate	0.11	0.16	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
2-yr Govt. Bond Yield	0.23	0.16	0.15	0.20	0.20	0.20	0.20	0.20	0.20	0.25	0.30	0.35
5-yr Govt. Bond Yield	0.37	0.29	0.25	0.30	0.40	0.50	0.60	0.75	0.90	0.95	1.05	1.15
10-yr Govt. Bond Yield	0.70	0.66	0.70	0.80	0.95	1.10	1.25	1.40	1.55	1.60	1.65	1.70
30-yr Govt. Bond Yield	1.35	1.41	1.45	1.60	1.75	1.85	1.95	2.05	2.10	2.15	2.20	2.25
10-yr-2-yr Govt Spread	0.47	0.36	0.55	0.60	0.75	0.90	1.05	1.20	1.35	1.35	1.35	1.35

F: Forecast by TD Economics as at September 2020. All forecasts are end-of-period.
Source: Bloomberg, Federal Reserve, TD Economics.

Foreign Exchange Outlook

Currency	Exchange rate	2020				2021				2022			
		Q1	Q2	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Euro	USD per EUR	1.10	1.12	1.19	1.19	1.20	1.21	1.23	1.24	1.25	1.25	1.25	1.25
UK pound	USD per GBP	1.25	1.24	1.29	1.31	1.33	1.34	1.36	1.37	1.38	1.40	1.40	1.40
Australian dollar	USD per AUD	0.61	0.69	0.73	0.74	0.75	0.75	0.74	0.74	0.73	0.73	0.73	0.73
NZ dollar	USD per NZD	0.60	0.65	0.67	0.68	0.69	0.69	0.68	0.68	0.67	0.67	0.67	0.67
Canadian dollar	CAD per USD	1.41	1.36	1.31	1.30	1.29	1.28	1.29	1.30	1.30	1.30	1.30	1.30
Swiss franc	CHF per USD	0.96	0.95	0.91	0.90	0.91	0.92	0.93	0.94	0.95	0.96	0.96	0.97
Japanese yen	JPY per USD	108	108	106	105	105	104	104	103	103	103	103	102
Chinese renminbi	CNY per USD	7.08	7.07	6.80	6.90	6.90	6.80	6.80	6.80	6.80	6.80	6.80	6.80

F: Forecast by TD Economics as at September 2020. All forecasts are end-of-period.
Source: Bloomberg, Federal Reserve, TD Economics.

Commodity Price Outlook

	2020				2021				2022			
	Q1	**Q2**	**Q3F**	**Q4F**	**Q1F**	**Q2F**	**Q3F**	**Q4F**	**Q1F**	**Q2F**	**Q3F**	**Q4F**
Crude Oil (WTI, $US/bbl)	46	28	40	41	42	44	48	49	49	49	50	50
Natural Gas ($US/MMBtu)	1.91	1.71	2.20	2.60	2.90	2.95	2.95	3.10	3.12	3.13	3.15	3.16
Gold ($US/troy oz.)	1582	1714	1925	1950	1925	1850	1800	1775	1750	1725	1700	1675
Silver ($US/troy oz.)	16.90	16.38	25.00	26.00	23.50	23.00	22.50	22.00	21.70	21.39	21.08	20.75
Copper (cents/lb)	255	243	295	290	260	263	275	281	282	282	283	284
Nickel ($US/lb)	5.76	5.56	6.50	6.40	6.00	6.05	6.25	6.30	6.32	6.33	6.35	6.36
Aluminum (cents/lb)	77	68	77	75	73	73	73	73	73	74	74	74
Wheat ($US/bu)	6.60	6.46	6.30	6.40	6.46	6.60	6.63	6.66	6.70	6.73	6.76	6.80

F: Forecast by TD Economics as at September 2020. All forecasts are period averages.
Source: Bloomberg, TD Economics, USDA (Haver).

Economic Indicators: G7 & Europe				
		Forecast		
	2019	2020	2021	2022
Real GDP (annual per cent change)				
G7 (30.1%)*	1.6	-5.6	4.2	3.1
U.S.	2.2	-4.0	3.4	3.3
Japan	0.7	-5.1	3.1	2.6
Euro Area	1.3	-7.4	6.3	3.9
Germany	0.6	-5.4	5.7	3.0
France	1.5	-9.1	7.1	2.9
Italy	0.3	-9.9	6.5	3.0
United Kingdom	1.5	-10.4	4.9	3.4
Canada	1.7	-5.6	4.1	3.2
Consumer Price Index (annual per cent change)				
G7	1.5	0.9	1.8	1.5
U.S.	1.8	1.3	2.6	2.2
Japan	0.5	0.2	1.2	1.5
Euro Area	1.2	0.4	1.1	1.5
Germany	1.3	0.8	1.4	1.5
France	1.3	0.5	1.0	1.4
Italy	0.6	-0.1	0.7	1.0
United Kingdom	1.8	0.9	1.4	1.9
Canada	2.0	0.7	1.7	2.1
Unemployment Rate (per cent annual averages)				
U.S.	3.7	8.5	7.3	5.5
Japan	2.4	3.4	4.0	3.3
Euro Area	7.6	8.5	9.4	8.9
Germany	5.0	6.2	6.3	6.0
France	8.5	8.0	9.4	8.8
Italy	10.0	9.1	10.1	9.9
United Kingdom	3.7	5.7	9.0	6.4
Canada	5.7	9.7	7.9	6.5

*Share of 2018 world gross domestic product (GDP) at PPP.

Forecast as at September 2020

Source: National statistics agencies, TD Economics.

Global Economic Outlook				
Annual Per Cent Change Unless Otherwise Indicated				
	2018 Share*	Forecast		
Real GDP	**(%)**	**2020**	**2021**	**2022**
World	100.0	-3.8	6.2	4.1
North America	18.5	-4.6	3.5	3.2
United States	15.2	-4.0	3.4	3.3
Canada	1.4	-5.6	4.1	3.2
Mexico	1.9	-9.0	4.7	3.5
European Union (EU-28)	16.3	-6.7	6.1	3.8
Euro Area (EU-19)	11.4	-7.4	6.3	3.9
Germany	3.2	-5.4	5.7	3.0
France	2.2	-9.1	7.1	2.9
Italy	1.8	-9.9	6.5	3.0
United Kingdom	2.2	-10.4	4.9	3.4
EU accession members	2.6	-4.1	3.6	3.7
Asia	45.0	-1.5	7.7	4.8
Japan	4.1	-5.1	3.1	2.6
Asian NIC's	3.4	-1.5	3.9	3.6
Hong Kong	0.4	-6.1	4.2	3.4
Korea	1.7	-1.1	3.2	3.5
Singapore	0.4	-5.0	6.3	3.6
Taiwan	0.9	0.8	4.2	4.2
Russia	3.1	-5.4	6.0	3.2
Australia & New Zealand	1.1	-3.2	4.3	4.5
Emerging Asia	33.2	-0.7	9.0	5.4
ASEAN-5	5.5	-2.7	7.0	5.4
China	18.7	2.5	9.2	5.2
India**	7.7	-6.9	9.8	5.6
Central/South America	5.6	-7.7	4.2	2.6
Brazil	2.5	-5.0	3.4	2.2
Other Emerging Markets	13.6	-5.1	5.8	3.8
Other Advanced	1.1	-3.9	4.9	4.1

*Share of world GDP on a purchasing-power-parity (PPP) basis.

Forecast as at September 2020. **Forecast for India refers to fiscal year.

Source: IMF, TD Economics.

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