NATIONAL BANK OF CANADA FINANCIAL MARKETS

September 2021

Summary

By Matthieu Arseneau and Jocelyn Paquet

- The summer of 2021 may be remembered as the moment when certain ideas about the Covid-19 pandemic were called into question, notably the hypothesis that mass vaccination would in itself bring a rapid return to pre-pandemic normal. The latest data from Israel have shaken this hypothesis. Israel's world leadership in vaccination has not saved it from a new wave of infections related to the Delta variant. Moreover, the statistics show a marked rise in severe cases of the disease. We already knew the vaccines were less effective against the Delta variant, but that does not explain why rates of death and hospitalization have risen much more in Israel than in the U.K., two countries facing the same strain of the virus with similar rates of vaccination. The most plausible explanation is that the effectiveness of the vaccines diminishes with time. Half the Israeli population had been fully vaccinated by last March 16. The U.K. took until July 6 to reach that point. The progressive decline of the protection provided by vaccines will have consequences for the global economy, especially given the marked rise in worldwide new cases. The ongoing recovery of developed economies is likely to be slowed, though not completely reversed, as public authorities complete their vaccination campaigns or provide booster doses. In emerging economies, the Delta wave effects will vary. They will come directly in a rise in the number of cases, exacerbated by lower vaccination rates. Some emerging economies are also exposed to the Delta risk by dependence on tourism. The other factor to keep in mind is the economic performance of China, which has not been spared by the pandemic this summer. We now see the world economy expanding 5.6% in 2021, down from our outlook of 6.0% at the beginning of July.

- One of the most attention-getting news items from the U.S. in recent days has been a decline of consumer confidence with its potential effect on household spending. The drop was due at least in part to the resurgence of Covid although the expiry of a number of fiscal income-support programs may also be at play. More specifically, the end of unemployment insurance bonuses, on September 6, seems to be darkening the skies for many households. Though recognizing that employment will take time to recover completely from the pandemic shock, we are not unduly worried about the possibility that an income shock could derail household consumption. Personal income excluding government transfers is now 4.1% above its pre-crisis level. Add to that the excess savings accumulated since the beginning of the crisis – amounting to 12.0% of GDP by our calculations – and households seem in good enough shape keep spending strongly after withdrawal of emergency programs. This assumes, of course, that price rises for a number of commodities will not take too big a bite out of consumer. The resulting dynamic could complicate the Fed game plan. Considering increased downside risks and weaker-than-expected Q2 GDP numbers, we are revising our forecast of 2021 U.S. growth down to 5.7%, followed by an expansion of 4.1% next year.

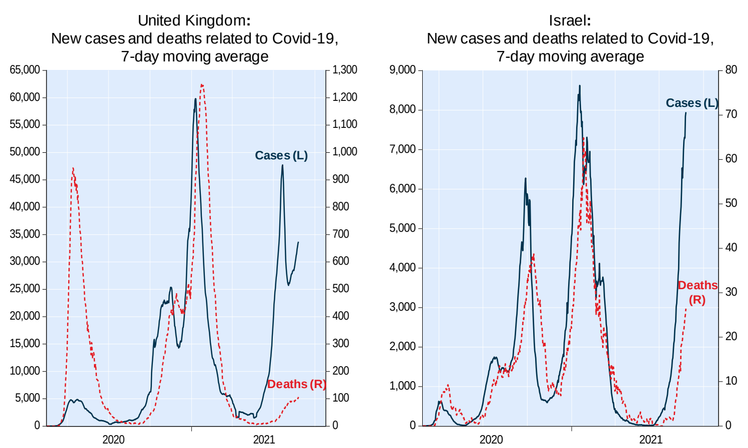
- Though the contraction of Canada's real GDP in the second quarter was a disappointment, it should be kept in mind that the country's economic recovery remains enviable. Especially in nominal terms, where it showed an impressive gain for the quarter leaving nominal GDP at midyear 5.1% above its pre-recession peak, the best number in the G7 countries. Terms of trade improved more than 20% from a year earlier – a gain unprecedented in the history of this data series, resulting in record corporate profits. But it was not only companies that did well in Q2. Household finances continued to improve, with disposable income once again rising strongly in the quarter. Disposable income excluding government programs related to the COVID-19 pandemic was already above its historical trend in Q2, suggesting that consumers are ready to stand on their own feet. This, combined with the large amount of excess savings already accumulated by households (11.4% of GDP), leaves consumers well-positioned to support the recovery. We have nevertheless revised our forecasts of real GDP in 2021 down to 5.0% from 6.0%. Though most of our revision can be attributed to the surprise weakness of GDP in Q2, we have also lowered our expectation for growth in the second half of the year. Easing of public-health restrictions will allow decent expansion in Q3, but the rise of daily new Covid-19 cases puts more of a question mark over the outlook for the fourth quarter. Moreover, although we would consider consumers and businesses well-positioned to support a recovery, supply-chain disruptions like those of the auto industry present a risk under current conditions.

World: Delta is sowing doubt

The summer of 2021 may be remembered as the moment when certain ideas about the Covid-19 pandemic were called into question, notably the hypothesis that mass vaccination would in itself bring a rapid return to pre-pandemic normal. In the last issue of this letter we drew on U.K. data to highlight the uncoupling of daily new infections from hospitalizations and deaths in countries with high rates of vaccination. These data confirmed the effectiveness of the vaccines and spurred anticipation of a world in which a rise of infection rates would not necessarily overburden health-care systems. In other words, we saw in the cards a near-complete reopening of economies in which a threshold share of the population had been vaccinated, even if the virus continued to spread.

The latest data from Israel have shaken this hypothesis. Israel's world leadership in vaccination has not saved it from a new wave of infections related to the Delta variant. Moreover, the statistics show a marked rise in severe cases of the disease.

World: Do the vaccines lose effectiveness over time?



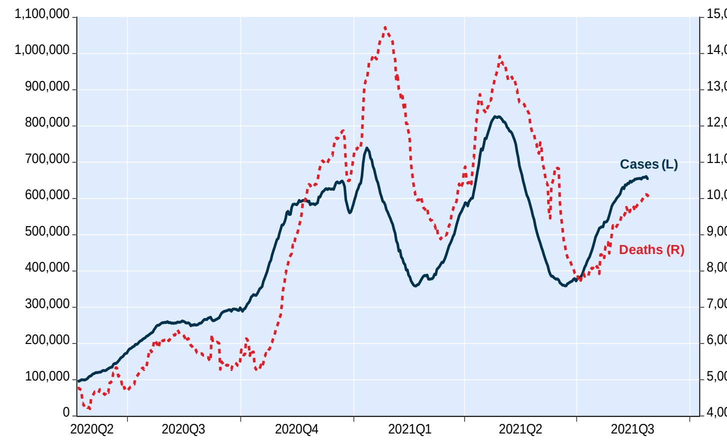
NBF Economics and Strategy (data from Our World in Data)

We already knew the vaccines were less effective against the Delta variant, but that does not explain why rates of death and hospitalization have risen much more in Israel than in the U.K., two countries facing the same strain of the virus with similar rates of vaccination. The most plausible explanation is that the effectiveness of the vaccines diminishes with time. Half the Israeli population had been fully vaccinated by last March 16. The U.K. took until July 6 to reach that point.

The progressive decline of the protection provided by vaccines will have consequences for the global economy, especially given the marked rise in worldwide new cases.

World: The Delta variant is driving a new wave of infections

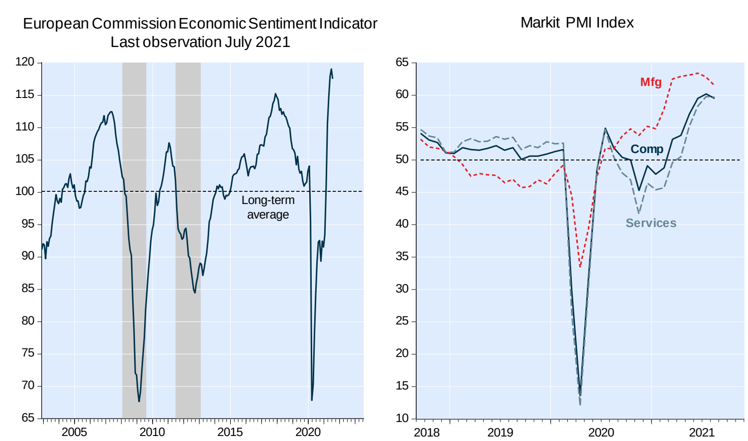
Daily new cases and deaths related to Covid-19, 7-day moving average



NBF Economics and Strategy (data from Our World in Data)

The ongoing recovery of developed economies is likely to be slowed, though not completely reversed, as public authorities complete their vaccination campaigns or provide booster doses. In Israel, some distancing measures have been reintroduced. In Japan and Australia, shutdowns have become more widespread. The U.S. has not been spared. Though the sharp rise of its infection rates has not resulted in strict distancing rules, it seems to have dampened consumer ardour (see U.S. section, below). As for the Eurozone, the European Commission's Economic Sentiment Indicator and the Markit composite PMI remained close to all-time highs in August, while death rates remained well below those of the United States.

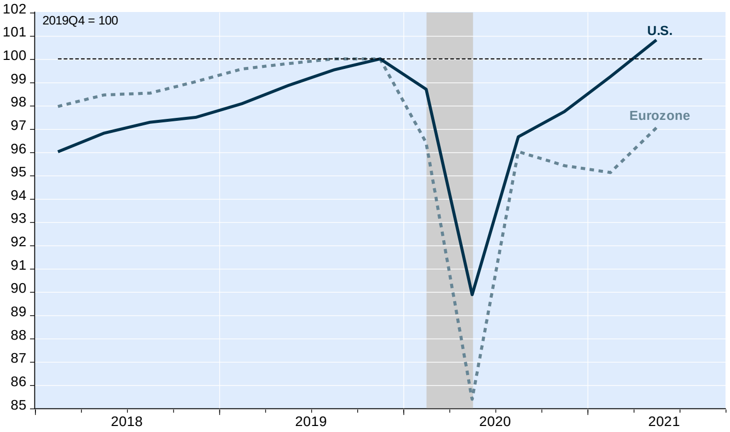
Eurozone: The economy seems to be holding up against Delta



NBF Economics and Strategy (data from Refinitiv)

However, Eurozone real GDP, despite an expectation-topping Q2 gain of 8.3% annualized, was at midyear still 3.0% short of its pre-pandemic peak, a tepid showing compared to the U.S. rebound.

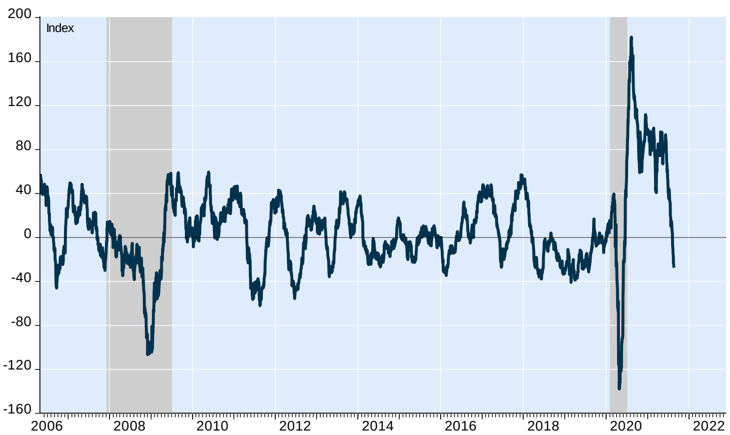
Eurozone: Still much to make up
Real GDP



NBF Economics and Strategy (data from Refinitiv)

With virus effects seeming more persistent than we expected, we have revised our 2021 growth forecast for the developed economies down to 5.0% from 5.5% (see table at the end of this section). This revision is consistent with the retreat of the Citi Economic Surprise Index for the G10 countries.

Developed economies: Delta variant is slowing recovery
Citi Economic Surprise Index for the G-10 countries

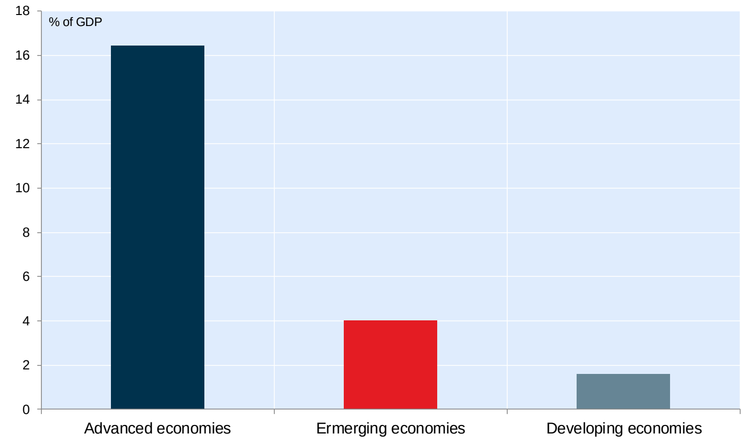


NBF Economics and Strategy (data from Bloomberg)

Despite this downgrade, the developed countries remain on a path of fairly strong expansion in 2021. The vaccines are now easily accessible in the rich countries and we expect that booster doses will be rapidly deployed, raising the collective immunity of the population and further easing pressure on hospitals.

In emerging economies, the Delta wave effects will vary. They will come directly in a rise in the number of cases, exacerbated by lower vaccination rates. Marked increases have already taken place in Mexico, the Philippines, Thailand, Vietnam, Turkey, South Africa, Argentina and elsewhere. Though across-the-board shutdowns are fairly rare in emerging countries, the deterioration of public health could nevertheless temporarily depress household confidence, in a downturn reinforced by the inadequacy or absence of government fiscal support.

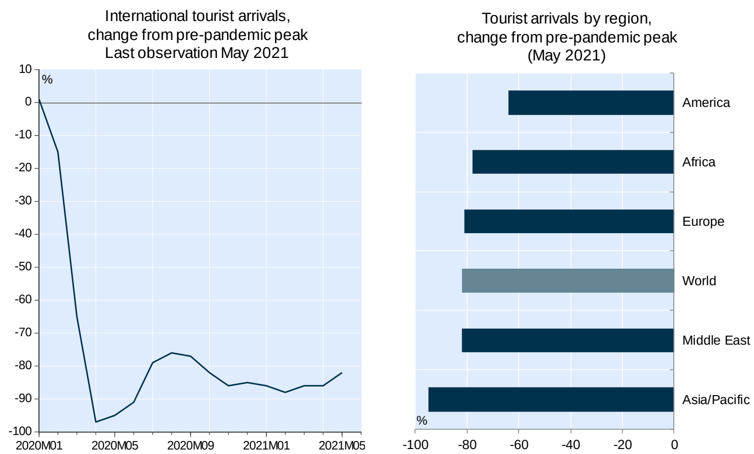
Emerging economies: Fiscal conditions are more constraining
Total measures* implemented since January 2020 to counter effects of Covid-19



* Includes fiscal measures plus loan programs, loan-guarantee programs and government purchases of equity
NBF Economics and Strategy (IMF data)

Some emerging economies are also exposed to the Delta risk by dependence on tourism. Asian destinations would seem especially vulnerable in this respect as China continues to block travel abroad.

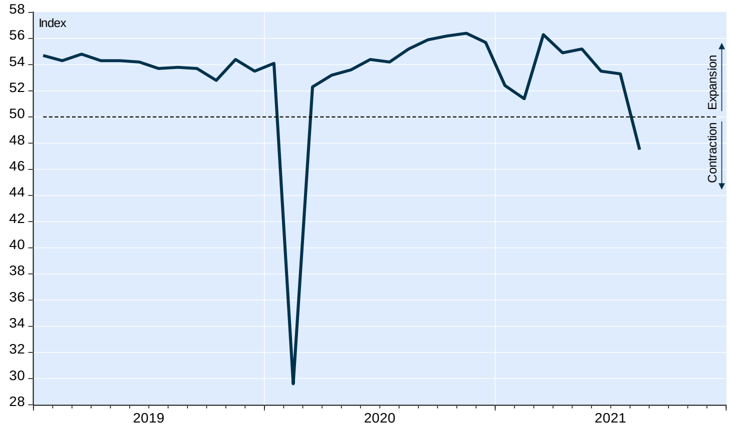
World: Tourism is very far from its pre-pandemic volume



NBF Economics and Strategy (data from United Nations World Tourism Organization)

The other factor to keep in mind is the economic performance of China, which has not been spared by the Delta variant. Though fairly well controlled in China, the pandemic has left marks on the economy this summer. Retail sales, industrial output and investment were all below expectations in July and the services PMI contracted in August with the imposition of strict shutdowns to combat outbreaks of Covid-19.

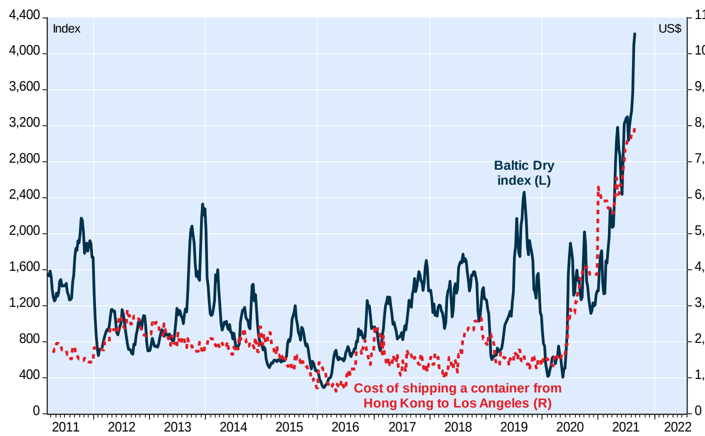
China: Services output slowed by shutdowns
Non-manufacturing PMI, last observation August 2021



NBF Economics and Strategy (data from Bloomberg)

Somewhat ironically, the same zero tolerance of coronavirus infection that spurred recovery of China's economy well before that of other countries now seems to place major obstacles in the path of *complete* reopening, and the global economy has been hit accordingly. The shutdown of Ningbo-Zhoushan, one of the world's largest container terminals, is a case in point. In mid-August the port was obliged to suspend operations after one of its workers tested positive for Covid-19. The shutdown rapidly pushed up global shipping costs, aggravating already-dire supply problems in factories around the world. Similar developments – in China and elsewhere – could continue to upset supply chains as long as Covid is not completely under control.

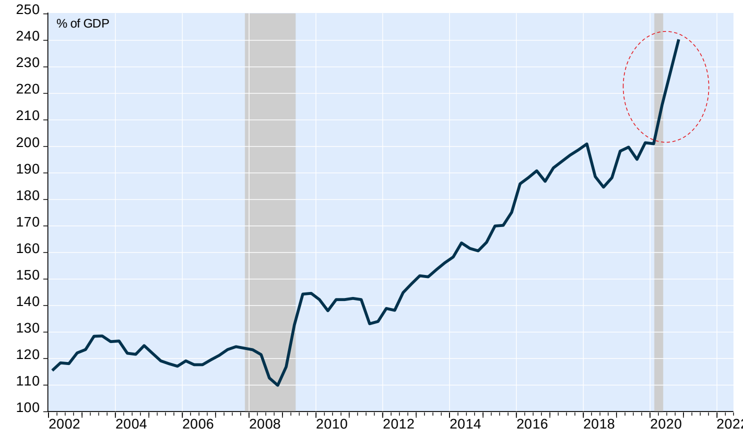
World: Supply chains knocked for a loop by Covid
Baltic Dry Index and benchmark cost of shipping a 40-ft container from Hong Kong to Los Angeles



NBF Economics and Strategy (data from Bloomberg and Drewry Shipping Consultancy)

Which leads us to another important issue: inflation. As we have been writing for some time now, supply chains are having a hard time adjusting to the pandemic reality, resulting in shortages of all kinds and driving up manufacturers' input costs. Part of these cost increases has been passed on to consumers, boosting inflation in a number of countries. The central banks of the U.S., the Eurozone and Canada have the luxury of waiting to see whether this rise is temporary. But in emerging countries, inflation outlooks are less well-anchored and currencies are more subject to investor mood swings. To avoid capital flight and to control inflation, the central banks of Brazil, Russia, Mexico, Turkey, Chile and Peru have begun raising their policy rates. At a time when indebtedness has risen sharply, this process could be perilous.

Emerging countries: Greater sensitivity to interest rates
Volume of credit extended to nonfinancial sector as % of GDP



NBF Economics and Strategy (data from Belt and Road Initiative)

So far, however, judging by the signal from emerging-country exchange rates, investors do not seem unduly worried by this risk.

Emerging countries: Markets still confident
JP Morgan index of emerging-country currencies

NBF Economics and Strategy (data from Bloomberg)

As in the case of the developed economies, we are revising down our forecasts for emerging economies (from 6.4% to 6.1%) to reflect life with the Delta variant and its constraints on output. As for the global economy, we now see it expand 5.6% in 2021, down from our outlook of 6.0% at the beginning of July.

World Economic Outlook

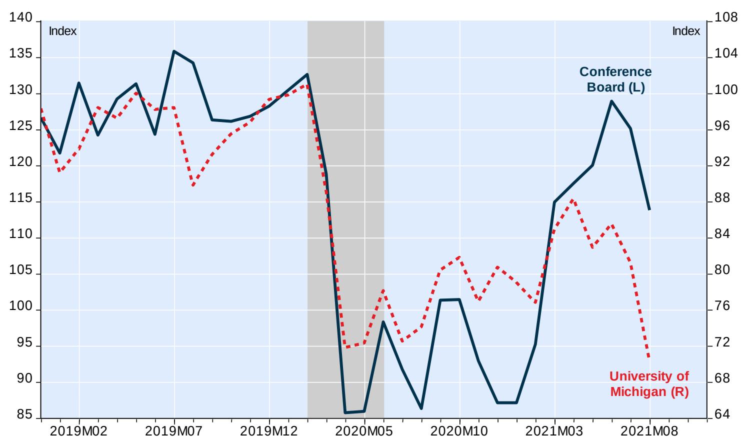
	2020	2021	2022
Advanced Economies	-4.5	5.0	4.0
United States	-3.4	5.7	4.1
Eurozone	-6.4	4.8	4.4
Japan	-4.7	2.6	2.5
UK	-10.1	6.8	4.9
Canada	-5.3	5.0	4.0
Australia	-2.3	4.5	3.5
Korea	-0.9	4.1	3.2
Emerging Economies	-2.1	6.1	4.8
China	2.3	8.1	5.5
India	-7.3	9.0	7.5
Mexico	-8.2	6.0	3.2
Brazil	-4.1	5.2	2.4
Russia	-3.0	3.9	2.9
World	-3.1	5.6	4.5

NBF Economics and Strategy (data via NBF and Conensus Economics)

U.S.: Consumer confidence sapped by inflation

One of the most attention-getting news items from the U.S. in recent days has been a decline of consumer confidence with its potential effect on household spending. In August the Conference Board index was down 11.3 points to a six-month low of 113.8 and the University of Michigan survey was down to its lowest since December 2011 (70.3).

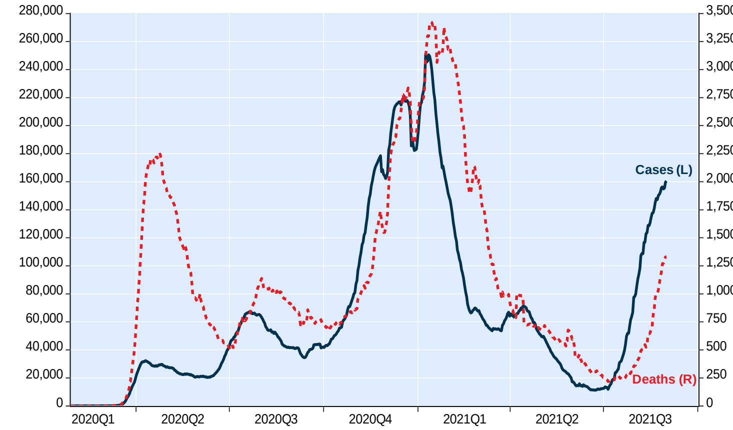
U.S.: A sharp decline of consumer confidence in August
Conference Board and University of Michigan confidence indexes



NBF Economics and Strategy (data from Refinitiv)

The drop was due at least in part to the resurgence of Covid. Like many other countries the U.S. is currently grappling with a new wave of infection related to the Delta variant. Daily new cases and deaths have climbed back to the highest rates in months. Predictably, the states with the lowest vaccination rates are those with the highest new-case rates.

U.S.: Resurgence of Covid
Daily new cases and deaths related to Covid-19, 7-day moving average



NBF Economics and Strategy (data from Our World in Data)

We note, however, that the economic effects of the present wave of Covid-19 seem much more restrained than in past waves. The Google Mobility Report shows only a very slight decrease in traffic in retail stores and recreation sites.

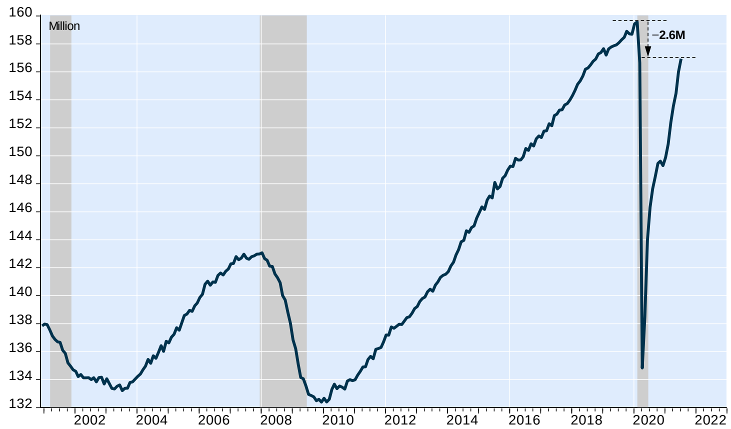
U.S.: The current wave of Covid seems less damaging to the economy
Google Mobility Report for retail and recreation, 7-day moving average

NBF Economics and Strategy (data from Google)

This can be explained by the fact that the Americans most at risk of infection according to the CDC – those who have chosen to remain unvaccinated – are those least likely to change their behaviour when the case rate rises. The story is similar for the numbers by state: the states with the highest rates of infection are generally those least inclined to impose strict distancing rules. The absence of restrictions (personal or governmental) helps keep economies going.

If the psychological and economic effects are less than before, why has consumer confidence fallen to lows near those seen at the worst of the crisis? The reason could be the expiry of a number of fiscal income-support programs. Since the beginning of the crisis we have been noting the importance of these programs in sustaining consumption. It follows that the confidence of U.S. consumers is taking a hit from their withdrawal. More specifically, the end of unemployment insurance bonuses, on September 6, seems to be darkening the skies for many households. As of August 13, 9.2 million people were still benefiting from these supplements. They must now either fall back on less generous programs or find employment. Though the outlook for hiring is encouraging – job openings in June were at an all-time high – total employment demand (jobs + job openings) is 2.6 million short of the pre-pandemic level. So it will take some time for total employment to return to its previous level.

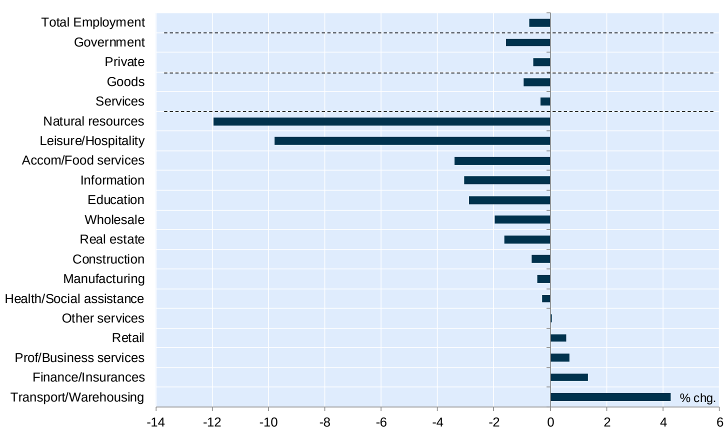
U.S.: Not enough job openings to make up the employment shortfall
Total demand for labour: employment + unfilled positions



NBF Economics and Strategy (data from Bloomberg)

Those working in the sectors hardest hit by the pandemic – resource extraction, arts/entertainment/recreation and accommodation/food services – are of course likely to have a harder time rejoining the labour force. Covid persistence could even oblige them to shift careers, a process that could take several years.

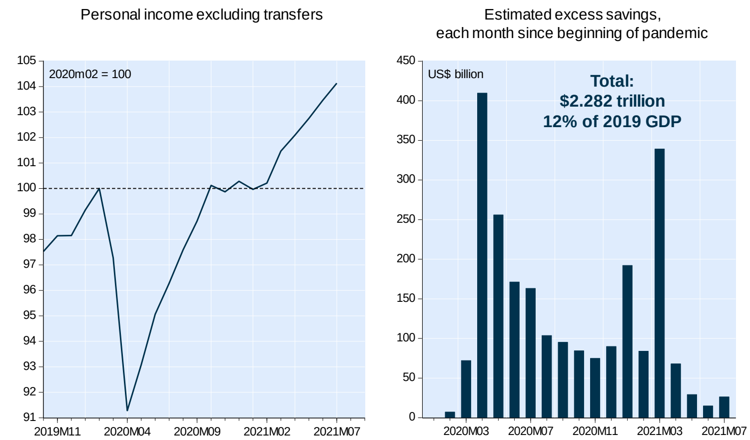
U.S.: Demand for labour falls short of pre-pandemic level
Total demand for labour (employment + job openings) in July 2021* vs. 2019 average



* July job openings as estimated by NBF
NBF Economics and Strategy (data from Bloomberg and Refinitiv)

Though recognizing that employment will take time to recover completely from the pandemic shock, we are not unduly worried about the possibility that an income shock could derail household consumption. Personal income excluding government transfers is now 4.1% above its pre-crisis level. Add to that the excess savings accumulated since the beginning of the crisis – amounting to 12.0% of GDP by our calculations – and households seem in good enough shape keep spending strongly after withdrawal of emergency programs.

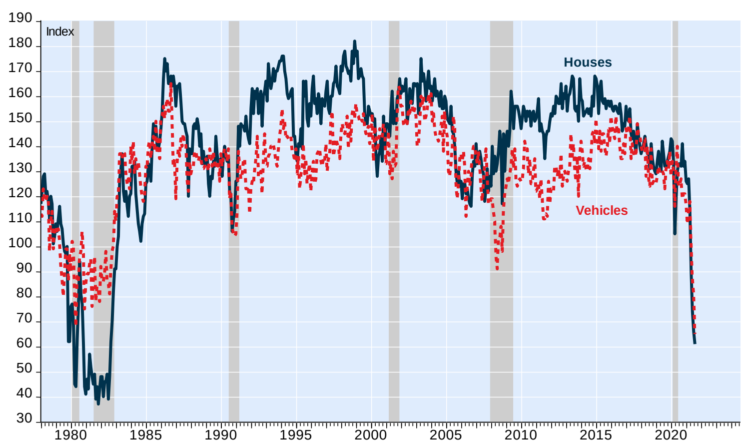
U.S.: Households in good shape even without transfer payments



NBF Economics and Strategy (data from Bloomberg and Refinitiv)

This assumes, of course, that price rises for a number of commodities will not take too big a bite out of consumer purchasing power. It should be kept in mind that respondents to the August University of Michigan survey reported the worst conditions for buying vehicles and houses since the 1980s.

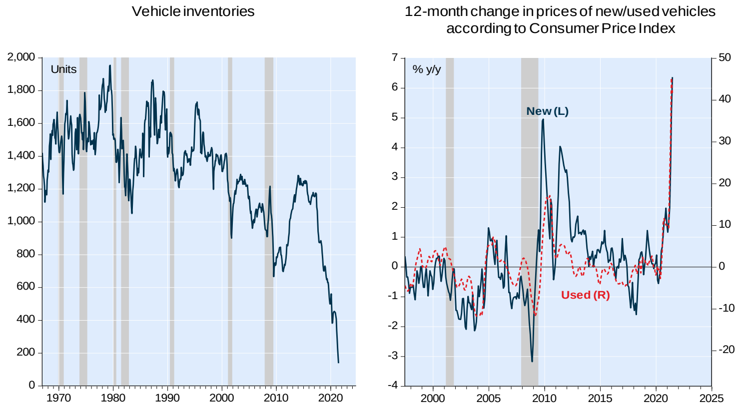
U.S.: Worst buying conditions in decades
University of Michigan consumer surveys, buying conditions for vehicles and houses



NBF Economics and Strategy (data from Bloomberg)

This is hardly surprising at a time when scarcity of computer chips has brought a collapse of vehicle inventories in the U.S. and a sharp rise of prices.

U.S.: Vehicle inventories at an all-time low

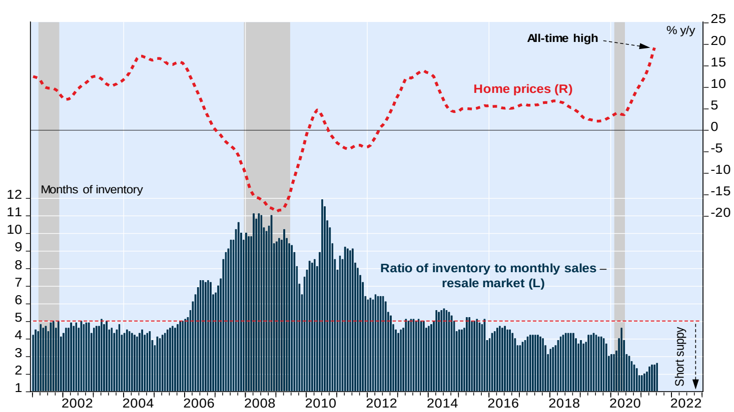


NBF Economics and Strategy (data from Bloomberg and Refinitiv)

The story for housing is similar. In June the Case-Shiller index of home prices reported its largest 12-month rise since the series began in 1987.

U.S.: A roaring seller's market in housing

12-month change in S&P CoreLogic Case-Shiller 20-City Home Price Index vs. resale-market inventory

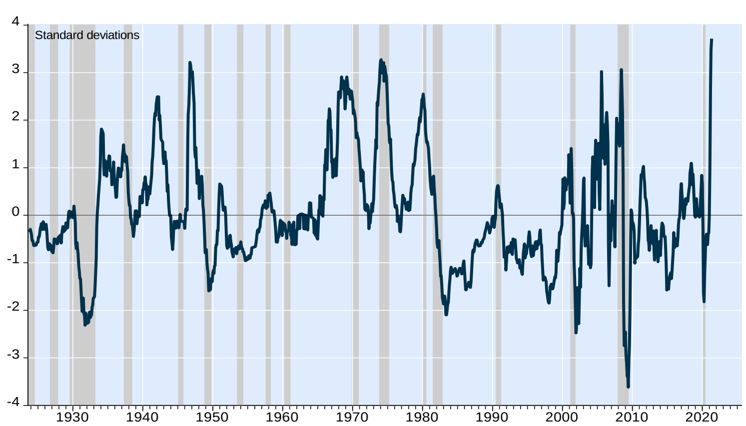


NBF Economics and Strategy (data from Refinitiv)

Price inflation is not limited to motor vehicles and housing. The June all-items CPI was up 5.4% from a year earlier, the largest 12-month rise since 2008. Compared to the long-term (10-year) trend, the recent price surge is the sharpest ever.

U.S.: A run-up of prices way out of the ordinary

Deviation of 12-month inflation from 10-year average

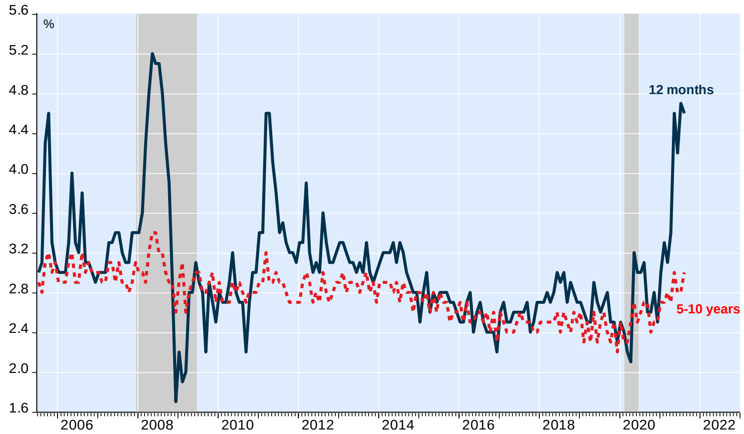


NBF Economics and Strategy (data from Bloomberg and FRED St. Louis)

The Federal Reserve sees this surge as transient. Consumers seem to be not so sure: their medium- and long-term inflation expectations are on the rise.

U.S.: Inflation expectations on the rise

University of Michigan consumer surveys, expected inflation over next 12 months and next 5-10 years

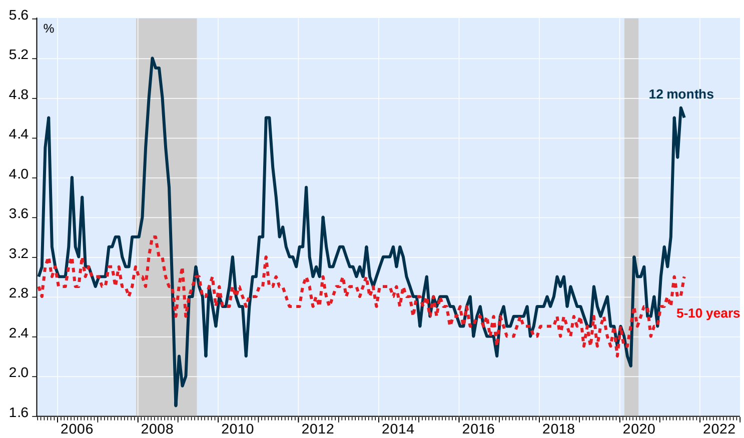


NBF Economics and Strategy (data from Bloomberg)

They even fear that price rises will reduce their real income.

U.S.: Inflation expectations on the rise

University of Michigan consumer surveys, expected inflation over next 12 months and next 5-10 years

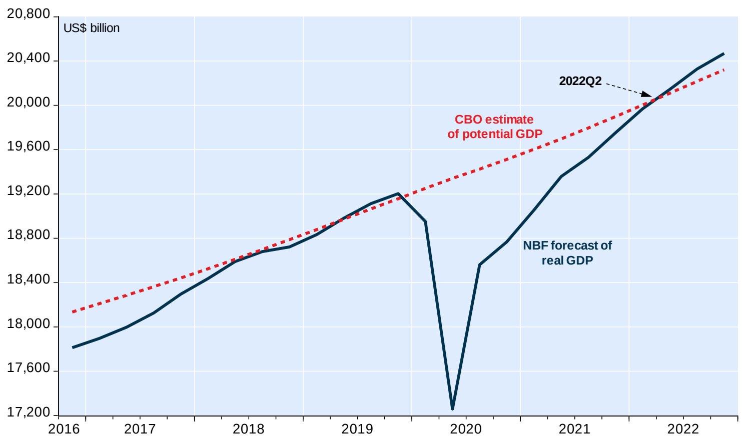


NBF Economics and Strategy (data from Bloomberg)

That could lead workers to demand higher pay raises, adding in turn to stimulation of inflation. The resulting dynamic could complicate the Fed game plan.

In light of these risk factors (rise in Covid-19 cases, shortfall in employment recovery, supply problems, rising inflation) and weaker-than-expected Q2 GDP numbers, we are revising our forecast of 2021 U.S. growth down to 5.7%, followed by an expansion of 4.1% next year. This revision, combined with the fact that the CBO has revised its estimate of potential GDP upwards, means that output should exceed potential in 2022Q2. We previously anticipated that this would happen in the third quarter of the current year.

U.S.: GDP back to potential in Q2 2022
Real GDP with NBF forecasts vs. potential GDP as estimated by CBO

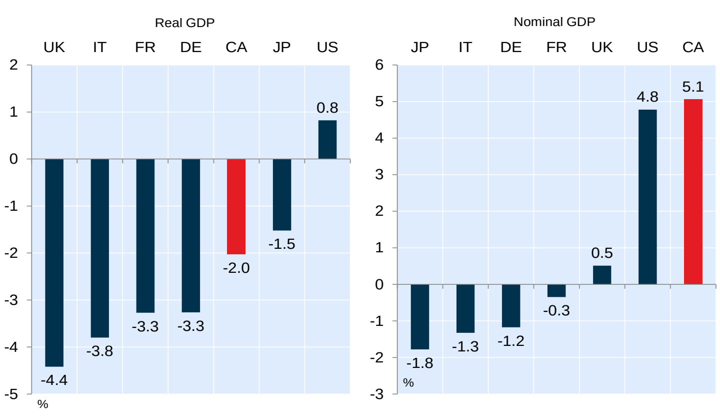


NBF Economics and Strategy (data from CBO)

Canada: A stumble in Q2

Against all expectations, the report for Canadian real GDP in Q2 showed a contraction of 1.1% annualized, just a month after Statistics Canada suggested a quarterly expansion of 2.5% annualized based on monthly GDP by industry (including a preliminary estimate for June). Actual Q2 GDP, reported in late August, was the worst showing in the G7. The 15% drop in exports caused a 4.8 percentage points negative contribution to the quarterly print. No less than 40% of the pullback in exports came in autos and parts because of that industry's unprecedented problems in computer-chip supply. In addition, overheated residential investment began to cool, as expected, and the recovery of consumption paused as public-health measures remained restrictive. Though the Q2 result was disappointing in real terms, it should be noted that the Canadian recovery remains enviable in nominal terms, with a Q2 gain of 7.9% annualized. Nominal Canadian GDP ended the quarter 5.1% above its pre-recession peak, the best number in the G7.

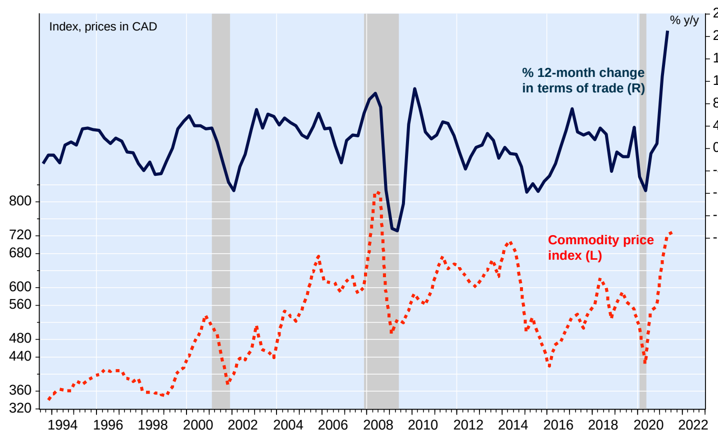
Canada: Despite Q2 pullback, the recovery remains enviable
Real and nominal GDP, % difference from pre-pandemic level (2019Q4)



NBF Economics and Strategy (data via Refinitiv)

A jump in resource prices contributed to this development. Terms of trade improved more than 20% from a year earlier – a gain unprecedented in the 60-year history of this data series. The good news is that prices received by resource producers have continued to rise so far in Q3, since resource prices in USD have been holding up and the CAD has been depreciating against the greenback. So the record corporate profits of Q2 could increase further in Q3, especially given that exports rebounded.

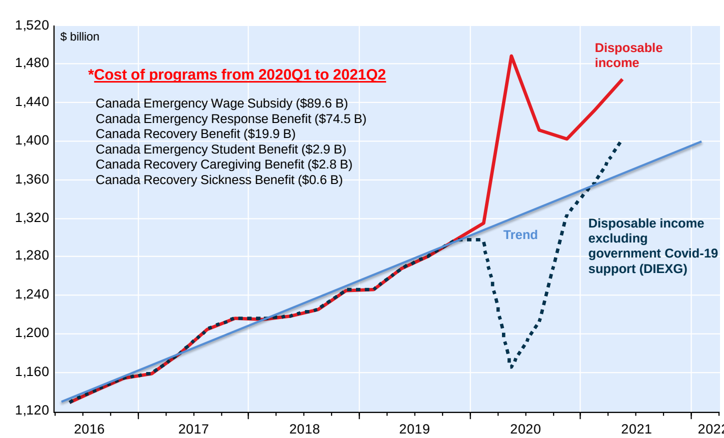
Canada: Terms of trade propelled by the surge of commodity prices
% 12-month change in terms of trade and Bank of Canada index of commodity prices in Canadian dollars



NBF Economics and Strategy (data via Statistics Canada and Bank of Canada)

But it was not only companies that did well in Q2. Household finances continued to improve. Disposable income once again rose strongly in the quarter (9.6% annualized after 8.6% in Q1), wages rose and government income-support programs remained in place. But many wonder about the risks of an income shock for households as those programs put in place during the pandemic end in the coming weeks. The national accounts for Q2 suggest that consumers are ready to stand on their own feet. Disposable income excluding government programs related to the Covid-19 pandemic was already above its historical trend in Q2. Job creation so far in the third quarter suggests that the upward trend has continued. This, combined with the large amount of excess savings already accumulated by households (11.4% of GDP), leaves consumers well-positioned to support the recovery.

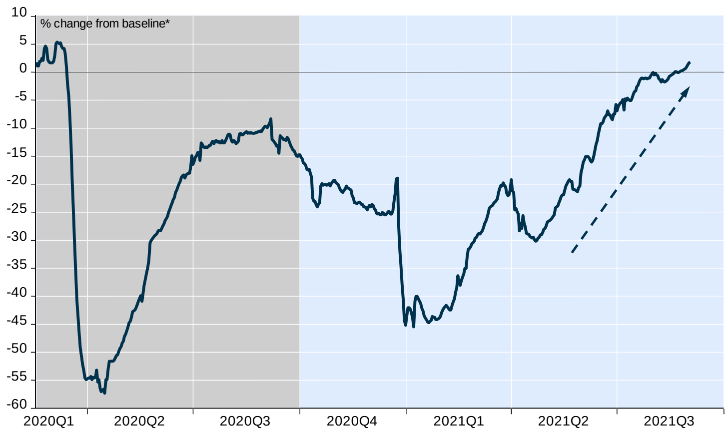
Canada: Are consumers ready to stand on their own feet?
Disposable income and disposable income excluding government Covid-19 support (annualized)*



NBF Economics and Strategy (data via Statistics Canada, link)

There are encouraging signs from Canadian consumers in the current quarter. Thanks to easing of public health measures, the Google mobility report shows a sharp rebound in retail & recreation activity. To be sure, the Canadian index is well above its Q2 average and at a level comparable to that prevailing before the pandemic.

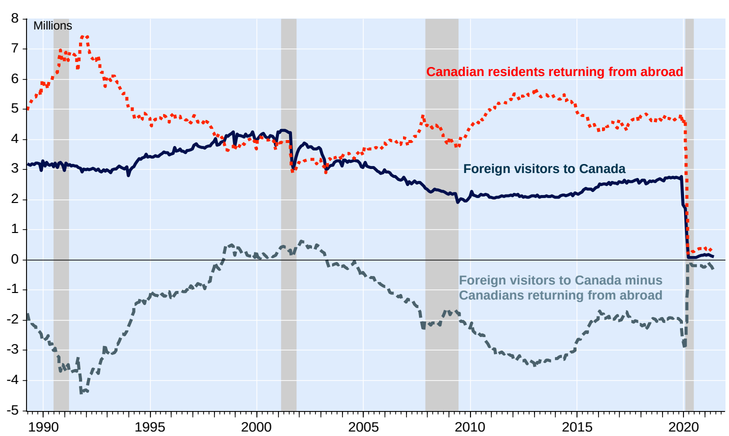
Canada: Retail & recreation mobility back to pre-pandemic level
Google mobility data for retail & recreation, 7-day moving average



* Baseline is median value of the corresponding day of the week during the 5 weeks from January 3 to February 6 2020
NBF Economics and Strategy (data via Google)

Another factor will also favour the Canadian economy in the third quarter. It is important to keep in mind that Canada has traditionally run a deficit in international travel (i.e. it is a net exporter of travellers and their spending). The Covid-19 pandemic, by disrupting international travel, has limited outbound spending. Already in Q2, this factor gave Canada its largest current-account surplus since 2008 (see note). This situation may continue into the third quarter, since for a second consecutive summer Canadians have mostly vacationed at home. Since August, Canadian tourists have been unable to enter the U.S. by land, while there are no restrictions for Americans.

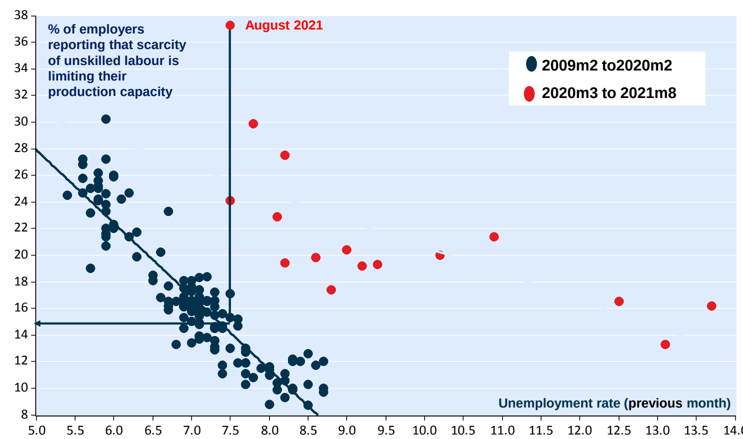
Canada: Slowdown of international tourism favours national economy
Foreign visitors to Canada and Canadian residents returning from abroad



NBF Economics and Strategy (data via Statistics Canada)

There are indications that at this point it is not skittishness of households and businesses that could brake growth but production constraints. Since 2009, the Canadian Federation of Independent Business has conducted a monthly survey of its members on this point. In August, a record-high 37% of small businesses reported that a shortage of unskilled labour was an obstacle to their business. Such a reading raises questions when the unemployment rate remains well above its pre-recession level and job losses are concentrated among low-wage earners. When the unemployment rate was around the current level in the previous cycle, only 15% of businesses reported that labour shortages were an issue. It's true that part of the reason for this anomaly may be some mismatch between the type of jobs offered by companies and the profile of workers on the sidelines. But there is much more than that. In our view, the generosity of income-support programs has been a disincentive to return to work. With government having started to decrease its generosity in August and its programs slated to end by November, businesses should see some improvement in recruiting in the months ahead.

Canada: Are income support programs holding back recovery?
Indicator of unskilled-labour scarcity vs. unemployment rate

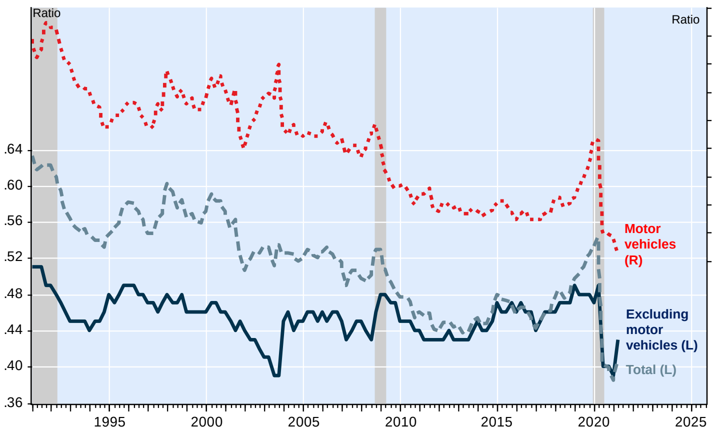


NBF Economics and Strategy (data via CFIB and Statistics Canada)

However, labour scarcity is not the only factor holding up production at this point. As noted above, the auto industry is facing production problems that could brake the rebound of consumption. August vehicle sales, seasonally adjusted, were down 10% from July.[1] There is reason to believe this decline is due to a bottleneck in supply of product to dealers. In Q2 the auto industry had the lowest ratio of inventory to sales ever recorded. Inventories of other retailers, though rising, were still low by historical standards.

[1] We have seasonally adjusted the Desrosiers estimates.

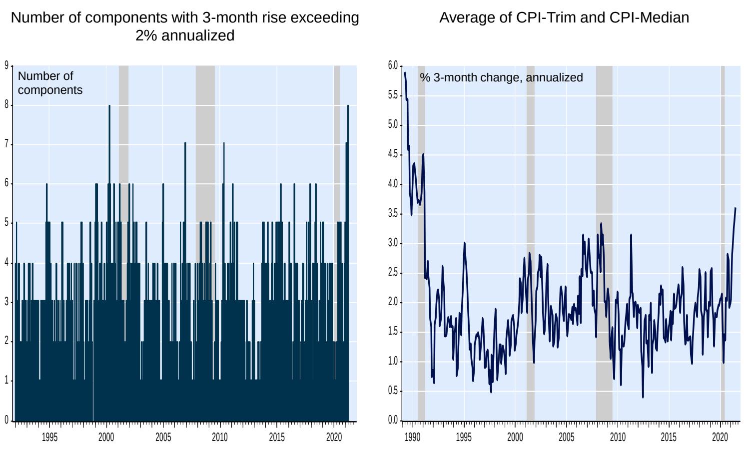
Canada: Record low dealer inventories of motor vehicles
Ratios of retail inventories to sales



NBF Economics and Strategy (data via Statistics Canada)

This environment was propitious to intensification of inflation pressure. In July the Consumer Price Index surprised economists on the upside for the third time in four months. Its rise from a year earlier was 3.7%, the most in a decade. Though the base effect is still a factor in the current high 12-month rises, the CPI has risen at an even faster rate in the last three months – 4.4% annualized. What sets the current period apart is the broad base of prices rises. In those last three months the annualized inflation of all eight CPI components topped the 2% target of the central bank. This has happened only once before in the history of the data series. Core inflation measures tell the same story. CPI-Median and CPI-Trim, which exclude outlier components showing the most extreme movements, have been averaging increases unequalled in three decades. So the economic recovery is slower than the Bank of Canada anticipated, but inflationary pressures are such that it could stay the course for reduction of its monetary accommodation.

Canada: Inflationary pressures are broad-based



NBF Economics and Strategy (data via Statistics Canada)

This month we are revising our forecast of real GDP growth in 2021 down to 5.0% from 6.0%. Though most of our revision can be attributed to the surprising weakness of GDP in Q2, we have also lowered our expectation for growth in the second half of the year. Easing of public-health restrictions will allow decent expansion in Q3, but the rise of daily new Covid-19 cases puts more of a question mark over the outlook for the fourth quarter. Moreover, although we would consider consumers and businesses well-positioned to support a recovery, supply-chain disruptions like those of the auto industry present a risk under current conditions.

United States
Economic Forecast

(Annual % change)*	2018	2019	2020	2021	2022	Q4/Q4 2020	Q4/Q4 2021	Q4/Q4 2022
Gross domestic product (2012 $)	2.9	2.3	(3.4)	5.7	4.1	(2.3)	5.3	3.7
Consumption	2.9	2.2	(3.8)	8.0	3.3	(2.4)	7.4	2.2
Residential construction	(0.6)	(0.9)	6.8	10.6	0.2	15.7	0.5	1.0
Business investment	6.4	4.3	(5.3)	7.6	3.0	(3.8)	7.2	1.9
Government expenditures	1.4	2.2	2.5	1.0	1.2	1.2	1.5	2.0
Exports	2.8	(0.1)	(13.6)	4.3	5.4	(10.7)	2.5	6.0
Imports	4.1	1.2	(8.9)	12.2	1.2	0.3	4.2	0.9
Change in inventories (bil. $)	65.7	75.1	(42.3)	(113.5)	100.0	88.8	(75.0)	175.0
Domestic demand	3.0	2.4	(2.5)	6.8	2.8	(1.3)	6.0	2.1
Real disposable income	3.4	2.3	6.2	3.0	(1.7)	4.0	1.9	1.2
Payroll employment	1.6	1.3	(5.7)	2.6	3.4	-6.0	4.1	2.5
Unemployment rate	3.9	3.7	8.1	5.7	4.9	6.8	5.1	4.5
Inflation	2.4	1.8	1.3	4.3	3.3	1.2	5.3	2.7
Before-tax profits	8.3	2.7	(5.2)	14.9	2.3	0.9	7.1	2.6
Current account (bil. $)	(438.2)	(472.1)	(616.1)	(743.8)	(770.5)	...	...	...

** or as noted*

Financial Forecast**

	Current 9/03/21	Q3 2021	Q4 2021	Q1 2022	Q2 2022	2020	2021	2022
Fed Fund Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3 month Treasury bills	0.05	0.05	0.05	0.10	0.10	0.09	0.05	0.20
Treasury yield curve								
2-Year	0.21	0.25	0.30	0.40	0.60	0.13	0.30	0.85
5-Year	0.78	0.85	1.00	1.15	1.25	0.36	1.00	1.45
10-Year	1.33	1.40	1.50	1.65	1.75	0.93	1.50	1.90
30-Year	1.94	2.00	2.10	2.20	2.25	1.65	2.10	2.30
Exchange rates								
U.S.$/Euro	1.19	1.22	1.21	1.21	1.20	1.22	1.21	1.19
YEN/U.S.$	110	109	108	109	109	103	108	108

*** end of period*

Quarterly pattern

	Q1 2020 actual	Q2 2020 actual	Q3 2020 actual	Q4 2020 actual	Q1 2021 actual	Q2 2021 actual	Q3 2021 forecast	Q4 2021 forecast
Real GDP growth (q/q % chg. saar)	(5.1)	(31.2)	33.8	4.5	6.3	6.5	3.6	4.7
CPI (y/y % chg.)	2.1	0.4	1.3	1.2	1.9	4.8	5.2	5.3
CPI ex. food and energy (y/y % chg.)	2.2	1.3	1.7	1.6	1.4	3.7	4.1	4.5
Unemployment rate (%)	3.8	13.1	8.8	6.8	6.2	5.9	5.6	5.1

National Bank Financial

Canada
Economic Forecast

*(Annual % change)**	*2018*	*2019*	*2020*	*2021*	*2022*	*Q4/Q4 2020*	*2021*	*2022*
Gross domestic product (2012 $)	2.4	1.9	(5.3)	5.0	4.0	(3.1)	3.4	3.7
Consumption	2.5	1.6	(6.0)	4.1	4.8	(4.4)	3.2	4.9
Residential construction	(1.7)	(0.2)	4.1	18.1	(5.3)	14.5	2.7	(4.3)
Business investment	3.1	1.1	(13.6)	0.1	6.1	(13.9)	4.8	5.4
Government expenditures	3.2	1.7	0.4	5.7	2.2	2.4	4.0	1.7
Exports	3.7	1.3	(10.0)	2.1	6.3	(7.4)	1.3	7.0
Imports	3.4	0.4	(11.2)	7.2	5.1	(5.9)	4.0	5.1
Change in inventories (millions $)	15,486	18,766	(15,937)	5,129	14,967	(287)	11,000	12,869
Domestic demand	2.5	1.4	(4.3)	5.4	3.1	(2.0)	3.4	3.1
Real disposable income	1.5	2.2	9.5	1.2	(0.7)	7.4	1.2	0.5
Employment	1.6	2.2	(5.1)	4.4	2.8	(2.9)	3.1	2.1
Unemployment rate	5.9	5.7	9.6	7.7	6.4	8.8	6.9	6.3
Inflation	2.3	1.9	0.7	3.1	2.8	0.8	3.8	2.2
Before-tax profits	3.8	0.6	(4.0)	38.0	2.6	9.4	21.3	4.0
Current account (bil. $)	(52.2)	(47.4)	(40.1)	5.0	(38.0)	....	....	....

** or as noted*

Financial Forecast**

	Current 9/03/21	*Q3 2021*	*Q4 2021*	*Q1 2022*	*Q2 2022*	*2020*	*2021*	*2022*
Overnight rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.75
3 month T-Bills	0.16	0.20	0.20	0.20	0.25	0.07	0.20	0.65
Treasury yield curve								
2-Year	0.40	0.45	0.50	0.60	0.70	0.20	0.50	1.05
5-Year	0.79	0.85	1.00	1.10	1.15	0.39	1.00	1.50
10-Year	1.19	1.25	1.35	1.45	1.55	0.68	1.35	1.70
30-Year	1.75	1.80	1.90	1.95	2.00	1.21	1.90	2.10
CAD per USD	1.25	1.27	1.24	1.22	1.23	1.27	1.24	1.24
Oil price (WTI), U.S.$	69	72	75	70	67	48	75	65

*** end of period*

Quarterly pattern

	Q1 2020 actual	*Q2 2020 actual*	*Q3 2020 actual*	*Q4 2020 actual*	*Q1 2021 actual*	*Q2 2021 actual*	*Q3 2021 forecast*	*Q4 2021 forecast*
Real GDP growth (q/q % chg. saar)	(7.9)	(38.0)	41.7	9.3	5.5	(1.1)	4.6	4.7
CPI (y/y % chg.)	1.8	0.0	0.3	0.8	1.4	3.4	4.0	3.8
CPI ex. food and energy (y/y % chg.)	1.8	1.0	0.6	1.1	1.0	2.1	3.0	3.0
Unemployment rate (%)	6.4	13.1	10.1	8.8	8.4	8.0	7.3	6.9

National Bank Financial

Provincial economic forecast

	Real GDP (% growth)					Nominal GDP (% growth)				
	2018	2019	2020f	2021f	2022f	2018	2019	2020f	2021f	2022f
Newfoundland & Labrador	-3.5	4.0	-5.3	3.2	2.6	0.8	4.1	-8.3	14.8	3.8
Prince Edward Island	2.5	5.1	-3.0	3.5	4.0	3.6	7.0	-1.0	7.2	5.0
Nova Scotia	1.9	2.4	-3.2	3.8	3.3	3.6	3.8	-1.9	6.9	4.6
New Brunswick	0.5	1.2	-3.7	3.6	3.0	3.6	3.0	-1.9	8.5	4.3
Quebec	2.9	2.7	-5.3	5.6	4.1	5.4	4.3	-4.1	10.8	5.2
Ontario	2.8	2.1	-5.0	4.8	4.2	4.1	3.8	-4.8	8.7	5.2
Manitoba	1.5	0.6	-4.8	4.3	3.5	2.5	1.0	-4.0	11.0	5.0
Saskatchewan	1.2	-0.7	-5.2	4.9	3.5	3.2	0.1	-9.2	20.5	4.3
Alberta	1.9	0.1	-8.2	5.6	4.2	3.4	2.7	-11.6	21.5	5.3
British Columbia	2.7	2.7	-3.8	5.2	4.2	4.9	4.4	-2.3	10.8	4.7
Canada	2.4	1.9	-5.3	5.0	4.0	4.2	3.6	-4.6	11.7	5.1

	Employment (% growth)					Unemployment rate (%)				
	2018	2019	2020f	2021f	2022f	2018	2019	2020f	2021f	2022f
Newfoundland & Labrador	0.5	1.3	-5.9	3.5	0.4	14.1	12.3	14.2	12.8	12.2
Prince Edward Island	4.2	3.4	-3.2	3.7	2.2	9.4	8.6	10.6	8.7	8.2
Nova Scotia	1.9	2.3	-4.7	5.4	1.6	7.7	7.3	9.8	8.2	7.7
New Brunswick	0.6	0.7	-2.6	3.0	1.2	8.0	8.2	10.1	8.7	8.5
Quebec	1.5	2.0	-4.8	4.4	3.0	5.5	5.2	8.9	6.4	5.6
Ontario	1.7	2.8	-4.7	4.3	3.0	5.7	5.6	9.6	8.3	6.4
Manitoba	1.1	1.0	-3.7	3.7	2.0	6.0	5.4	8.0	6.8	5.5
Saskatchewan	0.6	1.7	-4.6	3.7	2.3	6.2	5.5	8.4	6.4	5.6
Alberta	1.9	0.6	-6.5	4.9	3.3	6.7	7.0	11.5	8.7	7.5
British Columbia	1.4	2.9	-6.5	5.4	2.9	4.8	4.7	9.0	6.7	5.6
Canada	1.6	2.2	-5.1	4.4	2.8	5.9	5.7	9.6	7.7	6.4

	Housing starts (000)					Consumer Price Index (% growth)				
	2018	2019	2020f	2021f	2022f	2018	2019	2020f	2021f	2022f
Newfoundland & Labrador	1.1	0.9	0.8	1.3	0.8	1.7	1.0	0.2	3.1	2.6
Prince Edward Island	1.1	1.5	1.2	1.2	1.0	2.3	1.2	0.0	3.6	2.7
Nova Scotia	4.8	4.7	4.9	5.3	4.2	2.2	1.6	0.3	3.5	2.8
New Brunswick	2.3	2.9	3.5	4.0	2.8	2.2	1.7	0.2	3.4	2.8
Quebec	46.9	48.0	54.1	72.0	56.0	1.7	2.1	0.8	3.3	2.8
Ontario	78.7	69.0	81.3	95.8	81.7	2.4	1.9	0.6	3.3	2.8
Manitoba	7.4	6.9	7.3	7.5	6.3	2.5	2.3	0.5	2.9	2.7
Saskatchewan	3.6	2.4	3.1	4.0	3.6	2.3	1.7	0.6	2.9	2.7
Alberta	26.1	27.3	24.0	30.5	27.0	2.5	1.7	1.1	3.0	2.7
British Columbia	40.9	44.9	37.7	48.5	36.6	2.7	2.3	0.8	3.3	2.7
Canada	212.8	208.7	217.8	270.1	220.0	2.3	1.9	0.7	3.1	2.8

e: estimate f: forecast

Historical data from Statistics Canada and CMHC, National Bank of Canada's forecast.

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