



Tracking the Canadian Economy through COVID-19: Insights from customer transactions – August 27, 2020

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1. Key Insights from Canadian Customer Transactions

This presentation is part of the weekly series intended to draw insights about the state of the Canadian economy from the flow of Scotiabank's retail and non-retail transactions data.

Key takeaways from the payments data in this week's publication:

- Business transactions updated to August 20th show a continuing positive trend:
 - Activity picked up in mid-August on slowly rising automated fund transfer (AFT) transactions at manufacturing firms, adding to strength in wholesale and retail payment flow. Payments to transportation and warehousing continue to run far below last year's levels.
 - Progress on rent payments continued through August 20th, while payroll deposits have pushed higher on average relative to last year, even as the pace of recovery has stalled in August.
- Consumer transactions, available through August 24th, stabilized relative to 2019 levels, signalling the likely end of the phase of rapid post-pandemic recovery:
 - Most categories of merchants now see spending flattening relative to a year ago, while a few categories that experienced a boom in purchases through the pandemic now show growth recede from high levels.
- Caveats: some of the improvement in card spending is likely due to a substitution away from cash. In addition, some of the recent rise in spending may reflect the cumulated, but temporary, impact of purchases that had to be postponed due to the pandemic. Finally, the usual seasonal patterns may have shifted since the start of the pandemic, affecting the y/y comparison.

2. COVID-19 and the Canadian Economy: Scotiabank Transactions Data

- We present data on retail and non-retail transactions, which capture distinct but related aspects of economic activity in Canada.
- The data comprises actual observed daily transactions going through debit or credit card payment networks in the retail space, and automated funds transfers (AFTs) in the non-retail space.
 - The transactions are anonymized and aggregated to protect the privacy of Scotiabank's clients.
- In the current circumstances, comparing the dollar volumes of transactions in the current year and in 2019 can be indicative of the depth of the decline in economic activity in Q2-2020 and help track growth through the re-opening phase.
 - Note that the mapping from the volume of transactions to measures of economic activity (e.g. GDP) is imperfect, and so care must be taken when drawing the implications.
- The AFT payments show bill payments to/from companies in Canada.
 - Incoming payments can be associated with company revenue, and outgoing payments can be associated with costs.
- Debit and credit card payments can be used to measure the evolution of retail spending at various types of establishments.
 - The transactions can serve as a measure of economy-wide retail spending, and of the extent to which households are resuming pre-COVID levels of activity.
 - Note that the use of electronic payments has increased because of COVID-19, so comparisons to year-ago levels can be misleading. These data are best used to observe directional movements rather than to make specific assessments on the level of activity.

2. COVID-19 and the Canadian Economy: Caveats

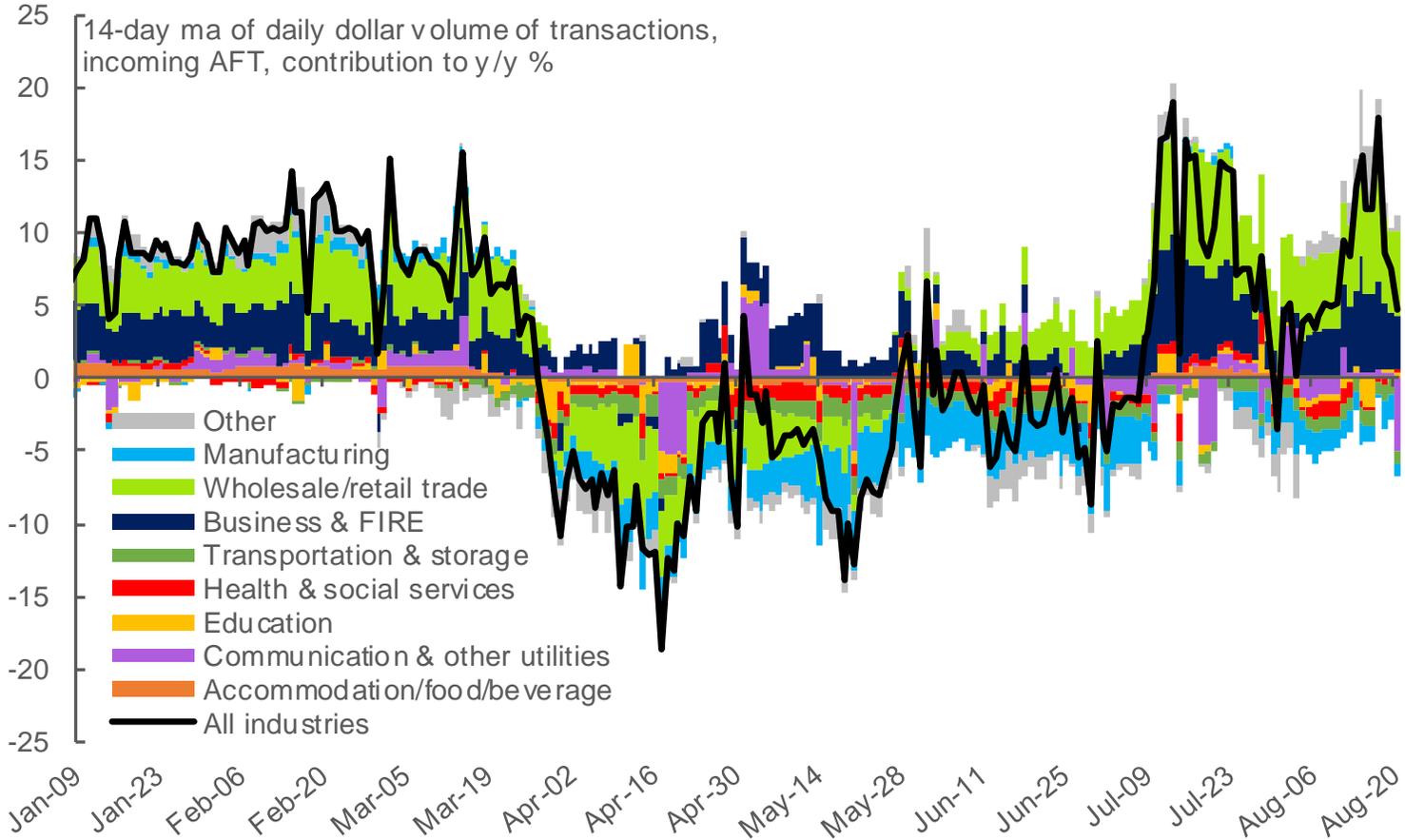
There are important caveats to analysis based on the payments data:

- The data is observed at daily frequency and embeds different types of seasonal patterns.
 - For retail payments, the volume and types of payments are different depending on the day of the week and the season.
 - For non-retail payments, both the day of the week and the season are important. In addition, some payments are tied to the calendar date (e.g. rent payments are made on the first day of each month), some payments have a bi-weekly schedule, etc.
 - To smooth out most of the day-to-day seasonality we use a 14-day moving average of the dollar volume of transactions, taking a $y/y\%$ change to remove any remaining seasonal patterns related to the calendar date.
- In addition to seasonality, there is normal payment volatility related to the random nature of the transactions process and the impact of regional and economy-wide events (weather, labour strikes, etc.).
 - The volatility of this nature may or may not be related to economic activity as measured by GDP and so, as mentioned above, care must be taken in drawing inference.
- For business transactions, which are inherently more lumpy compared to retail spending, data towards the end of the sample can be revised as some AFT payments are recorded with a lag. As a result we exclude the last few days of data of business transactions only.

3. Business Transactions Data: August Spending Strong Relative to 2019

- Automated Funds Transfers (AFT) are used for:
 - rent and mortgage payments;
 - payroll deposits; and
 - other bills.
- Incoming transactions through AFT picked up in mid-August on slowly rising volume at manufacturing firms, adding to continued strength in wholesale and retail payments.
- Payments in transportation and warehousing industries continue to run far below last year's levels (see Charts 2-6).

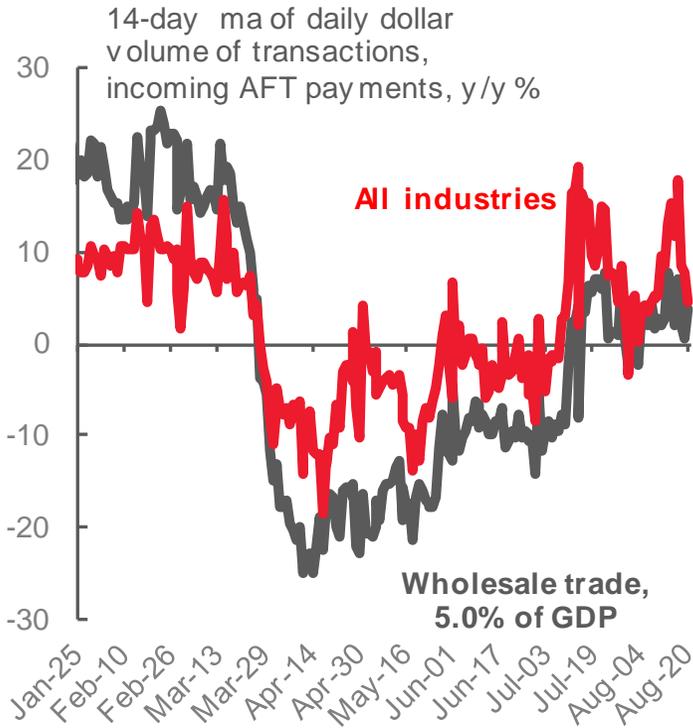
Chart 1



Sources: Scotiabank Economics, Data Science and Analytics.

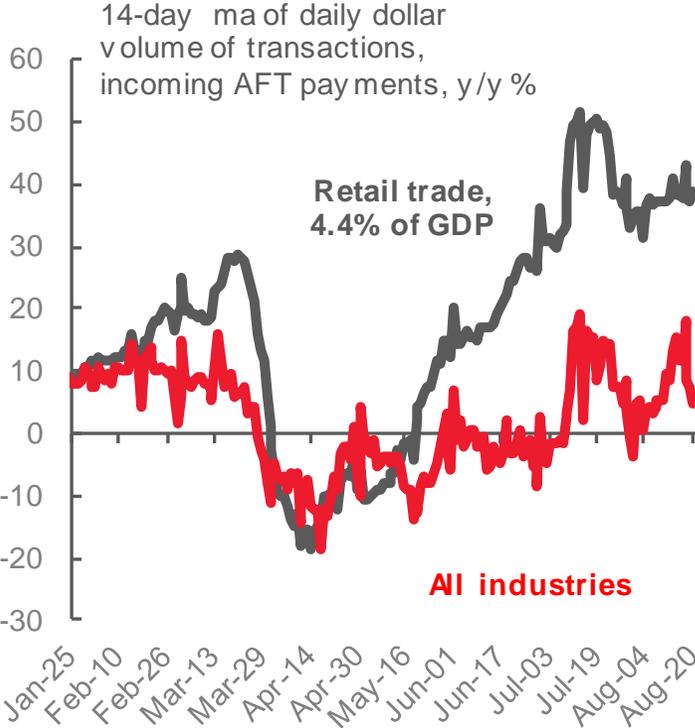
3. Business Transactions Data: Wholesale and Retail Payment Volumes Fully Recovered

Chart 2



Sources: Scotiabank Economics, Data Science and Analytics.

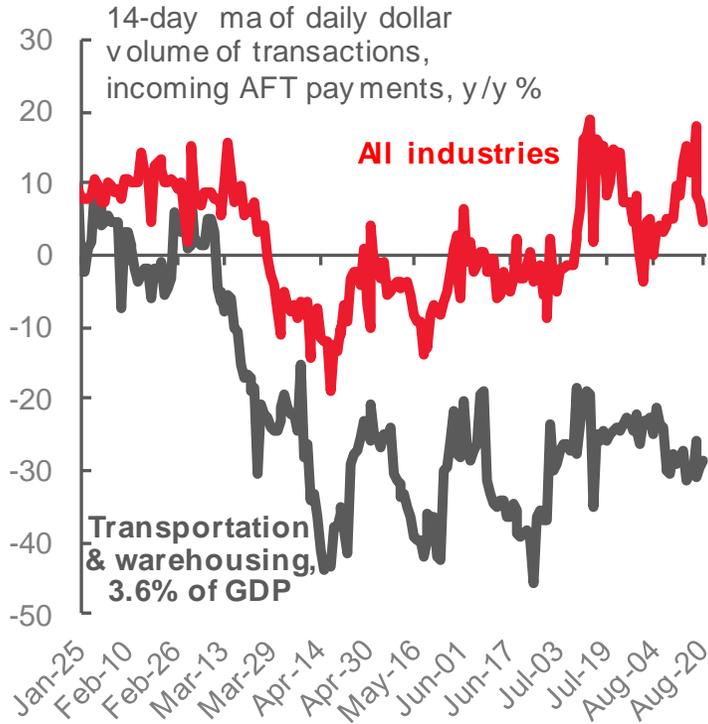
Chart 3



Sources: Scotiabank Economics, Data Science and Analytics.

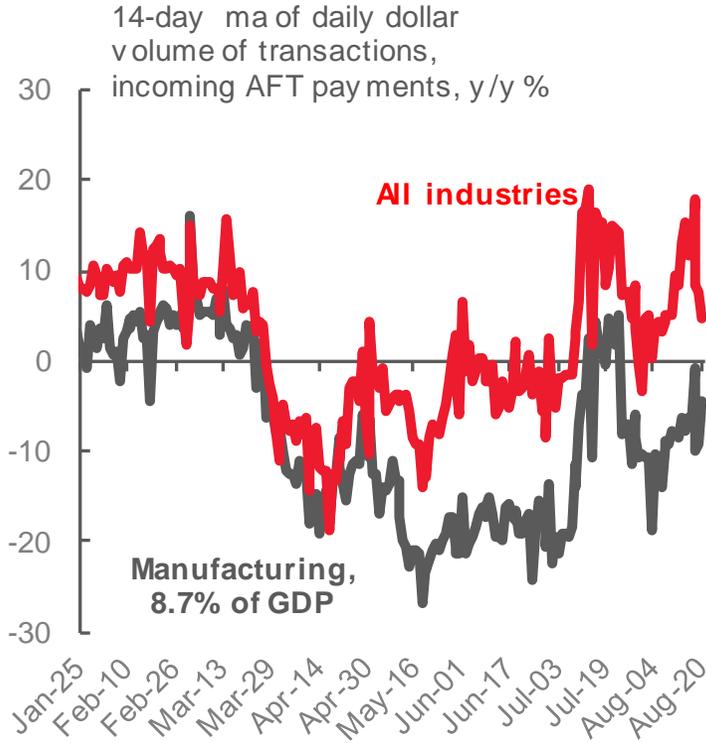
3. Business Transactions Data: Transportation Far Below 2019 Levels

Chart 4



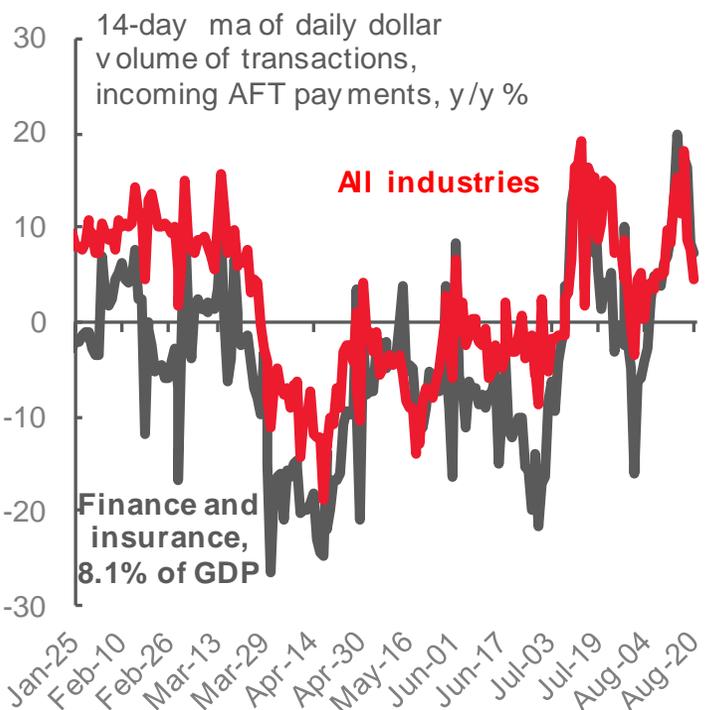
Sources: Scotiabank Economics, Data Science and Analytics.

Chart 5



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 6

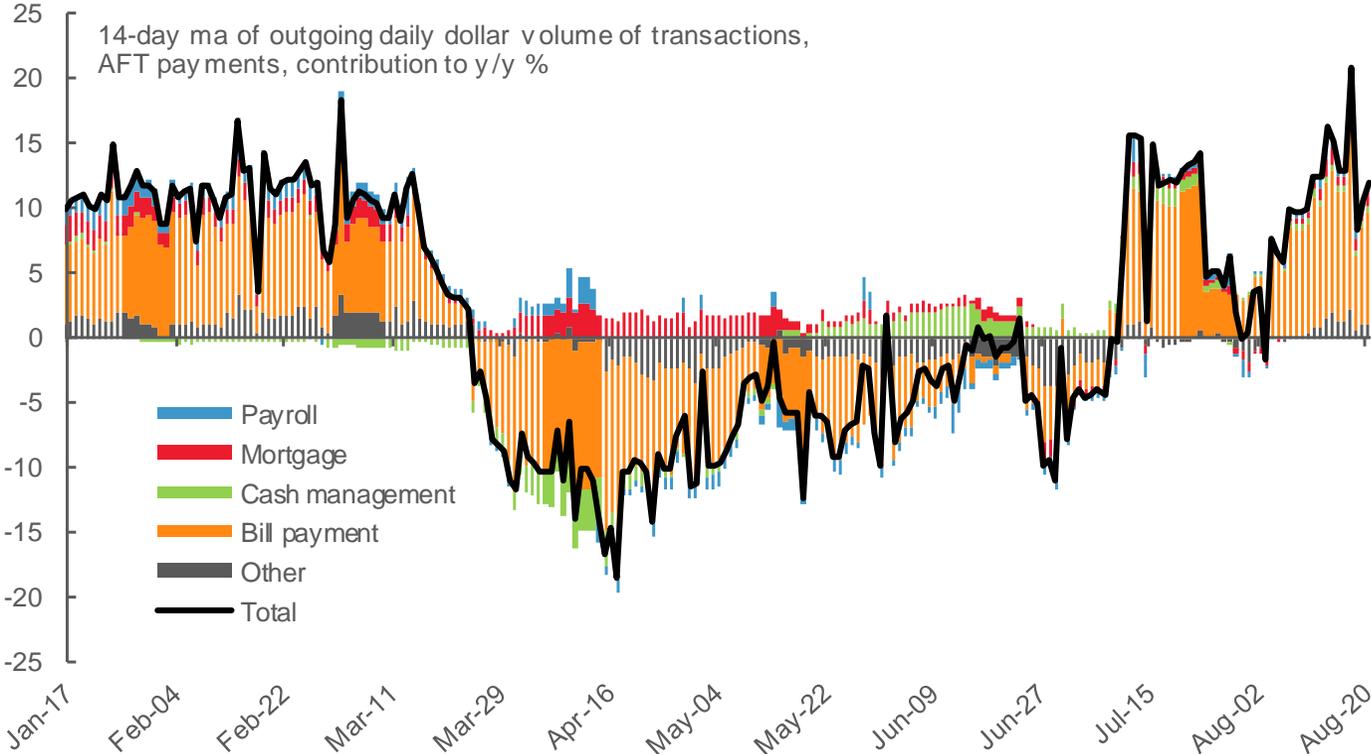


Sources: Scotiabank Economics, Data Science and Analytics.

3. Business Transactions Data: Bill Payments Rise in August

- Outgoing AFT payments show a sustained rise since mid-August on higher general bill payments (Chart 7):
 - Progress on rent payments continued through August 20th, while payroll deposits have been higher on average relative to last year, even as the pace of recovery has stalled in August (Charts 8 and 9).

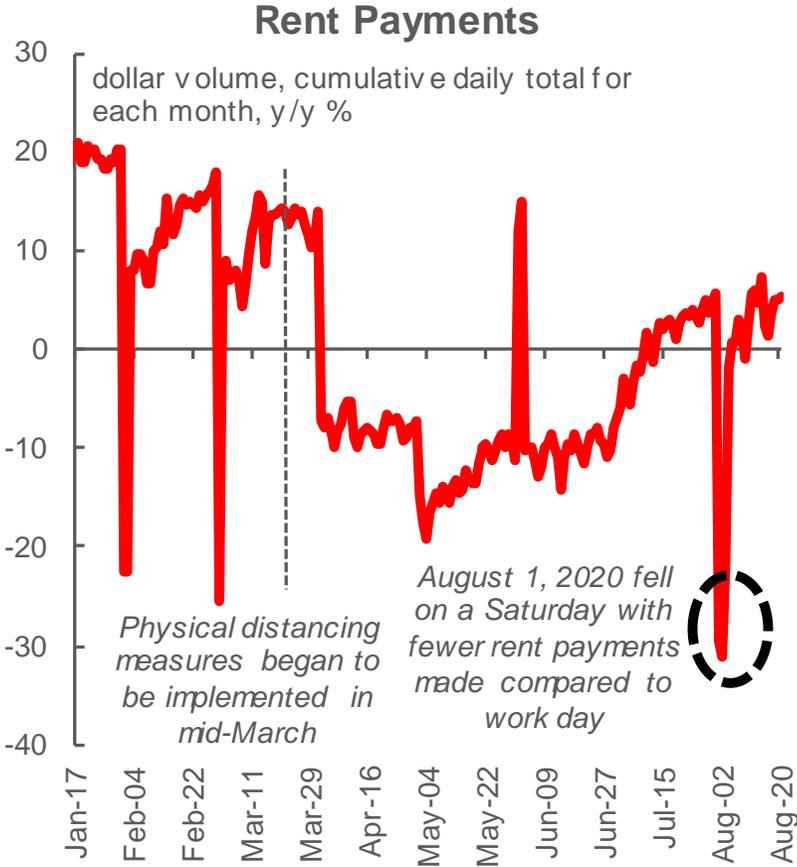
Chart 7



Sources: Scotiabank Economics, Data Science and Analytics.

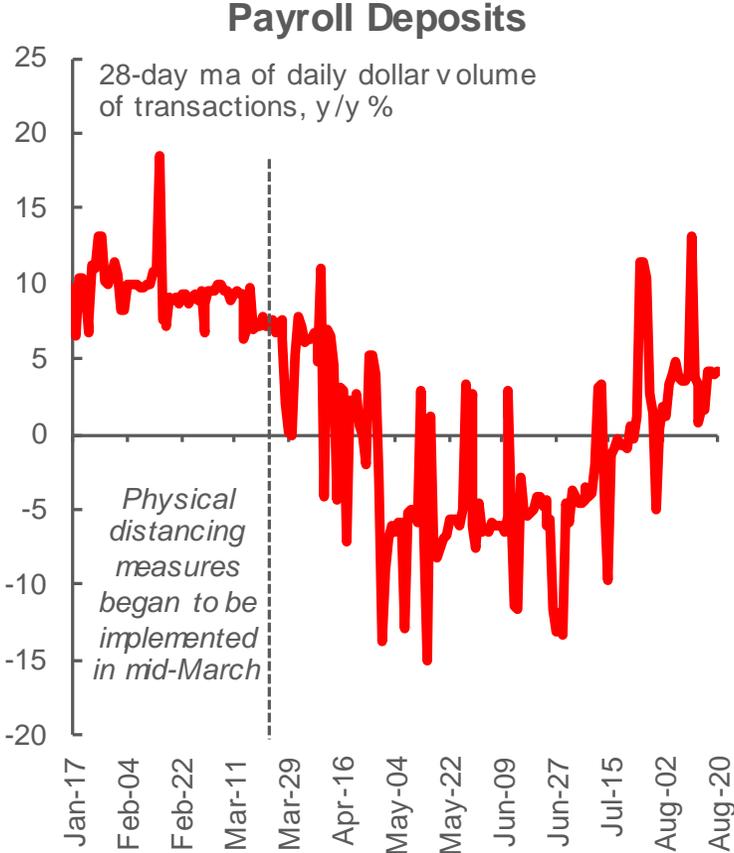
3. Business Transactions Data: Rent/Payroll Payments Stabilize

Chart 8



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 9

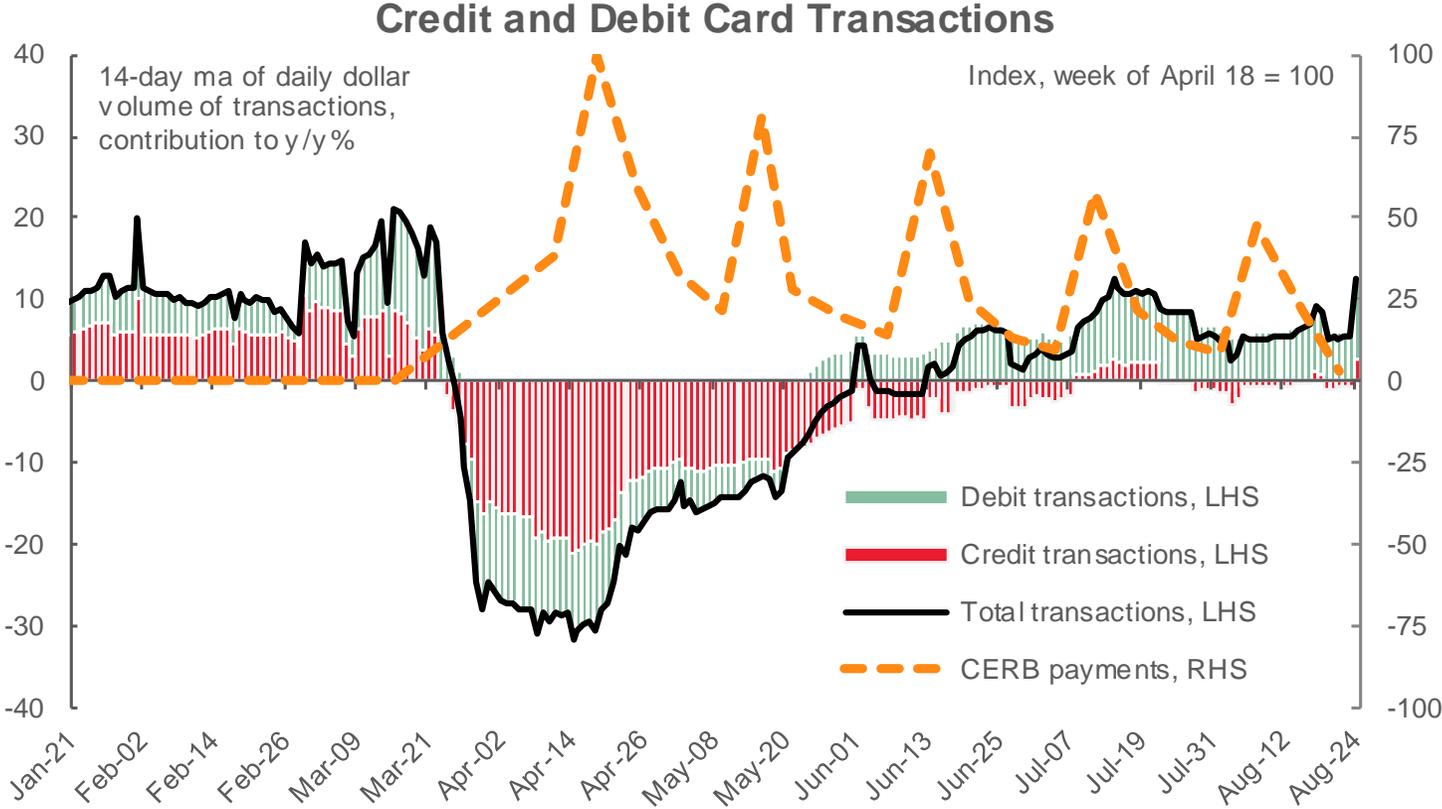


Sources: Scotiabank Economics, Data Science and Analytics.

4. Retail Transactions Data: Card Spending Growth Stabilized

- Consumer transactions, available through August 24th, stabilized relative to 2019 levels, signalling the likely end of the phase of rapid post-pandemic recovery (Chart 10):
 - Credit card spending continues to lag compared to debit card transactions, signalling continued restraint in use of consumer credit on the part of households.
- The amounts of CERB payments have been gradually coming down since reaching a peak in mid-April, in line with the observed improvement in the labour market in May-July.

Chart 10

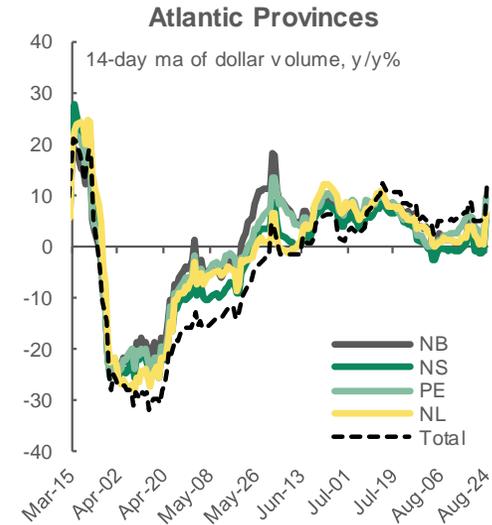


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Pace of Recovery Broadly Consistent across Provinces

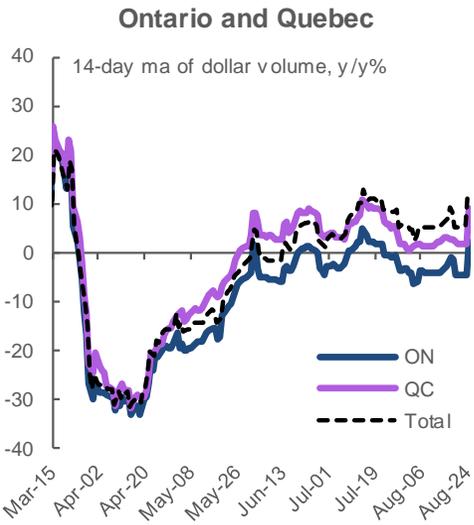
- Province-level data shows a consistent trend across provinces.
- Transactions growth in Ontario has turned lower in July despite a gradually expanding share of the re-opened economy (Chart 12), while spending in Alberta and BC retreated after a temporary rise in mid-July (Chart 14).
- Note that the share of card transactions not tied to a particular province has been on the rise recently, explaining some of the divergence between the Canada-wide trend and provincial totals.

Chart 11



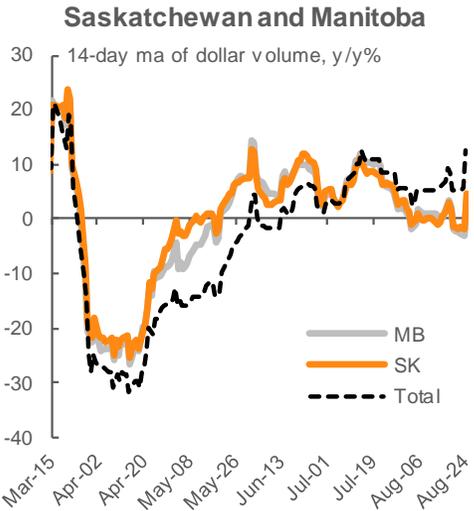
Sources: Scotiabank Economics, Data Analytics.

Chart 12



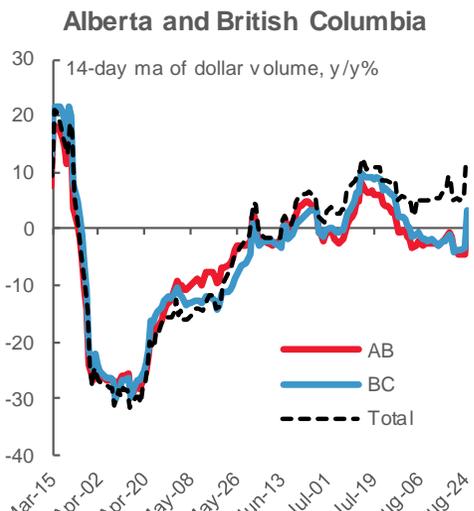
Sources: Scotiabank Economics, Data Analytics.

Chart 13



Sources: Scotiabank Economics, Data Analytics.

Chart 14

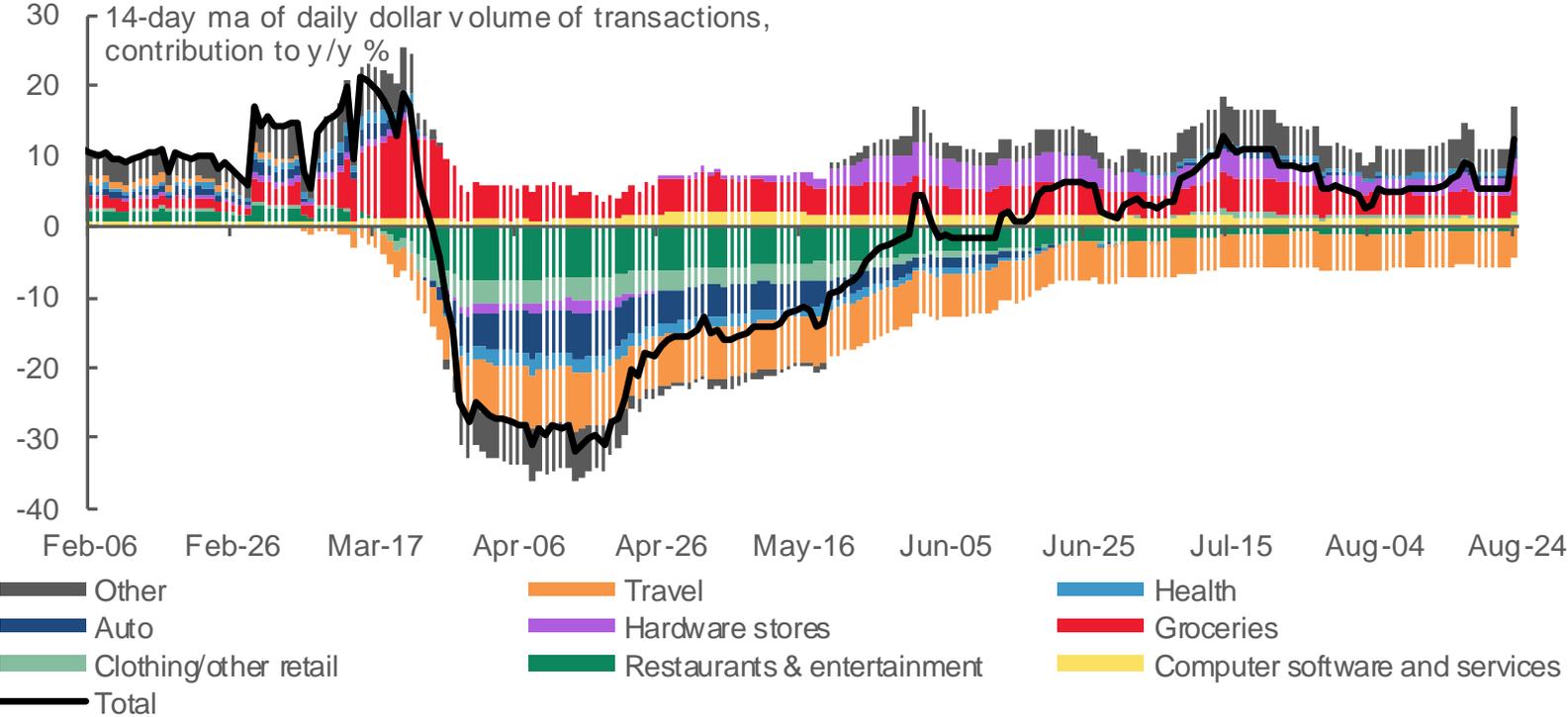


Sources: Scotiabank Economics, Data Analytics.

4. Retail Transactions Data: Card Spending Across Most Categories Stabilizes

- Throughout the past few months the dynamics and the composition of spending have remained relatively stable (Chart 15).
- While before the pandemic spending growth was diversified across a large number of categories, post-lockdown y/y growth has been dominated by a few categories:
 - Spending on groceries, hardware and computers explains most of the y/y growth, while being partly offset by still-weak travel-related spending.

Chart 15

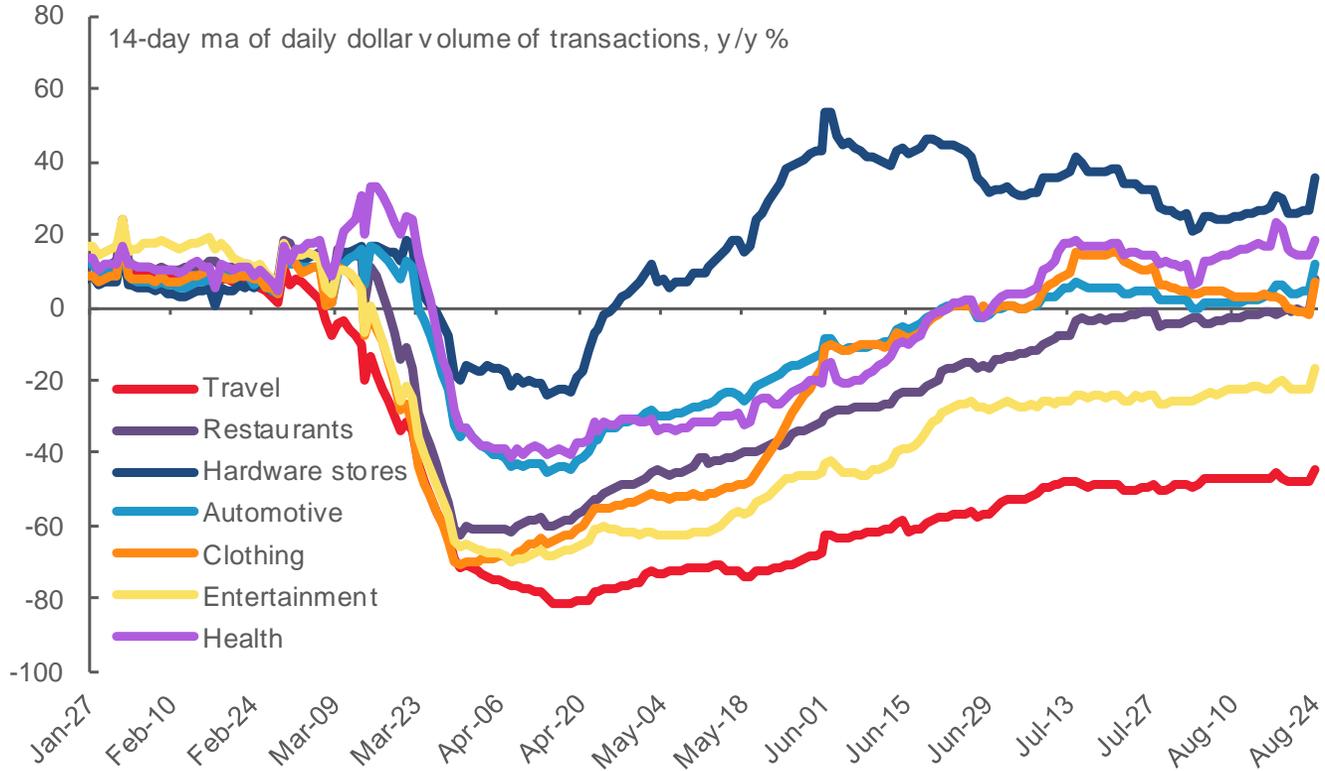


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Travel, Restaurants and Entertainment Spending Stalled

- The recovery in hard-hit categories such as clothing and entertainment has stalled since mid-July (Chart 16):
 - Spending on clothes has started to retreat relative to last year's levels, while most other merchants saw y/y growth flattening.
 - Growth in hardware store spending has stabilized in August, but consumers continue to spend significantly more on home improvement compared to last year.

Chart 16

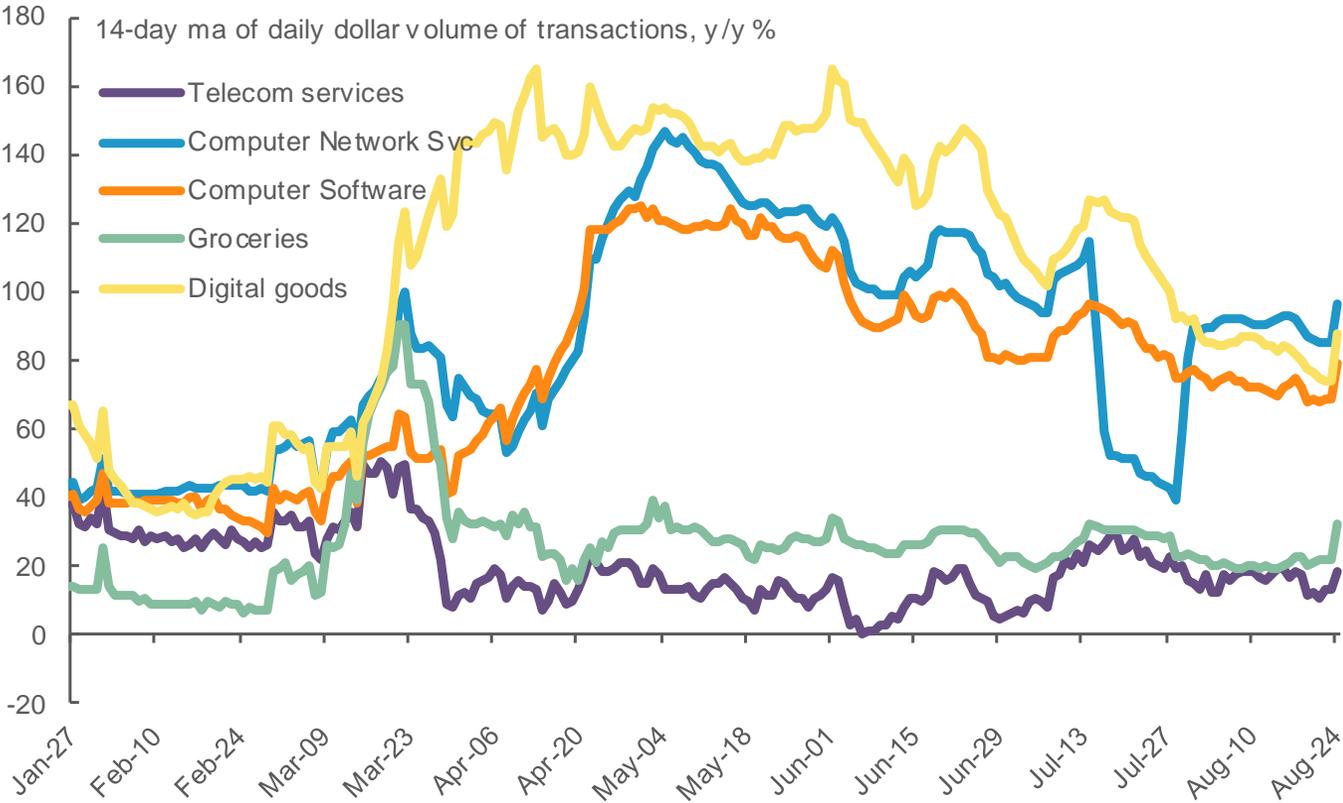


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Growth in Digital Spending Trending Down

- Categories that have been outperforming since the start of the pandemic still show strong, albeit declining, growth relative to last year (Chart 17).
 - Y/Y growth in card spending on digital goods and consumer software has been drifting lower since mid-July, although it remains very strong.
 - Spending at grocery stores stabilized at the level that is much higher than pre-lockdowns, as consumers spend more time at home eschew restaurants.

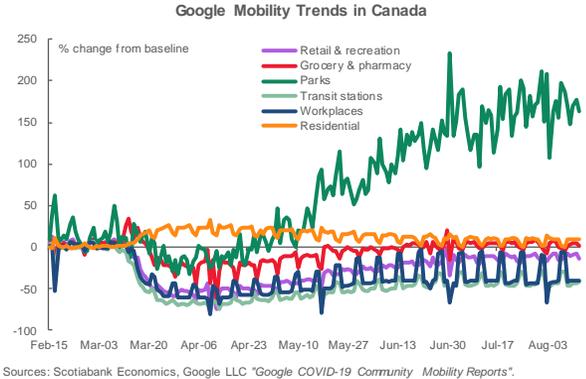
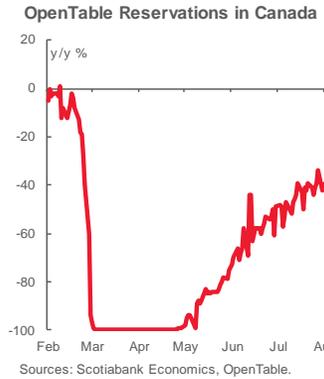
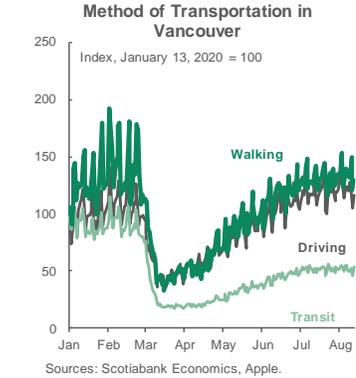
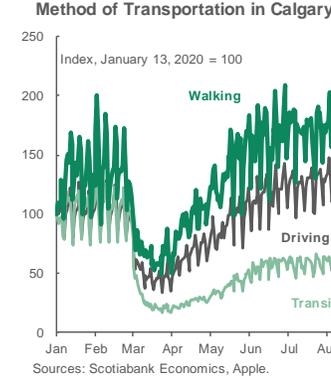
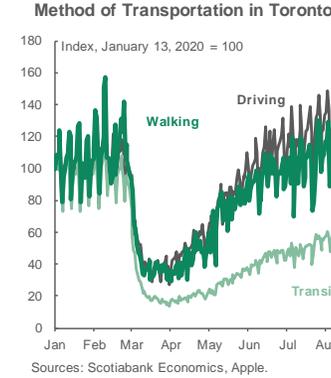
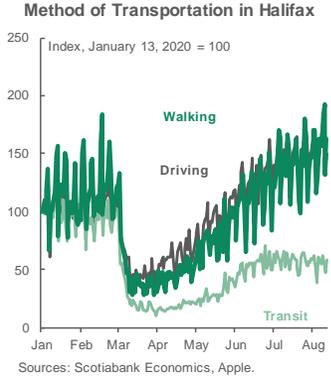
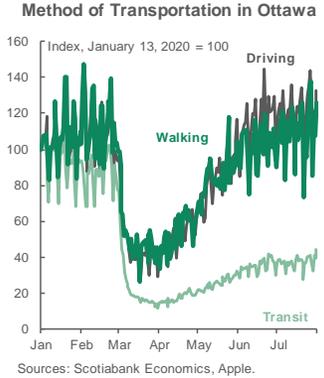
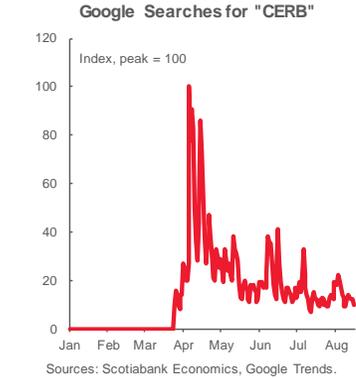
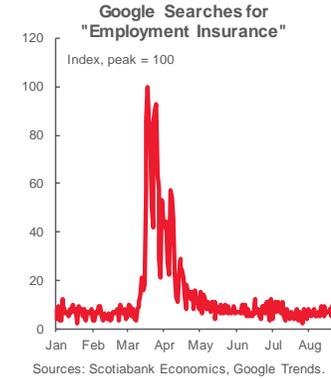
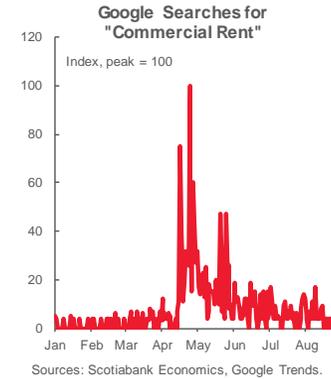
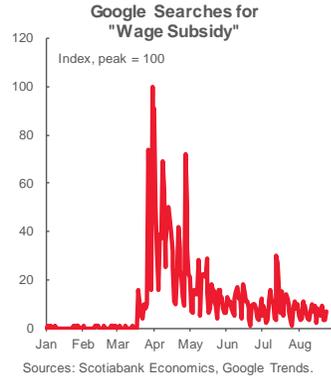
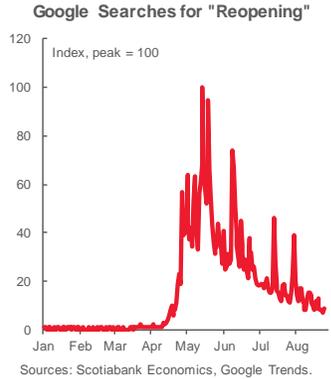
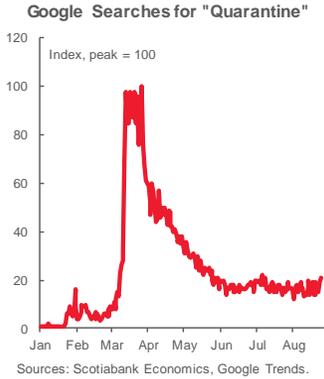
Chart 17



Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

5. Other High-Frequency Indicators Of Activity

Charts 18-31: Google Searches, Various Keywords, Dining and Transportation Data



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We analyzed anonymized automated funds transfers (ATFs) by businesses through the Automated Clearing Settlement System where Scotiabank is one of the parties. The analysis was based on 22 Transaction Codes (see [Payments Canada](#) for more information on transaction types) across 20 industries. We also analyzed anonymized retail transactions (debit and credit card payments) through Scotiabank, with 18 broad spending categories based on 264 merchant types. Finally, we used aggregated totals for deposits related to the Canada Emergency Response Benefit made into customer accounts in chart 12, indexing the series to 100 at the maximum weekly total.

For each type of transaction (retail and ATF), we calculated a 14-day moving average daily in 2020 through early May and compared to a corresponding average for the same month and day in 2019.