



Tracking the Canadian Economy through COVID-19: Insights from customer transactions - July 23, 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.

After today's issue, we will resume publication during the week of August 17th. Key takeaways from the payments data in this week's publication:

- Business transactions updated to July 16th rose significantly above the 2019 levels:
 - Both incoming and outgoing payments via automated funds transfer (AFT) were boosted by unusually high levels of miscellaneous payments occurring on July 10th. Nevertheless, once the unusual payments are excluded the overall volumes are still seen to surpass those of 2019.
 - Rent payments continued to rise, with y/y growth turning positive in mid-June. Payroll deposits have recently started to rise as well, in line with an improvement in the employment market.
- Growth in consumer transactions, available through July 20th, has now stabilized at +10% in y/y terms for the past week:
 - If y/y growth were to remain flat going forward, this would suggest that the rapid recovery in retail spending has stalled.
- 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 (e.g. car maintenance). 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

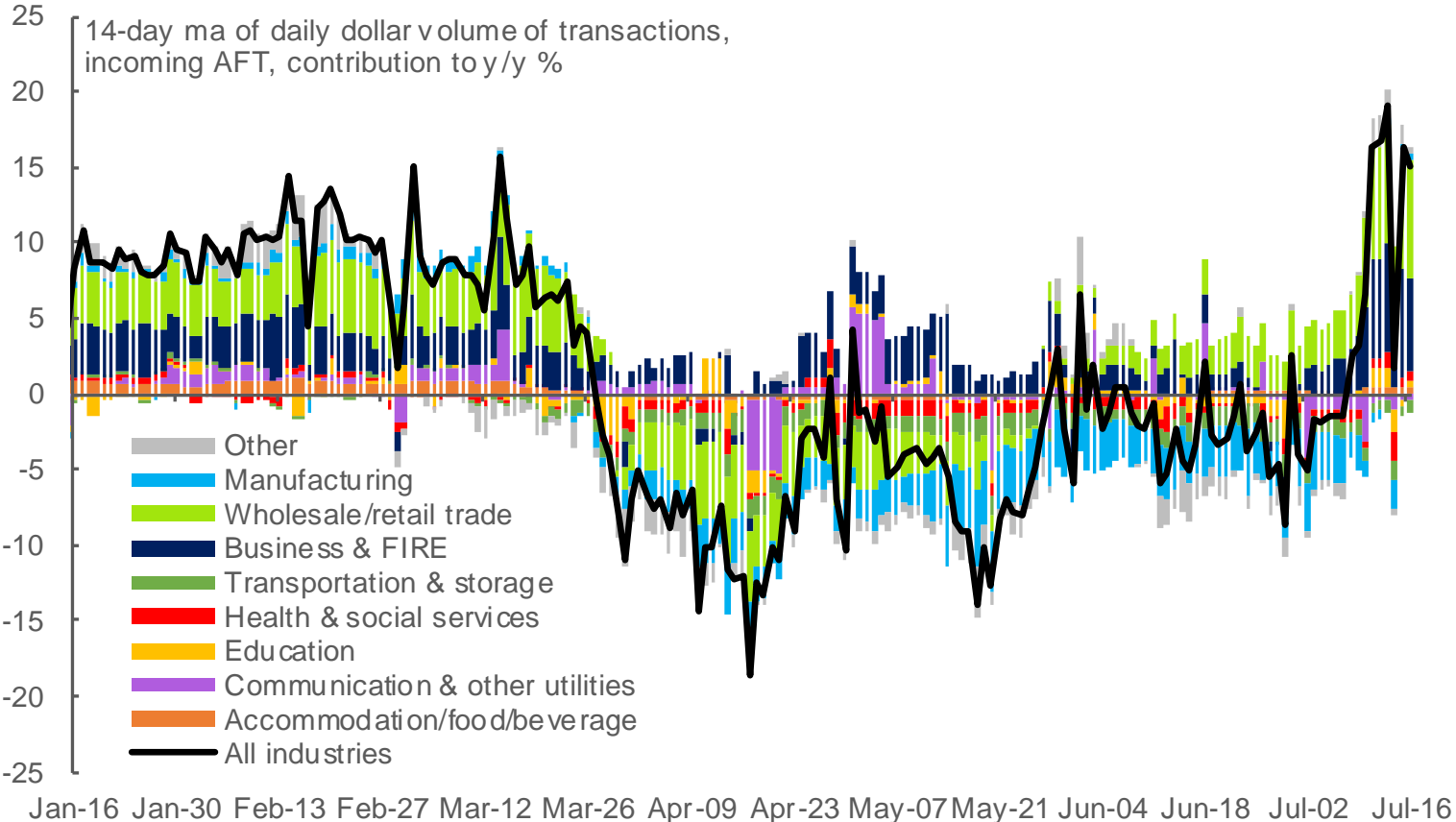
There are important caveats to analysis based on the payments data:

- 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: Growth Boosted by Unusually High July 10th Total

- Automated Funds Transfers (AFT) are used for:
 - rent and mortgage payments;
 - payroll deposits; and
 - other bills.
- Both incoming and outgoing payments via AFT were boosted by unusually high levels of miscellaneous payments occurring on July 10th. Nevertheless, once the unusual payments are excluded the overall volumes are still seen to average around 10% above 2019:
 - Incoming transactions to firms in the manufacturing sector improved further, while those in the finance and insurance sector have seen a substantially better payment flow (see Charts 2-6).

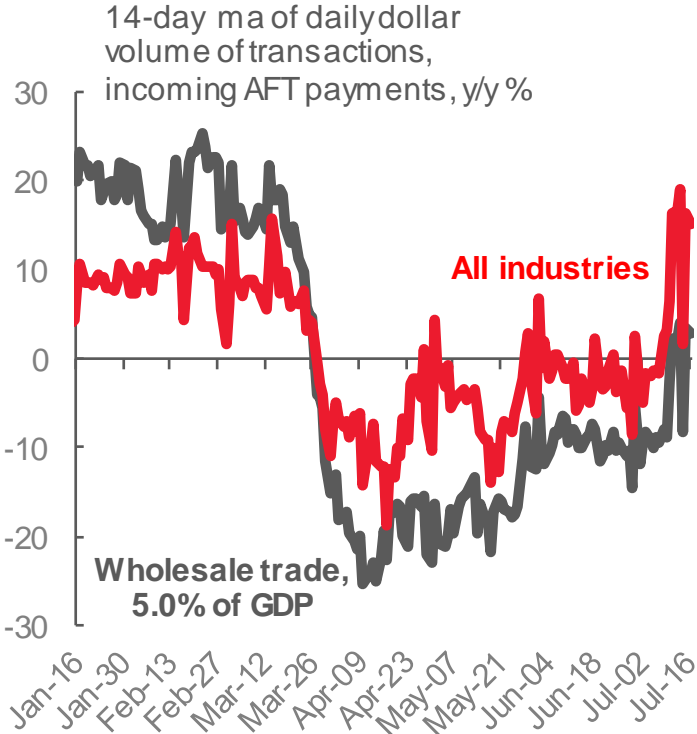
Chart 1



Sources: Scotiabank Economics, Data Science and Analytics.

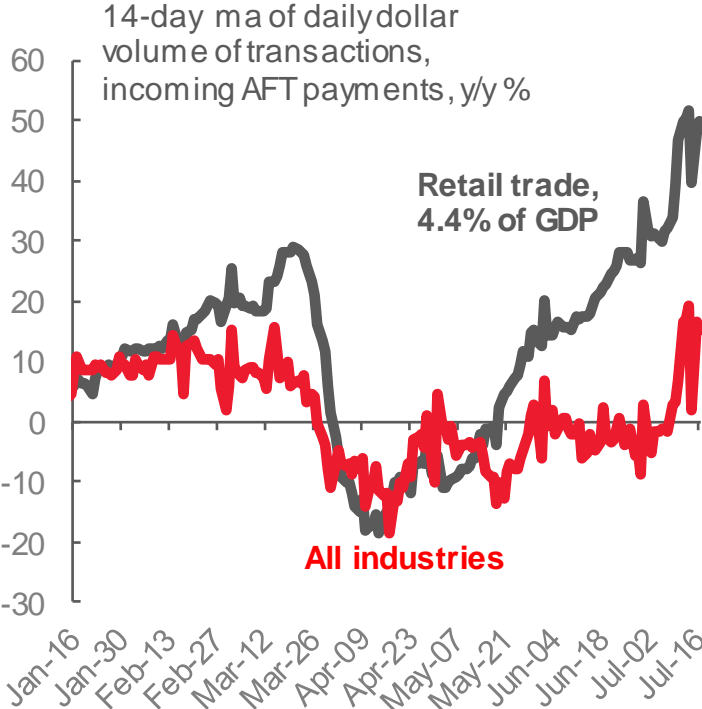
3. Business Transactions Data: Despite Unusual Volatility, Trends Remain Intact

Chart 2



Sources: Scotiabank Economics, Data Science and Analytics.

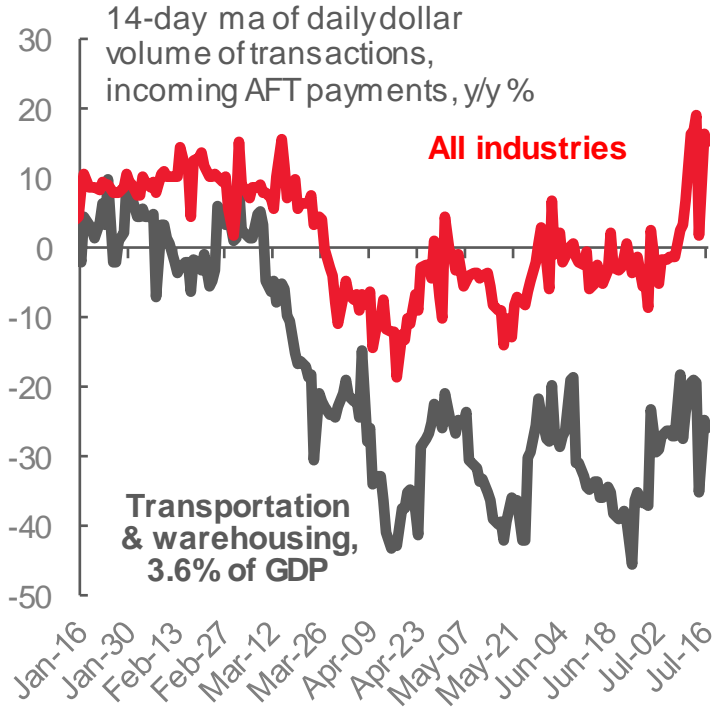
Chart 3



Sources: Scotiabank Economics, Data Science and Analytics.

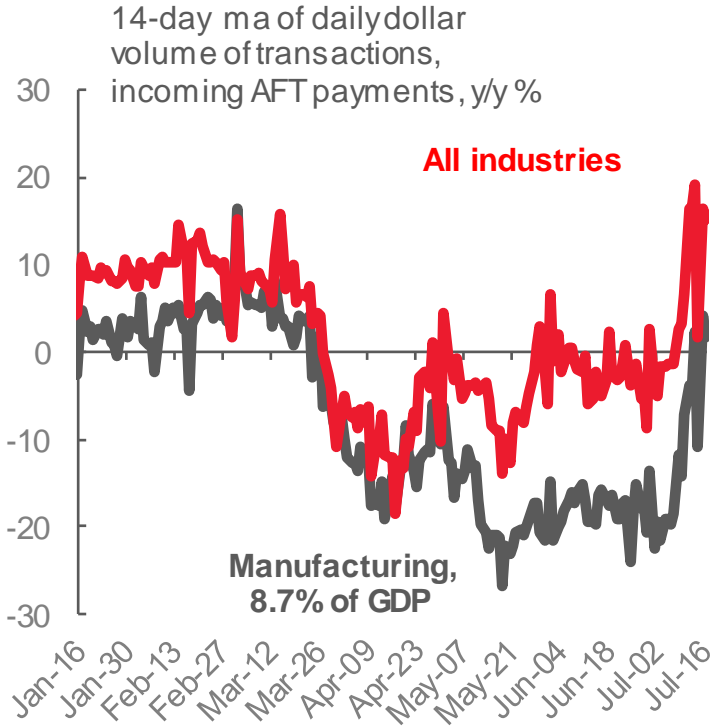
3. Business Transactions Data: Manufacturing and Finance Improve Further

Chart 4



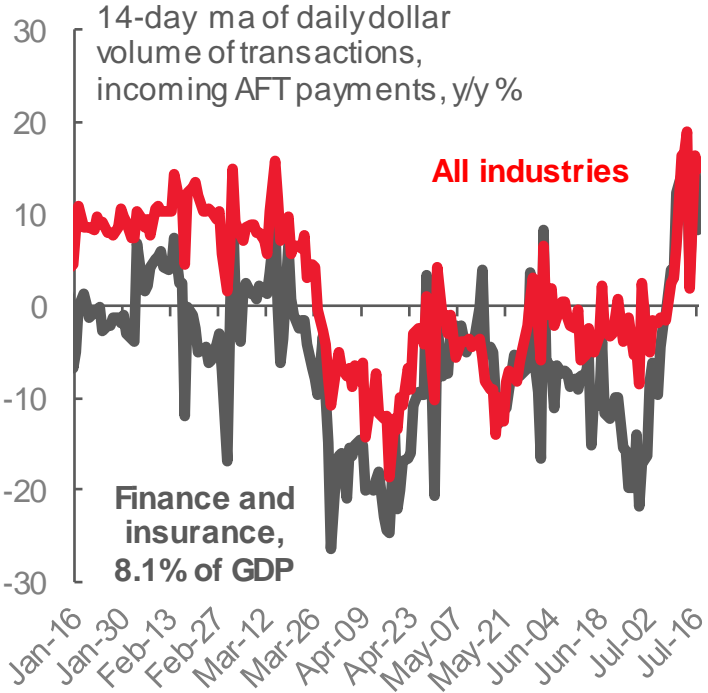
Sources: Scotiabank Economics, Data Science and Analytics.

Chart 5



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 6

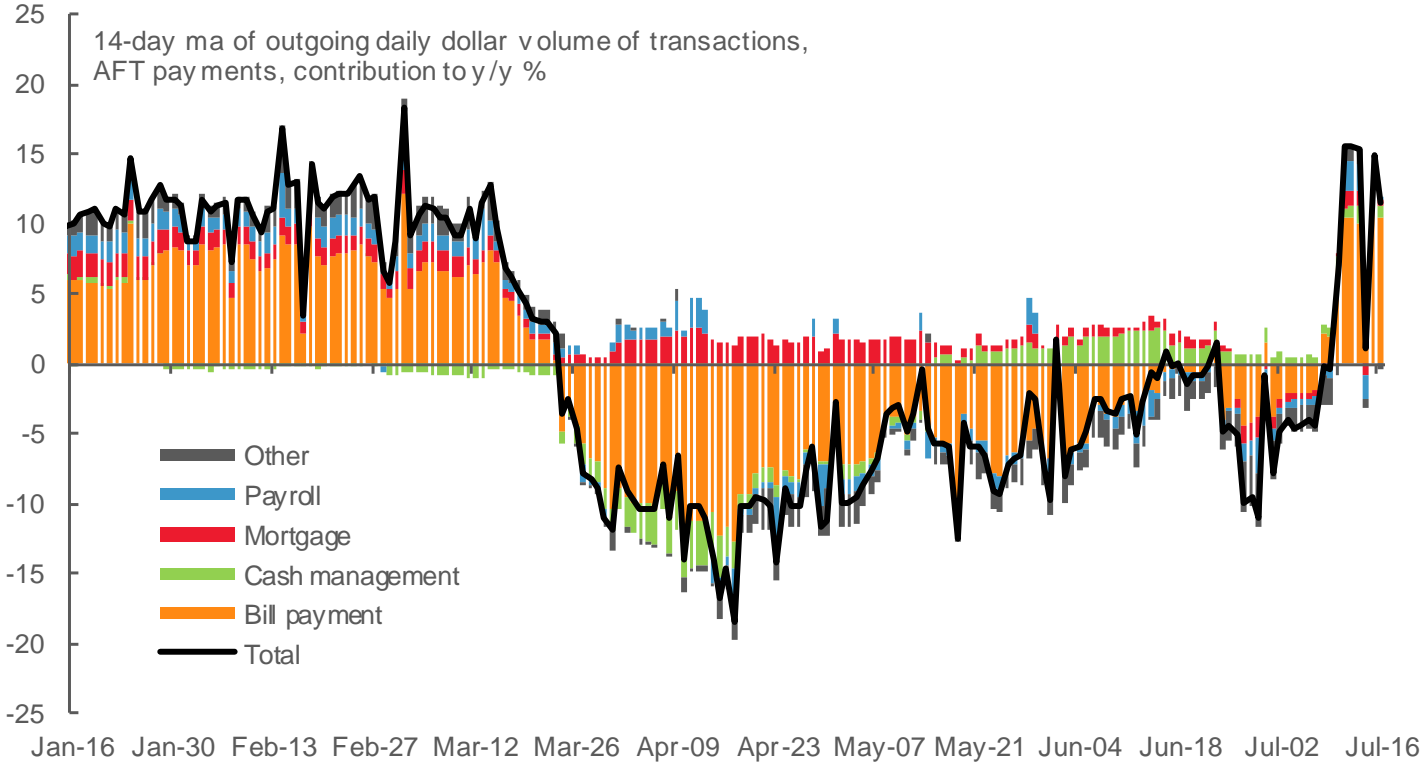


Sources: Scotiabank Economics, Data Science and Analytics.

3. Business Transactions Data: Bill Payments Boosted by Unusual July 10th Total

- Outgoing AFT jumped higher in July on higher general bill payments (Chart 7):
 - General bill payments were boosted by a large total recorded on July 10th. Excluding them would still leave the total significantly above the levels of a year ago.
 - Rent payments continued to rise, with y/y growth turning positive in mid-June. Payroll deposits have recently started to rise as well, in line with an improvement in the employment market (Charts 8 and 9).

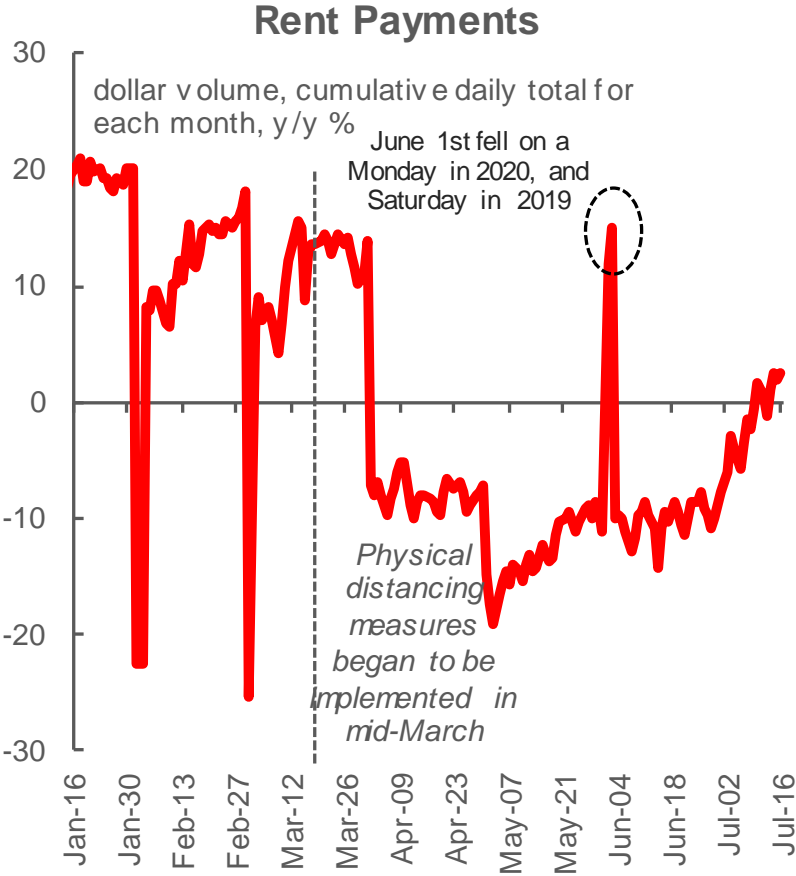
Chart 7



Sources: Scotiabank Economics, Data Science and Analytics.

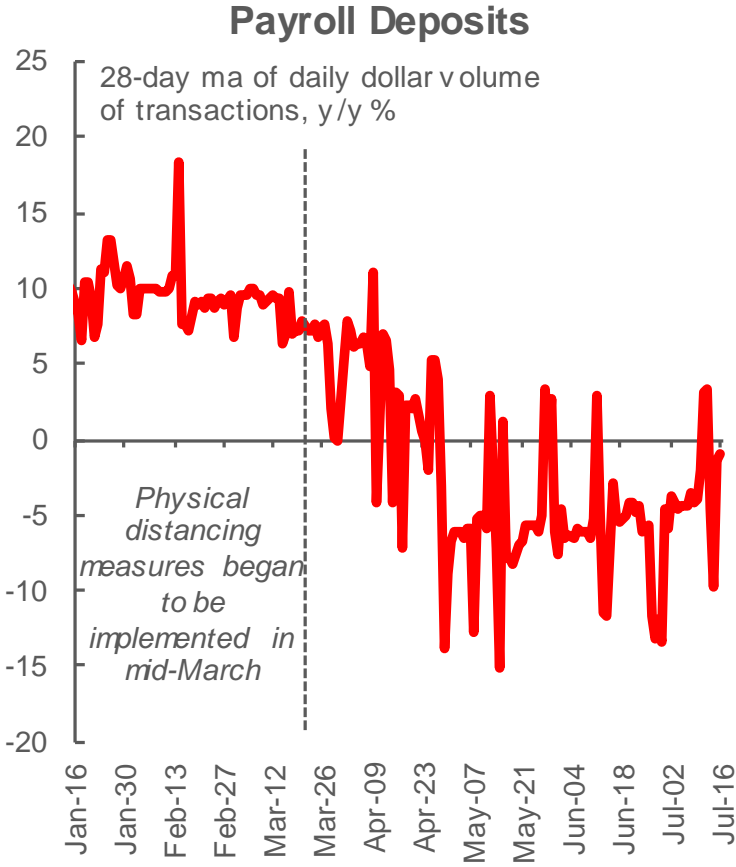
3. Business Transactions Data: Rent/Payrolls Ticked Up Recently

Chart 8



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 9

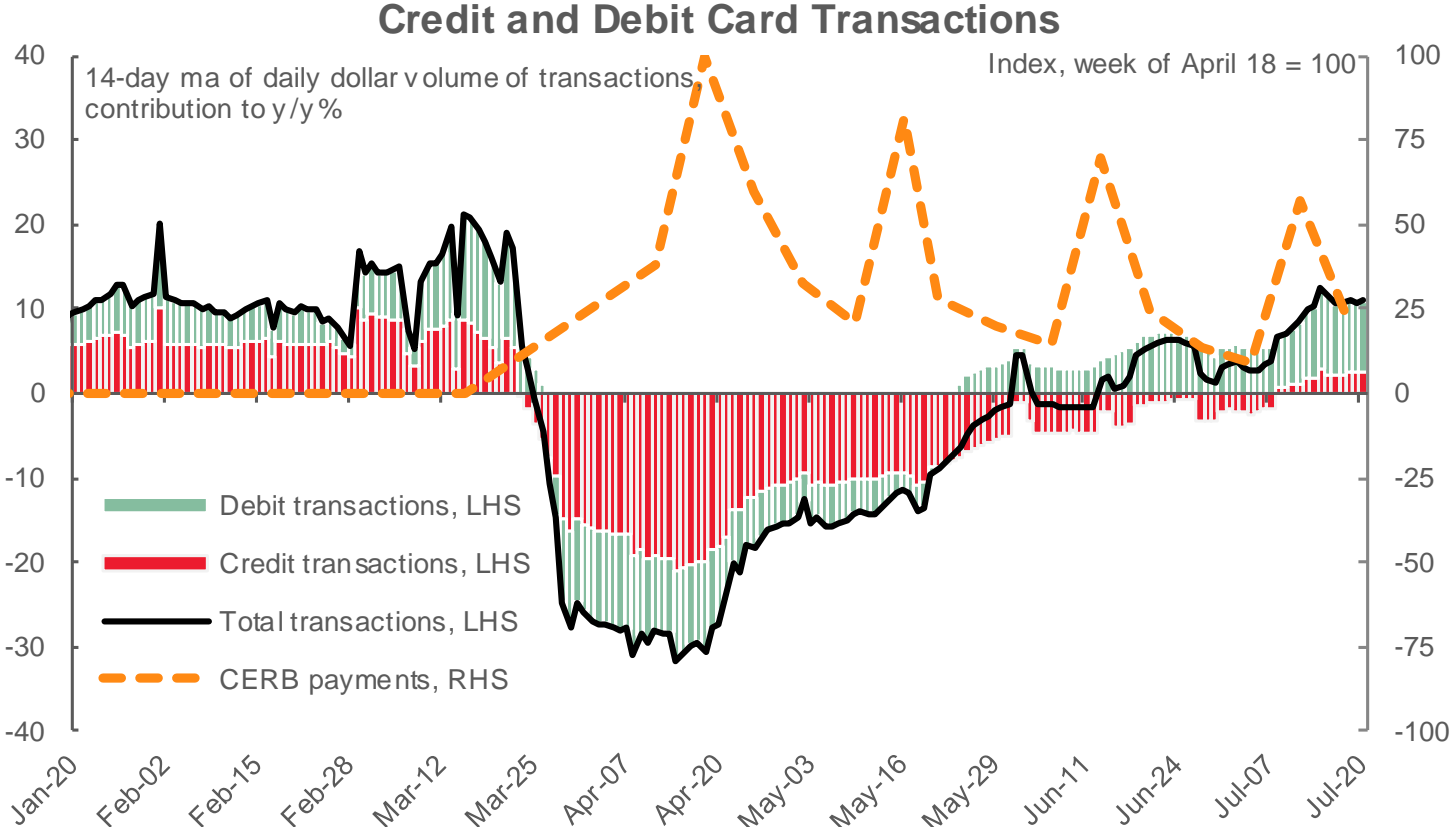


Sources: Scotiabank Economics, Data Science and Analytics.

4. Retail Transactions Data: Card Spending Growth Stabilized

- Over the past week growth in consumer transactions has now stabilized at +10% in y/y terms (Chart 10):
 - Debit card spending explains most of the recent rise and has remained above the 2019 levels since the end of May.
 - Y/Y growth in credit card transactions has also turned positive since the beginning of July.
- 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-June.

Chart 10

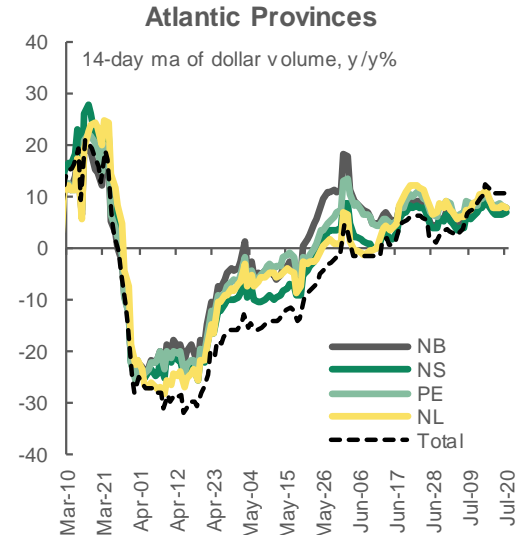


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

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

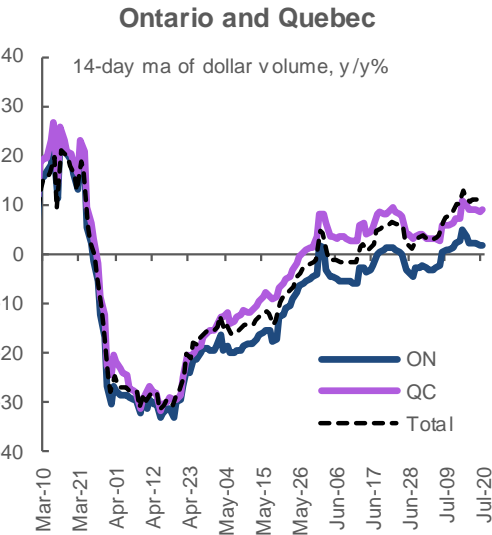
- Province-level data shows a consistent trend across provinces.
- The recent pickup in overall card spending can be seen across most provinces to a greater or lesser extent.
- Growth in Ontario has turned lower in the recent weeks despite a gradually expanding re-opening of the economy (Chart 12), while Alberta and BC remained below the average Canada-wide rate over the past few weeks (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



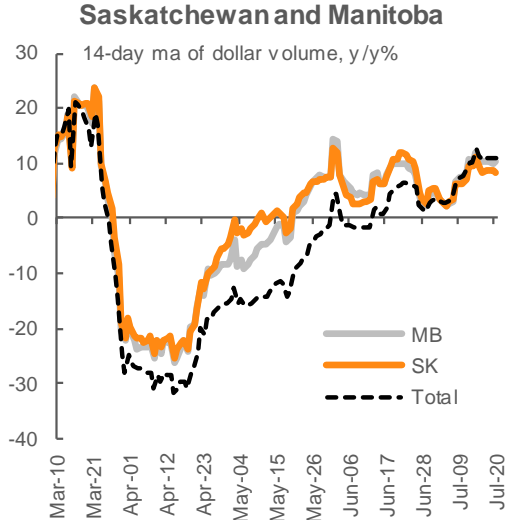
Sources: Scotiabank Economics, Data Analytics.

Chart 12



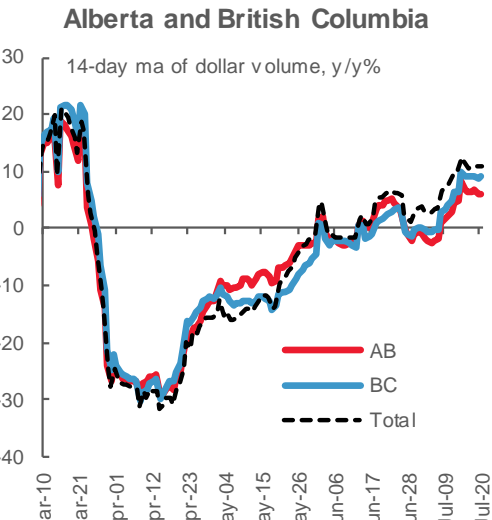
Sources: Scotiabank Economics, Data Analytics.

Chart 13



Sources: Scotiabank Economics, Data Analytics.

Chart 14

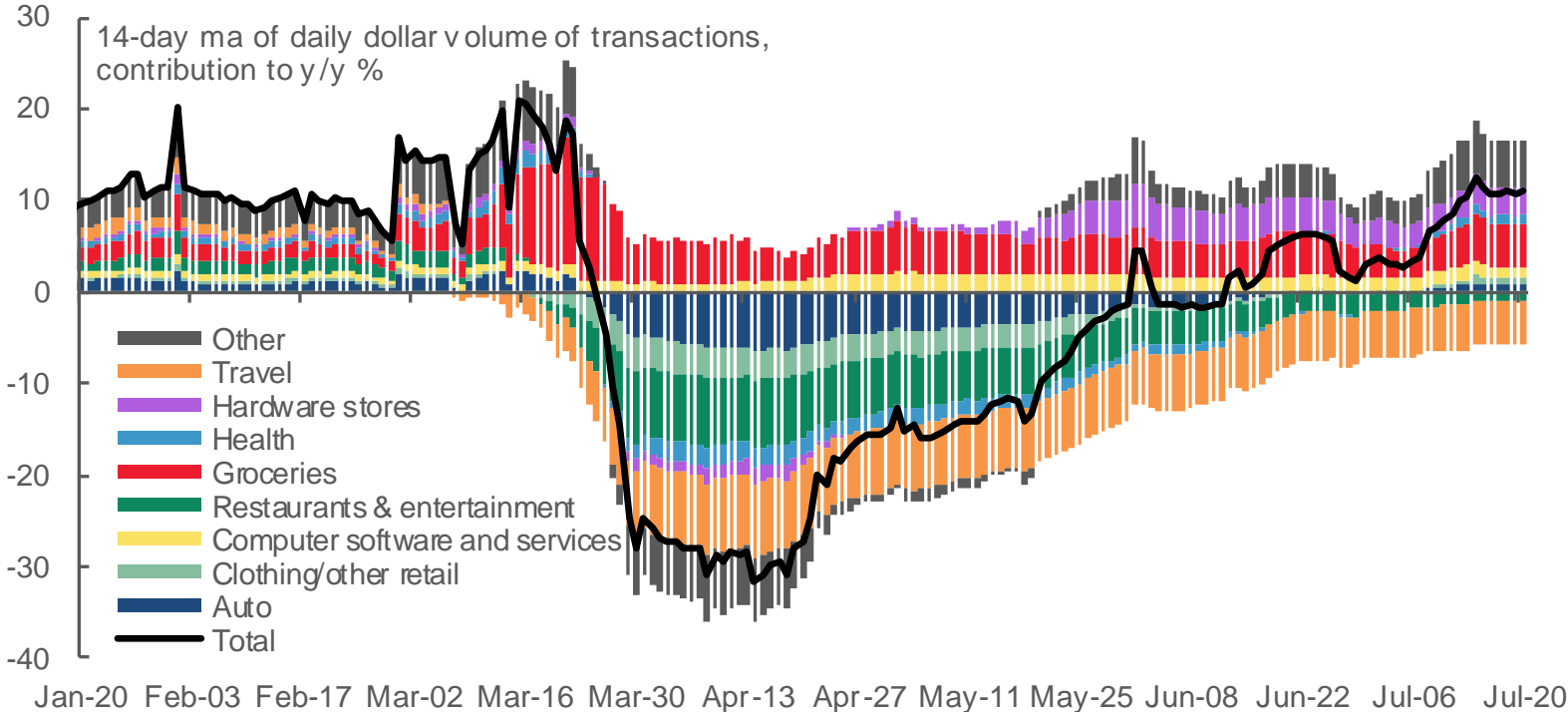


Sources: Scotiabank Economics, Data Analytics.

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

- By merchant type, the only remaining broad categories that are still below the 2019 levels following the most recent rise are travel and restaurant spending, the latter very slightly (Chart 15).
- Travel spending continues to run significantly below last year's levels, and a durable recovery is unlikely until international and interprovincial travel normalizes.

Chart 15

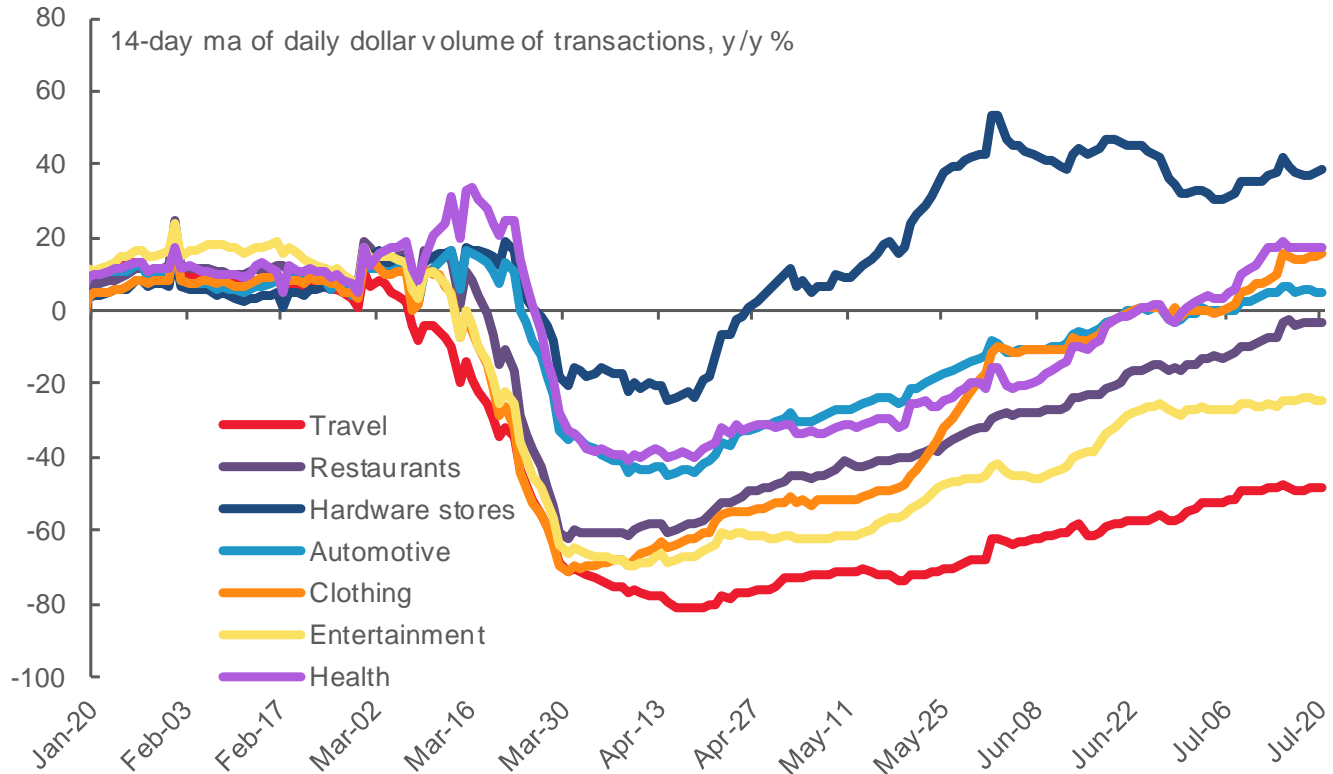


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

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

- As the number of virus new cases has started to creep up in a number of provinces over the past week or so, most merchant categories saw y/y growth flatten (Chart 16):
 - Growth in card spending at automotive merchants trended slightly lower over the past week, while the improvement in a few categories still under water has stalled.

Chart 16

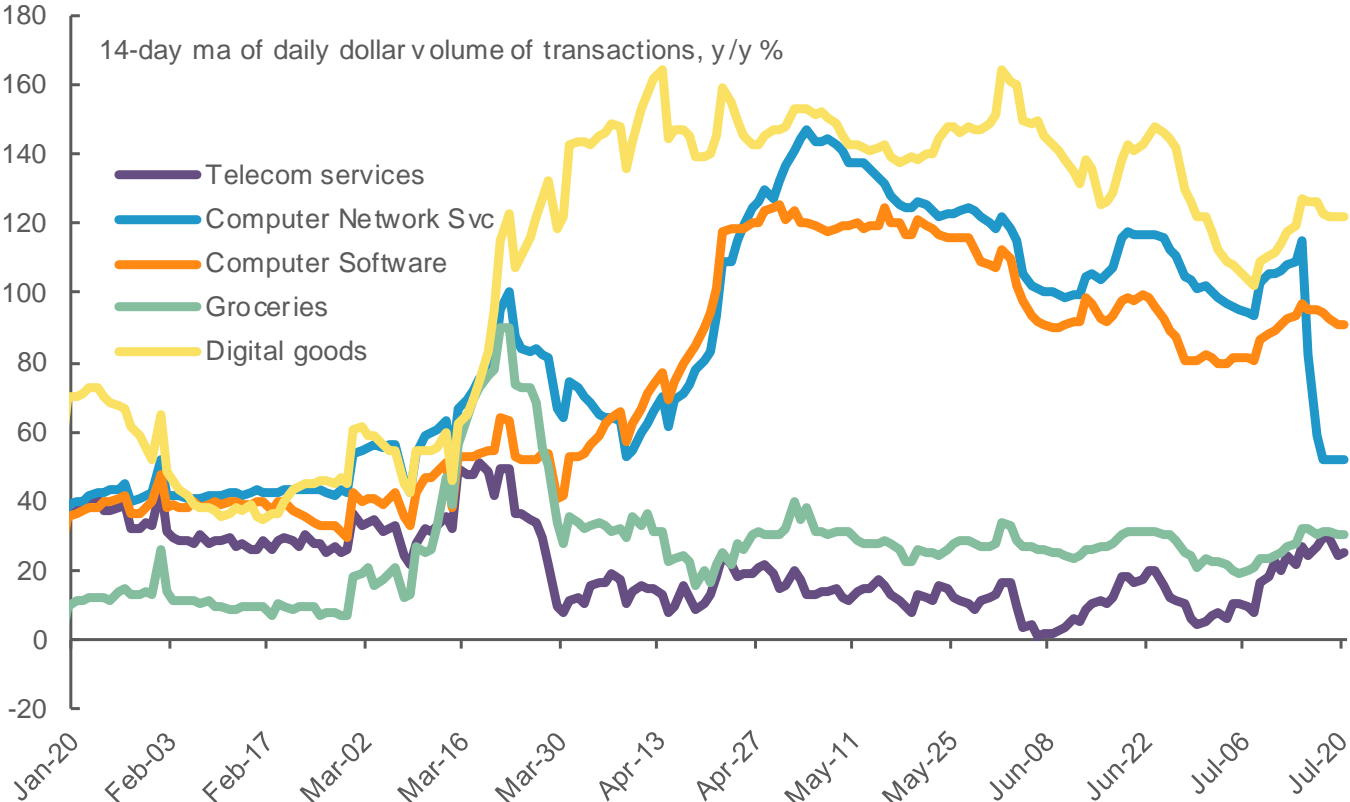


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Growth in Digital Spending Holding Up

- Categories that have been outperforming since the start of the pandemic still show strong growth relative to last year, although it has started to flatten (Chart 17).
 - While the level of spending on computer network services (e.g. Amazon) is holding up, a strong rise in spending recorded in mid-July, 2019, temporarily distorts the y/y calculation with an unfavourable base year effect.

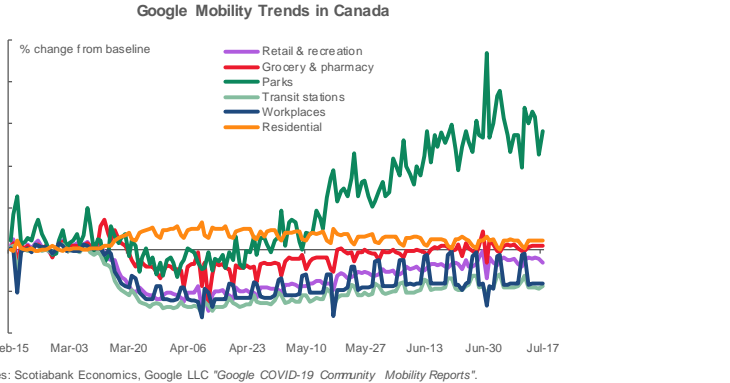
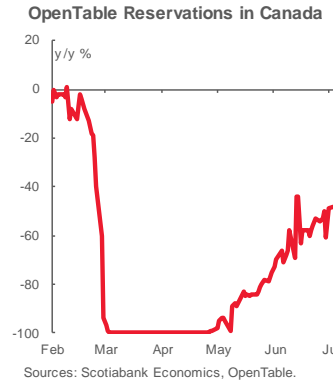
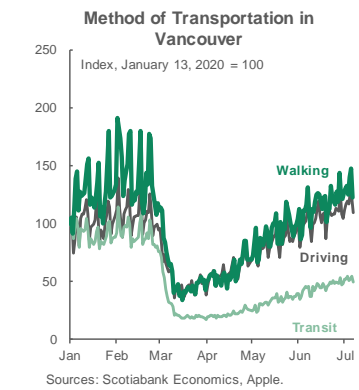
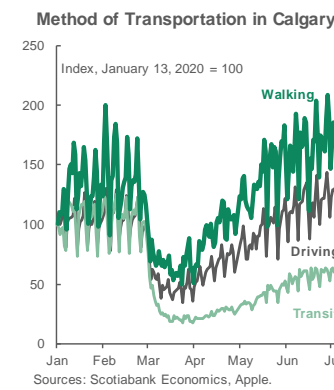
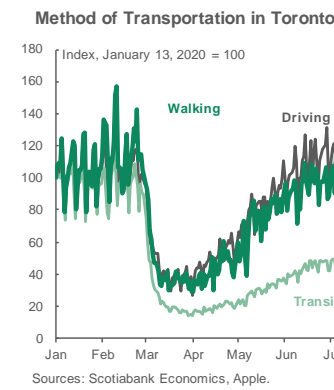
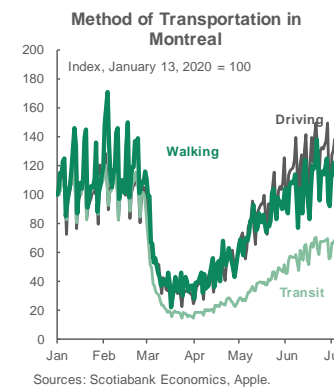
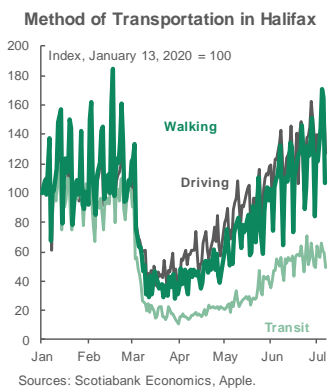
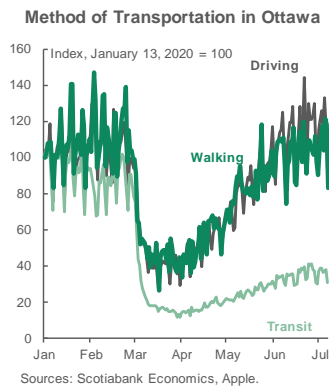
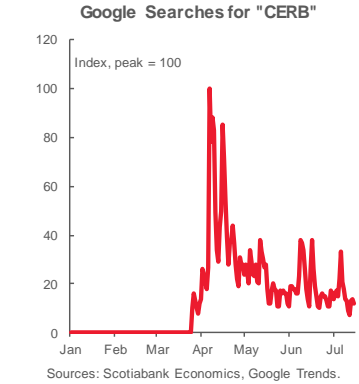
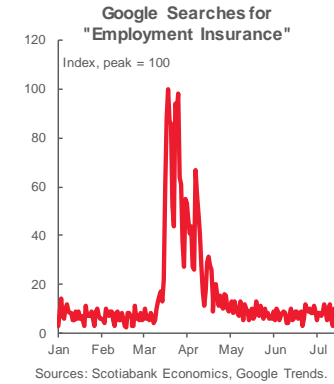
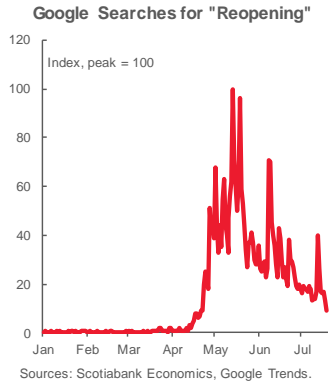
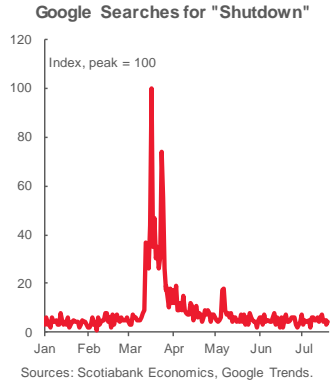
Chart 17



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.