



Tracking the Canadian Economy through COVID-19: Insights from customer transactions – September 24, 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:

- Updated to September 17th, automated funds transfers in the business sector have fallen back somewhat this month:
 - Growth in incoming transactions reached a peak in mid-August and since then has been trending lower relative to last year's levels. Transactions to most industries have backtracked in the past few weeks, with the decline in the retail sector being the most troubling sign.
 - Payroll deposits, while volatile, showed a tendency to ease back in September compared to last year's levels, which could point to a nascent labour market weakness.
- Growth in consumer transactions, available through September 19th, has edged down also in September:
 - Coinciding with a resurgence of the virus, as well as school re-openings in most provinces, average y/y growth in some of the hard-hit sectors declined in September.
 - Spending in sectors that saw higher demand through the pandemic was not immune to the slowdown, with growth continuing to decline.
 - A steady rise in the number of COVID-19 cases across Canada could put a halt to the recovery in retail spending.

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

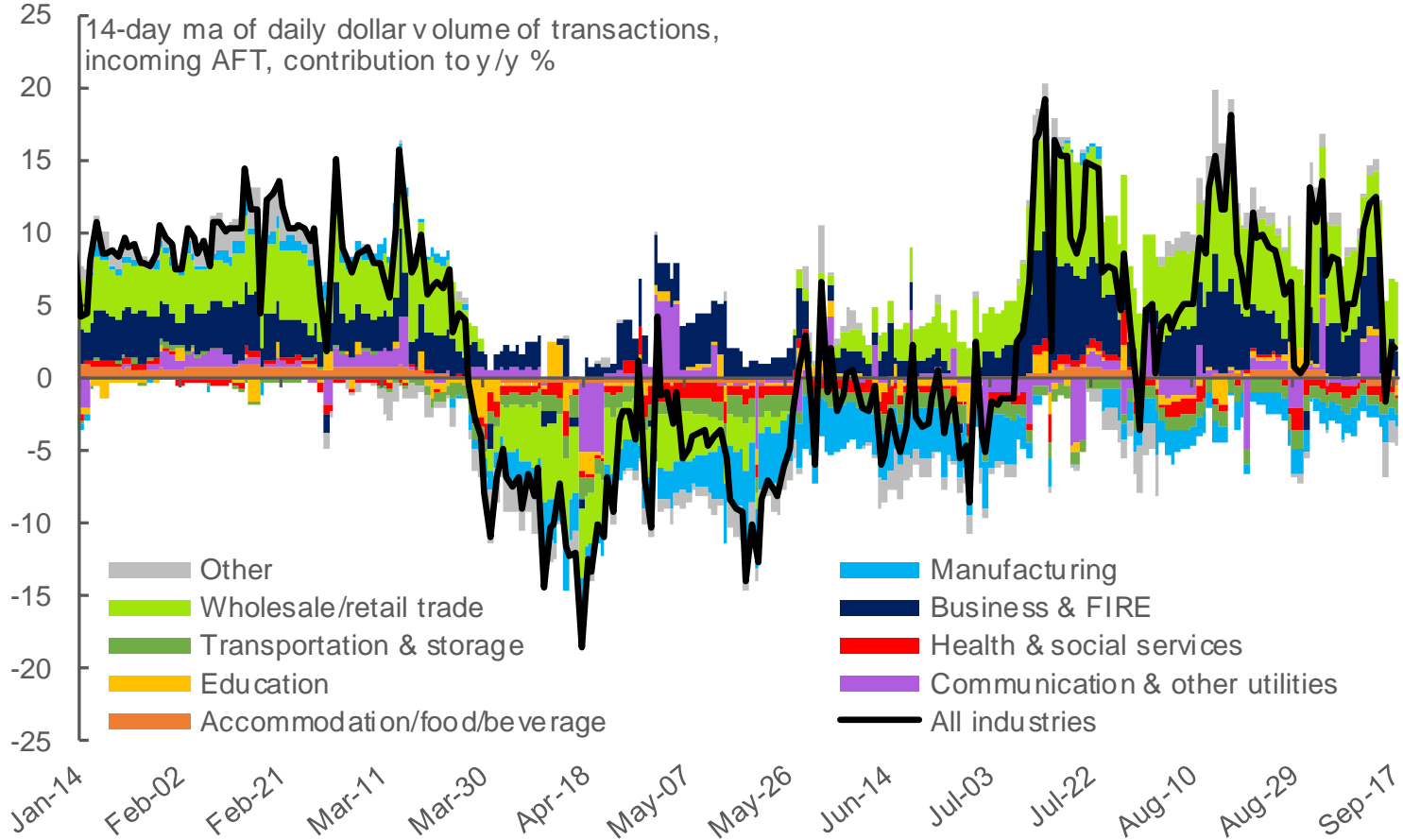
There are important caveats to analysis based on the payments data:

- 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: Weak Second Half of September

- Automated Funds Transfers (AFT) are used for:
 - rent and mortgage payments;
 - payroll deposits; and
 - other bills.
- Incoming transactions reached a peak in mid-August and since then have been trending lower relative to 2019.
- Transactions to most industries have backtracked in the past few weeks, with the decline in the retail sector being the most troubling sign (charts 2-6).
- Payments in transportation and warehousing, as well as manufacturing industries continue to run below last year's levels.

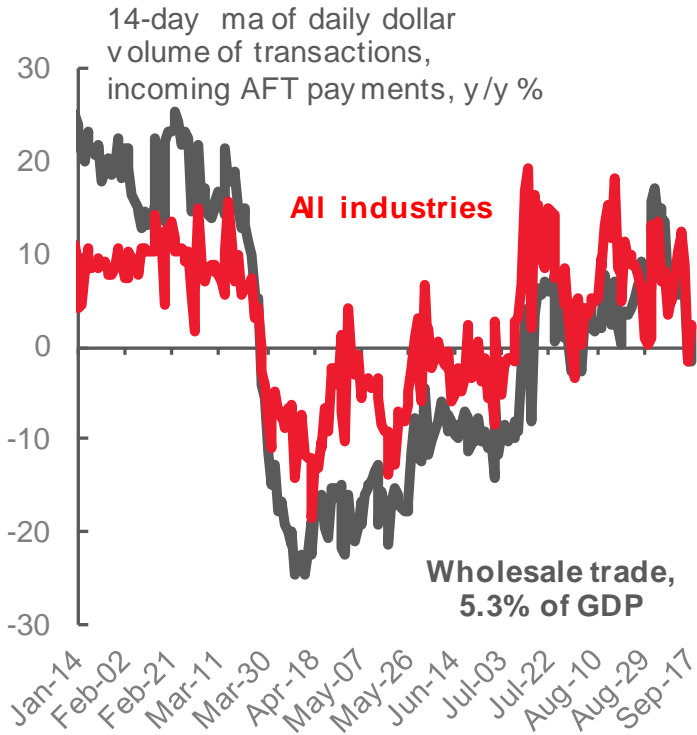
Chart 1



Sources: Scotiabank Economics, Data Science and Analytics.

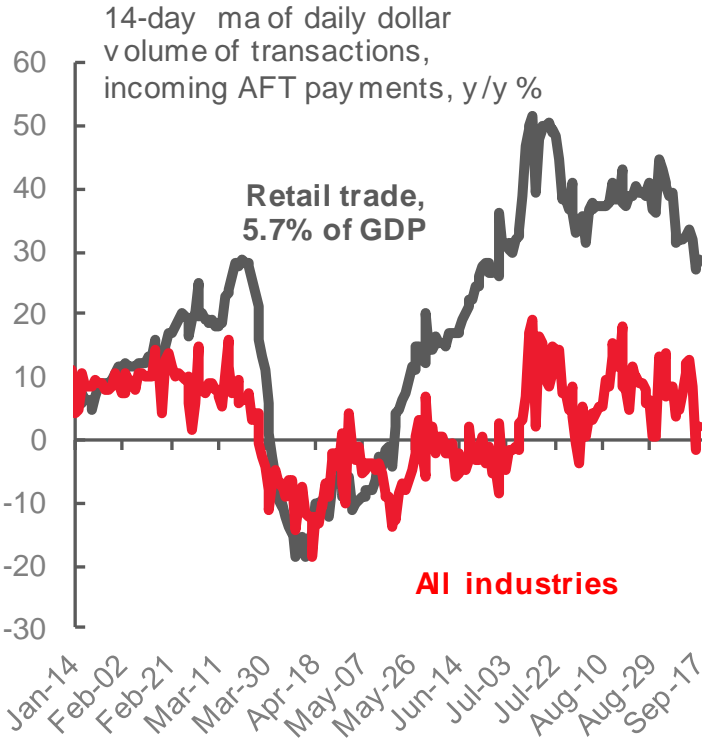
3. Business Transactions Data: Growth in Retail Payments Starting to Decline

Chart 2



Sources: Scotiabank Economics, Data Science and Analytics.

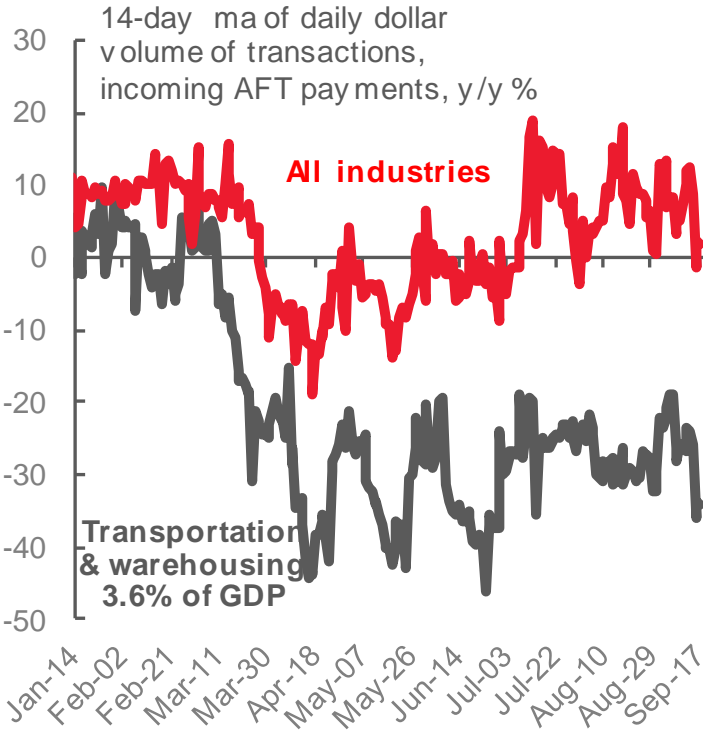
Chart 3



Sources: Scotiabank Economics, Data Science and Analytics.

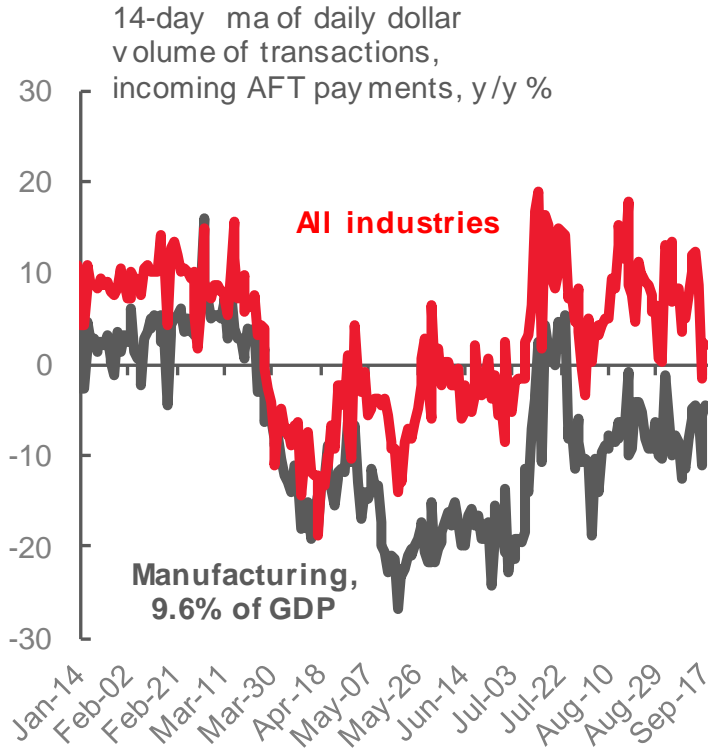
3. Business Transactions Data: Most Industries Show Slower Growth in September

Chart 4



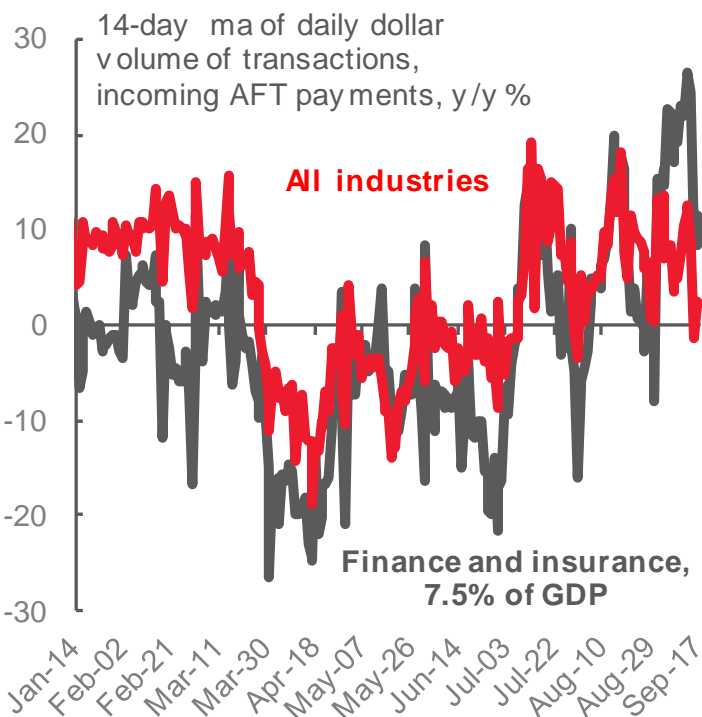
Sources: Scotiabank Economics, Data Science and Analytics.

Chart 5



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 6

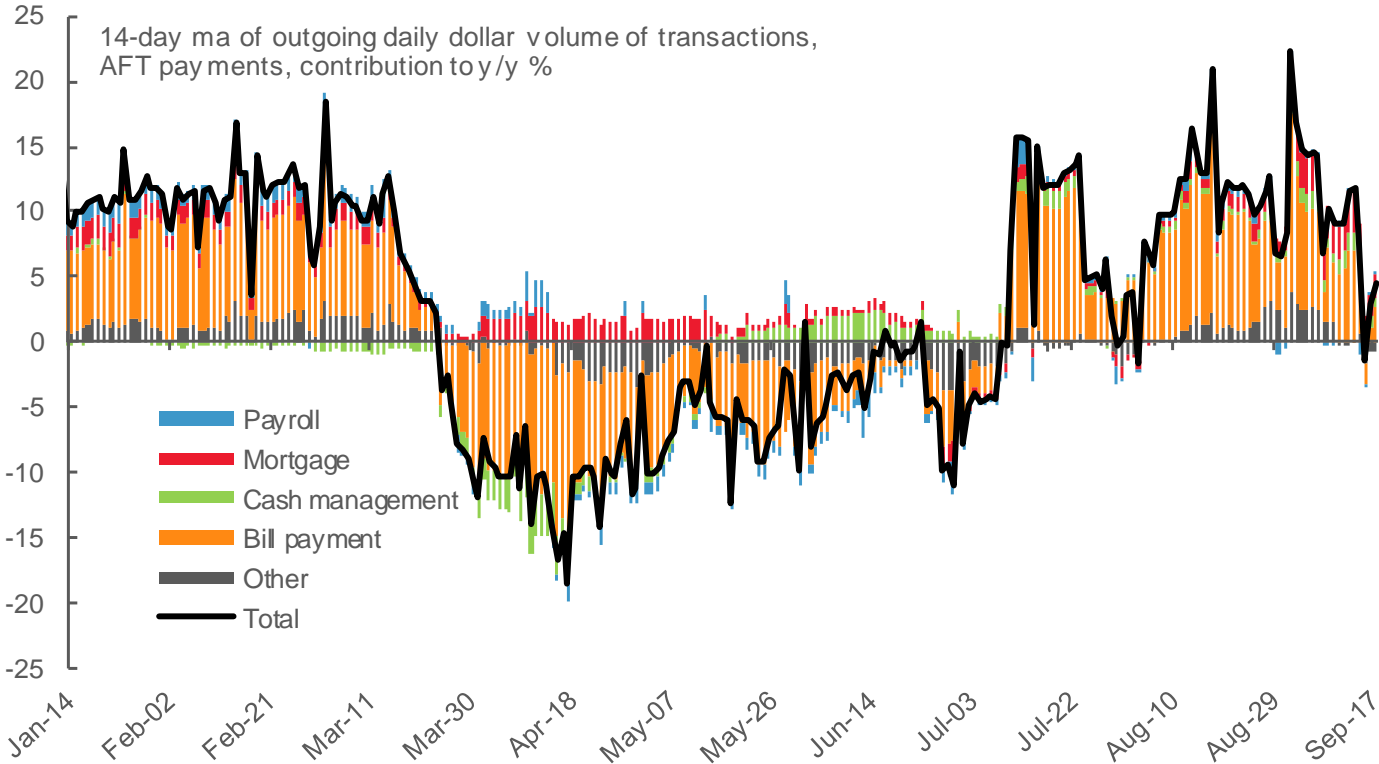


Sources: Scotiabank Economics, Data Science and Analytics.

3. Business Transactions Data: Bill Payments Decline in mid-September

- Growth in outgoing AFT payments relative to 2019 declined unexpectedly in mid-September (Chart 7). It remains to be seen whether it will recover in the weeks ahead:
 - Payroll deposits, while volatile, showed a tendency to ease back in September compared to last year's levels, which could be a sign of the nascent labour market weakness (Charts 8 and 9).

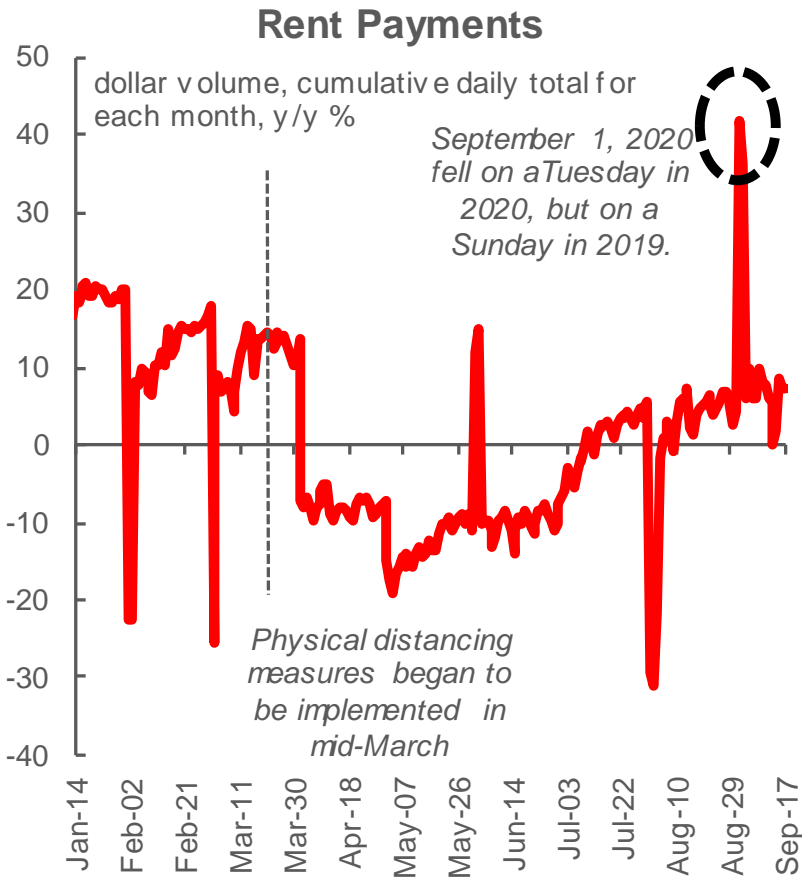
Chart 7



Sources: Scotiabank Economics, Data Science and Analytics.

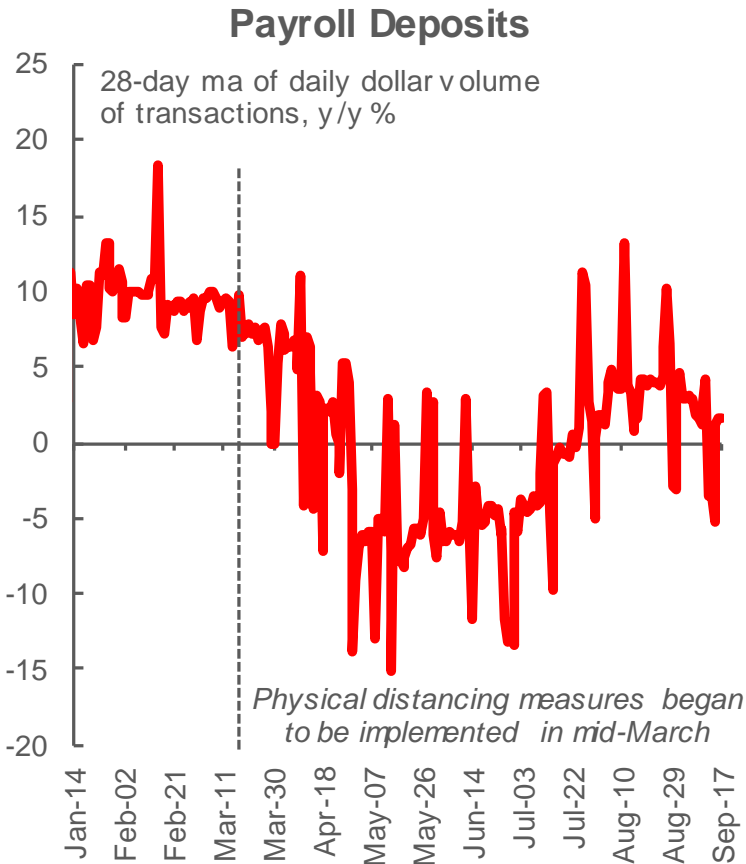
3. Business Transactions Data: Payroll Deposit Growth Starting to Track Lower

Chart 8



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 9

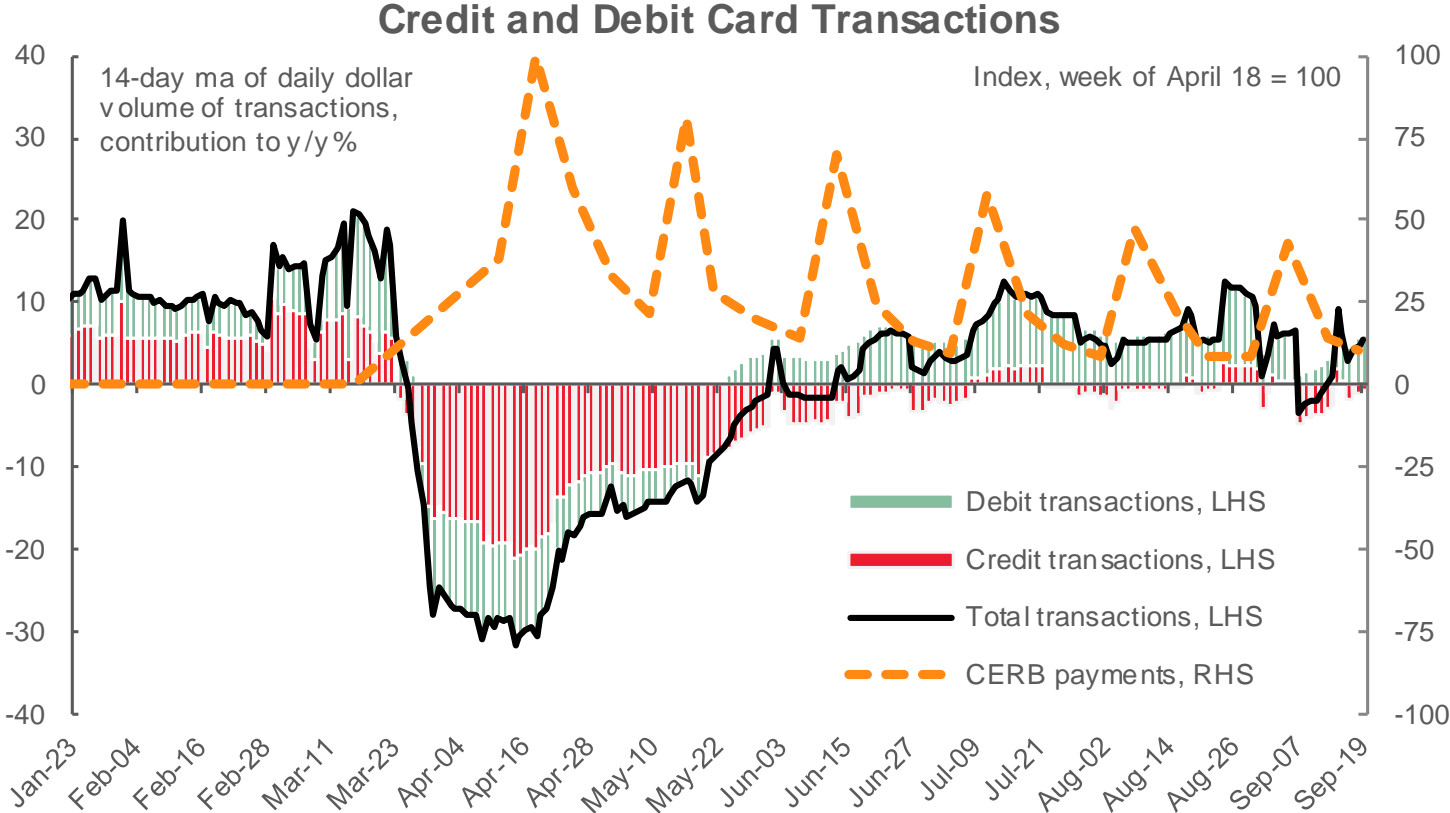


Sources: Scotiabank Economics, Data Science and Analytics.

4. Retail Transactions Data: Card Spending Growth Weaker in Mid-September

- Consumer transactions, available through September 19th, have been lower in September compared to August (chart 10):
 - Both debit and credit card spending fell in mid-September. The drop coincided with a resurgence of the virus and school re-openings across provinces.
- With CERB payments ending shortly and being folded into EI, the amounts paid through the CERB program will fall to zero in the next few weeks.

Chart 10

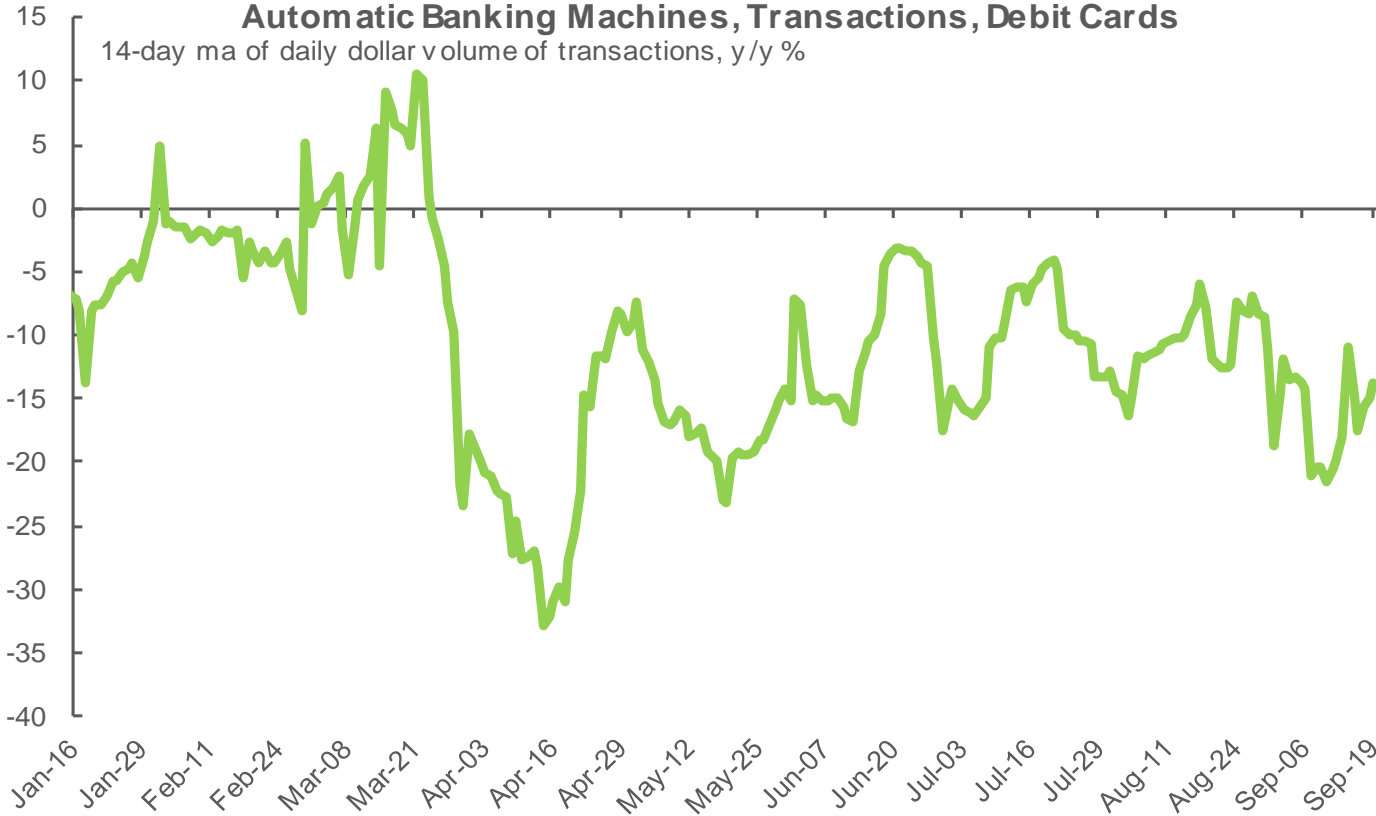


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Use of Bank Machines Still Down

- The volume of transactions through automatic banking machines (ABMs) mirrored other indicators declining in mid-September, before rising slightly in the last few days (Chart 11).
- As a measure of cash usage, persistently low levels of ABM transactions signal a possible change in preferences, with electronic means gaining at the expense of cash.
- It could also reflect the fact that with many physical stores closed and people spending more time at home, an increase in shopping online is reflected in higher electronic payment usage.

Chart 11

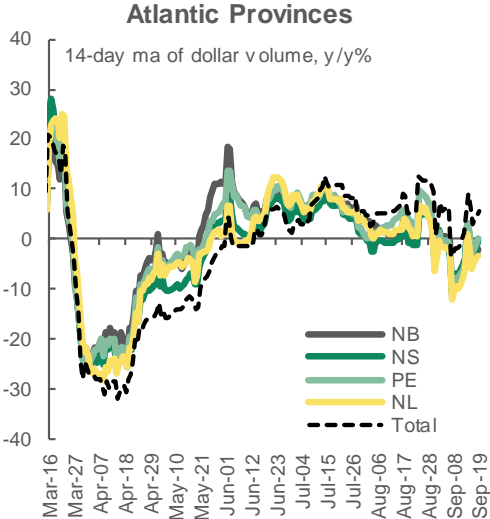


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Spreading Virus Could Hamper Recovery Across Provinces

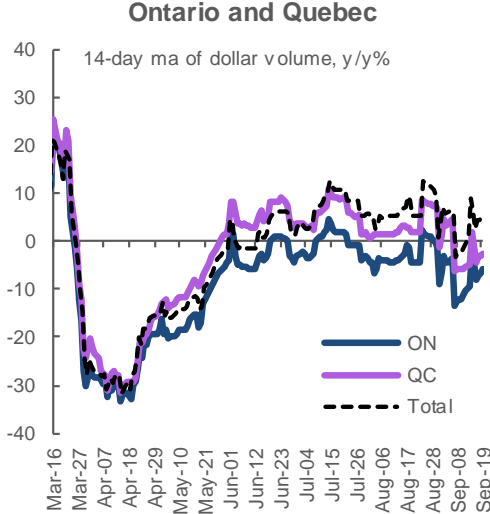
- Province-level data shows a consistent trend, with spending totals declining in mid-September relative to 2019 (Chart 12-15).
- It remains to be seen how virus resurgence across provinces, as well as difficulties with school re-opening, affect spending trends in various parts of the country.

Chart 12



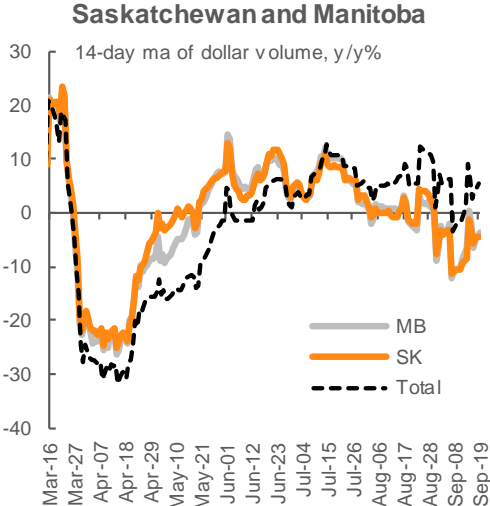
Sources: Scotiabank Economics, Data Analytics.

Chart 13



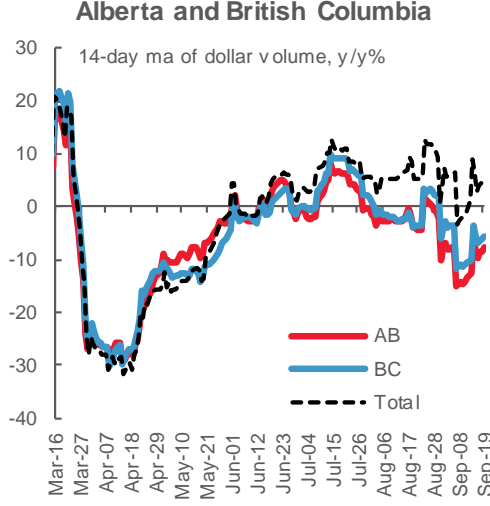
Sources: Scotiabank Economics, Data Analytics.

Chart 14



Sources: Scotiabank Economics, Data Analytics.

Chart 15

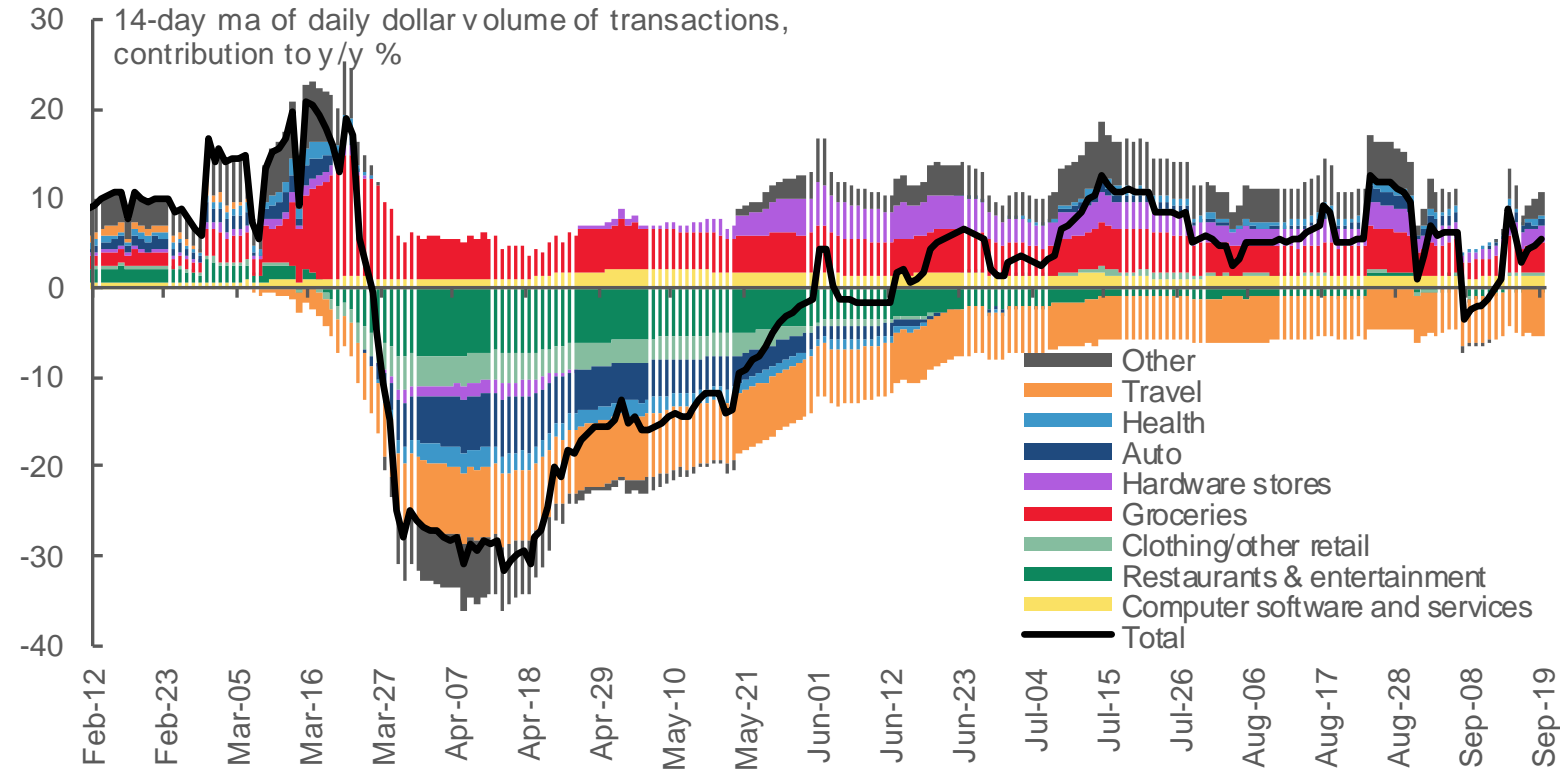


Sources: Scotiabank Economics, Data Analytics.

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

- The mid-September decline in y/y spending growth is not limited to a few merchant types and seems relatively broad-based (Chart 16):
 - Groceries and hardware stores, as well as travel-related merchants saw declining y/y spending growth in mid-September, before a tentative turnaround.

Chart 16

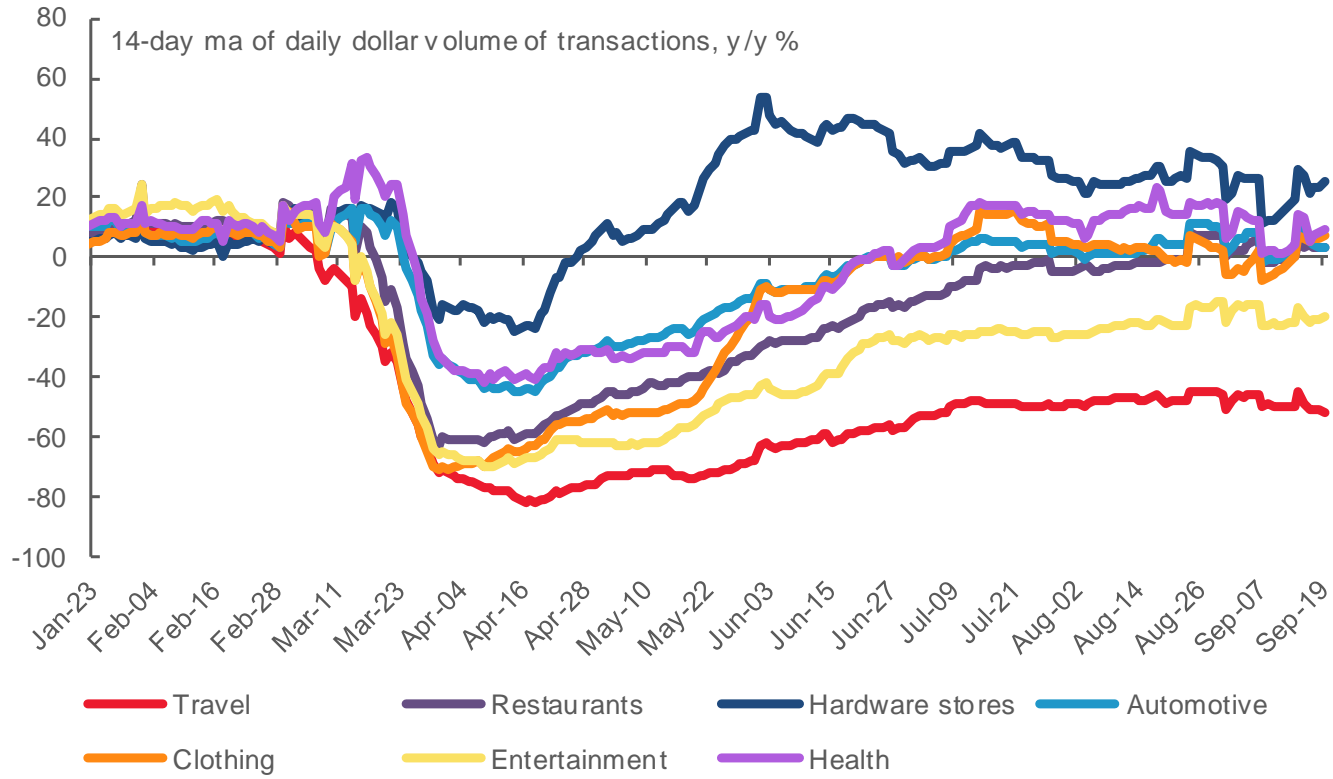


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

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

- Following a strong recovery in spending from the April trough that reached a peak in August, most hard-hit sectors saw a reduction in y/y growth in September (Chart 17):
 - Y/Y decline in travel-related spending appeared to accelerate in September, while entertainment and restaurants show flat growth profiles.

Chart 17

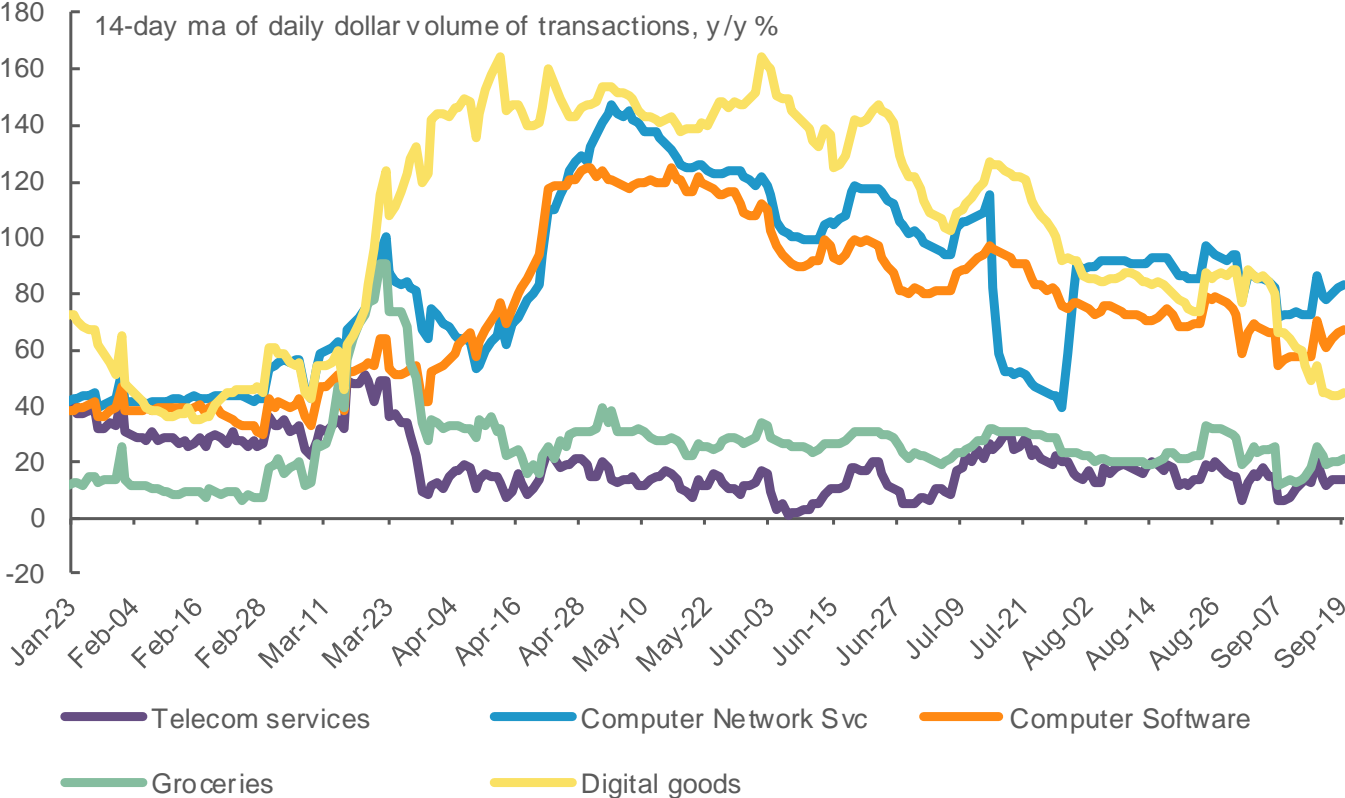


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

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

- Sectors that saw higher demand through the pandemic were not immune to the September slowdown, with y/y spending growth continuing to decline (Chart 18):
 - Y/Y growth in spending on computer software and other digital goods, as well as computer network services all have declined significantly since the summer.

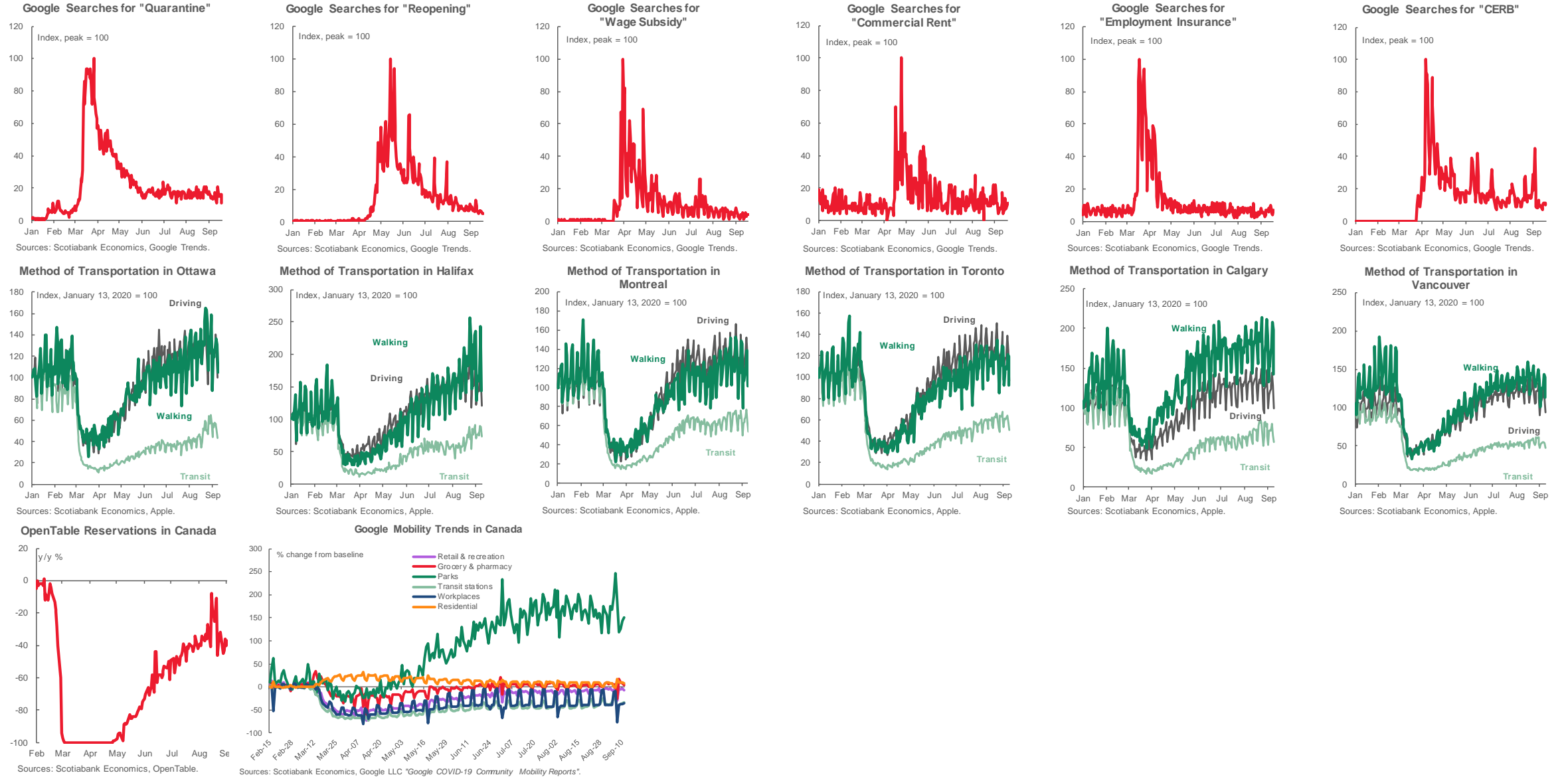
Chart 18



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

5. Other High-Frequency Indicators Of Activity

Charts 19-32 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.