



Tracking the Canadian Economy through COVID-19: Insights from customer transactions - July 9, 2020

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1. Key Insights from Customer Transactions
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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 July 3rd have remained consistently below the levels of 2019, in contrast to retail card spending:
 - Incoming transactions via automated funds transfer (AFT) are being held back by the weakness in manufacturing. In contrast, payments to retailers continued to rise, and transportation and finance showed an improvement in the last few days.
 - Outgoing bill payments have been volatile recently, but have yet to rise above last year's level. Payroll deposits and rent payments have ticked up slightly, albeit from very low levels.
- Consumer transactions available through July 6th moved higher recently on the strength of debit card transactions:
 - Automotive, clothing, restaurants and health-related card spending picked up relative to 2019.
 - In the automotive sector, while spending at gas stations has been slow to recover and explained most of the weakness in the category, car, boat and motorcycle dealers saw improved spending flow since late May.
 - Some caution is warranted in interpreting the data. First, some of the improvement in card spending is likely due to a substitution away from cash. Second, some of the recent rise in spending may reflect the cumulated but temporary impact of purchases that had to be temporarily postponed due to the pandemic (e.g. car maintenance). Finally, the usual seasonal patterns may have shifted since the start of the pandemic, in particular around large holidays like Canada Day, which fell inside of the reporting period.

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

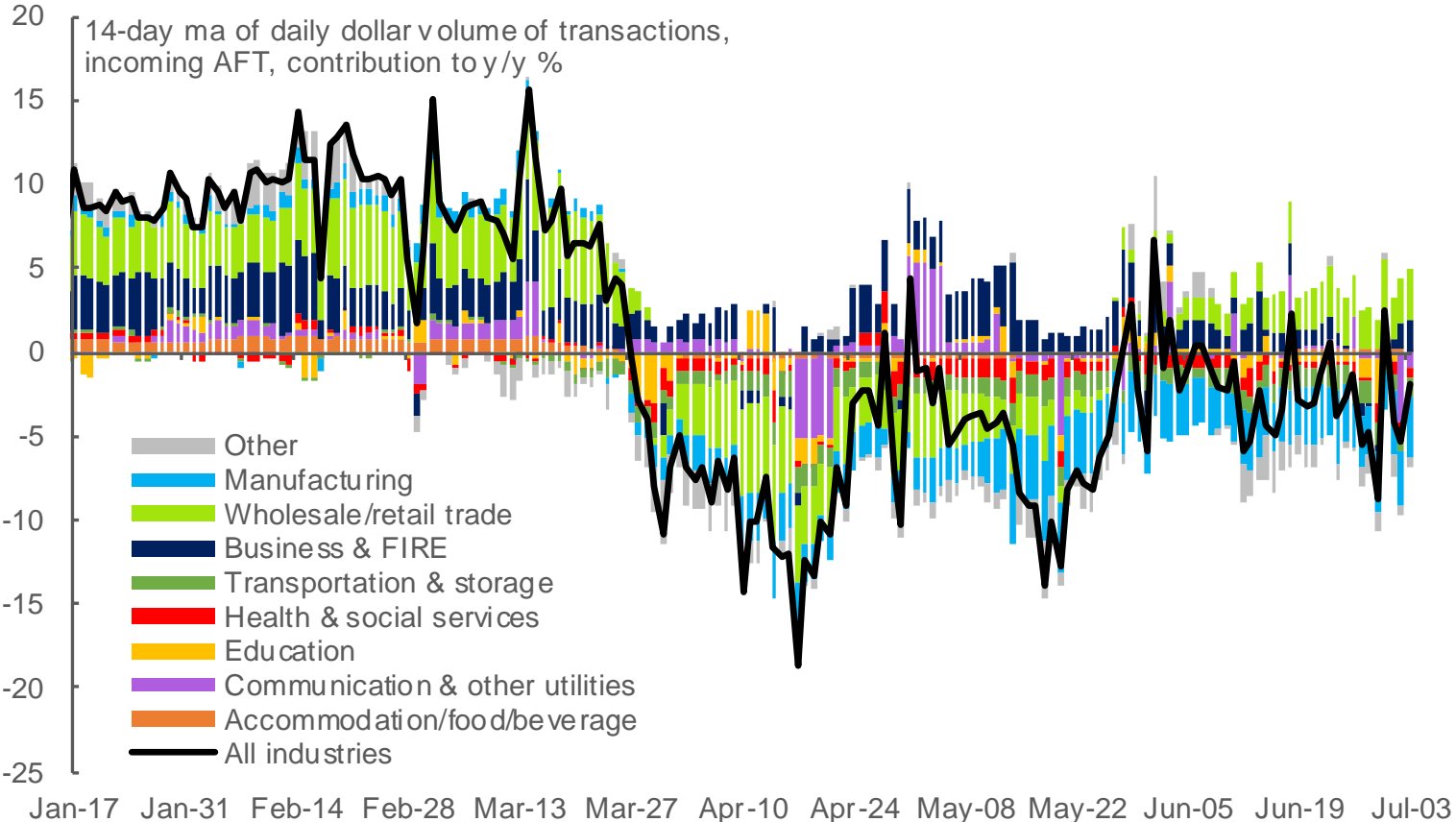
There are important caveats to analysis based on the payments data:

- 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: Incoming Payments Consistently Below 2019 Levels

- Automated Funds Transfers (AFT) are used for:
 - rent and mortgage payments;
 - payroll deposits; and
 - other bills.
- Incoming business transactions have remained consistently below the levels of 2019, in contrast to retail card spending:
 - Total incoming transactions are being held back by the weakness in manufacturing. In contrast, payments to retailers continued to rise, and transportation and finance showed an improvement in the last few days (see Charts 2-6).

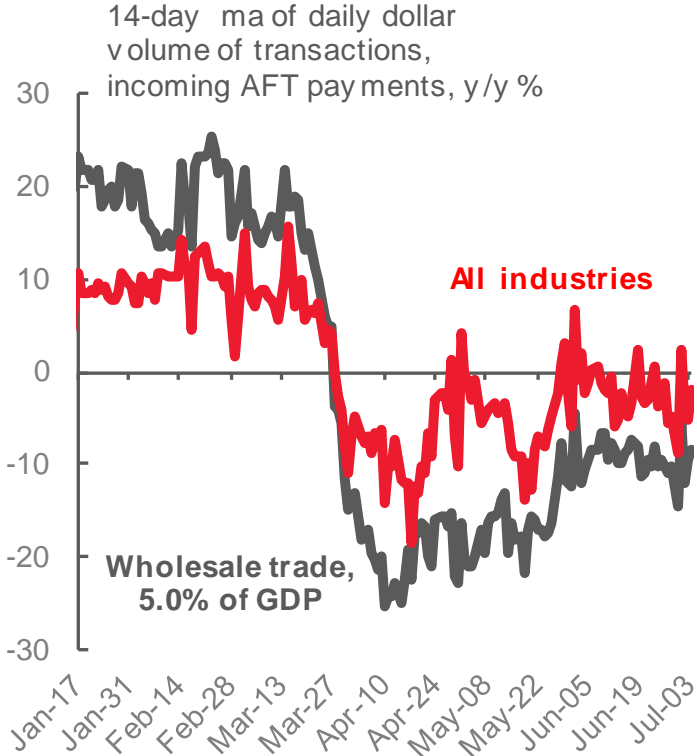
Chart 1



Sources: Scotiabank Economics, Data Science and Analytics.

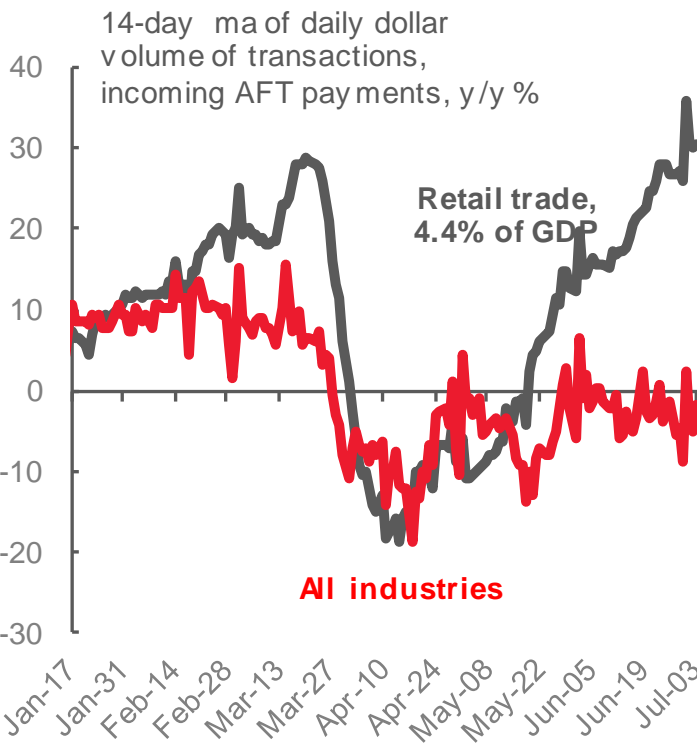
3. Business Transactions Data: Retail Trade Rises, Wholesale Trade Levelled-Off

Chart 2



Sources: Scotiabank Economics, Data Science and Analytics.

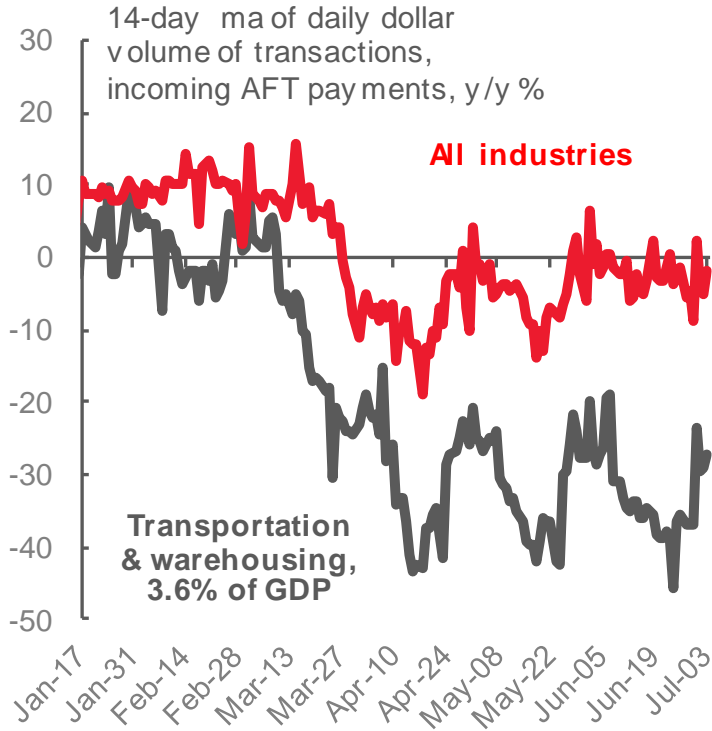
Chart 3



Sources: Scotiabank Economics, Data Science and Analytics.

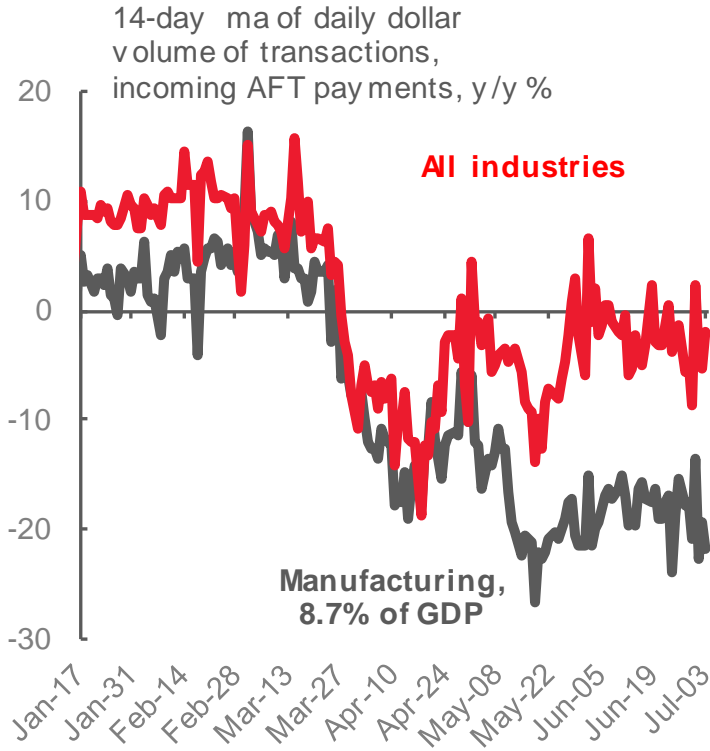
3. Business Transactions Data: Transportation and Finance Show Recent Improvement

Chart 4



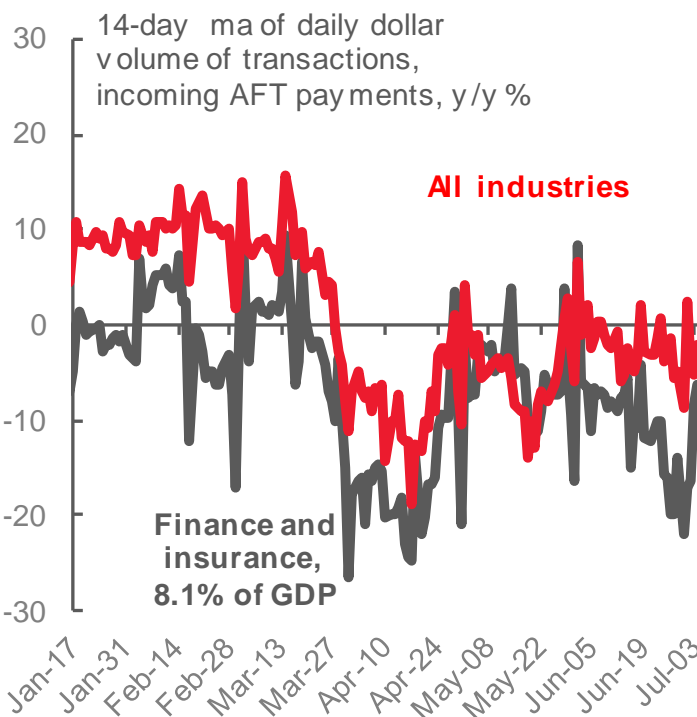
Sources: Scotiabank Economics, Data Science and Analytics.

Chart 5



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 6

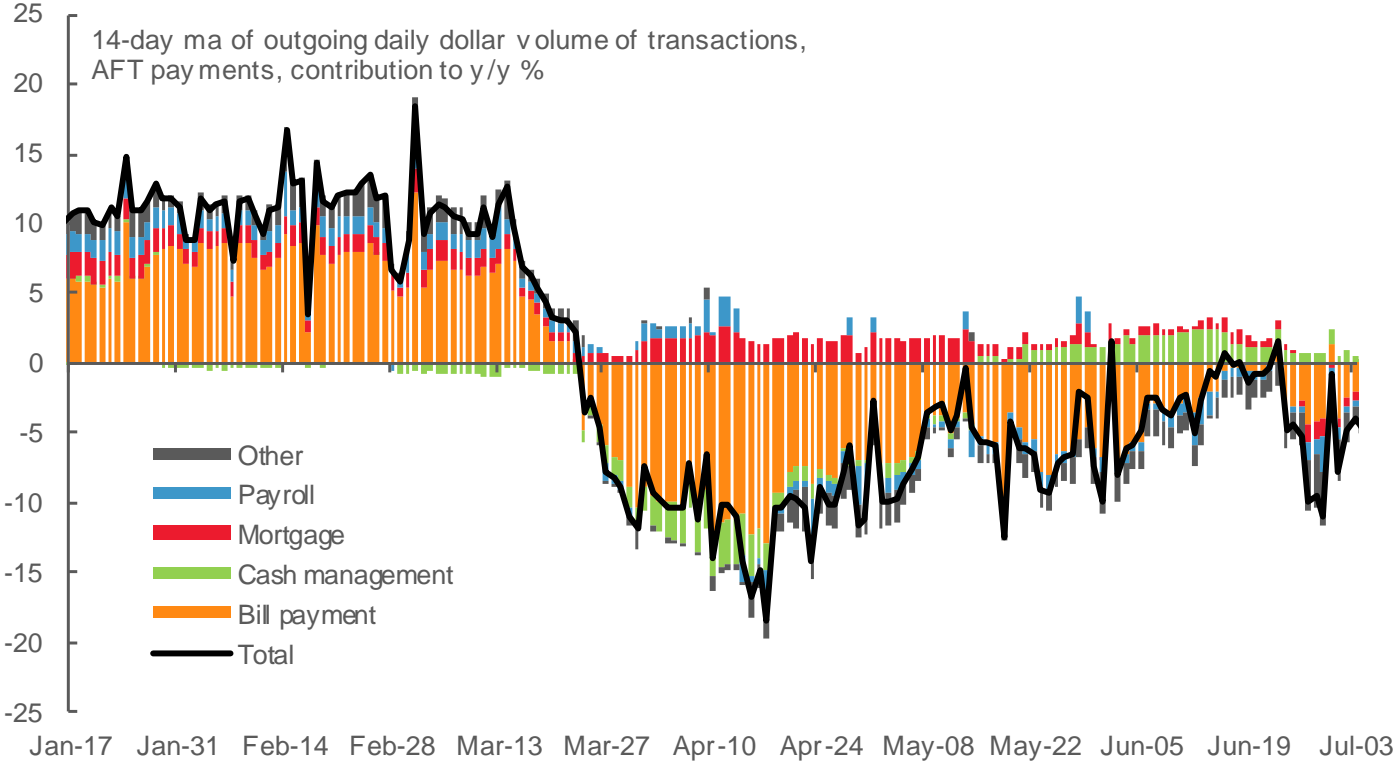


Sources: Scotiabank Economics, Data Science and Analytics.

3. Business Transactions Data: Outgoing Bill Payments Move Lower

- Outgoing AFT bill payments have been volatile recently, but have yet to rise above last year's level (Chart 7):
 - General bill payments recently moved decisively below the level of 2019.
 - Payroll deposits and rent payments suffered unprecedented declines in late March. While they remained low relative to last year, they showed tentative signs of improvement recently (Charts 8 and 9). Whether the pickup will persist remains to be seen.

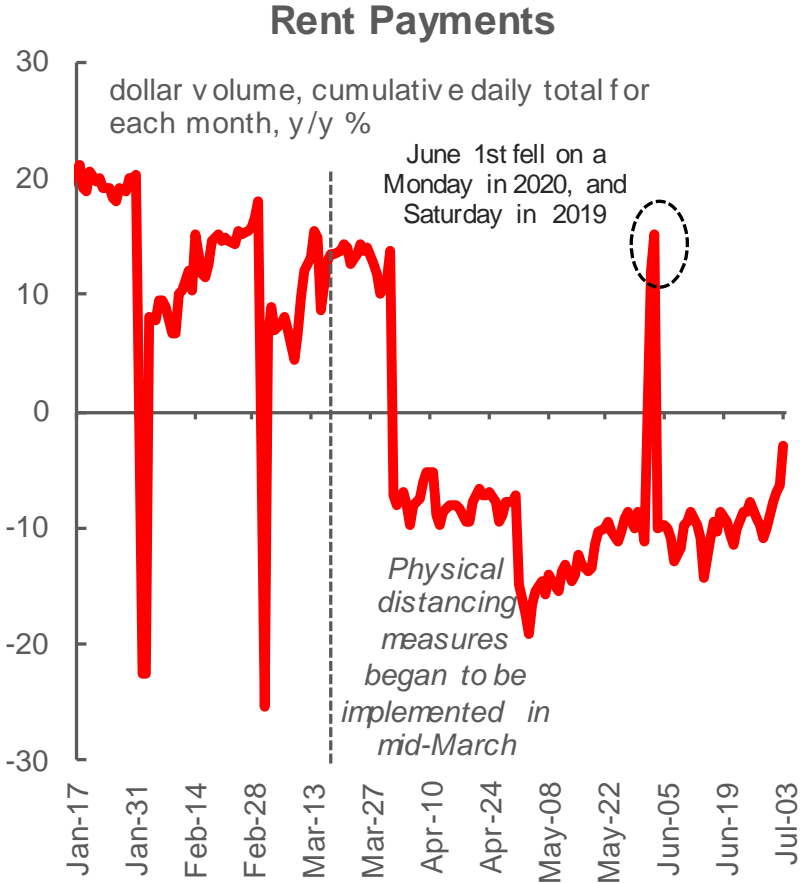
Chart 7



Sources: Scotiabank Economics, Data Science and Analytics.

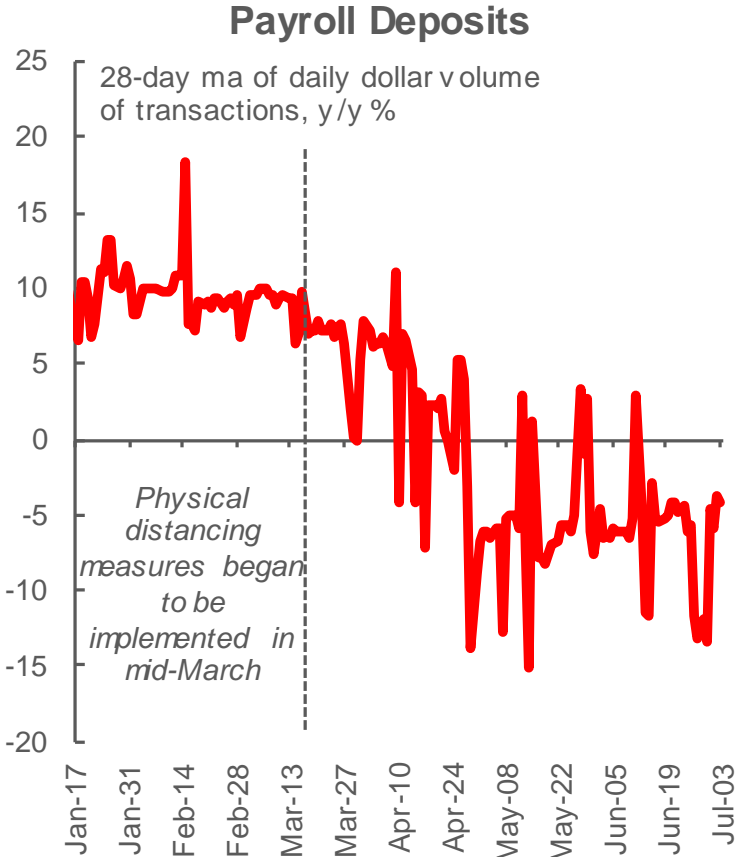
3. Business Transactions Data: Rent/Payrolls Ticked Up Recently

Chart 8



Sources: Scotiabank Economics, Data Science and Analytics.

Chart 9

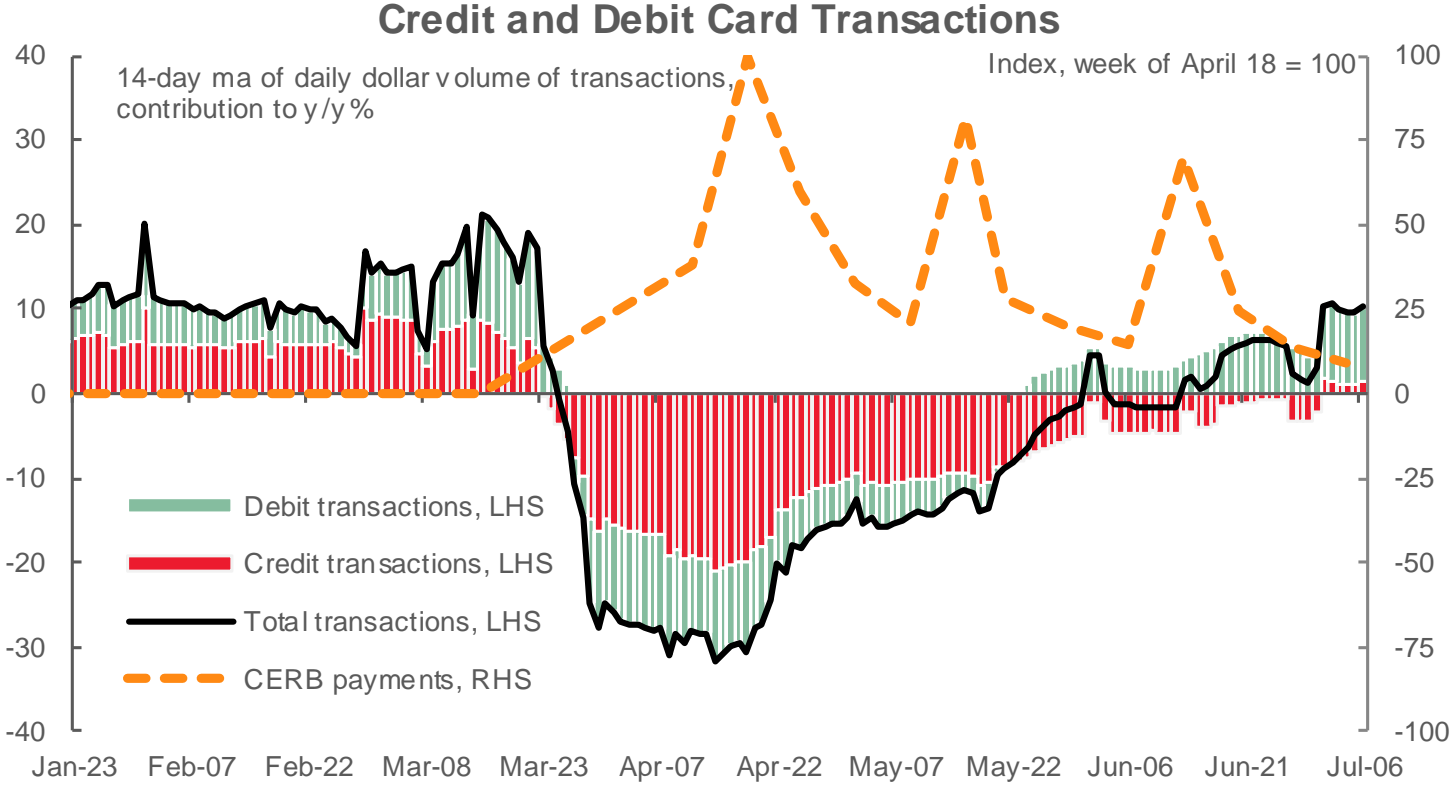


Sources: Scotiabank Economics, Data Science and Analytics.

4. Retail Transactions Data: Card Spending Improved Further

- Card spending shows growth picking up further in early July after levelling off in the previous week (Chart 10):
 - Debit card spending explains most of the recent rise. This is consistent with other aggregate data (see [here](#)) showing consumer credit falling through the shutdowns.
- Some caution is warranted in interpreting the data.
 - First, some of the improvement in card spending is likely due to a substitution away from cash.
 - Second, some of the recent rise in spending may reflect the cumulated but temporary impact of purchases that had to be temporarily postponed due to the pandemic (e.g. car maintenance).

Chart 10

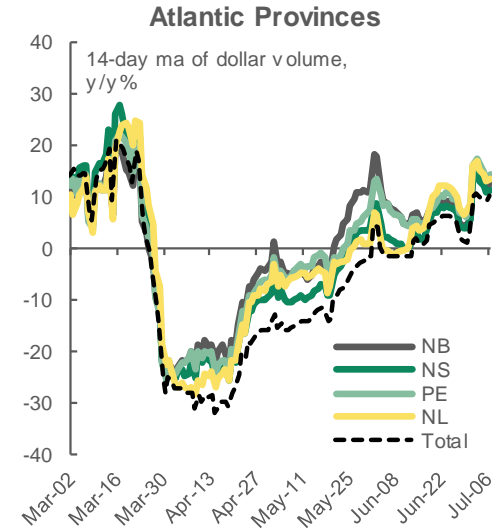


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

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

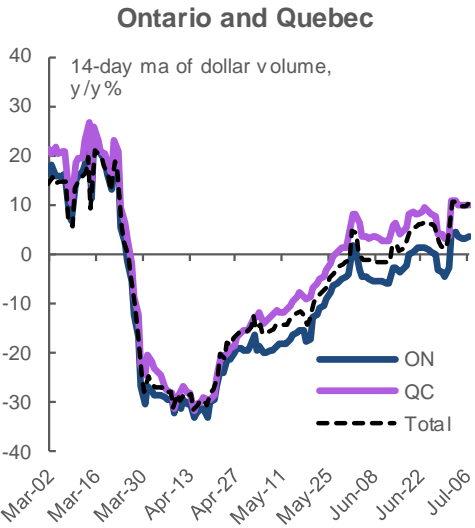
- Province-level data shows a consistent trend across provinces.
- The recent pickup in overall card spending can be seen across provinces to a greater or lesser extent.
- Card spending in Atlantic provinces, Saskatchewan and Manitoba increased in lock-step with Canada-wide spending in July (Charts 11 and 13).
- Most of the rise though is explained by higher spending in Ontario and Quebec (Chart 12), while growth in Alberta and BC over the past week fell below average Canada-wide rate (Chart 14).

Chart 11



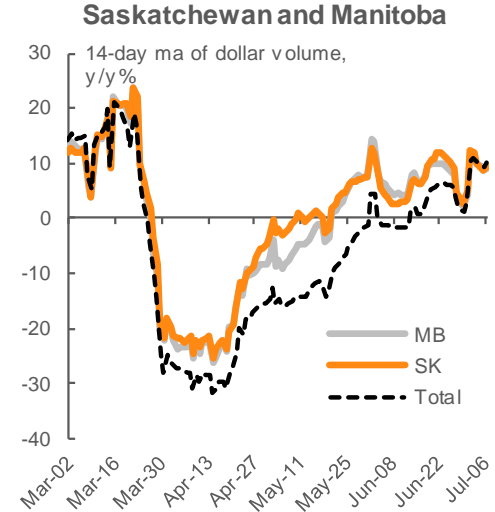
Sources: Scotiabank Economics, Data Analytics.

Chart 12



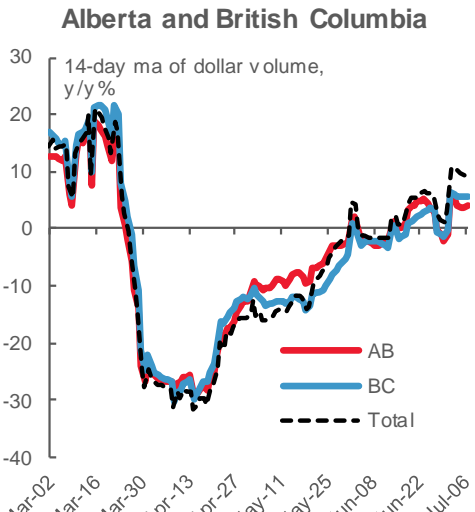
Sources: Scotiabank Economics, Data Analytics.

Chart 13



Sources: Scotiabank Economics, Data Analytics.

Chart 14

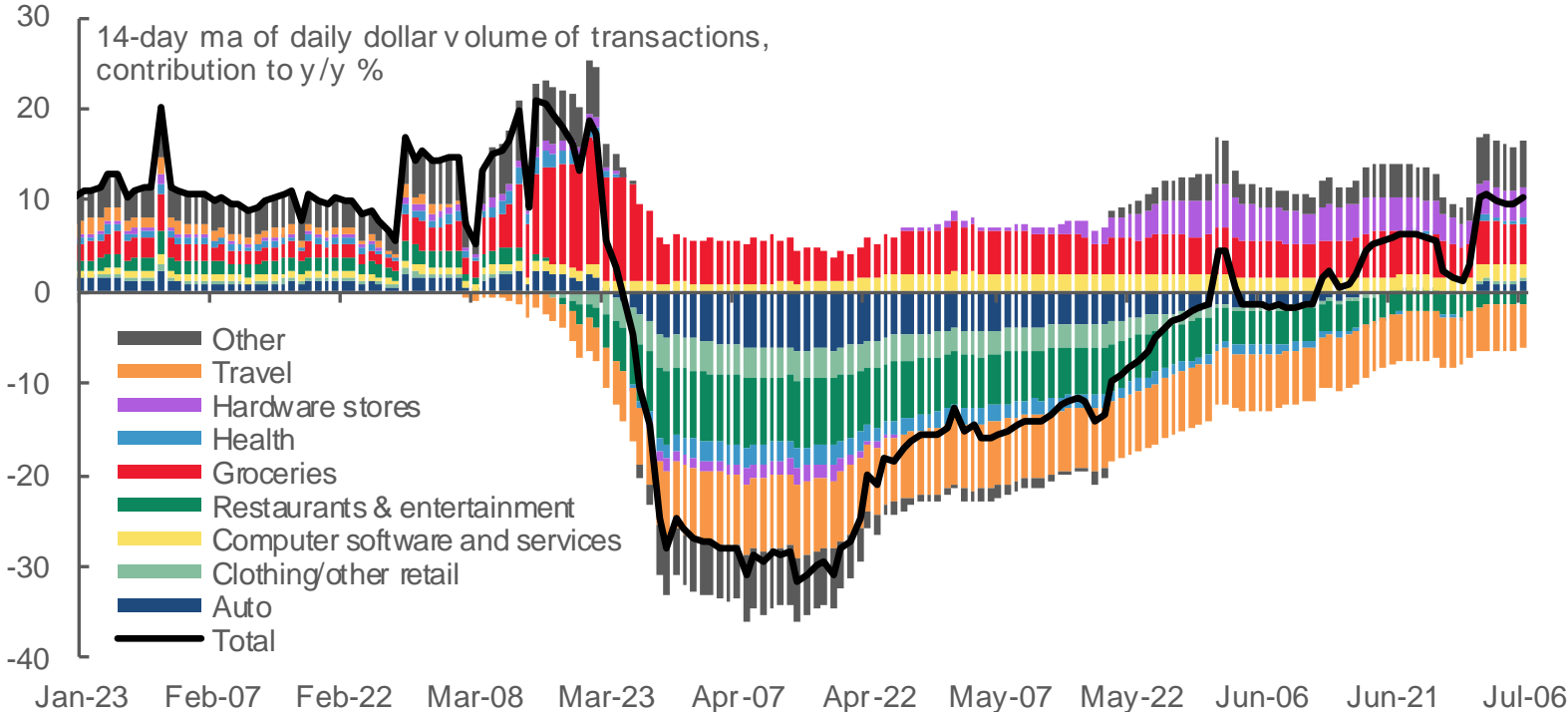


Sources: Scotiabank Economics, Data Analytics.

4. Retail Transactions Data: Card Spending Re-invigorated, Most Categories Improve

- 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 (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

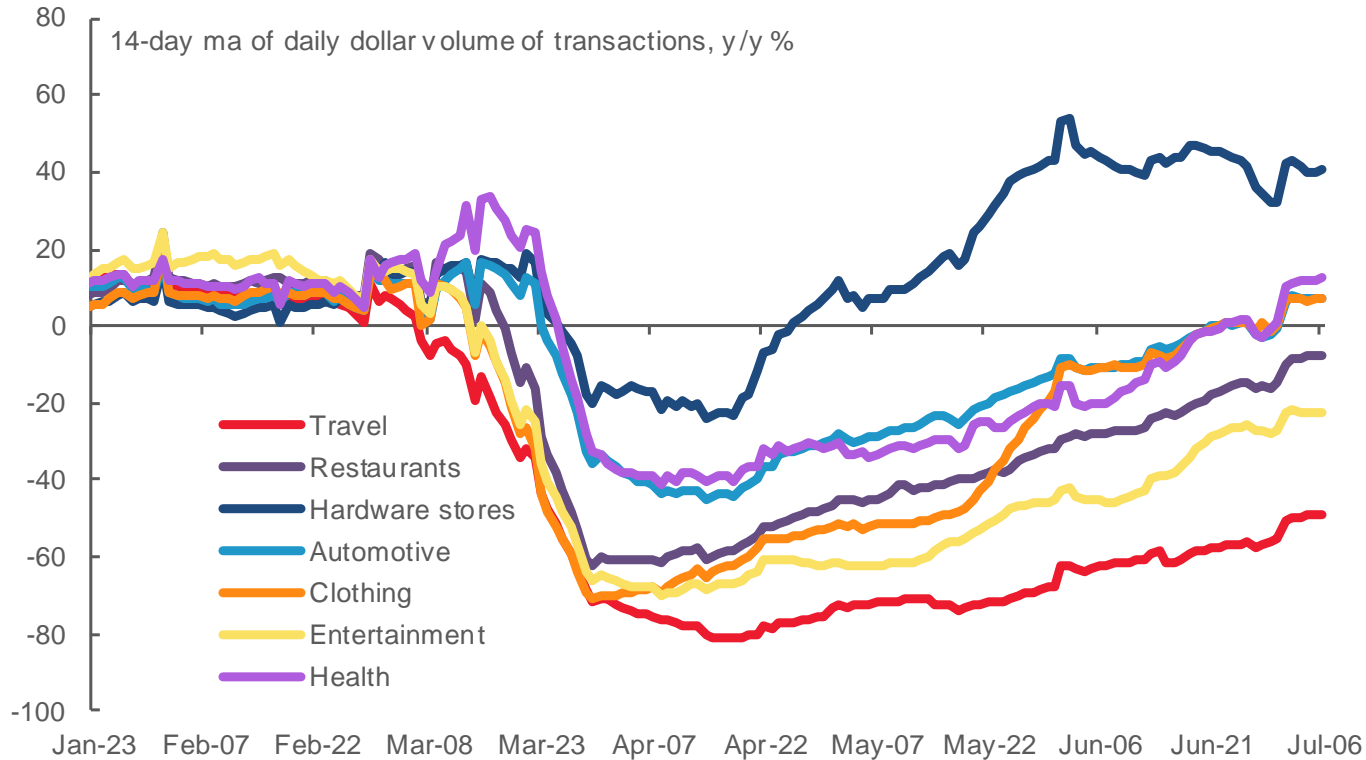


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

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

- As spending on travel, restaurants and entertainment continues to be held back by the fallout from the pandemic, other categories have improved significantly to surpass last year's levels (Chart 16):
 - Automotive, clothing and health-related card spending have strengthened further in the last week, while hardware stores see growth starting to level-off.
 - Card spending on entertainment and restaurants continues to slowly come back.

Chart 16

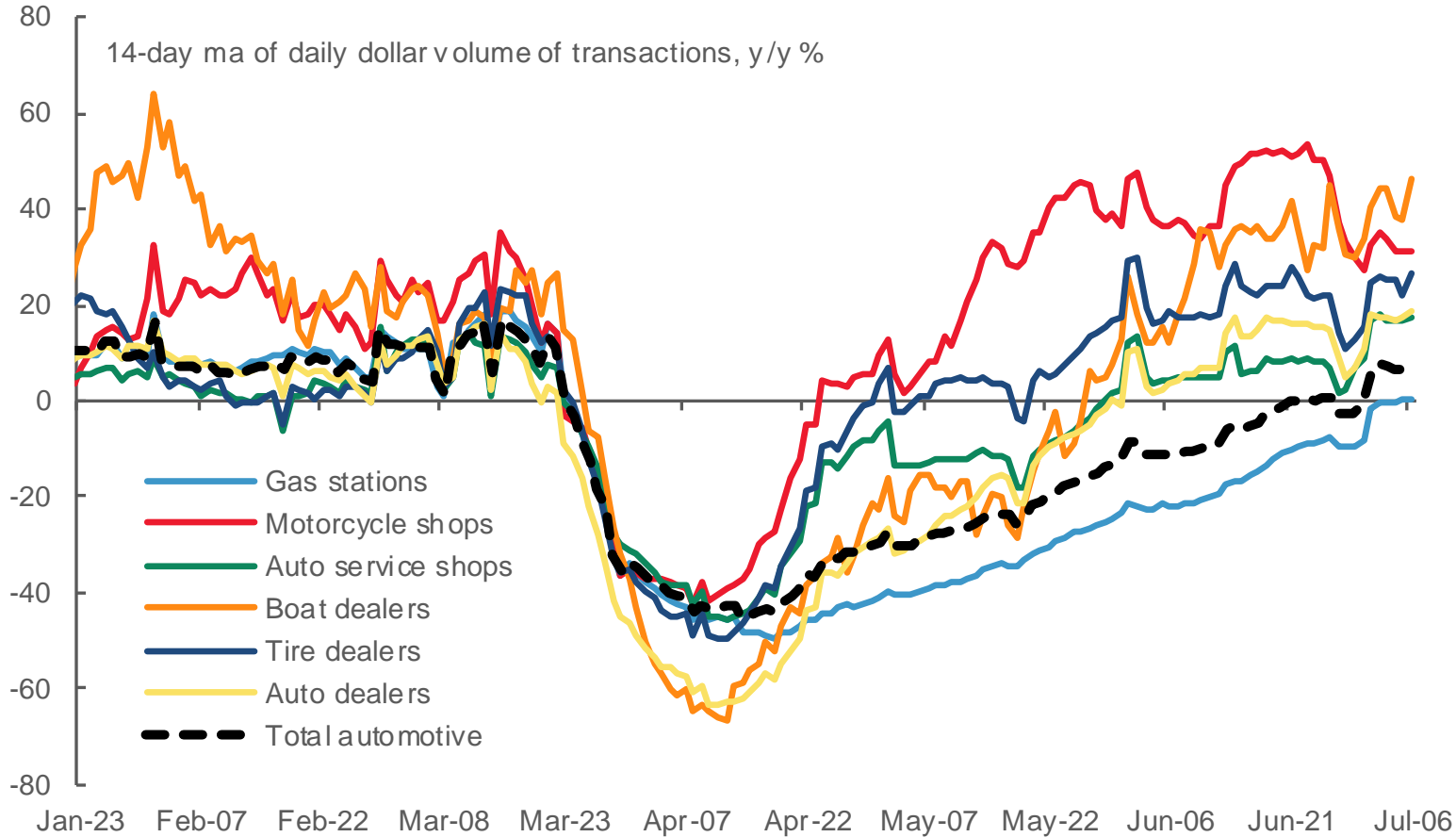


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Automotive Spending Picked Up Across Categories

- Focusing on merchants in the automotive sector, spending at gas stations has been lagging other categories since late April as fewer trips are made and the price of gas remains low. This held back spending in the sector overall.
- On the other hand, spending related to recreational activities – boats and motorcycles – has been strengthened by the lack of other entertainment options.
- Car dealers have also experienced rapid improvement since mid-May.

Chart 17

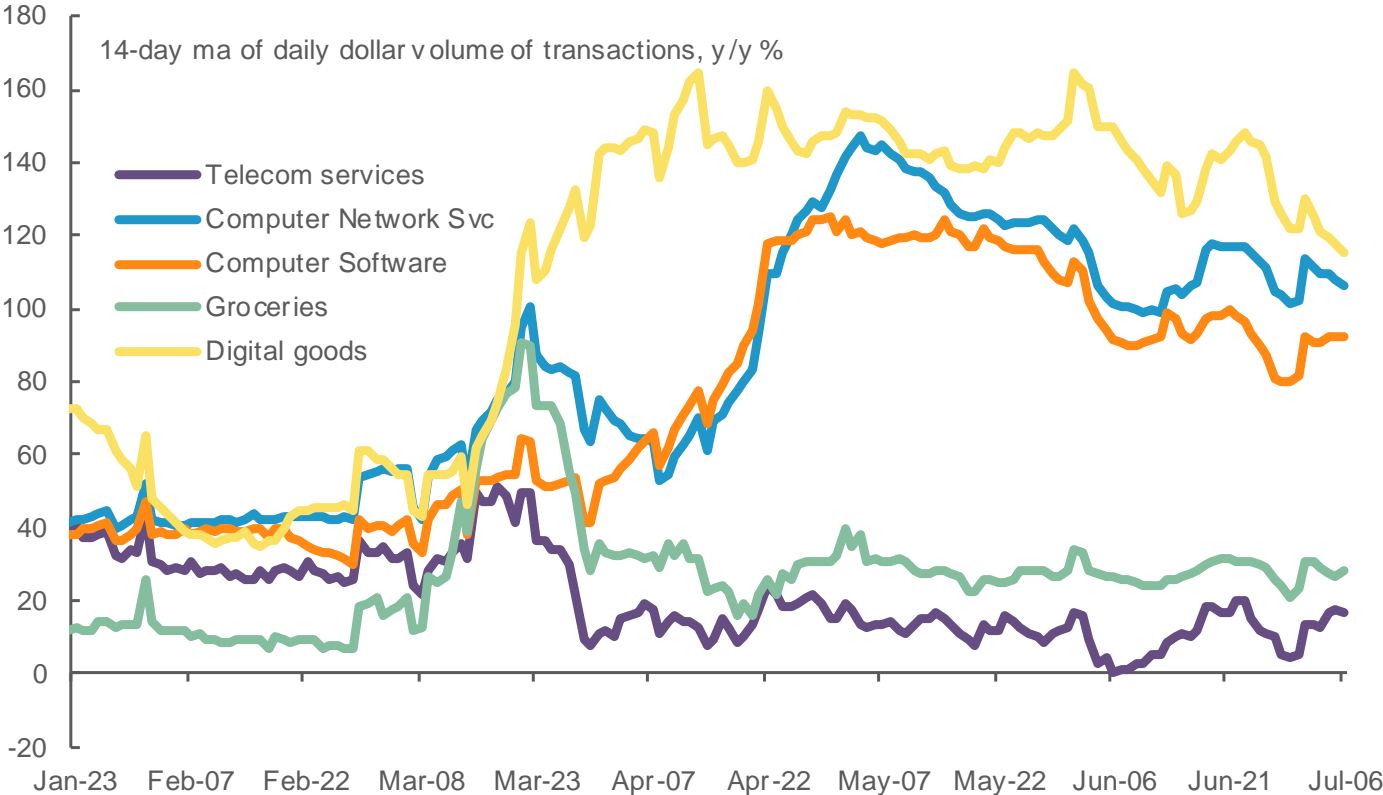


Sources: Scotiabank Economics, Customer Insights, Data & Analytics.

4. Retail Transactions Data: Digital Spending Trending Lower

- In contrast, categories that have been outperforming since the start of the pandemic see y/y growth flattening or trending lower recently (Chart 18).
 - Growth in spending on consumer network services (e.g. Amazon), computer software and digital goods (e.g. videogames) started to trend lower recently, coming off the record highs.

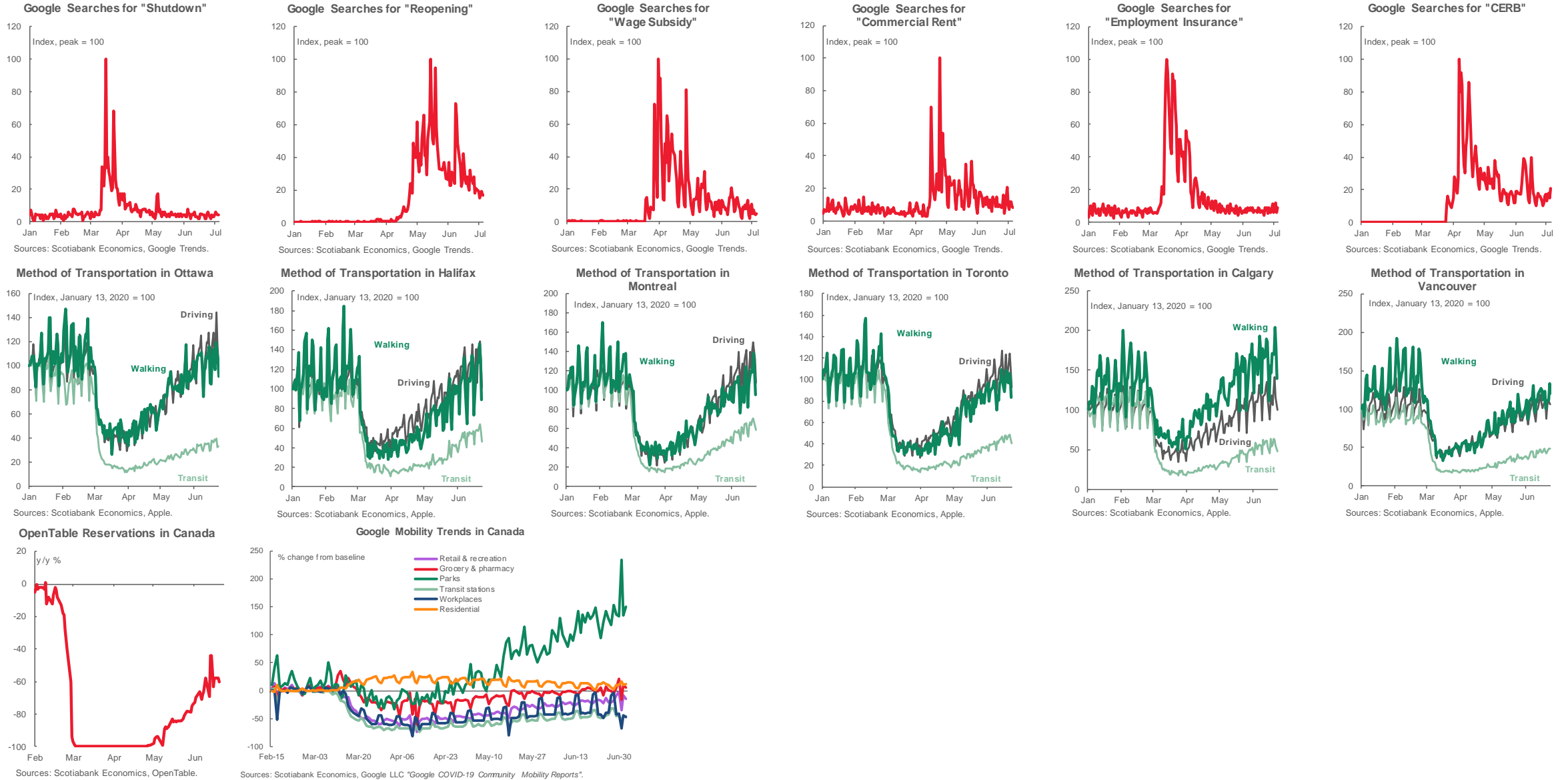
Chart 18



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.