Tracking the Canadian Economy through COVID-19: Insights from customer transactions - July 23, 2020

Nikita Perevalov* (Scotiabank Economics)
Taha Jaffer, Jason Liang (Data Science and Analytics)
Roland Merbis, Artur Motruk (Customer Insights & Analytics)

* Director of Economic Forecasting, 437.775.5137, nikita.perevalov@scotiabank.com
Overview

1. Key Insights from Customer Transactions
2. COVID-19, the Canadian Economy and Scotiabank’s Transactions Data
3. Business Transactions Data Details
4. Retail Transactions Data Details
5. Other High-Frequency Indicators of Activity
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:
  o 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.
  o 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:
  o 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.
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.
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.
  o For retail payments, the volume and types of payments are different depending on the day of the week and the season.
  o 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.
  o 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.).
  o 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.
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 2**

14-day moving average of daily dollar volume of transactions, incoming AFT payments, y/y %

- Wholesale trade, 5.0% of GDP
- All industries

Sources: Scotiabank Economics, Data Science and Analytics.

**Chart 3**

14-day moving average of daily dollar volume of transactions, incoming AFT payments, y/y %

- Retail trade, 4.4% of GDP
- All industries

Sources: Scotiabank Economics, Data Science and Analytics.
3. Business Transactions Data: Manufacturing and Finance Improve Further

**Chart 4**

14-day ma of daily dollar volume of transactions, incoming AFT payments, y/y %

*Sources: Scotiabank Economics, Data Science and Analytics.*

**Chart 5**

14-day ma of daily dollar volume of transactions, incoming AFT payments, y/y %

*Sources: Scotiabank Economics, Data Science and Analytics.*

**Chart 6**

14-day ma of daily dollar volume of transactions, incoming AFT payments, y/y %

*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).

Sources: Scotiabank Economics, Data Science and Analytics.
3. Business Transactions Data: Rent/Payrolls Ticked Up Recently

Chart 8: Rent Payments
- Dollar volume, cumulative daily total for each month, y/y %
- June 1st fell on a Monday in 2020, and Saturday in 2019
- Physical distancing measures began to be implemented in mid-March

Sources: Scotiabank Economics, Data Science and Analytics.

Chart 9: Payroll Deposits
- 28-day ma of daily dollar volume of transactions, y/y %
- Physical distancing measures began to be implemented in mid-March

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.

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.
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.

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.

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.

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
This report has been prepared by Scotiabank Economics as a resource for the clients of Scotiabank. Opinions, estimates and projections contained herein are our own as of the date hereof and are subject to change without notice. The information and opinions contained herein have been compiled or arrived at from sources believed reliable but no representation or warranty, express or implied, is made as to their accuracy or completeness. Neither Scotiabank nor any of its officers, directors, partners, employees or affiliates accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or its contents. These reports are provided to you for informational purposes only. This report is not, and is not constructed as, an offer to sell or solicitation of any offer to buy any financial instrument, nor shall this report be construed as an opinion as to whether you should enter into any swap or trading strategy involving a swap or any other transaction. This report is not intended to be, and does not constitute, a recommendation of a swap or trading strategy involving a swap within the meaning of U.S. Commodity Futures Trading Commission Regulation 23.434 and Appendix A thereto. This material is not intended to be individually tailored to your needs or characteristics and should not be viewed as a “call to action” or suggestion that you enter into a swap or trading strategy involving a swap or any other transaction. Scotiabank may engage in transactions in a manner inconsistent with the views discussed in this report and may have positions, or be in the process of acquiring or disposing of positions, referred to in this report.

Scotiabank, its affiliates and any of their respective officers, directors and employees may from time to time take positions and deal in, own or act as market makers or advisors, brokers or commercial and/or investment bankers in relation to securities or related derivatives. As a result of these actions, Scotiabank may receive remuneration. All Scotiabank products and services are subject to the terms of applicable agreements and local regulations. Officers, directors and employees of Scotiabank and its affiliates may serve as directors of corporations. Any securities discussed in this report may not be suitable for all investors. Scotiabank recommends that investors independently evaluate any issuer and security discussed in this report, and consult with any advisors they deem necessary prior to making any investment.

This report and all information, opinions and conclusions contained in it are protected by copyright. This information may not be reproduced without the prior express written consent of Scotiabank.™Trademark of The Bank of Nova Scotia. Used under license, where applicable. Scotiabank, together with “Global Banking and Markets”, is a marketing name for the global corporate and investment banking and capital markets businesses of The Bank of Nova Scotia and certain of its affiliates in the countries where they operate, including, Scotiabanc Inc.; Citadel Hill Advisors L.L.C.; The Bank of Nova Scotia Trust Company of New York; Scotiabank Europe plc; Scotiabank (Ireland) Limited; Scotiabank Inverlat S.A., Institución de Banca Múltiple, Scotia Inverlat Casa de Bolsa S.A. de C.V., Scotia Inverlat Derivados S.A. de C.V. – all members of the Scotiabank group and authorized users of the Scotiabank mark. The Bank of Nova Scotia is incorporated in Canada with limited liability and is authorised and regulated by the Office of the Superintendent of Financial Institutions Canada. The Bank of Nova Scotia is authorised by the UK Prudential Regulation Authority and is subject to regulation by the UK Financial Conduct Authority and limited regulation by the UK Prudential Regulation Authority. Details about the extent of The Bank of Nova Scotia’s regulation by the UK Prudential Regulation Authority are available from us on request. Scotiabank Europe plc is authorised by the UK Prudential Regulation Authority and regulated by the UK Financial Conduct Authority and the UK Prudential Regulation Authority. Scotiabank Inverlat, S.A., Scotia Inverlat Casa de Bolsa, S.A. de C.V., and Scotia Derivados, S.A. de C.V., are each authorized and regulated by the Mexican financial authorities. Not all products and services are offered in all jurisdictions. Services described are available in jurisdictions where permitted by law.

Scotiabank recognizes the importance of personal and business information and we never take for granted the trust that you have placed in us to protect that information. We are committed to the ethical use of all our data. This report is based on anonymized and aggregated information and cannot be linked to any identifiable individual or business. For additional details on how we protect personal information, see https://www.scotiabank.com/privacy.

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.