

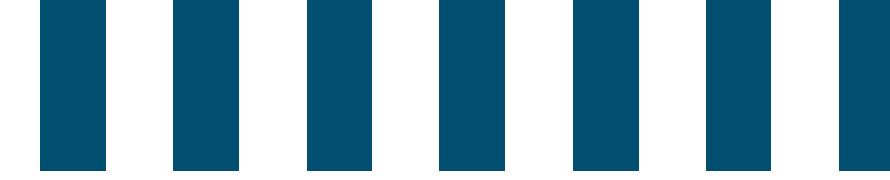


BANK OF CANADA
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The 4PM Shift: growing late-day Canadian bond trading

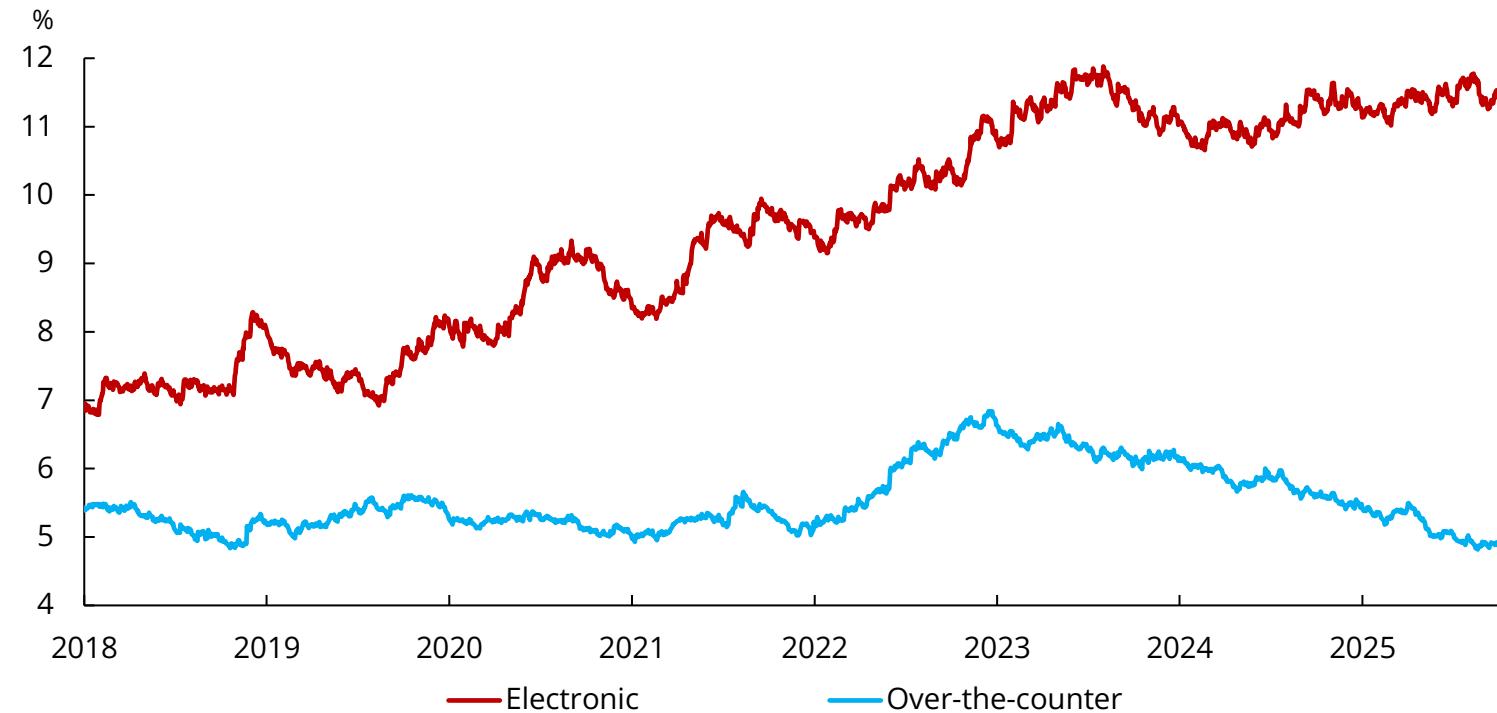
Canadian Fixed Income Forum
November 6, 2025

Andreas Uthemann, Rishi Vala
Financial Markets Department



Rising share of late-day electronic bond trading volumes

Chart 1: Share of daily dealer-to-client bond trading volume occurring between 3:30PM and 4:00PM
Exponential weighted average



Note: Trading volumes include dealer-to-client transactions of provincial, corporate, and Government of Canada bonds. Volumes exclude interdealer transactions and primary market transactions. Transactions with the Bank of Canada are excluded. The category "Electronic" refers to transactions executed on CanDeal or Bloomberg.

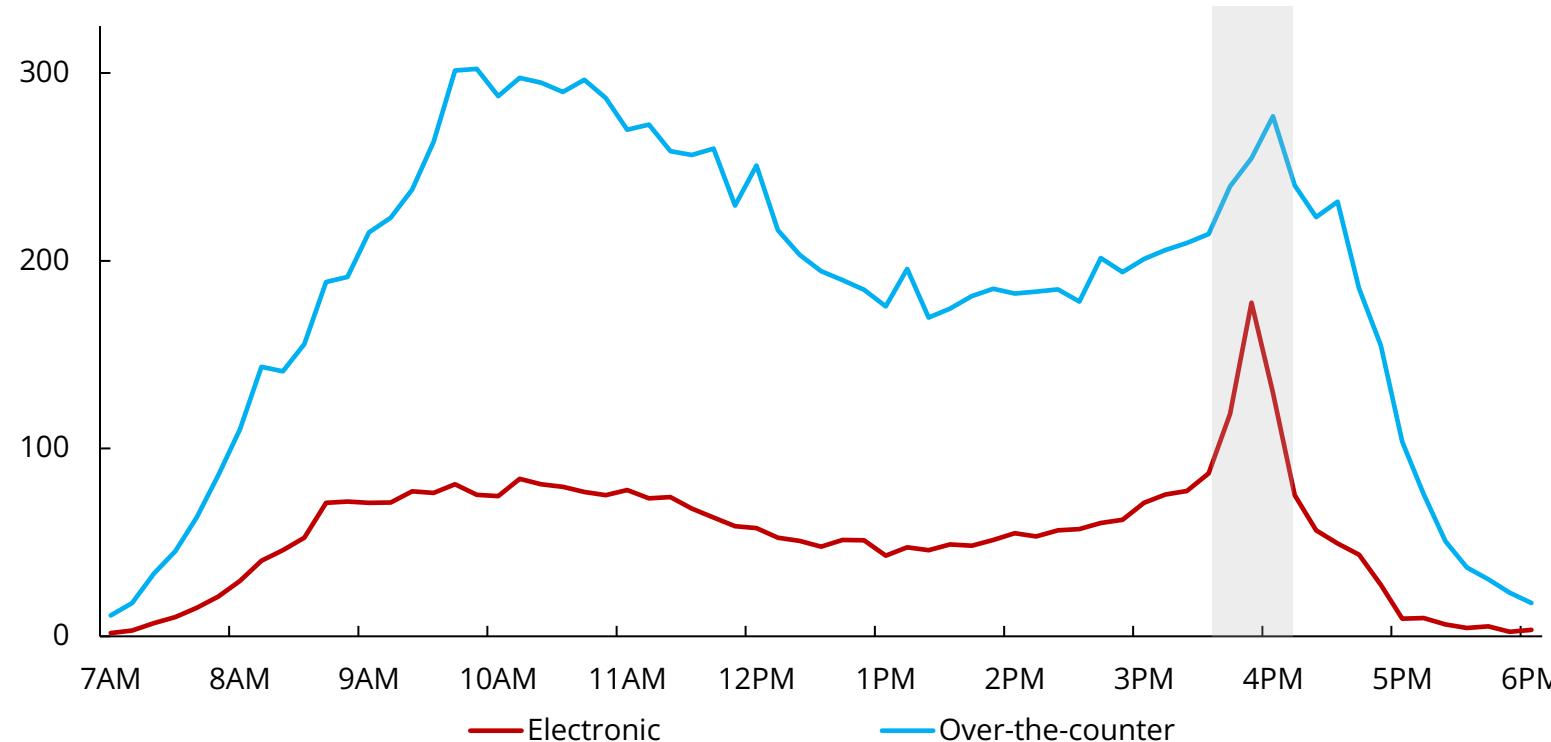
Source: Market Trade Reporting System 2.0, Bank of Canada calculations

Sample period: Jan 1, 2018 to Oct 10, 2025

Bond trading volumes spike very close to 4PM

Chart 2: Average bond trading volume in 10-minute intervals over the trading day

\$Cdn. Millions



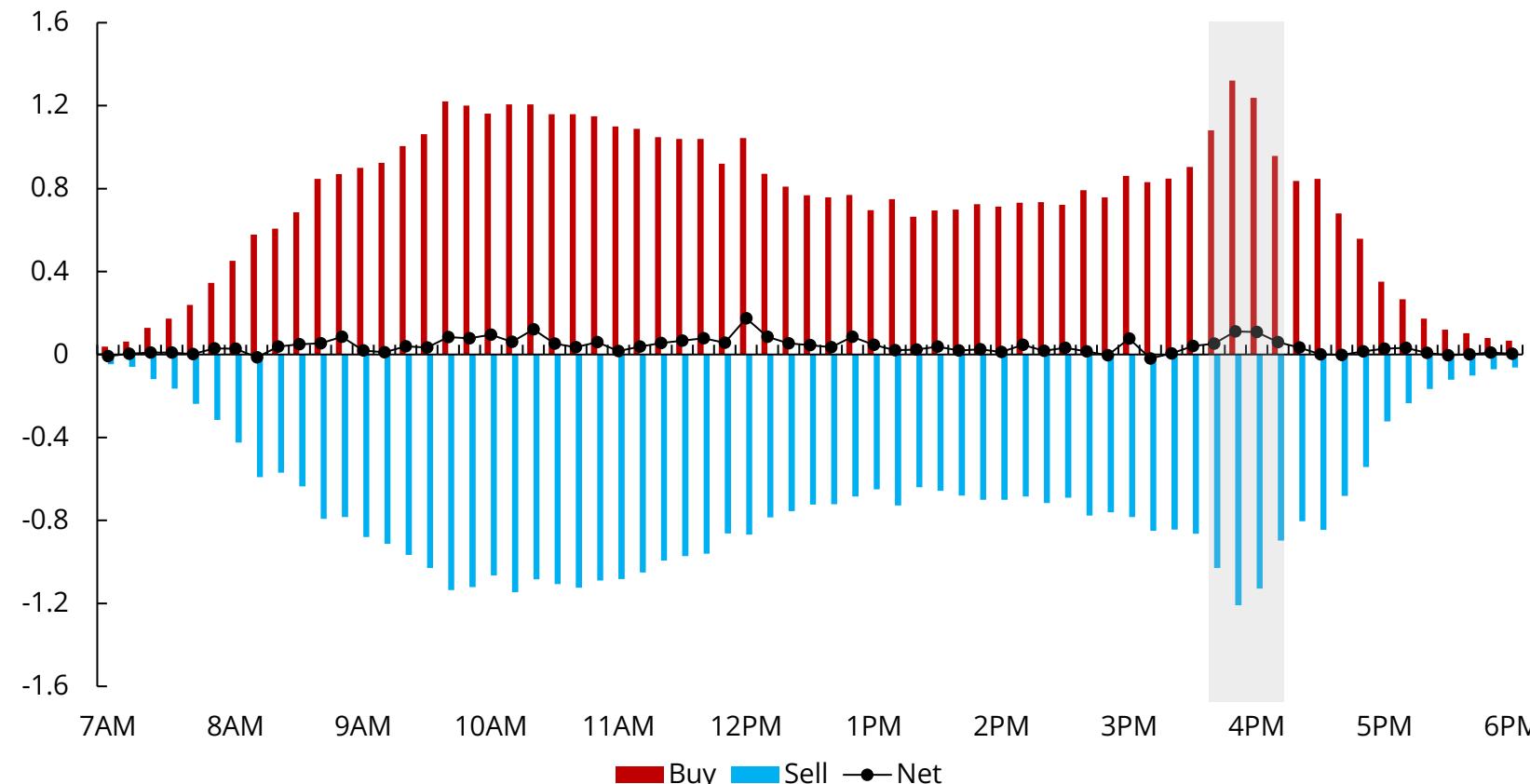
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Source: Market Trade Reporting System 2.0, Bank of Canada calculations

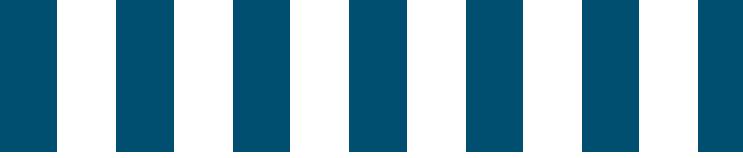
Sample period: Jan 1, 2018 to Oct 10, 2025

Late-day bond flows are balanced across non-dealer investors

Chart 3: Average intraday client bond flows as a share daily trading volume
Average share of client buys, client sells, and net (buys minus sells) at 10-minute intervals
%



Note: Trading volumes include dealer-to-client transactions of provincial, corporate, and Government of Canada bonds. Volumes exclude interdealer transactions and primary market transactions. Transactions with the Bank of Canada are excluded. Timestamps represent the start of a 10-minute (e.g., 7:00 AM covers trading from 7:00 AM to 7:10 AM).

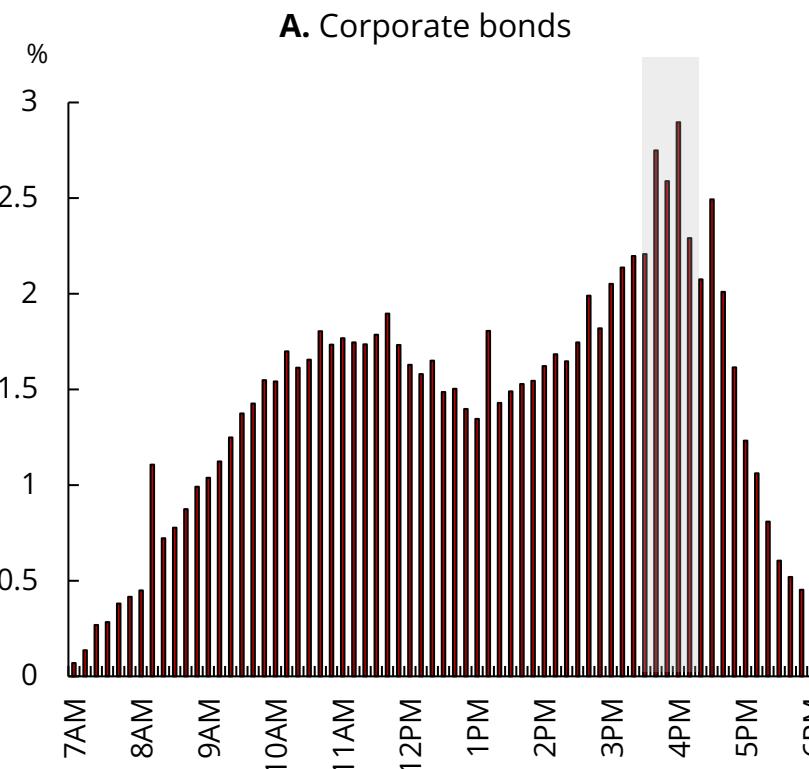


Higher late-day trading is prevalent across major bond markets

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Chart 4: Average share of daily dealer-to-client bond trading volumes over the trading day

Shares calculated over 10-minute intervals from 7AM to 6PM EST



Note: Trading volumes include electronic and over-the-counter dealer-to-client transactions. Volumes exclude interdealer transactions, primary market transactions, and transactions with the Bank of Canada. Timestamps represent the start of a 10-minute interval (e.g., 7:00 AM covers trading from 7:00 AM to 7:10 AM).

Source: Market Trade Reporting System 2.0, Bank of Canada calculations

Sample period: Jan 1, 2018 to Oct 10, 2025

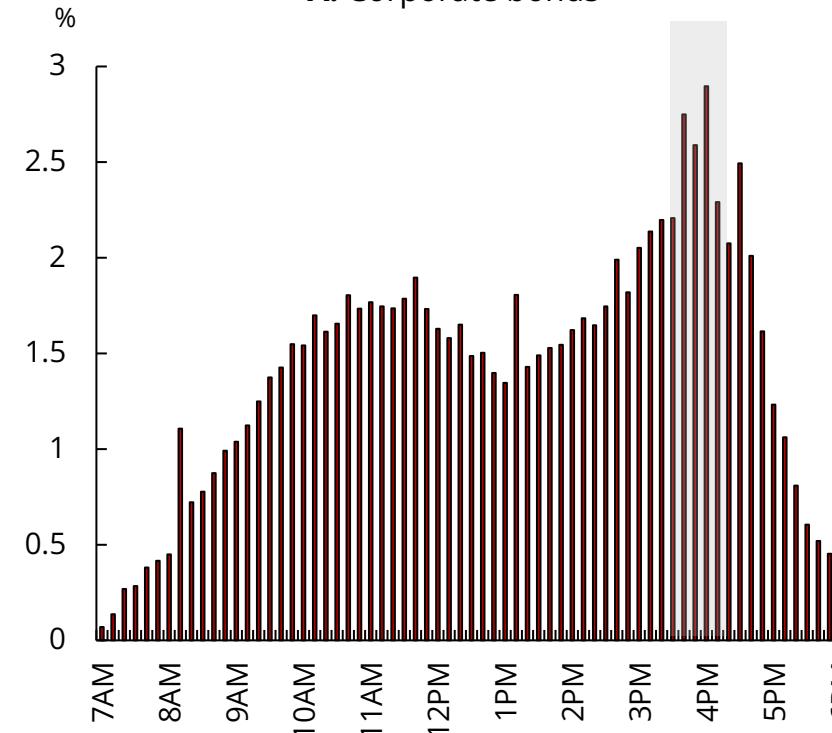


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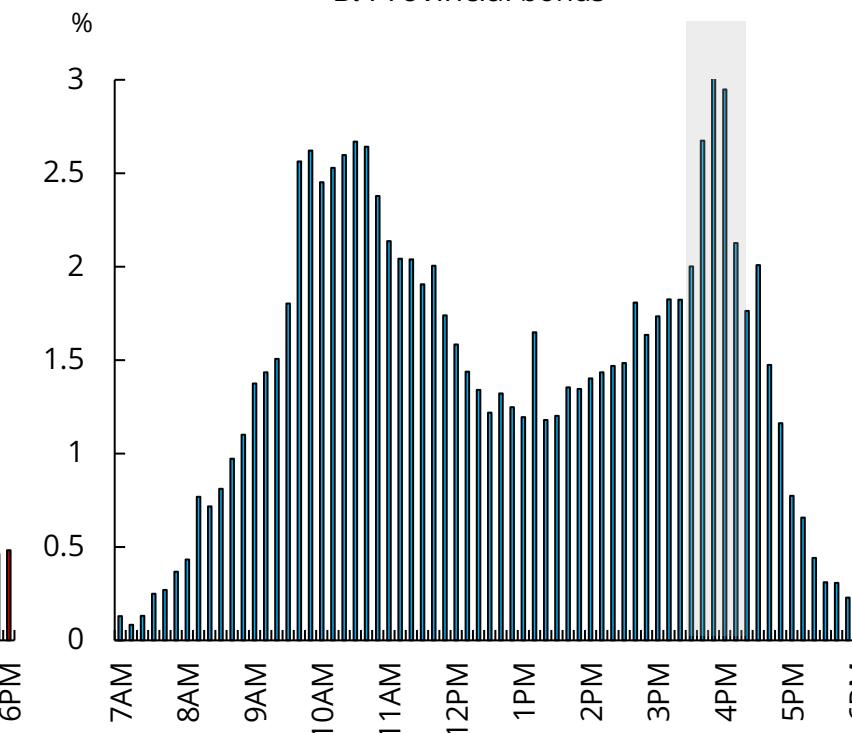
Chart 4: Average share of daily dealer-to-client bond trading volumes over the trading day

Shares calculated over 10-minute intervals from 7AM to 6PM EST

A. Corporate bonds



B. Provincial bonds



Note: Trading volumes include electronic and over-the-counter dealer-to-client transactions. Volumes exclude interdealer transactions, primary market transactions, and transactions with the Bank of Canada. Timestamps represent the start of a 10-minute interval (e.g., 7:00 AM covers trading from 7:00 AM to 7:10 AM).

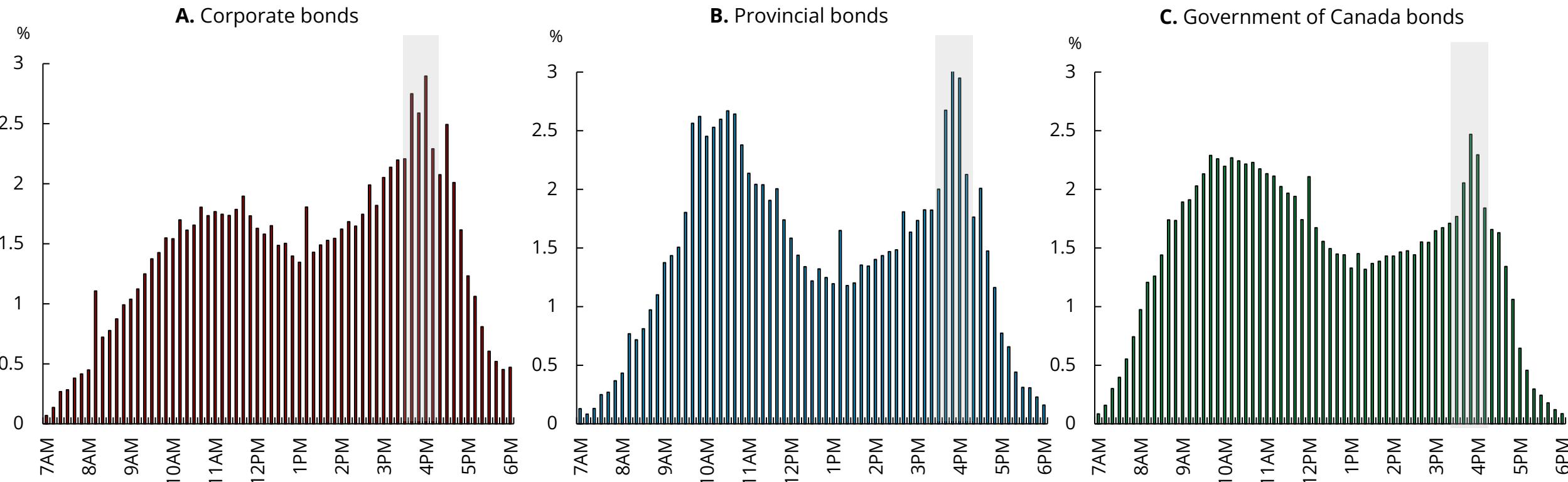
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Source: Market Trade Reporting System 2.0, Bank of Canada calculations

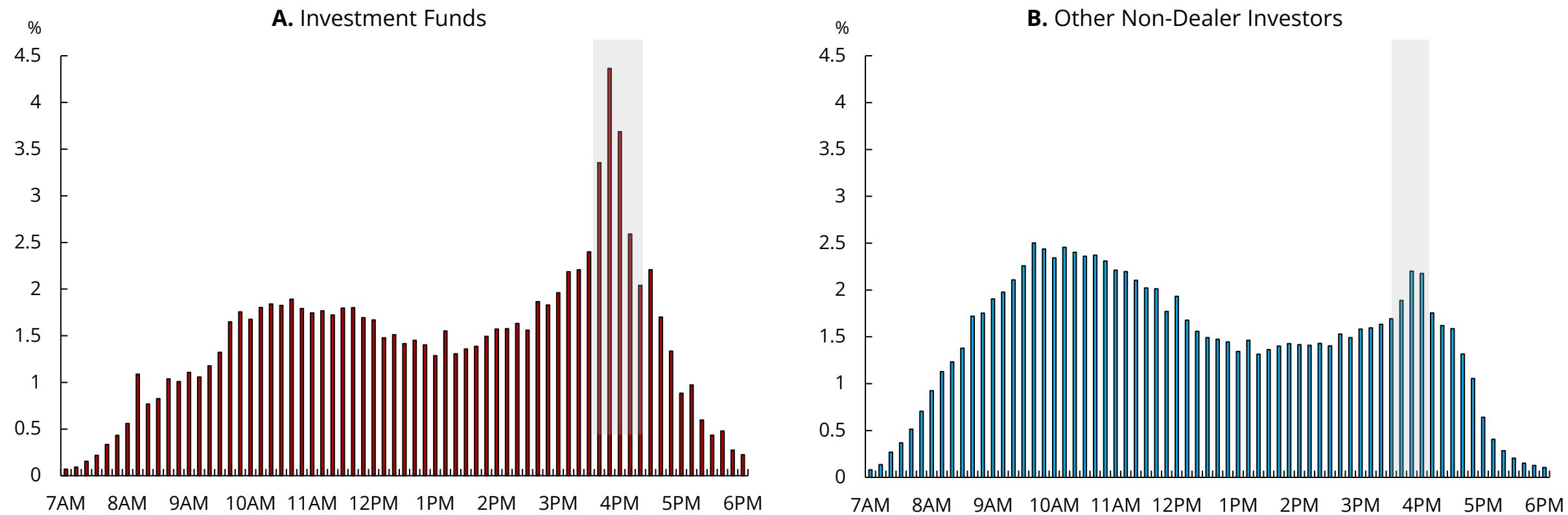
Sample period: Jan 1, 2018 to Oct 10, 2025



Investment funds trade late in the day to manage tracking error

Chart 5: Average share of daily bond trading volumes over the trading day

Shares calculated over 10-minute intervals from 7AM to 6PM EST for each investor class separately



Note: Trading volumes include electronic and over-the-counter dealer-to-client transactions. Volumes exclude interdealer transactions, primary market transactions, and transactions with the Bank of Canada. "Investment Funds" include mutual funds, exchange-traded-funds, and other pooled investment funds. "Other Non-Dealer Investors" include pension funds, insurance companies, hedge funds, foreign central banks, banks, and other clients of dealers. Timestamps represent the start of a 10-minute interval (e.g., 7:00 AM covers trading from 7:00 AM to 7:10 AM).

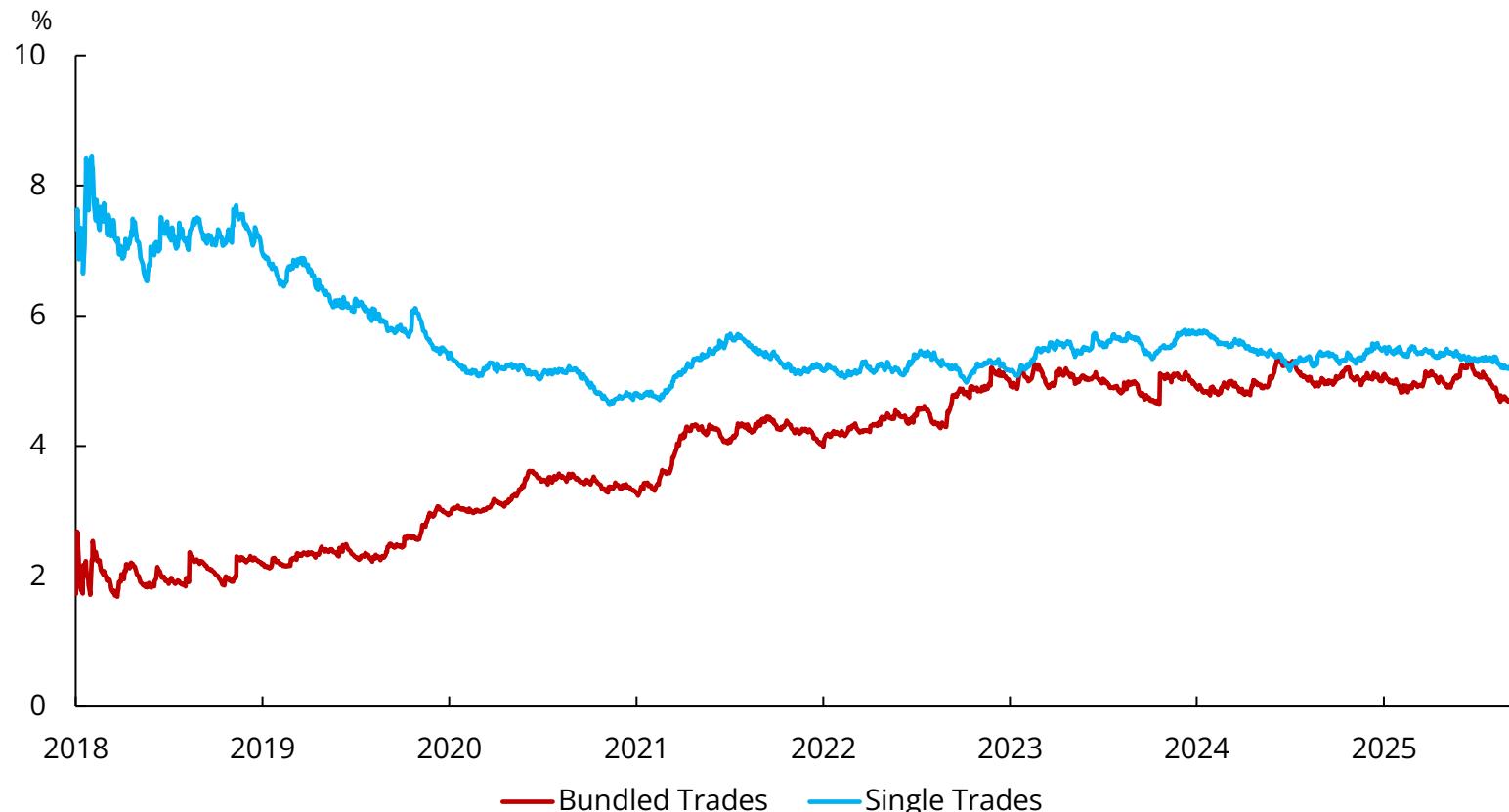
Source: Market Trade Reporting System 2.0, Bank of Canada calculations

Sample period: Jan 1, 2018 to Oct 10, 2025



Investment funds are increasingly “bundling” late-day trades

Chart 6: Share of investment funds' daily bond trading volume between 3:30 PM to 4:00 PM
Exponential Weighted Average



Note: Trading volumes include electronic and over-the-counter transactions by “Investment Funds”. Volumes exclude primary market transactions, and transactions with the Bank of Canada. “Investment Funds” include mutual funds, exchange-traded-funds, and other pooled investment funds. “Bundled Trades” are estimated using the DBSCAN algorithm and generally reflects all transactions between a dealer and its client that are within 5 seconds apart.

Source: Market Trade Reporting System 2.0, Bank of Canada calculations

Sample period: Jan 1, 2018 to Oct 10, 2025



Recap and discussion



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- This trend is apparent across major Canadian bond markets
- And is driven by investment funds (e.g., mutual funds, ETFs)
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- **To limit market risk, investment funds' late-day trading increases when share creations rise**



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- This trend is apparent across major Canadian bond markets
- And is driven by investment funds (e.g., mutual funds, ETFs)
- To limit tracking error, investment funds' late-day trading increases when indexes rebalance
- To limit market risk, investment funds' late-day trading increases when share creations rise

For discussion

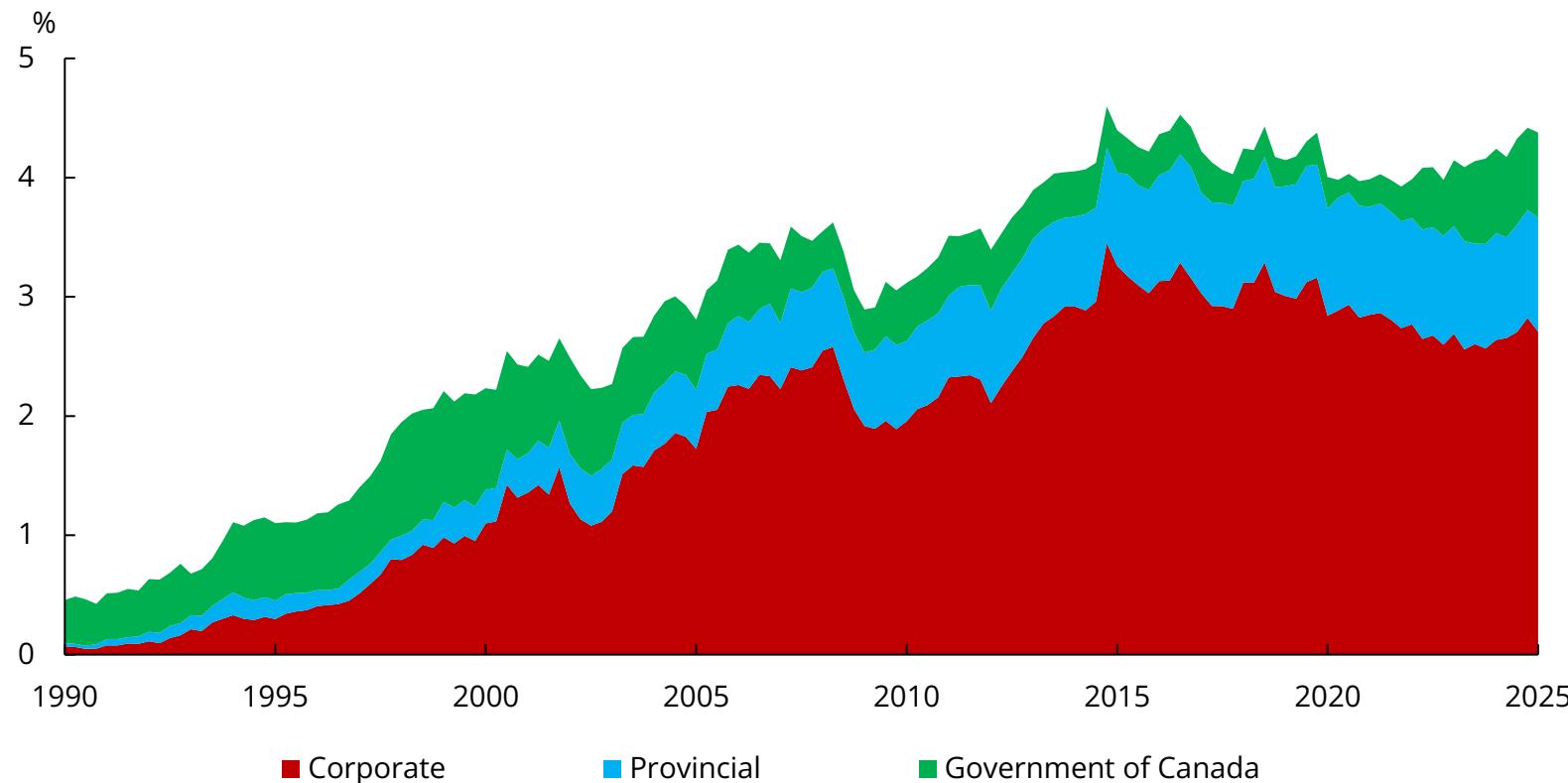
- **Is late-day bond trading impacting market functioning?**

Appendix



Mutual funds' presence in the bond market has grown

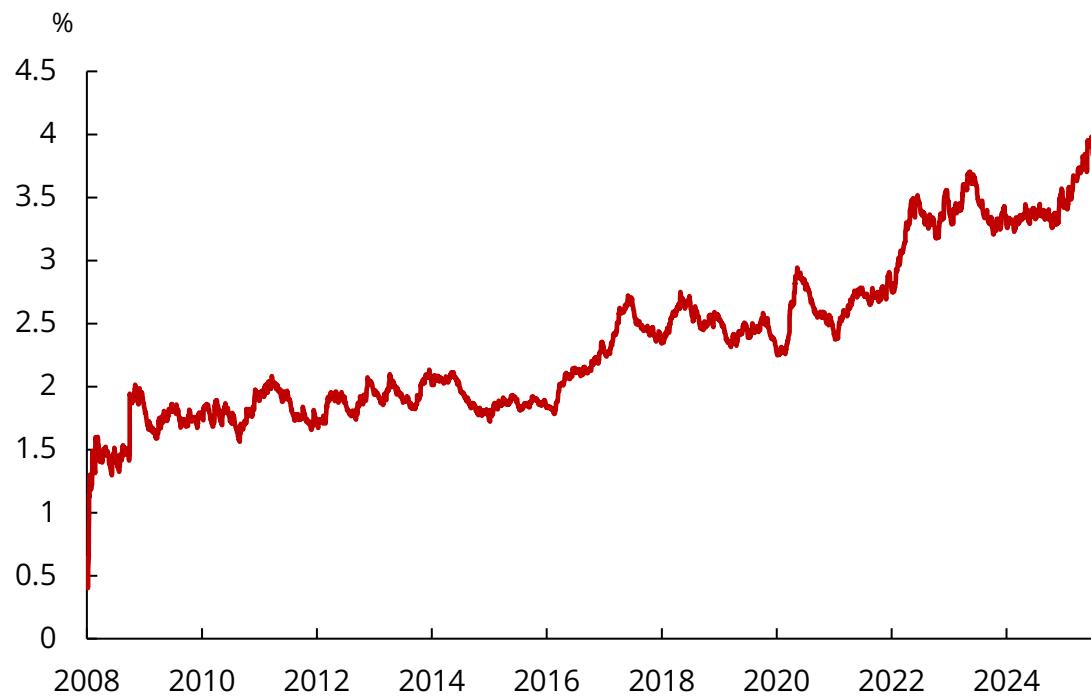
Chart A1: Canadian mutual funds' market share of major Canadian bond markets
Percentage shares based on market values





Fourfold increase in late-day trading in 10-year Government of Canada bond futures from 2008 to 2024

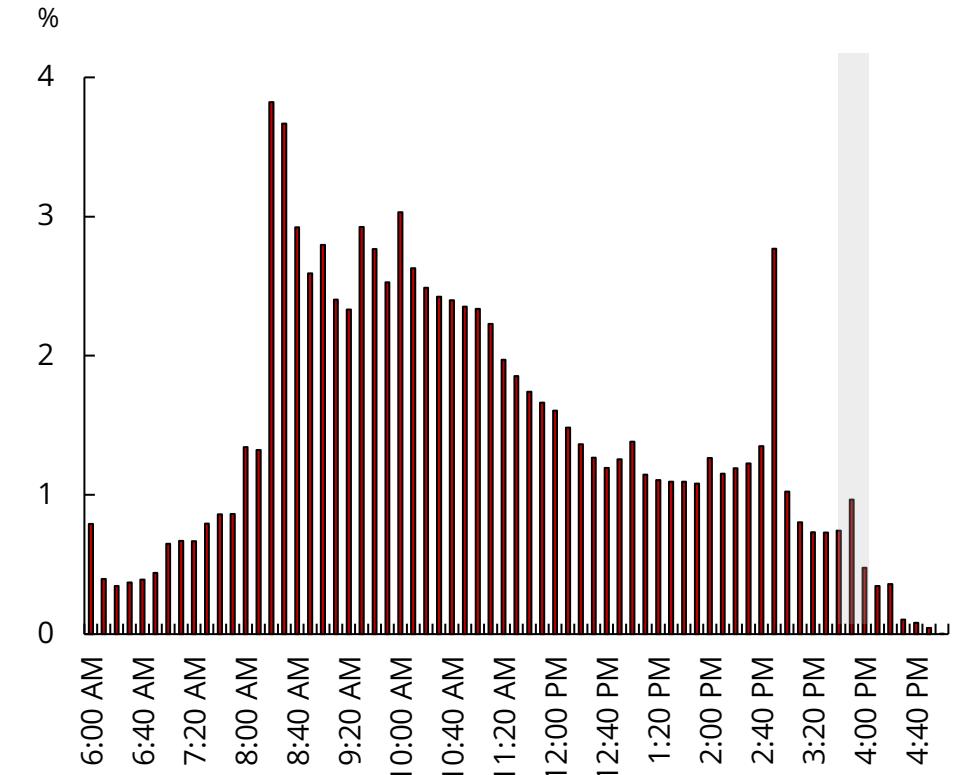
Chart A2: Share of daily 10-year Government of Canada bond futures trading volume occurring between 3:30PM and 4:00PM



Source: Montreal Exchange,
Bank of Canada calculations

Sample period: Jan 1, 2018 to Oct 31, 2025

Chart A3: Average share of daily 10-year Government of Canada bond futures trading volume

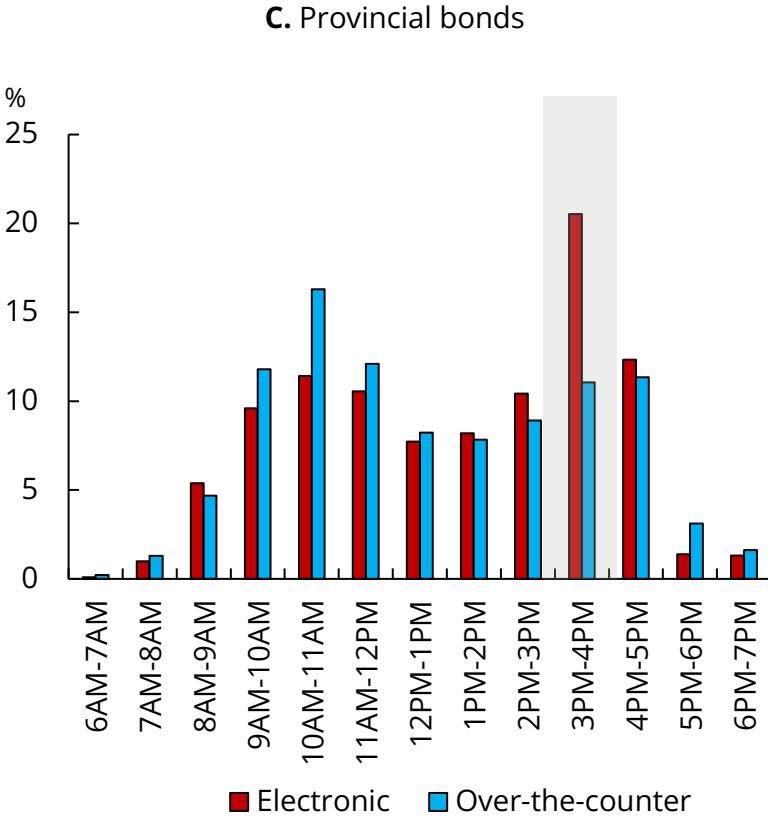
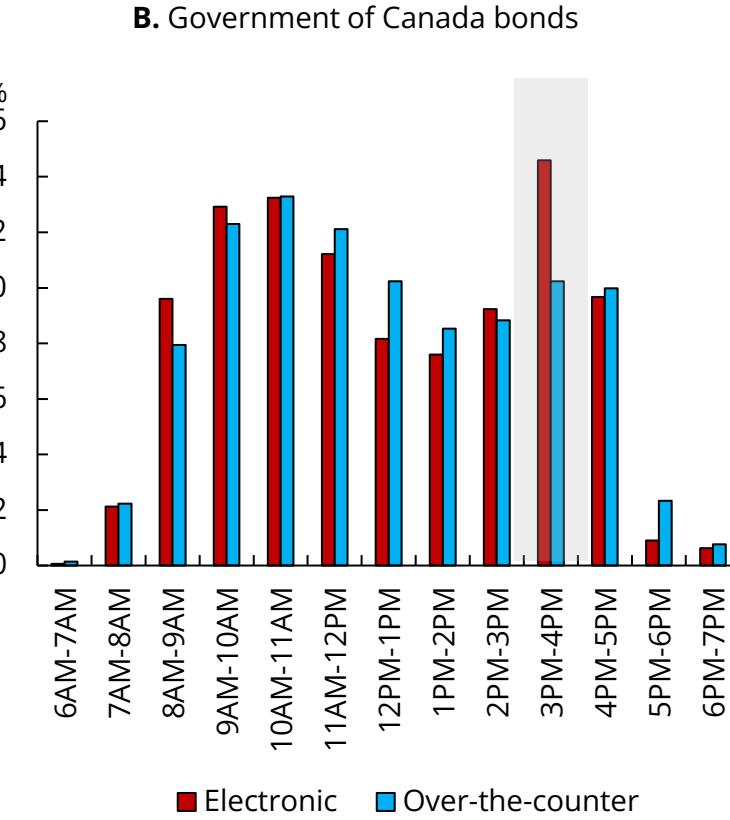
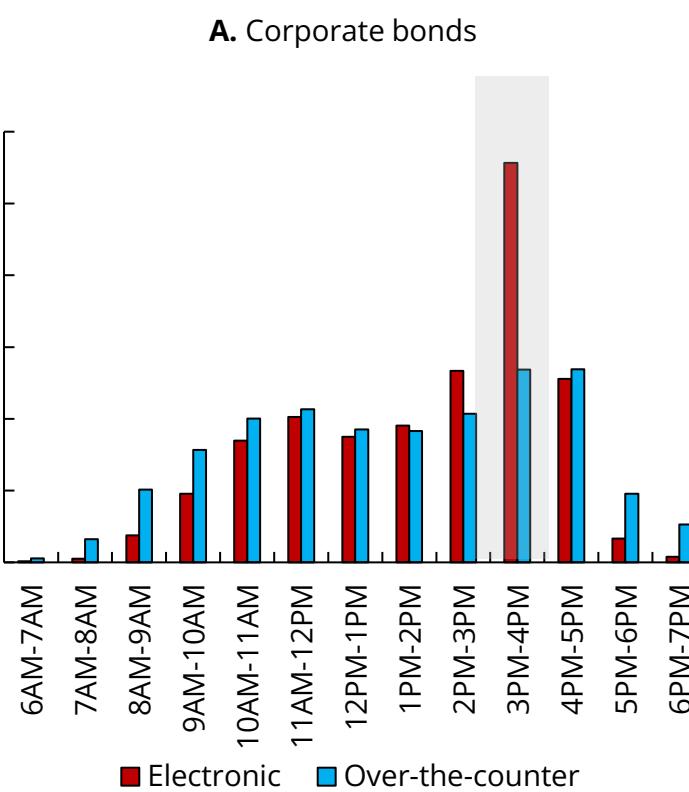


Source: Montreal Exchange,
Bank of Canada calculations

Sample period: Jan 1, 2018 to Oct 31, 2025

Late-day trading most prevalent on electronic platforms

Chart A4: Average share of daily dealer-to-client bond trading volumes over the trading day
Shares calculated over hourly intervals from 6AM to 7PM EST



Note: Trading volumes include dealer-to-client transactions and excludes interdealer transactions. The category "Electronic" refers to transactions executed on CanDeal or Bloomberg.

Source: Market Trade Reporting System 2.0, Bank of Canada calculations

Sample period: Jan 1, 2018 to Oct 10, 2025

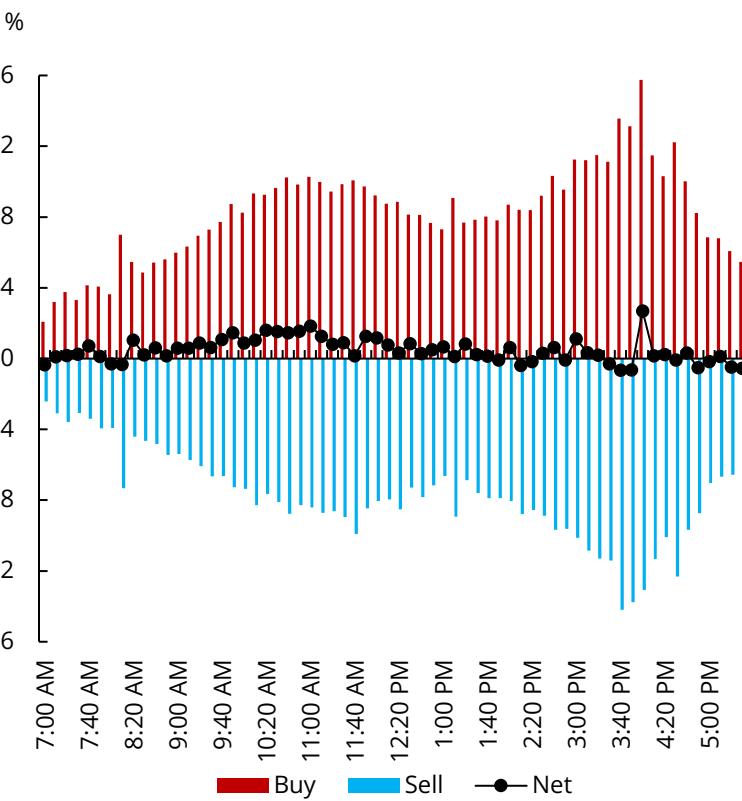


Balanced client late-day flows across bond markets

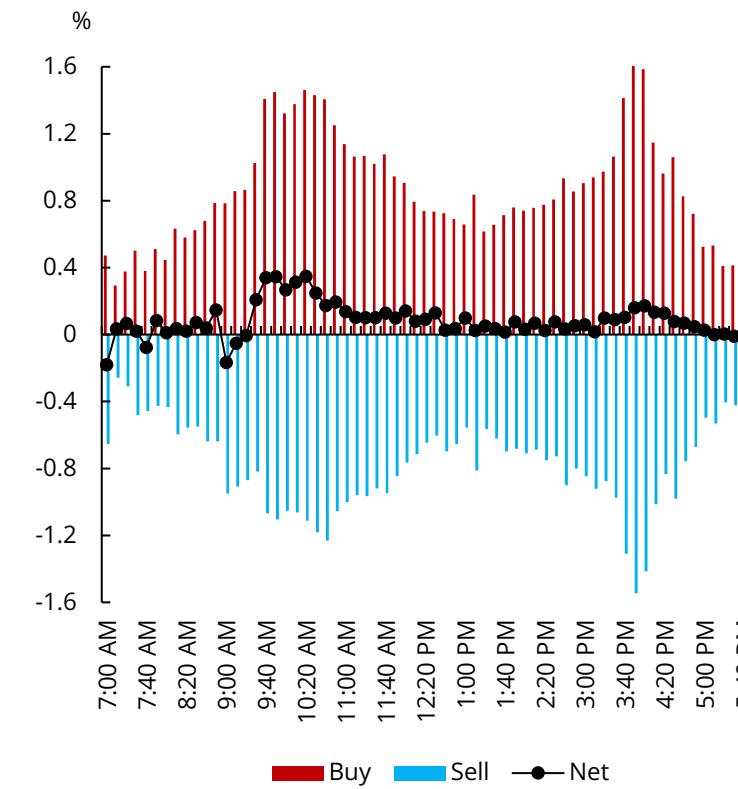
Chart A5: Average intraday client bond flows as a share daily trading volume across major bond markets

Average share of client buys, client sells, and net (buys minus sells) at 10-minute intervals. Shares calculated for each bond market separately

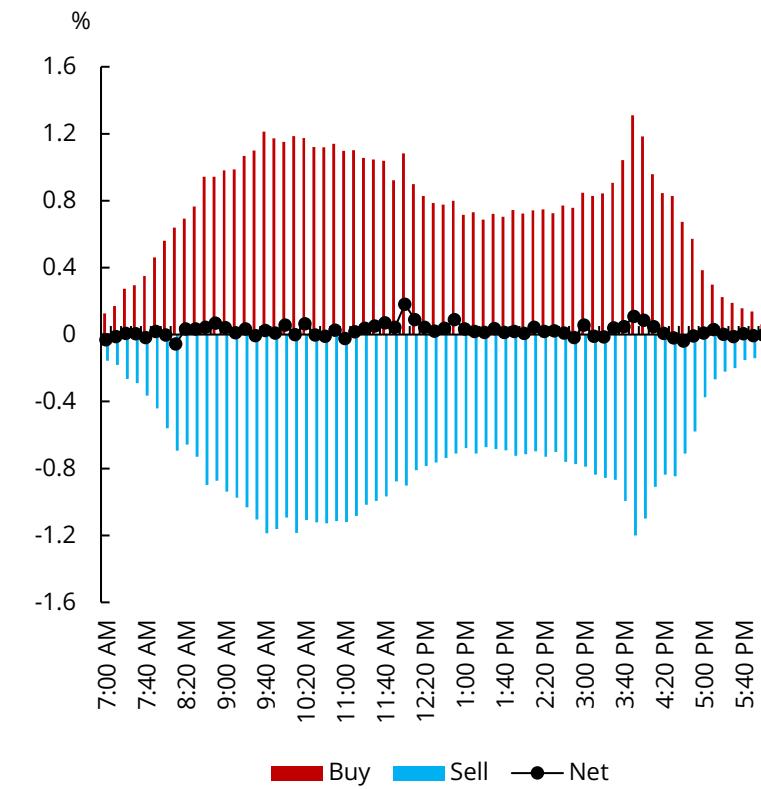
A. Corporate bonds



B. Provincial bonds



C. Government of Canada bonds



Note: Trading volumes include dealer-to-client transactions of provincial, corporate, and Government of Canada bonds. Volumes exclude interdealer transactions and primary market transactions. Transactions with the Bank of Canada are excluded. Timestamps represent the start of a 10-minute (e.g., 7:00 AM covers trading from 7:00 AM to 7:10 AM).