



December 16, 2021

INDUSTRY REGULATION AND COMPETITION POLICY

Shoppers' Choice: The Evolution of Retailing in the Digital Age

by
Daniel Schwanen

- Retail shopping has become a many-faceted experience for both buyers and sellers. Already increasing in use before the impact of the COVID-19 pandemic on shopping habits, e-commerce continues to evolve, offering new ways for retailers to sell and consumers to buy their products.
- Consumers now have more choices in how and where they shop, whether over multiple electronic marketplaces and websites, or in a brick and mortar store, or indeed any “omnichannel” combination thereof, such as curbside pickup.
- What are the implications for competition in Canada’s retail sector? And should the Competition Bureau take note?

The Canadian retail industry is in continual evolution, driven by the ways digital technologies allow consumers to meet their preferences, and retailers to reach out to potential customers. In this E-Brief, I review these trends, highlighting their acceleration during the pandemic and the implications for retail competition.

Growth of Electronic Retail

The purpose of retail is the delivery of a product to consumers at an explicit price (Betancourt 2018). In the case of e-commerce, this refers to the buying and selling of retail products through the internet. This form of retail was already growing fast before the imposition of public health

The author thanks Jeremy Kronick, Dan Ciuriak, members of the C.D. Howe Institute Digital Economy Task Force and anonymous reviewers for comments on an earlier draft. The author retains responsibility for any errors and the views expressed.



measures forbidding or hampering in-store “non-essential” retail transactions beginning in March 2020 in the face of the COVID-19 pandemic. Thereafter, it has provided a lifeline to Canadian retailers during the pandemic (Aston, Vipond and Youssouf 2020), rising sharply when restrictions to physical shopping were the harshest (spring of 2020, and winter/spring of 2021, see Figure 1).

The rise of e-commerce has also highlighted the demand for “omnichannel” retail as consumers get used to the convenience of different modes of buying, whether over multiple electronic marketplaces and websites, from anywhere online via a phone or laptop, or in a brick and mortar store. Online shoppers, it turns out, also often want some of the elements of physical store shopping – whether it’s the ability to get the product on that same day or to physically check it out before picking it up. For example, Greg Hicks, chief executive of Canadian Tire, commented in early 2021 that “The popularity of pickup services has challenged the notion of what customers want from e-commerce Sure, it seems a little odd that someone would get dressed up for winter – in the middle of a pandemic no less – and get into the car and go pick up the product at store . . . but that is exactly what’s happening. And it’s happening across the global retail industry” (Krashinsky Robertson 2021a). A recent report notes that in the grocery market, during the pandemic, physical stores embedded in the local economy “provided grocers with stronger growth in click-and collect formats relative to delivery, at a time when delivery was well-positioned to win” (RBC Global Asset Management 2021).

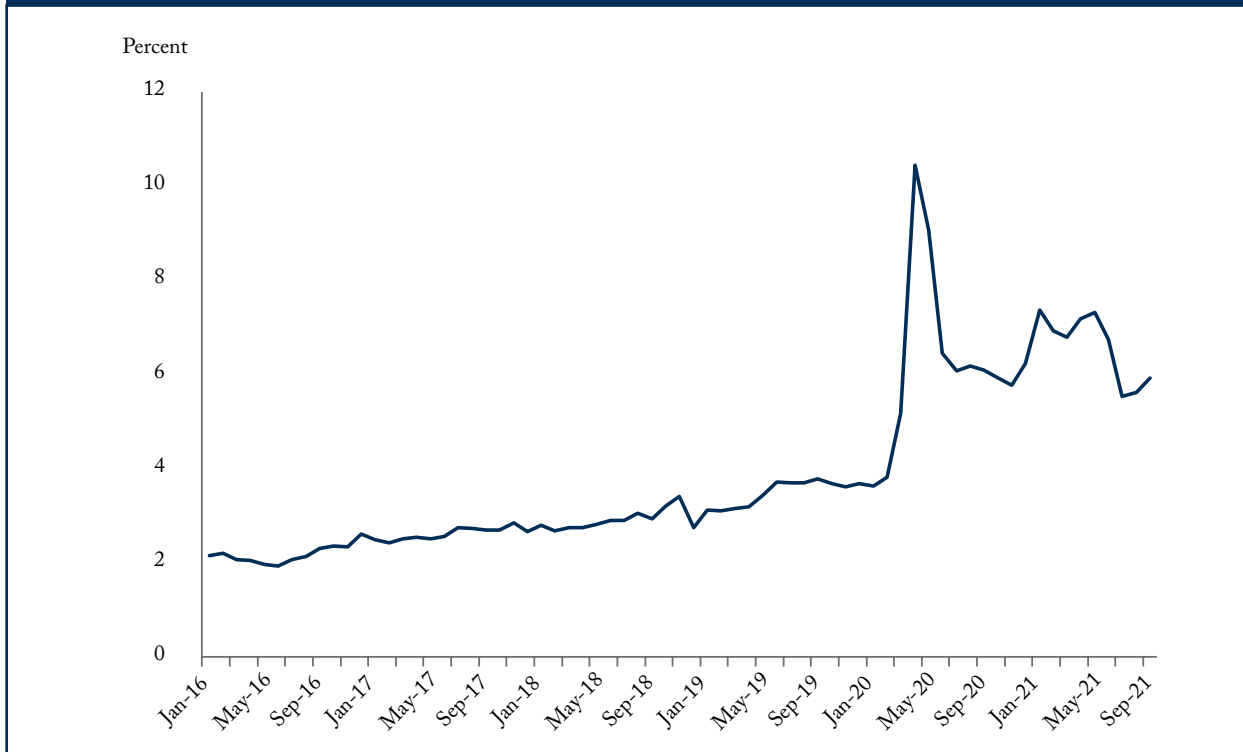
The trend to omnichannel demonstrates how retailers have evolved to reach customers. Yet despite the pandemic, e-commerce sales still account for a small percentage of sales by Canadian retailers (6 percent), up from just under 3 percent in 2018, after peaking at over 10 percent in April 2020 (see Figure 1).¹ Tracking of debit and credit usage shows consumers have swung back and forth between transactions placed online and those made during in-person shopping, though online transactions remain above pre-pandemic levels as a share of spending in key categories (see Figure 2).

Impact on Consumers and on Competition

Globally, the changes in retail brought on by e-commerce have benefited consumers. For example, a study by the National Bureau of Economic Research showed that e-commerce in Japan helped reduce the overall cost of living by between 0.6 percent and 1.8 percent by 2017 (Jo, Matsumura and Weinstein 2019).² At the product level, a study of the European Union market for electronics shows that while e-commerce diverts sales from offline, there is a net market expansion effect, as a significant share of sales would not have been made at all without the online option. As a result, consumers benefit proportionately more than firms overall (Duch-Brown, Grzybowski et al. 2017).

-
- 1 Retail e-commerce sales shown in Figure 1 do not include e-commerce purchases made by Canadian consumers from foreign-based retailers such as Amazon. Amazon’s share of Canadian e-commerce net sales among the top 10 online stores in Canada has been estimated at 45 percent (source: Statista at: <https://www.statista.com/forecasts/871090/canada-top-online-stores-canada-ecommercedb>).
 - 2 The study utilizes data from the Japanese consumer price index from 1991 to 2016 in order to identify the price trends of individual goods before and after they were sold intensively online. A related question is whether the spread of online shopping has led to greater price convergence between markets, potentially affecting the relevant geographic market when assessing the extent of competition. This study and others suggest that there is such a convergence, but that important price divergences remain due to, e.g., differences in costs of supply and incomes between markets (see, e.g., Gorodnichenko and Talavera 2016, Gyódi et al. 2017, and Cavallo 2018), although interestingly price changes between sellers for a given good seem to move independently from each other (Gorodnichenko 2015).

Figure 1: E-Commerce Sales by Canadian Retailers (as percentage of total retail sales)



Note: Seasonally adjusted. Total retail sales are defined as retail trade plus sales by electronic shopping and mail order houses. The latter are seasonally adjusted using the same seasonal adjustment as the adjustment for total e-commerce (which covers e-commerce by all Canadian retailers).

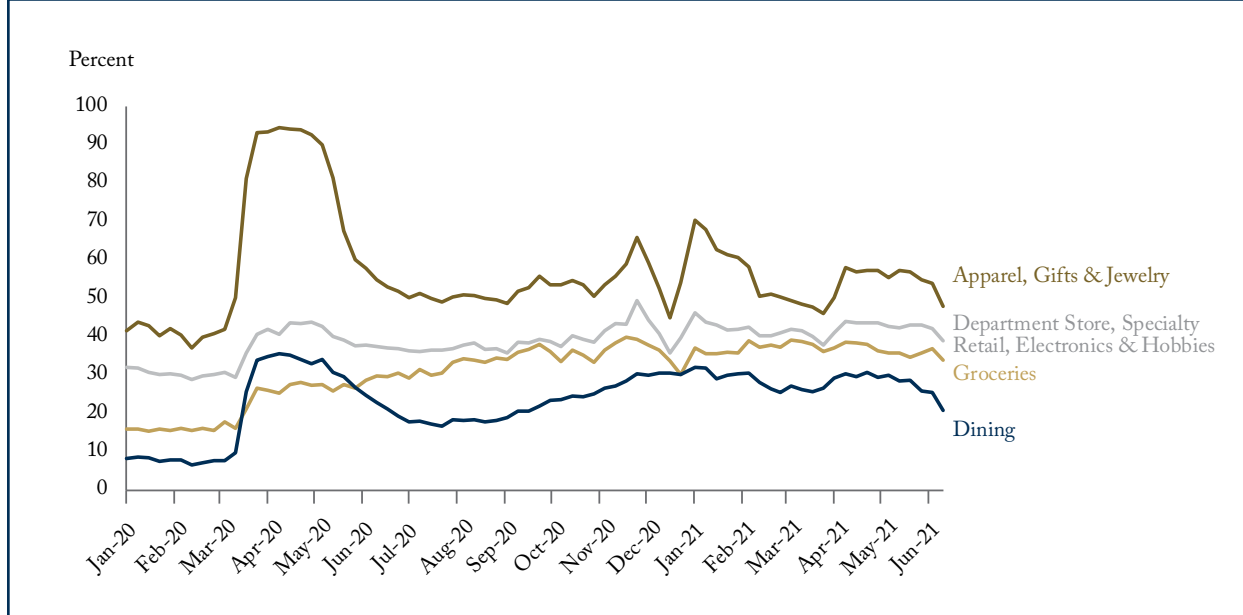
Sources: Author's calculations based on Statistics Canada, Table 20-10-008-01, "Retail trade sales by province and territory" and Statistics Canada, Table 20-10-0072-01, "Retail E-Commerce Sales."

Canadian macroeconomic data also show that the growing share of online goods purchases in total household consumption over the past two decades has coincided with, and contributed to, an expansion in overall consumption. Most recently, it has prevented consumption growth from cratering during the pandemic (see Figure 3).

All forms of retail – whether online, offline, or using omnichannel sales methods – have seen cost reductions and enhanced customer experience as a result of technological innovations. Beyond cost reduction, consumers can enjoy a higher value shopping experience. For example, digital marketplaces or matchmakers (a term in use by the OECD that includes some entities popularly referred to as “platforms”) combine (i) the pure ease and cost of a transaction for a product the consumer is looking for, with (ii) access to related products, shopping and lifestyle advice and, increasingly, experiences such as access to online shows. This, in addition to a multiplicity of delivery options.³ Now more than ever, buyers alternate within the same retail sector between online, physical and omnichannels when making purchasing decisions; for example, they might search for a product in a store, pay for it online, and then pick it up curbside.

3 Such offerings can, however, be based on cross-referencing techniques which some argue can exhibit anti-competitive features – a question explored in a companion paper (forthcoming).

Figure 2: RBC Online Spending (percentage of debit and credit card spending done remotely)



Source: Adapted from RBC Consumer Spending by RBC Economics.

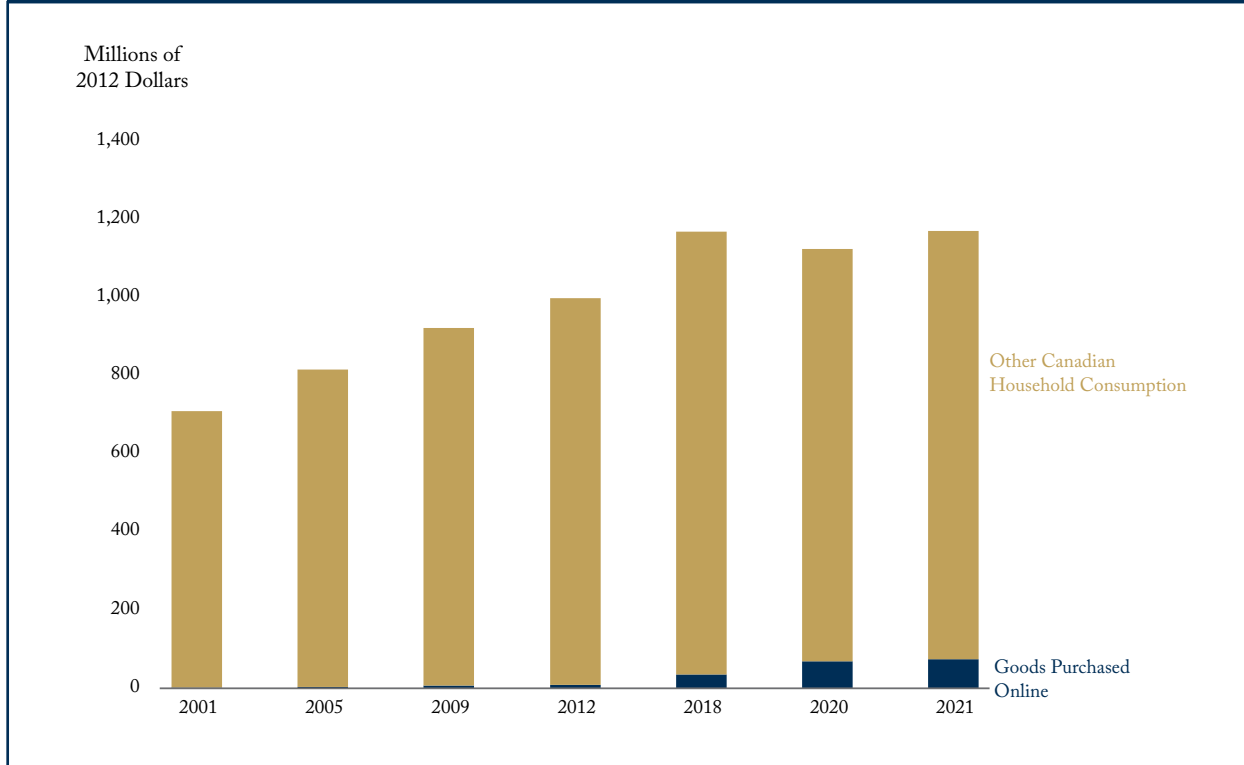
Retail, in short, exhibits the trend towards “mass customization” enabled by digital technologies, generally, that allows a closer match than ever between customers’ preferences and easily accessed market supply (since the latter is no longer constrained by inventory carrying costs borne by local retailers). The transformation was harder on those retailers that cannot offer comparatively attractive convenience (including location), price, brands or other attractive features. The impact has tended to be a net expansion of larger, lower-cost retailers (both internet-based and traditional retailers), while smaller, higher-cost firms tend to exit the market (Syverson 2010). However, recent developments have made it easier for niche or smaller players to connect online with would-be customers.

Since the arrival of foreign retailers reshaped the Canadian marketplace, many Canadian retailers have caught on to online sales as a component of their business model. The expanding number of digital alternatives means suppliers can expand their customer base directly, including through digital ads, while bypassing large digital marketplaces or wholesalers, following the example of Nike (RBC Global Asset Management 2021).

Indeed, e-commerce applications and platforms have exploded in recent years, with Shopify, BigCommerce, and Magento, among others, offering digital solutions to help businesses sell their products, and emerging firms such as Lightspeed challenging in that space as well (both Shopify and Lightspeed are based in Canada). One can get a sense of the competition in that space by noting that the market capitalization of Shopify went from five percent of Amazon’s in December 2019 just prior to the pandemic, to almost 11 percent in the fall of 2021.⁴

⁴ In the context of the rapid development of new application of digital technology, such signals from the market about emerging competitors could help competition authorities evaluate the actual extent of the market power held by digital leaders.

Figure 3: Canada: Goods Purchased Online vs. Total Household Consumption



Note: 2021 data are projections for the year based on data through September. Online expenditures are derived from internet purchase data from the Canadian Internet Use Surveys from various years up to 2020, with the 2021 growth in total online expenditures – which includes purchases from non-Canadian retailers – assumed to be the same as that of the growth in Canadian retailers’ e-commerce in 2021. These estimates of online expenditures are then deflated by a specially constructed price index of goods that can be commonly bought online and delivered to a household. Calculations available from the author on request.

Sources: Author’s calculations based on Statistics Canada, Table 20-10-008-01, “Retail trade sales by province and territory,” Statistics Canada, Table 20-10-0072-01, “Retail E-Commerce Sales,” Statistics Canada, Canadian Internet Use Survey 2020 and earlier issues, and Statistics Canada, Table 36-10-0124-01, “Detailed household final consumption expenditure.”

In short, e-commerce pioneers, while they have “disrupted” established brick-and-mortar players, themselves face growing competition from (i) traditional retailers that have upped their digital game and who can leverage their established brands or physical location and (ii) new applications of digital technologies that empower direct-to-consumer capabilities (Olive 2021). As well, they face growing competition from regional platforms, particularly in Asia.⁵

5 For example, while many consider Amazon the dominant player in the e-commerce sphere, its global retail e-commerce market share is around 14 percent. <https://www.statista.com/statistics/955796/global-amazon-e-commerce-marketshare/#:~:text=This%20statistic%20presents%20the%20global,worldwide%20retail%20e%2Dcommerce%20sales>, while e-commerce itself is about 18 percent of retail trade worldwide.

These competitive forces diversify the outlets available to sellers who wish to reach potential customers, and therefore limit the conditions that large online marketplaces can impose on third-party sellers for accessing their marketplaces. Admittedly the extent of that limit is an empirical matter. Ultimately, the question is whether the interests of the owners of the marketplace themselves are opposed to those of marketplace participants, and in turn, whether the latter have other choices in connecting with their potential customers or suppliers.

Has the Nature of Competition Changed in the Digital Age?

Competition in an economy is generally beneficial to standards of living. In contrast, “excessive market power in the hands of a few firms can be a drag on medium-term growth, stifling innovation and holding back investment” (Akcigit et al. 2021).

Canada’s Competition Bureau can investigate, address, and when necessary secure redress or penalties for alleged anti-competitive behaviour, including criminal matters such as agreements to lessen competition (e.g., price fixing or other cartel behaviour), or civil matters such as abuse of what is deemed to be a dominant position in a market. Various competition issues in the retail sector have been in the news lately. With recent admissions of price fixing by some Canadian retailers, recent mergers in that sector, and the top ten retailers in Canada, including many foreign-owned giants, together accounting for 50 percent of sales in 2019, compared to 43 percent just five years earlier, “concern about business concentration and competition is ‘in the air’” (Yeates and Hernandez 2021, 4).

Indeed, competition authorities in Canada and elsewhere are investigating whether Amazon has the ability and incentive to engage in anticompetitive behaviour, and whether it has abused that position. However, it will be interesting to see whether the investigation properly considers the growing options available to sellers beyond Amazon, as discussed in this paper, and whether it properly considers e-retail as a part of the broader retail market, given the growth of omnichannel retailing. The size of a company’s operations in itself, or its reliance on “big data” that it acquires and uses as part of its day-to-day operations – an increasingly ubiquitous practice across many economic sectors – should not be issues per se, as long as there are robust alternatives for customers and suppliers.⁶

Consider, in this light, the Canadian food retailing sector, where rivals Loblaw and Sobeys, who primarily operate physical stores, together account for roughly 40 percent of the Canadian retail market. Yet both rely on digital tools including online sales channels to cater to different clienteles. One of Loblaw’s strengths, according to its returning chairman and president, is its PC Optimum loyalty program, which provides the company with “vast amounts of data on people’s shopping habits.”⁷ The large size and scope of the program (extending beyond stores owned by Loblaw) is key to ensuring that consumers can benefit from the analysis the company makes

6 Amazon reports that when it tried to launch a separate portal for third-party suppliers, shoppers clearly expressed a preference for being able to shop in a single digital store, not two under the same roof. See <https://www.aboutamazon.com/news/policy-news-views/fringe-notions-on-antitrust-would-destroy-small-businesses-and-hurt-consumers>.

7 “Loblaw overhauls top ranks with Davis exiting as president,” *The Globe and Mail*. <https://www.theglobeandmail.com/business/article-george-weston-to-sell-historic-bakery-business-management-shift-sees/>.

with this data.⁸ Meanwhile, competitor Sobeys is “investing heavily in home delivery services” and has over time steadily populated its shelves with its own private label products (as has Loblaw), sometimes crowding out other brands – no doubt based on information gleaned from consumers’ habits – and strengthening its hand in negotiating with third-party suppliers vying to put products on Sobeys’ shelves.

These are examples of business strategies that are legitimate, indeed, time-honoured. The Competition Bureau is not in the business of controlling power imbalances or “hard bargaining,” even though “the line between hard bargaining and anticompetitive conduct is not always bright” (Boswell 2020). A key reason for that is doing so would ultimately limit the incentives to innovate, which do involve competitors getting “an edge,” or some power or exclusivity distinguishing them from competitors, in contrast to the theoretical model of competition among undifferentiated firms (Howitt 2015). There is always this jockeying for delivering value to customers – and prying them away from alternatives. After all, the emergence of retail stores’ own brands (such as President’s Choice, which famously built on a combination of higher quality and lower price than established food manufacturers’ brands), was due in part to attempts to free them from the power of food manufacturers.

The previous two paragraphs illustrate ways to compete in which companies seek to use new technologies or techniques to potentially increase their market power, but also that whether they are able to do so depends on countervailing market forces. More broadly, given the growing adoption of digital technologies and strategies similar to those of Loblaw by the myriad of existing Canadian retailers with a well-established physical presence, often drawing on information from the same customers, they illustrate that it makes no sense to consider e-retail and physical retail as distinct and separate channels. Given the increasing accessibility of digital tools and the growth of omnichannel retail, including an increasing panoply of tools and partnerships for manufacturers and brands who wish to sell directly to customers in order to recapture margins lost to wholesalers, Canadian sellers arguably face fewer and fewer obstacles in reaching consumers.

How Canadian competition authorities view the retail sector will give Canadians a good indication of whether they view traditional and digital markets as distinct from each other, with few players dominating the “digital” space and others wilting, or whether they see digital capabilities as empowering multiple players across the sector, each with their unique strength and viable value proposition.

8 In turn, Loblaw partners with Google see: Loblaw Companies Limited Case Study | Google Cloud.

References

- Akcigit, Ufuk, Wenjie Chen et al. 2021. "Rising Corporate Market Power: Emerging Policy Issues." IMF Staff Discussion Note, March. Accessed at: [file:///C:/Users/Daniel/Downloads/SDNEA2021001%20\(1\).pdf](file:///C:/Users/Daniel/Downloads/SDNEA2021001%20(1).pdf)
- Aston, Jason, Owen Vipond, and Omar Youssouf. 2020. Accessed at: [Retail e-commerce and COVID-19: How online shopping opened doors while many were closing \(statcan.gc.ca\)](https://www.statcan.gc.ca/retail-e-commerce-and-covid-19-how-online-shopping-opened-doors-while-many-were-closing)
- Betancourt, Roger R. 2018. "Understanding the Digital Economy and Its Economic Impacts." University of Maryland.
- Boswell, Matthew, 2020. "Protecting Competition in Canada's Grocery Sector." Remarks by the Commissioner of Competition to Grocery Innovations Canada 2020, Canadian Federation of Independent Grocers, November 25. Accessed at: <https://www.canada.ca/en/competition-bureau/news/2020/11/protecting-competition-in-canadas-grocery-sector.html>
- Calvano, Emilio, and Michele Polo. 2020. "Market power, competition and innovation in digital markets: A Survey." *Information Economics and Policy* 54 (2021).
- Cavallo, Alberto. "More Amazon Effects: Online Competition and Pricing Behaviors." 2018. *National Bureau of Economic Research Working Paper* No. 25138, Harvard Business School. October.
- Competition Bureau Canada. 2019. Abuse of Dominance Enforcement Guidelines. Accessed at: [https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/CB-ADEG-Eng.pdf/\\$file/CB-ADEG-Eng.pdf](https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/CB-ADEG-Eng.pdf/$file/CB-ADEG-Eng.pdf)
- Duch-Brown, Néstor, Lucasz Grzybowski, et al. 2017. "The impact of online sales on consumers and firms. Evidence from consumer electronics." *International Journal of Industrial Organization* 52: 30-62. May.
- Gorodnichenko, Yuriy, and Oleksandr Talavera. 2016. "Price Setting in Online Markets: Basic Facts, International Comparisons, and Cross-Border Integration." *American Economic Review* 107 (1): 249-82. March 8.
- Gorodnichenko, Yuriy, Viacheslav Sheremirov, and Oleksandr Talavera. 2018. "Price Setting in Online Markets: Does IT Click?" *Journal of the European Economic Association, European Economic Association* 16(6):1764-1811. January 10.
- Gyódi, Kristóf, Maciej Sobolewski, and Michał Ziembiński. 2017. "What Drives Price Dispersion in the European E-commerce Industry?" *Central European Economic Journal, Sciendo* 3(5): 53-71. December.
- Howitt, Peter. 2015. *Mushrooms and Yeast: The Implications of Technological Progress for Canada's Economic Growth*. Commentary 433. Toronto: C.D. Howe Institute. September. Accessed at: https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_433.pdf
- Jo, Yoon J., Mitsaki Matsumura, and David E. Weinstein. 2019. "The Impact of E-Commerce on Relative Prices and Consumer Welfare." NBER *Working Paper* 26506. Accessed at: <https://www.nber.org/papers/w26506>
- Krämer, Jan, and Daniel Schnurr. 2021. "Big Data and Digital Markets Contestability: Theory of Harm and Data Access Remedies." *Journal of Competition Law & Economics*. Forthcoming. Available at: [Big Data and Digital Markets Contestability: Theory of Harm and Data Access Remedies by Jan Kraemer, Daniel Schnurr:: SSRN](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3888888)
- Krashinsky Robertson, Susan. 2021a. "Canadian Tire sees key role for bricks-and-mortar stores in e-commerce strategy." *The Globe and Mail*, February 18. Accessed at: <https://www.theglobeandmail.com/business/article-canadian-tire-posts-fourth-quarter-sales-gain-as-pandemic-keeps/>

- Krashinsky Robertson, Susan. 2021b. "Loblaw overhauls top ranks with Davis exiting as president." *The Globe and Mail*, March 23. Accessed at: [Loblaw overhauls top ranks with Davis exiting as president](#)
- Liu, Huju. 2021. "Economic Performance Associated with Digitalization in Canada over the past two decades." *Statistics Canada Economic and Social Report #2021002*. Accessed at: [Economic performance associated with digitalization in Canada over the past two decades \(statcan.gc.ca\)](#)
- Olive, David. 2021. "Amazon has dethroned Walmart in retail battle. But can it remain king?" *The Toronto Star*, August 31. Accessed at: <https://www.thestar.com/business/opinion/2021/08/31/amazon-has-dethroned-walmart-in-retail-battle-but-can-it-remain-king.html>
- RBC Global Asset Management. 2021. "Examining the future of retail." *Insights*, February 25. Retrieved at: [Examining the future of retail \(rbcgam.com\)](#)
- Royal Bank of Canada (RBC). 2021. *RBC Consumer Spending Tracker*. RBC Economics. Available online at: <https://thoughtleadership.rbc.com/covid-consumer-spending-tracker/>
- Statistics Canada. 2021. Internet Use Survey: <https://www150.statcan.gc.ca/n1/daily-quotidien/191029/dq191029a-eng.htm>
- Syverson, Chad. 2010. "E-commerce and the market structure of retail industries." VoxEU column, July 25. Accessed at: [E-commerce and the market structure of retail industries | VOX, CEPR Policy Portal \(voxeu.org\)](#)
- Yeates, Maurice, and Hernandez, Tony (2021). [CSCA 2021 Retail Concentration and the Competition Bureau.pdf](#)

This E-Brief is a publication of the C.D. Howe Institute.

Daniel Schwanen is Vice President, Research, at the C.D. Howe Institute.

This E-Brief is available at www.cdhowe.org.

Permission is granted to reprint this text if the content is not altered and proper attribution is provided.

The views expressed here are those of author. The C.D. Howe Institute does not take corporate positions on policy matters.