

Delivering Disruption - The Impact of Online Shopping in the U.S. & Canada

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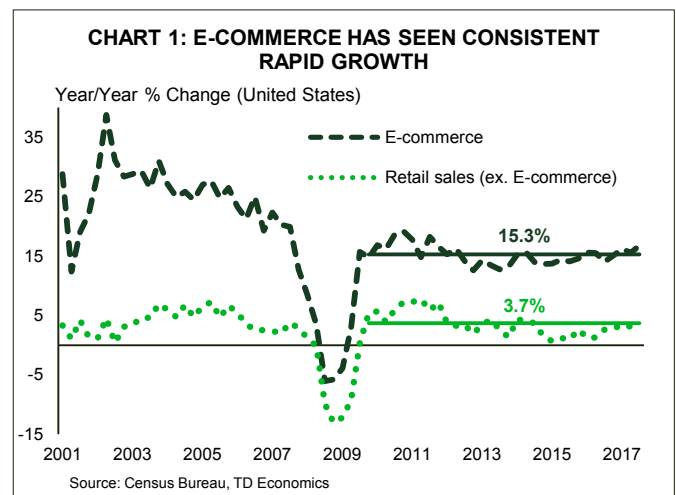
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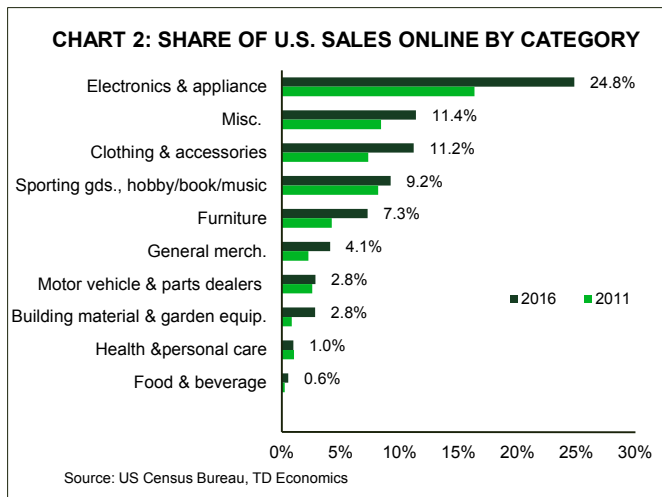
Highlights

- The rise of online shopping continues to disrupt traditional retailing in both the U.S. and Canada. Of these two countries, retail e-commerce in the United States is clearly ahead of the curve, with sales in this space now accounting for almost 10% of total retail sales.
- Online shopping is expected to continue to grow in the years ahead, particularly as it spreads to retail categories with lower penetration rates. This growth has created strong demand for logistics space, and reduced demand for retail space and workers. Productivity in the U.S. retail sector has been boosted significantly above the economy as a whole, which in turn has helped to keep price pressure muted for consumers.
- In response to this disruption, the U.S. commercial real estate sector has managed to adjust supply quite well, and average vacancy rates remain low. Similarly, displaced retail workers are clearly finding work in other sectors as its unemployment rate remains low. A strong economy has no doubt supported this transition.
- There is likely further disruption ahead on both sides of the border, but Canada could see greater change in the years ahead, especially if the *de minimis* threshold is raised as part of the NAFTA negotiation. Another risk for Canadian retailers and landlords is that the e-commerce adjustments coincide with a period of significantly weaker consumer spending amid elevated debt loads.
- That said, a lower level of retail space overall and higher sales per square foot could stand Canada in good stead, while the sector can also benefit from lessons learned during the U.S. experience.

The rapidly-growing e-commerce segment continues to make headlines, whether through its role in the decline of traditional brick and mortar retail, its part in low inflationary pressures over the last few years, or perhaps through the new fortunes that the sector is helping create. The disruption is expected to continue. In this report, we provide answers to some of the most frequently asked questions around e-commerce trends, first touching on U.S. developments (pp. 2-7). The United States is further ahead in the transition to online retailing, and we look at the impact of rising online sales south of the border to glean some lessons for Canada (pp. 7-9).

As the prevalence of online shopping in Canada catches up with the U.S., there will likely to be further disruption in the sector from both an employment and commercial real estate standpoint. Raising the *de minimis* threshold (DMT), the amount Canadians can buy in the U.S. without paying duty, as part of the NAFTA negotiation would certainly hasten the





Retail e-commerce sales totaled \$453B in 2017, and amounted to roughly 9% of total sales, up from 8% last year. This also marks a near tenfold increase in the share since the turn of the century when e-commerce sales made up around 0.9% of overall sales.

Q: How do online sales differ across retail sectors?

Chart 2 ranks each category of retailing by the share of sales that occurred online in 2016 (the latest year of detailed sector data) versus 2011. Not surprisingly, electronics leads the way, followed by miscellaneous (which includes office supplies, gifts, novelty and souvenirs) and clothing. Meanwhile, food and beverages have a very low share of online sales, although the share of online sales nearly doubled in 2016 alone.

Q: What is the outlook for e-commerce sales over the next decade?

U.S. online sales are expected to continue growing at a rapid pace and absorb additional market share. The fact that the growth rate in e-commerce sales over 2010-17 has remained relatively steady despite varying levels of consumer confidence, economic growth and increased smartphone adoption, underscores the dominance of structural over cyclical trends in online spending.

We present three different scenarios for growth in online shopping: high, medium and low. Our base-case scenario (medium) carries forward the current trend, while allowing for a slight deceleration to reflect a gradually maturing industry (Chart 3). Coupled with our projections for overall consumer spending and retail sales for the decade ahead, our base-case scenario suggests that online shopping will account for just over 1/5th of overall sales by 2025 – more than double its current share (Chart 4).

It is also plausible that consistent with the past twenty years, growth in online retailing could slow. Several elements would provide support to such a scenario. For one, looking at the available data in blocks of five years and omitting the distortions that occurred during the recession, we can see that the growth rate slowed considerably, from 27% in the early 2000s, to around 15% over the past five years. This trend may point to a slowdown in the growth of online shopping relative to

convergence to U.S. levels of online shopping. However, lessons from the U.S. show that while retail jobs have been lost, other sectors have picked up the slack, and retail unemployment remains quite low. Retail commercial vacancy rates are also relatively low as the industry has adjusted the amount of space coming on stream to account for the shift to online shopping, although returns in the sector are also low. Canada’s sector has the advantage of seeing these developments south of the border and can adjust in advance. Moreover, the sector is starting from a position of strength, with relatively more productive retail space and a relatively low vacancy rate.

However, Canada also faces the challenge of a highly indebted consumer, and the expected slowdown in consumer spending as interest rates rise and the housing market slows (see [QEF](#)). Whereas U.S. retailers have been dealing with the e-commerce transition during a period of strong retail sales growth, a big risk in Canada is that the transition to greater online shopping occurs at the same time as retail sales more broadly cool. But all is not lost. The shift to online retailing has been accompanied by significant gains in productivity in the U.S., helping to keep retail inflation low, which is a plus for consumer purchasing power and the economy as a whole.

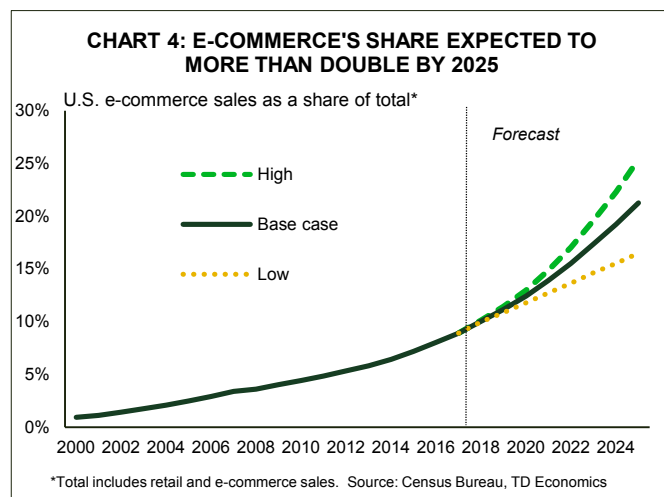
Q: How fast is U.S. e-commerce growing and how widespread is it?

U.S. online retail sales have expanded rapidly over the last two decades. Since the recession, online sales have grown at a fairly steady 15% year/year pace. That is significantly faster than traditional store sales, which have advanced at about ¼ of this speed over the same period (Chart 1).

our base-case. Another factor is stricter enforcement of tax collection on online purchases. Online retailers in the U.S. were typically required to collect taxes only for sales occurring in jurisdictions in which they had a physical presence.¹ Traditional retailers have pointed out/complained that this may have given online retailers an advantage and contributed to their rapid growth. However, states are now pushing for stricter tax collection from online retailers, which would reduce the attractiveness of online shopping at the margin.²

Last but not least, since 2000, e-commerce sales have received a significant boost from the increased adoption of the internet, which rose from 52% of total population in 2000 to 89%⁽³⁾ in 2018, and more recently smartphones, which have grown from 2% of mobile market to over 80%⁽⁴⁾ currently. With less upside on smartphone adoption, online sales growth will benefit less from this factor as time goes on. All factors considered, under this lower-growth scenario, online sales grow to 17% of retail sales by 2025.

Conversely, several factors could lead to a temporary re-acceleration in online shopping growth over the next few years. In order to keep up with competition from online retailers, traditional retailers have invested in their e-commerce platforms. As it becomes more seamless for consumers to make purchases from all their favourite stores online, online shopping activity could accelerate. This could be supported by improved economies of scale, greater supply chain efficiencies and potentially lower delivery costs, giving online shopping an even greater edge. At the same time,

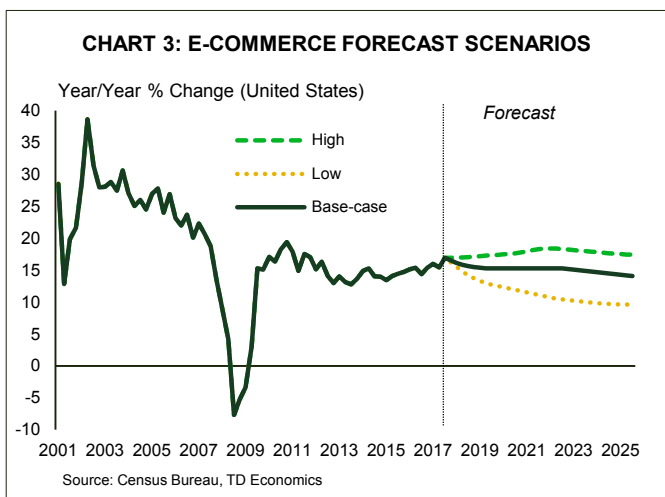


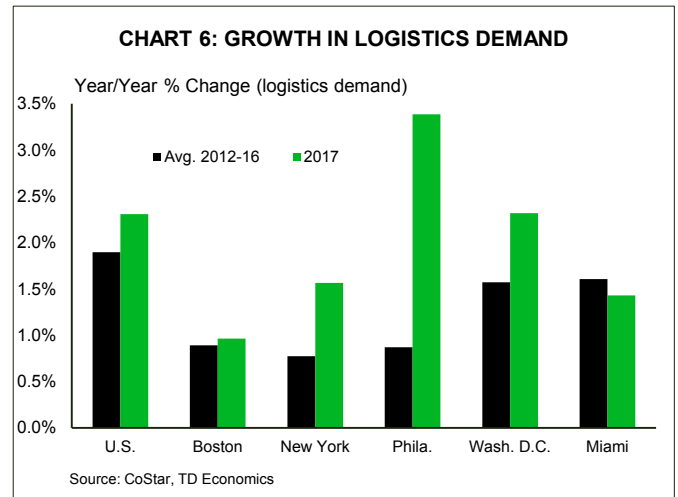
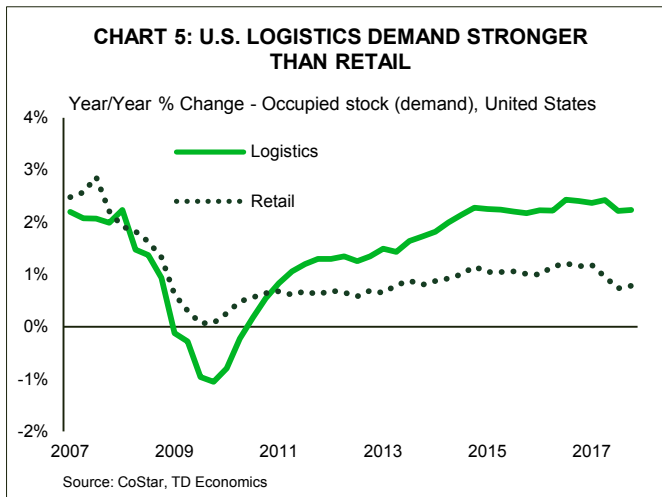
while smartphone adoption may have limited growth ahead, shopping through mobile devices is likely to intensify further, which could help absorb additional market share from traditional retail. Statistics suggest that mobile commerce sales (m-commerce) in the U.S. have risen much more rapidly than overall online sales, making up over a third of e-commerce sales in 2017 from 16% five years ago.⁵ That still leaves plenty of room for growth.

But perhaps the biggest potential for a boost to growth in online shopping would be expansion into categories where online sales penetration remains low – most notably, in food retailing. Food sales at grocery stores (excluding liquor stores), along with sales at health and personal care stores, make up 1/5th of overall retail sales. These two categories have very low rates of online shopping. Increased availability of food shopping online at a competitive price could provide a significant boost over the medium term to the growth of online shopping overall. There is some indication that this trend is already taking off. Walmart and many other large-scale retailers offer online grocery shopping. Online sales at food and beverage retailers grew by 77% in 2016 alone. These factors could together propel the share of online to total retail sales to above a quarter over the next eight years.

Q: Who are some of the winners from the shift to retail e-commerce?

Consumers certainly benefit in various ways from online retailing. For starters there is the time-saving convenience of online shopping. These benefits are difficult to





quantify, but the growth in sales indicates consumers are voting their satisfaction with their wallets. The ability to easily compare prices online also heightens competitive pressure on retailers. Consumers benefit by paying more competitive prices than in the past.

Online retailers and companies involved in the shipping and logistics supply chain have also benefited, with growth in demand for logistics space quite strong in recent years, along with employment (Chart 5). In line with the national trend, demand for logistics space has continued to grow in the TD footprint, with the Philadelphia metro exhibiting particular strength last year (Chart 6).

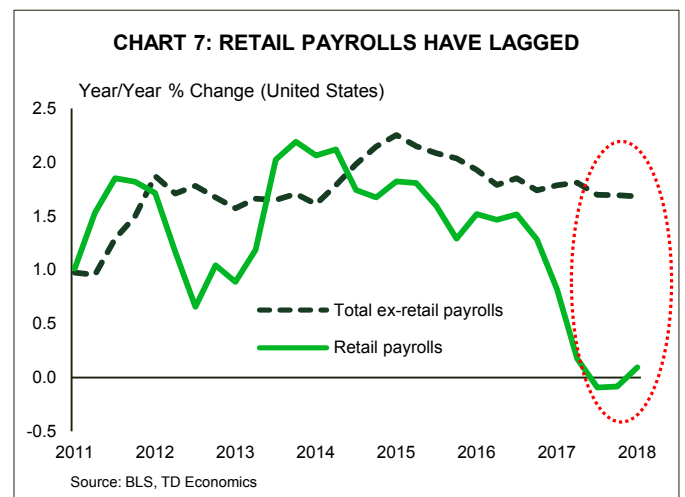
Gains in online retailing have also accompanied significant productivity growth in the sector. Online retailing is not the whole story when it comes to this trend, but it has no doubt been a factor. Labour productivity growth in the U.S. retail sector has dramatically outpaced the broader economy. In retailing it has averaged 3.4% over the past 5 years, in contrast to 0.7% for the nonfarm business sector as a whole. Strong productivity gains help keep price pressures for consumers lower than they would have been otherwise, chalking up another benefit for consumers in the form of increased purchasing power.

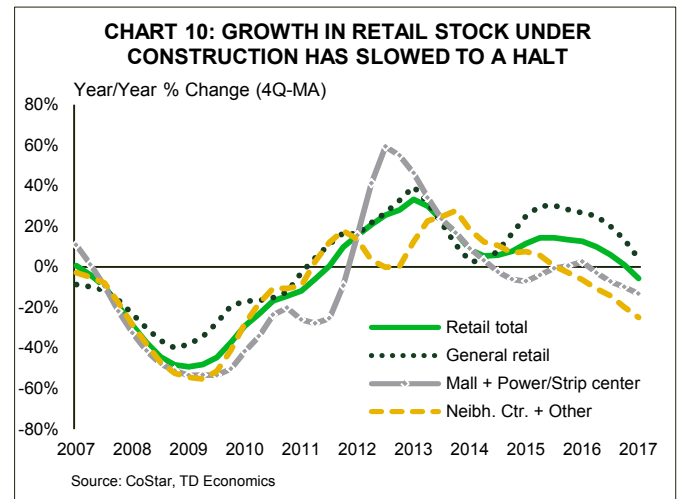
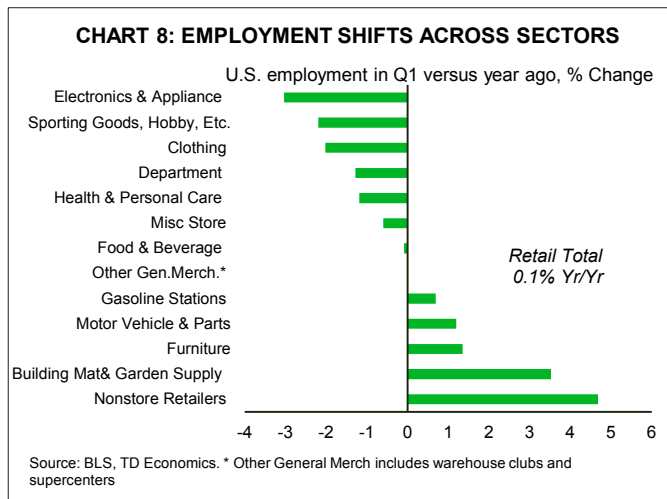
Q: What are some of the dislocations that are occurring as a result of shift?

Traditional bricks and mortar retail jobs have experienced their largest job losses outside of a recession recently (Chart 7). You can't disentangle how much of the loss in retail jobs is the direct result of online shopping, or due to increased adoption of labour saving technolo-

gies like automated check outs, and the failure of major retail chains to keep pace with competition from big box stores. But, it appears to be part of the story. Looking at which retail sectors have lost jobs recently (Chart 8), it lines up well with the sectors with the greatest level of degree of increase in online penetration. Primarily sectors like electronics and appliances, clothing and miscellaneous. Department stores are likely a special case, as they have been losing out to big box retailers (which are accounted for in "other general merchandise") over the longer-term, but more recently even these warehouse clubs and supercenters have been losing steam in terms of hiring.

Despite the notable jobs losses in the sector, retail unemployment is close to a cyclical low. That means that unemployed workers are either quickly finding jobs in other sectors, or job losses may be concentrated among older workers who opt to retire. This is not surprising





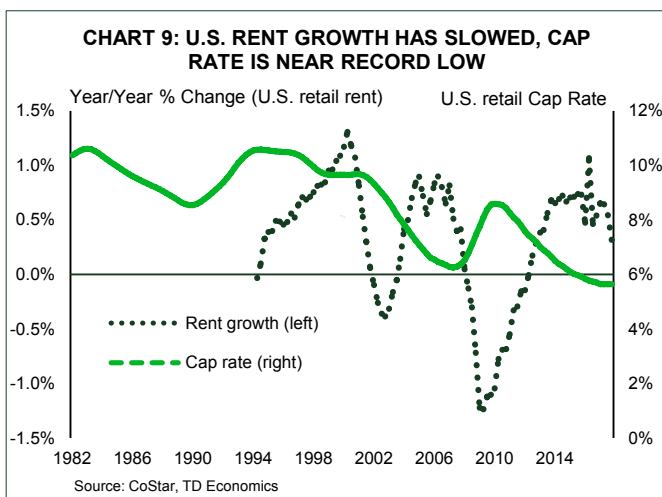
given the hot labour market. Backing up an overall healthy job market for retail workers, job openings in the retail sector have never been higher. This seems to paint a more optimistic picture of job prospects in the sector, despite the significant shifts going on beneath the surface.

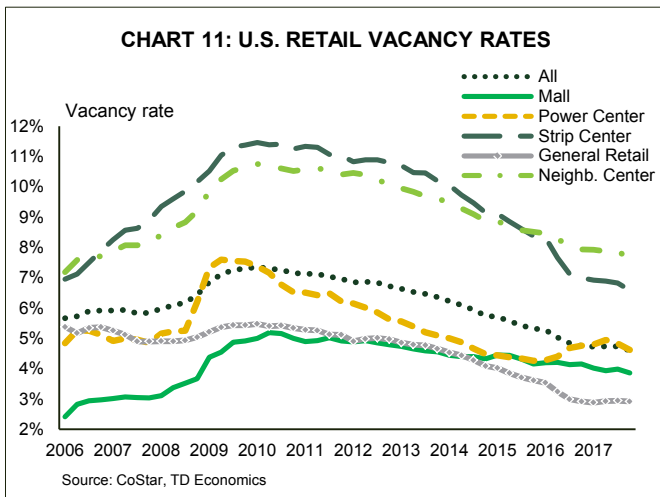
Not surprisingly, alongside demand for workers, demand for retail space has cooled. Growth in rents has slowed to a crawl (Chart 9). Meanwhile, the cap rate, a measure of return on commercial real estate assets, is near a record low. Still the industry had clearly adjusted for this as vacancy rates remain low. The commercial real estate sector has added retail space at a much slower pace than in the past (Chart 10). With the stock of retail space available growing at a very modest pace, retail vacancy rates have stayed low despite reduced demand. Vacancy rates do vary across sub-industries, with neighbourhood

and strip centers seeing higher vacancies, while malls and general retail are at the other end of the spectrum (Chart 11). In the middle are power centers, with sectoral vacancy moving largely in line with overall retail after having picked up through 2017 due to a slump in demand. All told, while there is likely to be further adjustment in the sector, the vacancy rate is starting from close to the lowest level on record (Chart 12).

Q: What can traditional retailers and shopping center landlords do to mitigate some of the risks?

Selling primarily offline may still make sense (for now) for a few niche retailers that retain an edge by placing significant emphasis on the exclusivity of products, the shopping experience and/or the necessity of clients ‘try before they buy’. These may include retailers that sell wedding cakes, bespoke suits, fast sports cars, ultra-luxurious watches and other handcrafted masterpieces. But this is a small and quickly declining minority; and the trends showing the rapid growth in online shopping have been rather clear. So the clever strategy for the vast majority of traditional retailers has long been to embrace the wave, and invest in a competitive online presence to broaden the income stream, while leveraging existing strengths. The latter typically include an established customer base which can be retained when its preferences increasingly shift online, along with the ability to use physical locations to enhance the omni-channel shopping experience (i.e. provide direct customer service on site; allow pick-up or return of online orders at physical retail locations for a seamless, more convenient experience).





Establishing a strong online presence certainly comes with additional costs, such as competitive advertising, shipping etc., which may not be viable for some players. At the same time, it provides other advantages, such as the ability to cast a wider net and reach more clients. An added beauty of going online is the ability to gather additional data/insight on clients, which can help tailor products and bring them to market with more precision.

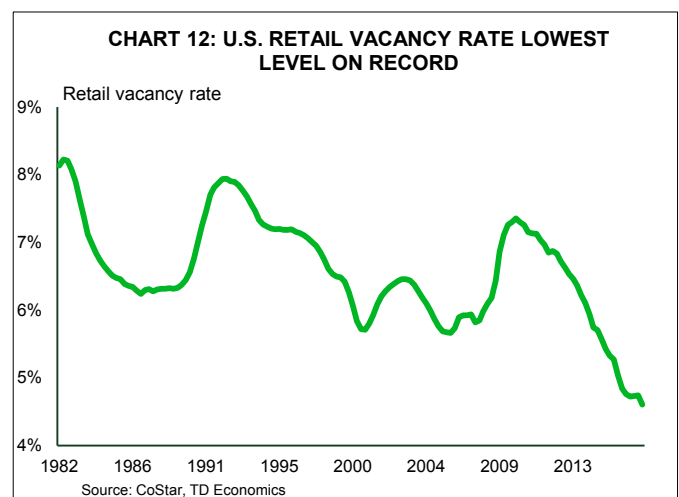
On the other hand, with respect to mall and shopping center landlords, as online shopping gains additional ground, the risk is that fewer retail square feet will be required to service traditional purchasers. An increased number of store closures last year, including ones at JC Penney, Macy’s, Payless Shoesource, with more announced of late (i.e. K-mart, Sears, Bon-Ton, Toys-R-US) underscore this narrative. Landlords have recognized this and are working towards diversifying tenant mix. The main goal would be to encourage and facilitate a shift toward an enhanced mall ‘experience’, given that ultimately fewer ‘products’ will be sold under the same roof. Options that will retain and perhaps grow foot traffic include gyms, bars/restaurants, movie theatres, spas, sports (mini-golf, rock-climbing) and other entertainment facilities. But upgrading the look and feel, and the retrofitting process will require time and capital, which may put considerable pressure on operators, particularly those that will require massive diversification.

Q: What could the long-term look like?

The lines between traditional retailers and e-commerce operators are likely to be increasingly blurred. The bat-

tle between bricks and mortar retail and online sales will likely revolve around their respective advantages – physical presence and virtual convenience. Traditional retailers are likely to continue to expand e-commerce operations, while e-commerce retailers could invest in more physical locations. For example, Amazon, traditionally an online retailer, has recently opened up a number of physical bookstores in prime locations and bought Whole Foods – a supermarket chain that specializes in food products. Amazon is also experimenting with innovation in the physical shopping experience with Amazon GO – a retail store where the consumer can simply grab the needed items and walk out without the need to check out at the cashier. Other advances such as drone delivery and virtual reality (VR)/augmented reality (AR) shopping are newer innovations, which are likely to shape the retail landscape in the coming years. Such technology would offer a superior shopping experience relative to simply online shopping once perfected, while retaining the convenience of home delivery. A number of retail giants, such as Alibaba, Walmart, Swarovski and IKEA, are already experimenting with and perfecting VR shopping.

Overall, e-commerce and its derivatives (m-commerce, VR shopping) will continued to gain additional ground. But, some shopping is likely to always remain in store given impulse purchasing and the need to satisfy immediate necessities. Where the equilibrium level will fall depends on the evolution of consumer preferences, shipping costs and regulatory constraints. Growth in on-line penetration will naturally slow over time as it reaches a saturation point, and likely moves more in line with

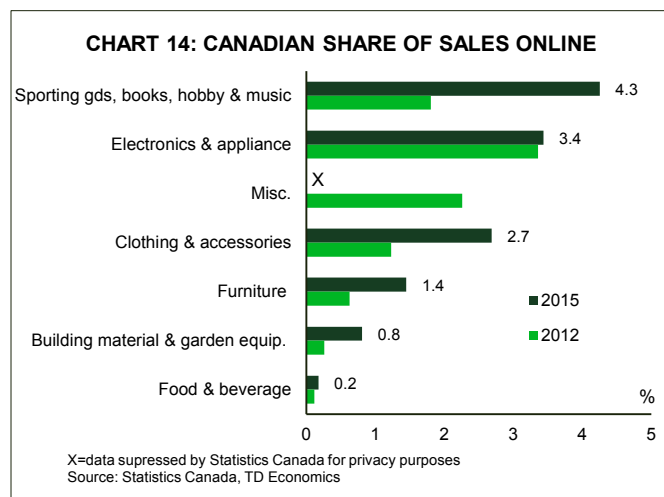
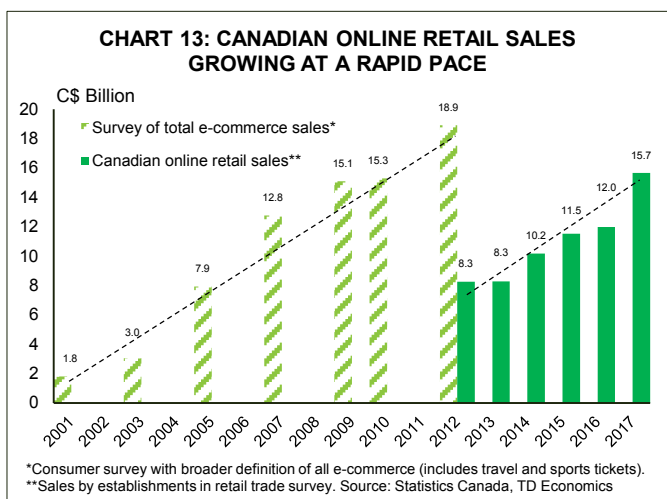


consumer spending. It is difficult to say when we will get there, but it is clear that we are only part way through a significant transformation in retailing, and that there will be further disruption along the way.

Q: How prevalent is online shopping in Canada and how fast has it been growing?

Online retailing in Canada has lagged behind the United States. Data collection on online shopping for Canada also lags behind (Chart 13). Statistics Canada data starting in 2016, shows that online retail sales grew at a rapid pace of roughly 31%, but still only make up 2.7% of overall sales in 2017 (C\$15.7 billion). However, online sales by Canadians may be undercounted for two reasons. First, if a Canadian online retailer does not break out their online sales into a separate establishment, sales would be captured by regular retail sales (indeed this could also be a problem in the U.S.). Second, if Canadians order from a foreign retailer without a Canadian retail establishment, even if they have a .ca website, those sales would not be captured by Statistics Canada.

On-line purchases of goods by Canadian consumers from foreign located retailers are embedded in Statistics Canada's goods import data series. In 2015, the value of all Canadian postal imports, which includes imports of on-line purchases, was estimated at \$1.8 billion.⁶ Combining this with online sales within Canada would only lift the share of online sales by a slight 0.3 percentage points, and still leave it well behind the United States. Other research firms however, such as eMarketer and Forrester Research, claim that overall online shopping is



much higher than estimated by Statistics Canada, but still well back of the United States in share terms. Canada is clearly behind the curve on online shopping, suggesting perhaps greater disruption to traditional bricks and mortar retailers ahead.

Q: What shopping categories are popular with Canadians?

Breaking down online retail sales by category, the top five categories are the same as in the U.S., although the ordering differs somewhat (Chart 14). All categories have a relatively lower share of online sales versus the US, except for food and beverages, where the shares are similarly low.

Q: What has held e-commerce back in Canada and why is it expected to grow?

There are likely a variety of reasons why online sales trail the U.S. Most likely it is as a result of more limited availability of goods online and higher costs, rather than reluctance on the part of Canadians to shop online. Canadians are certainly not afraid of doing business online. For example, a higher percentage of adult Canadians bank online (78.2%) than their U.S. counterparts (67.9%).⁷ Interestingly, of people who bank online, Canadians are less likely to do so on a smartphone than Americans (according to Statistics Canada 76% of Canadians owned a smart phone in 2016, but Canada lags the U.S. very slightly).

One of the factors that affect the availability of goods online is less competition in Canada's retail sector, which

means less pressure for retailers to establish an online presence. Also, while many U.S. retailers have established “.ca” websites where Canadians can shop without having to pay duty, Canada’s relatively smaller market makes it less attractive for some multinational retailers to incur the extra costs associated with establishing an online presence in Canada. Meanwhile, Canada imposes a very low (\$20) DMT for shipping goods into the country without paying duties or taxes. That makes it costlier, and in the case of some retailers, impossible, for Canadians to access the more highly developed online retail market south of the border.

Furthermore, Canada may trail the United States, but both countries trail many countries in Europe and Asia, where the share of online sales is already in the double digits. This suggests there is plenty of scope for online retailing to make inroads in Canada, that the U.S. is not an outlier.

Q: What could be the impact of raising the *de minimis* threshold as part of the ongoing NAFTA negotiations?

Canada’s DMT is currently \$20 and is among the lowest in the world, and far lower than \$800 in the U.S. This issue has been raised in the NAFTA negotiations as unfair to U.S. retailers. If the DMT is increased, Canadians would have greater access to the more developed online shopping experience in the U.S. This would likely accelerate the growth of online purchases by Canadians and increase competitive pressures on Canadian retailers.

A recent study conducted by PwC[®], commissioned by the Retail Council of Canada, considered a trio of scenarios where the DMT was raised to either the full \$800, raised to \$200 or eliminating only duties on shipments up to \$200. The significance of \$200 is it is the amount a Canadian can bring back from a trip across the border that lasts less than 24 hours. A \$200 DMT would extend the same treatment to virtual cross-border shoppers. The PwC study estimates the loss of sales in the retail sector would range from \$15 to \$42 billion in 2018. That amounts to roughly 2.5-8% of 2017 retail sales respectively. But it also points out that consumers would benefit from access to lower priced goods in the U.S. The study goes on to estimate that raising the DMT to even \$200 would result in the loss of around 286,000 jobs by 2020.

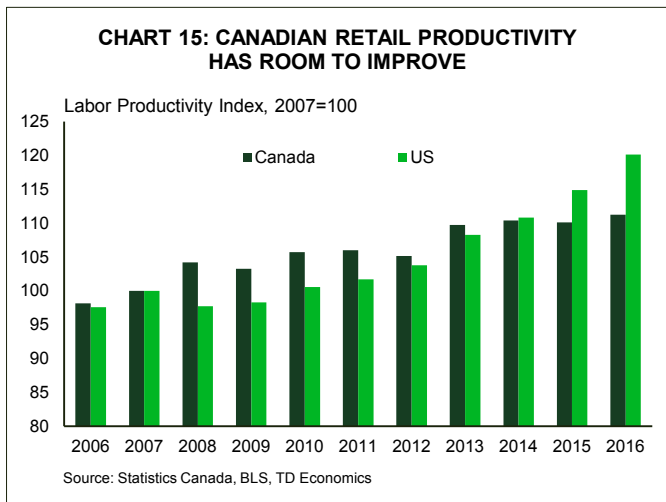
These numbers are staggering. We would point out that there are some inherent challenges with this kind of input-output analysis, including not allowing the inter-industry relationships to change. For example, that displaced bricks and mortar retail sector workers could find jobs in other sectors, which has clearly the case in the United States. Also, there is no mechanism for prices to adjust; one example would be the exchange rate. It would certainly be plausible that the level of the Canadian dollar might change under a different NAFTA arrangement.

Another study by the C.D. Howe Institute argues that raising the DMT would be a win-win for consumers and governments. It points out that from a pure revenue side, the change would be revenue neutral for Canadian governments, but they would benefit from cost savings on duty collection.⁹

Clearly, there is controversy over what the impact of a higher DMT would be. It is reasonable to assume that greater access to the more highly developed U.S. online shopping market would hasten the adoption of online shopping in Canada. However, as can be seen in the U.S. experience in recent years, disruption in an industry does not necessarily lead to mass unemployment, particularly when these shifts occur against a backdrop of a growing economy.

Q: If Canada begins to narrow the gap with the U.S. in online shopping, what does that mean for retailing in Canada?

As Canada moves towards U.S. levels of online shopping, there will be additional disruption for traditional retailers and commercial retail space. Demand for commercial retail space is likely already cooling, much like it has in the U.S. According to CoStar, a commercial real estate information company, Canadian vacancy rates were lower in the first three quarters of 2017 than in 2015/16, which followed Target’s closure in Canada, and the flood of available retail space.¹⁰ Recent reports suggest that the retail vacancy rate is rising notably in the near term with the closure of Sears, which is estimated to open up roughly the same amount of retail square footage as Target did. However, the U.S. experience of recent years can provide a guide to what might be coming down the pipe for Canada. It is encouraging to note that the commercial real estate industry in the U.S. clearly adjusted to



the rising prevalence of online shopping by adding fewer retail square feet, thereby keeping vacancy rates low. The Canadian industry has the advantage of seeing the shifts south of the border, and can prepare for change.

These pressures would likely intensify as Canadians shop more online, particularly if the DMT is raised as part of the NAFTA renegotiation. However, several factors would serve to mitigate some of the disruption. To begin with, Canada’s retail footprint is coming from a different starting point than the US. A recent report from the Retail Council of Canada⁽¹¹⁾ indicates Canada has 16.5 square feet of shopping centers per person compared with 23.6 in the U.S. The U.S. arguably became over-saturated with retail space in the last expansion, and therefore has an overhang to work down. Canada’s relatively smaller retail footprint may mitigate some of the downside risk, as retailers might be under less pressure to cut costs or reduce footprint. Moreover, Canadian malls are significantly more productive than those in the U.S., with average sales of \$744 per square foot versus \$466 in the U.S. In fact, the productivity of Canadian malls has been improving in recent years while it has declined somewhat in the U.S.

However, the industry data on productivity from a square footage perspective stands somewhat in contrast to labour productivity data from statistical agencies. Chart 15 indicates that labour productivity in the retail sector has advanced more rapidly in the U.S. than Canada recently, and this could spell tougher employment conditions for retail workers going forward. But, more rapid gains in productivity in Canadian retailing could also contribute to gains for the consumer, by potentially helping to keep inflation at the retail level low.

Q: What is the bottom line for Canada?

Online sales are expanding rapidly in Canada. For now, online retailing is less prevalent than in the U.S., but it is clearly catching up. A higher DMT as part of the NAFTA renegotiation could speed up the process. As online shopping becomes more common, it will cause further disruption for Canadian retailers.

Still, looking at the U.S. experience, that disruption doesn’t necessarily cause a spike in unemployment in the sector, or much higher vacancy rates for retail commercial real estate. There are some structural characteristics, in terms of the performance of its retail sector, which should help cushion the adjustment. It also has the benefit of observing the U.S. experience, and landlords can prepare by diversifying tenants away from traditional retailers to entertainment etc.

On the flip side, the stage of the economic cycle represents a risk for Canada. In the U.S., the relatively smooth adjustment of the retail sector in terms of commercial real estate and employment was helped by a healthy economy and low unemployment. Canada’s bigger risk is that the sector may face these challenges at the same that consumer spending is set to slow due to a cooling housing sector and higher interest rates.

Endnote

1. The basis for this has been a 1992 Supreme Court ruling which stipulated that remote retailers cannot be required to collect taxes if they do not have a "physical presence" in the state.
2. As of April 2017, Amazon began collecting sales taxes for all states that levy such a tax – including the ones in which it does not have a physical presence. Additionally, Colorado's 2010 law that required online retailers to collect sales tax was finally allowed to go into effect last year, while Pennsylvania has a new law which requires remote retailers to either remit a sales tax at the point of sale or send tax notices to clients and the government. At the same time, South Dakota is seeking to overturn the 1992 Supreme Court ruling – a move also supported by the U.S. administration.
3. PEW Research Center, (2018). See: <http://www.pewinternet.org/fact-sheet/internet-broadband/>
4. ComScore, (2017). See: <https://www.comscore.com/Insights/Blog/US-Smartphone-Penetration-Surpassed-80-Percent-in-2016>
5. Statista, (2017). See: <https://www.statista.com/statistics/249855/mobile-retail-commerce-revenue-in-the-united-states/>
6. Statistics Canada, (2016). See: <http://www.statcan.gc.ca/pub/11-621-m/11-621-m2016101-eng.htm>
7. eMarketer, (2016). See: <https://www.emarketer.com/Article/Canada-Ahead-of-US-Digital-Banking-Usage/1013969>
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9. C.D. Howe Institute, (2016). See: https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/E-brief_Rights%20of%20Passage_June16.pdf
10. CoStar, Financial Post (2017). See: <http://business.financialpost.com/news/retail-marketing/transformation-over-turmoil-why-reports-of-traditional-retails-imminent-death-may-be-premature>
11. RCC, National Post, (2017). See: <https://www.pressreader.com/canada/national-post-latest-edition/20170112/282067686624773>

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