DIFFERENCE CAPITAL

Jordan Udaskin, Vice President judaskin@differencecapital.com
Tom Liston, CFA, Managing Partner
Dushan Batrovic, Vice President

The Future of Payments in Canada

Canada's Non-Bank Payment Innovators

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Canadian Payment Innovation Landscape

Note: Excludes most Big Bank and Big Telco Wallet offerings.

Jordan Udaskin, Vice President judaskin@differencecapital.com
Tom Liston, CFA, Managing Partner

At Difference Capital, we closely monitor the financial technology sector and have invested in a number of companies in the space, offering us a unique insight into market trends. This is our latest in a series of primers on the Canadian FinTech sector.

For most consumers, how credit and debit card transactions work is a bit of a black box. You may swipe or tap your card (or if you are a bleeding-edge tech adopter, your phone) and then the terminal may beep and print out a receipt, but what is really happening, and who is making all this stuff work?

We're excited about the companies that are enabling next-generation electronic wallet technology as well as companies that are making an impact in evolving payment acceptance. We view this as one of the top growth areas in fintech over the next few years and will continue to keep our eyes strongly peeled to the ecosystem.

Wallet Providers / Enablers

Even before the highly publicized US launch of Apple Pay, mobile wallet technology (platforms which let consumers pay merchants using their mobile devices) was already a very hot area. Although **Apple** Pay is not yet available on this side of the border, several local companies are either offering or powering similar solutions.

We're finding that most of the higher-profile innovation is coming from four groups – our big telecom companies, the bigger banks, white-label providers and technology enablers which service the other three groups. Each of these groups have differing goals/strategies defined by their own vested interests. This space currently seems almost like the Wild West where everyone is battling to try to set their own payment standard.

Bell [TSX:BCE], **Rogers [TSX:RCI]** and **Telus [TSX:T]** (which represent about 90% of Canadian subscribers according to the CWTA) teamed up a decade ago to create EnStream, a mobile eCommerce platform that enables NFC payments (near field communication, AKA "tap and pay") via your mobile phone operator, secured through your device's SIM card. The technology is now in use by all of the major banks (except for **BMO [TSX:BMO]**, which uses a low-tech NFC sticker that attaches to your phone). The telecoms are able to extract value as they control access to the consumer (via the SIM) while the banks are able to maintain control of their customer experience and transaction data as the payment functionality is accessed through their own mobile banking apps. Consumers have the ability to pay with bank-specific credit cards linked within the app. We believe that the secure SIM-based payment methods currently in place will continue to have trouble achieving scale and will, over time, be supplanted by more consumer-friendly open technologies such as the ones discussed below.

White-label (and third-party) providers see value from, amongst other things, transaction data analytics and loyalty opportunities. They typically don't have access to your phone's secure SIM card so use alternative technologies such as HCE, or host card emulation (replicating the security features of your SIM card in the cloud), and digital bar code technologies (such as Toronto-based **SmoothPay**). DCF portfolio company **Carta Worldwide**'s technology allows wallet providers to offer tap and pay without needing to partner with a bank or a telecom. They use HCE and virtual auto-reloading prepaid credit cards (proxy cards) to allow users to pay with any credit/debit card on any NFC-enabled Android phone. **Google** Wallet offers a similar functionality but is not likely to be offered on a white-label basis.

We're also seeing the rise of merchant-focused wallets which help facilitate payments on a larger scale. Examples of these include **Hyperwallet**, a Vancouver-based company which facilitates mass volumes of payments via multiple methods and **Versapay [TSXV:VPY]**, a Toronto-based company that offers a paperless invoicing and payment platform.

Apple Pay has generated some commotion as it controls the secure element within your phone (cutting out the telecoms) and operates its own wallet (taking the customer experience away from the big banks). The company is reportedly planning to launch north of the border in November, but we expect to see some changes (or fireworks) in conjunction with that launch. **Apple** has a relatively strong position relative to the telecoms (can dictate terms given telecom reliance on iPhone sales), but has much less leverage on the banking side given our bank concentration in Canada (5 dominant banks here versus dozens of large banks in the States). The banks have apparently banded together to ask for consulting firm McKinsey's help under the auspice of making the payment service more secure, but we expect this teamwork has more to do with negotiating reduced fees and allowing the banks NFC payment capabilities directly from their apps. If only some of the banks agree to join **Apple** Pay under a similar model to the US, this may lead to an awkward situation where there is a movement to change phones or change banks until one side caves in.

Payments Acceptance

The past several years have seen significant advances in the options available for merchants to accept payments. The adoption of technologies such as tokenization and NFC by acquirers has driven a large portion of this. We find that innovation amongst this group largely falls within three categories – retail POS terminals, online payment offerings and mobile wallets with dedicated acceptance technology.

As a Canadian consumer, you may very well have noticed some recent changes in retailer POS terminals since the introduction of "chip and pin" and "tap and pay". These changes are accelerating in part due to an upcoming shift in US payments policy – from this October, US retailers will be liable for card payments fraud at their stores if they swipe or key in a card that has chip/pin functionality. We've seen some terminal advances from several local companies including **Moneris** (Canadian market leader), **Payfirma** (multi-channel focused; partnering with **CIBC [TSX:CM]**), **Dream Payments** (low cost terminals to be sold in major Canadian retailers) and **Mobeewave** (enabling the use of mobile phones to receive NFC payments). DCF portfolio company **GuestLogix [TSX:GXI]** is a global leader in onboard (airline/railway) payment acceptance. While most of these companies may not have the size nor brand recognition of US innovators such as Square, we expect their presence to grow substantially over the coming months and years. The chart below illustrates the dramatic shift towards contactless payments, with double-digit plus annual percentage growth since last year in many major countries. We expect that US figure to rise dramatically as that October deadline approaches.

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The ease and access of merchants to accept online payments has also improved significantly. The most high-profile recent Canadian success story in the space is of course **Shopify**, which recently filed for a joint NYSE/TSX IPO. They have succeeded by offering merchants, small and large, the ability to easily launch their own eCommerce site with simple and transparent pricing and integrated credit card acceptance. We expect this to be a fully-subscribed and highly-valued offering that will attract a lot of attention from the media. Other Canadian firms such as **E-xact Transactions** are also advancing eCommerce capabilities by offering innovative hosted checkout and recurring billing capabilities.

We're also seeing the rise of alternative payment acceptance methods. Certain wallet providers are now offering their own in-store acceptance technology, which can simplify the payments process – think about how Uber removes the need for you to swipe your card to pay your driver and how Starbucks lets you scan your phone screen to pay. **SmoothPay** is active in a number of Toronto-based restaurants and cafes and offers a white-label equivalent of **Starbucks'** mobile payment offering, including personalized loyalty plans. **Tab Payments** is live in about 100 Toronto and Montreal restaurants and allows you to pay your bill (or split it with friends) from your phone without needing to wait for the waiter/waitress to bring you the cheque.

% of Population That Have Ever Made a Contactless Purchase

Source: RFi Group's Global Payments Evaluation Study via NFC World.

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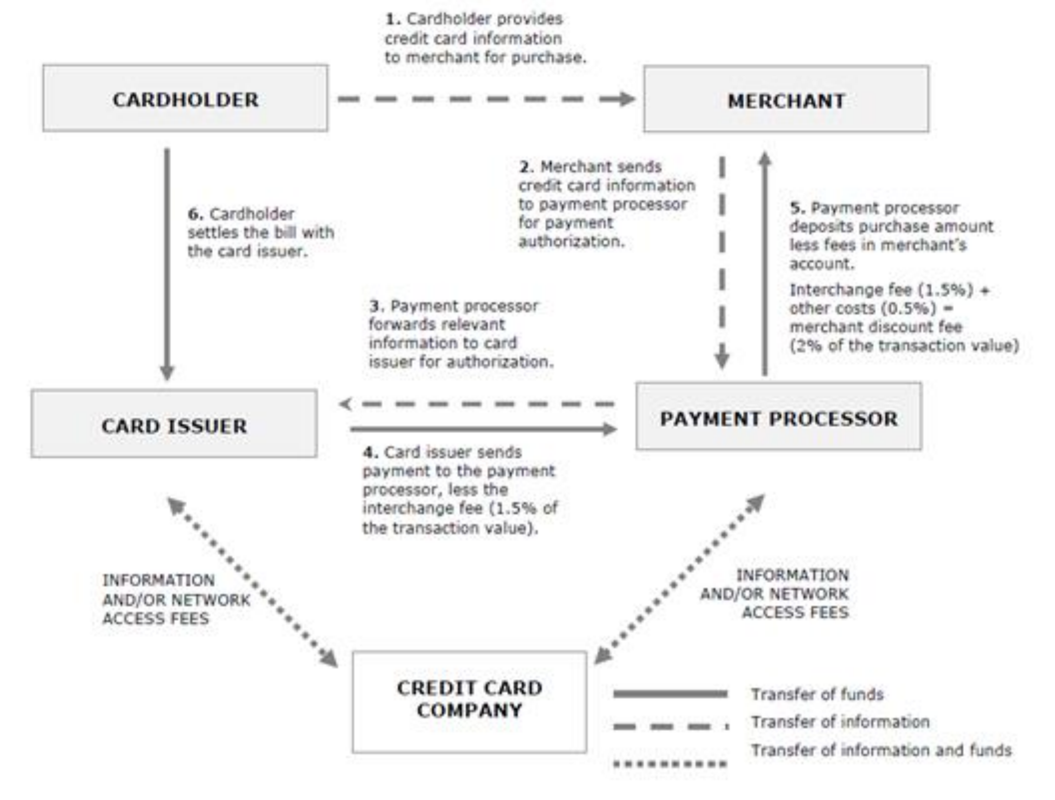
Processors

Payment processors send transaction information between the merchants that you shop at, your bank and the merchant's bank. They verify whether you have enough funds, whether your account is valid and perform security checks. Most of the actual processing done in Canada is performed by **Moneris** (jointly owned by RBC and BMO), **TD [TSX:TD]** and **Chase Paymentech** out of the US but there are new players emerging such as **Carta Worldwide**. Payment processors are in the midst of advancing their systems to more effectively support modern technologies such as tokenization (replacing credit card data during the payment payment with a secure alternative) and biometric authentication.

It is important to note that the credit card processor is not necessarily the provider of the terminal or of the online payment gateway (known as an acquirer). The acquirer role often falls to Independent Sales Organizations / Member Service Providers (ISOs/MSPs) who resell the products/services of processors but often add their own value added services. The card processor is also usually a different company than the card issuer, who is responsible for distributing cards, billing consumers and collecting consumer payments.

Indicative Credit Card Processing Overview



Source: Government of Canada / Pacheco and Sullivan (2006)

We expect to see significant levels of growth and innovation in these categories over the coming years. We plan to closely follow each of the companies mentioned above and would recommend that investors interested in the space take an effort to get to know each of them as well.

About the Authors

Jordan Udaskin, Vice President, Difference Capital

Mr. Udaskin focuses on evaluation and execution of pre-IPO direct investments in a broad range of FinTech, eCommerce, Media and MediaTech companies. Prior to joining Difference, Jordan worked at Onex Corporation in Toronto and Credit Suisse in London, UK. In these roles, he both advised and executed on transactions involving companies in the consumer, industrial and telecom sectors. Jordan has worked on investment strategies and executions with internationally known companies including Heineken, Rio Tinto and several global telecommunications firms.
Jordan is a graduate from the Richard Ivey School of Business at Western University and serves as an advisor to the Digital Media Zone (Ryerson), Canada's top university business incubator.

Tom Liston, CFA, Managing Partner, Difference Capital

Mr. Liston has over 14 years of experience in technology research. Prior to joining Difference Capital, he worked at Yorkton Securities as a Research Analyst covering Software and IT Services companies. In early 2003, he joined Versant Partners in the same role and was promoted to Director of Research while maintaining his coverage of technology companies. In late August of 2012, Versant Partners' team was acquired by Cantor Fitzgerald. At Cantor, Mr. Liston served as Director of Canadian Research and covered the technology sector.
As a technology analyst, Mr. Liston has been consistently ranked among the top technology analysts in several surveys, including: StarMine, Brendan Wood, Greenwich Associates and Reuters. He has received more StarMine stock picking awards than any other technology analyst. Mr. Liston is a CFA charterholder, completed a Bachelor of Business Administration degree in Finance from the University of New Brunswick in 1996 and a Master of Arts in Economics and Finance from Queen's University in 1998.

About Difference Capital Financial Inc.

Difference Capital Financial Inc. invests in and advises growth companies. We leverage our capital market expertise to help unlock the value in technology, media and healthcare companies as they approach important milestones in their business lifecycle. Difference Capital Financial Inc. is traded under the Toronto Stock Exchange under the symbol "DCF". www.differencecapital.com