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THE COMMISSIONER OF COMPETITION (APPLICANT)
AND
VISA CANADA CORPORATION and MASTERCARD INTERNATIONAL INCORPORATED (RESPONDENTS)
WITH
THE TORONTO-DOMINION BANK and the CANADIAN BANKERS ASSOCIATION (INTERVENORS)

IMPACT ANALYSIS: REMOVAL OF CERTAIN NETWORK RULES ON THE CANADIAN PAYMENT SYSTEM

Submitted to:
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April 10, 2012

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Introduction

1. In this report I, Balaji Jairam, have been asked by the counsel for the Toronto-Dominion Bank to provide an opinion on the potential impacts of the repeal of the Rules (as defined later in this statement) on the Canadian payment system.

2. My qualifications to present this statement are documented in my Curriculum Vitae attached as an Appendix to this statement. In summary, I am a Director in PwC's Canadian Banking Group and lead the payment industry offerings for PwC in Canada. As a banking and payments industry consultant, I assist clients in assessing the impacts of external forces – such as new regulation, innovation, new market entrants and other unforeseen events on the market and its participants, with a focus on understanding how such impacts affect an organization's business strategy and operations. Samples of engagements are listed in my Curriculum Vitae. Having worked with banking, payments and retail clients for several years, I have expertise in how new regulations or developments focused on a particular aspect of the payment system generates impacts across the wider payments ecosystem.

Assignment

3. The Commissioner of Competition (the "Commissioner") made an application to the Competition Tribunal (the "Tribunal") pursuant to section 76 of the Competition Act for an order prohibiting Visa Canada Corporation and MasterCard International Incorporated (respectively, "Visa" and "MasterCard" and, collectively, the "Respondents") from implementing and enforcing agreements or arrangements containing certain terms upon

which credit card network services may be supplied to merchants (the "Rules"). The Rules referred to in this report are the so called: “Honour all Cards” and “No Surcharge” rules.

4. The Toronto Dominion Bank (“TD”) and the Canadian Bankers Association (“CBA”) have acquired a status of Interveners in the subject case.

5. Balaji Jairam of PwC has been retained, as a specialist in the financial services industry in general and the payment system in particular, to provide an opinion on the potential impacts of the repeal of the Rules on the Canadian payment system.

6. For the purposes of this statement, the assessment has been focused on the retail payments portion of the Canadian payment system. Retail payments have been defined as transactions between individuals and businesses or governments, and exclude payments between businesses, or from business to government and vice versa.

7. This statement will be submitted to the Tribunal and Balaji Jairam, leader of PwC’s Payments Practice in Canada, who conducted the analysis and formulated the opinion described in this report, may be called upon to testify before the Tribunal in connection with the findings of this report.

Important Assumptions

8. This statement provides my view as to the impacts to the Canadian payment system should the two Rules of the Visa and MasterCard credit card networks, namely the Honour all Cards (HAC) and No Surcharge (NSR) be prohibited by Order of the Competition Tribunal. In assessing these impacts, I have made the following assumptions:

- As a result of the Order, at least some merchants surcharge credit card usage;

- As a result of the Order, at least some merchants are selective in credit card acceptance.

9. All analysis and opinions should be read in the context of these key assumptions. It is important to emphasise that this report does not express any opinion on the validity or otherwise of these assumptions.

Scope of Review

10. This report uses information from available sources including:

    i. Submissions to the Tribunal by the parties in this application;

    ii. Third party studies and reports;

    iii. PwC's banking industry expertise;

    iv. Internet articles and newspaper reports;

    v. Statistics and other information from public websites; and

    vi. Information sourced from TD mainly on the issue of pricing arrangements for acquiring services.

11. A Document Brief that includes the documents used is available upon request.

Restrictions and Qualifications

12. Refer to the Appendix for a list of the restrictions and qualifications of this report, which are an integral part of this report.

Executive Summary

13. Credit cards are an important component of the Canadian payment system. Since their introduction in the late 1960's, credit card usage has grown substantially and at the present is a significant payment instrument supporting retail commerce in Canada.

14. Credit cards are one of several payment instruments in the Canadian payment system facilitating the transfer of value and promoting commerce. Together with debit cards and cash, credit cards enjoy a high degree of penetration in the Canadian retail store front, with one essential difference - credit cards offer retail credit, allowing consumers to transact without worrying about the immediate availability of funds.

15. Five key stakeholders participate in the credit card ecosystem to share the associated costs and reap the related benefits from credit card transactions. These include card-holders, merchants, issuers, acquirers and credit card companies. As in any system, the credit card ecosystem embodies rules, practices and procedures to allow it to function with multiple participants.

16. The Commissioner of Competition ("the Commissioner") has made an application to the Competition Tribunal ("the Tribunal") for an order prohibiting the implementation and enforcement of certain agreements or arrangements that contain the terms upon which credit card company services may be supplied to merchants. The Commissioner's argument in making the application is that removal of these Rules will lead credit card companies to lower "interchange fees" charged to acquirers which, in turn, will lower "card acceptance fees" charged by acquirers to merchants.

17. PricewaterhouseCoopers LLP ("PwC") has been retained by legal counsel for TD Bank, an intervening party to the application to provide its opinion as to the potential impacts of the repeal of those Rules on the Canadian payment system as it relates to retail payments (i.e., payments between individuals and merchants or businesses, key participants in the Canadian payment system). This report sets out Balaji Jairam's opinion regarding the expected impact on the Canadian payment system of the Commissioner's requested order.

18. An integral part of this opinion is an overview of the Canadian payment system and the credit card ecosystem within it. The main observation from the overview is that the Canadian payment system is a complex and integrated structure where changes to one part of the system will have ripple effects across the entire system. This system offers a variety of instruments for Canadians and the preference for usage of a particular instrument reflects the associated costs and benefits as perceived by its users. These instruments (which include credit cards and several others) enable Canadians to fulfil their payment needs. If rules applicable to credit cards are modified, resulting in a significant change in the costs and benefits as perceived by cardholders, it is reasonable to expect the broader payment system to be impacted as well.

19. As described earlier, this statement assumes the two network rules of Honour All Cards and No Surcharge will be prohibited. Summarized below are key impacts on the Canadian payment system in light of the assumptions made. I reiterate that I express no opinion on these assumptions.

- **Assumption 1: Merchants surcharge credit card usage:** It is assumed that over time, a significant number of merchants will surcharge all types of credit card transactions.

It is most likely merchants will use a blended rate due to the operational challenges of using actual cost information for each credit card type – as has been seen in other jurisdictions. The use of blended rates will not send a clear signal to the consumer on costs incurred by merchants to process payments with different credit card products.

Some merchants will likely engage in excessive surcharging. As observed in Australia and the UK some merchants will see surcharging as a new source of revenue. In addition, if surcharging of credit cards becomes wide spread, it is likely that there will be surcharging on Canadian debit (Interac) cards as well.

Overall, if widespread surcharging occurs, it will logically lead to a decline in the volume and value of credit card transactions as consumers migrate to other payment instruments. Any material migration will impact credit cards as a payment instrument.

Issuers, acquirers and card companies may seek to recover revenue loss by decreasing customer rewards, increasing cost of card services and/or by adjusting service levels.

Where dominant merchants use selective surcharging as a competitive measure i.e. to surcharge cards of certain issuers or merchant brands, smaller market participants will be impacted. Larger issuers and acquirers may follow suit by entering into selective arrangements with merchants to promote preferred card products, adversely affecting smaller issuers, acquirers and merchants.

Once the ripple effect takes its course through the Canadian payment system, it is likely the Canadian consumer will bear most of the burden as merchants surcharge and issuers introduce new fees for card services. As the New South Wales Fair Trading Minister Anthony Roberts[1] mentions in his note to the Australian Federal Government on August 9, 2011 "after the RBA abolished the no surcharge rule on credit cards in 2003, the result was increased costs for some consumers".

[1]http://www.fairtrading.nsw.gov.au/About_us/News_and_events/Media_releases/2011_media_releases/20110809_eftpos_fee_changes_require_detailed_federal_scrutiny.html

Consumer displeasure to surcharging is well known – a 2009 Consumers Association of Canada (CAC) survey[2] found 90% of Canadians oppose credit card surcharging. IKEA in the UK which began surcharging card transactions in 2004 discontinued the practice in 2010 due to customer complaints. In a response to Which?[3], IKEA noted that "even after six years, many of our customers are angry with this approach and we cannot afford to alienate customers".

- **<u>Assumption 2</u>: Merchants do not honour all cards:** As merchants accept certain cards and reject others, the uncertainty and inconvenience faced by cardholders will be significant and credit cards as a payment instrument will be negatively impacted as a whole.

  Larger issuers and merchants may enter into arrangements that fragment the payment system, negatively impacting smaller merchants, issuers and acquirers.

  Consumer choice of credit card products will be curtailed as the issuer market consolidates. The European Union has acknowledged the negative implications if merchants are allowed not to honour all cards.

20. In my opinion there are a number of serious potential negative implications of accepting the Commissioner's application, based upon the assumptions that I have been asked to make as set out above:

    i. If surcharging by merchants becomes widespread and, in some segments, perhaps even excessive (i.e., above credit card fees currently incurred by merchants), this will result in wealth transfer from Canadian consumers to merchants.

    ii. In some channels, such as on-line commerce, where credit card use is particularly prevalent, the removal of the Rules will make these transactions more expensive to Canadians. I note that Interac Online is still not widely implemented for online transactions.

[2] http://www.consumer.ca/pdfs/cac_surcharge_survey_final_report.pdf
[3] http://www.which.co.uk/documents/pdf/payment-method-surcharges-which-super-complaint-249225.pdf

iii. The cost of other banking services may increase for merchants as acquirers and their banking alliances are known to offer bundled services, and pricing takes into consideration such extended service relationships. Consumers too may be faced with higher card fees or reduced rewards as issuers look to recover lost revenue.

iv. Overall costs to consumers will rise, with impacts being felt by less affluent consumers who rely on the "credit" element to manage cash flows.

v. Over time, larger merchants will benefit more than small-medium businesses due to their ability to negotiate favourable rates or selectively enforce the Rules. It is important to recognize that small-medium businesses are important "consumers" of credit card services, representing a financial life-line for day-to-day working capital requirements.

vi. Competition in the financial services market will diminish if smaller issuers, acquirers and merchants are priced out of the market.

vii. Merchants will likely explore surcharging debit card transactions, raising a significant issue for the Canadian payment system.

viii. The pace of innovation in the payment system will slow down. To illustrate this point, the US-based ISIS consortium recently announced its intention to curtail mobile banking innovation following the introduction of the "Durbin Amendment" that capped debit card interchange rates in the US.

ix. Decreased use of credit cards will negatively impact retail activity and, in turn, the Canadian economy.

x. Any increase in cash or cheque usage will increase existing concerns around the underground economy and also slow the pace of Canada's move towards a digital economy.

21. In summary, there are significant potential negative implications of removing the Rules. As I describe herein after, the payment system in Canada is interdependent and complex. As

a result, in my opinion, there is a likelihood of unintended adverse effects if the Rules are prohibited. The recent measures taken by the Finance Ministry to improve the credit card ecosystem are positive first steps. In time, the ability of these measures to address the Commissioner's concerns will become evident.

Impact of the Requested Order on the Canadian Payment System

Introduction

22. In opining on the impact of the Requested Order on the Canadian payment system the following steps were taken:

   i. First, the important aspects of the Canadian payment system as relevant to this analysis were identified and described.

   ii. Next, assuming the removal of the Rules as per the Requested Order, the impacts on the Canadian payment system were analyzed based on the following assumptions:

      - **Merchants surcharge credit card usage** (Scenario A)
      - **Merchants do not honour all cards** (Scenario B)

   iii. For each scenario, the likely actions of relevant players (i.e., merchants, cardholders, credit card companies, issuers and acquirers) were analyzed.

   iv. Given these actions, the impacts on the Canadian payment system were assessed.

   v. Experience from other jurisdictions was observed to corroborate the said predictions and assessments.

Background

Description of the Canadian Payment System

23. The focus of this sub-section is to highlight the complex inter-connected nature of the Canadian payment system with its various stakeholders and operating arrangements that support economic activity by facilitating the transfer of value from one party to another

within Canada, as well as between Canada and the rest of the world. Credit cards coexist in this ecosystem along with various entities, instruments and services that taken together comprise the backbone of the system.

24. Various organizations have recognized and commented on the complex nature of the Canadian payment system. One such organization is the Task Force for the Payments System Review (the "Task Force"), formed in June 2010 by the Department of Finance Canada with the objective of reviewing the Canadian payment system and providing recommendations to the Department of Finance. In its interim observations, the Task Force recognized the inter-connectedness of the payment eco-system: "*Changes to one part of the ecosystem (e.g., new entrants, new regulations, new fees) will have a ripple effect across the entire landscape as different parties adjust to the new competitive environment.*" It has also highlighted that a well-managed payments ecosystem is a vital component of a stable economy[4]. Others that have expressed similar thoughts include the Privacy Commissioner of Canada[5], Interac[6], the Canadian Payments Association[7], C.D Howe Institute[8] and the Canadian Bankers Association.

25. Payments within the system could originate from a variety of sources and be destined for a range of recipients and may include those involving consumer to business, business to consumer, business to business, consumer to government, etc. Payments are used to purchase goods and services, to settle obligations or to transfer funds. Payment

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[4] Canadian Payments Landscape, Task Force for the Payments System Review, September 2010, p. 7
[5] The Transformation of the Canadian Payments System: Why Privacy is Essential for Trust and Innovation in the Payments System, The Privacy Commissioner of Canada, September 2011
[6] Response to the "The Way We Pay: Transforming the Canadian Payments System" a Discussion Paper of the Task Force for the Payments System, Interac Association/Acxsys Corporation, September 2011
[7] Response to "The Way We Pay: Transforming the Canadian Payments System" A Discussion Paper of the Task Force for the Payments System Review, Canadian Payments Association, September 2011
[8] The Way We Should Pay – Comments on "The Way We Pay: Transforming the Canadian Payments System", Bergevin & Zywicki, C.D. Howe Institute, 2011

instruments may take a variety of forms, most often cash, paper cheques, plastic cards or electronic.

26. In order to make any payment, the payer requires a source of funds. The payer could rely on funds that he/she already has (either in the form of cash or a deposit, usually at a financial institution) or utilize some form of credit, where the payer is borrowing funds, either on a short-term or long-term basis, to make the payment.

27. The Canadian payment system includes a variety of payment instruments that collectively support commerce and economic activity. In its entirety, the Canadian payment system is a complex web of interrelated and/or overlapping products that serve a variety of consumer, business, or public sector needs, and are organized in a constellation of payment schemes each with their own set of rules. To add to this complexity, the payment scheme rules are set by governing bodies that have different mandates, different stakeholder structures and different regulatory oversight. The Finance Minister has overall interest in overseeing this diverse environment for the benefit of all Canadians.

28. The Canadian payment system includes a variety of payment instruments that collectively support economic activity. As Which? the not-for-profit consumer organisation puts it, payments cannot be seen as an optional extra for consumers, but rather as an intrinsic element that enables the conclusion of a contract. From a retail/consumer perspective, the following payment instruments are the key instruments available to Canadians:

- **Cash:** Cash is the oldest payment method in use, taking the form of banknotes or coins. Given the physical nature of the exchange, cash is most often used for transactions carried out in person with both parties present in person or through an intermediary. Due to the direct nature of the transaction where there is no need for clearing and settlement (therefore not auditable), it is difficult to ascertain the exact overall volume and value of these transactions. A study compiled for the Task Force estimated the total value of cash transactions in Canada to be approximately $131 billion[9]. This volume is inclusive of both business and consumer transactions. Another source has put the value of annual consumer cash transactions in Canada at $83.2 Billion[10]. While cash continues to have a role in the payments landscape, advances in mobile payments are expected to impact cash as a payment instrument in the future.

- **Cheques:** Cheques[11] are the second oldest payment method in Canada. Cheques are versatile payment tools though as a means of retail payments, cheque acceptance has declined in Canadian retail store fronts. In 2010, 902 million cheques were cleared in Canada representing total transaction value of $1.05 trillion[12&13]. Of this amount, approximately $63.5 billion is estimated to be related to consumer transactions[14]. Cheques represent a high cost payment method – a Reserve Bank of Australia study[15] estimated in 2007 that cheques cost on an average $4 to process per unit in addition to imposing significant costs on the payee – often the merchant.

- **Automated Fund Transfer ("AFT"):** AFTs are electronic payment options used to transfer funds between two accounts and are divided into AFT Debits and AFT Credits. The primary use of an AFT Debit is bill payments and it is commonly used to withdraw periodic payments such as mortgage payments, utility/phone bills, as well as property taxes. The payment is usually from an individual's bank account to a merchant or other recipient. AFT Credits are similar to AFT Debits, except that the direction of the flow of funds is usually from a business or a government to an

[9] Canadian Payments Landscape, Task Force for the Payments System Review, September 2010, p. 21
[10] Financial Cards and Payments in Canada, Euromonitor International, October 2011, P. 10, Table 8
[11] For the purposes of this document, in addition to general purpose cheques, we have categorised a number of additional paper items such as bank drafts, money orders, certified cheques, traveller's cheques and other similar items as cheques.
[12] Available data on cheque volume does not provide any breakdown by the type of use (business, personal, or government). However, we have excluded the over $50K cheque volume data from the cheque volume as they are generally not used for retail purposes.
[13] Annual Flow of Payment Items Through the Automated Clearing Settlement System (ACSS), Canadian Payments Association Statistics, Retrieved in March 2012 *(Refer to "Small Paper Items" data)*
[14] Financial Cards and Payments in Canada, Euromonitor International, October 2011, p. 10, Table 8
[15] http://www.rba.gov.au/payments-system/resources/submissions/pdf/role-of-cheques.pdf

individual recipient, the most common being payroll deposits or government payments to individuals of benefits/tax refunds. In 2010, approximately 650 million AFT debit transactions were cleared in Canada totalling close to $536 billion in value[16]. Of this amount, approximately $85.5 billion is estimated to be related to consumer transactions[17].

- **Point of Sale ("PoS") Debit:** PoS Debit is a payment method primarily designed for retail use when purchasing goods and services. This payment instrument can be considered an extension of the chequing account, as it allows users to access available funds to complete payment transactions or withdraw cash. Some sources also refer to this payment method as Electronic Fund Transfer at The Point of Sale ("EFTPoS"). In Canada, PoS is operated by the Interac Association (Interac Debit), which processed close to 4 billion PoS transactions in Canada in 2010, representing approximately $176 billion in value[18&19]. This volume is generally considered as retail consumer related. Consumers bear the significant costs associated with debit card transactions in Canada as banks price this service into monthly chequing account fees. Most chequing accounts include a base number of debit card transactions within the base price plan, whether used to pay at a retail outlet or withdraw cash from an ATM. Where customers exceed monthly limits, banks charge customers additional fees per item usually in the region of $1 per additional item[20].

Prior to 2010, debit cards in Canada were exclusively issued through the Interac network, though Visa and MasterCard have had interest to enter the market for a number of years. This became a reality with the launch of CIBC's Advantage Debit Card on the Visa network[21] in late 2010. Visa has chosen a hybrid structure for its

[16] Annual Flow of Payment Items Through the Automated Clearing Settlement System (ACSS), Canadian Payments Association Statistics, Retrieved in March 2012 *(Please refer to "AFT Debit" data)*
[17] Financial Cards and Payments in Canada, Euromonitor International, October 2011, p. 10, Table 8 *(Labeled as ACH Transaction Data)*
[18] The Interac network also operates Interac Cash that allows Canadians to access their funds through Automated Banking Machines (ABM), the transaction data reflected in this report excludes Interac Cash volume.
[19] Statistics published on the Interac Association website (http://www.interac.ca/media/stats.php), Extracted in March 2012
[20] For example, please refer to BMO account fee schedule: http://www.bmo.com/home/popups/personal/banking-plan-chart
[21] CIBC rolls out Canada's first Visa-branded debit card, Toronto Star, October 2010

cards in Canada by "co-badging" them with Interac. Under this approach, the card bears both the Interac and Visa logos, and when presented at a merchant store front, will be processed through the Interac network similar to any other PoS debit card. However, if the card is used to transact online, by phone, through mail, or at a merchant outside Canada, the transaction is processed through the Visa network. Volume and market share data for these cards are not readily available but are probably small due to the recent introduction of the product.

- **Interac Online and Interac e-Transfer[22]:** These instruments introduced in 2004 and 2005, respectively, are designed to extend the use of Interac beyond the traditional PoS channel. Interac Online is an extension of Interac Debit for online retail commerce while Interac e-Transfer is a peer-to-peer money transfer tool which uses email as the notification medium. While volume and value of these payment methods are not easy to find, it is a commonly held view that their usage is not well entrenched.

- **Credit Cards:** Credit cards have been used as a payment method in Canada since the late 1960s. Today, most credit cards issued in Canada are of the Visa, MasterCard, and American Express brands issued by a participating bank in their name or co-branded with a merchant. In addition, there are retail store credit cards (e.g., Sears, The Bay), as well as a number of international credit cards that are accepted in Canada (e.g., Discover). The total number of credit card transactions in Canada is estimated at approximately 3 billion per year with a value of between $306 and $329 billion[23]&[24].

- **Prepaid cards:** Prepaid cards are stored value cards and come in two major categories: 1) merchant issued cards that allow the holder to purchase goods or services from a single merchant (i.e., a closed loop card), or 2) more general purpose cards such as the prepaid cards issued by credit card companies or other entities (e.g., Cadillac Fairview Shop! Card). Prepaid cards may be for one-time use, such as many

[22] Interac e-Transfer was formerly branded as Interac eMail Money Transfer
[23] Statistics on payment, clearing and settlement systems in the CPSS countries - Figures for Canada for 2010, Bank of International Settlement, January 2012 (Excerpts only), p. 62, Table 8
[24] Financial Cards and Payments in Canada, Euromonitor International, October 2011, p. 11, Table 11

gift cards, or reloadable, such as Tim Hortons, Starbucks or Metrolinx's Presto commuter fare cards. Prepaid cards may be viewed as secondary payment instruments as they rely on other payment instruments as part of their value transfer process.

29. Each of the payment instruments has a cost to its users. The following table provides a summary of the main costs to customers and the merchant associated with each payment instrument, as well as some potential ancillary impacts on the economy:

Instrument	Customers	Merchants	Comments
Cash	• Loss & theft risk	• Extra manpower due to slower checkout process • Counterfeiting risk • Loss and theft risk • Deposit costs (e.g. staff time and/or armoured car company)	• Cash transactions are viewed as having the potential to support the underground economy.
Cheque	• Monthly account fees • Cheque printing fees • Cheque delivery costs (e.g. postage or personal delivery) • Transaction fees • Fraud risk	• Extra manpower due to slower checkout process • Monthly account fees • Cheque clearing costs • Non-payment risk • Fraud risks	• May in some situations have the potential to support the underground economy
AFT	• Monthly account fees • Transaction fees	• Monthly account fees • Clearing fees • Non-payment risk[25]	• Popular for on-line merchant bill payments
Debit Cards	• Monthly account fees • Extra transaction fees • Occasional merchant surcharges • Fraud risk	• Monthly account fees • Card acceptance fees • Terminal/infrastructure costs	• Not yet widely entrenched in Canadian on-line commerce

[25] Most AFT transactions are for preauthorized payments and there is no guarantee that the customer account will have sufficient funds available at the time that the payment becomes due.

Credit Cards	• Annual account fees • Interest on balances	• Merchant discount fees • Monthly account fees • Equipment rental fees and other incidental service charges • Fraud risk (if they do not follow prescribed procedures) and charge backs	• Offers buyers retail credit which facilitates and may lead to increased retail sales

30. In addition to the more established payment instruments, the Canadian market has seen introduction of other payment methods with varying results. Some, such as Dexit and ZoomPass, appear to have been less successful while others, such as PayPal, have managed to establish a foot hold in on-line commerce. Initially, PayPal exclusively relied on existing payment methods, such as credit cards, to process its customer payments. However, over time, PayPal is introducing other services such as BillMeLater, which extends credit to customers without the involvement of a credit card company. It is reasonable to expect that in the future PayPal will attempt to expand into markets served by the more traditional payment instruments and move from Internet to point of sale offerings.

31. Mobile payment is another emerging payment type. Although from a purely functional perspective mobile payment is effectively a new channel that allows users to pay using mobile devices, it introduces new participants such as telecom companies and handset manufacturers into the payment ecosystem who could compete with established market participants such as Visa, MasterCard and American Express.

Credit Cards within the Canadian Payment System

32. According to Euromonitor, based on 2011 estimates, Canadian credit card transaction volumes and value amounted to approximate 15% and 38%, respectively, of total payments

made by consumers[26], including both payments at the cash register and other payments such as bill payments. A study from the Bank of Canada[27] concluded that credit cards account for 40% of the value and 19% of the volume of transactions at the cash register. Credit cards compete with other payment instruments such as cash, debit, cheques and in the future with emerging technologies such as mobile and PayPal.

33. Issuers of credit cards aggressively compete for customer market share. While banks are the larger issuers, the ability to generate economic returns allows smaller issuers such as credit unions, merchants and recently even telecom companies to compete for market share.

34. Acquirers also compete aggressively for merchant market share. There is robust competition between large and smaller acquirers, and niche service providers.

35. Credit cards companies (i.e., Visa, MasterCard and American Express) compete actively against each other by promoting their brands and compete with other payment instruments on service and innovation. Like other payment instruments, they are challenged by new entrants to the Canadian payment system, such as Pay Pal.

36. Risks and rewards of the credit card ecosystem are spread across its stakeholders. While merchant discount fees often receive the most attention, there are several costs and benefits that impact all stakeholders including cardholders, issuers, merchants, acquirers, and credit card companies.

[26] PwC analysis of data from Financial Cards and Payments in Canada, Euromonitor International, October 2011
[27] Why is Cash (Still) So Entrenched? Insights from the Bank of Canada's 2009 Methods-of-Payment Survey, Bank of Canada, Working Paper 2012-2, page 23

37. From a cost perspective, the following was observed:

- Cardholder costs include fees, service charges, interest on outstanding balances and fraud risk up to an agreed deductible.

- Merchant costs include merchant discount fees and service charges for services offered by acquirers. They also bear internal costs such as managing checkouts and fraud risk, if prescribed procedures are not followed.

- Acquirers pay interchange fees, bear costs to process merchant transactions and connect to credit card companies' networks, and costs of fraud risk, if merchants have followed procedures.

- Credit card companies bear the cost of facilitating transactions, product and brand management, offering clearing and settlement services and risking loss, if transactions do not settle.

- Issuers bear card issuance costs, credit risks, costs to process rewards and fraud risk, if customer and merchant are not at fault.

38. From a benefit perspective, the following was observed:

- Cardholders have access to a credit facility that supports retail activity especially when they have no funds in their chequing (or other) accounts, which is a prerequisite to processing debit card payments. Credit cards allow cardholders to manage cash flows - an important requirement for many Canadians. Finally, cardholders benefit from rewards and services bundled with credit cards such as insurance, theft protection, fraud protection, and support when contesting inappropriate or erroneous merchant charges.

- Merchants benefit since credit cards facilitate and expand retail trade. Another significant benefit is the guarantee of payment that credit card companies provide as long as merchants adhere to processing guidelines. Many merchants also benefit from their ability to improve customer experience at checkouts and from reduced handling costs of cash and cheque payments.

- The growing acceptance of credit cards has allowed acquirers to create a niche service market in the Canadian payment system. This gives acquirers the opportunity to provide merchants with value added services (often bundled with card processing services) including monthly transaction summaries, data analytics and cash management services, in addition to credit card processing services.

- The increased transaction volumes and value have enabled credit card companies to fund innovations vital to the robustness of the Canadian payment system. Today, Canada is a global leader in chip & PIN technology that has improved security and minimized fraud risks for card holders, merchants and issuers.

- Issuers have benefitted from the dramatic increase in credit card acceptance by merchants and credit card usage by consumers. As a result, issuers have been able to support product innovations, improve rewards and compete in an aggressive market space. Issuers have the opportunity to expand relationships with their customers and the ability to bundle additional services such as expense analytics, consolidation of lending portfolios and broader wealth management offerings.

39. In response to concerns relating to levels of interchange fees, the Finance Minister has supported the adoption of a voluntary code of conduct ("Voluntary Code") in 2010 to increase transparency and disclosure by credit card companies and acquirers to merchants. The Voluntary Code allows merchants to provide discounts for different methods of payment (e.g. cash, debit card, credit card) and to provide differential discounts among different payment card networks. Most importantly, the Voluntary Code requires premium cards to be given to a well-defined class of cardholders based on individual spending and/or income thresholds and not on the bulk of an issuer's portfolio.

40. The Voluntary Code in effect is mandatory for credit card market participants. For example, following the introduction of the Voluntary Code, acquirers moved quickly to simplify statements to merchants. Much of the Voluntary Code is only beginning to take effect and the Finance Minister has indicated that, though voluntary, he expects compliance and would not hesitate to intervene in order to enforce it. In 2010, the Financial Consumer Agency of Canada (FCAC), a federal regulatory agency, was tasked with the oversight of payment card network operators and their commercial practices and is responsible for overseeing compliance with the Voluntary Code.

What Makes the Canadian Payment System Effective

41. In order to effectively fulfil its objective, a payment system should possess a number of attributes:

- **Ubiquity:** An effective payment system should include an array of widely accepted instruments that are available to its users, regardless of geography, transaction channel, and time of day. Competition is a key element contributing to ubiquity.
- **Security:** Instruments in the payment system should provide its users with a high degree of security in order to establish trust. Any weakness in security increases risks such as fraud and will undermine the instrument and/or the system. (e.g., counterfeit currency, credit card skimming).
- **Robustness:** The payment system should be able to endure natural disasters, operational and economic shocks, and maintain unfailing availability to support commerce.
- **Accessibility:** The payment system should be open to all consumers (e.g., young, old, rich, poor, urban, rural).

- **Convenience:** The payment system should consist of tools that the majority of participants find convenient to use.
- **Flexibility:** Users should ideally have more than one payment option, with different features and price points, for use in each situation to be able to accommodate their specific needs.
- **Responsiveness:** An effective payment system should be responsive to the evolving needs of commerce and be able to offer new solutions to accommodate changing needs in a reasonable timeframe, without the need for external intervention.
- **Global integration:** The payment system needs to be able to accommodate the needs that arise from increasing international travel and global trade.

42. With its diverse payment options, the Canadian payment system can be considered effective in light of the following statements:

- **The Canadian payment system is ubiquitous** as nearly all retail payment tools are available and accepted in large or small population centres across the country. Several payment instruments compete to provide a proven range of options, allowing market participants to offer payment instruments with unique value propositions.
- **The payment system in Canada is fairly secure.** Canadians have trust in the payment system, as evidenced by the extent of its use on a daily basis. To a large extent, their trust is the result of efforts by the banks and other service providers in the system. These market participants are motivated by the need to limit fraud losses that they will ultimately have to bear, and by regulatory bodies who are tasked with the safety and soundness of the payment system. Chip & PIN credit/debit cards, enhanced cheque security features, and polymer banknotes are examples of recent new technologies that have been employed to maintain a high level of security in the system.

- **The Canadian payment system is robust** as a result of features such as: 1) the number of payment alternatives that prevent a single payment method's failure from undermining the whole system, 2) integrity of the different payment instruments that results from efforts by the service providers (who generally suffer from financial and reputational consequences in the event of outages) and regulators (who are concerned with the security and soundness of the system).

- **The system is fairly accessible to the vast majority of Canadians.** Payment instruments within the Canadian payment system are designed to be accessible to as many people as possible and with high volume turnover in mind. Nonetheless, although the primary focus of the system is to serve the majority of Canadians, significant efforts are made to ensure that minority segments do not "fall between the cracks". Examples of such efforts include: introduction of basic banking regulations to ensure that banks accommodate individuals in less fortunate economic circumstances, accessibility features to accommodate the disabled, and service in both official languages, as well as foreign languages, where demographics make it feasible.

- **The payment instruments available to Canadians are convenient.** Favourable user experience is a key consideration in designing any user-facing aspect of the payment system and the providers' motivation to offer convenience extends to both sides of the transaction (i.e., buyer and seller). The Canadian financial services industry has made significant efforts to improve customer experience. Examples of efforts to improve convenience include:

    i. Focus on usability and convenience resulting in the adoption of new technologies that speed up transaction and checkout time (e.g., MasterCard PayPass, Visa Wave, Interac Flash).

    ii. Rules that remove customer uncertainly regarding whether their card will be accepted or not by the merchant.

    iii. 24/7 merchant support that provides the merchant with backup options and assistance in cases of equipment failure.

iv. Streamlined processes for deposits of payments and enhanced technology for payment handling to speed up the merchant's sale to cash cycle.

- **The Canadian payment system offers a large degree of flexibility.** In nearly all retail payment situations, customers have a number of instruments at their disposal. For example:

  i. When paying a utility bill, customers can pay by presenting cash (at a branch or post office), mailing a cheque, using their debit card at a branch or ABM, using a credit card (online, telephone banking, or setting up a pre-authorised debt), or via AFT (online banking or preauthorised debit)

  ii. When purchasing goods at a retailer, customers can generally pay by cash, debit card, credit card, prepaid card, and in some cases, cheque.

  iii. When paying for a service, such as a contractor or day-care, customers can generally pay by cash, cheque or credit card.

- **The system is reasonably responsive to Canadians' needs.** The Canadian financial services industry has been fairly responsive to the emerging trends in commerce and has brought new innovations to market when a need has emerged. Examples of these innovations include: new security features (e.g., chip & PIN cards in which Canada is one of the leading deployments), new ways to use products (e.g., Interac Online, Interac e-Transfer, online bill payments), improved convenience features (e.g., contactless cards), and emerging products such as mobile wallets.

The pace of innovation in the Canadian payment system has been faster for some instruments than for others. The primary drivers of innovation are consumer demand and the potential for achieving a target rate of return on investment. Since the introduction of new payment technologies is a capital intensive undertaking, participants focus discretionary investments on areas with the most potential for attractive return.

Profitable growth in the credit card business has spurred ecosystem participants to innovate faster than what has been seen for other traditional instruments such as cheques.

Comparison of Canadian Payment System with other Jurisdictions

43. Although similar in many respects, the Canadian payment system has distinct features that differentiate it from other developed jurisdictions such as Australia, the US, the UK and the Eurozone:

- In Canada, the debit card market is dominated by Interac, with card networks such as Visa and MasterCard having no significant market share. In the US and UK, debit cards are only issued on the Visa and MasterCard networks. Australia has an alternative to the Visa and MasterCard debit offering operated under the EFTPOS brand[32], however Visa and MasterCard have sizable market share[33]. Similarly, in the Eurozone, Visa and MasterCard are generally considered to be major players in the debit market.

- In the US, cheques are a commonly accepted method of payment at the retail store level and nearly all retail stores accept personal cheques at the cashier. In the last few years, they have implemented the Check 21[34] image-based clearing system to streamline cheque processing through digitization (i.e., cheque digitization technology at the cash register which enables the retailer to immediately scan and use image based clearing to complete the transaction). In contrast, Canadian retailers saw widespread adoption of credit and debit cards, virtually eliminating cheques at the cash register.

- A 2011 survey by The Strategic Counsel found that 64% of Canadians pay their balance off in full every month (in the United States only half of American households do)[35]. Thus, more Canadians use credit card for convenience and short term free credit than US consumers.

32 EFTPOS is owned and operated by a consortium of Australian banks and retailers
33 Reserve Bank of Australia website – Payments System Statistical Tables: "Debit Card Statistics – C5"
34 Refers to the "Check Clearing for the 21st Century Act" – Public Law108-100, October 28, 2003
35 Credit Cards: Statistics and Facts, according to the CBA website.

- Canada is the only jurisdiction where credit card ecosystem participants have adopted a voluntary code of conduct (see previous discussion about the "Voluntary Code) to improve transparency and business practices for credit card operations.

Scenario A: Merchants Surcharge Credit Card Usage

44. This scenario analyzes the effects on the Canadian payment system, based on the assumption, that if the requested Order is issued, merchants will engage in widespread surcharging of credit card transactions. I express no opinion on this assumption.

45. The No Surcharge Rule (NSR) currently prevents merchants from imposing fees on customers for credit card usage. As noted previously, the Voluntary Code does allow merchants to offer discounts to encourage customers to use other instruments such as debit or cash when completing retail transactions.

A1. Merchants' Motivations

46. Absent the NSR, merchants have an incentive to surcharge if they believe it will generate additional revenues, offset certain costs, or even avoid them altogether (i.e., encourage the choice of a payment method that is cheaper for them).

47. If, as I have been asked to assume, surcharging occurs, then dominant merchants are more likely to embrace surcharges as they have market power and customers may have no option but to absorb the surcharge[36]. For example, where the Liquor Control Board of Ontario imposes a surcharge, the risks it faces of lost sales are minimal as consumers have limited alternatives.

48. However, the speed with which merchants surcharge will depend on several factors:

[36] Optimal card payment systems, Wright, *European Economic Review* 47 (2003), p. 587-612

- **Image/branding**: Merchants with significant brand image are less likely to be early movers when introducing surcharging due to the risk of upsetting the consumer[37].
- **Frequency of sales**: Merchants with infrequent transactions are more likely to embrace surcharges as the risks of losing a future sale or stream of sales are reduced. An example would be a convenience store on a remote part of a major highway where the possibility of card-holders returning is low.
- **Volume of sales**: Merchants who have concerns around delays at checkout that might arise after the introduction of surcharging may be slower to embrace the practice[38].
- **Value of sales**: Merchants with high value sales are likely to derive higher benefits from not surcharging cards owing to a higher convenience of card acceptance and greater push-back from reward seeking customers on high value goods[39]. An expensive clothing store may choose not to surcharge to encourage customer spending and to cater to the client's perceived benefits of rewards.
- **Online transactions**: When surcharges are presented well into a lengthy transaction, consumers are more likely to absorb the surcharge rather than re-start the transaction process - such as online transactions[40].
- **Implementation costs**: If the costs of implementing are significant, merchants may be slower to adopt the practice.

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[37] Assuming larger businesses are more concerned about branding, this is supported by:
Arango, C & Taylor, V (August 2008)"Merchant Acceptance, Costs, and Perceptions of Retail Payments: A Canadian Survey" *Bank of Canada Discussion Paper 2008-12*
And Bolt, W *et all* (December 2008) "Incentives at the counter: An empirical analysis of surcharging card payments and payment behavior in the Netherlands" *DNB Working Paper* No.196

[38] Arango, C & Taylor, V (August 2008)"Merchant Acceptance, Costs, and Perceptions of Retail Payments: A Canadian Survey" *Bank of Canada Discussion Paper 2008-12*

[39] Bolt, W *et all* (December 2008) "Incentives at the counter: An empirical analysis of surcharging card payments and payment behavior in the Netherlands" *DNB Working Paper* No.196
and
Arango, C & Taylor, V (August 2008)"Merchant Acceptance, Costs, and Perceptions of Retail Payments: A Canadian Survey" *Bank of Canada Discussion Paper 2008-12*

[40] Payment Surcharges: Response to the Which? super-complaint, United Kingdom Office of Fair Trading, June 2011

49. As consumers become resigned to surcharging, a reduction in perceived risks will presumably lead to more widespread surcharging.

50. A merchant who has decided to surcharge is faced with two questions: *which cards to surcharge* and *how much to surcharge.*

51. In answering these questions, the merchant balances several considerations including:

- The potential for losing the sale and/or any future sale;
- Any perceived reputational risks to the merchant;
- The ability and willingness of a customer to switch to an alternate payment instrument;
- The availability of information to decide at checkout which cards to surcharge, what rate to apply, and when to waive a charge, and
- Operational considerations such as impacts on checkout queues and need for resources to manage alternative payment instruments such as cash and cheques.

Which Cards to Surcharge?

52. Merchants who decide to surcharge could do so for all cards, all cards of a certain brand, or be selective based on product type (i.e., classic or premium). In making the determination, merchants would consider a variety of factors such as card characteristics and the identity of the card issuer.

53. Given the wide range of credit card products in the Canadian marketplace and potential costs in identifying cards for selective surcharging, it is more likely that merchants will find it easier to surcharge all cards.

54. However, in some instances, merchants may choose to be selective, especially if the opportunity exists to target specific cards with higher interchange rates or where an opportunity exists to use surcharging as a competitive tactic by targeting cards issued by selected issuers or competitors.

How much to Surcharge?

55. In deciding how to surcharge, the merchant would be faced with two general options: passing through underlying costs or using a blended rate.

Pass-through of underlying costs

56. Under this method, the merchant will pass on to the customer the costs associated with a credit card transaction.

57. This method can be considered a "pure" form of surcharging where the merchant charges the incremental cost of accepting a certain credit card and provides a clear signal to the consumer about the costs associated with the selection of a given credit card.

58. When implementing this method, however, the merchant faces a significant administrative challenge. The merchant's card acceptance fee is often multi-dimensional and dependent on (i) type of card (e.g., classic, premium, business), (ii) type of merchant (e.g., gas retailer), (iii) type of transaction (e.g., online, offline, with PIN, paper) and (iv) overall volume levels.

59. A merchant intent on passing on actual costs to the consumer will have to rely on acquirers to source and apply transaction level pricing. Today, credit card transactions are priced with a lag (i.e., merchant costs are determined and billed one to three months after a

transaction has occurred). The technical challenge of delivering a real time pricing engine - one that takes into account the multi-dimensional considerations documented in the paragraph above - is challenging enough. The reality is any such initiative will require large investments – costs that will eventually be borne by merchants as higher service fees.

Using a blended rate

60. Under this method, the merchant adopts the simpler approach of a uniform or flat rate on all cards, considering the different characteristics referred to above (i.e., type of card, type of merchant, type of transaction, overall volume levels).

61. The primary impact of this method is that, since the same surcharge is levied on all credit card types, it does not provide a clear signal to consumers about switching to alternative, lower-cost credit cards. On the contrary, a blended rate may have the effect of discouraging, as a whole, the use of credit cards as a payment instrument.

62. Given the relative ease of adopting the blended rate method and the complexity of the pass through method, it is highly likely that merchants will use a blended rate surcharge method.

63. It is also likely that, under certain circumstances, blended surcharging will be excessive (i.e., above card acceptance fees) and will evolve into a profit centre for some merchants. Those circumstances include:

- Merchants that have market power;
- Where there are no entrenched alternative payment instruments (e.g., on-line commerce in Canada where PayPal and credit cards dominate); or

- Where business practices require the use of a credit card (e.g., air, car or hotel reservations).

Selective Surcharging as a Competitive Tactic

64. As mentioned in a prior sub-section, one possible variation of the surcharging scenario could see selective surcharging used as a competitive tactic to improve market position.

65. Where selective surcharging occurs, the merchants who surcharge cards of certain issuers would likely be merchants with dominant market power and with credit card issuing interests of their own. In these cases, the primary motivation would be to steer more volume toward their own branded card or towards an issuer they prefer.

66. A number of larger merchants in Canada have credit card interests, which range from being issuers themselves (e.g., Wal-Mart, Canadian Tire, Loblaws) or participating in "white labelling" or co-branding arrangements with other issuers (e.g., Sobey's, Famous Players). Given the composition of the Canadian issuer market, a retailer-issuer who adopts a selective surcharging approach will probably target smaller retailer-issuers, as well as smaller non-retailer issuers, rather than targeting the larger issuers who could compete more effectively.

67. Another risk in this scenario is the intervention by larger issuers, who could use their influence to create and promote selective merchant surcharging to protect their interests.

68. Since issuers in Canada have business relationships with acquirers, they could seek ways to influence the merchant's decision regarding the cards they accept and the amount of surcharges they choose to impose, through the adoption of card acceptance pricing

structures that favour their respective cards. Another option for issuers to influence the market would be to bypass the acquirers and create direct merchant incentive programs.

A2. Credit Card Ecosystem Impacts

Consumers

69. If merchants surcharge, then consumers will be the first party to be affected. When faced with a surcharge, consumers would (after some outcry and condemnation) react in a number of possible ways:

- Consumers might continue to use credit cards because they value the rewards and advantages offered by credit cards, but might also seek out merchants who have chosen not to surcharge.
- If they can, consumers will switch to other payment instruments such as cash, debit, or cheque. Obviously, this would require those consumers to carry sufficient amounts of cash or leave sufficient cash balance in their bank account.
- Where merchants surcharge selective cards, consumers will try and switch to cards that do not attract surcharges, or will migrate to merchants who do not surcharge.
- Yet others will be forced to accept the surcharge because they:

    i. Live paycheque-to-paycheque and utilize credit cards in-between to smooth out cash flow;

    ii. Need to buy an essential service where all merchants in a category have decided to surcharge (e.g., gas stations);

    iii. Do not have the benefit of retail competition (e.g. remote/rural locations);

    iv. Are making the purchase on a channel that inherently limits payment options (e.g., online, telephone sales, taxi ride); or

    v. Have no choice because the transaction size exceeds the limits imposed by other payment methods (e.g. Interac).

70. Regardless of the surcharge method, customers that continue to use credit cards would experience a decline in purchasing power, as they would have to bear an additional cost not previously charged to them. As a result, there would be a transfer of wealth from Canadian consumers to merchants.

Issuers, Acquirers and Credit Card Companies

71. If surcharging occurs and assuming a material reduction in credit card transaction volumes, service providers in the credit card value chain will suffer reduction in revenues.

72. Possible reactions by issuers and acquirers will be to: (i) increase fees charged to cardholders (by issuers) and to merchants (by acquirers) while maintaining the service level, or (ii) reduce the nature or quality of services without reducing prices, or (iii) adopt a combination of price increases and service modifications.

73. In my view, it does not follow that surcharging will necessarily cause interchange rates to decrease. As it is likely that merchants will surcharge using a blended rate, credit card companies will have a reduced incentive to lower interchange rates, particularly because some of the reduction in transaction volumes is irreplaceable. Credit card companies will need to maintain attractive interchange rates to sustain Issuer interest for their card brands. As has been seen in Australia, with interchange rates being capped on VISA and Mastercard, banks commenced issuing Amex brand cards where the rate cap did not apply.

74. As described later in this report (see the sub-section "Corroboration of Our Analysis with the Experience in Other Jurisdictions") in other jurisdictions that have allowed surcharging, certain merchant segments used surcharging as a revenue generation tool. Moreover, instances of excess surcharging have also been observed in those jurisdictions

(i.e. the use of surcharge rates that exceed merchant card acceptance costs) both of which reduce the effectiveness of lowering interchange rates as a mechanism to stimulate transaction volume.

75. As acquirer pricing is based on volume of card transactions, any reduction in processing volumes could result in acquirers increasing other aspects of merchant discount fees, as well as adjusting fees for value added services offered to merchants. This is especially true for acquirers who bundle services and offer favourable pricing for merchants.

76. Issuers facing a reduction in interchange revenues, loss of subscribers and lower transaction volumes will seek to offset lost revenue by adjusting prices on credit card services (e.g., annual fees, interest rates, or other service charges), reducing benefits and rewards offered to customers, lowering service levels or a combination of all three.

A3. Canadian Payment System Impacts

77. Previously in this report several characteristics that contribute to the effectiveness of the Canadian payment system were presented, including: Ubiquity, Security, Robustness, Accessibility, Convenience, Flexibility, Responsiveness, and Global Integration.

78. The following paragraphs identify likely impacts on some of these characteristics that will arise with the removal of NSR.

Ubiquity

79. As described earlier, a key aspect of ubiquity is the existence of a competitive landscape where different payment instruments and market participants compete for market share as they offer unique value proposition to stakeholders.

80. Although a reduction in volume will impact all issuers and acquirers, smaller issuers and smaller acquirers would be impacted disproportionately because the credit card business is a scale business. With a material reduction in volumes or values, smaller issuers such as credit unions and niche acquirers would be priced out of the market, resulting in consolidation and further concentration in the issuer and acquirer market space.

81. The credit card market in Canada is not insulated and any new entrant, subject to satisfying regulatory requirements, can enter and compete for market share. An example is the recent announcement by Rogers Communications, a wireless services provider, seeking to establish a bank specializing in retail credit card services[41]. If the removal of the Rules impacts volumes and prices, the incentive for new entrants would be greatly reduced, resulting in a reduction in competition. Lower barriers to entry to the credit card market are important to maintain competition in the financial system as whole, as credit cards are often used by new entrants to establish market presence, prior to introducing other financial products. For instance, it is conceivable that the fortunes of the future Rogers Bank are closely tied to its success in establishing a profitable card business.

82. Any reduction of the general profitability in the market will be a deterrent to new entrants, enhancing the position of larger issuers and acquirers. This reduction of competition is significant because it reduces the incentive for the remaining issuers to offer customer incentives in a bid to attract market share.

83. A consolidation in the acquirer market is likely if smaller acquirers, unable to process reduced volumes in a cost effective manner, exit the market. A reduced number of

[41] Canada Gazette – Rogers Bank notice of application, Sept 3, 2011

acquirers will also reduce the pressure to compete on merchant acceptance fees. The significance of reduced competition extends beyond the credit card market as debit cards are also served by the same acquirers. As stated on the Interac web-site, acquirers (who are Interac Association members providing the merchant with the payment terminal) in association with the merchant, are allowed to impose a customer surcharge for the use of the Interac service. As revenue on credit card transactions is negatively affected, some acquirers will likely partner with merchants to extend surcharging practices to debit payments as an additional revenue tool.

84. Selective surcharging can impact the level playing field that exists today for issuers and acquirers. For instance:

- Large issuers, merchants who issue co-branded credit cards (e.g., Wal-Mart, Canadian Tire, Loblaws), and acquirers will seek to protect market share by influencing cards acceptance choices.
- Smaller issuers, acquirers and small-medium merchants will be disadvantaged as they are left out of these exclusive arrangements.
- Lower uptake of premium cards will have the unintended consequence of benefiting charge cards (e.g., American Express) and new entrants such as PayPal.

85. As surcharging practices take hold in Canada, the result would be a reduction in the number of issuers and acquirers, weakening competition. Such a reduced competitive environment is less conducive to product innovation.

86. Since smaller merchants have limited negotiating power, NSR removal might achieve a further transfer of negotiating leverage to larger retailers, who by the virtue of size, are able to negotiate better deals and influence interchange fees for their merchant category. Over

time, it is likely that smaller retailers would face increasing gaps between their card acceptance fees and those of the larger retailers - making it even harder to compete with larger retailers.

Responsiveness

87. Earlier in this report, responsiveness was defined as the payment system's ability to support the evolving needs of commerce by bringing new solutions to accommodate such emerging needs. In a market economy, these demands are fulfilled by the innovations of the payment system participants.

88. A shift in consumers' payment instrument choice, from credit cards to other payment forms, could have negative consequences for the system such as continued reliance on outdated technology (such as cheque processing) due to weaker incentives to innovate.

89. Any declines in credit card volumes would lead to a decrease in revenues for issuers and credit card companies, who have traditionally been at the forefront of payments innovation. Any resulting impact on profitability could undermine the historical pace of innovation observed in the Canadian payment system.

90. An example that illustrates our point is the announcement by the US based ISIS consortium[42] of their intention to curtail mobile banking innovation following the introduction of the so called "Durbin Amendment" in the US (see discussion on the Durbin Amendment later in this statement). ISIS is a joint venture between ATT, Verizon and T-Mobile and began with a focus of developing a product that would allow consumers to transact at retail locations using a mobile phone. The group's initial business plan was to

[42] Payments Innovation and Interchange Fees Regulation: How Inverting the Merchant-Pays Business Model Would Affect the Extent and Direction of Innovation, Evans, D, June 2011

offer merchants lower card acceptance fees by leveraging Discover's PULSE network using a debit card-like product. In May of 2011, ISIS announced it would not pursue the creation of this new network and would rather focus on building a mobile wallet that leverages existing card networks. ISIS spokesperson, Jaymee Johnson, stated that "ISIS was forced to re-evaluate its strategy after financial reform legislation made it more difficult for companies like itself to make money off payment networks". Johnson went on say that merchants were interested in the ISIS mobile network initially because it could deliver a mobile payments experience at a lower fee, but since the Durbin Amendment was likely to significantly reduce the fees associated with accepting cards, there was no future to the business model and the business the way it was initially conceived. In summary, the rate cap introduced by the Durbin Amendment resulted in a new entrant abandoning an innovative idea of introducing a new payment option that would have competed against established players in the US payment system landscape.

91. If surcharging in Canada causes a shift to cheque payments in a manner that slows, or even reverses, the declining trend in cheque volume, it would slow Canada's move towards a digital economy. As has been highlighted in the recent report of the Task Force, Canada will be left behind if we rely largely on old-fashioned methods of payments such as paper-based processing, and cash and cheques. As found by the Task Force[43], "unless Canada develops a modern digital payments system, Canadians will be unable to fully engage in the digital economy of the 21st century, leading to a lower standard of living across the country and a loss in international competitiveness."

[43] Task Force for the Payments System review, Moving Canada into the Digital Age, December 2011.

Convenience

92. As indicated previously, when assessing the effectiveness of the Canadian payment system, convenience is an important aspect of a vibrant payment system.

93. A major irritant for the consumer will be added time and effort required to search for merchants who have chosen not to surcharge.

94. Consumers who shop at merchants that surcharge will likely endure longer wait times at checkout caused by the increased handling time associated with customers deliberating on which card to use, and deciding on which alternative payment instrument to use – whether debit, cash, or cheques.

95. Merchants will also face unintended consequence from external intervention that seeks to influence interchange rates such as the following:

- Consumer spending, the largest component of Canadian gross domestic product, has been shown to increase with credit card use[44]. Indeed, the Bank of Canada recently found that tightening consumer credit conditions over the financial crisis was associated with a "sharp drop-off" in consumer spending in the US, leading to the conclusion that central banks will loosen credit conditions to stimulate domestic demand[45].

- Merchants will face increased operating costs if cash and cheque volumes increase, as do banking fees.

[44] Credit Cards as Spending Facilitating Stimuli: A Conditioning Interpretation, Feinber, *Journal of Consumer Research*, 13(3), 1986, p348-356 and Monopoly Money: The Effect of Payment Coupling and Form on Spending Behavior, Raghubir and Srivastava, Journal of Experimental Psychology: Applied, 2008, Vol. 14, No. 3, 212-225
[45] Credit Constraints and Consumer Spending, Beaton, Bank of Canada Working Paper 2009-25

Flexibility

96. Users should ideally have more than one payment option, with different features and price points, for use in each situation to be able to accommodate their specific needs. It is recognized that the need for flexibility needs to be balanced with broader economic goals such as maintaining traceability and facilitating tax collection.

97. If surcharging results in a material increase in cash transactions, it could increase concerns around the potential to promote the underground economy. A shift to cheques will likely have a similar effect - although cheques are easier to trace than cash, they could still be used for fraud or tax evasion[46] purposes.

A4. Corroboration of Our Analysis with the Experience in Other Jurisdictions

98. The removal of the NSR is not without precedent - Australia, Netherlands, Sweden and the United Kingdom are examples of jurisdictions that have removed the NSR.

99. The ensuing paragraphs provide observations on the experience in some of those countries that lends support to the conclusions expressed in this report such as:

- If surcharging occurs, then the inclination of merchants will be to use blended rate surcharging;
- The phenomenon of excessive surcharging;
- The increased disadvantages faced by small and medium sized businesses;
- The competitive advantage obtained by card brands not covered by the legislation;

[46] Cheques could be diverted to personal accounts or cashed at the teller.

- No evidence of benefits to the end consumer; and
- Negative impact on innovation.

100. In Australia, the removal of the rule was imposed on the Visa credit card network starting in January 2003[47], with all other networks voluntarily following suit. Similarly, in the UK, merchants have been allowed to surcharge since 1990[48]. In the case of Australia, the stated motivation for the removal of the rule was to enable merchants to send pricing signals to customers reflecting the different costs associated with the payment method of choice.

101. Summary of main observations in Australia regarding the removal of the rule and the introduction of an interchange rate cap regulation:

- According to the Reserve Bank of Australia ("RBA"), the removal of the rule has produced mixed results and RBA has acknowledged unintended negative consequences[49]. Merchants surcharged even though interchange rate caps significantly lowered card acceptance rates for merchants.
- According to the RBA, the main complaints that have emerged regarding the merchant's surcharging practices were their use of a blended rate method and the fact that surcharges were excessive. RBA has since issued consultation papers in an attempt to find ways to address these issues.
- As the practice of surcharging grew[50], some merchants have used surcharging as a means to extract additional profit, as opposed to the original intent of fostering competition. A study prepared for the RBA found that average surcharges imposed by merchants have been increasing substantially in recent years and that, by December 2010, average surcharges imposed by merchants on customers were 1 percentage

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[47] Review of Card Surcharging: A Consultation Document, Reserve Bank of Australia, June 2011, p. 2
[48] The Credit Cards (Price Discrimination) Order 1990-2159, UK National Archives
[49] Review of Card Surcharging: A Consultation Document, Reserve Bank of Australia, June 2011
[50] Regulatory Developments in Retail Payments, Reserve Bank of Australia, 2011

point higher than merchant acceptance fees. In addition, a material number of merchants were found to be surcharging customers 5% or more, equating to five times of average card acceptance costs[51].

- The RBA added that the concerns about the blended surcharging practice were focused on its impact on pricing signals and competition. In the RBA's assessment, credit cards can attract a variety of merchant acceptance fees. Within each payment network (e.g., Visa, MasterCard, American Express) there are different categories of cards (e.g., classic, premium, corporate) that result in differing levels merchant acceptance fees. Competition among credit card companies can result in different pricing structures, and most card acceptance fee pricing structures differ among retailers, by industry and size. Once a blended surcharge rate takes hold, these cost variations become masked and the impetus for competition among the issuers, acquirers, and credit card companies is removed.

- There is evidence that since the repeal of NSR, small and medium sized businesses in Australia have faced an increasing cost disadvantage against larger retailers in the form of relatively higher card acceptance fees[52].

- In light of these unintended outcomes, Australia's Payment System Board (the "Board") has begun a public consultation process as the first step towards considering additional regulatory intervention. The most significant finding was "surcharging is sufficiently common, and excessive surcharging is sufficiently widespread, that the unconstrained capacity for merchant surcharging is no longer appropriate". [53]

- RBA data presents directional evidence that the relative market share of unregulated card schemes (e.g., American Express and Diners Club) improved since the introduction of regulation. Between 2002 and 2011, the number of cards issued by Visa, MasterCard and Bankcard registered a decline of approximately 6%. During the

[51] Review of Card Surcharging: A Consultation Document, Reserve Bank of Australia, June 2011
[52] East & Partners (2010) "Australian Merchant Acquiring and Cards Markets: Special Question Placement Report" *prepared for the Reserve Bank of Australia*. As referenced in Reserve Bank of Australia (June 2011) "Review of Card Surcharging: A Consultation Document"
[53] A Variation to the Surcharging Standards: A Consultation Document, Reserve Bank of Australia, December 2011

same time, the number and value of American Express and Diners Club cards increased 51% and 44%, respectively[54] - which could be attributed to the largest Australian Banks beginning[55] to issue American Express cards.

102. Similar unintended consequences were observed in the United Kingdom. In March of 2011, the UK-based consumer advocacy group "Which?" filed a complaint[56] with the UK Office of Fair Trade regarding surcharging practices for credit and debit transactions. Although, the primary focus of the complaint was surcharges in the travel industry, the complaint did refer to similar practices in other industries. Even government departments introduced surcharges for credit card transactions. The three main features outlined in the complaint included:

- **Incomplete or partial prices:** According to Which?, the merchants studied have regularly employed a "Drip Pricing" tactic where surcharges to the advertised price were hidden during the transaction process and were only revealed after the consumer had already invested a significant amount of time and effort in the transaction and had psychologically committed to the purchase.

- **Lack of reasonably or practicably available alternatives:** In cases, where payment by cash or cheque was not a realistic option, both credit and debit transactions were subject to surcharges. These usually referred to purchases that were conducted online.

- **Surcharges exceeding a reasonable estimate of the acceptance cost:** According to analysis outlined in the complaint, in some cases the surcharge levied exceeded an amount that would be deemed reasonable. According to a survey conducted by Which?, 48% of customers who paid surcharges paid a flat fee

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[54] Reserve Bank of Australia website – Payments System Statistical Tables: "Market Shares of Credit And Charge Card Schemes – C2"
[55] Companion cards shake up Australian card market, January 19, 2012, http://blog.euromonitor.com/2012/01/companion-cards-shake-up-australian-card-market.html
[56] Super-complaint: credit and debit surcharges, Which?, March 2011

surcharge. Similarly, their analysis of the main travel companies in the UK demonstrated a wide range of surcharging structures and yielded numerous examples of flat fee surcharge structures. Overall, Which? estimated that the surcharge fees levied in the transportation sector alone amounts to £300 million each year.

103. In its response, the UK Office of Fair Trading[57] outlined an analysis that echoed the main themes of Which?'s complaints, and has announced that it will move to curb surcharges levied on British consumers[58].

104. In the Eurozone, the European Commission considered the removal of both NSR and HACR from the Visa network and finally ruled in favour of retaining both provisions[59]. In its ruling, the Commission cited studies of the impacts of the removal of such provisions in Sweden and the Netherlands[60] and concluded that the findings did not support the Commission's initial position regarding the beneficial impacts of the removal of these rules on competition, resulting in a subsequent change in the European Commission's view on the matter. It should be noted that the no-surcharge rule[61] in the European Union is more restrictive compared to its Canadian version, as it does not allow discounting for other payment forms.

105. Surcharging has been on the regulatory radar in the United States but was not implemented.

[57] Payment surcharges, Response to Which? Super-complaint, UK Office of Fair Trade, June 2011
[58] UK plans to ban excessive credit card surcharges, Reuters, December 23, 2011
[59] Commission clears certain provisions of the Visa international payment card system, European Union Press Release, August 10, 2001
[60] The abolition of the no-discrimination rule, Vis and Toth, March 2000
[61] In Europe, the no-surcharge rule is commonly referred to as the "no-discrimination" rule because it does not allow merchants to discriminate between different types of payment.

106. It is important to highlight that 10 states[62] in the US representing well over 50% of the total US population including New York and California have laws that ban the application of surcharges in any circumstances.

[62] VISA website, http://usa.visa.com/personal/uing_visa/checkout_fees/index.html, 10 US States that protect consumers with No Surcharge Laws are California, Colorado, Connecticut, Florida, Kansas, Maine, Massachusetts, New York, Oklahoma, Texas

Scenario B: Merchants are Selective in Card Acceptance

107. As previously stated, this scenario is based on the assumption that as a result of the Requested Order being issued, merchants choose to selectively honour some credit cards and not others. I express no opinion on this assumption.

108. Honour All Cards Rule (HACR) requires merchants that accept one credit card of a credit card payment network (e.g., Visa) to accept all credit cards from issuers belonging to that same network, irrespective of the individual characteristics of the card or the identity of the card-issuer.

109. In Canada, all major card brands including Visa, MasterCard, and American Express apply the HACR to their participating merchants. Such policy levels the playing field among all issuers, as no issuer is able to influence merchants in a manner that would give them a competitive edge in selling to customers based on merchant footprint. It also provides consumers with the comfort that, where their network's cards are generally accepted, their own specific card will be accepted, regardless of its characteristics.

B1. Merchants' Motivations

110. Today, Visa and MasterCard interchange rates differ by type of credit card[63] and benefits of card acceptance may vary across Canadian merchants[64]. As HACR is removed, merchants will begin accepting cards where benefits outweigh associated costs.

[63] http://www.visa.ca/en/aboutcan/mediacentre/interchange/pdf/visa-interchange-rates-current.pdf
http://www.visa.ca/en/aboutcan/mediacentre/interchange/pdf/interchange-summary-communication-en.pdf
http://www.mastercard.com/ca/wce/PDF/MasterCard_Interchange_Rate_Overview.pdf
http://www.mastercard.com/ca/wce/PDF/MasterCard_Canada_Interchange_Categories_by_Financial_Institution.pdf

[64] Merchant Acceptance, Costs, and Perceptions of Retail Payments: A Canadian Survey, Arango, & Taylor, *Bank of Canada Discussion Paper 2008-12*

111. Similar to surcharging, merchants with market power can more effectively adopt and sustain selective card acceptance practices as the risk of losing a sale is lower. As consumers become conditioned to selective card acceptance, risks diminish increasing the prevalence of the practice.

112. Similar to what has been described in the Merchant Surcharging sub-section, merchants inclination to implement selective card acceptance will be affected by the following factors:

- Market power;
- Image/branding considerations;
- Frequency of sales
- Volume and Value of sales; and
- Implementation costs

Criteria for Selective Card Acceptance

113. As merchants implement selective credit card acceptance, their decision to accept a card will be based on a number of factors such as:

- Which financial institution has issued the card?
- Whether the card is co-branded by the merchant or its competitor?
- Whether the card is a personal card or business card?
- Characteristics of the card (e.g., classic, gold, premium, infinite).

B2. Credit Card Ecosystem Impacts

114. Under a selective card acceptance scenario a cardholder will have no idea if his/her credit card is accepted by a certain merchant, even if it had been accepted on prior occasions. As a result, cardholders will have to expend time and energy in advance of a shopping experience to determine if their intended merchant will accept their card. The alternative is to face a decision at the time of purchase, if their choice of credit card is not accepted, as to whether to:

- Use an alternate credit card;
- Use an alternative payment instrument, such as cash or debit;
- Search for another merchant who provides similar goods or services and is willing to accept the cardholder's choice of credit card; or
- Continue purchasing goods or services at the selected merchant.

115. In the longer term, consumers will be forced to change their payment preferences, as they might have to subscribe to credit cards preferred by certain merchants or even be influenced into choosing a merchant's co-branded credit card, if the consumer repeatedly purchases goods and services from a particular merchant.

B3. Canadian Payment System Impacts

116. Similar to the removal of the NSR, revoking the HACR will have impacts on the credit card industry, as well as the larger payment system. Selective acceptance targeted at premium cards (cards with higher interchange rates) will result in a reduction of revenue for acquirers, issuers and credit card companies.

117. Similar to selective surcharging, the use of selective acceptance as a competitive tactic could have significant impacts on issuers and result in further consolidation in favour of the larger issuers.

118. Finally, as noted previously, Visa's and MasterCard's premium cards compete directly with American Express' card offerings. Any changes to the merchant Rules that adversely affect Visa's and MasterCard's premium cards without affecting American Express, may provide an unintended competitive advantage to American Express in this industry segment.

Responsiveness

119. The impact of revoking HACR on the payment system's responsiveness is similar to the removal of the NSR. If selective acceptance results in an overall reduction in revenue or profitability, the market participants will have less incentive to innovate.

120. The HACR guarantees that any issuer's card will be accepted at any merchant that accepts that brand of card (e.g., Visa, MasterCard, or American Express). This certainty allows the issuers to focus on attracting consumers rather than spending time and money on ensuring a sufficient merchant footprint. This has been essential in facilitating consumer-focused competition among issuers, which has led to an expanded product offering designed to meet the needs of various customer segments. Without HACR, issuers will need to divert their attention and resources to ensuring that merchants accept their cards rather than focusing on product innovation.

Convenience

121. As selective acceptance becomes common, consumer convenience will decline due to potential increases in checkout times as merchants enforce selective acceptance.

Furthermore, consumers will have no certainty regarding the acceptance of their card at a merchant, even though the merchant will have a Visa or MasterCard sign posted. In addition to uncertainty, this will likely result in the need for the consumer to research the acceptance of their card prior to purchase, further reducing consumer convenience.

Global Integration

122. Global integration is an aspect of the payment system that is impacted under this scenario. Credit cards have evolved into a convenient, secure and reliable payment instrument for travellers, both from within and outside Canada. .

123. Although a traveller typically has various options at their disposal including cash, travellers' cheques, credit cards, and in some cases debit cards, for many essential services such as airfare, hotels, guided tours, and car rentals, credit cards have become the de-facto payment standard.

124. The removal of HACR means travellers lose a key payment option if merchants do not accept their cards. Therefore, removal of the HACR could endanger the universal acceptance of international credit cards, which would likely have an overall negative effect on trade and tourism.

B4. Corroboration of Our Analysis with the Experience in Other Jurisdictions

125. To the best of our knowledge, no jurisdiction has banned HACR for credit cards. Where HACR was introduced, it was driven by the desire to split acceptance rules regarding debit and credit cards issued by the same credit network. As stated earlier, in Canada, there is a clear separation of debit and credit card networks, and therefore this issue is not as relevant for the Canadian payment system.

126. In 2001, the European Commission, whose role it is to represent the common European interest to all the European Union countries, took a favourable view of the compatibility with the competition rules of certain provisions in the Visa International payment card scheme. This included allowing the continuation of HACR in the Visa scheme.

127. The European Commission recognized the possible detrimental impact of failing to maintain the HACR in their 2001 decision:

"... the honour all cards rule promotes the development of its payment systems since it ensures the universal acceptance of the cards, irrespective of the identity of the issuing bank. The Visa payment system could not properly function if a merchant or an acquiring bank were able to refuse, for example, cards issued by a bank established abroad (or, for that matter cards issued by other domestic banks). The development of a payment system depends on issuers being able to be sure that their cards will be accepted by merchants contracted to other acquirers. Without such assurance, a brand or logo on a payment card loses most of its meaning and utility, especially where an international card is concerned, and cards are often relied upon by travellers for foreign payments..."[65]

128. In 2008, the European Union decided to re-open the issue stating that the exemptions granted to Visa International had expired in 2007 and sought to determine if the rules constituted restrictive business practices. Although the HACR was cited in the proceedings, the focus of the investigation was primarily directed toward interchange rates[66]. In 2010,

[65] Commission decision of 9 August 2001 relating to a proceeding under Article 81 of the EC Treaty and Article 53 of the EEA Agreement (Case No. COMP/29.373 – Visa International)
[66] Antitrust: Commission initiates formal proceedings against Visa Europe Limited, EU Press Release, March 26, 2008

the EU decided to modify the HACR by unbundling the aspect regarding debit and credit transactions on the same network, while leaving the HACR in place within each category[67].

[67] Summary of Commission Decision of 8 December 2010 relating to a proceeding under Article 101 of the Treaty on the Functioning of the European Union and Article 53 of the EEA Agreement (Case COMP/39.398 — VISA MIF)

Conclusions

129. In summary, there are in my opinion significant potential negative implications of removing the Rules, based upon the assumptions that I have been asked to make as previously set out:

- Consumers will face higher costs due to surcharging and higher cost of banking services.
- Price comparison at the retail level would be more difficult for the consumer, making the overall customer experience less positive.
- The use of a blended rate method of surcharging by merchants does not provide transparency of costs for accepting payment by credit cards of various types.
- Transfer of wealth from Canadian consumers to merchants, a portion of which are non-Canadians, would take place.
- The burden of surcharging would be mostly shouldered by less affluent Canadian consumers who rely on credit cards to manage their cash flows.
- Issuers will reduce rewards, incentives and services to consumers if interchange revenues decline.
- Convenience, flexibility and global integration of the payment system for consumers will be negatively affected because there would be no guarantee that a given credit card of choice would be honoured.
- If consumers' use of credit cards declines, it would lead to a reduction in the pace of consumer spending, the largest component of Canadian gross domestic product.
- Competition in the issuer and acquirer markets would be negatively impacted as the sector becomes less attractive and barriers to entry increases.

- American Express could obtain a competitive advantage over Visa and MasterCard as the removal of the Rules could weaken Visa's and MasterCard's premium products.
- The pace of innovation in the Canadian payment system would slow down, thus impacting the responsiveness of the payment system.
- Should there be a non-trivial shift to cash and cheques as a payment instrument, existing concerns around the underground economy will grow.
- Should credit card volumes decline substantially due to a shift to other payment instruments such as debit, cash, and cheques, there will be negative impacts on innovation, convenience, and economic growth.
- A resultant renewed reliance on old-fashioned payment methods such as paper-based processing, and cash and cheques will slow Canada's move to a digital economy impacting standard of living and international competitiveness.

130. The recent measures taken by the Finance Ministry to improve the credit card ecosystem are positive first steps. In time, the ability of these measures to address the Commissioner's concerns will become evident.

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April 10, 2012

Appendix A: Restrictions and Qualifications

1. This report is not to be used for any purpose other than that stated herein and it is not intended for general circulation, nor is it to be published in whole or in part, without PwC's prior written consent. We do not accept responsibility for any losses arising from unauthorized or improper use of the report.

2. The primary sources of information reviewed and relied upon are referred to in the Scope of Review section of this report or referenced elsewhere in the report ("the Information"). We have not sought external verification of the Information and PwC accepts no responsibility or liability for any losses occasioned by any party as a result of our reliance on the Information.

3. The report must be considered in its entirety by the reader, as selecting and relying on only specific portions of the analyses or factors considered by us, without considering all factors and analyses together, could create a misleading view of the processes underlying our assessment and the conclusions drawn there from.

4. We caution the reader that the analysis is based, among others, on information communicated to us to date. We reserve the right to review our analysis included or referred to in this report and, if necessary, to revise the report in light of any information existing at the report date that became known after that date.

5. We make no representation regarding questions of legal interpretation.

6. The individuals that prepared the report did so to the best of their knowledge, acting independently and objectively.

7. PwC's compensation is not contingent on any action or event resulting from the use of the report.

Appendix B: Curriculum Vitae of Balaji Jairam

Balaji Jairam
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Over the past 20 years, Balaji has been delivering work for the banking industry covering deposits, lending and retail & wholesale payments. He has worked globally in Asia, Europe and the Americas.

Balaji returned to PwC after six years with IBM Financial Services where he supported clients in Retail Banking with core banking initiatives, including payments and risk issues. In this capacity, he has worked on projects assisting clients develop payment strategies, including developing a technology roadmap to enhance payments hubs.

At IBM, Balaji regularly presented banking industry courses to IBM resources and clients in Canada, the US, Switzerland, France, Japan, and India.

As a result of his education and experience, including the engagements summarized below, Balaji has expertise in how new regulations or developments focused on a particular aspect of the payment system generates impacts across the wider payments ecosystem.

Sample of engagements delivered as it relates to payments industry:

As a banking and payments industry consultant, Balaji regularly assists clients assess the impacts of external forces – such as new regulation, innovation, new market entrants and other unforeseen events on the market and on the impacts it has on an organization's business operations. One example is the study Balaji led for a leading bank to assess the impact of declining cheque usage in Canada. In this instance, Balaji helped the client understand the impacts on the broader payment system from demise of cheques, research into experiences in other jurisdictions, analyzing usage and constraints of alternate payment instruments, possibility of consolidation of service providers and revenue/cost implications for the organization. Another example is where Balaji assisted a new market entrant set up banking operations with a focus on launching credit cards as the primary product. In this instance, the market analysis included the relative share of issuers in the marketplace, an opportunity assessment of the consumer base, understanding costs and revenue potential and arranging ties-ups with service providers.

- Advised a large Canadian bank with wholesale and retail payments strategy road-map for planned investments. The bank was looking to refresh its payments business with a view to grow market share. With upcoming Basel III regulations and innovations in mobile technologies, banks are recognizing the importance of payments business to grow deposit base and fee income.
- Supporting the migration of credit card operations to an external service provider. A large Canadian bank contracted with an external service provider to outsource credit card processing services. The project had an aggressive conversion timeline and required intervention when project milestones were missed. Focus was on reviewing current state and providing remedial actions to address program issues.
- Supporting a large Canadian Bank select a mobile banking platform with payment capabilities. The project included a study of business requirements and a review of payment options that would be delivered on a range of mobile devices.
- Led an Internal Capital Adequacy Assessment Process for a large financial services in-situation. The institution was looking assess key business risks with a particular focus on currency and settlement risks and develop internal processes to assess

adequacy of capital buffers. As value was exchange globally, systemic risks associated with payments were key focus areas.

- Study on cheque usage patterns in Canada. A large Canadian Bank with the focus of reducing paper based payments undertook a study of payment preferences by Canadians. Payment patterns for cheque, cards, cash and other electronic formats were explored. A more detailed analysis of cheque writing behaviour was analyzed for the bank's customers including costs associated with processing transactions with various payment instruments to participants across the payments system. Approaches into how customers' payment preferences can be influenced were studied along with opportunities to increase market penetration of electronic payment products.

- Analysis of payment technologies to develop post merger integration strategies for two Canadian banks. The banks had acquired businesses in the US and required assistance in developing a target operating model for a merged entity and making decisions around key technologies platform that would be deployed on integration.

- Roll out of SWIFT platform for banks in the Middle East. When SWIFT upgraded their payment technologies, several banks in the Middle East launched major programs to upgrade business processes and undertake technology investments. In addition to support the business manage change, independent reviews of the programs were carried out to provide feedback to steering committee members.

- Assisting a large supermarket chain enter a new market and establish a significant presence challenging established market participants. On this engagement, my role was to review competition and pricing structures to create a differentiation for customers. The introduction of self serve check outs with card payments was seen as a key differentiated value proposition at the time of the launch

Education & Training

Balaji obtained his bachelor's degree from the University of Bombay, India in June 1984 with a focus on macro economics and finance.

Following his bachelor's degree, Balaji enrolled to complete his Chartered Accountancy in December 1988 and obtained work experience with A.F.Ferguson & Co, an affiliate of KPMG International.

Balaji also attained the certification of banking Consultant at IBM in September 2008 and as an Enterprise Architect with Cap Gemini Ernst and Young August 2002.

Over the past 24 years, Balaji has attended several training and seminars presented by Ernst & Young, Cap Gemini Ernst & Young, PwC and IBM covering banking and payment issues.

Work Experience

Oct '11 to date	:	Financial Services @ PwC
Sept '05 to Oct 2011	:	IBM Canada
Mar '03 to Sept '05	:	Advisory Services @ PwC
Sept '88 to Mar '03	:	Ernst & Young/CGEY

Appendix C: Acknowledgement of Expert Witness

I, Balaji Jairam, acknowledge that I will comply with the Competition Tribunal's code of conduct for expert witness which is described below:

- An expert witness provides a report for use as evidence has a duty to assist the Tribunal impartially on matters relevant to his or her area of expertise.
- This duty overrides any duty to a party to the proceeding, including the person retaining the expert witness. An expert is to be independent and objective. An expert is not an advocate for a party.

Balaji

Balaji Jairam,
April 10, 2012