CONSUMER CHOICE IN TELECOMMUNICATIONS AND BROADCASTING

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Executive Summary

Consumer choice in Canadian telecommunications and broadcasting distribution markets is essential for the effective functioning of these markets and also for enhancing consumer welfare. This study seeks to analyze issues associated with consumers exercising choice in the form of switching behaviour in the communications services market, and to evaluate the current regulatory framework's reaction to that behaviour. The retail communication services studied include: home Internet access services, home (wired) telephone, mobile phone (including telephone and data services), and paid television services (broadcast distribution, excluding "over-the-top" services).

The report notes the high level of market concentration in most of these communications markets in Canada but accepts them for the purpose of the study as not likely to change. This allows the study to focus on other factors that can limit consumer choice: namely switching costs and behavioural biases that consumers exhibit when making choices in a complex market environment such as that in communications services. Further, the interaction of the market characteristics (concentration, complexity and switching costs) with behavioral biases is found to reinforce negative implications on consumer switching behaviour. The key behavioural characteristics (or biases) include a tendency to avoid complex or multifactor decisions and to replace them with simple and perhaps not relevant decisions (heuristics), which are easier for consumers to understand.

We believe that from a public policy perspective, emphasis therefore should be placed on how the regulatory systems inhibit or promote consumer choice in the form of switching, as it is switching providers that delivers consumer benefit and balances the profit-taking in a concentrated communication services market.

This paper focuses on those issues limiting switching that we believe are most amenable to regulatory action by the Canadian Radio-television and Telecommunications Commission (CRTC). These are issues, such as contract length, bundling practices and proprietary, service-linked access hardware that can be affected by actions taken by service providers such as removing contractually-created switching costs, or by consumers improving suboptimal choices by recognizing and deliberately countering their own cognitive biases. Consumer behavioural regulation may seem to be outside regulator's scope, however, there are potential methods of regulating service providers that may lead to behavioural "nudges" leading consumers to make better choices that can lead to increased switching behaviour.

This report's findings are based on primary research, involving focus groups, a consumer survey and stakeholder consultations; this research was supported by secondary research comprising documentary and literature reviews.

The report finds that switching costs businesses' money, because when customers leave them for another service provider, this turnover is expensive and disruptive: acquiring new customers to replace ones leaving is vastly more costly than keeping present customers. This "churn" metric is generally measured and tracked but not, except in mobile markets, revealed publicly. Likewise, in an attempt to dissuade "churn" communications service providers create contractual "switching costs" and which cost consumers money by inhibiting their choices and preventing switching. High switching costs can lead to super-normal profits in highly concentrated markets such as Canadian communications markets by discouraging market-driving consumer movement. For the purposes of this report, the switching costs categories considered as being the most relevant and apparent in communications services markets include: "learning costs; transaction costs and contractual costs."

Given the centrality of switching to both promoting consumer welfare and promoting competitive and affordable communications services markets, the promotion of switching should be an obvious area of focus for the CRTC.

The results from consumer surveys, including one conducted by the CRTC, and that conducted by PIAC showed perplexing results. Most respondents (over three-quarters) felt they had a "real choice" of providers in the four segments of the market (mobile, home internet, landline telephone and home TV), and only under a fifth of the respondents actually switched their provider over the most recent two-year period. Yet, this low switching number was not because they appeared to be greatly satisfied with their current service provider. In fact, a large majority of respondent expressed reservations about their present service and in particular, pricing. In addition to the fifth of the respondents who did switch, over a third of respondents actively considered switching providers in the two-year period – meaning over half of those surveyed either actually did, or stated that they wished to, change their service provider. However, at the end of the day, only one in five did. The reasons for switching, or considering switching, were primarily rooted in dissatisfaction with pricing. Yet when asked why they did not switch, those considering stated that they had found their current provider had the best price. Moreover, many respondents who did switch reported facing serious challenges and difficulties in switching their providers. This seemingly illogical result was not explained on a simple basis of market structure (as consumers stated they had "real choice") or switching costs (as some consumers did switch despite most of them experiencing a major switching cost). Therefore the report sought an explanation for this counterintuitive result.

This report therefore contends that two set of factors that limit consumer choice interact in Canadian communication services markets: first, contractual switching costs restrictions; and second, consumer decision-making behaviour. Regarding switching costs, the most important are lengthy contracts with termination fees; pricing structures promoting "bundled" packages of several telecommunications and broadcasting services; and technical standards or systems which are incompatible between service providers. Second, the human behavioural cognitive biases which consumers display in their approach to decision-making in complex communications markets inhibit them from switching, or cause them to make poor choices if they do switch. These behavioral factors exist independently of the structural factors, but can interact with and indeed amplify the effect of contractual switching costs.

We find that the CRTC has, over the past decade, made some progress in providing protections for the consumers of communications services in Canada; more so in relation to contractual rights for consumers in the delivery of wireless telecommunications services. However, regulatory and political action promoting choice and switching in communications services has been limited, with few obvious technical barriers to switching in mobile being addressed, such as: number portability, unlocking of wireless handsets, limiting the length of wireless contracts, amortizing handset charges and, in the case of broadcasting distribution services, unbundling program packages. Unfortunately, these decisions have been very partial in their application and uncoordinated.

There has been no attempt to deal with barriers to switching addressed in one sector in another, even when the parallels are obvious. For example, while the CRTC addressed the reduction of term limits in wireless contracts, and early cancellation penalties for wireless services because in its view they reduced competition, it has not applied the same logic to the length of contract terms, nor the use of early cancellation fees, in the provision of home internet, broadcast distribution, or home landline telephone services. No serious examination of the effect of bundling practices on switching has been undertaken either.

We note that the CRTC has not addressed, in any meaningful sense, the growing body of evidence from behavioural economics that, in markets such as communications services, consumer behavioural biases can play a significant role in diminishing consumer welfare and making consumers more vulnerable to manipulation. We conclude by presenting our findings and recommendations on what more can be done to reduce barriers to choice and switching in the communications services market and in particular, what can we learn from behavioural economics and sciences to improve the ability of consumers to make more effective decisions in these markets.

Recommendations:

- The CRTC place an eventual ban on multi-year contract lock-ins for all communications services so that all customers would, eventually, be on month-to-month contracts and free to move to an alternative provider and/or service plan at any time.

- Service providers eventually not be permitted to link the sale of service plans to the provision of devices in contracts. Delinking devices from service plans would help to create a separate market for device sales and force providers to compete with each other on the basis of the price of their devices in a transparent manner and would also allow third-party suppliers a greater chance to compete for device sales, thus also helping to increase price competition.

- The CRTC establish technical standards for enabling devices such as set top boxes and related equipment so they are interoperable on all provider's networks. This could also help in the long run to create a third-party market for the sale of such equipment so that consumers could purchase their own equipment and take it with them when they move providers or residences.

- The CRTC ensure that consumers have easy and widespread access to an online calculating mechanism, providing up-to-date information on the features and costs of all communication services in Canada. Such calculators could be offered by the private sector, however, all would involve consumers inputting their current usage of such services, or their desired plan features into the calculator and receiving easily understood information on the price of comparable plans from providers. These services would be accredited by the CRTC to fairly function and produce reliable results.

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1. Introduction

1.1 Scope and Goal of the Report

Exercising choice in telecommunications and broadcasting distribution services markets is essential to the effective functioning of those markets. When consumer choice is limited, or consumers cannot effectively exercise choice in markets, the outcome for consumers and the effective functioning of the market are seriously compromised.

The most effective expression of choice by consumers in a market such as the Canadian communications services market, and the one that is thought to drive price competition and provide the most consumer benefits ("consumer surplus") in this market, is "switching" behaviour; that is, when a customer leaves a service provider to obtain a similar service with a competitor.[1]

This study seeks to examine the issues specifically associated with how consumers exercise choice in the form of switching behaviour in the communications services market and the consequent implications for how this market is currently regulated.

The focus of this study, the Canadian communications services market, is defined for the purpose of this report as: landline telephone service; mobile (or "wireless" telephony and data) services, home-based internet access service (consisting mainly of "wired Internet" service, with some satellite and fixed wireless Internet access) and paid television services (provided by "broadcasting distribution undertakings", rather than "over the top" services[2] or "over the air" [free] broadcasting) in Canada. This particular communications services market has been chosen for a number of important reasons.

First, the market is a large one in Canada, representing annual revenues of $67.6 billion in 2017. Further, a significant proportion of Canadian households use these services (see Table 1.1, below) and spend considerable sums of money on them. For example, in

[1] Although this report does discuss consumer choice in general in these markets, especially in relation to behavioural economics, it does not seek to explain the much larger issue of consumer choice amongst products from a present service provider, which may be the "best value" for a consumer, and therefore how and how much this exercise of choice affects the market and consumer welfare. See, for a more detailed description of this problem see Adi Ayal, "Harmful Freedom of Choice: Lessons from the Cellphone Market", *74 Law and Contemporary Problems* 91-132 (Spring 2011). Online: https://scholarship.law.duke.edu/lcp/vol74/iss2/6 at p. 91.

[2] For example, Netflix, CraveTV, or YouTube; also known as "Over-the-top" or simply "OTT" services. These are services delivered over the Internet without the underlying requirement of a subscription to a broadcasting distribution undertaking (BDU). BDUs are regulated under the *Broadcasting Act* by the CRTC (see next note) and presently OTT services are exempted from regulation.

2016 Canadian households spent an average of $2,674 annually on telecommunications and broadcast distribution services.[3]

Table 1.1 - Percentage of Canadian Households Subscribing to Broadcasting and Telecommunications Services, 2016

Landline	67%
Mobile	88%
Internet	87%
Television Distribution	75%

Source: CRTC, Communications Monitoring Report, 2018

It is worth noting that these expenditures represented a much higher proportion of family incomes for lower income households than higher income households, with these services taking up 8.6% of household income of the bottom income quintile of households, compared to only 1.7% of the top quintile of household incomes, despite the fact that the highest income households spent more than twice as much on these services compared to their lower income counterparts.[4]

Second, consumer choice, and therefore consumer welfare, is significantly limited in this market for the following reasons:

1. Concentrated Markets: there are a limited number of providers of these services in most sub-markets (Internet, home phone, mobile and TV), and therefore constrained service provider options;

2. Switching Costs: there are significant contractual or technical limitations that exist that constrain consumers from switching providers, that is, impose a "cost" (financial, time, or emotional) on consumers when switching (e.g., lock in terms on contracts, early termination fees, "bundled" services pricing, systems which operate on different technical standards requiring purchases of new equipment when changing providers, lack of portability in email addresses, etc.); and

[3] Canadian Radio-Television and Telecommunications Commission, *Communications Monitoring Report, 2018*, https://crtc.gc.ca/pubs/cmr2018-en.pdf , accessed on 18 March 2019. Hereafter "CRTC CMR 2018".
[4] *Ibid*., the lowest quintile of households spent $1,681 annually on these services, compared to $3,687 annually for the highest income households.

3. Complex Markets: there myriad combinations of services, equipment (such as set-top boxes and smartphones) and contracts on offer in all four markets and potentially bundling between them, all of which makes communications markets amongst the most complex and difficult for consumers to analyze.

But the above-noted characteristics of the communications marketplace, and the characteristics of the products or services on offer, are not the only factors that can inhibit consumer choice. The major premise of this paper is that the behavioural biases that consumers exhibit when making choices in markets such as these play a central and powerful role in further limiting or inhibiting their ability to exercise effective choice. In fact, the characteristics of the market (concentration, complexity and switching costs) interact with behavioural biases to reinforce negative outcomes for consumers.

The key behavioural characteristics (or biases) discussed below include a tendency to avoid complex or multifactor decisions and to substitute simple, and perhaps not relevant, decisions, which are more cognitively easy to understand. In other words, focusing on decision "heuristics"; and, in particular, *status quo* biases provides at least a partial explanation for why consumers demonstrate undue attachment to their current service option (because its benefits and shortcomings are known and certain), over an alternative which is demonstrably better, but which is uncertain because the consumer has not actually used or experienced the service offering.

With respect to communications services, significant attention has been paid in recent years to the exercise of choice in the context of switching service providers, as a larger percentage of the population are already subscribing to these services. Consequently, the question of choice now revolves not around the initial decision to purchase a particular telecommunications or broadcasting service, but whether to purchase a similar, or the same, service from a different provider who may be offering better terms or better features.

Further, it is important to remember that switching , in a "post-forbearance" regulatory environment where prices are not regulated, is now the key mechanism that consumers can use to potentially increase their welfare in the market.[5] Ideally, consumer switching improves the match between consumers' service and affordability needs and market prices and service levels. With less switching there is less ability to improve that match

[5] For a history of regulatory forbearance in relation to telecommunications services in Canada, see: Bishop, J. and Lau, A., "No Consumer Left Behind Part II: Is There A Communications Affordability Problem in Canada?" (Ottawa, PIAC, July 2016) at section "3.1 Forbearance from rate regulation in Canada", pp. 10-13. Online: http://www.piac.ca/wp-content/uploads/2016/09/PIAC_No-Consumer-Left-Behind-Part-II-Website-Version.pdf

and, therefore, less consumer welfare overall.[6] More seriously, perhaps, there is considerable literature tying consumer switching costs (inhibition of switching) with super-normal profit-taking by companies in oligopolistic markets.[7] Certainly the Canadian communications service market at present is extremely profitable by comparison with other OECD countries, for example. In other words, reduced switching means higher prices.

Therefore, from a public policy perspective, the focus should be on how the regulatory system inhibits or promotes consumer choice in the form of switching as it is switching that reigns in excess profit-taking in imperfect communications markets and prevents consumer frustration, apathy and, at times, rage. Given the present structural characteristics of the telecommunications and broadcasting services sector in Canada, the promotion of switching is difficult enough. However; to these challenges, we add, based on research in this report, the additional consideration of the behavioural biases consumer bring to these markets. These behavioral biases interact with well-documented switching costs and the concentrated and complex market to further diminish the exercise of choice and reduce the level of switching between providers. Regulators therefore should consider all these factors in designing regulatory rules to promote consumer switching in communications markets.

Further, it should be noted that in this study we have focused on those issues limiting switching that we believe are most amenable to regulatory action by the sectoral regulator, the Canadian Radio-television and Telecommunications Commission (CRTC). In our view these revolve primarily around issues limiting switching that can be resolved by actions taken by service providers relating to their imposition of switching costs (such as technical standards, contractual terms and conditions, marketing approaches) or by consumers when they make suboptimal choices as a result of their own behavioural biases (for example, by not switching when there are cost

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[6] For some considerable period, it has been recognized that inhibition of switching has serious implications for how competitive markets are and for consumer welfare more generally. See P.D. Klemperer, "Competition When Consumers Have Switching Costs" *Review of Economic Studies*. Vol. 62, 515-539 (1995), online: https://www.nuffield.ox.ac.uk/users/klemperer/competition.pdf (hereafter "Klemperer (1995)"); L. Fuentalsaz, P.J. Maicas and Y. Polo, "Switching Costs, Network Effects and Competition in the European Mobile Telecommunications Industry". *Information Systems Research*. Vol. 23, No. 1 (March 2012) and Christopher R. Baker, "Breaking Up Is Hard to Do: Consumer Switching Costs in the U.S. Marketplace for Wireless Telephone Service", #2007-18, (Washington D.C.: ARPP Public Policy Institute, 2007).

[7] See Klemperer, *op. cit.*, and Klemperer, "Markets with Consumer Switching Costs" The Quarterly Journal of Economics, May 1987, 375-394, online: https://www.researchgate.net/profile/Paul_Klemperer/publication/24091094_Markets_With_Consumer_Switching_Costs/links/00b7d5284c0175cf98000000/Markets-With-Consumer-Switching-Costs.pdf?origin=publication_detail and Farrell, Joseph and Klemperer, Paul, "Coordination and Lock-In: Competition with Switching Costs and Network Effects" (August 2006). CEPR Discussion Paper No. 5798. Available at SSRN: https://ssrn.com/abstract=936412

savings). Switching costs can be dealt with by a regulator in relation to service providers as they relate primarily to "conditions of service", or in other words, what are permitted or controlled marketplace practices. Consumer behavioural regulation may appear to be outside of the scope of regulators, however, there are potential methods of regulating service providers that may lead to behavioural "nudges" to consumers to make better choices or even the outright disallowance of companies' market practices that take advantage of consumers biases to the detriment of consumers.

Larger issues, such as competitive intensity in the market, which may also have a marked impact on choice and switching because of the limited the number of providers present, have not been addressed in this paper, as these issues sometimes, but not always, require more than CRTC regulation but also cooperation and policy coordination between the Federal government departments responsible for the telecommunications and broadcasting sectors (ISED and Canadian Heritage) and the competition regulator, the Competition Bureau. Therefore, questions of competition and market structure are much less well developed in this paper and we trust other researchers will attempt to evaluate the impact of these factors and how they could influence consumer switching and a dynamic market.

1.2 Methodology of the Report

The methodological approach taken in this report was to conduct primary research through a national internet-based survey of Canadian consumers, 18 years of age or older, who subscribed to, and paid for, telecommunications and broadcast distribution services. The survey was carried out in the spring of 2018 and involved 1002 individuals. This survey was preceded by a set of three focus groups held with consumers in two major Canadian cities before the survey was conducted to assist in identifying issues and gaining a perspective of how individuals approach the market. We then analyzed the nature of the Canadian communications service market in terms of its structure and practices based on secondary research and in-house expertise and assessed how those structures and practices may affect the exercise of choice through switching by consumers. Next we analyzed standard economic literature on the challenges consumers face in switching (largely regarding "switching costs"). Then we examined these traditional neo-classical economics explanations of consumer switching in communications markets in light of the newer economic approach of behavioural economics to understand if these newer theories might explain the observed behaviour in our survey and focus groups. Next we examined the extent to which the Canadian regulatory system has addressed consumer switching problems. Finally, we made recommendations, based on a more fulsome understanding of consumer switching behaviour described above, to regulators to address continuing major barriers to switching in Canadian communications markets.

2. Few Service Providers in Canadian Communications Markets

The obvious limitation on consumer choice in the communications services particular sector is the relatively limited number of service providers present in most markets, and the very high market shares of the leading firms, for each line of business: wireless telephone (including wireless Internet data access); home Internet access service (wired); home telephone service (usually wired); and "subscription TV" (broadcasting distribution) service. According to CRTC data, in 2017 the five largest service providers in the overall telecommunications and broadcasting sectors accounted for 85% of the revenues in the industry, up from 81% in 2014.[8] In mobile telecommunications services, for example, only three companies (Bell, TELUS and Rogers) accounted for almost 92% of all revenues nationally.[9]

However, these national level data understate the level of concentration in the market because some of the "big five" listed do not have a presence in all regional markets in Canada for both broadcasting and telecommunications services. This matters because while at the national level there may be a number of companies present in the market, consumers cannot shop at the national level but must use the companies present in their local regional markets, and so choice is further limited because not all potential competitor companies are present in any local market.

Further, the home Internet market is heavily dominated by regional "incumbent" telecommunications and cable companies. The CRTC noted in its latest Communications Monitoring Report (2018):

> In 2017, a variety of ISPs provided Internet services, including traditional telephone and cable companies, fixed wireless service providers, and resellers. Residential subscriptions reached 12.8 million (86% of the 14.8M households), a 3.9% increase from 2016, which is approximately 3 times higher than the population growth rate. Cable-based carriers and incumbent TSPs had the vast majority of the market by subscriptions (87%). Other entities continued to

[8] Canadian Radio-Television and Telecommunications Commission, *Communications Monitoring Report, 2018*, online: https://crtc.gc.ca/pubs/cmr2018-en.pdf , (hereafter "CRTC CMR 2018"). See Figure 3.5 Share of total revenues, by broadcasting and telecommunications ownership group (%) at p. 85.

[9] CRTC CMR 2018Canadian Radio-Television and Telecommunications Commission, *Communications Monitoring Report (CMR), 2018*, at p. 109, and see Figure 4.8 Retail mobile revenue market share (%)., https://crtc.gc.ca/eng/publications/reports/policymonitoring/2018/cmr1.htm#s10iii, accessed on 16 January, 2019. In Ontario the "big three" account for 98% of all revenues and in Quebec, even with Quebecor's Videotron-branded mobile service, still 84%. Only in Saskatchewan does this level decline significantly to 39% due to the dominant position of crown-owned SaskTel in the mobile market in that province, an anomaly that also existed in Manitoba until the 2016 acquisition of MTS by BCE (Bell Canada).

> increase their subscribers, reaching 13%, up from 10% in 2013. [Footnote omitted.][10]

For TV distribution (subscription TV) services, the CRTC noted in *CRTC CMR 2018*:

> As in the case of the overall broadcasting industry, the majority of the BDU sector's revenues are generated by a few large entities. In 2017, the top six groups/entities reported 94% of the total BDU revenues, as well as accounting for 96% of BDU subscribers.[11]

We note that in many regional markets several of the "top 6" do not provide service; therefore, in most BDU markets, there are typically 2-3 major BDU providers, not 6.

With so few dominant providers present in each part of the communications market, the perceived level of choice with respect to the types of services offered is obviously limited. More importantly, the level of competition on price is extremely weak, as can be seen by the fact that Canada performs so poorly on most international comparisons of the costs for mobile telecommunications and internet services.[12] In short, the major markets in communications services in Canada are oligopolistic, meaning that because there are a few highly dominant companies in the market, they are in a position to significantly influence the variety of services on offer and their price. Further, the emphasis in Canadian telecommunications policy on supporting facilities-based service providers has resulted in limiting the entrance of alternative non-facilities based service providers who could potentially provide more competitive intensity to the market both in terms of the price and variety of services offered.[13]

Given that the communications service market in Canada lacks competition and that that situation will likely continue for the foreseeable future, the balance of this report

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[10] CRTC CMR 2018, at p. 123. Note that the CRTC changed methodology in the CRTC CMR 2018 from the 2017 CMR, which did not include wireless (satellite) ISP Xplornet, so the 13% figure may be less. See Figure 5.3.1 "Residential Internet service subscriber market share by type of service provider (%)" in Canadian Radio-Television and Telecommunications Commission, *Communications Monitoring Report, 2017*, online: https://crtc.gc.ca/eng/publications/reports/policymonitoring/2017/cmr2017.pdf at p. 258, (hereafter "CRTC CMR 2017").

[11] CRTC, *CMR 2018*, at p. 266; and see Infographic 10.3 on the same page.

[12] Nordicity Group Ltd., *2017 Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions*. (Ottawa, 5 October 2017) Prepared for Department of Innovation, Science and Economic Development. Available at https://www.ic.gc.ca/eic/site/693.nsf/vwapj/Nordicity2017EN.pdf/$file/Nordicity2017EN.pdf

[13] The discussion of facilities-based communications policy is beyond the scope of this paper. PIAC has made submissions to the Federal Broadcasting and Telecommunications Legislative Review Panel, arguing that this policy has impeded competition in Canada and was not implemented with retail price controls that appeared to be a requirement for this approach. See: PIAC, "Written Submission of the Public Interest Advocacy Centre" for the "Review of the Canadian Communications Legislative Framework, Responding to the New Environment: A Call for Comments" (Ottawa: PIAC, 11 January 2019), at paras. 75-82. Online: https://www.piac.ca/wp-content/uploads/2019/01/BTLR-Panel-Review-PIAC-Written-Submissions-11-Jan-2019-FINAL.pdf

examines barriers to switching unrelated to market concentration, and examines their nature and prevalence, and whether and how they may be amenable to regulatory intervention.

3. What "Switching" Means and Why it Matters to Service Providers, Consumers and Regulators

To understand "switching" we must first explain the concept of consumer "choice" in purchasing services. Choice is a decision made between at least two options, to the exclusion of at least one of the options. Therefore, there is an option "selected" and at least one other option that is not selected. A decision to maintain a present option is also, at least for the purposes of this report, a choice. Choices may be offered by one or more entities. That is, the consumer can make choices from within options offered by the same service provider (often service providers create different "service packages" as choices within their internal "product line").

"Switching", as noted, is the subject of this report and is a subset of consumer choice. It is defined for the purposes of this report as "when a customer terminates a service with a present service provider to obtain a similar service with a competitor". It could also be called "service provider switching" as opposed to simply choosing from different options for service from one service provider. While optimal choice of service from among the options of one service provider is also an extremely important aspect of consumer welfare in a competitive market, this study concentrates only on switching from one provider to another, as we have defined it.

We do this very deliberately. We are aware that in so doing, important questions of consumer welfare and consumer surplus are being left aside. That is, consumers routinely make "sub-optimal" choices from within a suite of products from one provider. In other words, they are on the "wrong" package, considering only the offerings from one service provider, and this can mean they are paying too much even within that product suite.[14] However, by disintermediating the discussion of "pure" switching between providers and finding optimal "choice" of products within the entire market or only a subset of one providers' products, we therefore focus on consumer switching that has the potential to drive competitive outcomes in the market. We do this as the focus of the final part of the report is on the regulatory response to consumer switching as a source of, and barrier in itself to, competitive markets (since regulators

[14] Bar-Gill, O., and Stone, R. "Mobile Misperceptions", Harvard Journal of Law & Technology, Volume 23, Number 1 Fall 2009, pp. 49-118, at p. 96-97, discussing their finding that mistakes such as choosing the wrong calling plan cost American cellphone users an estimated nearly $US 12 billion from September 2001 to May 2003.

now rely almost exclusively on competitive markets to ensure positive outcomes for consumers on rates and service quality).

We acknowledge our definition's limitations, even for the narrower purpose described above: it may not exactly cover some situations: for example, where consumers significantly downgrade service such as dropping a three service (home phone, Internet, TV) bundle to only take one service –likely Internet – from a new service provider to save costs) and thus fail to account for lost sales of services in the market when a customer has effectively abandoned (some) services altogether.

There is also the question of whether a "switch" to an affiliated company with different branding should be considered a true "switch," especially for regulatory purposes. PIAC is aware that there are "flanker brands" operating in the mobile markets and, recently, home Internet markets. These flanker brands are wholly owned by larger providers. This paper treats consumer movements to flanker brands as a "switch" for the purposes of analyzing some consumer behavioural and other barriers to switching; however, there may be valid arguments for not recognizing intra-corporate switching between "flagship" (main brands of parent service providers) and "flanker" or "fighter" brands where the subject is the promotion of competition in the market or the increasing of consumer welfare.[15]

Finally, concentration on switching as opposed to the wider issue of better consumer choices in general means this report's recommendations focus on possible regulatory actions that promote switching but not generally improving choice within carriers' product suites. With these limitations in mind, we now consider switching in detail.

3.1 Switching Costs Businesses Money

Switching costs businesses money. A lot of money:

> In the simplest sense, switching costs a service firm the customer's future revenue stream. But the loss is even more damaging when other effects are considered: First, because continuing customers increase their spending at an increasing rate, purchase at full-margin rather than discount prices, and create operating efficiencies for service firms (Reichheld and Sasser 1990), the loss of a continuing service customer is a loss from the high-margin sector of the firm's customer base. Second, costs associated with acquiring new customers are incurred: New account setup, credit searches,

[15] See, for example, TekSavvy submission to Competition Bureau Market Study: Competition in Broadband Services (Abridged version, published February 25, 2019), at paras. 51-57. Online: https://teksavvy.com/wp-content/uploads/2019/02/TekSavvy-Submission-Competition-Bureau-ABRIDGED.pdf

> and advertising and promotional expenses can add up to five times the cost of efforts that might have enabled the firm to retain a customer (Peters 1988). Operating costs rise as the service firm learns the needs of its new customer and the customer learns the procedures of the firm.[16]

Businesses measure the turnover due to customers switching away from their service in a metric called "churn". Churn is typically stated as a percent per month number: for example, 5% churn per month. New customers acquired during the month are not counted until the next month.[17] Therefore, monthly churn is the number of customers who switch at the end of the month divided by the number of customers at the beginning of the month. Telecommunications and broadcasting distribution service providers closely follow their monthly churn figures.[18]

This is understandable, as a churn rate of just 2.75% monthly (which is low for many services industries) means that the company would have to replace almost 30% of its customers a year just to keep its subscriber levels flat (assuming no new customers would "churn in" from a competitor):

> Using that 2.75% monthly churn example, we can predict this
>
> > First, you'll need to work out what your customer retention is. The customer retention formula looks like this:
> >
> > `(1 – the churn rate)^12 = annual retention rate`
> >
> > So, for this example we are looking at:
> >
> > `(1-.0275)^12= 0.715`
> >
> > This, therefore, means that you have a 71.5% retention rate. Now, to work out the annual churn rate, your formula is as follows:

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[16] Susan M. Keaveney, "Customer Switching Behavior in Service Industries: An Exploratory Study" *Journal of Marketing*, Vol. 59, No. 2 (Apr., 1995), pp. 71-82. Online summary: https://www.jstor.org/stable/1252074 (hereafter "Keaveney").

[17] However, BCE (parent company of Bell Mobility) calculates churn from the average of users during a period: "Wireless churn is calculated by dividing the number of deactivations during a given period by the average number of subscribers in the base for the specified period and is expressed as a percentage per month." See BCE Investor Relations, "Supplementary Financial Information - Fourth Quarter 2018" (BCE: 7 February 2019) at p. 17. Online: http://www.bce.ca/investors/financial-reporting/2018-Q4/2018-q4-supplementary-information.pdf

[18] Churn rates are typically only provided by Canadian public communications companies in wireless, rather than the other segments, for largely historical reasons. There is a public interest argument that churn should be reported across all telecommunications and broadcasting distribution markets, given its status as a driver of investment and service provider strategy (which includes price increases).

```
1 – Annual retention rate = Annual churn rate
```

So, for the example:

```
1- .715=0.285
```

This translates into a 28.5% churn rate over the year, based on one month churn.[19]

For large communications service providers, this can mean attracting millions of new customers a year to replace those that switch to a competitor's service.

Globally, it appears the average communications service provider ranged from about 15%-75% yearly churn, and mobile (wireless) was less, but still 5% to about 30%: "2017 data from 36 mobile CSPs across 24 countries, showing that churn rates ranged from 14% to 75% for all customer types and from 5% to 32% for post-paid customers."[20]

In Canada the CRTC has tracked "Blended prepaid/postpaid average churn rate of Canada's Top 3 mobile service providers (%)" and in 2013 it was 1.6%. In 2017, it was 1.3%. TELUS has recently announced a monthly prepaid and postpaid mobile churn rate of 1.1%, the lowest ever reported to the CRTC (Infographic 6.8, p. 167, CMR 2018). Such a monthly rate equals 12.43% yearly. Canadian churn rates are low compared to the industry internationally.

However, it is important to remember that even TELUS's lowest churn rate means losing 1/8 of its customer base per year (again, assuming no "churn in"). In addition, communications markets are presently viewed as "mature" in Canada, meaning that most Canadians already subscribe to these services – so switching customers cannot be replaced simply by adding new subscribers who have never used the service before (mobile telecommunications services are already being used by 88% of Canadian households and its penetration rate is growing by over 2% a year; and internet services have reached 87% of households, although growth here is much weaker at 0.6%[21]).

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[19] See Lucy Literado, "The Mystery Of The Annual Churn Rate Formula (And How It's Different From Monthly One)" LessChurn Blog. Online: http://blog.lesschurn.io/churn-rate-formula/ (accessed 6 March 2019).

[20] Cathering Haslam, Senior Analyst, TM Forum, blog: "Inspire loyalty with customer lifecycle management" (June 2018). Online: https://inform.tmforum.org/research-reports/inspire-loyalty-customer-lifecycle-management/

[21] CRTC, *Communications Monitoring Report*, 2018, Infographic 1.1

This would not matter so much were it not for the fact that there is a wildly asymmetric cost of customer acquisition versus the costs of customer retention to the companies:

> Canada's BCE and Telus revealed in 2017 that it cost almost 50 times less for them to keep an existing mobile customer than to acquire a new one, with retention costs of CAD11.04 and CAD11.74 respectively, while average subscriber acquisition cost weighed in at an eye watering CAD521.[22]

Much of the customer acquisition cost in mobile services likely is caused by Canadian wireless service providers' practice of offering "subsidized" smartphones (actually, not subsidized but amortized or accounted for by the telco as a necessary cost to bear up front and to be recovered over 24 months as part of a two year contract). Whatever the reason, to communications service providers, it is key to keep "churn" to a minimum; in other words, there is a large incentive not to have customers switch.[23]

3.2 Switching Costs Can Cost Consumers Money When Switching

Switching costs cost consumers money by impeding their choices and preventing switching. Perhaps more crucially, switching costs can lead to super-normal profits in highly concentrated markets such as Canadian communications markets, by dampening severely consumer movement (or "churn" to service providers).

Switching costs typically are defined broadly by economists:

> A switching cost results from a consumer's desire for compatibility between his current purchase and a previous investment.[24]

This definition rolls in many potential "costs", not all of which are strictly monetary, but can also be the value of consumer time and the strain on consumer mental resources. For the purposes of this report, the main switching costs categories that are most

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[22] Brendan O'Rourke, "How churn is breaking the telecoms market – and what service providers can do about it" ComputerWeekly .com, guest blog, 13 August 2018. Online: https://www.computerweekly.com/blog/The-Full-Spectrum/How-churn-is-breaking-the-telecoms-market-and-what-service-providers-can-do-about-it (accessed 9 March 2019). See also: Emily Jackson, "Big telecoms are spending more cash to keep customers, but some tactics raise concerns" (10 March 2017) *Financial Post*, online: https://business.financialpost.com/technology/big-telecoms-are-spending-more-cash-to-keep-customers-but-some-tactics-raise-concerns (accessed 9 March 2019).

[23] See also below the discussion of switching costs imposed by service providers, below. Klemperer (1995, at p. 536) concludes that switching costs (barriers) keep prices higher than they would be without such costs and create "deadweight loss" which, in economic terms, denotes a cost born by society due to market inefficiency, here, most likely customers simply no longer buying any service due to cost.

[24] Klemperer (1995), *op. cit.*, at p. 517. This paper identifies 6 types of switching costs; however, in communications markets, only three (learning, transactional and contractual) dominate.

relevant and apparent in communications services markets are: "learning costs; transaction costs and contractual costs."[25] These are detailed in section 5, below.

3.3 Regulators: To Promote or Not Promote Switching

At the height of the post-forbearance era, in the early part of the 2000s, it appeared that the CRTC had come to the conclusion that, given communication services were provided in the context of a competitive market, there was little need to intervene in the market to protect the consumer interest- particularly given the government's 2006 Policy Direction to achieve outcomes using market forces to the maximum extent feasible.[26]

It became clear, however, that the problems that consumers were facing with communications service providers, particularly in the mobile telecommunications and broadcast distribution segments of the market, that this approach was untenable and the Commission gradually became re-engaged in developing regulatory frameworks that recognized that the market was not delivering adequate consumer protection and it had a role in protecting consumers when service providers were engaged in unfair commercial practices.[27] These decisions have covered a wide variety of regulatory issues involved with the protection of the consumer interest, including: contractual rights in the wireless telecommunications sector (The *Wireless Code*), consumer redress (the creation and expansion of the mandate of the CCTS - now the Commission for Complaints for Telecom-Television Services) and contractual rights in the broadcast distribution sector and access to low cost basic television services.[28]

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[25] C. Martins, Rodrigo & Hor-Meyll, Luis & Ferreira, Jorge. (2013). "Factors Affecting Mobile Users' Switching Intentions: A Comparative Study between the Brazilian and German Markets." *BAR - Brazilian Administration Review*. 10. 239-262. 10.1590/S1807-76922013000300002, citing Klemperer (1987, 1995), *op. cit.*

[26] Canada, Department of Justice, *Order Issuing a Direction to the CRTC on Implementing the Telecommunications Policy Objectives*, SOR 2006/355, 14 December 2006. Accessed at: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2006-355/page-1.html on 23.03.2019

[27] See, for example, the Commission's discussion of the rationale for the implementation of the Wireless Code in Telecom Regulatory Policy 2013-271, paras. 23-31 and Telecom Regulatory Policy 2007-130, section I(ii) dealing with the 2006 Policy Directive.

[28] For example, CRTC, Telecom Decision CRTC 2012-556, "Decision on whether the conditions in the mobile wireless market have changed sufficiently to warrant Commission intervention with respect to mobile wireless services" (11 October 2012), online: https://crtc.gc.ca/eng/archive/2012/2012-556.htm ; Broadcasting Decision CRTC 2016-1, "The Television Service Provider Code", (Ottawa: 7 January 2016), online: https://crtc.gc.ca/eng/archive/2016/2016-1.htm ; and CRTC, Broadcasting Decision CRTC 2016-458, "Licence renewal of broadcasting distribution undertakings – Review of practices relating to the small basic service and flexible packaging options and imposition of various requirements" (Ottawa: 7 September 2016), online: https://crtc.gc.ca/eng/archive/2016/2016-458.htm .

Given the centrality of switching to both promoting consumer welfare and promoting competitive and affordable communications services noted earlier, and the CRTC's previous decisions to protect consumer interests when market forces clearly fail to do so, the promotion of switching would seem to be an obvious area of focus for the Commission. We explore this more in section 6, below.

4. What Do Consumers View as the Key Issues in Making Choices in Telecommunications and Broadcasting Markets?

4.1 Introduction

We begin with the primary research question of how do consumers see the marketplace in telecommunications and broadcast distribution services from the point of view of exercising choice and switching service providers?

4.2 CRTC Survey of Consumers of Telecommunications and Broadcast Distribution Services

There have been surveys of consumer attitudes to choosing a service provider, the most relevant and notable being one conducted for the CRTC in October 2016 which involved 1200 respondents who subscribed to the internet and either subscribed to, or intended to subscribe to, at least one other telecommunications or broadcast distribution service.[29] It classified respondents according to: those who did not subscribe to a service but intended to do so within six months; those who had considered changing their provider in the last year, but had not done so; those who were first time subscribers; those who had switched a provider within the last year; and those who were subscribers for over a year and had not expressed an interest in switching. In summarizing their results, the survey authors noted:

> Regardless of the service most respondents are aware and willing to switch providers if they feel the service or price is not meeting their needs or expectations. It is clear that communication services users are vigilant of their expenditures towards these services and the value of their money is the most important subscription driver, and therefore the most important type of information that needs to be readily available to them.[30]

[29] Quorus Consulting Group for CRTC, "You Have Choices: Choosing a Service Provider – Online Survey Final Report", December 2016. Online: http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/crtc/2017/034-16-e/report.html

[30] *Ibid.*, one unexpected part of the survey results was the degree to which consumers were unaware of the fact that Over-the-Air (i.e. free) TV was available to them. Close to a half of those surveyed fell into this category.

However, it was interesting to note that of the consumers surveyed that currently subscribed to any of the four services (internet, landline, mobile, and broadcast distribution) the largest group in each case were those in the *status quo* camp, *i.e.*, those that had not switched providers in the last year and had not considered switching at the time of the survey, varying from a low of 33% in the case of broadcast distribution services to a high of 61% in the case of mobile. Those who actually had switched in the past year ranged from a low of 6% (landline telephones) to a high of 10% (internet) and those that had considered switching but not done so, varying from a low of 9% (landline telephones) to a high of 22% (broadcast distribution; with home Internet at 21%). So, despite the claim by consumers that they were willing to exercise choice and switch, their actions reveal much less commitment to doing so.

Adding the "considerers" to the status quo consumers leads to very high numbers of consumers that simply, at least at that point, have not switched. For home Internet, for example, the total is 73%, and if the "intenders" group, at 3%, is added, we are over three quarters of customers who have not yet switched. It is interesting to note that the "considerers" and those who actually switched were roughly even (low 60% range) in stating that either high price of present provider or lower prices elsewhere motivated them to either switch or think about it. If so, there must be some other factor than price inhibiting the considerers from not switching as had the switchers.

4.3 PIAC Survey of Consumers of Telecommunications and Broadcast Distribution Services – Results

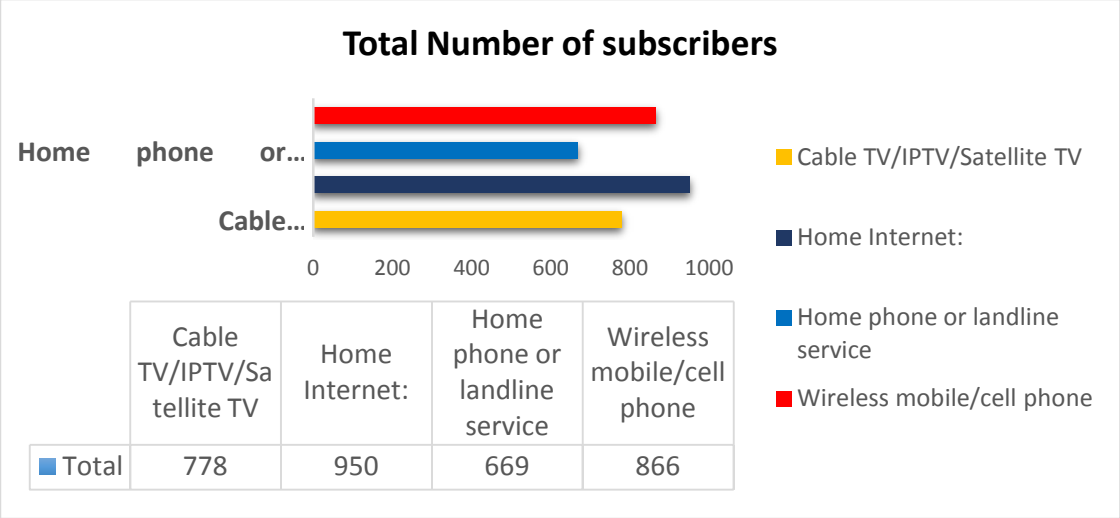
To explore these paradoxes more fully, and to gather more detail about the nature of the decision-making being carried out by consumers in the communications services marketplace, PIAC commissioned a major survey research firm to conduct a national internet-based survey of Canadian consumers, 18 years of age or older, who subscribed to, and paid for, telecommunications and broadcast distribution services. The survey was carried out in the spring of 2018 and involved 1002 individuals. This survey was preceded by a set of focus groups held with representative consumers before the survey was conducted to assist in identifying issues and gaining a perspective of how individuals approach the market.[31]

The regional distribution of those surveyed broadly reflected the population distribution across the country. Most of those participating in the survey subscribed to at least one of the four categories of services (internet, cable TV/IPTV or Satellite TV, landline telephone, and wireless mobile service) with the highest subscription participation being

[31] The focus groups were held in Ottawa and Montreal in October 2017, with the Montreal sessions involving separate groups of English and French speaking consumers, while those in Ottawa were conducted in English. A total of 24 consumers participated in the focus groups.

for home internet (95% of those surveyed) and the lowest being for landline phone service (67% of those surveyed), as seen in Figure 3.1 below.

Figure 3.1 – Distribution of Service Subscriptions Amongst Respondents



The first key question that was asked of respondents was whether they felt they had real choice in the communications services market. They were asked this question according to the services to which they subscribed. For all four service categories at least three-quarters of the respondents claimed that "yes they had a "real choice" of service providers", and for mobile phone service it was a remarkable 89%, as seen in Table 3.1 below.

Table 3.1 – Consumers Views of "Real Choice" of Service Providers

Type of Service	Total	Yes, I have a "real choice" of service providers	No, I do not have a "real choice" of providers
Home Internet:	950	79%	21%
Wireless mobile or cell phone provider	866	89%	11%
Home or landline phone service	669	77%	23%
Cable TV/IPTV/Satellite TV	778	75%	25%

For those respondents who said that they did not feel they had a real choice of service providers, the most frequently reported reasons for this lack of choice, by between a third to over a half of the individuals, over all four types of service, were that:

- there are few or no choices of other service providers in my community;

- all service providers basically offer the same service; or
- all service providers basically offer the same price.

Smaller proportions of respondents over the four categories (about10%) thought that the services offered by other providers were not of adequate quality, or that other providers could not offer similar or competitive bundles of services compared to their current provider. Those responding for home internet and mobile telephone service had higher levels of concern about inadequate service quality (18 and 24% respectively).

We next asked whether over the last two years respondents had considered switching service providers, or in fact had actually switched providers. The results were very similar across all four service categories with just under a fifth indicating they had switched providers and just over a third had considered switching, but had not done so. Just under a half of all respondents said they had not switched and had not considered switching their provider over the past two years. See Table 3.2 below.

Table 3.2 – Consumer Consideration of Switching Providers

Type of Service	Total	Yes, I have switched my service provider	I considered switching my service provider, but did not switch	No, I did not even consider switching
Home Internet	950	19%	38%	43%
Wireless mobile or cell phone provider	866	19%	34%	48%
Home or landline phone service provider	669	18%	32%	51%
Cable TV/IPTV/Satellite TV	778	17%	38%	45%

We then asked each of the groups who switched providers, or considered switching providers, what were the principal factors which motivated the desire to switch and the results were remarkably consistent across the four service categories and between those that actually switched and those who considered switching. Price was by far and away the principal motivating factor,[32] with about three-quarters of those who switched citing

[32] The next most common factor cited was service quality (31-41% amongst the switchers, and 25-32% amongst those who considered switching) followed by billing problems and customer support, which

it as the top factor (slightly lower for wireless mobile at 67%) and even slightly higher amongst those that considered switching, but did not do so (consistent with the CRTC survey, above). Thus, once again we have a question raised of, if the consumers who considered switching but did not, were equally motivated by pricing as those consumers that did switch, what other factor(s) prevented them from actually switching?

For those who did consider switching providers, but in the end decided not to, we asked what factors caused them to decide not to switch. Surprisingly, the most frequently cited factor was that, in the end, they decided that the cost of the service with their existing provider was better than they could obtain from an alternative provider.[33] This answer appears to contradict the high percentages of "considerers" (low 60%) who said the price of their current provider was too high and/or better prices were to be had with an alternate service provider.

The next most commonly cited reason was the inconvenience of changing equipment and re-installation of new equipment,[34] or more generally that switching services would have been "inconvenient". Bundling was also identified, after inconvenience, as a factor making switching difficult, followed by other switching costs which made the decision to switch unattractive. The full list of reasons cited is listed in Table 3.3below. It should be noted that many respondents cited more than one reason for deciding in the end not to switch providers.

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were both cited by about a fifth of respondents who switched and by about a sixth of those who considered switching. Note, the question allowed respondents to choose multiple factors.

[33] Note, 12% also said that they decided that their current provider's package of features was satisfactory.

[34] Significantly, while this was the second most frequently cited reason for mobile telephone subscribers, as for all other services, it was quoted less frequently than for the other services (20% vs. 28-29%) likely because most mobile phones are now interchangeable across networks, although they may have to be unlocked to do so (which the CRTC recently mandated).

Table 3.3 - When you considered switching communication service provider but did not, what factors prevented you from making the switch?

Type of service	Home Internet service provider	Wireless Mobile or cell phone provider	Home or Landline Phone	Cable TV, IPTV or Satellite TV
Total	357	291	212	298
I decided pricing was better with the current service provider	32%	42%	34%	30%
Avoiding hassle of changing equipment and reinstallation of required equipment	29%	20%	28%	28%
It would have been too inconvenient	24%	18%	25%	23%
Bundled services made it difficult to switch	21%	17%	22%	22%
There would have been other switching costs	18%	15%	22%	18%
Lack of choice in terms of type of service (e.g., wireless coverage limits, available Internet speed, available TV programming, available long-distance telephone offers, etc.)	14%	12%	14%	13%
I decided I was satisfied with my current service provider package	12%	12%	9%	12%
Lack of technical know-how	8%	9%	7%	9%
Did not know enough about other service providers/offerings	8%	8%	6%	8%
I was afraid of being without service while making the switch	7%	4%	5%	6%
Negotiated with my current provider and was given a discount/better deal	7%	2%	2%	6%
No time to shop around	1%	1%	1%	1%
Coverage/service not available where I live	1%	1%	1%	1%
Current provider has a better customer service	1%	1%	*%	*%
Other reason	1%	1%		1%

For those who did switch, we asked what problems they encountered when switching service providers. Most respondents had problems switching, with over two-thirds reporting issues with the switching process while just under a third (31%) had no problems with the process. About a quarter of respondents experienced difficulties changing equipment and a slightingly larger number (27%) encountered switching costs, while about a fifth experienced a period when they were without service and/or

had problems cancelling the service with the previous provider. Significantly, some respondents mentioned more than one problem (see Table 3.4 below).

Table 3.4 - Which of the following issues or challenges did you face when switching your service provider, if any?

Total	**Total-318**
Switching costs	27%
Hassle of changing equipment	25%
Lack of connection (that is, a period of disconnection)	21%
Difficulty in canceling previous service	20%
Lack of technical support	12%
Hassle of changing email address and updating records	9%
I was locked in a contract so had to wait for it to expire	9%
Dissatisfaction with service/staff	1%
Billing issues	1%
Other	*%
None, I had no issues when I switched	31%

Also, significantly, the percentages of those who actually experienced these difficulties when switching mirrored the percentages of "considerers" who imagined that they might have these difficulties were they to switch (and therefore decided, at least in part, not to switch due to the perceived/anticipated difficulties).[35]

We also asked those who switched providers what issues or challenges they faced in getting their previous service cancelled. Again, under a third (29%) indicated they had no problems with their previous service provider. However, of those that did have a problem, and some cited more than one, the most commonly cited issues (with a quarter of respondents claiming they experienced them) were either having to wait to the end of the billing period to cancel, or being bothered by their previous provider to come back to them ("winback" communications). About a fifth mentioned having to pay a cancellation fee, or having to buy or change equipment, or having to return old equipment to the previous provider. See Table 3.5.

[35] For example: equipment replacement hassle (25% switchers vs. 28-29% considerers (mobile only 20%)); "inconvenience" or "lack of connection (that is, a period of disconnection)" (21% switchers vs. 23-25% considerers (mobile, 18%)); "switching costs"/"other switching costs" (27% switchers vs. 18-22% considerers (mobile 15%). Note that in the last category, it is possible that if "inconvenience" (that is, lost personal time) were listed as a choice for the switchers, it is possible the numbers listed for this last category would be even more similar.

Table 3.5 - When you switched service providers, what issues or challenges did you face in getting your previous service canceled, if any?

Total	Total-318
I had to pay a cancellation fee	21%
I had to wait to end of month or billing period to cancel old service	25%
My former service provider kept calling and writing to try to get me to come back	25%
I had to change or buy new equipment	19%
I had to return old equipment	23%
Over billed	1%
Waiting for a refund	1%
Other issues	*%
None, I had no issues with my former provider	29%

As bundling has been identified as a major factor inhibiting switching communications services anecdotally, we asked all our respondents who had subscribed to any of these services whether they bundled them. Of the 968 respondents who subscribed to at least one service, 78% indicated they bundled services while 22% did not, the latter group presumably including those that subscribed to only one service. Of those who did bundle their services (756 respondents) 96% had home internet in the bundle, 79% had a television distribution service in the bundle, and 69% had a home or landline telephone in the bundle. Only 35% included a mobile telephone service in their bundle. This is not surprising as, with landline telephone and television distribution services being increasingly delivered through the same IP technology as internet access, there is an opportunity for providers to try and offer bundling for those services, whereas mobile telephone service is delivered independently of wired services and some wireless providers do not offer other these other services.[36]

Finally, we asked respondents how aware were they that the CRTC had rules, such as the *Wireless Code* the *TV Service Provider Code* and the *Deposit and Disconnection Code*, governing how customers were treated when they switched mobile providers, interacted with paid TV providers or were disconnected from wired or wireless telephone service. Of the 1002 respondents who answered this question only 18% were "very aware" of these rules, while 43% were "somewhat aware". A substantial proportion of the respondents, 39%, were "not aware at all" of these rules.

[36] Satellite TV services are not obviously delivered through wired services, but they are a small part of the television distribution services market and usually offered in areas that do not have ready access to wired services, especially highspeed internet service. One major wireless provider Freedom, does not offer other communications services, neither do many small Mobile Virtual Network Operators such as Petro-Canada Mobile, PC Mobile, etc.

4.4 PIAC Survey of Consumers of Telecommunications and Broadcast Distribution Services – Conclusions

Like the CRTC survey before it, the results of our survey are perplexing. Clearly, most respondents (over three-quarters) felt they had a "real choice" of providers in the four segments of the market (mobile, home internet, landline telephone and home TV): see Table 3.1. However, only just under a fifth of the respondents actually switched their provider over the most recent two-year period (see Table 3.2). This low number was not because they appeared to be greatly satisfied with their current service provider. In fact, many expressed reservations about their present service and in particular, its pricing. In addition to about a fifth of the respondents who did switch, over a third of respondents considered switching providers in the two-year period, meaning over half of those surveyed either actually did, or stated that they wanted to, change their service provider.

The reasons for switching, or considering switching, were primarily rooted in dissatisfaction with pricing. For example, most felt they were paying too much for their service or that alternative service providers would be cheaper (up to three-quarters of respondents felt this way, depending on the service and whether they were "switchers" or "considerers") with a significantly smaller proportion motivated to switch because of poor service quality, billing problems or poor customer support. Yet the fact that both switchers and non-switchers cited similar complaints about pricing, but only one (much smaller) group (the "switchers") actually switch raises the question of what impeded the "considerers" from switching providers.
It appears that the best guess is other switching costs interfering with the exercise of choice (in the form of switching) with the group of "considerers".

It also appears that when it finally happened, switching was not a happy experience for many respondents. While just under a third of those who switched providers did not experience a problem, the remaining two-thirds did have problems, with issues ranging from having to cope with switching costs, having to change equipment, having a period of disconnection, having problems in cancelling the previous service, or a lack of technical support (see Table 3.3 for the full list). Further, over 70% of respondents who switched reported having issues with their previous provider ranging from having to pay cancellation fees, having to wait until the end of the billing period to terminate their service, problems exchanging or returning equipment, or being solicited by their previous provider with marketing approaches to return.

The fact that switching was in general a problematic process for consumers is, in itself, a major discouragement to future switching. Further, the fact that consumers with bad

experiences may well talk to friends and family about their switching experience suggests that other consumers, through word of mouth, could be discouraged from either trying to switch, or even to consider switching as an option.

It is interesting to note that many of the barriers to switching identified in the surveys were highlighted by respondents when discussing their decision not to switch, or their experience of considering switching (but then not switching). These issues included: additional costs related directly to the potential switch, such as having to buy new equipment and return equipment to a former provider; taking the time off work or out of their busy lives to schedule and attend with the technician for (often lengthy, or anticipated lengthy) installation; difficulty in synchronizing and organizing the service transfer; problems with equipment incompatibility; and the fact that many respondents were subscribed to a bundle discount, which reduces a consumer's ability to calculate the financial advantages of switching, thus making the financial benefits of switching more uncertain.

5. Barriers to Switching in Telecommunications and Broadcasting Service Markets

The primary research reveals a paradox: despite their indication that they overwhelmingly feel they have competitive options, and indeed a large plurality have generally indicated an intention to switch in the near future, consumers appear to be unable or to be reluctant to effectively exercise choice (that is, switch providers) in the communications services marketplace (as revealed in the low churn numbers available and the generally persistently high market shares of major competitors in each market).

We turn now to examine the possible reasons for this counterintuitive result.

As outlined in the Introduction, there are two sets of factors which can limit choice in a sector such as telecommunications and broadcasting services. The first are what we will refer to as "structural" factors such as the level of competition in the market, the kinds of restrictions in place, for example in contract conditions which prohibit or discourage switching providers, and technical standards or systems which are incompatible and involve additional costs on the part of the consumer to purchase new compatible equipment if they want to change providers. All these factors impose costs on consumers both financially, and in terms of time and effort, when they enter into the process of switching from their current service provision arrangements to another and usually another provider.

The second set of factors relate to the ways in which consumers themselves approach decision-making in markets and in particular the behavioural biases they bring to these decisions which can inhibit them from switching, or cause them to make poor choices if

they do switch. Drawing on empirical research in the behavioural sciences over the last thirty to forty years this revolution in our understanding of how consumers make decisions has spawned a whole new discipline grouped under the rubric of "behavioural economics" which we discussed briefly in the introduction. These human behavioural biases exist independently of the structural barriers to choice, and in particular, contractual switching costs. However, these behavioural biases interact with, and in many cases amplify, the structural barriers to choice and switching that exist in the communications marketplace creating an extremely challenging environment for ensuring beneficial outcomes for consumers Most challengingly for regulators and consumers, it appears that behavioural biases may even encourage providers to engage in marketing, contractual and other practices that exploit those biases to limit choice and reduce switching.

5.1 Structural Barriers to Switching

The literature on consumer switching behaviour reveals two broad categories of explanations for the generally low observance of consumers changing service providers, especially in communications markets. The first of these are broadly "structural barriers" to switching, such as "setting the table" with few options in a concentrated market; the imposition of, or natural appearance of, "switching costs" to the customer making the switch and finally, (un)avoidable technical standards (barriers) to switching due to technology or other incompatibility or lack of interoperability of consumer hardware devices to access services.

5.1.1 Market Structure

The issue of the concentrated market structure of Canadian communications markets is dealt with above in section 2.1. Suffice to say that in most markets, for all four major communications services, Canadians generally face an oligopolistic market with 2-3 major service providers roughly sharing (together) an overwhelmingly large market share, which can enable tacit collusion and other market effects that reduce consumer welfare by, for example, controlling prices, limiting product or service choice and implementing contractual or service provisions that unfairly benefit the provider.

5.1.2 Switching Costs

Outside of market structure itself, economic discussions of switching focus to a great extent on "switching costs" as barriers to free consumer movement between service providers. For an explanation of the major types of switching costs, we turn to various economics research. These works make it clear that there are three major cost categories: learning costs; transaction costs and contractual costs.[37] However, these are

[37] C. Martins, Rodrigo & Hor-Meyll, Luis & Ferreira, Jorge. (2013). Factors Affecting Mobile Users' Switching Intentions: A Comparative Study between the Brazilian and German Markets. BAR - Brazilian Administration Review. 10. 239-262. 10.1590/S1807-76922013000300002, citing Klemperer (1987, 1995), *op. cit.*

quite different in source and effect upon consumers There are other dimensions to switching costs and the source of the costs matters:

> There are three kinds of switching costs – learning costs, transaction costs and contractual costs (Klemperer, 1987, 1995). Jones, Mothersbaugh and Beatty (2002) demonstrated the multidimensional nature of service switching costs, pointing out three main dimensions: continuity costs (including contractual lock-in costs that penalize a discontinued service relationship), learning costs and sunk costs (that are mostly psychological in nature).
>
> Weiss and Anderson (1992) considered the effects of two categories of switching costs: those incurred by consumers (transaction costs and efforts to learn to use new options) and costs that would lock consumers into a service provider, such as contractual restrictions or penalties for commercial relationship termination.
>
> While learning costs and transaction costs reflect social costs of switching providers or brands, contractual costs are an artificial type that is distinguished from the other two by the absence of the social costs of switching (Klemperer, 1987). Contractual costs are due to long-term contracts, created by firms in competitive markets in order to penalize switching by customers, to bear set-up costs that cannot be recouped by entry fees (Büschken, 2004; Caruana, 2004). Büschken (2004) called them ―contractual lock-in (p. 81). [Emphasis added.][38]

Thus, although consumers face some costs that are inevitable due to going into the market and spending the time to ponder and choose, and other costs that a new provider cannot help but charge on opening a new account, there are a significant number of costs imposed by firms in contracts that amount to a "leaving tax". Therefore, this report focuses on the contractual costs imposed by communications service providers.

5.1.2.1 - Learning Costs

While consumer learning costs (that is, the actual time, effort and money to research the market and to rank offers, that is, to "shop around") are inevitable and therefore would seem to be largely unavoidable, depending on customer's willingness and stamina in undertaking them, it is nonetheless notable that the communications market in particular has higher than average learning costs.

Customers going to market for cellphone, home Internet and paid TV services, alone or separately, face myriad plan choices and options despite the relatively small number of major service providers. Even with previously staid home phone service, there are now more options, well beyond long distance plan and call waiting features. To a very great extent, this variety of plans, in addition to the variances in hardware requirements and

[38] *Ibid.*

channel packaging for offers in TV, handset choice and calling, texting and data plan for mobile service and download speed and data caps for home Internet make these markets ones that require serious study to properly analyze. An additional layer of complexity is added when services are bundled.

Consumers, therefore, face these learning costs when wading into the communications market. They can expect to understand and map out only a fraction of features, plans, rates and services covered and make choices among related hardware. As noted in a leading paper on switching costs and behavioural economics in communications markets (here speaking of mobile in a time before the complexity of data charges):

> A perfectly informed and perfectly rational consumer would easily navigate this maze and find the best plan for him. But the amount of information required is substantial, since it includes information about both available plans and the consumer's own use patterns. It is unlikely that he will have all this information. Moreover, as shown above, consumers are often mistaken about their future use. Even if the consumer had the necessary information, translating this information into a metric that would allow him to rank the different plans is a daunting challenge that most consumers cannot be expected to overcome.[39]

Consumers are faced with complexity of unprecedented scale in this market even if service providers are not purposely creating more plan options than there are true consumer needs and preferences.[40] This is a cost to the consumer, one mentioned in our

[39] Bar-Gill, O., and Stone, R. "Mobile Misperceptions", Harvard Journal of Law & Technology, Volume 23, Number 1 Fall 2009, pp. 49-118, at p. 95.

[40] See Lunn, P., "Telecommunications Consumers: A Behavioural Economic Analysis", Working Paper No. 417 (Dublin: Economic and Social Research Institute, December 2011), available at: http://www.tara.tcd.ie/bitstream/handle/2262/63857/WP417.pdf;sequence=1 at pp. 4-5:

> First, modern telecommunications consumers often face complex decisions that require simultaneous judgments involving multiple, distinct dimensions of private value. The decision to purchase a particular service contract is often taken simultaneously with the decision to purchase equipment, such as a mobile handset, wireless modem, or perhaps a recording device for television programmes. The consumer may have to estimate quality trade-offs between the value of ongoing service and the immediate benefits of owning (or in some cases renting) the device associated with the offer. The complexity of simultaneous judgement is greater still where different services are bundled, e.g. fixed-line and broadband internet, broadband and television, etc.

Lunn adds three other factors that make choice in communications markets complex for consumers: 1. much of the value provided depends on factors unrelated to the product and provider; 2. telecommunication in the digital age is subject to an extreme pace of technological change; 3. [c]ommunications equipment and services, […], are typically subject to multiple daily decisions relating to a very much broader range of experiences and opportunities of variable quality and duration [than simpler services such as electricity use].

focus groups on several occasions as a deterrent to shopping around: simply the effort it would take to determine or even make an educated guess about the "best" plan.[41]

Finally, we agree with Lunn, that the inclusion of "psychological costs" in these learning costs, despite the very wide general definition of "switching costs" is inappropriate for the purposes of examining appropriate regulation of the sector. Adding this definitional factor excludes the possibility of a behavioural economics explanation for observed consumer behaviour of not switching despite the prospect of objectively better service with a new provider. That is, the inclusion of "psychological costs" accepts rational utility theory as the sole explanation of consumer behaviour, which does not accord with our observations of the paradoxes in our survey and focus group results. Therefore, this report considers learning costs to be restricted, as stated above, to the actual time, effort and money consumers must expend to "shop around" in the communications market.[42]

5.1.2.2 – Transaction Costs

This could also be termed the "account set-up" or administrative costs (time, effort, money) of switching to a new provider,[43] which generally cannot be avoided unless the welcoming new firm were to waive initial administrative fees or provide hardware or other services that they usually charge for and which in a competitive market presumably are charged as cost recovery, or nearly so. There is, therefore, little the customer may be able to do about this type of charge, which does exist in the communications market.

It is worth noting that for some markets with competitors who use "wholesale" inputs such as the Internet "reseller" market, there may be administrative costs associated with the wholesale (input) tariff, that the reseller must pass along to the customer unless the reseller ISP wishes to take a loss on acquiring the customer. For example, the main "high speed access tariff" for use of Bell Canada facilities to support resale of residential Internet service requires the wholesale customer (reseller ISP) to Bell a fee of $50 for an account set up for this purpose. The reseller passes this cost to the consumer and the consumer generally cannot avoid it.

5.1.2.3 – Contractual Costs

Of these three costs, "contractual costs are an artificial type that is distinguished from the other two by the absence of the social costs of switching."[44] That is, the last category is not an inevitable cost of the consumer having to shop the market, and make

[41] [Add examples from focus groups.]
[42] See Lunn, P., "Telecommunications Consumers: A Behavioural Economic Analysis", *op. cit.*, at section "3.1 - The Concept of Switching Costs", pp. 8-9.
[43] *Ibid.*
[44] *Ibid.*

an effort to understand market options (and pay the new provider for the new service),but rather is costs imposed, such as early termination fees, that arise only if the customer tries to switch (and are imposed in a contract with the original provider).

Canadian telecommunications markets exhibit extensive and serious contractual switching costs. Some of these have been addressed by the CRTC, however, many persist in one or more of the four markets (Internet, wireless, TV, home phone). It is worth, therefore, detailing a few.

Early Termination (Cancellation) Fees

Notorious in the wireless space, until regulated by the CRTC's *Wireless Code*,[45] and persistent in various forms in other markets to today are early termination fees (called "early cancellation fees" by the CRTC).

Many service provider contractual provisions required payment of, variously, the full cost of handsets (wireless phones), set-top boxes (TV), modems (Internet) and even black rotary dial telephones (wired telephone service). Some contracts prescribed a form of "liquidated damages" for the loss of expected monthly revenue from a customer that cancelled "early". Such fees were made payable to the last day of a contractual period. Other contractual provisions (since also disallowed by the CRTC)[46] required payment of the remainder of a month of service (and sometimes the fee for a following month) if a customer canceled or switched providers mid-month.

Wireless handset fees are now under the regulation in the *Wireless Code* and are required to be reduced by an equal amount per month towards full amortization of the amount outstanding (if the phone was offered on a "subsidized" basis by the service provider). Further, no other fee except the early cancellation fee, as calculated under the Wireless Code, may be charged.

However, various forms of early cancellation fees are still charged in Internet, home phone and TV markets to this day. Several are linked, as mentioned, to repayment of a non-amortized fee for any equipment not returned at the date of cancellation or switching.

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[45] See: *The Wireless Code*, Telecom Regulatory Policy CRTC 2013-271 (3 June 2013) and *Review of the Wireless Code*, Telecom Regulatory Policy CRTC 2017-200 (15 June 2017).

[46] See: *Prohibition of 30-day cancellation policies*, Broadcasting and Telecom Regulatory Policy CRTC 2014-576 (6 November 2014). Online: https://crtc.gc.ca/eng/archive/2014/2014-576.pdf

Lengthy Contract Terms (Lock-in)

Wireless contracts prior to the CRTC's Wireless Code decision typically were three years long. Often, this exceeded the useful life of a handset. The Wireless Code stated mobile contracts could be only 2 years in length as a maximum. Despite an appeal to the Federal Court of Appeal by the service providers, this regulatory requirement has been upheld. It also has had the effect that most communications services contracts are now up to 2 years in length, even in the other markets. Nonetheless, a two-year contract constitutes a form of contractual switching cost as, even with rules such as the Wireless Code amortization of early cancellation fees for handsets, the customer still must pay out his or her provider for the remaining value of the phone to take it to a new provider.

As Bar-Gill and Stone note, in their paper, "Mobile Misperceptions":

> Lock-in prevents efficient switching and thus hurts consumers. One survey found that 47% of subscribers would like to switch plans, but only 3% do so — the rest are deterred by the ETF [early termination fee]. Switching is efficient when a different carrier or plan provides a better fit for the consumer. Lock-in can also slow down the beneficial effects of consumer learning and prolong the costs of consumer mistakes, since even consumers who learn from experience cannot benefit from their new-found knowledge and switch to another carrier's plan or to a prepaid plan. (Insofar as carriers allow consumers to switch among their own monthly plans, consumers can benefit from learning.) In addition to these direct costs, lock-in may inhibit competition, adding a potentially large indirect welfare cost. Since lock-in may prevent a more efficient carrier from attracting consumers who are locked into a contract with a less efficient carrier, it can deter new carriers from entering the market. [Footnote omitted.][47]

The authors note that while some customers may need the phone "subsidy" to afford a smartphone (and that this may be the reason for the ETF based on the phone if the customer leaves early) the question arises as to why the service provider would not offer an unsubsidized phone and leave the financing of the hardware to another party.

"Locked" Wireless Handsets

Another major contractual switching cost that has been partially, but not fully, remedied due to its inhibition of switching was the practice by major providers of providing only

[47] Bar-Gill, O., and Stone, R. "Mobile Misperceptions", Harvard Journal of Law & Technology, Volume 23, Number 1 Fall 2009, pp. 49-118, at p. 55.

"locked" cellphones to customers purchasing their cellphone from a provider along with a wireless service plan. This practice, which was subsequently prohibited by the CRTC, prevented the consumer from using their phone on a rival's network, even though the device was technically compatible with the other provider's network. Taking the device to a service to have it "unlocked" was a violation of the wireless services contract. The net effect of this practice was to force the customer to purchase a new phone that was unlocked, purchase a phone from the new provider, or go to a third party to have the lock code disabled; all potentially expensive and time-consuming options. Further, locked phones required the customer when roaming to use their provider's roaming facilities which were/are usually much more expensive than purchasing a SIM card and telecommunications from a local provider in the area you are roaming in, especially when you are roaming in the US or overseas.

As a consequence of a hearing on this and a number of issues associated with the Wireless Code in 2017, the CRTC prohibited the sale of locked phones by providers and required that providers unlock phones previously sold to customers free of charge. The comments by the CRTC on the rationale for this decision are telling:

> 291. Based on the record of the current proceeding, it is clear that locked devices still impede the development of a more dynamic marketplace. Unlocked devices offer more consumer choice and convenience, contribute to a decreased risk of bill shock by providing options to consumers while travelling abroad, and reduce a significant barrier to switching WSPs by improving device portability. Further, while some evidence has been provided on the record of this proceeding regarding a potential link between locking devices or charging to unlock them, and subscription fraud, the Commission considers that it is not persuasive in the circumstances.[48]

Bundling

The practice of service "bundling" impedes switching behaviour.[49] Bundling means obtaining more than one service from the same service provider, usually for a discount on the overall price (or other benefit) compared to subscribing to the individual services separately. Bundling is typical in modern Canadian communications markets, and usually means "triple" bundles: home (wired) Internet with home (wired) telephone

[48] Telecom Regulatory Policy CRTC 2017-200, 15 June 2017, para. 291.
[49] Stakeholder Interview, Response to Stakeholder Consultation, ABC Communications, *phone interview* (February 21, 2019).

access and paid TV service (wired)). There are some quadruple bundles, where wireless is added, and other combinations and permutations are possible but less common. Consumers generally face more variables, barriers and more complex contractual provisions for bundles than for single service contracts.

This supposition that bundling discourages switching is supported by statements made in our focus groups regarding the difficulties of breaking up bundles to subscribe to cheaper services or even to switch from one bundled package with one provider to another bundled package with another provider:

> "*If you have a whole bunch of your services with one company, does that make you hesitant about switching one of them to a different company?*
> Yes.
> It can.
> Yeah.
> That's actually happened.
> You want everything together. It's just easier.
> Yeah.
> It's easier having everything together."[50]
>
> […]
>
> *Or even just the idea that, you know, you might suddenly be getting multiple bills instead of getting it all on one?*
>
> That's the thing. I'd rather switch it all than like just go with like one Internet for this one and then…
>
> And I get my three different bills every month.
>
> Yeah, that's the thing, and they usually do like, oh, you get this whole bundle, and we save you some money.
>
> Yeah, exactly, bundles say that.
>
> Yeah, because we were looking at like going with Videotron and then putting the cell phones on a contract, and Rogers said…
>
> *So, you would probably switch it all. You wouldn't do one by…*

[50] Ottawa Focus Group, First Session, Transcript, p. 29.

> I would just switch it all, yeah.
>
> *You wouldn't be having a smorgasbord of different…*
>
> Yeah, because I think you'll have a better package.[51]

Stakeholders in smaller competitive ISPs state that incumbent service providers use bundling as a technique to compete on price, even to the point of lowering retail offers below their wholesale cost. However, their customers are willing to enter into fixed-term contracts if they can achieve their desired price point with aggressive bundling discounts offered by incumbent carriers, even if that bundle includes services that they do not want and will not use (e.g. a telephone service).[52]

Economists as well have shown that Internet access service customers in South Korea that had previously bundled Internet service with other services such as home telephone were between 15 and 20% less likely to switch than comparable customers:

> Using a South Korean survey dataset from the government agency, Korea Information Society Development Institute (KISDI), I find that Internet subscribers who previously bundled are about 17.4 percentage points less likely to switch their Internet service provider than those who did not bundle. The survey was specifically designed to understand the bundling of telecommunications services, and the dataset contains detailed information on individuals' past and current bundle statuses. In my empirical analysis, I include a wide range of controls that include demographic characteristics, company preferences, past service providers, and status-change years. The results are robust to additional controls and specifications.[53] [Emphasis added.]

Canadian data on bundling and customer switching is not available, however, there is at least a *prima facie* case that the situation in Canada would be similar; that is, bundling significantly reduces likelihood of consumers to switch in competitive markets.

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[51] Montreal Focus Group (English), Transcript, p. 25.

[52] TekSavvy Solutions Inc., a major independent ISP, during stakeholder consultations referred us to its submission to Competition Bureau Market Study: Competition in Broadband Services (Abridged version, published February 25, 2019), at "Consumer Experience Scenario #2: Incumbent offers" pp. 48-49 for this information. Online: https://teksavvy.com/wp-content/uploads/2019/02/TekSavvy-Submission-Competition-Bureau-ABRIDGED.pdf

[53] Lee, Stephanie, "Does Bundling Decrease the Probability of Switching Telecommunications Service Providers?" (June 29, 2016). Review of Industrial Organization, Vol. 50, No. 3, 2017. Available at SSRN: https://ssrn.com/abstract=3014978

Conclusion on Contractual Costs

Economists have reached several conclusions on the economic effect of switching costs on consumer markets:

> We have argued (in Section 2) that consumer switching costs (whether real or perceived) are widespread, and our analysis suggests that the resulting welfare losses may be substantial: switching costs generally raise prices and create deadweight losses of the usual kind in a closed oligopoly (Section 4), and may also discourage new entry and so further reduce the market's competitiveness (Sections 3.2 and 7.3). Switching costs reduce the product variety available to consumers by reducing firms' incentives to differentiate their products in any real (functional) way (Section 6.1), as well as by directly preventing switching between different products. To the extent that some consumers nevertheless switch between firms, direct welfare losses are suffered. Finally, because switching costs tend to reduce competition, firms may dissipate more social surplus in costly activities to create them. [Emphasis added; footnotes omitted.][54]

Thus, several nefarious and substantial negative effects on the market follow from artificial switching costs – yet these costs are rampant in communications markets. Several studies have tried to argue either that such contractual switching costs are impossible to eradicate,[55] or that the market will in fact do so,[56] however, what they appear to be missing is the explanation that comes from consumer behaviour, and how it could leverage, combine with and even create the contractual switching costs to which we now turn our consideration.

5.1.3 Technical Standards

Technical barriers to switching have been reducing in this sector as the technologies on which the services are based have standardized. Gone are the days when you had to buy a new mobile handset when you changed providers because they worked on different

[54] Klemperer (1995), *op. cit.*, at p. 536.
[55] Xavier Gabaix & David Laibson, "Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets", 121 Q.J. ECON. 505 (2006).
[56] Farrell J. and Shapiro, C., "Dynamic Competition with Switching Costs", RAND Journal of Economics, Vol. 19, No. 1, Spring 1988.

transmission technologies. Today most handsets will work on most providers' networks, although there are a few exceptions.[57]

There are, however, technical barriers to switching on internet and broadcasting distribution services where the equipment required to be connected to these services (video receivers/recorders) are specific to the providers' network and if you change providers you may have to purchase new equipment from the provider you are switching to and may be required to return equipment to your former provider or face a fee penalty. Providers may waive purchase fees for new equipment, but insist on a contractual commitment to the service for a period of time, typically for two or more years depending on the equipment, or charge a rental fee for the required new equipment. All of this of course dissuades consumers from switching both for reasons of cost and convenience.

It is not clear why providers have different proprietary technologies for enabling devices such as PVR receivers or set top boxes for TV services, other than to serve as a barrier to switching by increasing the cost and complexity of subscribing to a new service supplied by a different provider. There is scope here for the regulator to intervene to require such standardization of the technologies used for such devices, or indeed, ensure that providers' systems are compatible with any number of third party suppliers of such devices, so that consumers can purchase and supply their own devices and take the devices with them when they change providers.

While not a technical standard as such, for some time the address of your service account (in the case of telecommunications your telephone number and in the case of your internet provider, your email address) had to be changed if you changed providers. For some time, studies have indicated that lack of number portability was a key barrier preventing consumers from switching telecommunications service providers. [58] Having to change your telephone number or email address could prove to be a very time-consuming process if you had a large number of individuals that you communicated with who would have to be informed about your change. Further there would be the added risk that if you forgot tell some individuals of the changes, they would not be able to reach you, especially if you changed a mobile telephone number or email address, as there are no finding services such as 411.ca for these types of addresses.

While it has been the case for some time now that you can take your landline or mobile telephone number with you to a new provider, and the procedures for doing so have been streamlined and made relatively convenient, you still cannot take an Internet

[57] Freedom Mobile uses some LTE spectrum which is not compatible with some mobile handsets sold in North America, see *Mobile Syrup* at https://mobilesyrup.com/2017/07/11/oneplus-5-other-unlocked-band-66-devices-may-be-incompatible-freedom-lte/

[58] Juan Pablo Maicas, Yolanda Polo, Francisco Javier Sese, "The role of (personal) network effects and switching costs in determining mobile users' choice" *Journal of Information Technology*. (2009) 24, 160-171.

service provider specific email address with you. While it is possible to use non-ISP specific email addresses such as @hotmail.com or @gmail.com, many individuals who adopted, at their internet providers' suggestion, a provider specific email address such as @sympatico.ca, or @rogers.com, face the prospect of complex and lengthy changes of address notification if they change internet service providers. There has been some debate that it should be possible to change your ISP but still use your old ISP specific email address, but there seem to be specific technical problems to doing so which would be required to be resolved.[59]

5.2 Behavioural Barriers to Switching (Behavioural Economics)

For many years the accepted understanding for how individuals made marketplace decisions - such as switching between service providers - was the neo-classical model of the atomistic consumer who thoroughly analyzed marketplace options and made choices based on a rational calculation of his or her own self-interest. This is a "rational choice" model of consumer behaviour and is also known as "expected utility theory".[60]

Under expected utility theory, it was posited that consumers would be willing to spend considerable time assessing product and service attributes, and determine which product best suited their needs for the lowest cost. In addition to assuming that consumers were laser-focused on their own needs – and cognizant of all of the facts and factors of the market – this theory relied upon an assumption that consumers would always take steps to maximizing their own self-interest.

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[59] See, John Levine, "Are Portable Email Addresses Possible?", Circle ID.com. 6 March 2010 accessed at http://www.circleid.com/posts/are_portable_email_addresses_possible/ (accessed 23 March 2019).

[60] See, for example, Friedman, M., and L. J. Savage: "The Utility Analysis of Choices Involving Risks," *Journal of Political Economy*, 56 (1948), 279-304; Keeney, R. L., and H. Raffia: *Decisions with Multiple Objectives: Preferences and Value Tradeoffs.* (New York: Wiley, 1976); Arrow, K. J. *Essays in the Theory of Risk-Bearing.* (Chicago:(Markham, 1971); Von Neumann, J., and O. Morgenstern, *Theory of Games and Economic Behavior*. (Princeton: Princeton University Press, 1944).
Note that we are examining "decision-making under risk", that is, decisions where the customer is uncertain of the exact effect of the choice and whether it will indeed enhance his or her welfare. This is to be contrasted with situations where the consumer is certain of the outcome, in which case his or her choice will be identical to his or her preference. See Samuelson, William, and Richard Zeckhauser. "Status Quo Bias in Decision Making." Journal of Risk and Uncertainty, vol. 1, no. 1, 1988, pp. 7-59, at 7 (online: https://sites.hks.harvard.edu/fs/rzeckhau/status%20quo%20bias.pdf):

> In the canonical model of decision making under certainty, individuals select one of a known set of alternative choices with certain outcomes. They are endowed with preferences satisfying the basic choice axioms-that is, they have a transitive ranking of these alternatives. Rational choice simply means that they select their most preferred alternative in this ranking. If we know the decision maker's ranking, we can predict his or her choice infallibly. For instance, an individual's choice should not be affected by removing or adding an irrelevant (i.e., not top-ranked) alternative. Conversely, when we observe his or her actual choice, we know it was his or her top-ranked alternative.

It was also assumed that consumers acting in this "rational" way would drive markets to serve their interests or welfare by making sellers provide the services demanded at prices consumers were willing to pay. Of course, many economists recognized that this simplistic model also needed to recognize that sellers could exercise considerable market power in sectors where there were few providers or sellers (oligopolies) by limiting the range of services on offer, by maintaining prices at high levels, and by using marketing techniques to shift consumer preferences. However, the underlying factors of individual decision-making by the consumer were assumed to be the same.

Not surprisingly, given the formalistic propositions about how consumers made decisions, it was assumed that the main role of consumer protection regulations or frameworks in these situations was to ensure that markets were "competitive" in terms of the product or service options and prices on offer and that the information provided to consumers about products and services was sufficiently complete, transparent and truthful to allow them to make rational decisions about their self-interest.

Four decades ago, this vision of how consumers made decisions started to come into question. Psychologists began to observe and empirically test individual human approaches to decision-making. These psychologists noted that individuals were influenced by emotional and other cognitive variables well beyond a "rational," objective and thorough analysis of their own self-interest based on the information available to them.[61] In fact, many of these behavioural traits produced results that were, in economic terms, in direct conflict with the theory of "expected utility."[62]

5.2.1 A short description of the psychology of thought

Based on experiments designed to determine how and why individuals made decisions it was discovered that, psychologically, humans rely on two "systems" to think and thus two potential ways to come to a decision (which is an exercise in applied thinking).

As described in Thaler and Sunstein's *Nudge*, the thinking machine in your head works like this:

> Many psychologists and neuroscientists have been converging on a description of the brain's functioning that helps us make sense of these seeming contradictions. The approach involves a distinction between two kinds of thinking, one that is intuitive and automatic, and another that is

[61] For a short summary of the main differences between conventional economic theory and behavioural economics in explaining decision-making see, Sendhil Mullainathan and Richard H. Thaler, "How Behavioural Economics Differs from Traditional Economics", *The Library of Economics and Liberty*. Available at: http://www.econlib.org/library/Enc/BehavioralEconomics.html For an interesting, and very personal, description of the early developments in behavioural economics see, Richard H. Thaler, *Misbehaving: The Making of Behavioural Economics*. (New York: W.W. Norton & Company, 2015).
[62] See Kahneman, Daniel and Amos Tversky, "Prospect Theory: An Analysis of Decision Under Risk" *Econometrica*. Vol. 47, No. 2 (March, 1979)

> reflective and rational. We will call the first the Automatic system and the second the Reflective System. (In the psychology literature, these two systems are sometimes referred to as System 1 and System 2, respectively.) [emphasis added; footnote omitted]

The two systems function in different parts of the brain, but for the most part produce harmonious answers or at least compatible ones, however, there are instances where they produce strikingly different answers in key situations. Some of these are illustrated in psychology texts as optical illusions, however, there are cognitive illusions as well.

The Automatic system (System 1), as the name implies, is automatic, and allows you to instantly duck when someone throws a snowball at your head. However, the Automatic system has weaknesses. These weaknesses generally are covered by the Reflective system (System 2), which deliberates and logically reasons matters through:

> When System 1 runs into difficulty, it calls on System 2 to support more detailed and specific processing that may solve the problem of the moment. System 2 is mobilized when a question arises for which System 1 does not offer an answer… System 2 is activated when an event is detected that violates the model of the world that System 1 maintains. [63]

However, the Reflective system appears to take much more concentration and willful brain power and therefore our brains use it sparingly. In harsher terms, it is lazy.

The Automatic system's weakness is its speed and "superficial" view of things. The Automatic system, due to speed and processing of the most readily available information (such as the "obvious" view of an optical illusion) is prone to biases:

> System 1 has biases, however, systematic errors that it is prone to make in specified circumstances. As we shall see, it sometimes answers easier questions than the one it was asked, and it has little understanding of logic and statistics. One further limitation of System 1 is that it cannot be turned off.[64]

The resulting push-pull of the two systems, while usually settling on the best answer given time and an absence of distractions, can become divisive and be in conflict, especially when the individual's mind is distracted by other tasks or stimuli. Kahneman notes: "One of the tasks of System 2 is to overcome the impulses of System 1. In other words, System 2 is in charge of self-control." In cases, where there are multiple simultaneous tasks or considerations, the brain appears to favour the System 1 (Automatic) answer to conserve mental energy and capacity. As a result, the tempering

[63] See Kahneman, *Thinking Fast and Slow*, *op cit.*, at p. 73.
[64] See Kahneman, *Thinking Fast and Slow*, *op cit.*, at p. 75.

effect of System 2 (Reflective) does not intervene, or adequately, leading to reliance on cognitive biases inherent in our Automatic, intuitive thinking centre.

Are we thus trapped into a doomed reliance on an "irrational" self while making important (consumer) decisions? Not necessarily, although avoiding it will take work and planning. As Kahneman concludes:

> The question that is most often asked about cognitive illusions is whether they can be overcome. The message of these examples is not encouraging. Because System 1 operates automatically and cannot be turned off at will, errors of intuitive thought are often difficult to prevent. Biases cannot always be avoided, because System 2 may have no clue to the error. Even when cues to likely errors are available, errors can be prevented only by the enhanced monitoring and effortful activity of System 2. As a way to live your life, however, continuous vigilance is not necessarily good, and it is certainly impractical. Constantly questioning our own thinking would be impossibly tedious, and System 2 is much too slow and inefficient to serve as a substitute for System 1 in making routine decisions. The best we can do is a compromise: learn to recognize situations in which mistakes are likely and try harder to avoid significant mistakes when the stakes are high.[65]

The premise of behavioural economics is that these cognitive illusions, these "biases" lead to predictable error and produce various expected effects upon consumer choice that run entirely counter to expected utility theory and to neoclassical economics.

5.2.2 Heuristics and biases

The heuristics that are used by the individual's "Automatic" or "System 1" thinking, as noted, are, from a human behavioural position, impossible to "turn off". Second, also key to note is that in many cases, the use of the heuristic leads to systemic biases. That is, the heuristic will always produce a sub-optimal or flat-out wrong answer for a consumer in certain circumstances. This is important, as exhortations to consumers to "use their head" or "do their homework" before making choices or acting in the market will not avoid the heuristic answer being retrieved as it is impossible not to think through this stage; and secondly, that that error, unchecked, will always lead to a wrong or "sub-optimal" choice, in certain circumstances.[66]

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[65] See Kahneman, *Thinking Fast and Slow*, *op cit.*, at pp. 83-84.

[66] This insight has major implications for the design of regulatory measures seeking to increase consumers' abilities to make market decisions in their self-interest and in particular their ability to switch to a new provider to seek that consumer gain. In short, regulatory measures that recognize that a bias will appear in certain circumstances no matter what is attempted beforehand to avert it (for example, by mandating "transparency" measures) will not work on its own unless there is a stage at which the measure is applied to help the consumers' "System 2" thinking to counter the bias. Therefore, the most effective

However, the heuristic answer can be changed to a "correct" or "optimal" answer for the individual by "Reflective" "System 2" thought. Such reflective thought, however, takes time, is taxing on the individual and is easily lost when the individual is distracted by irrelevant bells and whistles, that is, by complexity (whether substantive complexity of service offerings or irrelevant complexity in non-essential aspects of service, or indeed almost any other distraction).

So, what are these heuristics and what biases do they, in economic situations like consumer choice, lead to?

Tversky and Kahneman's early work identified three key psychological heuristics.[67] Those three heuristics are:

1. Anchoring;
2. Availability;
3. Representativeness.

These three were demonstrated to affect human thought in the manner predicted based on the psychological experiments that led to the heuristics and biases hypothesis, namely, that despite the individuals being asked a question to which there was a "right" answer they in many cases systematically got it "wrong".

However, what this report is studying is not such decisions: that is, where the question of switching service providers is unequivocally "right" or "wrong". Instead, such a question of whether to switch is, as mentioned above, a decision under a state of uncertainty and therefore a risk (even, a "gamble") as the consumer does not know if the move will indeed benefit him or her price-wise, service quality-wise, or overall "quality of experience"[68]-wise before making the move.

Risk under uncertainty questions, and the mental process to answer them, it turns out, generates another set of heuristics and biases. Again, Khaneman and Tversky were

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timing of a "transparency" measure would generally be at the moment of offer in transaction, or while the customer was compiling options in a search, rather than before, or well after, the fact.

[67] See A. Tversky and D. Kahneman, "Judgment under Uncertainty: Heuristics and Biases" *Science*, New Series, Vol. 185, No. 4157. (Sep. 27, 1974), pp. 1124-1131. Online: http://links.jstor.org/sici?sici=0036-8075%2819740927%293%3A185%3A4157%3C1124%3AJUUHAB%3E2.0.CO%3B2-M

[68] We are well aware of the relatively new concept of "quality of experience" as a holistic way to express overall consumer interaction with and satisfaction with, services. However, in our review we determined that the concept would, at this stage, simply confuse the discussion of behavioural economics and their effect upon switching in communications markets. For more information on "quality of experience" as a consumer services matrix, see: Assessment of Quality-of-Experience in Telecommunication Services, Demóstenes Z. Rodriguez, Renata L. Rosa, Rodrigo D. Nunes and Emmanuel T. Affonso, International Journal of Digital Information and Wireless Communications, 2016, 241-259; Workshop on Tracking Quality of Experience in the Internet: Summary and Outcomes, Fabián E. Bustamante, David Clark, Nick Feamster, ACM SIGCOMM Computer Communication Review, Volume 47 Issue 1, January 2017.

instrumental in describing these, this time in their paper: "Choices, values and frames".[69]

This paper posits that often choices made by individuals were based on emotional reactions to situations, and that such analytical short cuts (emotional heuristics), while allowing quick decisions to be made to complex information environments as with other heuristics, again produced systemic biases. Indeed, it was found that often decisions were not even based on the pursuit of individual self-interest, but could be influenced by other social factors such as a concern about equity, fairness or altruism in the making of decisions.[70]

However, the most influential and powerful such bias, for the purposes of decisions under risk and therefore for describing consumer choice in the field of economics, was the "status quo bias". The "Choices, values and frames" paper posited that individuals make decisions under risk (that is, choices) not by toting up an absolute, mathematical calculation of the net probable benefit of a course of action (which was the heart of the "expected utility" and "rational consumer" economic theories in vogue until then) but rather the relative change (gain or loss) from a "reference point". That reference point, should a consumer or other individual have a product or service already, was the *status quo*, that is, the service to which the customer was already subscribed.

However, the behavioural heuristic of movement from the *status quo* was not evenly distributed between gains and losses, they found, but actually biased. Individuals appeared to negatively value (*i.e.*, fear) the possibility of what they perceived as potential "losses" compared to their present situation (the *status quo*) more than they valued the possibility of potential "gains" from their *status quo* position. The result is a *status quo* bias, which is not identical to simple inertia, but rather, an over-favouring of *status quo* because a "move" (choice) to another option or service had, in the mind of the individual, a more highly feared "downside risk" than "upside benefit" despite the potential for an equal sized gain. This bias they labeled "loss aversion". In fact, Kahneman and Tversky stated that it appeared, statistically based on their research, that individuals were twice as sensitive to the possibility of losses as they were to the prospect of gains.[71]

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[69] Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. American Psychologist, 39(4), 341-350. Online: http://dx.doi.org/10.1037/0003-066X.39.4.341

[70] For a comprehensive review of the types of behavioural biases individuals have when making decisions see, Sanjit Dhami, *The Foundations of Behavioral Economic Analysis*. (London: Oxford University Press, 2016); see also Dan Ariely, *Predictably Irrational: The Hidden Forces that Shape our Decisions.* Rev. Ed. (New York: Harper Collins, 2009); and Daniel Kahneman, *Thinking Fast and Slow*. (Toronto: Anchor Canada, 2013).

[71] This finding has been questioned by subsequent researchers, such as David Gal, who argue that status quo bias is not asymmetrical in favour of losses but rather that human motivation (that is, the impetus to bother moving from the *status quo*) is not activated within a range of "fuzzy" choice (that is, where the ability of the individual to decide even whether the new option is really substantially better or not is

5.2.3 Resort to Heuristics

The evidence thus has been in for some time that when faced with complex decisions involving analyzing multiple options or where information is hard compare, individuals will quickly give up trying to engage in a rational analysis of options and seek decision-making "short cuts" that reduce "cognitive load" and allow for a simpler decision to be made, often in a much shorter period of time. Consumers will therefore regularly and predictably substitute one question (a hard, multi-faceted one) for a simpler one, which they then answer in place of the first question, often without realizing they have not answered the first, key question, but often an irrelevant or clearly less key one. All of this "substitution" goes on subconsciously so the individual very often does not notice or further question it.[72]

Complexity of choice in switching is a problem in a number of key consumer services markets. UK electricity supply market researchers found, for example, that the more choices consumers had the more mistakes they made in (not) switching to the cheapest provider. [73]

Several researchers have already examined communications services markets as particular examples of complex decision-making environments that routinely lead to consumer biases generated by resort to heuristics. These researchers all agree that communications markets are among the most complex of all that face consumers.

Complex contracts in cellphones, and specifically the effect on choice of service providers, was the subject of a key paper by Adi Ayal:

> Complexity-in-choice problems can arise in a multitude of ways, increasing choice while making comparison between alternatives more difficult. The cellphone market is a prime example, as consumers choose along multiple dimensions, including type of handset, type of contract, type of coverage, and more. Even after initial choice, cellphone usage usually varies over time, raising issues with following up and checking monthly bills and the difficulties of

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unclear). See: D. Gal, "A psychological law of inertia and the illusion of loss aversion." *Judgment and Decision Making*, Vol. 1, No. 1, July 2006, pp. 23-32.

[72] See Kahneman, *Thinking Fast and Slow*, *op. cit.*, at pp. 267-273.

[73] See: Chris M. Wilson and Catherine Waddams Price, Irrationality in Consumers' Switching Decisions: When More Firms May Mean Less Benefit", ESRC Centre for Competition Policy, University of East Anglia, August, 2005, online: https://econpapers.repec.org/scripts/redir.pf?u=https%3A%2F%2Feconwpa.ub.uni-muenchen.de%2Fecon-wp%2Fio%2Fpapers%2F0509%2F0509010.pdf;h=repec:wpa:wuwpio:0509010 . Also see Chris M. Wilson and Catherine Waddams Price, "Do Consumers Switch to the Best Supplier?" ERSC Centre for Competition Policy, University of East Anglia, March 2007.

> understanding what seem to many to be exceedingly complicated pricing plans, as well as their presentation in (purposefully?) obfuscated monthly bills.[74]

However, Ayal, and other researchers, posited that of the services markets, communications markets were the most complex of all for consumers and therefore the most likely lead to "suboptimal" results for consumers, for several reasons:

> Beyond the general issues pertinent to other consumer markets, the cellphone market has distinct economic attributes exacerbating these issues. Specifically, the high level of concentration characteristic of telecommunications markets affects the competition between providers in a manner directly affecting the provision of choice to consumers (and the latter's ability to bargain for it). Comparisons among providers' offerings, which facilitate consumer choice between providers, may be strategically constrained through obfuscation, further reducing competitive forces. Furthermore, contractual complexity may allow price discrimination between consumers in a manner more severe whenever long-term relations between provider and consumer are expected (due to high switching costs), and subscription pricing prevalent in the cellphone industry plays a role as well.[75] [Emphasis added.]

The points raised by Ayal about complex choices in telecommunications markets can clearly be seen in the Canadian communication services market. There are numerous rate plans with different features ranging from simple voice and text services through to varying levels of data plans for smartphones; plans designed for multiple family members, plans for those only wishing to use data on tablets; and various add-on features covering services such as long distance calling within a region or the entire country and calling plans for the US or overseas; and the problems of assessing various kinds of surcharges if the customer exceeds their voice calling, text messaging or data usage limits. These combinations of plan offers are also linked in with the sale of handsets of varying cost and feature sets which can also be offered with various discounts depending on the length of the contract period and the type of calling or data plan selected.

Decision-making in such complex environments also leads to other kinds of behavioural biases related to under or over confidence in dealing with uncertainty. For example, when choosing service plans over a two year contract period the consumer must also make judgments about the present versus future use and value of the basket of services on offer which are hard for the consumer to predict. This results in them being either too confident in their ability to predict and control their future behaviour and running

[74] See Adi Ayal, "Harmful Freedom of Choice: Lessons from the Cellphone Market", *74 Law and Contemporary Problems*. 91-132 (Spring 2011). Online: https://scholarship.law.duke.edu/lcp/vol74/iss2/6 at p. 91.
[75] *Ibid.*, at p. 92.

the risk of purchasing plans that are insufficient to their needs, with the consequence of "bill shock" due to having to pay overage fees, or being pessimistic about their ability to control or predict their future use of services, and to purchase plans that provide, amounts of data they never use and so overspend in their service plan purchases.[76] The fact that these decisions are locked in with contractual commitments of at least two years duration only adds to the buyer's remorse.

While somewhat less complex, broadcast distribution service plans also contain multiple layers of service offerings from basic plans to progressively more comprehensive ones, and options for various types of programming packages and the ability to choose individual channels as well. Often today consumers need to also compare these plans against internet provided programing services from other providers such as Netflix, which in turn involve comparisons with internet service plans with respect to bandwidth and downloading speeds and data consumption limits to see what potential services combinations may be most beneficial to the consumer.

All of this is made more difficult when comparing services offered by several suppliers as it is often hard to find directly comparable service offerings and the analytical effort required to first pull all the information together and then conduct feature by feature analysis is both very time consuming and analytically complex involving matrices with numerous cells. In short, such analyses are beyond the capacity of most consumers to conduct. The fact that most providers also offer differing bundling discounts involving two or more different services (mobile, broadcast, internet and landline) also complicates the potential choices consumers must analyze.

In complex decision environments such as these it is very easy for providers to use consumer behavioural biases to focus on one aspect of the transaction over others, such as a short-term discount on a subscription price for a high cost/high feature service plan, or to focus decision making on a significant discount for an expensive enabling technology (e.g. a PVR or a mobile handset) which is linked to an expensive, high feature, service plan. Marketing strategies such as these can often result in a consumer thinking initially that they negotiated a good deal only to find later that the service plan costs are very high and they are paying in the long term much more than they expected because of the short term or relatively minor discounts initially offered to them.[77]

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[76] P. Lunn, "Telecommunications Consumers: A Behavioural Economic Analysis", Working Paper No. 417 (Dublin: Economic and Social Research Institute, December 2011), available at: www.tara.tcd.ie/bitstream/handle/2262/63857/WP417.pdf;sequence=1 Subsequent version published in *Journal of Consumer Affairs* 47:1 (2013).

[77] For a much more general description of how sellers manipulate consumers from a behavioural economics perspective and more generally, see: George A. Akerlof and Robert J. Shiller, *Phishing for Phools: The Economics of Manipulation and Deception.* (Princeton: Princeton University Press, 2016).

5.2.2 Loss aversion

In general, losses are felt more deeply than gains resulting in a bias to avoid or minimize loss in any decision rather than to maximize a gain.[78] Further, there is a tendency to overvalue certainty when it is applied to potential gains, so that a small, but certain, gain is valued more than a larger, but less certain gain.[79] These attitudes critically affect the approach that consumers take when thinking about changing an existing service option and/or service provider. There is a bias to be concerned more about the risks (losses) that they may experience from any change rather than to be preoccupied about increasing potential gains which are thought to be more uncertain because they are essentially untried and unexperienced.

This creates a very high bar to meet psychologically when considering a change to an existing arrangement with a service provider. The gains from switching need to be very large and very certain to be seriously considered[80] and to outweigh the perception of the risk that those benefits may not appear, or that other unforeseen negative outcomes cancel those gains. In complex decision environments like telecommunications and broadcasting services where it is difficult to evaluate the potential quality attributes of alternative providers' services, and where even the price of the alternatives may be uncertain (e.g. will data overage fees cancel any gains obtained from a lower cost data plan), it is hardly surprising that loss aversion biases are a powerful force in preventing consumers from exercising choice and switching service providers. The fact that these biases can be exploited by clever marketing and sophisticated choice architecture in the presentation of choice options gives providers serious market power in inhibiting choice.

5.3 Conclusions

As we have seen in this brief review of barriers to switching, there still remain significant built-in structural barriers where either through contractual arrangements or for technical reasons consumers are constrained from moving from one provider to another. When we consider the additional, and very powerful, behavioural biases outlined above, it is clear that there are considerable forces at work which keep switching behaviours to a minimum, or can result in bad choices when switches are made.

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[78] The 2 to 1 approximate ratio of loss aversion to gain gaining, is questioned in Gal, D., "A psychological law of inertia and the illusion of loss aversion". Judgment and Decision Making, Vol. 1, No. 1, July 2006, pp. 23-32. Online: http://journal.sjdm.org/jdm06002.pdf

[79] Daniel Kahneman and Amos Tversky, "Prospect Theory: An Analysis of Decision Under Risk" *Econometrica*. Vol. 47, No. 2 (March, 1979), see also William Samuelson and Richard Zeckhauser, "Status Quo Bias in Decision Making", *Journal of Risk and Uncertainty*, Vol. 1 (1988)

[80] Peter D. Lunn and Sean Lyons, "Consumer switching intentions for telecoms services: evidence from Ireland", *Heliyon*,4 (2018) have estimated that gains need to be of the order of 20% or more to encourage switching

To a certain extent these structural and behavioural barriers reinforce one another. For example, contractual terms that require a consumer to remain with a provider ensure that the opportunities for switching are separated by a considerable time period. This, in turn, increases the power of the behavioural status quo bias as the lack of familiarity with the switching process, and the current options which may be on offer in the market, increases the perception of risk as the consumer will need to re-familiarize themselves with a marketplace that will have likely changed considerably. In contrast, the consumer will be very familiar with their current plan arrangements where there is great certainty about the benefits delivered. On the other hand, there is great uncertainty about whether the benefits of any new alternative plan offers from other providers will really be beneficial because they have not been experienced. The net impact is a reluctance psychologically to switch.

This does not mean, of course, that no consumer will switch providers. If dissatisfaction levels increase with the service quality provided by the existing provider, or if the existing provider significantly increases prices, then the consumer may well switch. This may be particularly the case if alternative offers from other providers are very attractive (e.g. lower in price and offering a simple all-inclusive plan with no overage fees). However, as seen above, the psychological barrier to switch is a high one and nothing in the market today works to diminish that barrier.

Further, from a regulatory perspective this implies that only addressing structural barriers to switching, which has been the case to date, will only have limited success unless behavioural biases to switching are also addressed concurrently. This issue will be addressed in more depth in the final section of this paper dealing with policy recommendations.

6. How Has the Regulatory System Promoted Choice and Switching?

6.1 Introduction

Regulatory authority for all of the communications services under discussion in this paper (landline telephone, mobile telephone, internet and broadcast distribution services) rests with the federal Canadian Radio-Television and Telecommunications Commission ("CRTC", or the "Commission") which is charged with regulating both telecommunications and broadcasting services in Canada. For a number of years, the CRTC has "forborne" from regulating landline, wireless, internet and broadcast distribution services as they have been deemed to be competitive markets. Previous to the determination that all these communications services were competitive in nature the Commission did regulate consumer landline telephone services (local and long distance) and broadcast distribution services from the point of view of price and terms of service

because they were not subject to an adequate degree of competition to ensure just and reasonable rates for consumers nor adequate consumer protection.

The decision to forebear from regulating was a controversial one at the time as the level of competition the Commission deemed as sufficient to justify forbearance was seen by some as very low, and initially at least some of the markets could be considered effective duopolies, or oligopolies. Nevertheless, over the past 20 years consumer dissatisfaction with the cost and quality of communications services in Canada has forced a gradual reengagement by the Commission in the manner in which these services are offered to consumers.[81] For example, in recent years the Commission has made a number of regulatory decisions that have expanded consumer protections, including mandating the creation of a complaint handler for some telecommunications services, the Commission for Complaints for Telecom-television Services (CCTS)[82], which as the title now indicates covers telecommunications and broadcast distribution services, including home internet services.[83] It has also issued, and then revised, codes of conduct over the last six years. For example, the "Wireless Code" and the "Television Service Provider Code of Conduct" lay out the obligations for wireless service providers and broadcast distribution service providers covering a wide range of contractual rights issues with consumers, and in the latter case, provided additional rules on the bundling of television services to allow greater choice in packages and programs and a low-cost basic television service.[84]

These initiatives covered a broad range of issues regarding consumer protection which are beyond the scope of this paper, but which were and are, nonetheless, significant issues for consumers. In the remainder of this section we will analyze those specific

[81] The first major protest by consumers about the manner in which communications services were marketed to them happened in 1996 with mass protests against cable companies billing consumers for new channel packages through "negative option marketing" where unless the consumer contacted the company to reject the new channels, they were automatically subscribed to new package of channels. See, "Negative Option Billing Persists Despite Laws" CBC News, 27 March 2012. Available at: https://www.cbc.ca/news/business/negative-option-billing-persists-despite-laws-1.1151135 and also, Proceedings of the Standing Senate Committee on Transport and Communications Issue 8 - Evidence for Thursday, December 12, 1996, at https://sencanada.ca/en/Content/SEN/Committee/352/tran/08evb-?Language=E&Parl=35&Ses=2&comm_id=19

[82] The CCTS was established in response to a government order to the CRTC to investigate the handling of consumer complaints into telecommunications issues in 2007.

[83] See, CRTC, Telecom Regulatory Policy, CRTC 2011 – 46, "Review of the Commissioner of Complaints for Telecommunications Services" (Ottawa: 26 January 2011) and CRTC, Telecom Regulatory Policy 2016 -102, "Review of the Structure and Mandate of the Commissioner for Complaints for Telecommunications Services Inc.", (Ottawa: 17 March 2016).

[84] Telecom Regulatory Policy CRTC 2013 - 271, "The Wireless Code", (Ottawa: 3 June 2013), and Telecom Regulatory Policy CRTC 2017-200, "Review of the Wireless Code", (Ottawa: 15 June 2017); Broadcasting Decision CRTC 2016 - 458, "Licence renewal of broadcasting distribution undertakings – Review of practices relating to the small basic service and flexible packaging options and imposition of various requirements" (Ottawa: 7 September 2016); and Broadcasting Decision CRTC 2016 – 1, "The Television Service Provider Code", (Ottawa: 7 January 2016).

initiatives that were taken to promote the ability of consumers to exercise greater choice and to easily switch communication service providers.

6.2 (Telephone) Number Portability

Not long after competitive landline services were introduced in 1997 it became quickly evident that one of the major drawbacks to changing your landline provider was the fact that you would have to change your home telephone number. This meant the cumbersome task of informing all those you wanted to be able to contact you that you had a new telephone number. If you forgot to notify someone, or they lost your new number you became very difficult to reach by telephone. In January, 1999 the CRTC decided that number portability should exist, but limited it to Local Exchange Carriers.[85] This limited the extent to which local telephone numbers could be carried to a new provider when a subscriber switched providers. In particular it did not apply to subscribers "porting" their number from a landline to a wireless number, nor between wireless providers, which was a significant deterrent to switching wireless providers, in particular because there is no 411 service for wireless numbers making it difficult to find someone who had moved from one wireless provider to another because their number would have changed.

Some six years later, at the end of 2005, the CRTC finally ruled that the porting of all numbers (landline to landline, landline to wireless, wireless to wireless and wireless to landline) would be required if a subscriber requested it and accomplished within a short, set period of time.[86] This ruling effectively made number portability possible across the telecommunications system and eliminated a significant barrier to switching for consumers.

6.3 Contract Lock-in

One of the most significant barriers to switching is the practice, widespread in the communications services industry, to require consumers to contractually commit to remaining with a provider for a set period of time. Commitments to subscribe for lengthy periods of time were traditionally justified on the basis of some sort of concessionary pricing arrangement for the consumer. This could include the subscriber being given an introductory discount for a number of months in return for a subscription for two or more years, or a discount on a bundle of services in return for a contractual commitment to remain with the provider for several years, or some sort of discount, or waving, of the entire purchase price, on a piece of enabling hardware, say a mobile telephone in the case of wireless phone service, or a wireless modem or PVR/turner in the case of home internet or a broadcast distribution service.

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[85] Telecom Order CRTC 1999-5, (Ottawa: 8 January 1999).
[86] Telecom Decision CRTC 2005-72, "Implementation of Wireless Number Portability", (Ottawa: 20 December, 2005).

Locking in customers through such contracts is enormously beneficial to the provider as it significantly reduces churn which can be costly for a provider as they have to spend significant sums of money on marketing and potentially incentives to attract new customers to replace ones that move to another provider. Further, locking in customers makes them immune to marketing offers from competitors and, as discussed in section 2, can increase the potential power of "status quo" biases that encourage consumers to remain with the same provider once their contract term expires.

Contract locking in is common in all four communications services covered in this paper (home telephone, home internet, wireless telephone and broadcast distribution services). In many of the services the typical commitment period is two years, rarely less, and in the case of wireless telephone services it was often as long as three years. These longer-term contracts (typically 3 years) in the wireless sector became a particular flashpoint with consumers from about 2005 onwards for a number of reasons. First, it became clear that discounted handsets were often obsolete at the end of the contract term, or were becoming worn out well before the contract term expired. Second, the costs of early cancellation fees were extraordinarily high, making it costly to cancel a contract, even near its end point. And contracts associated with discounted phones were linked to high cost plans that over a three-year term were very costly. Finally, it was becoming clear that Canada was one of the few OECD countries where contracts as long as three years were the norm.[87]

While there are still no prohibitions generally against contract lock-ins for three of the four communications services, they have been restricted under the CRTC's "Wireless Code", introduced in 2013, for mobile wireless contracts to a period of no greater than two years. This has been accomplished through the expedient of prohibiting the levying of early cancellation fees after a contract has run longer than 24 months.[88] The Code also regulates the amount that can be charged for early cancellation fees for wireless service contracts during the first 24 months of a contract.[89] So for the wireless telecommunications market there are specific limits on the contract period, but for the rest of the communications service market there are no such restrictions.

The CRTC justified its restrictions in the wireless telecommunications market based primarily on the anti-competitive nature of contract lock ins of greater than two years which prevented consumers from taking advantage of new offers by alternative service providers and to an extent on the technological obsolescence of handheld devices after two years.[90] Curiously, the issue of restricting the length of contract lock-ins has not arisen in the case of the Television Service Provider Code introduced by the CRTC in

[87] Many of these issues were discussed in the hearings reported on in Telecom Regulatory Policy CRTC 2013-271, "The Wireless Code". See, para. 202.
[88] *Ibid*., para. 220
[89] *Ibid*., paras. 234-238
[90] *Ibid*., para. 217

2016, nor in any of its regulatory decisions dealing with landline telephone services or home internet services. This is despite the fact that arguments about the impact of lock-in contracts of longer than two years on restricting competition would be equally germane in those markets as in wireless telecommunications services.

6.4 Technological Lock-ins

Technological lock-ins occur in situations where the physical technology used to deliver communications services act as a deterrent to choice and switching. Usually these are situations where a piece of equipment which is needed to deliver the service can only be operated on one provider's network. So, in order to switch providers, the consumer is required to purchase, or rent, new equipment that will function on the new provider's network. The additional cost and inconvenience of changing equipment can be a significant disincentive to change providers. For example, purchasing a new wireless handset, or a new turner/PVR for a television service can run into several hundreds of dollars. Providers do offer discounts on such purchases, but they come usually with a commitment to subscribe to a plan for a set period of time (usually two years) and/or subscribing to a premium service plan, so the consumer becomes locked-in contractually, if not technologically.

In the past wireless telecommunications providers' networks often used different transmission technologies which required a change of handset if one wanted to change providers, but today most handsets sold will work on most providers' networks as the transmission systems are essentially now interoperable. This technological barrier to switching appeared to be unavoidable given that early major entrants into the wireless market were allowed to choose their own, and as it turned out three different, transmission technologies. As it happened one of these technologies (GSM) turned out to be operationally the most adaptable and versions of it are now used by all providers, which parallels the situation internationally as now most countries have national transmission networks based on GSM.

Whether allowing providers to implement different transmission technologies was a deliberate decision to inhibit consumers switching between providers is difficult to know, but it is certainly the case that, left to their own devices, providers will adopt technologies that limit switching if they can, either because they are incompatible and will not function on another provider's network, or they are technologically locked into one network.

The best example of this was the practice of providers selling handsets customers for use on their networks that were "locked" so they could not be used on another provider's network, even though the transmission technology used in the handset was capable of working on other networks. Locking is a technological barrier to switching which involves a software code inserted into a handset's operating system that prevents it from working on another network. These locks could be opened by skilled third party

technicians with the appropriate software "keys" so these locks were defeatable, but only at some considerable cost and inconvenience on the part of the customer, and sometimes at a potential risk of a loss of warranty coverage. Many handsets purchased independently of the major Canadian providers, or purchased abroad, could be obtained from distributers in an unlocked format. Indeed, most handsets sold abroad in European or Asian markets were and are sold in an unlocked condition. In the past, providers in Canada could be persuaded to unlock handsets, but they often would charge a significant fee to do so and would not unlock the handset until the contract period for the relevant service plan had expired.

As noted earlier the CRTC has prohibited this practice in a number of amendments to the *Wireless Code* between 2013 and 2017.[91]

However, these relatively dramatic reductions to the technical barriers to switching providers that faced wireless telecommunications subscribers have not been replicated in other parts of the communications services market, most notably in the area of broadcast distribution services, where our survey of consumers indicates that the costs of purchasing new equipment when changing providers, arranging for the installation of new equipment, and returning the former provider's equipment, were major deterrents to them switching service providers.

6.5 Bundling and Choice Disaggregation

One technique which providers commonly used to reduce switching by consumers relates to bundling service options and offering progressively larger price reductions for each additional service option chosen by the customer.[92] Untangling the bundle and finding equivalent savings from one, or a number of, alternative providers can be a daunting task analytically and very time consuming and encourages a status quo bias on the part of consumers to remain with the existing service provider.

The CRTC only placed restrictions on bundling services in the early days of cellphone service, when there was a concern that incumbent wireline telephone services, that were mostly still price-regulated at the time, could be unfairly bundled with new wireless services owned by the incumbents to keep out competition.[93] However, since the removal of rate regulation on wireline telephony services from 2006 on, there are

[91] CRTC, Telecom Regulatory Policy CRTC 2017-200, paras. 291-316.
[92] In our survey of consumers 78% of those who subscribed to communications services subscribed to a bundle of services ranging from two to four services.
[93] See, for a brief explanation, Telecom Decision CRTC 2003-65, Northwestel Inc. - Application to remove the joint marketing restrictions (29 September 2003) at para. 3: "In Cellular Radio - Adequacy of structural safeguards, Telecom Decision CRTC 87-13, 23 September 1987 (Decision 87-13), the Commission imposed joint marketing restrictions on the incumbent local exchange carriers (ILECs) in order to facilitate competitive entry into the then newly emerging market for mobile wireless telecommunications services. These restrictions were reiterated in Rogers Cantel Inc. v. Bell Canada - Marketing of cellular service, Telecom Decision CRTC 92-13, 29 June 1992 (Decision 92- 13)."

effectively no bundle rules on Canadian service providers, as all of the service they sell are "forborne" from rate regulation. Although the CRTC can impose conditions on their sale, they have not seen fit, yet, to impose any conditions relating to bundling. Therefore, service providers in Canada can sell, together, all of the elements of bundles at whatever price they choose.

A related tactic is to restrict choice by bundling together options within a single service, such as including some that are very popular with some that are not, but requiring customers to subscribe to all services in order to get the most popular ones, or to do the reverse, to segregate out a very popular option from a basket of services and place an additional charge on the very popular option.

As noted, the CRTC has not imposed any recent controls or regulations on bundling communications services. However, with respect to broadcast distribution services (TV) they have put conditions on the offering of channels within BDU packages. In Broadcast Regulatory Policy CRTC 2015-96 issued in March 2015,[94] the Commission required licensed broadcast service distributors to offer an a la carte option to the very large tiers of programming bundles they offered to consumers (beyond the basic required service package) to allow them the option to purchase program channels individually, or in small theme packs. However, the companies were allowed to continue to sell their "tier" packages of many channels as well as the new "pick and pay" option. In separate, but a series of related decisions over 2016, the Commission also required providers to offer a small basic service package of Canadian and US based network channels and local stations (a "skinny basic" package), at a significantly discounted price compared to the basic required package, effectively offering a very limited and inexpensive tier of TV service below that previously offered.[95]

While the decisions to provide greater choice opportunities for consumers with respect to the range of programming they could purchase and the opportunity to purchase a basic, low cost television service, considerably improved choice and selection for consumers, it was limited to only one communications service, largely because the cost of programming packages and the limited range of selections on offer have long been a sticking point for consumers in this market segment. However, the impact of bundling and similar marketing practices on reducing competition in other communications services such as home internet, wireless telecommunications, or home landline telephony have not been addressed by the CRTC, despite the fact that bundling in these other services are a prominent marketing practice.

[94] CRTC, Broadcast Regulatory Policy CRTC 2015-96, "A World of Choice - A roadmap to maximize choice for TV viewers and to foster a healthy, dynamic TV market" (Ottawa: 19 March 2015).
[95] CRTC Broadcast Regulatory Policy 2016-458," Licence renewal of broadcasting distribution undertakings – Review of practices relating to the small basic service and flexible packaging options and imposition of various requirements", (Ottawa: 21 November 2016).

6.6 Attempts to Influence Behavioural Biases Surrounding Choice and Switching

As was outlined in Section 2, some of the strongest deterrents to choice and switching are consumers' own behavioural biases, most notably the tendency to default to heuristics when faced with complex decisions in the market which can lead to making poor choices, and the status quo bias which often works in combination with defaults to heuristics to encourage consumers to stay with their current provider even when there are better alternatives in the marketplace.

While the CRTC has not explicitly addressed behavioural biases in its regulatory decisions, it has taken a few modest steps to address behavioural biases in the information it provides to consumers to "nudge" them to make more rational decisions.[96] The initiatives have been relatively low key, and in the case of broadcast distribution services have included posting the following information products on their website:

- a list of best practices by TV providers serving Canadians
- a list of service providers
- a shopping checklist
- a TV options page
- a list of websites that compare services
- a guide on how to negotiate a better deal for your TV services[97]

The products are quite modest: the shopping checklist and the guide on how to negotiate a better deal for TV services are one-page summaries that are heavy on decorative graphics and light on detail. The list of websites that compare services include those that deal with a wide range of consumer services, including financial services, insurance, as well as communications services, and while some of the comparative sites on wireless and TV services help consumers to research the market according to price and plan features, they vary in how comprehensive they are and all but one modest information piece by a consumer organization, are private sector operations supported by advertising and in some cases by rebates from providers who receive enquiries from consumers using their site.

For wireless telecommunications consumers the CRTC also offers information resources about their rights under the Wireless Code, and on issues such as data only wireless plans and number portability, that relate to the impact on consumers of CRTC regulatory decisions. There is, however, no real advice on how to engage the market to

[96] See Richard H. Thaler and Cass Sunstein, *Nudge: Improving Decisions About Health, Wealth and Happiness.* Revised Ed. (Toronto: Penguin Books, 2009) on the use of behavioural science to create interventions in individual decision-making that helps people to overcome their behavioural biases and make more rational decisions that benefit them.
[97] Broadcasting Decision CRTC 2016-458, *op. cit.*

obtain the lowest priced service or how to analyze and assess wireless plan offers, other than a list of price comparison sites similar to that provided for broadcast distribution services.[98]

6.7 Conclusions

Clearly, over the past decade the CRTC has made substantial progress in providing protections for the consumers of communications services in Canada. This is particularly the case with respect to contractual rights for consumers in the delivery of wireless telecommunications services. However, with respect to the main focus of this paper, regulatory and political action promoting choice and switching in communications services, the record has been mixed. Some obvious technical barriers to switching have been addressed by the CRTC, most notably number portability, locking of wireless handsets, limiting the length of wireless contracts, and in the case of broadcasting distribution services, unbundling program packages, so that consumers can pick individual channels for purchase and obtain a very basic and low-cost television service package consisting of local stations and national networks in Canada and the US.

Unfortunately, the decisions that have been taken have been very partial in their application and in an uncoordinated fashion, dealing with specific switching barriers raised by consumers, or their representatives, in CRTC hearings dealing with larger issues (such as the Wireless Code) or in specific market segments of the communications services sector. There has been no attempt to deal with barriers to switching addressed in one part of the sector in another, even when they are obvious. For example, while the CRTC dealt with technical barriers to switching posed by mobile devices in the wireless communications market, such as number portability or device locking, these issues were not addressed with respect to the broadcast distribution sector, such as the problems posed by incompatible set-top boxes and PVRs in switching providers, or how to port email addresses. Perhaps most significantly, while the Commission did address the reduction of term limits in wireless contracts, and dealt with early cancellation penalties for wireless services because in the commission's view they reduced competition, it has not applied the same logic to the length of contract terms, or the use of early cancellation fees, in the provision of home internet, broadcast distribution, or home landline telephone services. No serious examination of the effect of bundling practices on switching has been undertaken either.

Just as importantly, the CRTC has not addressed, in any meaningful sense, the growing body of evidence from the behavioural sciences that in markets such as communications services, consumer behavioural biases can play a significant role in diminishing consumer welfare and making consumers more vulnerable to manipulation by the manner in which service offerings are packaged and marketed. In its efforts to provide

[98] See CRTC website at: https://crtc.gc.ca/eng/phone/mobile/ (accessed on 4 February 2019).

better information to consumers on the wireless telecommunications and broadcast distribution markets, the Commission did appear to recognize that consumers need help to analyze such complex markets if they are to make effective decisions. However, even if they did get such help, the strong *status quo* biases that are encouraged by the way such services are sold, and consumers' innate behavioural biases, are likely to influence consumers to stay with existing providers, reducing competition as well as diminishing consumer welfare. Unfortunately, the few efforts on the part of the Commission to address switching were both limited and not continued past the Wireless Code.

In the next section dealing with conclusions and recommendations we examine what more can be done to reduce barriers to choice and switching in the communications services market and in particular, what better use we can make of the lessons we have learned from behavioural economics and sciences to improve the ability of consumers to make more effective decisions in these markets and how the CRTC in particular, could expand its regulatory toolkit to deal with behavioural biases.

7. Conclusions and Recommendations

One of the key ways to improve consumer welfare in an industry such as communications services, which in most markets in Canada is highly oligopolistic in structure, is to improve the ability of consumers to exercise choice by reducing the barriers that exist to switching services and providers.

However, improving the ability of consumers to exercise greater choice must address a number of systemic barriers relating to both how this market is structured and operates and how consumers themselves assess and make decisions about the service choices offered to them. It should also be obvious from the discussion of behavioural biases that any measures taken to increase the likelihood of switching will have to take into account, and manage, consumer behavioural biases and the conscious or unconscious exploitation of them by service providers in the market.

First, we deal with the structural barriers that exist in this market. These structural barriers consist of two principal types: contractual restrictions or prohibitions (lock-ins) that inhibit switching, and technical or procedural barriers that make the process of switching expensive and time consuming.

Pricing structure barriers: share plans and bundling.

The most obvious contractual barriers to switching are the requirements that postpaid customers sign a contractual commitment to stay with a provider for a set period of time (usually two years). Normally this is in return for the consumer receiving some sort consideration such as a reduction in the cost of a service plan for a limited period of time, a discount on the cost of buying a handset, or more typically now, the ability to

spread the cost of purchasing a handset over the term of a contract with no interest charges, or the provision of some sort of receiving equipment (e.g. set top box and/or PVR) free of charge for the duration of the contract.

Contractual lock-in has many deleterious consequences for consumers as we have reviewed in this study: it keeps them out of the market for long periods and unable to take advantage of new and potentially cheaper offers and new or improved services. Further, because they are out of the market for long periods of time they are not encouraged to keep up with market developments so that when their contracts do expire they find the challenge of researching the market more challenging and the market more unfamiliar and so are more likely to stay with their current provider, or sign up for another contract in return for some benefit offered by their current provider, Lock-in of consumers also makes it difficult for new providers to enter the market and to become established because the pool of potential new customers available to them is diminished and so there is less competition in the market which could, in turn, drive down prices and increase the scope of service offerings.

To counter this problem, **we would recommend that the CRTC move towards an eventual ban on multi-year contract lock-ins so that all customers would, eventually, be on month-to-month contracts and free to move to an alternative provider and/or service plan at any time**. The first stage would be to apply the two-year contract limit (and other important rules such as overage caps) to other services than wireless; that is, apply the Wireless Code rules on contract limits to Internet, home phone and TV services. Then, the CRTC should move to transition the communications service providers in all four services to one-year contracts. Finally, the industry would be given a final timeline (perhaps up to 3 years, to allow notice and time to deal with hardware contracts) to move to month-to-month contracts. During this transition period, service providers could adjust to the new economics, as could consumers. This eventual state would remove barriers to switching and allow customers to move quickly to more competitive suppliers or services and increase the competitive intensity of the market. Granted, consumers under this scenario would likely lose introductory short-term reductions on plan rates and subsidies of various kinds on devices, but it would force providers to compete in a fairly transparent manner on the price of their service plans in order to attract customers, so the losses in terms of promotional rates and subsidies would be made up by more intensive competition among providers based on the price of their service plans. [Perhaps reduce to 1 year – over time? Evaluate churn then, go to month to month. On all services, not just wireless. Phase in over time to account for new economics of hardware? Perhaps just to cheap plans? A mandated plan required that is month to month (but will not come with any phones or hardware unless you buy it).]

In addition, on the timeline outlined above, **we would recommend that providers eventually not be permitted to link the sale of service plans to the provision of**

devices in contracts. While on the surface, the subsidization of enabling devices (handsets, set top boxes, modems etc.) by providers may appear to be a benefit to consumers, particularly when purchasing very expensive devices, the problem is that these hardware sales effect and enable lock-in.

The sale of devices in Canada, particularly handsets, are dominated by providers as they provide a "one-stop" shopping option to consumers who need both a service plan and an enabling device. Because they dominate the market providers have every incentive to keep prices high for outright purchase of devices so they can offer seemingly attractive reductions on devices to consumers who subscribe to high cost service plan. Delinking devices from service plans would help to create a separate market for device sales and force providers to compete with each other on the basis of the price of their devices in a transparent manner and would also allow third-party suppliers a greater chance to compete for device sales, thus also helping to increase price competition. Should policymakers and governments be uncomfortable that carriers will stop offering free hardware or that consumers will not, even with an "offramp" of time to develop transition to paying upfront on hardware, could consider an alternative: make device balances portable. That is, service providers could be required to accept the transfer of the customer's hardware balance with the new switching customers. In effect, the former carrier would transfer the hardware "balance" and the right to collect future payments on it, to the new service provider.]

Another set of structural barriers to switching relate to technological incompatibilities that providers introduce into their systems so that enabling devices purchased from them will not function on the networks of competitors. We saw in this study how providers sold only locked handsets to their customers so they could not be used on competitors' networks, even though the devices were technically able to function on competitors' transmission networks. While the CRTC has essentially banned device locking, other technological barriers exist with set top boxes and related devices which will not function on competitors' networks, meaning that when a customer subscribes to a competitor's service plan, they must return the equipment involved to the old provider and have a technician come to their residence and install new equipment from the new provider. Usually this will involve the customer also paying an installation fee for the new equipment and also being liable for a penalty from their former provider if they do not return the old equipment in a timely manner.

Consequently, **we would recommend that the CRTC establish technical standards for enabling devices such as set top boxes and related equipment so they are interoperable on all provider's networks.**[99] This would save both providers and

[99] See Federal Communications Commission, "Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming: Sixteenth Report," March 31, 2015, online: https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-41A1.pdf and Federal Communications Commission, "In the Matter of Expanding Consumers' Video Navigation Choices Commercial

customers the costs of installing new equipment and arrange for technicians to come and physically install new equipment. This could also help in the long run to create a third-party market for the sale of such equipment so that consumers could purchase their own equipment and take it with them when they move providers or residences. Outright purchase of such devices would also avoid rental fees for equipment which are usually more expensive than purchase when the equipment involved is anticipated to be useable for a number of years.

This leaves the remaining set of barriers to switching which revolve around the behavioural biases that all consumers exhibit when dealing with complex markets such as communications services. As we have seen in this report, the primary behavioural biases that consumers exhibit when dealing with this market relate to the resort to heuristics and risk aversion when facing the kinds of complex decisions that switching requires. These kinds of biases bring bad results by a) discouraging consumers from taking the risk of switching, and even if they do decide to switch b) running the risk that they will focus on an inappropriate decision heuristic which will lead them to a poor or inappropriate choice.

In our view these biases can be significantly ameliorated by simplifying and reducing the analytical work for consumers when navigating this market, thus reducing the complexity of decisions and reducing the uncertainty of the outcomes from switching. **We would recommend that this be achieved by the CRTC ensuring that consumers have easy and widespread access to an online calculating mechanisms that would provide up to date information on the features and costs of all wireless communication, home internet, landline telephone and broadcast television services in Canada.**[100] Such calculators could be offered by the private sector, however, all would involve consumers inputting their current usage of such services, or their desired plan features into the calculator and receiving easily understood information on the price of comparable plans from providers.[101] These services would be accredited by the CRTC to fairly function and produce reliable results. This would allow consumers to quickly ascertain the least expensive plan for the service features

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Availability of Navigation Devices," NOTICE OF PROPOSED RULEMAKING AND MEMORANDUM OPINION AND ORDER, February 18, 2016, online: https://docs.fcc.gov/public/attachments/FCC-16-18A1.pdf

[100] Note that Ofcom, the UK regulator that is the equivalent to the CRTC, has since 2006 accredited cost comparison calculator websites for UK consumers. A number of these calculators are in operation in the UK and are financed by various mechanisms, including user fees for supplementary or premium services, advertising, and the like. Ofcom certification ensures that calculators are accessible, accurate, up to date, transparent and comprehensive. We believe a single calculator would ensure more consistent results and functionality, and be easier to market and manage See, Ofcom, *Accreditation Scheme for Price Calculators* 6 November 2013, accessed at: https://www.ofcom.org.uk/__data/assets/pdf_file/0035/79676/accreditation_statement.pdf

[101] For an example, see Mobile Syrup, "Compare Cell Phones and Plans" (accessed 26 March 2019), online: https://rateplans.mobilesyrup.com/CellPhones

they require or use. All service providers would be required to supply current data to the approved calculator services (for the most recent previous month). We would recommend that the development and operation of this calculator be funded and managed by the communications services providers according to specifications developed and monitored by the CRTC.

A second, related proposal is a requirement to provide a summary of consumer communications spending, which current providers should be required to deliver to their current customers on the anniversary of their beginning service with the communications provider. If multiple services were subscribed together, the statement should be broken down by service. As detailed in "Nudge," [102] this "RECAP" idea is to further assist consumers to understand their current levels of usage of their service plans, and therefore to reduce unrealistic or inaccurate future estimations of consumers' future usage patterns. In addition, the results could easily be input into the calculating mechanism referred to above should consumers wish to compare and possibly switch upon being informed of their total spend in the year previous.

The existence of both the existence of price comparison services and the requirement of a RECAP statement of communications services payments would be widely publicized by the CRTC, the CCTS and where appropriate, by service providers. For example, information on how to access the RECAP statement and the existence of comparison sites, or, at the least a link to a CRTC listing of approved ones, would be required to be placed on providers' account statements sent to consumers quarterly.

[102] See Thaler, R. and Sunstein, C., Nudge, *op. cit.*, at pp. 95-96, describing this idea, which they refer to as "RECAP," meaning "Record, Evaluate and Compare Alternative Prices."