EXCERPT

Telecom Notice of Consultation CRTC 2014-76,

Review of wholesale mobile wireless services

Intervention

of

Bell Mobility

15 May 2014

3.0 CANADA'S RETAIL MARKET IS HIGHLY COMPETITIVE

3.1 Wireless Competitiveness Is Well Established

47. Numerous parties have examined the competitiveness of Canada's retail mobile services market and found it to be highly competitive. For example, the UofC Paper provides a careful analysis of current and historical data for Canada and many other countries and reaches the following conclusions:

> *There is no "competition problem" that needs to be addressed by costly and intrusive policy measures.*[1]
>
> If anything, the structure of the industry in Canada indicates greater competition than in most other comparable countries.[2]
>
> This paper uses appropriate measures to assess competition in Canadian wireless services and finds that there is not evidence of inefficient or significant market power — and therefore there is not evidence of insufficient competition in wireless services in Canada.[3]

48. The Navigant Report's assessment of the competitive performance of mobile wireless markets in Canada, the U.S. and the European Union reached the following conclusions:

> Wireless investment has stagnated in the EU in recent years, while in Canada and the US growing wireless revenues have funded the deployment and expansion of next-generation networks. As a result, wireless service quality in Canada and the US has surpassed that in the EU in important respects.[4]
>
> … North American consumers get more voice and data for their money than do EU consumers, and they get it over mobile wireless networks that are both more expensive to build and operate and – as we discuss immediately below – substantially superior in quality. In short, they get what they pay for.[5]
>
> To summarize … compared with the EU, mobile wireless markets in Canada and the US are characterized by higher intensity of use, higher quality, faster download speeds, greater rates of investment, and a more rapid pace of innovation.[6]

49. The Commission itself has examined the competitiveness of the wireless market in Canada on several occasions and each time found the market to be sufficiently competitive. In

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1 UofC Paper, page 5.
2 UofC Paper, page 4.
3 UofC Paper, page 44.
4 The Navigant Report, page i.
5 The Navigant Report, page 11.
6 The Navigant Report, page 20.

1994, the Commission first explained its determination that the wireless market was competitive, noting that:

> …there are two licensed providers of cellular service and that four potential [public cordless telephone service (PCTS)] providers received licenses from the Department of Communications (now Industry Canada) in 1992. PCTS and other new services, such as enhanced specialized mobile radio systems, will provide substitutes for cellular service in some circumstances. Thus, these services will be subject to competition in the marketplace…[7]

50. Two years later, the Commission revisited this conclusion in light of changing technology.[8] Applying the approach that had been established in Decision 94-19, the Commission determined that the market remained competitive and that forbearance remained appropriate for both public switched mobile voice services and other mobile services.

51. Similar findings have been made since then. For example, in 2005 Rogers proposed to acquire Microcell and in its review of the transaction the Competition Bureau (the Bureau) concluded that "there would continue to be vigorous and effective competition remaining following the merger" as Bell, Rogers, and Telus would "respond to price changes by others and go after each others' territories."[9] The Bureau found that the merger would not create or enhance market power or increase the likelihood of coordinated behaviour.

52. Most recently, the Commission analyzed the competitiveness of the wireless market in the fall of 2012 and issued the following conclusion in Decision 2012-556:

> [M]arket indicators demonstrate that consumers have a choice of competitive service providers and a range of rates and payment options for mobile wireless services. The mobile wireless services market is subject to competition… new entrants in the mobile wireless market continue to increase their market share and coverage. Companies continue to invest in new infrastructure to bring new innovative services to more Canadians. Moreover, the average cost per month for mobile wireless services has remained relatively stable…
>
> [C]ompetition in the mobile wireless market continues to be sufficient to protect the interests of users with respect to rates and choice of competitive service

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7 Decision 94-15, Section B.

8 Telecom Decision CRTC 96-14, *Regulation of Mobile Wireless Telecommunications Services* (Decision 96-14). In particular, the Commission considered the fact that it appeared PCTS services would not develop as envisaged and instead would be replaced by personal communications (PCS) services, which appeared in many respects to be similar to cellular services.

9 Competition Bureau, *Technical Backgrounder, Acquisition of Microcell Telecommunications Inc. by Rogers Wireless Communications Inc.*, April 2005.

> provider [and] there is no evidence that the conditions of forbearance have changed sufficiently to warrant Commission intervention.[10]

53. Since Decision 2012-556 was issued, Public Mobile was acquired by Telus, Mobilicity entered creditor protection, Eastlink launched service and Vidéotron and Wind have continued to grow. Importantly, the Commission established the Code, which eliminates barriers to switching. Moreover, additional (700 MHz) spectrum was made available in an Industry Canada auction that included a spectrum cap and still further spectrum (2500 MHz) will be made available in a subsequent auction that also will include a spectrum cap.

54. The well-established findings of the Commission and others[11] that the retail wireless market in Canada is competitive puts both the legal and the public policy onus for increased regulation squarely on those who seek to impose it.

3.2 Retail Market Assessment Using Decision 94-19 Criteria

55. In the Notice of Consultation, the Commission directed parties, when explaining whether the market for wireless services is sufficiently competitive, to consider the application of the criteria set out in Decision 94-19. Decision 94-19 sets out the following broad criteria which the Commission uses when determining whether to forbear from regulation in a market:

> (1) the Commission should forbear when a market becomes workably competitive;
> (2) a market cannot be workably competitive if the dominant firm possesses substantial market power;
> (3) market power is a function of three factors:
> (a) market share held by the dominant firm;
> (b) demand conditions affecting responses of customers to a change in price of the product or service in question; and
> (c) supply conditions affecting the ability of other firms in the market to respond to a change in the price of the product or service;
> (4) high market share is a necessary but not sufficient condition for market power; other factors must be present to enable a dominant firm to act anti-competitively.

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[10] Decision 2012-556 at paragraph 21.

[11] The Bureau made a contradictory submission and reply submission in connection with the proceeding initiated by Telecom Notice of Consultation CRTC 2013-685 (the 2013-685 Proceeding). However, those submissions provide no basis on which the Commission could conclude that competition in wireless markets has changed such that it is necessary to reverse previous forbearance determinations. Our reply comments in the 2013-685 proceeding, including the appendices to those comments, provide a full explanation to support this view.

56. Building on these broad criteria, Decision 94-19 discusses an analytical framework that considers a number of specific market factors. As discussed above, this framework would also be appropriate for determining whether to re-regulate the wireless market.

57. The sections below examine the competitiveness of the retail mobile wireless services market using the framework set out in Decision 94-19. The discussion concerning supply conditions will be dealt with in Section 4 as the evidence applies equally well to a review of wholesale markets. As will be shown, the wireless market continues to be workably competitive and should not be re-regulated by the Commission.

3.2.1 Relevant Market Definition for Retail Services

58. Decision 94-19 states that the first step in assessing competitiveness is to define the relevant market, defined as: "the smallest group of products and geographic area in which a firm with market power can profitably impose a sustainable price increase". Previous competitive assessments by the Commission and the Bureau have defined the relevant retail product market as essentially all mobile wireless services.[12] Definitions of the relevant geographic market have varied, and included national, provincial, operating territory and smaller areas. For example, in Decision 2003-81, the Commission defined the relevant market as follows:

> The Commission considers it appropriate, for the purpose of this application, to define the market for mobile wireless services in NorthernTel's territory and Télébec's territory to encompass the Companies' entire service territories, and to include within that market both public switched mobile voice services, such as cellular and PCS services, specialised mobile radio-telephone services and satellite voice services, as well as other mobile wireless services, such as paging and wireless data services.[13]

59. In Decision 94-15[14] and Decision 96-14[15], the Commission found that the relevant geographic market for mobile wireless services in "various geographic territories" was sufficiently competitive to protect user interests and, accordingly, forbore from the regulation of mobile wireless services on a national basis. In contrast, when the Bureau reviewed Rogers'

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[12] For example, see Decision 96-14, Decision 2003-81, and the Bureau's April 2005 analysis of the Rogers/Microcell transaction.
[13] Telecom Decision CRTC 2003-81, *Application by Société en commandite Télébec and NorthernTel Limited Partnership for forbearance from regulation of mobile wireless services*.
[14] Telecom Decision CRTC 94-15, *Regulation of Wireless Services*.
[15] Decision 96-14.

acquisition of Microcell it concluded that the geographic market may well be local but ultimately defined the relevant geographic market around provincial boundaries.[16]

60. These examples suggest that regulators tend to define the relevant retail product market as all mobile wireless services and take a practical approach to defining the relevant geographic market. One practical consideration is the availability of competitive data for any territory smaller than the country. In consideration of these determinations, the analysis provided in the following sections will focus on a national geographic market assessment (for which there is considerable data available), but where more granular data is available, smaller areas will also be examined. Consistent with past regulatory practice, the relevant product market is considered to be all mobile wireless services.[17]

3.2.2 Market Share Held by the Largest Firm

61. Decision 94-19 states that after the relevant market has been defined, the next step in the analysis involves determining the market share held by the largest firm, as well as the market shares of other firms in the market.

62. As shown in Figure 13, on a national basis the largest firm is Rogers with 34% of subscribers, followed by Bell and Telus with approximately 28% each.

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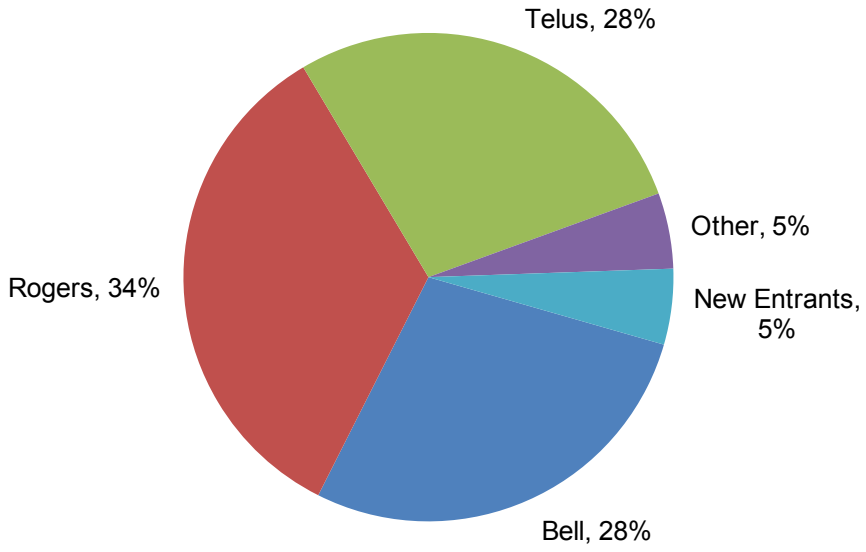
[16] Competition Bureau, *Technical Backgrounder, Acquisition of Microcell Telecommunications Inc. by Rogers Wireless Communications Inc.*, April 2005.

[17] While it is appropriate to consider mobile wireless services as a separate relevant product market from wireline services in this proceeding (because for some customers a fixed line connection is not a substitute for a mobile one), mobile wireless services and fixed wireline services inhabit the same product market when the issue under review is whether a fixed wireline operator has market power for the provision of wireline voice or data, since in that case, the wireline services certainly compete for customers and for a share of total customer usage

Figure 13 – Wireless Subscriber Market Share (2012)



Source: CRTC Communications Monitoring Report, September 2013
"Other" includes MTS Allstream, SaskTel, and smaller WSPs.
"New entrants" refers to the new wireless entities that acquired spectrum in

63. Figure 13 provides data for 2012, the most recent year for which Commission data on wireless subscribers is available, but it continues to be representative of today's environment. Although Rogers is the largest competitor in terms of subscriber counts, it is clearly not the dominant provider of wireless services in Canada and we are not aware of any party that has alleged that it is.

64. Looking at the number of national net subscriber additions (typically referred to as "net adds") presents a more dynamic picture of the market than a review of the subscriber installed base.[18] Net adds provide an indication of which competitors are gaining or losing competitive ground in a given time period. Based on publicly available estimates for the 2013 calendar year, Figure 14 shows that the new entrants (Wind and Vidéotron in this case) are gaining a relatively large share of the country's net adds (24%) despite only operating in select geographies.[19] The share of net adds for the new entrants is likely higher than 24% as data is not publicly available for Eastlink. Figure 14 also shows that Telus attracted a significantly larger share of net adds in 2013 than any other carrier, and while Rogers is the largest carrier in Canada, it attracted only 8% of the net adds.

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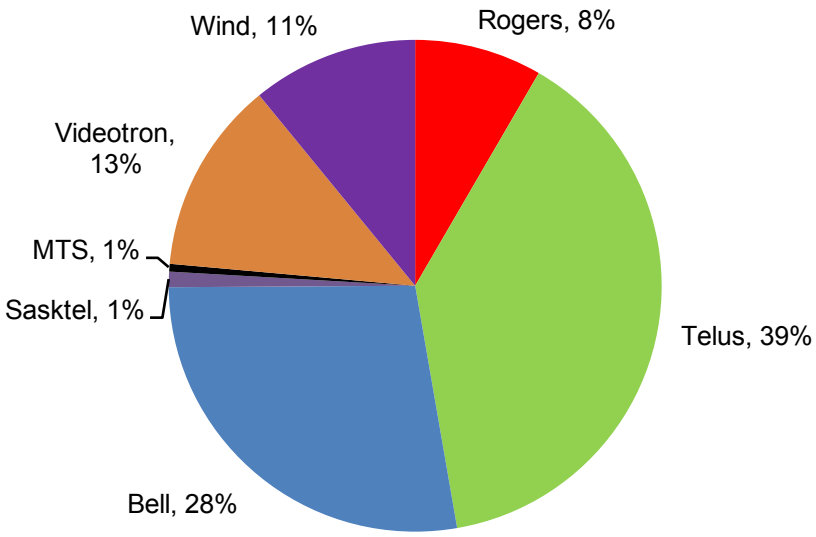
[18] The net adds statistic deducts the number of subscribers that left a service provider from the number of gross new subscribers for that service provider.

[19] Publicly available data could not be found for wireless service providers not specified in the chart.

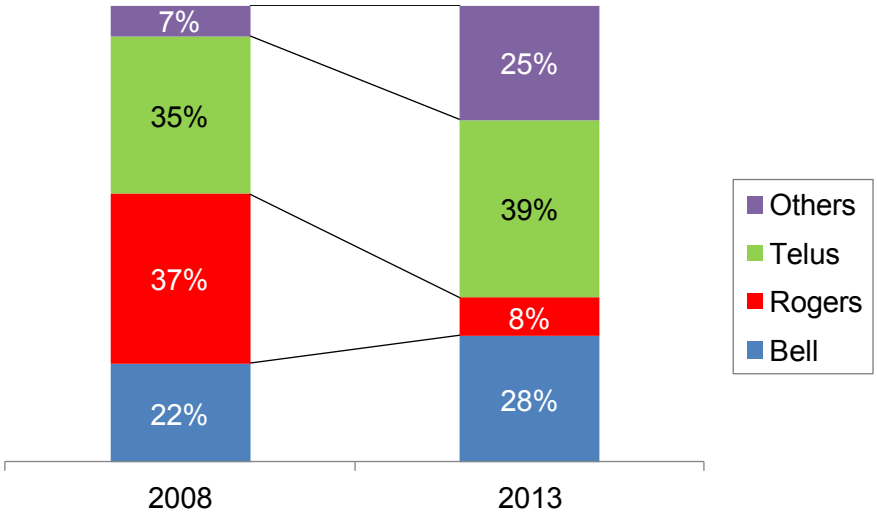
Figure 14 – Share of Wireless Net Additions (2013)[20]



Source: Company financial reports and press releases; news articles

65. Another perspective which shows the dynamic nature of wireless competition is the change in each carriers' share of net adds over time. Figure 15 shows the distribution of net adds in 2013 compared to 2008.

Figure 15 – Share of Wireless Net Additions[21]



Source: Company financial reports

[20] Shares do not sum to 100% due to rounding.
[21] Shares in 2008 do not sum to 100% due to rounding.

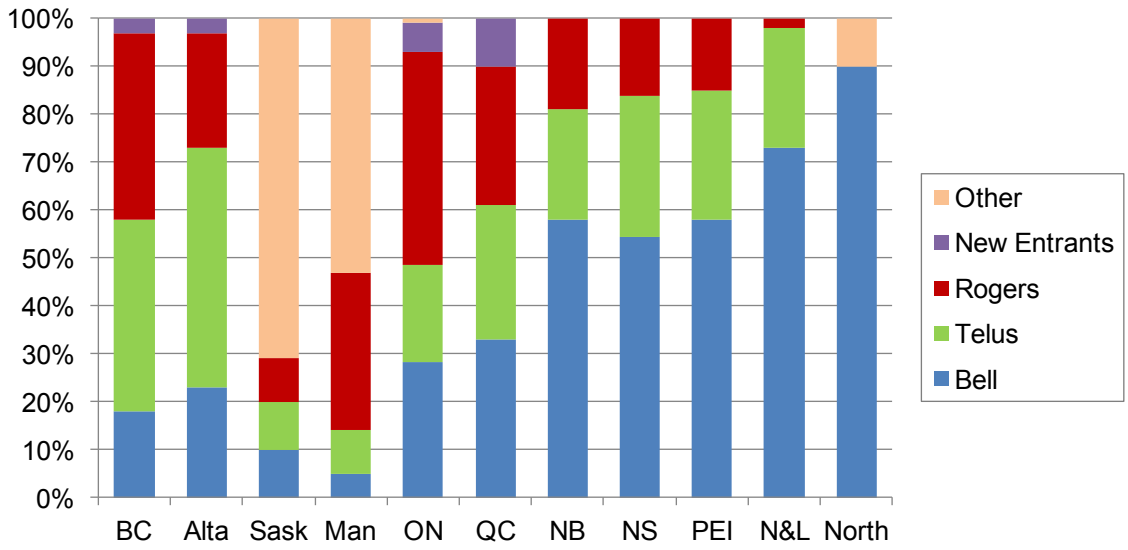
66. Figure 15 highlights some important characteristics of today's retail market. First, net add shares have changed significantly since 2008. This demonstrates the dynamic nature of the competition taking place. Second, companies other than Bell, Rogers and Telus now have a larger impact on the market than they did in the past. Third, the distribution of net adds among the three largest providers has changed significantly. Specifically the largest service provider, Rogers, is capturing a much smaller share of net adds today than it did in 2008. Its share of net adds dropped 29 points between 2008 and 2013 and this loss shows up as gains for other providers.

67. Underpinning the changes highlighted in Figure 15 are several fundamental changes in the competitive landscape. For example:

- In May 2008, the industry invested $4.25 billion to acquire licences in the Government's Advanced Wireless Services (AWS) auction providing the table stakes for the launch of several new competitors including Globalive (2009), Mobilicity (2010), Quebecor (2010), and Eastlink (2013).
- In March 2009, Bell expanded its wireless points of distribution by adding more than 700 retail outlets through the acquisition of The Source, which at the time, was under creditor protection.
- In November 2009, both Bell and Telus rolled out new HSPA+ networks to better compete with Rogers, who until that time had reaped the benefits of being the only national GSM compatible carrier in Canada. This allowed Rogers to, among other things, be the exclusive provider in Canada of the very popular Apple iPhone and to establish a significant competitive advantage in the provision of international roaming services.
- On the same day that Bell's HSPA+ network was deployed, we announced the availability of the iPhone 3GS and a wide range of new HSPA compatible smartphones.

68. Share data for geographic areas smaller than the country level are not generally available publicly. However, as shown in Figure 16, the Commission publishes subscriber share estimates by province/territory annually in its CMR. The data in Figure 16 are for 2012 which are the most recent data available from the Commission.

Figure 16 – Share of Wireless Subscribers by Province/Territory (2012)

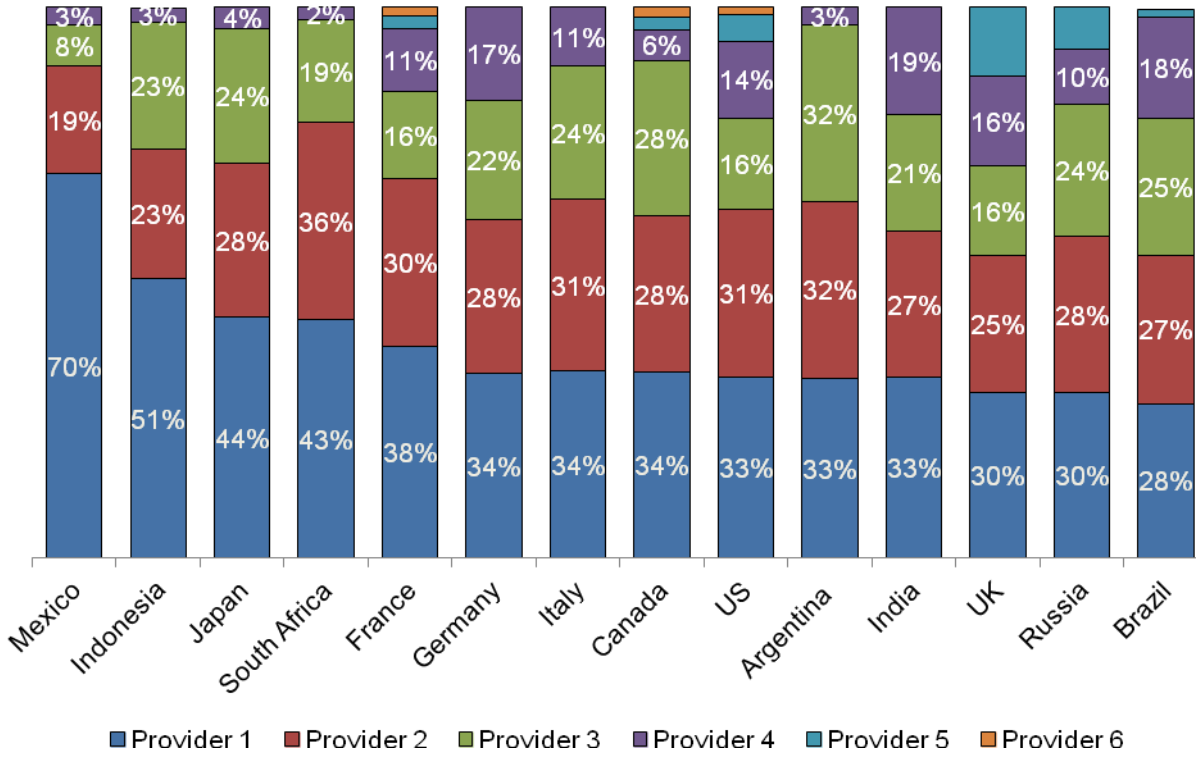


Source: CRTC Communications Monitoring Report, September 2013

69. The data in Figure 16 lead to two key observations. First, the three largest carriers compete in all provinces and territories, except in the North (although we understand that Telus now provides service in the Yukon and Northwest Territories). Thus, there are at least three, and in most cases four, strong competitors across the country. Second, subscriber shares vary considerably from province to province. Notable are the leading shares held by regional carriers in Manitoba (MTS) and Saskatchewan (SaskTel) which outweigh those of Bell, Rogers and Telus.

70. It is typical of wireless markets around the world that the three largest suppliers serve the majority of subscribers. For example, Figure 17 compares the subscriber shares held by the top three providers in Canada to those of other G20 countries that also have four or more providers. As can be seen, Canada's competitive situation is comparable to other countries with four or more providers, and if anything, Canada's top three competitors are more evenly matched in terms of subscriber counts than the top three competitors in other countries.

Figure 17 - G20 Countries with Four or More Providers
Subscriber Market Share by Provider (2013)



Notes:
1. *In Canada, Provider 4 is the sum of the new entrants' market shares.*
2. *Germany is consolidating from four to three providers pending the acquisition by Telefonica (O2) of Royal KPN (E-Plus) – the third and four largest wireless providers.*
3. *Source: Bank of America Merrill Lynch Global Wireless Matrix 1Q14.*

71. It is also not uncommon in other industries for the top three competitors to comprise a large share of the market; in some cases, on a global basis. For example:

- Desktop operating systems (Global): Windows (91%); Mac (8%); Linux (1%);[22]
- Desktop search engines (Global): Google (71%); Baidu (16%); Yahoo! (6%);[23]
- Credit card purchase transactions (Global): Visa (60%); MasterCard (30%); UnionPay (8%);[24]
- Hamburger restaurants (US): McDonalds (50%); Burger King (12%); Wendy's (12%)[25]
- Wireless subscribers (US): AT&T (33%); Verizon (31%); Sprint (16%);[26]
- Food retail sales (Quebec): Metro (28%); Loblaw (27%); Sobeys (27%)[27];

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22 Netmarketshare, http://www.netmarketshare.com/operating-system-market-share.aspx?qprid=8&qpcustomd=0.
23 Netmarketshare, http://www.netmarketshare.com/search-engine-market-share.aspx?qprid=4&qpcustomd=0&qpsp=2014&qpnp=1&qptimeframe=Y.
24 The Nilson Report, http://www.nilsonreport.com/publication_chart_and_graphs_archive.php#.
25 Barclays, *Market Share and Growth Analysis (Public & Private)…Burgers & Brew*, 28 February 2014.
26 Bank of America Merrill Lynch, *Global Wireless Matrix 1Q14*, 21 April 2014.
27 CIBC, *Loblaw Companies Limited: Sunny Results, Clouds On Horizon*, 1 May 2013.

- Food retail sales (Ontario): Loblaw (43%); Metro (18%); Sobeys (13%).[28]

72. Despite the broad choice of wireless service providers some have argued that having four alternative providers in every region of the country is necessary. However, many industry experts have concluded that attempts to secure a fourth wireless option for all Canadians are both unnecessary and unlikely to be successful. Investment firm BMO Capital Markets concluded:

> It seems to us [the Government] faces a daunting task to create conditions that will ensure a viable fourth player business model "in every region" … Consider that: i) it took the incumbents two decades to generate positive free cash flow; ii) that despite their share in Canada the locals are tiny by global standards; and iii) Canadian population density is among the lowest of mature markets.[29]

73. Striving for four or more wireless carriers also appears to be contrary to the trends in other countries as observed by global industry observers. For example, investment firm Credit Suisse noted:

> Of the 34 OECD countries only ~30% have four or more carriers and those markets tend to have higher population densities. Owing to the high fixed costs of wireless networks, far more developed markets are consolidating rather than expanding.[30]

74. While the total number of firms in a market is not necessarily an indicator of its overall competitiveness, the level of concentration in Canada is comparable to, and in many cases lower than, other countries. When comparing international wireless markets, two measures are often cited as important indicators of competitiveness: 1) the number of wireless competitors within a market; and 2) the Herfindahl-Hirschman Index (HHI) rating. Canada scores very well on both of these metrics relative to its G20 peer group. As indicated in Figure 18, Canada has a larger number of wireless competitors than most G20 countries.

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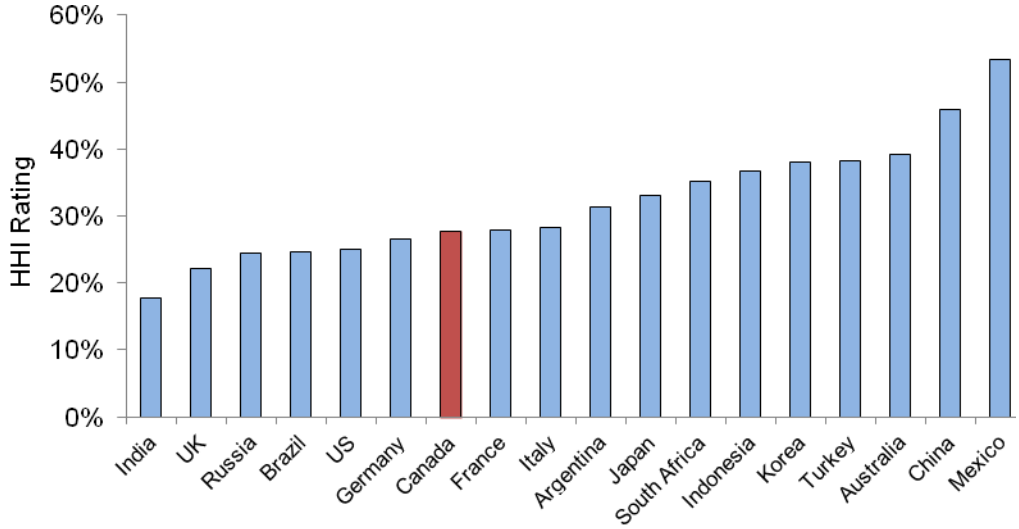
28 *Ibid*.
29 BMO Capital Markets, *Wireless Policy in Canada: Searching for a Silk Purse in a Sow's Ear*, 20 June 2013, page 2.
30 Credit Suisse, *Canadian Telecom: Three's a Crowd; Four's a Feud: Global Lessons From Four Carrier Wireless Markets,* 7 August 2013.

Figure 18 - Number of Competitors

Source: Bank of America -Merrill Lynch, Global Wireless Matrix, (1Q14)

75. The HHI takes into account both the number of competitors within an industry as well as the relative size of each player. HHI scores are expressed in fractions ranging from 0 to 1 such that the closer a country scores to 0, the more competitive the market is considered to be. Figure 19 shows that Canada has a lower HHI score, and is therefore less concentrated than many of its peers.

Figure 19 - Herfindahl-Hirschman Index



Source: Bank of America -Merrill Lynch, Global Wireless Matrix, (1Q14)

76. Canada's strong results on measures of market concentration were highlighted in the UoC Paper:

> To the contrary, the evidence ... is not consistent with the exercise of significant market power or the inefficient exercise of market power by Canadian providers of wireless services:
>
> - The HHI [Herfindahl-Hirschman Index] in Canada is similar to other countries, indeed only in the US is it lower and only marginally so.
> - The two-firm concentration ratio in Canada and Germany is smaller than all other countries.
> - The three-firm concentration ratio in most other countries is the same or greater than in Canada. Only in the US and Germany is the three-firm concentration ratio more than marginally lower than in Canada.
> - The share of the leading firm in Canada is close to the smallest and significantly less than some countries, where it is 50 per cent or higher.[31]

77. The Navigant Report reached similar conclusions:

> What is somewhat surprising, however, is that Canada – which has far fewer subscribers than the larger EU countries – is as unconcentrated as it is. We hypothesize that the unconcentrated nature of the Canadian market may result, at least in part, from the ability of Canadian firms to differentiate their services through innovation.[32]

Market Share Summary

78. To summarize, Canada has no dominant wireless service provider and Canada's wireless market is less concentrated than its international peer group. Virtually all Canadians enjoy a choice of facilities-based carriers and the majority is able to choose from four or more. Finally, as evidenced by the shift in net add shares over time, the competitive situation is very dynamic.

3.2.3 Demand Conditions

79. Decision 94-19 notes that a competitiveness analysis must examine the demand conditions affecting responses of customers to a change in price of the product or service in question. These conditions include the availability of economically feasible and practical substitutes and the costs to customers of switching suppliers.

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31 UofC Paper, pp. 29-30.
32 The Navigant Report, page 29.

80. As discussed above and noted in the most recent CMR, 96% of Canadians could choose among two or more facilities-based wireless carriers at the end of 2012, while 79% could choose among three or more and 57% could choose among four or more.[33] Within a given geographic market, services from each of these carriers are practical substitutes for the others. If one carrier were to raise prices, customers have alternative suppliers readily available. These alternative suppliers are easily located and service may be purchased through in-person points of distribution (retail outlets), online or over the telephone.

Demand Conditions: Customer Churn

81. The wireless industry has a long history of customers switching suppliers which explains why the subscriber "churn" rate (the percentage of subscribers who leave a supplier in a given month) is a closely watched competitive indicator. Churn rate is a function of many factors – e.g., satisfaction with the current supplier, promotional offers from competitive suppliers, contract lengths, and the number of subscribers who move out of a carrier's home territory. In recent years, the industry's "blended" churn rate (includes both postpaid and prepaid) has been around 20% per year. This means that approximately 6 million Canadians left their wireless carrier in 2013 – a clear indicator of customers' ability to switch providers. The churn rate for prepaid service is typically much higher – over 40% per year. Again, this demonstrates the ability of customers to switch to viable alternatives. This conclusion is supported by Margaret Sanderson in a report titled *Wireless Retail and Wholesale Services in Canada: Assessing the State of Competition* (the Sanderson Report), provided as Appendix 3:

> The evidence … indicates there is substantial customer turnover among carriers, including among the three large incumbents. Turnover of customers among firms of this order of magnitude indicates there is a great deal of competitive rivalry.[34]

Demand Conditions: Prepaid Alternatives

82. Prepaid wireless service provides consumers with the maximum amount of switching flexibility and offers capped prices to match a wide variety of budgets. At any time, a customer can easily obtain wireless service for as little as $10, perhaps by purchasing a prepaid card at a gas station, grocery store, convenience store or thousands of other retail outlets. Prepaid customers typically spend much less on wireless services than postpaid customers, e.g., ARPU

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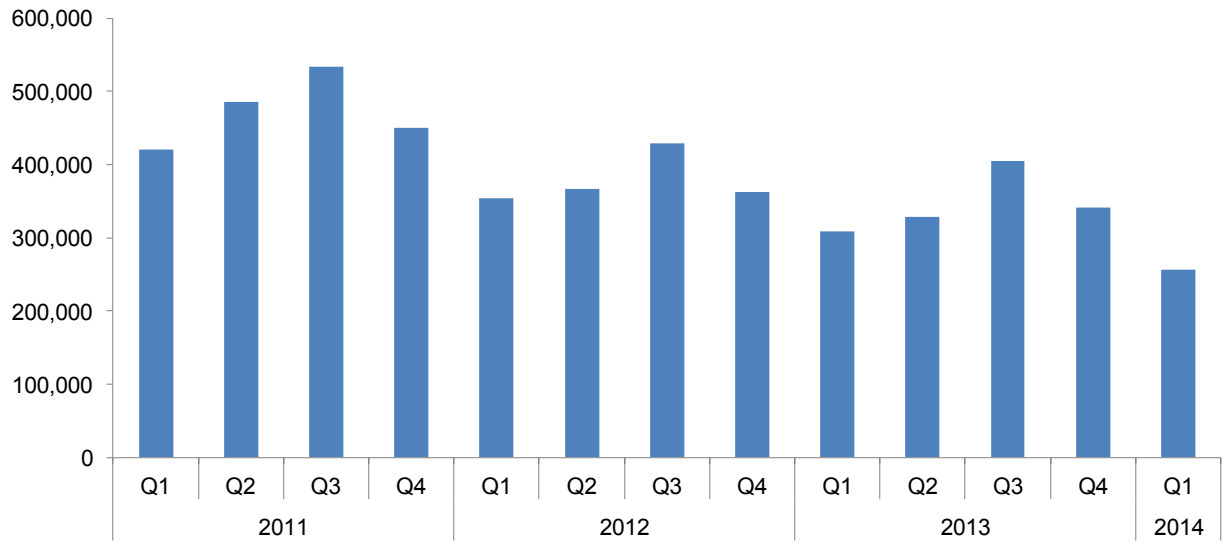
[33] CMR, September 2013, Table 5.5.1, page 167.
[34] Sanderson Report, page 14.

for our prepaid subscribers in 2013 was # per month while ARPU for our postpaid customers in 2013 was # per month.

83. Virtually all wireless carriers offer a variety of prepaid plans[35] because with more than five million prepaid wireless subscribers in Canada,[36] the customer segment is an important element of the retail market. The fact that prepaid services continue to be a key competitive battleground is shown in the large number of gross additions reported by wireless carriers. Figure 20 shows the prepaid gross additions for Bell, Rogers and Telus for the last 13 quarters. Prepaid gross add data for other carriers is not reported publicly so could not been included in the chart below.

Figure 20 – Prepaid Gross Additions (Bell/Rogers/Telus only)



Filed in confidence with the CRTC.

[35] See for example: http://www.bell.ca/Mobility/Cell_phone_plans/Prepaid_plans, http://mobility.telus.com/en/ON/prepaid/rate-plans.shtml, http://www.rogers.com/web/Rogers.portal?_nfpb=true&_pageLabel=WRLS_PREPAID_LANDING, http://www.eastlink.ca/Wireless/Prepaid/PrepaidPlans.aspx, https://www.sasktel.com/wps/wcm/connect/content/home/wireless/prepaid/, http://www.mts.ca/mts/personal/wireless/prepaid.

[36] According to the CMR, September 2013, in 2012 19% of all wireless subscribers were prepaid (page 159) and there were approximately 28 million total subscribers (page 158).

84. Figure 20 shows that 1.4 to 1.9 million prepaid subscriptions are activated each year. If results were included from other carriers like Wind, Vidéotron, Eastlink, Sasktel and MTS, the total number of prepaid subscriptions added each year in Canada would be considerably higher. This demonstrates not only the widespread availability of prepaid services and the willingness of Canadians to subscribe to prepaid services, but more importantly, the fact that prepaid services are economically feasible and practical substitutes in the event that there is a postpaid service price increase.

Demand Conditions: Technology Convergence

85. Since the time the Commission forbore from regulating mobile wireless services, switching providers has become easier and less costly. For example, the natural evolution of wireless networks has overcome previous incompatibility issues between CDMA and GSM technologies. This issue effectively gave Rogers, which had the only GSM compatible network across Canada, a historical monopoly on international roaming services. Today, with ubiquitous HSPA+ networks and emerging LTE networks, switching is easier than ever and international roaming is available from multiple providers. Similarly, adoption of wireless number portability in 2007 ensured that customers can retain their existing phone number regardless of which carrier they choose.[37]

Demand Conditions: Bring Your Own Device

86. Canadian companies have also embraced "bring your own device" or BYOD policies which provide price discounts to subscribers who bring their own unlocked devices when they switch wireless carriers. For example, Virgin offers 10% off all monthly plans when customers bring their own phones.[38] Similarly, Rogers says customers can save up to $10/month on select plans by doing so.[39]

Demand Conditions: Lower Switching Barriers from the Code

87. Implementation of the Code, which applies to all wireless carriers in Canada, also ensures that switching costs are low. The key provisions in the Code that minimize switching costs for wireless services include:

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37 Telecom Decision CRTC 2005-72, *Implementation of wireless number portability*.
38 http://www.virginmobile.ca/en/why-choose-us/switch-virginmobile.html?province=ON&geoResult=failed.
39 http://www.rogers.com/web/content/bring-your-own-phone?asc_refid=bringit.

- when a device subsidy has been provided to the customer, a Commission-defined formula for calculating early termination fees based solely on the unamortized device subsidy must be used, to a maximum of two years;
- when a device subsidy has not been provided to the customer: 1) a maximum early cancellation fee formula must be followed for fixed-term contracts; and 2) for indeterminate contracts, no fee can be charged;
- customers may cancel their contract at any time simply by notifying their service provider;
- service cancellation takes effect on the day that the service provider receives notice;
- a service provider must notify a customer with a fixed-term contract at least 90 calendar days before the end of their initial commitment period;
- where a customer contract is subject to an early cancellation fee, the service provider must offer the customer a trial period lasting a minimum of 15 calendar days during which the customer may cancel their contract without penalty;
- if the customer self-identifies as a person with a disability, the trial period extends to 30 days;
- for subsidized devices, mandatory phone unlocking must be provided no later than 90 calendar days after the contract start date; and
- for unsubsidized devices, mandatory phone unlocking must be provided upon request.

Demand Conditions: Summary

88. Wireless subscribers in Canada have always exhibited a willingness and ability to switch providers which has made customer churn a closely watched industry metric. The provisions of the Code significantly enhance customers' ability to switch providers in the event of a supra-competitive price increase

3.2.4 Rivalrous Behaviour

89. Decision 94-19 states that evidence of rivalrous behavior "may include falling prices, vigorous and aggressive marketing activities, or an expanding scope of activities by competitors in terms of products, services and geographic boundaries." As will be demonstrated below, there is an abundance of compelling evidence of rivalrous behaviour in Canada's retail wireless markets.

90. Appendix 4 provides a summary of selected news releases related to wireless services issued by Bell, Rogers, Telus, Wind, Vidéotron and Eastlink between 2009 and 2013. Appendix 4 highlights over 400 instances where wireless carriers have publicized initiatives to:

- expand the scope of their activities in terms of products, services and geographic boundaries;
- upgrade their networks to provide new and higher quality services;
- differentiate their services through the exclusive distribution or early release of wireless devices;
- offer price promotions or price reductions to attract new customers;
- introduce new services or features before competitors; and
- a variety of other initiatives.

91. If the market for wireless services was not sufficiently competitive, there would be no need for wireless carriers to undertake these initiatives or to publicize them to prospective customers.

Rivalrous Behaviour: Customer Service

92. Improving customer service is a growing area of competitive rivalry among wireless carriers. For example, it has been one of Bell's strategic imperatives for the last five years. Since 2008 Bell has invested more than $600 million in service enhancements such as: creating online service applications; improving performance with in-home installations; and opening three call centres in Ontario and Quebec. We recently reported that "[i]n 2013, Bell made significant strides in improving the customer service experience across our business with capital investments of $140 million in new service tools, training and infrastructure to better serve the evolving needs of our customers and to enhance our productivity."[40]

93. Bell's investments in customer service are showing positive results. Mr. George Cope, CEO of BCE and Bell, recently commented about the first quarter of 2014:

> Maybe most important ... in the quarter was the dramatic improvement in customer satisfaction … We continue to see call volumes drop in all of our call

[40] http://www.bce.ca/aboutbce/our-strategy/imperativesix/.

centres and we saw a reduction in churn across all of Bell services and improvement in customer loyalty.

94. Other companies are following suit. As reported by the *Financial Post*, improving customer service has been a priority at Rogers for more than a year,[41] and Rogers' new CEO, Guy Laurence, recently supported this commitment.[42] Similarly, a Telus executive recently stated that "Customers First is something that pervades every level of our organization today," and "[e]very team member understands our focus is on ensuring we deliver the best client experience we can."[43]

Rivalrous Behaviour: Wireless Devices

95. A review of Appendix 4 makes it clear that an important dimension along which wireless carriers compete is the availability of wireless devices. Given Canadians' expressed desire for the most advanced wireless devices available, carriers compete aggressively to secure Canadian distribution rights for the latest smartphones and tablets from manufacturers around the world. Securing exclusive distribution rights for popular handsets for even a short time can make a critical difference in the highly competitive retail market. This is why handset availability is such a large component of carriers' news releases and promotional efforts. For example, the following news releases concerning mobile devices are included in Appendix 4:

27 March 14: Wind Mobile announces the Moto G is now available;
18 March 14: Rogers announces that the Samsung GALAXY S5 will arrive fully loaded just for Rogers' Customers;
9 August 13: Wind Mobile adds the Nexus 4 White, the Sony Xperia L and the Huawei Ascend Y215 to its line-up;
26 June 13: Telus announces it is now offering the fourth generation iPad with Wi-Fi + cellular connectivity, as well as the iPad mini with Wi-Fi + cellular;
25 June 13: Bell announces the exclusive availability of the Sonim next generation super-tough Push-to-Talk 'BOLT' phones; and
11 April 13: Eastlink launches the BlackBerry Z10.

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41 Financial Post, *Rogers CEO admits will take 'some time' to improve service after stint as field technician*, 22 April 2014, see: http://business.financialpost.com/2014/04/22/guy-laurence-undercover-boss-rogers-ceo-admits-will-take-some-time-to-improve-service-after-stint-as-field-technician/?__lsa=6cae-77de.

42 The Globe and Mail, *Rogers CEO targets hockey, customer service as company 'thinks long term'*, 22 April 2014, http://www.theglobeandmail.com/report-on-business/rogers-ceo-targets-hockey-customer-service-as-company-thinks-long-term/article18093077/

43 Financial Post, *Putting customers first is critical to success: TELUS*, 4 February 2013, http://business.financialpost.com/2013/02/04/putting-customers-first-is-critical-to-success-telus/.

96. When it comes to wireless devices, Canada's small market size is a significant disadvantage compared to many other countries. Canada represents about 2% of the global wireless market and as such, has very little influence on handset designs and release dates.[44] Despite this challenge, the Canadian industry has done remarkably well in ensuring that Canada is among the countries to receive the first wave of shipments of new wireless devices.

Rivalrous Behaviour: Distribution Channels

97. Wireless carriers also compete on the basis of retail distribution points of presence which serve to complement other distribution channels, such as online/self-serve and call centres. The broader a carrier's geographic presence, the more points of distribution required to cover that territory. Increasingly, face-to-face distribution channels are seen as an opportunity to interact more directly with current and potential subscribers.

98. As will be discussed in Section 4, new entrants have been successful in expanding their points of presence in locations across the country by partnering with existing retailers, leveraging existing branded outlets (e.g., Vidéotron), as well as creating branded stores and kiosks. At the same time, Bell, Rogers and Telus have continued to increase their retail networks in recent years. To illustrate, Figure 21 shows Bell's estimate of the number of "branded" points of distribution (i.e., locations which carry the service provider's brand) in Canada (excluding Northern Canada) between 2009 and 2013. This analysis includes *The Source* stores for Bell, and *Black's* stores for Telus, but does not include points of distribution in retail outlets owned by non-carriers such as Future Shop, Best Buy and countless others who offer wireless services as we do not have a reliable count of such outlets for all carriers.

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[44] CMR, September 2013. Canadian wireless retail revenue is $19.5 billion (page 120) out of global wireless revenue of $903 billion (page 202).

Figure 21 - Branded Points of Distribution

#

#

99. As shown in Figure 21, the number of branded retail outlets has been rising steadily in the last five years # # It is also clear from Figure 21 that the number and share of branded points of distribution attributable to the new entrants (Wind, Public Mobile, Mobilicity, Vidéotron and Eastlink) have # #

Rivalrous Behaviour: Promotional Activity

100. Another indicator of rivalrous behaviour is vigorous and aggressive marketing activities. Wireless markets in Canada are defined by such behavior. For example, Figures 22, 23 and 24 provide a summary of the number of unique print, TV/English radio and digital advertisements respectively in Canada in 2013.

Filed in confidence with the CRTC.

101. It is important to note that these counts do not include instances where a wireless carrier uses the same advertisement more than once (i.e., number of occurrences). In practice, companies use a single advertisement many times over weeks or months, and in multiple geographic regions, so the advertising counts would be much higher if all occurrences were included.

102. In addition, our ability to track advertisements, especially digital advertisements, is limited. We subscribe to certain external advertising tracking databases and endeavour to monitor advertising activity internally but it is impossible to track all such behaviour. For example, the digital ads only include banner ads, emails and SMS (short message service) ads and exclude all other forms of digital ads (e.g., video). The radio counts also exclude French language ads as the research services we subscribe to do not track them and we have not found an acceptable alternative source for tracking this information. Therefore, the counts below, while indicative of the large amount of promotional activity taking place, significantly underestimate the actual amount of advertising activity in the marketplace.

Figure 22 - Number of Unique Wireless Print Ads in Canada in 2013
(Does not include occurrences)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Bell	2	3	4	6	5	2	7	13	2	9	4	8	**65**
EastLink	0	1	0	1	0	2	2	2	1	0	1	5	**15**
Fido	2	9	5	7	7	7	9	11	7	0	19	21	**104**
Mobilicity	7	2	4	1	0	1	1	2	0	0	1	2	**21**
MTS/Allstream	3	2	8	6	8	5	5	5	3	3	3	4	**55**
Public Mobile	2	2	4	0	5	1	1	6	3	0	0	0	**24**
Rogers/Chatr	10	32	34	14	17	17	18	12	8	10	20	23	**215**
Sasktel	1	2	5	6	4	1	1	0	0	0	1	4	**25**
Telus/Koodo	8	11	20	12	13	14	5	18	14	7	7	23	**152**
Vidéotron	9	7	12	8	7	4	3	3	7	6	4	9	**79**
Virgin	1	4	5	0	9	2	0	8	4	0	2	2	**37**
Yak/WIND	1	0	3	0	0	0	0	0	0	0	0	1	**5**
Total	**46**	**75**	**104**	**61**	**75**	**56**	**52**	**80**	**49**	**35**	**62**	**102**	**797**

Figure 23 - Number of Unique TV & English Radio Ads in Canada in 2013
(Does not include occurrences; information on French Radio ads not available)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Bell	1	3	4	2	3	3	0	8	6	4	2	3	**39**
EastLink	0	0	1	0	1	0	0	0	0	0	1	2	**5**
Fido	0	2	4	4	0	0	0	3	2	0	11	2	**28**
MTS/Allstream	0	0	0	3	1	0	1	1	0	0	2	0	**8**
Public Mobile	0	2	1	0	0	1	0	2	2	0	0	0	**8**
Rogers/Chatr	3	4	9	7	8	4	3	9	3	4	3	1	**58**
Sasktel	0	0	0	0	0	1	0	0	0	1	0	1	**3**
Telus/Koodo	3	3	9	0	1	4	1	6	2	1	7	5	**42**
Vidéotron	0	2	2	1	5	1	0	1	1	1	2	0	**16**
Virgin	0	1	1	0	4	2	0	7	1	0	0	7	**23**
Yak/WIND	0	0	0	0	1	0	0	2	0	0	1	1	**5**
Total	**7**	**17**	**31**	**17**	**24**	**16**	**5**	**39**	**17**	**11**	**29**	**22**	**235**

Figure 24 - Number of Unique Digital Ads (Web banners/email/SMS) in Canada in 2013
(Does not include occurrences)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Bell	4	4	3	2	2	1	1	3	6	2	1	9	**38**
EastLink	0	0	0	1	0	0	1	1	0	0	0	2	**5**
Fido	0	1	1	2	1	1	1	2	4	0	1	1	**15**
MTS/Allstream	1	0	0	0	0	0	0	0	1	0	0	2	**4**
Rogers/Chatr	2	16	3	2	1	1	3	1	1	3	4	4	**41**
Sasktel	0	0	1	1	0	0	3	0	0	0	0	0	**5**
Telus/Koodo	1	3	3	5	8	2	1	1	4	3	5	5	**41**
Vidéotron	2	2	0	0	0	0	0	0	0	1	0	1	**6**
Virgin	1	2	1	0	0	0	0	0	0	0	0	4	**8**
Yak/WIND	0	0	1	1	0	0	0	1	0	0	0	3	**6**
Total	**11**	**28**	**13**	**14**	**12**	**5**	**10**	**9**	**16**	**9**	**11**	**31**	**169**

103. Figures 22, 23 and 24 show that in 2013 there were at least 797 unique print advertisements, 235 unique TV/English radio advertisements and 169 unique digital advertisements concerning wireless services in Canada. In total, there were approximately 1,200 unique wireless advertisements produced for the Canadian market in 2013. If the market for wireless services was not sufficiently competitive, there would be no need for wireless carriers to undertake the expense to create all of these unique advertisements or the considerably higher additional expense to place these ads in media across the country throughout the year.

104. In Figures 25 and 26, the data provided in Figures 22 and 23 have been sorted by geographic region. Sorting digital ads by region is not relevant so there is no geographic breakdown of the data in Figure 24. We are not able to sort the ads for every province, however, it is possible to show the ads for Atlantic (New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador), Ontario, Quebec and the West (British Columbia, Alberta,

Saskatchewan and Manitoba). Figures 25 and 26 show that aggressive advertising efforts are common across all of the regions analyzed.

Figure 25 - Number of Unique Wireless Print Ads by Region in 2013
(Does not include occurrences; Ads in national newspapers are counted in all four regions)

	Atlantic	Ontario	Quebec	West	Total
Bell	25	31	29	25	110
EastLink	16	0	0	0	16
Fido	25	12	39	34	110
Mobilicity	0	14	0	7	21
MTS/Allstream	0	3	0	54	57
Public Mobile	2	11	15	2	30
Rogers/Chatr	46	72	112	92	322
Sasktel	0	0	0	25	25
Telus/Koodo	29	60	68	66	223
Vidéotron	0	0	80	0	80
Virgin	1	11	19	11	42
Yak/WIND	2	4	2	3	11
Total	**146**	**218**	**364**	**319**	**1,047**

Figure 26 - Number of Unique TV/English Radio Ads by Region in 2013
(Does not include occurrences; French radio not available; national ads are counted in all four regions)

	Atlantic	Ontario	Quebec	West	Total
Bell	3	18	14	5	40
EastLink	5	0	0	0	5
Fido	1	10	12	5	28
MTS/Allstream	0	0	0	8	8
Public Mobile	0	7	1	0	8
Rogers/Chatr	8	26	19	9	62
Sasktel	0	0	0	3	3
Telus/Koodo	6	20	11	11	48
Vidéotron	0	0	16	0	16
Virgin	2	9	7	5	23
Yak/WIND	0	4	0	1	5
Total	**25**	**94**	**80**	**47**	**246**

105. For illustrative purposes, Appendix 5 provides examples of some of the advertisements for wireless services that were counted in the figures above. The ads in Appendix 5 provide evidence of the following types of rivalrous behaviour:

- Providing a cash credit to customers who switch providers;
- Offering lower prices and/or more value for the same price;
- Offering discounts on new phones if the customer trades-in an old phone;
- Announcing the availability of innovative new wireless devices;
- Promoting the largest selection of wireless devices in the market;
- Providing discounts on new smartphones for new customers;
- Promoting network speed advantages over the competition;
- Offering differentiated service bundles and packages;
- Committing to match competitors' lowest prices; and
- Announcing entry into new geographic markets.

106. The examples show that wireless carriers are attempting to differentiate themselves, gain a competitive advantage, attract new wireless subscribers and compete aggressively against each other.

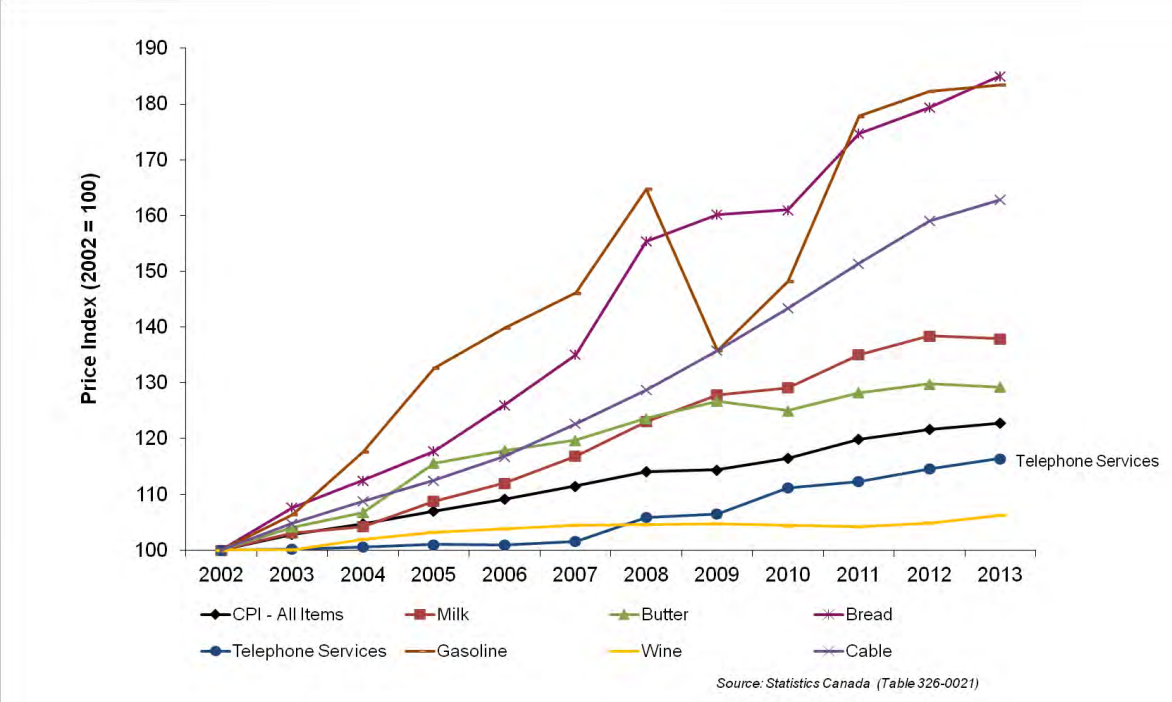
Rivalrous Behaviour: Price Competition

107. As part of the competitive analysis set out in Decision 94-19, the Commission also indicated that falling prices should be considered evidence of rivalrous behaviour. On this point, the Commission noted in its most recent CMR that "[i]n 2012, the average price of wireless services in Vancouver, Toronto and Montreal generally decreased between 3% and 10%."[45]

108. In fact, Statistics Canada reports that over the long term (2002 to 2013 in this case) prices for "telephone services", which includes both wireline and wireless services, have been rising more slowly than the consumer price index (CPI). In fact, Figure 27 shows that telephone service prices have risen more slowly than those for such consumer staples as milk, butter, bread and gasoline.

[45] CMR, September 2013, page 29.

Figure 27 - Price History (2002-2013)



109. With regards to wireless services specifically, Figure 28 provides an analysis prepared by Bell of wireless price reductions for Bell (including Virgin), Rogers (including Fido) and Telus (including Koodo) in the January 1 to March 31, 2014 period.

Figure 28 - Number of Wireless Price Reductions – 1 January 2014 to 31 March 2014

Month	Hardware	Rate Plans	Activation Fees	Total
Jan	24	70	3	97
Feb	73	12	0	85
Mar	78	108	0	186
Total	**175**	**190**	**3**	**368**

110. The counts in Figure 28 include reductions related to hardware, rate plans and activation fees. In total, there were 368 price reductions identified in the three-month period, representing a high level of competitive pricing activity. This analysis underestimates the total number of price reductions in the marketplace as it does not include pricing activity from other carriers such as MTS, Sasktel, Vidéotron, Eastlink and Mobilicity. There were also price increases during this period, especially related to handsets, but the price decreases outnumbered the price increases by a factor of four to one.

111. While Figure 28 provides an example of some of the current competitive pricing activity in the retail market, it simply highlights the most recent period in a long history of such activity. Wireless carriers have consistently used pricing promotions to try to lure away customers from their competitors and attract new wireless subscribers to the market. For example, promotional offers featuring unlimited calling/texting/data usage for a specified time period, waived service charges, free calling features (e.g., call display, voice mail) and discounted or free wireless devices have been an important part of the Canadian wireless marketplace for decades.

112. One active area for competitive price decreases has been international roaming services. In the last few years, Bell and other wireless carriers have lowered prices for roaming services to many international destinations. For example:

13 June 2011:	Telus cuts roaming rates to 200 countries by up to 60%;
30 June 2011:	Wind introduces a plan where customers pay $10/month to save up to 50% on U.S. roaming rates;
9 May 2013:	Rogers launches 50 MB data roaming in U.S. for $7.99/day;
16 September 2013:	Bell reduces popular data, voice and text roaming plan prices for the US by 50%;
15 October 2013:	Bell reduces data, voice and text roaming prices for Bermuda and most Caribbean islands;
2 December 2013:	Bell introduces Travel Data Passes for mobile roaming and reduced roaming prices to Europe, Mexico, China and other destinations;
10 February 2014:	Bell reduces data, voice and text roaming prices for Cuba;
10 February 2014:	Vidéotron lowers data roaming rates to the U.S., Europe and Caribbean; and
28 March 28, 2014:	Bell reduces voice and data roaming prices for Japan.

113. In recent years, the three largest wireless carriers have all expanded their scope of activities by launching secondary brands which provide service on the same high quality networks as the primary brands but in many cases at discounted prices. The services marketed under the Virgin, Koodo and Fido brands should be considered in any market competitiveness assessment. Critics argue that these secondary brands do not provide a true choice for consumers since they are not offered by independent carriers but the fact is that the brands offer additional choices for consumers, particularly at lower price points.

114. To illustrate the beneficial role played by secondary brands in the market, consider the postpaid service options for a customer who wants to subscribe to a wireless service for less than $40 per month.

- The primary Rogers brand offers a plan for $30/month that includes 200 minutes of calling during peak hours, unlimited calling starting at 6:00 pm, call display and voice mail, unlimited texting and a device subsidy of up to $220.
- The primary Telus brand offers a plan for $35/month which provides essentially the same value proposition as Rogers' $30 plan except it allows only 150 minutes and provides a much larger device subsidy of $450.
- In contrast, Virgin offers three different plans under $40/month (for $29/month, $34/month and $39/month), and all of them offer more value to the customer than the Rogers and Telus primary brand offers (although with a slightly lower device subsidy of up to $200). The Virgin plans offer the following:
  - i) Call display and voice mail (no difference with Rogers and Telus);
  - ii) Unlimited texting (no difference with Rogers and Telus);
  - iii) The same or more minutes (200 minutes for the $29 and $34 plans, but 300 minutes for the $39 plan);
  - iv) Unlimited calling starting at 5:00 pm for all three plans (versus 6:00 pm for Rogers and Telus);
  - v) Unlimited nationwide long distance for all three plans (versus no long distance for Rogers and Telus); and
  - vi) A data usage allotment of 50 MB for the $34 plan and 300 MB for the $39 plan (versus no data allotment for Rogers and Telus).
- For this illustration, we have used Virgin's service plans but we could have substituted similar plans from Rogers' secondary brand (Fido) or Telus' secondary brand (Koodo) and the comparison would be the same.

115. The illustration above demonstrates that secondary brands offer additional choice and additional value to an important customer segment, and as such, should be considered an important part of the competitive landscape. They increase the competitive intensity in the industry and provide an economically attractive substitute for many consumers.

116. Canada is sometimes criticized for having a higher average revenue per user (ARPU) than its peers in international comparisons. Critics suggest this is evidence that there is

something wrong with Canadian prices or competition. Aside from the significant differences in international markets which make valid comparisons challenging,[46] there is a fundamental problem with these accusations. ARPU is not a measure of price. It is a measure of aggregate consumer expenditure that depends on both price and quantity, combining the revenues received for all of a subscriber's wireless services (i.e., voice, data, and texts). As the UofC Paper concluded: "Those who single out high ARPU as an indicator that something is wrong with prices — and therefore competition — are fundamentally misinformed about the meaning of ARPU and why it is high in Canada."[47]

117. Two pricing studies[48,49] that attempt to control for subscriber usage are found in the Organisation for Economic Co-operation and Development's (OECD) biennial *OECD Communications Outlook* report[50] and the CRTC commissioned *Wall Communications Report.* These studies compare international prices for baskets of wireless services comprised of set quantities of data, voice minutes, and text messages. The minimum cost to achieve the service level specified for each basket is then determined and compared for each country. Evidence from both the *OECD Communications Outlook* report and the *Wall Communications Report*[51] show that Canadian wireless prices are in the middle of the pack.

118. In the latest edition of the OECD report, released in July 2013, international wireless bundle prices are compared across five service levels. The first service level examines prices for low usage; that is, subscribers making 30 or fewer monthly calls and downloading less than 100 MB of data. The second service level compares prices for subscribers making 100 or fewer monthly calls and downloading less than 500 MB of data. Figures 29 and 30 show that, for both

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46 Producing valid international comparisons is very difficult due to the myriad of differences among countries. National markets vary based on such things as the quality of network service, pricing practices, consumer preferences, availability of handsets, and many other factors.

47 UofC Paper, page 19.

48 Note that there are methodological challenges to these types of studies. For example in the OECD methodology, many differences in service offerings are not considered (shared plans, bundling, etc.). Also, the service bundle levels selected are arbitrary and they may or may not reflect typical services baskets within each country. If different service baskets were used, individual country performance may be stronger or weaker depending on how closely the new baskets reflect competitive bundling practices within each country. The OECD itself notes that "in certain countries the prices may appear more competitive in one basket than in another".

49 Neither pricing study controls for quality, in particular speed and reliability.

50 Organization for Economic Co-Operation and Development, *OECD Communications Outlook 2013*, 11 July 2013, online at http://www.oecd.org/sti/broadband/communications-outlook.htm.

51 *Wall Communications Inc. Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions 2013 Update,* Prepared for the Canadian Radio-television and Telecommunications Commission and Industry Canada. Available online at http://www.crtc.gc.ca/eng/publications/reports/rp130422.pdf.

low usage wireless bundles, Canadian prices are very close to the G20 median for the G20 countries that are part of the OECD.[52]

Figure 29 - 30 Calls + 100 MB mobile basket (G20 Countries in OECD)

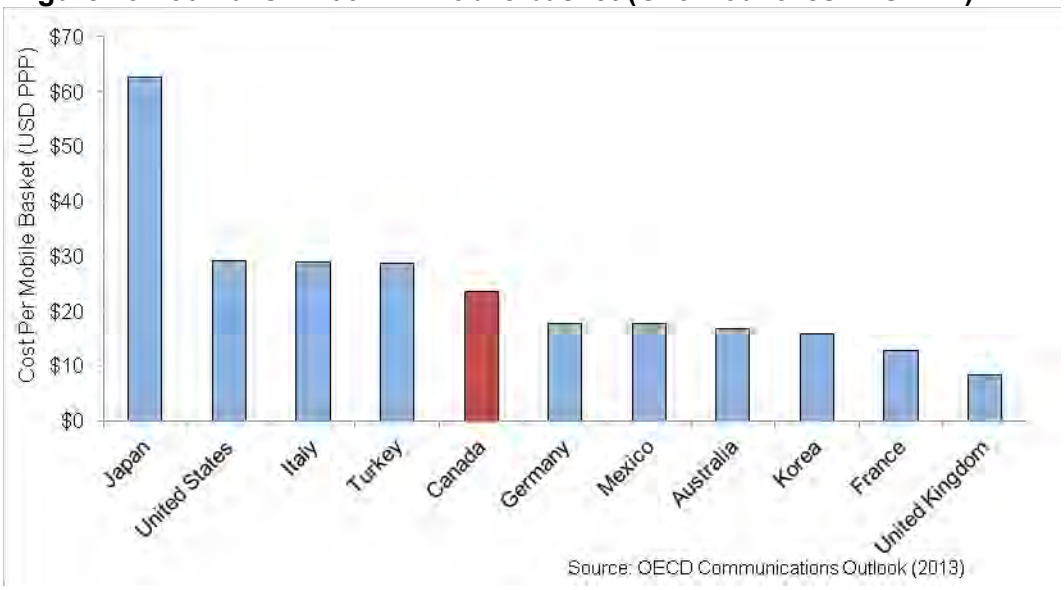
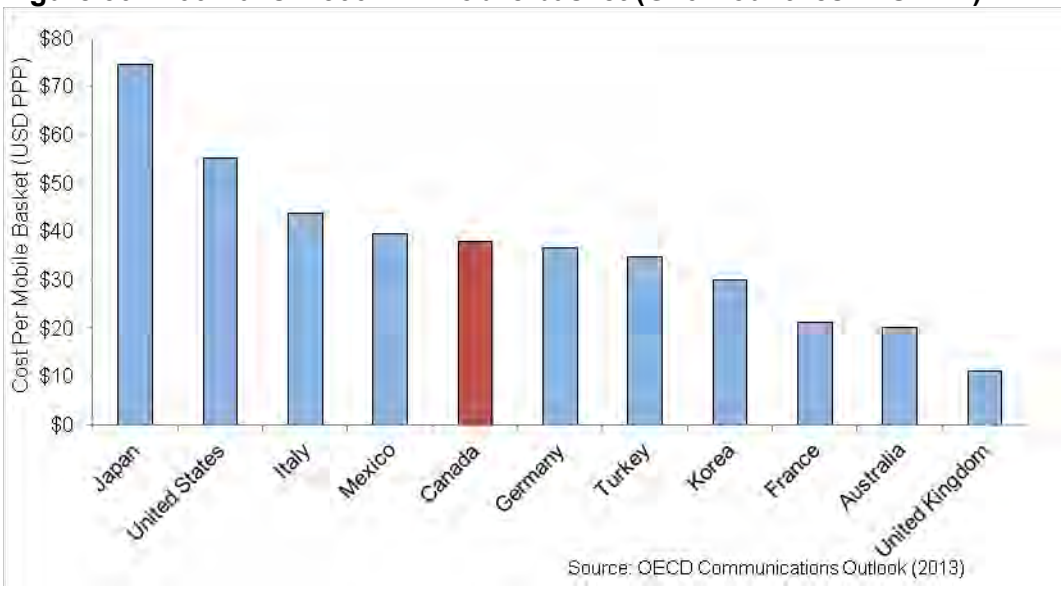


Figure 30 - 100 Calls + 500 MB mobile basket (G20 Countries in OECD)



119. The OECD report also looks at what subscribers pay for moderate amounts of voice and data service. The third level service basket includes 100 monthly voice calls and 2 GB of data while the fourth level basket includes 300 calls and 1 GB of data (See Figures 31 and 32). As

[52] There are 32 countries in the OECD, only 11 of which are also included in the G20.

with the low service usage baskets, Canada's moderate usage service basket prices fall squarely in the middle of the G20 peer group.

Figure 31 - 100 Calls + 2 GB mobile basket (G20 Countries in OECD)

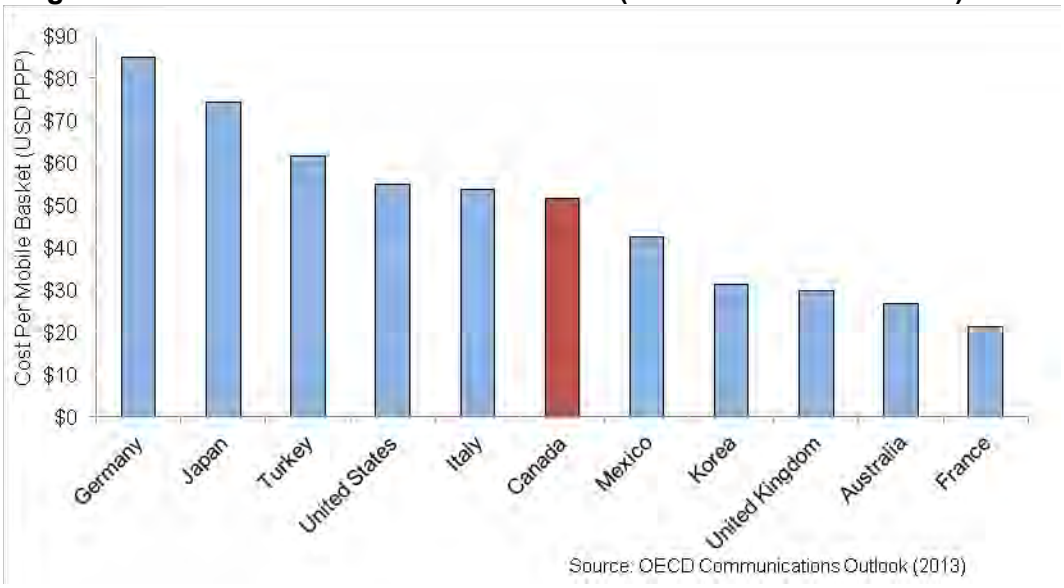
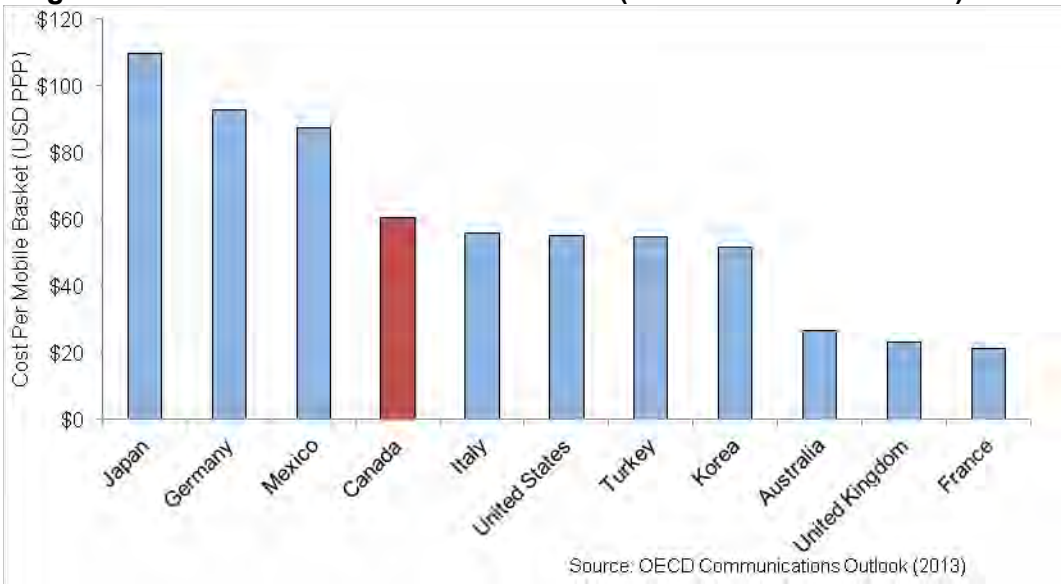
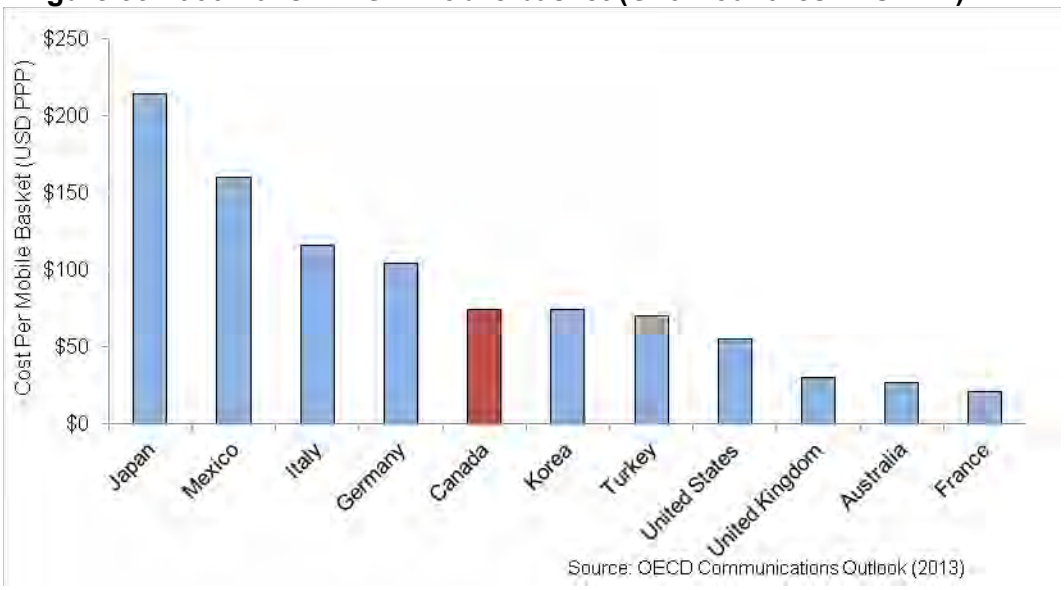


Figure 32 - 300 Calls + 1 GB mobile basket (G20 Countries in OECD)



120. The final wireless service level considered in the OECD report was the heavy use basket. This basket includes 900 monthly voice calls and 2 GB of data. As shown in Figure 33, Canada was once again close to the median.

Figure 33 - 900 Calls + 2 GB mobile basket (G20 Countries in OECD)



121. The 2013 OECD pricing results are consistent with the CRTC's own monitoring of international prices as found in the 2013 Wall Communications Report.[53] The Wall Report looked at six countries in the G20, and examined wireless prices across three different service levels. It found that Canada's prices are lower than those in the U.S. at all price points and in the middle of the pack overall.

122. Canada is most often compared with the U.S. due to our close proximity and the fact that the two markets are similar in many respects. A very recent comparison (April 2014) of Verizon and Bell rate plans which offer unlimited nationwide talk and text, call display, voice mail and various data allotments is provided below. The comparison shows that Bell's prices are lower than Verizon's at each data allotment level, and the Bell plans also provide 10 hours of Mobile TV.

	Verizon			**Bell**		
Data Plan	**1 GB**	**2 GB**	**4 GB**	**1 GB**	**2 GB**	**4 GB**
Talk & Text	Unlimited			Unlimited		
Calling Features	Call Display and Voice Mail			Call Display and Voice Mail		
Mobile TV Viewing	None			10 hours/month		
Price ($CDN)	$88	$99	$121	$85	$90	$110

Prices as of 8 April 2014 (exchange rate 0.92).
On plans shown, iPhone 5S is US$199 for Verizon and C$229 for Bell.

53 CMR, September 2013, page 200.

Rivalrous Behaviour: Conclusion

123. The market situation described above is likely why Canadians believe that there is a significant amount of competitive rivalry for wireless services. As shown in the Nanos Research Survey, 79% of Canadians say that wireless service providers are active or very active in attracting new customers, compared to 33% for gas companies, 45% for airlines, 66% for grocery stores and 68% for banks.

3.2.5 Innovation and Technological Change

124. Decision 94-19 notes that "industries characterized by rapid innovation in products, processes and technology tend to experience greater price movements and new entry, thereby making it difficult to exercise market power." It would seem unlikely that any close observer of the wireless industry could conclude that it is characterized by anything but rapid innovation in products, processes and technology.

125. In terms of network innovations, Canada's wireless carriers have been at the global forefront. Newer market entrants like Vidéotron, Eastlink and Wind have focused on rolling out 4G networks, while the large national and regional carriers have launched multiple generations of wireless networks in the last few years alone, including most recently, LTE. As observed by IDC: "Canadian operators have been far ahead of the global curve on commercial Long Term Evolution (LTE) deployment".[54]

126. As a case in point, consider Bell's recent wireless network deployments as shown in Figure 34.

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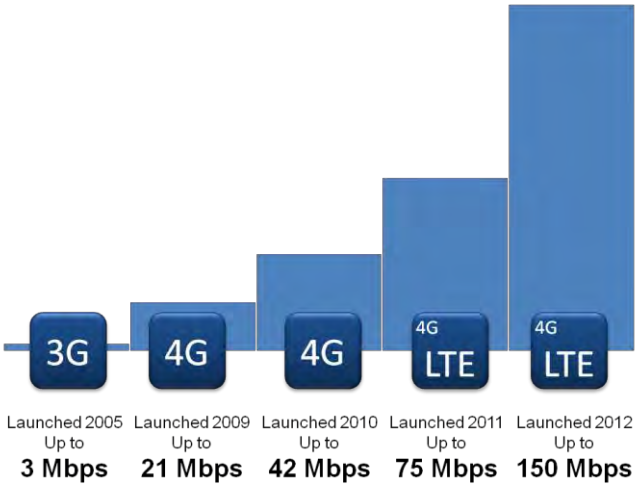
[54] IDC, *Canadian Wireless Services 2013-2017 Forecast and Analysis: Wireless Wars 10*, #CA11TM13, page 17.

Figure 34 - Bell's Recent Mobile Network Deployments



127. In 2009, Bell launched a world-leading 4G HSPA+ network, which was augmented in 2010 to offer dual-carrier 42 Mbps speeds. In 2011, Bell rolled out its next generation LTE network, which provides customers with up to 75 Mbps speeds, and then in 2012 upgraded this with speed offerings up to 150 Mbps. Beginning in 2014, Bell will be investing in next generation LTE service in rural areas.

128. Taking a longer term view, the innovations enabled by new wireless networks and services are undeniable. Canadians now use their wireless devices to talk, send/receive text messages, send/receive email, schedule appointments, search the Internet, update their social media status, hold video conferencing sessions and watch broadcast television. Wireless devices are now Canadians' cameras, video recorders, gaming devices, digital music repositories, and of course, home phones. This has all happened in very short order. In 2000 there were virtually no apps available for mobile phones; today there are more than one million. Consumer adoption has also been rapid. For example, at the end of 2013, Bell had more than 1.3 million subscriptions to its mobile television service which was launched in October 2010.

129. The news releases in Appendix 4 provide ample additional evidence of the rapid pace of innovation taking place in wireless networks, devices and services. Consider the following examples:

4 May 2009:	Bell was the first telecommunications company in Canada to obtain ISO 14001 certification for environmental performance;
12 February 2010:	Bell announced the launch of remote PVR capabilities, allowing Canadians to manage their TV recordings from their smartphones;
24 February 2010:	Bell, Rogers and Telus completed two-way mobile video calling trials;
23 November 2010:	Bell launched the 42 Mbps capable Novatel wireless turbo stick;
11 March 2011:	Rogers launched Canada's first Wi-Fi service for business;
24 April 2012:	Bell launched next generation mobile Push-to-Talk service;
10 July 2012:	Rogers and wireless carriers from six other countries formed an alliance to support a single global machine-to-machine (M2M) platform;
21 February 2013:	Bell was the first wireless carrier to provide mobile TV access to the Oscars in Canada;
17 September 2013:	Bell welcomed its one millionth mobile TV customer;
10 October 2013:	Bell became the first carrier worldwide to launch the Samsung KNOX security service which provides security for employees using their own mobile devices at work;
7 November 2013:	Rogers delivered the first mobile wallet in Canada; and
4 February 2014:	CIBC and Telus launched the CIBC Mobile Payment App to Telus mobile devices with Near-Field Communications (NFC) capability.

130. In terms of devices, there is a steady stream of innovative new products available to Canadians which take advantage of the latest technologies. The strength of Canada's networks has made it an attractive launching ground for high-end device manufacturers. In 2013, Bell alone launched 26 new mobile devices, including smartphones from Apple, BlackBerry, HTC, LG, Samsung and Sony, and the ultra-rugged Sonim BOLT push-to-talk phones for business users in the most extreme conditions.[55]

131. Canadians recognize the rapid pace of technology change and innovation. The Nanos Research Survey found that 78% of Canadians believe that wireless phone products, features and services are changing quickly or very quickly and 64% of Canadians are satisfied or very satisfied with the availability of new wireless phones, features and services. The results indicate that Canadians see firsthand the benefits of new technologies in the services they use every day. For instance, compared to five years ago, 81% of Canadians believe that the selection of

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55 http://www.bce.ca/aboutbce/our-strategy/imperativeone/.

mobile phones and other devices is better, 77% believe that the speed of their wireless Internet connection is better, 66% believe the clarity of calls is better, 63% believe the frequency of dropped calls is better, and 63% believe the choice of data, talk and text plans is better.

132. Expectations are high that Canada's future will provide just as many innovations and technological changes as its past. IDC predicts that:

> Wireless will move even closer to the forefront of the telecom landscape because of new high-speed 4G LTE wireless broadband networks that meld IP with wireless and enable a plethora of smart devices and wireless data applications for consumer and business customers.[56]

133. With rapid innovation and technology changes come challenges for existing service providers who run the risk of having their services replaced by newer alternatives. This is continuously happening in the communications industry with once growing, profitable businesses declining in the face of new innovative options. For example, local and long distance telephone service, over-the-air broadcast television, and dial-up Internet have all been eroded by newer technology-based substitutes.

134. Over-the-top (OTT) services are an example of an innovation with the potential to disrupt the businesses of traditional wireless services. OTT services use the Internet, rather than wireless companies' proprietary networks, to send and receive voice, text and data traffic. Common examples in other parts of the communications industry today are Skype (voice and video conferencing) and Netflix (video-on-demand movies and TV shows). In wireless, OTT services have the potential to cannibalize wireless revenues generated today from voice calling (local and long distance), roaming, texting and applications like mobile TV.

135. Research company eMarketer described the OTT substitution trend for wireless as follows:

> OTT messaging services such as Apple's iMessage, which enables iPhone, iPod and iPad users to exchange text and multimedia messages, and third-party apps like WhatsApp, which offer IM and chat services to a broader spectrum of mobile users, have grown popular with consumers because they are a cheaper alternative to SMS and MMS. Messages sent through such services are transmitted via the internet, which allows users to avoid the costs associated with

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[56] IDC, *Canadian Wireless Services 2013-2017 Forecast and Analysis: Wireless Wars 10*, #CA11TM13, page 27.

> carrier-based messaging plans, as well as the record-keeping practices some carriers employ.[57]

136. Bank of America Merrill Lynch predicts that OTT services will lead to a new wave of technology-based changes in wireless:

> 2013 saw explosive growth in OTT services, leaving little doubt that all traditional carrier services (messaging, voice and broadcast TV) will be challenged over time (and potentially replaced) by OTT services.[58]

137. Technology analyst Parks Associates agrees:

> The rapid adoption of smartphones and the rollout of fast LTE networks create a challenging environment as MNOs [Mobile Network Operators] struggle to compete with Over the Top (OTT) players providing free or low-priced offerings for voice, messaging, music, gaming, and other media services. … In the past few years OTT players have gained significant ground over MNOs in delivering voice, messaging, music, and video services to subscribers.[59]

138. Two recent developments highlight the immediacy of this challenge. First, the volume of text messages in the U.S. has begun to decrease, primarily as a result of OTT services. As summarized by Morgan Stanley:

> In May 2013, CTIA released US wireless industry data showing that June and December 2012 U.S. text messaging (SMS) volumes already declined 6.4% Y/Y and 11.3% Y/Y to 184bn and 171bn, respectively. Declining volumes is likely reflective of the adoption of various mobile applications offering messaging services, such as WhatsApp and Viber. Apple's iMessage, which offers free text messaging from one iOS device to another, has likely been another key driver. We note that U.S. SMS volumes peaked at 197bn in June 2011 prior to the launch of iMessage in October 2011.[60]

139. Second, Facebook recently agreed to pay $19 billion to acquire WhatsApp, a company that provides an OTT mobile text messaging app available on all major mobile phone operating systems. In just five years of operation WhatsApp has amassed approximately 450 million active users worldwide. The combination of WhatsApp's massive customer base and Facebook's global profile, market reach and financial resources indicate that OTT texting could quickly become a popular substitute for traditional text messaging services. In a worst case

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57 eMarketer, *Mobile Messaging Trends*, July 2013, page 5.
58 Bank of America Merrill Lynch, *Global Wireless Matrix 4Q 2013*, *2014: The Year Ahead*, 8 January 2014, page 5.
59 Parks Associates, Optimization and Monetization of Mobile Data Traffic, October 2013, page 33.
60 Morgan Stanley, *Telecom Services: U.S. Carrier Text Messaging Volume Already Declining*, 24 February 2014.

scenario, wireless carriers' networks would continue to carry all of the traffic associated with these OTT services, and incur the associated network expansion and maintenance costs, but lose an increasing share of the revenue to third-party apps providers.

3.3 Conclusions about the Competitiveness of the Retail Wireless Market

140. Based on the evidence presented in Section 3 using the assessment framework set out in Decision 94-19, it is clear that there is no dominant wireless carrier in Canada and the market share held by new market entrants has been increasing. Economically feasible and practical substitutes are readily available to the vast majority of Canadians and switching costs are low – especially considering the Commission's wireless Code which was only recently implemented.

141. There is also an abundance of evidence of rivalrous behaviour among all carriers, including falling prices, advertising and promotions, and a longstanding track record of investment, innovation and technological change. In short, the evidence in this section leads to the conclusion that the retail market for mobile wireless services in Canada is highly competitive.

142. Throughout Section 3 and Section 4, numerous international comparisons were presented. Three important conclusions may be drawn from these comparisons: 1) Canada is among the world leaders on many metrics; 2) European countries are falling behind others in the G20 on several key indicators; and 3) no country outperforms all others on every metric – there is no wireless utopia. Given the empirical evidence it is clear that the long term record of investment and competition in Canada's retail market has created a world class industry.