

Industry Canada's Spectrum Management Consultations: Democratic Participation or Regulatory Capture¹

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I. Introduction

The Spectrum Management and Telecommunications division of Industry Canada actively solicits input from individuals and organizations on how to manage radio spectrum, which Industry Canada itself notes is a “public resource,”³ that benefits all aspects of society.⁴ However, with the exception of about 60 persons, it would appear that Canadians are not engaged in the contribution to and management of a resource they not only own, but is the essential lifeblood of 21st century communications, particularly as wireless internet connections have taken over fixed (or wireline) connections globally,⁵ and should do so within Canada by 2020 if not earlier.⁶ Instead, spectrum management consultations end up serving largely as a forum for telecommunication firms (telcos) to express their views to Industry Canada with only limited participation from groups and individuals who are not service providers (broadly defined as: Canada's ‘big three’ (Bell, Rogers and Telus), regional players (such as SaskTel and MTS

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³ Framework for Spectrum Auctions, Issue 3, 2011.

⁴ *Spectrum Policy Framework for Canada*, 2007 ed.

⁵ OECD, *Communications Outlook 2011*, 2011.

⁶ Authors calculations based on two estimates from the *CRTC Communications Monitoring Report 2012* (p.129). One estimate used the rate of decline of wireline subscriptions in 2010 and rate of increase for wireless subscriptions in 2010 to project wireless overtaking wireline by 2020. The second, less conservative estimate used the three year average decline in wireline connections from 2008 to 2010 and the three year average increase in wireless subscriptions.

Allstream),⁷ small service providers (Tbaytel and the SSi Group) or new wireless entrants (Globalive/WIND, Public Mobile, and Mobilicity).⁸ One could view the consultation process as a means of facilitating regulatory capture; however, labelling the Spectrum Management and Telecommunications division of Industry Canada as ‘captured’ rests more on the definition of a captured regulator than anything else. As it stands, the divergent interests among Bell, Rogers and Telus, and discord between the views of the big three and the remaining service providers prevent the emergence of a telco cartel with a captured regulator in tow. Finally, it is crucial that informed citizens, public interest organizations and academics play a greater role in future consultations to eliminate ‘slack,’ a capture theory concept that accounts for how regulators are given the potential for capture.

The paper begins with a brief discussion of regulatory guidelines for telecommunications and the wireless sector in particular, followed with a short examination of regulatory theory and review of studies alleging regulatory capture in Canada. The analytical section of the paper is divided into two parts. The first provides a statistical analysis of the 40 consultations conducted by Industry Canada from 2008 to 2012. From here, the second part of the analysis looks at the result of two consultations to determine how Industry Canada incorporates the comments and reply comments it solicits into its decisions. Both analyses evince that while the process is not solely industry controlled, there exists a significant degree of industry influence on decisions. Finally, the paper returns to regulatory theory to examine whether the high degree of suasion that industry has over Industry Canada constitutes capture, with the authors suggesting that increased scrutiny of the consultation process by media and academics is necessary to reduce slack that could facilitate capture.

II. Framework for Regulation in the Wireless Sector

Canadian telecommunications policy is succinctly and explicitly contained within section 7 of the *Telecommunications Act*. The policy identifies nine objectives, and the only objective covering regulation reads, “to foster increased reliance on market forces for the provision of telecommunication services to ensure that regulation, where required, is efficient and effective.”⁹ The policy clearly favours market forces over regulation, and notably omits any means through which the efficacy of regulation can be measured or assessed. In 2007 Industry Canada unveiled the third edition of the *Spectrum Policy Framework for Canada*. Heavily influenced by the 2006 directive from Cabinet to the Canadian Radio-television Telecommunications Commission (CRTC), the policy’s enabling guidelines overwhelmingly favour maximizing the role of market

⁷ Note that MTS has announced its intention to divest Allstream to Accelero Capital Holdings. As per 2013, Canadian Press, CBC news story.

⁸ All three of these companies have recently been made available for purchase, with Public Mobile the target of takeover by Thomvest Seed Capital, and Telus’ attempted takeover of Mobilicity being blocked by the Federal Government.

⁹ *Telecommunications Act*, (1993, c.38, §7f).

forces and minimizing regulation. While the objective of Canadian spectrum policy is, “To maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource,”¹⁰ the first and penultimate enabling guideline is ‘a’, “Market forces should be relied upon to the maximum extent feasible,”¹¹ and public-interest considerations come a clear second, “Notwithstanding (a), spectrum should be made available for a range of services that are in the public interest.”¹² Furthermore, “Regulatory measures, where required, should be minimally intrusive, efficient and effective,”¹³ and “Regulation should be open, transparent and reasoned, and developed through public consultation, where appropriate.”¹⁴ While the principle of public consultation was contained in both the original 1992 Spectrum Policy Framework for Canada,¹⁵ and the 2002 revision,¹⁶ it is notable how the relationship between consultation and market forces has shifted, with the original policy guidelines on market-based approaches stating, “if other market-based approaches are deemed to be in the public interest and applicable to specific services or frequency bands, they will be implemented only after a full public consultation.”¹⁷ Thus, in 15 years Canada has moved from allowing market forces to function only after full public consultation to placing the market first and utilizing public consultation only when and where deemed appropriate by Industry Canada.

III. Collective Action and Regulatory Capture

Though the idea of big business dominating government can be traced directly to Marx, regulatory theory developed in earnest as its own body of theory from its genesis in the late 1950s and early 1960s, and is marked by three major schools of thought. Public-interest theory, which emerged first, asserted that the government’s role in regulation, specifically economic regulation, was to address market failure.¹⁸ Under the public-interest approach the role of the regulator is to pick the ‘best’ policy or regulatory mechanism to prevent the abuses of economic power. Building on the work of Anthony Downs in the 1950s and Mancur Olson in the 1960s by 1970s, capture theory supplanted public-interest theory as the favoured regulatory theory, and throughout the 70s economic capture theory was developed considerably by the Chicago School (Stigler, Posner Peltzman and Becker).¹⁹ Under capture theory, special interests (both corporate and other organized groups) gain influence over regulators, who in turn exploit regulators for

¹⁰ *Spectrum Policy Framework for Canada*, 2007 ed., p. 8

¹¹ *Spectrum Policy Framework for Canada*, 2007 ed., Enabling Guideline (a), p. 9.

¹² *Spectrum Policy Framework for Canada*, 2007 ed., Enabling Guideline (b), p. 9.

¹³ *Spectrum Policy Framework for Canada*, 2007 ed., Enabling Guideline (d), p.9.

¹⁴ *Spectrum Policy Framework for Canada*, 2007 ed., Enabling Guideline (e), p. 9.

¹⁵ *Spectrum Policy Framework for Canada*, 1992 ed., p. 22.

¹⁶ *Spectrum Policy Framework for Canada*, 2002 ed., p. 17.

¹⁷ *Spectrum Policy Framework for Canada*, 1992 ed., p. 18.

¹⁸ Levine and Forrence, “Regulatory Capture, Public Interest and the Public Agenda: Toward a Synthesis.” p. 168; Laffont and Tirole, “The Politics of Government Decision-Making: A Theory of Regulatory Capture,” p. 1089; and Posner, “Theories of Economic Regulation,” p. 336.

¹⁹ Levine and Forrence, 169.

advantage.²⁰ The means through which capture occurs are diverse. At the extreme it can take the form of direct bribes, though more common are post-employment opportunities for former regulators within industry (or the employment of sympathetic, former industry executives within regulators), but it can also take a variety of more subtle forms including personal contacts between regulator and regulated, a refrain by industry from criticizing the regulator, and political support for politicians who are favourable to industry and have influence over the regulator.²¹ Regulatory environments are further complicated by the fact that regulatory agencies often share a principle-agent relationship with legislatures, whereby regulated interest groups can attempt to influence either the regulator directly or its political controllers (i.e. the legislature).

There are two notable shortcomings in capture theory, the lack of examination of motives and incentives of actors within the regulatory process and the role of information asymmetries, that have given rise to a third school known as the post-revisionist approach.²²

Drawing on Olson's *Logic of Collective Action* and his focus on incentives, spectrum management represents a clear case for the potential of capture; however, as will be discussed at the end of the paper the role of the consultation process in facilitating or impeding capture is most fruitfully explored using the post-revisionist concept of slack.

Olson's theory rests on the premise that: "rational, self-interested individuals will not act to achieve their common or group interests."²³ More specifically, if the members of a large group are rationally maximizing their personal welfare, they will not act to maximize the collective welfare unless there is coercion to do so. When there is a group that has a common interest, individualized and disorganized actions do not further the common good of that group.²⁴ This premise is inverted when applied to small groups.²⁵ Large groups are inhibited from pursuing their collective interests by three factors: 1) the larger the group, the less of a benefit that any single member receives; 2) this small benefit is unlikely to outweigh the costs of pursuing/obtaining that benefit to the single member; and, 3) the larger the group, the higher the costs of organizing that group and that too is a barrier to the pursuit of the collective good.²⁶ This is exactly the case in spectrum management. Wireless consumers would all benefit from a highly competitive industry that lowers prices, yet the significantly smaller groups of telcos (and the big three in particular) have much more to benefit from policies that limit competition and allow prices to subsist at oligopolical rather than competitive levels. An individual in a large

²⁰ Levine and Forrence, 169.

²¹ Laffont and Tirole, "The Politics of Government Decision-Making: A Theory of Regulatory Capture," p. 1090-91.

²² Levine and Forrence, 170; Truxal, *Competition and Regulation in the Airline Industry: Puppets in Chaos*, p. 52-53; and, Laffont and Tirole, 1090.

²³ Olson, *The Logic of Collective Action*, p. 2.

²⁴ Olson, p. 7.

²⁵ Olson, p. 3.

²⁶ Olson, p. 48.

group knows that his or her own efforts will not make much of a difference to the outcome of the group effort. “Accordingly, the typical participant may not take the trouble to study the issues as carefully as he would have if he had been able to make the decision by himself.”²⁷

This last quote by Olson highlights an element of regulatory theory that the post-revisionist school has specifically expanded upon: the role of information asymmetries and monitoring costs. Simply, the complexity of spectrum management requires a huge investment of time for an individual to come to a point where he or she would have an informed understanding and could contribute to the consultation process. As such, individuals don’t participate, despite our collective interests in doing so. The collective action problem creates the potential for regulatory capture, and the analyses of the consultations underscore the collective action problem.

IV. Regulatory Capture in Canada (Literature Review)

Previous studies have alleged capture in several Canadian industries. Sen *et al* examined the role of price ceilings in the gasoline market in Atlantic Canada. They concluded that such ceilings evince the possibility of capture.²⁸ Schwartz’s analysis of the Walkerton water tragedy concluded that it conformed to Bernstein’s lifecycle model of regulatory capture whereby vigilant regulation follows tragedy.²⁹ Most important for this study is the work done on the CRTC and regulatory capture by Gutstein. Gutstein has argued that the employment patterns of CRTC officials demonstrate regulatory capture. Furthermore, he notes the linkages that exist between past and present senior Conservative officials and the telecommunications companies.³⁰

V. Statistical Analysis of Spectrum Management Consultations 2008-2012

From 2008 to 2012 there have been 40 notices in the *Canada Gazette* (and on Industry Canada’s website) seeking comments as part of a consultation and an additional 15 cases where reply comments, in which interested parties can address the original comments of various submitters, were sought. Standard procedure is to allow for comments within 30 days of the *Gazette* notice, and where reply comments are included to have those produced within another 30 days. Five branches within Spectrum Management run the various consultations; they are:

- DGRB – Radiocommunications and Broadcasting Regulatory Branch
- DGSO – Spectrum Management Operations Branch
- DGTP – Telecommunications Policy Branch
- SMBR – Spectrum Engineering Branch
- SMSE – Spectrum Management and Spectrum Engineering Branch

²⁷ Olson, p. 53.

²⁸ Sen et al. “Retail Gasoline Price Ceilings and Regulatory Capture: Evidence from Canada”, p. 532.

²⁹ Schwartz, “Regulatory Ethics in Theory and Practice: Comparing Two Cases,” p. 48.

³⁰ Gutstein, “Gang Warfare Ottawa Style.”

In total there were 761 submissions in the five-year timeframe. Over 300 groups or individuals participated, and there were a total of 11,241 pages submitted (excluding cover letters). There was a high of 13 consultations (three with reply comments) in 2009, and a low of four consultations (two with reply comments) in 2011; however, the total volume of pages submitted as part of the consultations (excluding cover pages) was actually higher in 2011 than in 2009 (1731 versus 1244). The SMSE branch ran the most consultations (14, five with reply comments), and received the majority of pages submitted 6065. The most popular consultation both in terms of number of submissions (88) and number of pages submitted (2421) was the consultations on the policy and technical framework for the 700 MHz and 2500 MHz auction conducted in 2010. It is notable that the government has recently delayed the start of the auction to January 2014 suggesting that while input may be sought, action may be slow to follow.

The five years of statistical data can be portrayed in a way to show a degree of democratic participation, though they more accurately reflect a process dominated by industry. Fifty-six individuals, excluding academics but including one group of three persons, participated over the five-year period. However, the overwhelming majority of these submitters participated in a consultation on amateur radio. When this consultation is excluded, the number of individuals (excluding academics) that participated drops to 15. Furthermore, none of the individuals who participated in a consultation ever participated in more than one consultation. Submissions tended to be short (i.e. one page), with the longest submission by an individual totalling 12 pages. It is noteworthy that among the submissions by individuals is included a single submission by a sitting MP – Scott Simms (Liberal from the Newfoundland and Labrador riding of Bonavista-Gander-Grand Falls-Windsor) in the SMSE-018-10 consultation.

Participation by academics fares no better. In total there were five submissions by academics (individuals whose submissions clearly identified them as being affiliated with a university); however, with the exception of one submission by a professor from Guelph, all the remaining submissions originate from Taylor and Middleton (with one submission also including Fiser). Fortunately academic submissions did tend to be more substantive than submissions by individuals with the longest submission being 25 pages by Taylor and Middleton for SMSE-018-10.

There is evidence of participation by foreign governments and international groups. One European intergovernmental organization (European Communications Committee), one U.S. state (Michigan) and one U.S. county (Macombe County, MI) have participated, but these were all single submissions. An agency of the United Nations (UN), the World Meteorological Association, has submitted comments on two occasions; however, these submissions do not demonstrate a clear record of encouraging global participation.

Governments and government agencies from all levels have participated as well. Eight different provinces and territories (AB, BC, SK, ON, QC, NS, YK and NWT) have participated, with British Columbia and Alberta each contributing submissions to three different consultations. The largest provincial submission was from the Government of British Columbia and totalled 31 pages. While 38 different municipal/regional governments have participated, only three cities/city agencies have had multiple submissions (the city of Calgary leads with 3 submissions). Like submissions by individuals, these tend to be short and in many cases are focused on public safety spectrum issues. Finally, eight different federal departments or agencies have submitted. While the Canadian Broadcasting Corporation (CBC) is the most active participant, the Royal Canadian Mounted Police (RCMP) has contributed to six consultations, and a submission by Public Safety Canada totalled 100 pages.

Finally, there has been limited participation by unions (one – the Communication Energy and Paperworkers Union of Canada), and a single submission from the Assembly of First Nations/AFN. While taken collectively, the submissions by individuals, academics, foreign governments, all tiers of Canadian government and other organizations could be construed as evidence of a high degree of democratic engagement, the size and frequency of submissions by these groups are negligible in comparison to industry's contributions.

Unsurprisingly, the big three accounted for a large share of submissions and total pages submitted. Bell (which includes submissions from both Bell Mobility and Bell Canada) participated in 27 consultations submitting a total of 979 pages of comments (or 8.7% of the total pages submitted). In two cases Bell was the only participant in a consultation. They submitted more than 100 pages in three cases, and there were eight consultations where Bell's submission made up more than 20% of the total pages submitted. Rogers was equally prevalent. Participating in 29 consultations, Rogers had the highest total number of pages submitted (991). Rogers total page count was buoyed by its 354-page submission to the SMSE-018-10 consultation. Telus was the most frequent submitter commenting 31 times and submitting 981 pages total. In total the big three contributed slightly more than 25% of the total number of pages of comments in the past five years (though this is considerably less than their 90% market share).

The remaining bulk of comments and reply comments submitted came from smaller telcos and new entrants. Of the 14 entities that contributed to more than 10 consultations all but two were service providers – the exceptions being the Radio Advisory Board of Canada (RABC), and the Canadian Wireless Telecommunications Association (CWTA), which, of course, is the industry association for wireless service providers.³¹ The 14 most frequent submitters (Bell, CWTA, Eastlink, Globalive/WIND, Mobilicity, MTS Allstream, Public Mobile, Quebecor/Videotron,

³¹ It should be noted that in 2013 the new entrants left CWTA arguing that it was no longer representative of their needs (Wind, 2013).

RABC, Rogers, SaskTel, Shaw, SSi Micro/SSi Group, and Telus) made up the majority of pages submitted (6077 or 54% of total pages submitted from 2008-2012). Finally, while the big three made up over 25% of total pages submitted, the three new entrants, by contrast, only contributed 6% of the total pages.

It should also be noted that in addition to domination of the process by industry, there were several consultations that were simply not very engaging. The entire two consultations by the SMBR branch generated a grand total of nine pages of comments. 11 consultations had less than five submissions and six consultations resulted in just a single set of comments being received. As a final point, while over 300 entities participated, 259 commenters expressed their views only once.

A statistical analysis of the 40 submissions provides an indication that despite some participation by non-industry groups, telecommunications providers generally dominate the consultation process. In an effort to further examine the significance of various contributions, two case-studies were chosen. The two case studies reflect two very different consultations. The first consultation with reply comments, concerning the framework for mandatory roaming and antenna sharing (DGSO-011-12) , was selected because it was almost exclusively made up of industry contributions, while the second consultation dealing with the policy and technical framework for the upcoming 700 MHz auction (SMSE-018-10) was selected because it was the consultation with the greatest number of participants.

VI. Case Study 1: Analysis Revised Frameworks for Mandatory Roaming and Antenna Tower and Site Sharing Consultation

Comments solicited under Gazette Notice DGSO-001-12 in March of 2012 followed by reply comments were aimed at revising the framework document governing roaming, and antenna tower and site sharing. 22 groups participated in the opening round of comments, with 13 submitting reply comments. Overwhelmingly the participants were telecommunications firms, though the Broadcasters Technical Coordinating Committee (BTCC), E-Comm 911, the Provinces of Nova Scotia and Ontario, Public Safety Canada and the Centre for Security Science, the RCMP and the York Regional Police all participated in the comments and the Peel Regional Police submitting reply comments. An analysis of the resulting *Revised Frameworks for Mandatory Roaming and Tower and Site Sharing* reveals that in reaching its decisions, Industry Canada relies heavily on the input of industry. For example, while Bell is explicitly mentioned 22 times in the document, Telus 33 times, and Rogers 36 times, only one non-service provider (BTCC) had its views explicitly discussed in the analysis of comments contained within the document. The remaining entities are simply referenced in a footnote in reference to the text of the document noting “public safety entities” were opposed to expanding the application of

framework from radiocommunication carriers to radiocommunication service providers. Effectively, all non-industry voices were marginalized within the document.

While industry comments are clearly used as the basis for decision-making, it is also noteworthy that the decisions within the document do not appear beholden to the comments of any one telco or group of telcos (specifically the big three). For example, with regards to the decision to remove the distinction between in-territory and out-of-territory roaming, Bell, MTS, SaskTel and Tbaytel who opposed this removal did not sway Industry Canada. However, in deciding to not require seamless handoff when roaming, Industry Canada sided with the comments of Rogers, Bell, Telus and SaskTel. A comparison was conducted where it could be clearly ascertained whether the decisions were supported or opposed by the comments from various parties. While the decision was supported by Rogers' comments nine times (a high), Rogers' views were not supported three times. SSi had a similar ratio between favoured and disfavoured comments (3:1), while QMI/Videotron's ratio was even higher (4:1). Bell and Telus fared more evenly with ratios of supported to unsupported comments being 6:5 for Bell and 8:6 for Telus. SaskTel's views did not curry favour the most times (eight), but still they were supported four times. In fact every company, but Tbaytel, was clearly identified as having their comments supported at least once.

	Comments Favoured	Comments Disfavoured
Bell	6	5
Eastlink	4	5
Mobilicity	4	4
MTS	2	3
Public Mobile	3	3
QMI	4	1
Rogers	9	3
SaskTel	4	8
Shaw	4	3
SSi	3	1
Tbaytel	0	1
Telus	8	6
TerreStar	2	2
Wind	3	6

The comparison of comments favoured and disfavoured suggests that while industry may weigh heavily on decisions, large and small firms fare equally well.

Finally, it should be noted that in numerous cases the actual views of participants is obscured. Numerous times the document refers to “many respondents,” “the majority of respondents,” or the particularly vague “some respondents.” While the documentary trail exists to determine

which respondents these are, this obfuscation makes determining whose views are influencing the decisions more difficult.

VII. Case Study 2: Analysis of the Policy and Technical Framework: Mobile Broadband Services (MBS) - 700 MHz Band, Broadband Radio Service (BRS) - 2500 MHz Band Consultation

The consultation process on the Policy and Technical Framework for the two upcoming auctions reveals a similar finding – simply that industry voices are heavily privileged over non-industry voices. Due to the complex and nuanced discussion, clear evaluations of when comments were favoured and disfavoured was difficult to ascertain; however, an analysis of whose comments were explicitly discussed was conducted. With 88 submissions of comments and 38 sets of reply comments, many organizations were simply omitted from the discussion. Those whose comments did not, in Industry Canada’s view, merit discussion in the text included all the federal government agencies that participated (though some of these would be covered by abstracted references [many respondents, public safety entities, etc...]). Only five of 34 comments from provincial, territorial, municipal or other lower-levels of government were discussed, and notably the 19-page submission from the most populous province was seemingly ignored. Of the private individuals who commented, six out of eight submissions were never discussed. The only submission from academics, Taylor and Middleton, was mentioned in three paragraphs though it was 25 pages in length. Fortunately the Public Interest Advocacy Centre’s 13-page submission was discussed in 11 different paragraphs.

As with the Roaming and Antenna Tower and Site Sharing Consultation, industry views dominated. Telus’ opinions were discussed in 29 separate paragraphs, Rogers in 30, and Bell, SaskTel, Xplornet and MTS Allstream all had 28 paragraphs where their comments were explicitly analyzed. The strongest argument against evidence of capture or facilitation of capture is that comments from industry were highly heterogeneous. Unsurprisingly, new entrants, regional providers and the big three tended to disagree. Even within the big three there was a clear lack of consensus. This heterogeneity is crucial to preventing cartelization and capture.

VIII. Discussion and Conclusion

The analysis of Industry Canada consultations and decisions reveals that, by in large, people and other non-industry actors do not participate in the consultations, and when they do they are not listened to. However, one cannot necessarily claim that the domination of the consultation process by industry implies some sort of regulatory capture. Returning to regulatory theory, and in particular, the post-revisionist school can help clarify the role these consultations play in facilitating or preventing capture.

An important concept in the post-revisionist approach is the idea of slack. Slack is the gap that exists in the public's capability to monitor regulators.³² Simply put, if the polity could perfectly monitor regulatory agencies it would be impossible for them to suffer from capture. Slack is generated by several factors including transaction or monitoring costs (that is, it takes time and possibly money to monitor a regulatory agency's actions), information asymmetries (the lack of knowledge by the public on the issues involved in regulation creates slack), and 'public interest' rhetoric employed by regulators (which can dissuade the public from scrutinizing regulators).³³ The spectrum management consultation process can be both slack producing and reducing. On one hand, participation in consultations requires a great deal of knowledge on a complex issue and involves actively monitoring either the *Canada Gazette* or Industry Canada's website. Furthermore, through rhetoric on consultation, Industry Canada can further generate slack, particularly if there is only marginal non-industry participation in the consultations. However, the consultation process may be simultaneously used to reduce slack. Participation by academics such as Taylor and Middleton or public-spirited groups such as the Public Interest Advocacy Centre can help inject public interest considerations into the consultations. Nevertheless, the greatest slack-reducing instrument, according to Levine and Forrence, is public attention, specifically from the media. When regulator actions are limelighted, the intensity of media scrutiny can eliminate slack and remove the possibility of capture.

In the final analysis, the examination of the consultation process at Industry Canada needs not focus on capture *per se* but on slack. Regardless of whether the Spectrum Management and Telecommunications division is captured or not, it is possible to eliminate or greatly reduce the possibility of capture by cutting slack. In this regard greater interest and involvement in spectrum management issues, particularly through the consultation process is needed. This issue is particularly timely. Spectrum management issues are becoming an increasing concern of the media. With all three of the AWS (Advanced Wireless Services) new entrants being sold, the media is becoming increasingly interested in the government's failed telecommunications policy. With the upcoming auctions now delayed (which further highlights the government's neglect), there is a unique opportunity to use the slack reducing ability of the media, along with greater participation in the consultations to ensure that Industry Canada is regulating in manner that maximizes the economic and social benefits of spectrum for all Canadians. This is after all Industry Canada's own policy goal.

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³² Levine and Forrence, p. 179.

³³ Levine and Forrence, p. 181.

The authors welcome feedback, comments and suggestions for improvement. Comments can be sent to mmcnally@ualberta.ca

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