Hello, I am pleased to be able to join you today. I want to thank the organizers; this is a great event.

I am a telecom nerd. One of the highlights of my career as a policy wonk with the government was when a Cabinet Minister introduced me to a large crowd as “one of their telecom nerds”.

I wear that as a badge of honor and it’s a pleasure to “nerd out” with you all on broadband policy this afternoon.

I wanted to speak today from the perspective of being a practitioner doing policymaking for the government and the importance of considering market structure in analysis.

As is common throughout OECD countries, the Canadian government is regularly dealing with policy questions regarding broadband. Competition and pricing is a perennial consumer concern, but also how can we expand access in underserved areas, encourage investment in new technologies, etc.

In the process, we are asked to evaluate a range of possible policy options.

Analysis of the experience in other countries is valuable in informing deliberations here in Canada.

However, I have found that a fundamental consideration in doing this work is the market structure and related behaviour. Broadband networks are infrastructure. They have been built out over years and decades. There can be a lot of path dependency. Past developments
shape the current context heavily. Policymakers benefit from some humility about what is in their control.

In looking at a policy intervention in another country and considering its appropriateness for Canada, we need to consider the market structure and the more similar it is to Canada, the more likely an intervention can translate or not and in what context.

To illustrate, I would like to highlight five features of the Canadian market and how they compare.

First, cable operators play a large role in Canada. Some other countries have this feature too, such as the United States, but relative to the median OECD country, cable has a larger role. Coaxial cable networks in Canada were built extensively before the Internet, and then upgraded in the 1990s and continuously since then. Canada has long had around 85% of homes passed by high quality cable, and cable networks have historically been the leaders in the fixed broadband market with around 55% market share, shrinking more recently to around 50%.¹

France and many other countries have much more limited cable infrastructure. As examples, cable in France has historically been in the 5% to 10% market share range, Australia in the 15% range, the UK around 20%, and Italy essentially 0% with no cable presence.²

Second: the Canadian market is heavily regionalized with many more regional players. Even with some recent consolidation, there are 7

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¹ ILECs have grown share with investments in FTTx. Interestingly, Canadian ILECs have done much better than American counterparts over the past decade. Financial analysts have attributed this to less FTTx investments in the US and lower coverage of FTTx relative to cable.
² Data is from the OECD Communications Outlook 2012 to OECD Broadband Portal 2022 as well as observations of trends over the past decade. E.g. Australia was at around 15% in 2012, has grown to around 20% more recently.
medium to large fixed line telephone and cable operators and then many smaller operators in more rural areas.

In contrast, it is common for countries to have 1 national telephone company like British Telecom, Deutsche Telekom or Telstra, and then 1 or 2 smaller regional cable companies. In Canada, you have Eastlink Cable in Nova Scotia competing with Bell Canada as the former monopoly telephone company, but in Western Canada it will be TELUS competing with Rogers. Other provinces will see other mixes of regional players present.

Third, there is a decent trajectory of investment, high levels of investment per capita and decent broadband speeds, but some real issues with market power. While there are 7 fixed line operators, they historically have not sought to compete outside their traditional operating territory. There are some exceptions, including most recently with Videotron in Quebec but that has not been typical.

Normally, there are at most two fixed-line broadband infrastructures in a given market and limited or no interest to overbuild others.

Within each market, there historically been market power issues, the appearance of tit for tat behaviour to encourage “rational” pricing, and attempts to foreclose entry. One illustrative anecdote is in 2011 where incumbent broadband providers tried to impose low usage caps across their retail offerings. There was also an attempt to introduce similar caps in the wholesale market so competitors would have no choice but adopt the same. There was a risk that consumers would have no choice but live with heavily constrained usage plans. The reaction in the market and in regulation rectified this over time. But this is an example of how having just two operators in a given market has risks.
The fourth feature of the marketplace, is there is limited competition from large foreign players. It is relatively common in other OECD countries to have one or more companies like T-Mobile, Vodafone, or Telefonica that have the resources to compete with domestic incumbents.

In Canada there have been some historical legislative barriers to foreign investment. However, there were some substantial changes in 2012 to the Telecommunications Act. Even with these changes foreign presence is limited and tends to be focused on narrower market segments.

Fifth, this may seem like a no-brainer but Canada is large geographically. Even with the pockets of population density relatively close to the US border, there is a long tail of population in more suburban areas and many more isolated communities father North. Even just thinking from west to east, the distance from British Columbia to Newfoundland is around the distance from Lisbon to Moscow. This has some implications for what competitive intensity can look like but also having decent investment incentives continues to be an important consideration.

So with those features of the Canadian market I would like to now talk about some policy examples and how they relate.

The first example concerns regulated wholesale access to the incumbent fixed broadband networks. One policy intervention that some stakeholders raise is to require functional or structural separation of the incumbents businesses so the infrastructure business is separate from retail and required to treat competitors the same as the incumbent retail business. We see variants of this in the UK with the
separation of British Telecom into BT retail and Openreach, in Australia with the creation of the NBN relative to Telstra, and something similar in New Zealand.

Regulated separation is a very complex undertaking that can take years to realize and presents substantial investment uncertainty. The countries that have done this have a much larger single national telecom operator like BT or Telstra and much lower cable presence as a competitor. In Canada, the market is more complicated and variable with cable operators actually having larger market share and there are 7 or 8 regional players. Generally, the government has thought that costs of such an intervention would outweigh the benefits.

At the same time, we hear from some large players that we should have no wholesale access regulation. They argue that Canada is unusually interventionist having access obligations on both cable and telephone companies. It is true that many OECD countries do not impose access obligations on cable. But they also typically have limited cable presence. In Italy there is no cable wholesale access, but also no cable networks to begin with. But we do see this in certain countries that have a large cable presence.

In Canada, the existing market power and risk of a stagnant equilibrium is present so the government has decided that some form of wholesale access is needed.

Another policy situation is our approach to broadband expansion such as through the government’s Universal Broadband Fund. Some stakeholders have argued to focus on community-owned networks to replace the incumbents.
Community networks can make sense in certain underserved markets. They can be very important in Indigenous communities. That said, in other contexts, the scale and efficiency of large players can be a real advantage. And where we have cable and telephone operators present, community networks can be a challenge. Typically there are 1 gigabit speeds available so it would not be a good use of taxpayer dollars.

Two strong wireline infrastructures per market is also often the maximum that is economically viable. Community networks tend to work best when they are the only or the first or second infrastructure rather than the third.

On the other hand we hear calls to go to the other extreme and only run reverse-subsidy auctions that attempt to maximize efficiency. A reverse auction is a possibility, we have seen the province of Ontario implement one recently.

However, on a national basis, a reverse auction makes it challenging to partner between federal and provincial governments. It also can be challenging for small providers to participate. So federally in Canada we have a competitive call for proposals, but with flexibility to develop specific regional partnerships with provinces. This also allows leveraging the scale of the incumbents in certain areas while also partnering with small providers in others.

I am conscious of the time and will wrap up here.

I appreciate this was a rapid-fire treatment of this topic but hopefully helps illustrate of much market structure shapes the considerations of policymakers.