REGULATING BROADBAND: LESSONS FROM THE EUROPEAN UNION, AND IMPLICATIONS FOR CANADA

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The availability of ultra-fast high-speed broadband connectivity is increasingly important for the development of a country’s digital economy. This is even more true since “the digital economy” is increasingly becoming “the economy”, as digital technologies and services permeate almost every aspect of our daily lives, and almost every market. Upcoming revolutions such as cloud computing and the Internet of Things promise to further exacerbate the dependence of a national economy on its digital infrastructure, leading to an exponential growth in the demand for connectivity.

In order to meet this increasing demand, there must be continued investment in both upgrading existing networks and installing new networks. Thus, continued investment is a key requirement to achieving the full benefits of the digital economy. As confirmed by reports published by all major international organizations, ubiquitous broadband connectivity means more jobs, productivity, and growth. The European Commission recently observed that “Tomorrow’s digital services – from connected TV to cloud computing and e-Health – increasingly rely on fast, effective broadband connections” and that a “10% increase in broadband penetration brings up the GDP by 1-1.5%”\(^1\). As a consequence, all advanced economies are taking action (both in terms of regulation, and industrial policy) to promote the roll-out of high-speed wireline and wireless broadband networks.

**Regulatory approaches to telecommunications have proven to exert a very significant impact on market performance.** To put it shortly, past research has shown that “legal rules do matter” when it comes to generating efficient incentives to invest in new networks, and also to promote market outcomes that provide citizens with a wide choice of high-quality services. However, the definition of efficient rules for the telecommunications sector has proven to be far from an easy task. Even if each country has its own specificities when it comes to the definition of the optimal regulatory approach, the international experience can offer some useful hints on good and bad practices. Europe is a perfect example in this respect, and this is why this brief report takes stock of the European experience with wholesale access regulation of telecommunications, and develops implications for the cabinet review of the CRTC’s decision in “Review of wholesale wireline services and associated policies”.

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1. The EU regulatory framework for wireline wholesale services, and its impact on the European market

Like Canada’s wholesale wireline services framework, EU regulation on telecommunications extensively borrows from competition law concepts. In particular, both jurisdictions rely on the concept of “essential facility”, which implies that regulatory efforts have focused on the need to promote entry of new players by allowing them to use the legacy telecom infrastructure owned by incumbent players, whenever there was evidence that such infrastructure was not economically or technically replicable by new entrants. However, it is important to stress that in Europe, to be “essential” correctly requires that a company has a very high market share, which means that a company needs to hold significant market power, and thus display a market share of 40% or greater. Looking at the Canadian market, where cable companies most often hold a very significant share of the market, this means that under EU regulation, ILECs in Canada would not be subject to mandatory network sharing.

Looking at the past two decades of telecoms regulation in Europe, and based on the academic literature that has analysed Europe’s market performance the following lessons can be drawn:

- For legacy copper networks, the results of access regulation are disappointing from the perspective of promoting long-term consumer welfare. While the general regulatory approach adopted in the EU has likely led to an increase in the number of operators, spurring competition at the retail level and probably also a reduction in prices, this also led to relatively low investment in broadband infrastructure, which reduces consumer welfare over the longer term. Accordingly, many academics have questioned the viability of this approach to regulation: as will be observed below, reality has confirmed their concerns.

- Reliance on access regulation has had an even more negative impact on investment in new, high-speed broadband networks. If mandating access to “essential facilities” was a potentially justifiable approach for legacy copper networks, problems have become even worse for high-speed broadband networks. This is due to the fact that these networks had not been built when the European Commission announced, in 2003, that they would be regulated exactly like legacy networks. This was a rather unwise choice, since it significantly worsened the incentive, for incumbent players, to deploy new networks. As a result, Europe today lags behind the US, Canada, Japan and South Korea in terms of investment, speed, and penetration of fast and ultra-fast broadband.

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The European Commission has acknowledged that access regulation has not stimulated investment in high speed broadband, and is trying to introduce a more investment-friendly regulatory framework. Already in 2009, the European Commission proposed to include in wholesale access charges a “premium” (normally, 10-15%) that would reflect the higher risk associated with investment in fibre networks. However, this approach has proven insufficient to stimulate new investment. The European Commission acknowledged that “The existence of ... an obligation [to supply] — even for a fair remuneration — may undermine undertakings' incentives to invest and innovate and, thereby, possibly harm consumers”4. In 2013, the European Commission has thus proposed removing direct regulation of prices for wholesale access to NGNs where one alternative infrastructure of comparable reach is in place5.

Today, Europe still performs rather poorly in terms of ultrafast broadband networks. Investment in fibre networks by incumbent players is very limited: as a matter of fact, unregulated players (new entrants, cable companies, municipalities) account for close to 80% of fibre networks today, whereas incumbents, also as a result of regulatory pressure, are more focused on getting the most out of their existing copper networks. Overall, the situation is close to disastrous: countries that have relied extensively on access regulation, like the United Kingdom, today feature 1% coverage of FTTP (and zero coverage in rural areas). In June 2015 the European Commission reported that there was progress in FTTP “growing from 10% in 2011 to 19% in 2014, but FTTP coverage is still low”, and that NGA networks are still very much limited to urban areas: only 25% of rural homes are covered, mainly by VDSL.

In May this year, in launching its new Digital Single Market strategy, the European Commission has explicitly recognised the failure of the access-based regulatory regime. While “rules in the current framework were initially designed to spur competition in existing networks and have also generated some competitive pressure for incremental upgrades of such networks”, the Commission observes that “the framework was not conceived to lead to generalised roll-out of new networks in accordance with public-policy objectives”6. Importantly, the Commission declared that the investment incentives of alternative operators “may be reduced if regulated wholesale

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access is made disproportionately attractive, i.e. access seekers’ build-or-buy decisions rendered economically inefficient”.

In summary, access regulation may have been important for the liberalization of the telecommunications industry during the 1990s and early 2000s, but its extension to high speed networks has proven ill-advised. This has led to a deplorable situation in which incumbents have limited incentives to invest, and new entrants are encouraged to wait for incumbents’ investment, rather than undertake the roll-out of fibre themselves. A major reshuffle of EU telecom rules is therefore expected by 2016, with specific emphasis on how to provide more stimulus to fibre roll-out.

2. Implications for Canada

With its huge territory and low population density, Canada is certainly not the easiest country for telecommunications infrastructure deployment. That said, Canada compares favourably relative to many other advanced economies in terms of price levels and, most importantly, availability of fast broadband connections to a large portion of the population. As observed by the CRTC in its latest report, in 2013 84% rural households already had access to broadband of at least 1.5Mbps download speed, whereas 27% of rural households got broadband of at least 25Mbps download speed, and 18% could access download speeds of more than 100 Mbps). This means that Canada is performing much better than the whole EU, with its 510 million inhabitants in a territory of similar size. As reported by the OECD, per capita investment in telecommunications infrastructure has been substantially greater than in the EU, and very close to levels observed in the United States.

Against this background, Canada has not advanced very rapidly on FTTP deployment over the past years. But this is not only happening in Canada: in many industrialized countries, the business case for FTTP is still uncertain, also since, as observed by the European Commission, “the social return from investment in higher quality networks tends to be greater than for the individual operator”8. FTTP also differs from previous network upgrades, since it is not a legacy infrastructure but an entirely new network, which could be built equally by incumbents and new entrants, and as such is very far from being an “essential facility”.

Evidence from global practice in telecommunications regulation suggests that world leaders in FTTP deployment have not regulated fibre deployment: the United States have lifted regulatory obligations for high-speed broadband since 2003; in South Korea the government has decided not to impose any regulatory obligation on all fibre optics networks deployed after 2004; in Japan, despite the existence of a (rather light-handed) access regime for fibre, competition is essentially facilities-based, to the benefit of the whole market and of end users: Japan has very low average retail prices for broadband, despite the absence of unbundled fibre. And even in Europe, the home of access regulation, the European Commission

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7 Id.
8 Id.
and Ofcom did not set the rate for FTTP for fear of the impact on investment⁹. As a matter of fact, evidence suggests that countries that have extended access regulation to new high-speed networks are suffering from sluggish deployment, which in turns damages end users and the economy as a whole. This is the case for most EU member states, and notably in Germany, Sweden and Italy, where the regulatory regime has so far not created the right incentives for incumbents to invest significantly in the deployment of FTTP networks¹⁰.

Based on this evidence, the recent decision by the CRTC to extend wholesale wireline access obligations to FTTP, despite existing facilities-based competition appears to be disproportionate and potentially harmful for the evolution of the Canadian market. Similarly to the choice made a decade ago by the European Union, such decision appears contrary to sound economics, incompatible with the underlying legal and economic rationale of access policy regimes, and likely to slow down the deployment of FTTP in Canada. The possible consequence is that the whole competitive landscape would be distorted by ill-conceived regulation, with likely detrimental effects for end users, and for the competitiveness of the national economy as a whole.

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