

CHAPTER 3

Barriers to Entry and Productivity Growth

By Vincent Geloso

If one seeks to improve living standards, there is no way around it: one must seek policies that improve productivity. Faster productivity growth means faster economic growth because productivity growth liberates resources, time, and labour for other purposes. The unparalleled increase in living standards since the start of the industrial revolution came from continuous efforts to more productively employ and combine available resources. There is, however, a paradox. While no one disputes that increasing productivity is the way to improve living standards, no one is able to predict *where* (i.e., in which economic sector) productivity will rise. Productivity growth often comes from unexpected sources as a result of entrepreneurs tinkering with existing ideas or exploring new ideas about how to produce. Knowing which entrepreneur will succeed is not easy (likely impossible) to predict beforehand.

Why free entry matters

As such, one of the key conditions for insuring productivity growth is freedom for entrepreneurs to try new and different methods of production or delivery. If there are no legal barriers to entry, economic growth will be faster for two reasons. The first is that entrepreneurship will be greater (Bennett, 2020; Hall, Lacombe, and Pokharel, 2016). This alone is important for economic growth as some studies conclude that one-third to one-half of the cross-national differences in growth rates is explained by differences in entrepreneurship rates (Sobel, Clark, and Lee, 2007; Carree and Thurik, 2010). The second reason is that free entry creates an incentive to innovate (i.e., find new ways to increase productivity). Because there is free entry, incumbent firms must constantly be on their toes as new rivals

may emerge both from within their industry and from outside through the invention of substitute goods. These incumbent firms include those that secured large market shares because of efficient practices (Demsetz, 1973). Free entry means that even firms that are alone in their markets cannot abuse consumers. If they do, say, by raising their margins between prices and costs, they invite entry within their industry, or they incite innovators to create substitutes. Free entry is thus associated with greater innovation, and historical evidence shows that this is true, even if incumbent firms have large market shares (Baumol, 2002).⁸

Unfortunately, governments across the world impose significant barriers to entry and Canada is no exception (Chowdhury, Audretsch, and Belitski, 2019). By barriers to entry, I refer to legal dispositions restricting, directly or indirectly, the ability of new firms to contest incumbent firms. Such dispositions take a great many forms: outright monopoly grants, expensive licensing requirements, restrictions on the nationality of investors, subsidies to established players, privileged access to government contracts, etc. All these dispositions are meant to serve a single purpose: protect incumbent firms from being contested by new firms (Gutiérrez and Philippon, 2019).

These barriers to entry hinder productivity growth for a very simple reason: firms feel no need to discipline themselves (Rouanet, 2020). This lack of competitive pressure limits the desire (the need, really) to try out new strategies or new methods for producing or delivering their good or service. What would be the point? The profits of incumbent firms are secured by the absence of rivalry or threat of rivalry. The result is that firms are less dynamic, which leads to slower productivity growth. Moreover, firms that are protected from competition actually expend considerable resources to make sure that the barriers are maintained. This means that resources are allocated to the protection of profits from competition by political means (Tollison, 1982; Krueger, 1974; Tullock, 1967). In essence, this politicization of economic activity allows incumbent firms to avoid failure, which is to their private benefit, but which comes at a high social cost: resources being used for non-productive ends, less innovation now and slower productivity growth later.

⁸ For the historical evidence, see Delorme, Frame, and Kamerschen, 1997; and DiLorenzo, 1985. For historical evidence specific to Canada, see Geloso, 2020; and Geloso, and Belzile, 2018.

The economic cost of barriers to entry

The empirical literature on economic freedom, economic growth, and entrepreneurship is pretty clear on this topic. Economic freedom is a good proxy variable for barriers to entry because it captures some of the regulations that restrict entry, as well as subsidies and tariffs that protect incumbent firms. A 2014 survey of all the scientific articles using economic freedom as a determinant of socio-economic outcomes such as productivity growth and economic growth suggests a broadly positive association: greater economic freedom yields faster economic growth (Hall and Lawson, 2014; see also Lawson and Murphy, 2018). By virtue of approximation, this is akin to saying that fewer barriers to entry (i.e., higher economic freedom) leads to faster productivity growth (i.e., faster economic growth). The literature on economic freedom also finds a positive association of that variable with entrepreneurial activity (Sobel, Clark, and Lee, 2007). This is to be expected as barriers to entry are meant to reduce the rate of business creation all else being equal. However, as entrepreneurial activity is also tied positively to economic growth, the empirical literature on economic freedom confirms that barriers to entry reduce growth (Wiseman and Young, 2013). In other words, barriers to entry prevent entrepreneurial efforts at developing innovations that, in turn, speed up productivity growth.⁹

Measures of barriers to entry that are less comprehensive but more targeted than economic freedom point in the same direction. For example, the OECD produces an index of product market regulation which is meant to capture the intensity of regulatory barriers in numerous industries (Conway, Janod, and Nicoletti, 2005; Koske, Wanner, Bitetti, and Barbiero, 2015). Essentially, that index measures how many regulatory hurdles a new firm has to clear before entering the market. This index has been found to have a negative relationship to productivity growth—especially when the regulations affect key inputs that are used by multiple other industries (Bourlès et al., 2013). Another OECD index, which measures the regulatory restrictiveness against foreign investments, also points in the same direction. By limiting the ability of foreign firms to enter local markets, the more restrictive regulations against foreign investors reduce productivity growth substantially (Basu, Chakraborty, and Reagle, 2003; Golub, 2009).

⁹ See also Russell Sobel’s “Enhancing Productivity Growth through Encouraging Entrepreneurship” in the present volume. Sobel provides a rich literature review of the connections between entrepreneurship and productivity growth.

How substantial are the barriers to entry that Canada imposes?

Canada could stand to benefit considerably by removing entry barriers. The OECD's Product Market Regulation index ranks Canada the third most regulated economy out of 36 economies in the OECD in 2018 (OECD, 2020a). For its part, the FDI restrictiveness index shows Canada in roughly the same position as one of the worst offenders in terms of erecting barriers to entry: Canada has the fourth highest level of restrictions out of 37 countries in 2019 (OECD, 2020b).

However, as pointed out above, these OECD measures are only indirect measures of barriers to entry. Economic freedom, for its part, only captures some of the barriers to entry. Numerous other types of barriers to entry are not easily measurable for standardized international comparisons. In order to circumvent these limitations, we calculate the share of the economy protected from competition from the most restrictive regulations. This produces a Canadian-specific measure of the extent of protection against competition granted to Canadian firms which, in turn, allows us to get an idea of the gains to be had from removing such barriers.

The three most important barriers to entry erected by governments in Canada are a) those against foreign businesses; b) state-owned monopolies and; c) explicit regulations limiting competition. Examples of restrictions against foreign firms can be seen in the air transportation and telecommunications industries. The Canada Transportation Act restricts foreign ownership in Canadian airlines while also prohibiting non-Canadian carriers from providing services between Canadian cities. Telecommunications firms with more than 10 percent market share cannot have more than 20 percent of the voting shares owned by non-Canadians. Examples of state-owned monopolies include alcohol retail, domestic mail, and urban transit, while examples of other protections include dairy farming quotas, intercity busing (where licenses come with monopoly rights over certain routes in some provinces), taxis, and limousines. In table 1, the first three rows show the lower-bound estimate of the protection afforded to Canadian firms: some 22.1 percent of the economy is protected to a substantial degree from competition (Geloso, 2019).

This estimate is a conservative. Some other important restrictions against competition, such as occupational licensing, are harder to measure but are nonetheless relevant. Table 1's second-to-last row includes the few other industries that lend themselves to inclusion without any methodological problems (such as double-counting them under the labels of other categories such as state-owned monopolies). This brings the total share of the economy protected from competition up to 30.6 percent. And this is

Table 1: Share of the Economy Heavily Protected from Competition

	Share of the economy protected
a) Restrictions against foreign firms	19.90%
b) State-owned monopolies (not included in previous row)	1.60%
c) Explicit protections (not included in previous rows)	0.75%
d) Total	22.10%
e) Total + Harder to measure protections (conservative assessment)	30.60%
f) Total + Harder to measure protections (conservative assessment, removing the health and education sectors)	35.10%

Source: Geloso, 2019.

Note: State-owned monopolies in row b) may appear too small. This is because some state-owned monopolies, such as in the energy sector, are already included in row a) through restrictions against foreign firms. As such, we cannot count them twice. However, this does mean that these state-owned monopolies benefit from even greater barriers to entry – not only are they protected from domestic competition; they are also protected from foreign competitors.

still too conservative as we must bear in mind that it is difficult to arrive at reliable estimates of the share of the health care and education markets (where governments are heavily involved) that are protected from competition.¹⁰ Because actual and potential competition in these latter two sectors cannot be easily measured, we recalculate the share of protections for the economy minus these two sectors. This creates a conservative estimate of 35.1 percent of the economy being protected from competition to some high degree.

Essentially, these numbers indicate that *more* than 1 in 3 dollars of economic output are shielded from competition. For more than one third of the economy, the incentives to more productively employ and combine resources, to innovate, and to develop new ideas are suppressed. This is a

¹⁰ Properly identifying the portions of the health sector (e.g., ophthalmology and cosmetic care) and education sector (e.g., tutoring, private schools, private technical colleges, and home schooling) where competition is present is a challenge for researchers. Certainly, these are two sectors where important gains in productivity could be achieved. Under the extremely conservative assumption that two-thirds of those sectors are protected from competition, they bring the total of the economy shielded from competition up to 43 percent.

considerable hindrance to Canada's ability to sustain high levels of productivity growth. It is thus unsurprising that the nation's productivity growth has been quite tepid in the last decades and well below what is observed elsewhere (Gu and Willox, 2018).

Conclusion

If we care about the living standards of Canadians, not only materially but across wider dimensions, we need to care about productivity growth. The latter, however, cannot be directed, planned, or predicted. It emerges as the result of a discovery process by entrepreneurs (Kirzner, 1973; Easterly, 2014). For this to happen, needless barriers in the way of their efforts ought to be removed—especially if those barriers are meant to protect the profits of incumbent firms. Canada is a particularly egregious offender in this matter. This, fortunately, also means that Canada can make dramatic improvements by picking low-hanging fruit. Important accelerations in productivity growth can be secured simply by removing barriers to competition.

References

- Basu, P., C. Chakraborty, and D. Reagle (2003). Liberalization, FDI, and Growth in Developing Countries: A Panel Cointegration Approach. *Economic Inquiry* 41, 3: 510-516.
- Baumol, W.J. (2002). *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*. Princeton University Press.
- Bennett, D.L. (2020). Local Institutional Heterogeneity and Firm Dynamism: Decomposing the Metropolitan Economic Freedom Index. *Small Business Economics*, 1-19.
- Bourlès, R., G. Cette, J. Lopez, J. Mairesse, and G. Nicoletti (2013). Do Product Market Regulations in Upstream Sectors Curb Productivity Growth? Panel Data Evidence for OECD Countries. *Review of Economics and Statistics* 95, 5: 1750-1768.
- Carree, M.A., and A. R. Thurik (2010). The Impact of Entrepreneurship on Economic Growth. In *Handbook of Entrepreneurship Research* (Springer): 557-594.

Chowdhury, F., D.B. Audretsch, and M. Belitski, M. (2019). Institutions and Entrepreneurship Quality. *Entrepreneurship Theory and Practice* 43, 1: 51-81.

Conway, P., V. Janod, and G. Nicoletti (2005). *Product Market Regulation in OECD Countries: 1998 to 2003*. Economics Department Working Papers number 41. OECD Publishing.

Delorme, C., W.S. Frame, and D.R. Kamerschen (1997). Empirical Evidence on a Special-Interest-Group Perspective to Antitrust. *Public Choice* 92, 3-4: 317-335.

Demsetz, H. (1973). Industry Structure, Market Rivalry, and Public Policy. *Journal of Law and Economics* 16, 1: 1-9.

DiLorenzo, T.J. (1985). The Origins of Antitrust: An Interest-Group Perspective. *International Review of Law and Economics* 5, 1: 73-90.

Easterly, W. (2014). *The Tyranny of Experts: Economists, Dictators, and the Forgotten Rights of the Poor*. Basic Books.

Geloso, V. (2019). *Walled from Competition: Measuring Protected Industries in Canada*. Fraser Institute.

Geloso, V. (2020). Collusion and Combines in Canada, 1880–1890. *Scandinavian Economic History Review* 68, 1: 66-84.

Geloso, V., and G. Belzile (2018). Electricity in Quebec before Nationalization, 1919 to 1939. *Atlantic Economic Journal* 46, 1: 101-119.

Golub, S.S. (2009). Openness to Foreign Direct Investment in Services: An International Comparative Analysis. *World Economy* 32, 8: 1245-1268.

Gu, W., and M. Willox (2018). *Productivity Growth in Canada and the United States: Recent Trends and Determinants*. Centre for the Study of Living Standards.

Gutiérrez, G., and T. Philippon (2019). *The Failure of Free Entry*. NBER working paper number w26001. National Bureau of Economic Research.

Hall, J.C., and R.A. Lawson (2014). Economic Freedom of the World: An Accounting of the Literature. *Contemporary Economic Policy* 32, 1: 1-19.

Hall, J.C., D.J. Lacombe, and S.B. Pokharel (2016). Freedom and Entrepreneurship: A Spatial Econometric Approach. *Journal of Entrepreneurship and Public Policy* 5, 3: 404-411.

Kirzner, I.M. (1973). *Competition and Entrepreneurship*. University of Chicago Press.

Koske, I., I. Wanner, R. Bitetti, and O. Barbiero (2015). *The 2013 Update of the OECD's Database on Product Market Regulation: Policy Insights for OECD and Non-OECD Countries*. Economics Department Working Papers number 1200. OECD Publishing.

Krueger, A.O. (1974). The Political Economy of the Rent-Seeking Society. *American Economic Review* 64, 3: 291-303.

Lawson, R., and R. Murphy (2018). Economic Freedom and Growth Specification Debate: A Retrospective. *Applied Economics Letters* 25, 15: 1038-1040.

OECD (2020a). *Indicators of Product Market Regulation*. OECD Publishing. <<http://www.oecd.org/economy/reform/indicators-of-product-market-regulation/>>, as of August 10, 2020.

OECD (2020b). *OECD FDI Regulatory Restrictiveness Index*. OECD Stats. <<https://stats.oecd.org/Index.aspx?datasetcode=FDIINDEX#>>, as of August 10, 2020.

Rouanet, L. (2020). Competition Is (Still) a Tough Weed: A Review Essay of Thomas Philippon's *The Great Reversal: How America Gave Up on Free Markets*. *Review of Austrian Economics* (June): 1-14.

Sobel, R.S., J.R. Clark, and D.R. Lee (2007). Freedom, Barriers to Entry, Entrepreneurship, and Economic Progress. *Review of Austrian Economics* 20, 4: 221-236.

Tollison, R.D. (1982). Rent Seeking: A Survey. *Kyklos* 35, 4: 575-602.

Tullock, G. (1967). The Welfare Costs of Tariffs, Monopolies, and Theft. *Economic Inquiry* 5, 3: 224-232.

Wiseman, T., and A.T. Young (2013). Economic Freedom, Entrepreneurship, and Income Levels: Some US State-Level Empirics. *American Journal of Entrepreneurship* 6, 1: 104-125.

About the Author



Vincent Geloso, Fraser Institute senior fellow, is an assistant professor of Economics at King's University College, Western University, Canada. He earned his PhD from the London School of Economics. Previously, he was postdoctoral fellow at Texas Tech University and earned his undergraduate degree from the University of Montreal.

Professor Geloso specializes in the measurement of living standards today and in the distant past. He combines his specialization in economic history with a specialization in political economy in order to explain differences in living standards over time and space. His articles have been published in *Economics & Human Biology*, *Canadian Journal of Economics*, *Social Science Quarterly*, *Journal of Economic History*, *Health Policy & Planning*, and *Historical Methods*. He has also authored opinion articles in the *Journal de Montréal*, *Journal de Québec*, *National Post*, *The Gazette*, *Le Devoir*, *La Presse*, *Le Soleil* and *Huffington Post Québec*.