A MACDONALD-LAURIER INSTITUTE PUBLICATION

NOVEMBER 2021

BIG IS BEAUTIFUL

Strengthening **growth and competitiveness** in the Canadian economy

ROBERT D. ATKINSON

TRUE NORTH IN CANADIAN PUBLIC POLICY

TRUE NORTH IN CANADIAN PUBLIC POLICY

Contents

Executive Summary / Sommaire 4

Introduction 9

Big in Canada 14

Why bigness makes sense in many industries 18

Policy implications 22

Conclusion 25

About the author 26

References 27

Endnotes 33

Cover photo credits: Pixabay

Executive Summary

In recent years it has become *de rigueur* to proclaim that small business is good and big business is bad. Our politicians actively support and praise small- and medium-sized enterprises (SMEs). But the flip side of SME worship is the derision of big business. Increasingly, big business is the villain.

If only, the narrative goes, Canada's Competition Bureau would show some courage and stop mergers, file more suits against "monopolists," and break up existing companies, all would be well. Income inequality would decline. Wholesome "mom and pop" small businesses would thrive. The environment would be protected. And consumers and workers would be better off. This populist appeal may be seductive, but it's also misguided and dangerous.

If Canada wants a growing, competitive economy with higher productivity and wages, policy-makers need to recognize the critical role that large businesses play – and ensure that policies recognize and support that role. Among developed nations, large corporations outperform small businesses on virtually all economic and social indicators.

Consider wages: In Canada, one study has shown that large firms (more than 500 employees) pay their workers on average 44 percent more than small firms. Large firms can do so because, on average, they are more productive than small firms. What about job growth? According to Statistics Canada, from 2002 to 2020, small businesses increased employment at half the rate of large businesses (by 13 percent versus 26 percent). Large companies also outperform SMEs on a host of other economic and social measures, whether it's employing female workers or being unionized.

Smaller firms are also less productive than larger firms. And in Canada, that problem is heightened – smaller firms in Canada are even less productive than similarly sized firms in the United States.

Despite the popular narrative is that small is better, size is undeniably a benefit in industries that require scale (banking is a good example) or innovation (where initial development cost is high), are network-based (such as utilities or transportation, with high fixed costs), or face global competition (where firm size can provide some defence against foreign advantages).

Small-is-good advocates are also concerned about industry concentration. And indeed, largely because of its relatively small population and GDP, Canada has long had higher rates of industrial concentration than the United States. Indeed, Canada's Competition Bureau has asserted that concentration has grown to problematic levels in Canada. But there is no recent data from StatCan to support that claim, so it is difficult to assess whether concentration in Canada has grown or not. It has not in the United States.

Too many firms in Canada are sub-optimally small and increasing competition by limiting the ability of firms to get larger would have negative consequences for productivity. At the same time, there can be negative consequences from too much concentration, including higher domestic prices.

Keeping these factors in mind, Canada should:

- Focus competition policy on conduct, not on structure. This means worrying less about the size of dominant firms than about specific anti-competitive conduct.

- Expand the size of its markets and recognize that this country needs larger companies if it wants to compete effectively. One place to start would be to open up Canada's aviation, financial and communications markets, at least to US entry.

- Be careful about changing the current efficiencies and competitiveness defence in any review of mergers, where firms can defend proposed mergers on the basis of improved productivity and global competitiveness.

- Resist the urge to bow to pressure from the activists and radically change competition law to meet new industry conditions.

- Focus on policies that can help firms get more productive. For example, extending services to small farmers and small manufactures can help these firms embrace better technology and more productive work organizations

- Embrace size neutrality, by treating all companies, large and small, the same. Having said that, an argument can be made for adopting policies that support and encourage new firms.

The "small is beautiful, big is ugly" narrative is becoming widespread and appears grounded in a broader anti-capitalist, anti-corporate animus. If policy-makers succumb to those agitating for such a view, the fallout will be significant: lower productivity and wage growth, worse working conditions, reduced innovation, and declining global competitiveness. Canada should choose a different and more positive path by seeking ways to maximize productivity and competitiveness while at the same time ensuring that competitive forces remain robust.

Sommaire

Ces dernières années, il est devenu *de rigueur* de proclamer qu'une petite société, c'est bien, et qu'une grosse société, c'est mal. Nos politiciens soutiennent activement et couvrent d'éloges les PME. Le revers de ce culte, c'est l'ironie malveillante à l'égard de la grande entreprise : on l'associe de plus en plus à la canaille.

Si seulement – ainsi en est-il du discours ambiant – le Bureau de la concurrence du Canada avait le courage de bloquer les fusions, de lancer plus de procès contre les monopoleurs et de démanteler les sociétés en place, tout irait bien : l'inégalité des revenus diminuerait; les salutaires petits commerces « familiaux » pourraient prospérer; et l'environnement serait protégé. Tant les consommateurs que les travailleurs se porteraient mieux. Or, si cet appel populiste peut séduire, il est également erroné et dangereux.

Si le Canada veut une économie prospère et compétitive, une productivité en croissance et des salaires élevés, les décideurs doivent reconnaître le rôle essentiel joué par les grandes entreprises et veiller à ce que les politiques reconnaissent et renforcent ce rôle. Dans les pays industrialisés, les grandes entreprises surpassent les petites sur pratiquement tous les plans économiques et sociaux.

À titre d'exemple, les salaires : selon une étude, le salaire moyen est 44 pour cent plus élevé dans les grandes entreprises (de plus de 500 employés) que dans les plus petites. Les grandes entreprises peuvent en faire autant parce qu'elles sont, en moyenne, plus productives. Et qu'en est-il de la croissance de l'emploi? Selon Statistique Canada, entre 2002 à 2020, les effectifs ont augmenté deux fois plus rapidement dans les grandes entreprises (26 pour cent) que dans les plus petites (13 pour cent). En fait, les grandes sociétés font mieux que les PME relativement à une foule d'autres mesures économiques et sociales, en passant par l'effectif féminin ou syndiqué.

Les petites entreprises sont également moins productives que les plus grandes. Et, au Canada, ce problème est accentué : les petites entreprises sont encore moins productives que les entreprises de taille similaire aux États-Unis.

En dépit du cliché répandu, soit « qu'être plus petit, c'est mieux », la taille constitue indéniablement un avantage dans les secteurs qui dépendent d'un volume élevé (les banques notamment) ou de l'innovation (à coût de développement initial élevé), qui reposent sur des réseaux (comme les services publics ou les transports à coûts fixes élevés) ou, encore, qui font face à la concurrence mondiale (où la taille de l'entreprise peut fournir une certaine protection contre les avantages étrangers).

Les défenseurs de la petite entreprise se préoccupent également de la concentration industrielle. Il est vrai que le Canada a longtemps connu des taux de concentration industrielle plus élevés qu'aux ÉtatsUnis, en grande partie à cause de sa population et de son PIB relativement faibles. D'ailleurs, le Bureau de la concurrence du Canada a affirmé que la concentration a atteint des niveaux problématiques au Canada. Reste que Statistique Canada n'a pas produit de données récentes pour étayer cette affirmation, de sorte qu'il est difficile d'évaluer si la concentration au Canada a augmenté ou non. Elle n'a pas augmenté aux États-Unis.

Trop d'entreprises sont disproportionnément petites, de sorte qu'intensifier la concurrence en limitant leur croissance influera négativement sur la productivité. En revanche, une trop grande concentration peut aboutir à des prix intérieurs plus élevés, notamment.

En gardant ces facteurs à l'esprit, le Canada devrait :

- Axer la politique de concurrence sur le comportement, et non pas sur la structure. Cela signifie que la taille des entreprises dominantes devrait moins susciter de préoccupations que certains comportements anticoncurrentiels.

- Agrandir ses marchés et reconnaître qu'il a besoin d'un plus grand nombre de grandes entreprises s'il veut être compétitif. Un bon point de départ serait d'ouvrir ses marchés de l'aviation, des finances et des communications, du moins aux ÉtatsUnis.

- Faire preuve de prudence en ce qui concerne tout changement visant la défense « des gains en efficience » et « de l'effet sur la concurrence » lors de l'examen d'une fusion, moment où les entreprises sont susceptibles de plaider en faveur d'une productivité et d'une compétitivité mondiale améliorée.

- Résister à l'envie de céder à la pression des activistes et modifier radicalement le droit de la concurrence pour répondre aux nouvelles conditions industrielles.

- Se concentrer sur les politiques qui peuvent aider les entreprises à devenir plus productives. Par exemple, procurer plus de services aux petits agriculteurs et fabricants peut les aider à adopter des technologies et des organisations du travail plus productives.

- Adopter la neutralité en matière de taille, en traitant toutes les entreprises, grandes et petites, de la même manière. Cela dit, on peut avancer des arguments en faveur de l'adoption de politiques qui soutiennent et encouragent la création d'entreprises.

Le discours qui fait la « *part belle aux petites entreprises et tournent les grandes en dérision* » fait de plus en plus écho et parait prendre appui sur un sentiment largement hostile au capitalisme et à la grande entreprise. Si les décideurs politiques succombent aux agitateurs d'épouvantails, les retombées seront importantes : baisse de la productivité et de la croissance des salaires, dégradation des conditions de travail, réduction de l'innovation et déclin de la compétitivité globale. Le Canada devrait choisir une voie différente et plus positive en cherchant des moyens de maximiser la productivité et la compétitivité tout en veillant à ce que les forces concurrentielles restent solides.

Introduction

In recent years it has become *de rigueur* to proclaim small business good, big business bad; or if bigness is not per se bad, at least it is by default to be treated with suspicion. As Canada's then Minister of International Trade, François-Philippe Champagne stated, "SMEs [small and medium-sized businesses], including those owned by women, youth and Indigenous peoples are the dynamos of our economies and the lifeblood of our communities" (Canada 2017). Mary Ng, Minister of Small Business, Export Promotion and International Trade, agrees, stating: "Small businesses are the bustling, thriving heart of our economy" (Innovation, Science and Economic Development Canada 2021). The most recent Canadian federal budget proclaimed that "successful, innovative, and competitive small businesses are what drive a strong and growing middle class" (Canada 2021). We expect our politicians to say such things, just as we expect them to kiss babies (before COVID) and to love hockey. But these kinds of valorizations are more than simply political posturing; for many they reflect firmly held beliefs.

The flip side of SME worship is the derision of big business. Increasingly, big business is the villain. If one wants to demonize an industry, simply put a "Big" before it, as in Big Box (retailers), Big Pharma, Big Oil, Big Broadband, and Big Bank. There is even Big Scotch (Hutchins 2021). And of course, there's Big Tech, the new whipping boy of politicians and commentators right across the political spectrum. If only, the narrative goes, Canada's Competition Bureau would show some courage and stop mergers, file more suits against "monopolists," and break up existing companies, all would be well. Income inequality would decline. Wholesome "mom and pop" small businesses would thrive. The environment would be protected. And consumers and workers would be better off. Happy days can be ours again.

While this populist appeal grounded in a "small is beautiful" ideology is seductive, it's also misguided and dangerous. If Canada wants a growing, competitive economy with higher productivity and wages, policy-makers need to recognize the critical role that large businesses play – and ensure that policies recognize and support that role.

The attack

Corporate bigness is under attack in many western nations. In the United States, many progressives have become "neo-Brandeisians" who view virtually all economic problems as stemming from one cause: large corporations. They attack the US economic model, characterized mostly by for-profit firms, which in many industries means large, efficient, and innovative firms. Whether attacking Big Broadband, Big Tech, Big Pharma, or anything else that can be portrayed as Big, progressives no longer seek reform, but rather, transformation – a fundamentally different US economic system. K. Sabeel Rahman, president of the progressive "think and do tank" Demos, recently testified at a congressional hearing on Big Tech, delivering comments that exemplify this new progressivism:

> Limiting this problematic form of private power requires rediscovering familiar but forgotten tools, including antitrust law, public utility-style regulation, and a willingness to consider cases where public control of key infrastructure would benefit the public rather than private provision. (Rahman 2020)

The last five years or so has seen a proliferation of progressive screeds against bigness. Tim Wu, who leads competition policy in the Biden administration, wrote *The Curse of Bigness: Antitrust in the New Gilded Age*. US Federal Trade Commissioner Chair Lina Kahn wrote "Amazon's Antitrust Paradox," a widely read *Yale Law Journal* article that attacked Amazon simply because it was big. Others include Matt Stoller's *Goliath: The 100 Year War Between Monopoly and Democracy*; Jonathan Tepper's *The Myth of Capitalism: Monopolies and the Death of Capitalism*; Zephyr Teachout's *Break 'Em Up: Recovering our Freedom From Big Ag, Big Tech and Big Money*; Barry Lynn's *Cornered: The New Monopoly Capitalism and the Economics of Destruction*; and perhaps the book with the catchiest, if not the most eloquent title, Sally Hubbard's *Monopolies Suck: 7 Ways Big Corporations Rule Your Life and How to Take Back Control*. Elected US officials have jumped in as well. US Senate Judiciary Subcommittee Chair Amy Klobuchar's recent book is *Antitrust: Taking on Monopoly Power from the Gilded Age to the Digital Age*.

While the United States is a market leader in populist outrage and hyperbole, Canada is not far behind. Denise Hearn, writing in the *Globe and Mail*, claimed that "today, we live in the second Gilded Age in which a few players dominate key industries" (Hearn 2019). Vass Bednar of McMaster University complains:

> While the tech giants may hold enormous sway over what we say and do online, entrenched monopolists in Canada determine the markets that Canadians depend on to feed their fam-

> ilies, travel across this vast country, manage their money, and communicate with one another. (Bednar 2021)

Canadian social justice advocate Robin Shaban writes: “Canadians must fundamentally rethink the laws that have led to our current monopolization crisis. The path forward for news must be fundamentally different than the one taken to date, and an anti-monopoly vision of that path is the most promising one” (Shaban 2021).

Even Canada’s Competition Bureau is joining in, playing the gender card by claiming “opening up markets to greater competition can reduce gender-based employment discrimination” (2021, 6). Strikingly, not only does the citation it links to (the OECD) not make this claim or provide evidence, but as we will see below, large firms in Canada employ a higher share of women than do small firms. Next thing you know, we will be told that breaking up big firms will ensure that a Canadian team will always win the Stanley Cup.

Perhaps the most striking thing about these critics is that when they talk about monopolies, they don’t mean monopoly as the term is commonly understood, an industry with only one firm. Instead, they mean large firms with some market power, an economic reality that has existed in Canada since the late 1800s.

The benefits of large corporations in Canada

Given the increasing disdain of large corporations and idolization of small ones, one could be excused for thinking that small businesses provide a stronger and wider set of social and economic benefits than large firms. In fact, notwithstanding the “small is beautiful” hype and the anti-“monopoly” fervor, the reality is that across developed nations, including in Canada, large corporations outperform small businesses on virtually all economic and social indicators. If the goal is to improve Canadian living standards and global business competitiveness, moving toward an economy with smaller firms is a step in exactly the wrong direction.

Let’s start with the most fundamental measure: wages. In Canada, large firms (defined by the Canadian government as firms with more than 500 employees) pay their workers on average 44 percent more than small firms (Grekou, Gu, and Yan 2020). Given the centrality of wages to living standards, large Canadian firms clearly play a key role in providing high paycheques. Another study estimated that large firms (more than 100 employees) paid 48 percent more than small Canadian firms (fewer than 20 employees) in 2001 (Ferrer and Lluis 2008). Another study found that large firms paid 72 percent more than small firms (again, fewer than 20 employees).

One reason large firms are able to pay their workers more is that on average they are more productive than small firms. As Statistics Canada (StatCan) finds, "firm productivity is generally positively correlated with average pay" (Gee, Liu, and Rosell 2020). One study found that productivity in Canadian manufacturing plants with 100 or fewer employees was 62 percent of the industry average, but was 165 percent of industry average in plants with 500 or more employees (Moscarini and Postel-Vinay 2012). Another study found that small firm productivity was only less than half (47 percent) of large firm productivity levels, significantly lower than the small firm–large firm gap in the United States (67 percent) (Baldwin, Leung, and Rispoli 2014). One reason is that small firms on average invest less in information and communication technology than large firms, and therefore have a more difficult time raising productivity (CSLS 2005).

As we will see, not only does Canada have a larger share of jobs in the small business sector than the United States, but their productivity performance compared to large firms is worse than in the United States. This "double-whammy" of more small businesses and less productive small businesses is a millstone around the neck of Canadian prosperity.

> *This "double-whammy" of more small businesses and less productive small businesses is a millstone around the neck of Canadian prosperity.*

What about job growth? The fixation on job growth is a long-standing hangover from the Great Depression and more recently from the Great Recession of 2009 and now the COVID crisis. Most pundits and policy-makers assume that absent some kind of government action that demand will be inadequate, leading to excess unemployment. This is simply not the case, as evidenced by the fact that unemployment rates in most parts of Canada before the COVID recession were less than 6 percent (Statistics Canada 2021a). Nonetheless, many policy-makers and pundits still focus on job creation as the central economic challenge and tout the superior performance of small business on this measure. In fact, the reality suggests otherwise. According to StatCan, from 2002 to 2020, small business increased employment at half the rate of large businesses, a 13 percent increase versus a 26 percent increase (Statistics Canada 2021b).

Large companies also outperform small and medium ones on a host of other economic measures. In 2017, SMEs contributed 41.9 percent of the total value of exported goods but accounted for over 55 percent of private sector GDP (Innovation, Science and Economic Development Canada 2020). Just 12.4

percent of manufacturing exports come from small business, even though they account for 50 percent of manufacturing jobs (Innovation, Science and Economic Development Canada 2019). Exports help boost a nation's competitiveness and enable its currency to reach a higher value. We see the same dynamic at work with research and development expenditures. Large firms (with more than 250 employees) invested 13 times more in overall innovation activities and in research and development (R&D) than small enterprises (with 20 to 99 employees) yet employed only 2.7 times as many workers despite the latter receiving more government R&D subsidies and a more generous R&D tax credit (Statistics Canada 2021c).

We see this difference in performance on a host of social indicators as well. Female workers were more likely to be employed at larger firms (Li, Dostie, and Simard-Duplain 2020). Males worked for firms with a median number of employees of 199 while females worked at larger firms (those with a median 308 employees) (Li, Dostie, Simard-Duplain 2020). Large firms are almost twice as likely to be unionized (50.2 percent) as small firms (27.4 percent) (Lluis 2003, 12). The jobs in Canada's large firms are also much higher quality on average than those in smaller firms. The factors that influence quality include wage levels, job security, job autonomy, schedule flexibility, support on the job, and earnings and benefits. For workers employed by large firms (500 or more employees), about 50 percent were in what researchers defined as the best-quality class and only 17 percent were clustered in the worst job class. The study went on to note:

> The comparable figures for workers in small firms with fewer than 20 employees were 26 percent and 29 percent, respectively. Small firm workers were overrepresented in jobs that offer fewer employment benefits and a less desirable social environment. Two-thirds of workers in small companies (less than 20 employees) worked in firms that had poor overall quality or Manageable Work Demands but a poor Benefits & Social Environment (such as workplace harassment, union membership). This compares with just 32 percent of workers at large firms. (Chen and Mehdi 2019)

In addition, small firms perform worse than large firms in the difference in earnings between the top, middle, and bottom earners. The gap between top earners and bottom earners is 57 percent higher in small firms than in large ones (Grekou, Gu, and Yan 2020).

None of this is to say that bigger is always better. In fact, some scholars have found that the optimal relationship between competition and innovation resembles an inverted "U" where too much competition and too little both limit innovation (Aghion, Bloom, Blundell, Griffith, and Howitt 2005). Nor does it mean that firms (including large ones) don't sometimes behave in an anti-competitive manner to limit competition, and that antitrust authorities should not step in to limit anticompetitive behaviour or stop mergers that harm productivity and innovation.

In summary, on average, large firms in Canada outperform small ones on a host of economic and social indicators. This does not necessarily mean that public policy should explicitly favour large firms, but it does mean that policy-makers should resist the popular “small is beautiful, big is bad” narrative.

Big in Canada

So how does firm size in Canada compare to that in the United States? Overall, Canada and the United States have about the same proportion of small, medium, and large firms, with around 98 percent of firms in both nations having fewer than 100 workers (Statistics Canada 2021d). When it comes to plant size (as opposed to firm size), in 2007 the United States had a larger share of employment in very large plants (over 1000 workers) (15.8 percent compared to just 10.3 percent in Canada), and 24.3 of manufacturing valued-added came from these large plants in the United States compared to 15.7 percent in Canada (Tang 2014).

In terms of firm size, the United States has a higher share of large firms (0.33 percent) than Canada (0.25 percent) (US Census Bureau 2018; US Census Bureau 2019; Statistics Canada 2021b). In Canada, 56.6 percent of firms are very small (five or less employees) compared to 54.5 percent in the United States. And when it comes to large firms as a share of the total number of firms in an industry, the US has 22 times more large firms in agriculture, forestry, fishing and hunting; 28 times more in information and cultural industries, 17 times more in retail, seven times more in other services, six times more in accommodation and food services, and three times more in manufacturing (Statistics Canada 2021b). Even in finance and insurance, where Canada has never embraced US-style protectionist branch banking laws, the United States has twice as many large banking and insurance companies as a share of companies in the sector. In contrast, there are three times more Canadian firms in the educational services sector that are large than in the United States and it appears that Canada has a larger share of big governmental units.

A review of employment patterns reveals the same thing. In 2018 in the United States, 53.2 percent of private sector workers were employed by large firms compared to 45.3 percent in Canada (US Small Business Administration Office of Advocacy 2019). A StatCan article noted in 2008 that small firms accounted for about 67 percent of hours worked in Canada, while they only accounted for 56 percent in the United States (Baldwin, Leung, and Rispoli 2014).

Smaller firms in Canada are also less productive than larger firms. In manufacturing, small firms accounted for 79.6 percent of manufacturing employment and 72.2 percent of manufacturing value-added in 2007 (Tang 2014). Yet it's not just that there are fewer workers in Canada working at larger and more productive firms than there are working at such firms in the US. It's that "Small firms are less productive than large firms in both countries. But the productivity disadvantage of small relative to large firms was higher in Canada" (Baldwin, Leung, and Rispoli 2014). The StatCan study goes on to note that "In 2008, the level of Canadian productivity, as measured by nominal GDP per hour worked in small firms, was only 47% of the productivity of large firms. The level of productivity for small US firms was only 67% of the productivity of large firms." The authors estimate that "An increase in the employment share of large firms in Canada to US levels would increase Canadian nominal labour productivity by about 6%."

Canadian enterprise survey data, which is most easily comparable to the US dataset, shows that 46.8 percent of private sector workers in Canada work in large businesses, meaning that the US share of private sector workers in large firms is 22 percent greater than in Canada (Statistics Canada 2021b).

Finally, some advocates in Canada rely on employee-based data on firm size to tout the overwhelming share of jobs in small business in Canada. They do so to advance the proposition that since such a large share of Canadians work for small business, Canadian policy should embrace this fact and favour small firms. The only problem is that StatCan uses two different surveys to measure employment by firm size: one of firms and one of employees. The firm size data is much more likely to be accurate. By contrast, the employee survey is likely extremely biased, as few employees are likely to know the size of their firm, particularly if they work for a large firm in a branch location. According to this data, only around 12 percent of Canadians work at small firms, compared to 46.8 percent on the employee survey. If small business advocates really want to tout this data, they should note that this implies that large businesses in Canada are 6.8 times more productive than small ones.

Concentration in Canada

In large part because of its relatively small population and GDP, Canada has long had higher rates of industrial concentration than the United States. In 1948, the average four-firm concentration ratio (the share of the market occupied by the largest four firms in a specific industry) among four-digit industries was about 37 percent higher than in the United States (Pryor 1972).[1] Another study found that in the 1970s in Canada, the mean C4 ratio in manufacturing (the share of sales by the top four firms in a particular industry) declined by 1 percentage point, from 50.9 percent in 1970, to 49.9 percent in 1979. To compare that with the United States, the unweighted mean C4 ratio for 2002 was 43 percent, or 17 percent lower than Canada in 1979 (Baldwin and Gorecki 1994).

In the mid-2000s the OECD reported that industrial concentration in Canada was 40 percent lower than in the United States. But a critique of that study argued that when measured accurately, firm concentration in Canada was 115 percent higher (Duhamel and Crépeau 2008). The fact that StatsCan has not measured concentration since 2009 makes it very difficult to know what the state of concentration is in Canada. Interestingly, that does not stop Canada's Competition Bureau from asserting that concentration has grown to problematic levels in Canada (Competition Bureau 2021).

> *It is certainly possible … that small company advocates overstate the growth of industry concentration in Canada.*

However, it is certainly possible, and perhaps even likely, that small company advocates overstate the growth of industry concentration in Canada. They certainly have done this in the United States. The "fact" of rising concentration has been picked up by a large number of pundits and commentators. *The Economist* got the ball rolling in 2016, concluding that two-thirds of the US economy's roughly 900 industries had become more concentrated between 1997 and 2012.

Paul Krugman weighed in by claiming that "growing monopoly power is a big problem for the US economy" (2016). The anti-business advocacy group Open Markets refers to "America's concentration crisis" (2019). And now leading politicians are parroting those claims. Senator Amy Klobuchar (D-MN), Chairwoman of the Senate Subcommittee on Competition Policy, Antitrust, and Consumer Rights, recently stated, "We are seeing higher levels of market concentration across our economy" (2019). Congressman David Cicilline (D-RI), Chairman of the House Antitrust Subcommittee, warned earlier this year that America has a "monopoly problem" (Kelly 2021). And before she was appointed to the post, new US Federal Trade Commission Chair Lina Khan alleged that the United States faces a "sweeping market power problem" (2018).

You'd think that pundits, advocates, and public officials would make some attempt to rely on data to support their claims. But alas, that is not the case. The definitive source of data to measure economic concentration comes from the US Census Bureau's newly released 2017 Economic Census data for over 850 industries, from cane sugar manufacturing to cable TV providers. Comparing 2017 and 2002 data enables us to see what has really happened with industry concentration in that decade and a half. And the data are quite clear: this is much ado about little.

Just 35 of 851 industries (accounting for about 8 percent of US gross output) are highly concentrated with the top four firms' sales accounting for more than 80 percent of industry sales (called the C4 ratio). In 2002, 62 percent of industry output was from industries with low levels of concentration (a C4 ratio below 50 percent), but by 2017, that proportion had dropped: 80 percent of industries had low concentration. Moreover, of the 115 industries with a C4 ratio of 60 percent or more in 2002, the majority became less concentrated by 2017. Overall, the average C4 ratio for American industry increased only slightly from 34.3 percent to 35.3 percent – an increase for which just 35 industries were largely responsible.

> *Canada suffers from having too great a proportion of its economy in smaller, less productive firms.*

Without more recent data from StatCan it is difficult to assess whether concentration in Canada has grown or not. But the US data trends suggest that anti-big-business activists in Canada, who parrot the US line that industry concentration is increasing, are likely overstating the case.

Profits are one indirect indicator of concentration. An increase in profits could result from an increase in concentration. A study by the Ottawa-based Centre for the Study of Living Standards notes that corporate profits have increased over the last two decades (Sharpe, Blanco Iglesias, and Kim 2020). The profit share of Canadian national income was lower in the 1980s and 1990s (around 4.9 percent) than more recently. But this was true in the United States as well. However, corporate profits from 2010 to 2016 were slightly lower (9.8 percent of national income) than in the 1960s (9.0 percent). This is also true in the United States, where corporate profits fell from 10.0 percent to 9.4 percent (Kennedy 2020).

Moreover, a significant share of the increase in Canadian profit income was from the financial sector, "which accounts for less than one tenth of GDP, [but] was responsible for 33 percent of the increase in the corporate profit share from 1997 to 2017" (Sharpe, Iglesias, and Kim 2020). This is similar to the United States where financial profits grew much more quickly than non-financial profits. At least in the United States, this increase in financial sector profits does not appear to be caused by increasing concentration, as for the most part concentration in the various US financial services sectors did not increase between 2002 and 2017 (Atkinson and Lage de Sousa 2021). In fact, the increase in financial sector profits appears to be a result of the overall financialization of the US economy. The same is likely true in Canada.

Why bigness makes sense in many industries

As noted, Canada suffers from having too great a proportion of its economy in smaller, less productive firms than in larger, more productive companies. Yet the popular narrative is that small is better. However, there are at least four kinds of industries where size is undeniably a benefit: industries that require scale, innovation-based industries, network-based industries, and industries facing global competition.

Scale industries

In some industries, firms are big because of economies of scale. The issue brief from President Obama's Council of Economic Advisors, *Benefits of Competition and Indicators of Market Power*, acknowledges scale efficiencies as one reason for a possible increase in concentration (2016, 2). If marginal costs go down the larger a firm gets, it becomes efficient for the firm to grow.

The banking industry, for example, benefits from scale economies. A history of local bank protectionism in the United States led states to erect unit banking laws barring banks from opening branches across state lines. As the states relaxed these archaic laws in the 1980s and Congress passed legislation in 1994 eliminating most of these restrictions, smaller banks were bought up by larger ones to, as the Federal Reserve Bank shows, take advantage of economies of scale (Council of Economic Advisors 2016, 2). But because most other nations never had American-style unit banking laws, they have always had significantly fewer banks per capita. In 1998 Japan had just 170 banks, or one bank for every 747,000 people. Canada had one domestic bank for every 1.16 million residents that year. The United States has one bank for every 58,000 people.

But even with the number of banks falling by more than half in the US since the mid-1990s, bank economies of scale have still not been exhausted. As the Federal Reserve has found, even the largest banks have realized that as they get larger their cost per customer and dollar deposited goes down (Wheelock and Wilson 2017). The Fed noted, "Our results suggest that capping banks' size would incur opportunity costs in terms of foregone advantages from IRS [increasing returns to scale] in terms of cost" (Wheelock and Wilson 2017, 21). Other studies have found similar results (Wheelock and Wilson 2012). The same appears to be the case in Canada. One analysis suggests that there are increasing returns to scale of about 6 percent, suggesting that the Canadian banks could modestly boost productivity by being larger (Allen and Engert 2007).

Retail also benefits from economies of scale. As one study finds, "much of the increased competitive pressure on small retailers is due to the fact that growing chains face decreasing marginal cost" (Basker, Klimek, and Hoang Van 2012, 576). In other words, when a large store gets larger its costs go down because of scale economies. No wonder small retailers in Canada are losing market share; they are less efficient. Because of its size, Amazon, for example, can afford to deploy highly automated fulfilment centres with increasing levels of robotization.

Innovation industries

Concentration is also a driver of consumer welfare in industries that depend on innovation: regularly bringing to the market new products, services, or business models. Because marginal costs are significantly below average costs in innovation industries, many innovation-based firms tend to be big, and many industries concentrated. In the software industry, for example, it can cost hundreds of millions of dollars to produce the first copy of a program, but nothing for additional copies.

A study of over 1000 European companies found increasing returns to scale for high-tech firms, but past a certain size, decreasing returns to scale for low-tech ones (Vezzani and Montresor 2013). Having 10 aviation firms instead of two, each investing billions to develop a new regional jet, would be a huge waste of society's resources. As would having 10 firms produce operating systems software for PCs. This is why nations issue legal patent rights to prevent other firms from using an innovative firm's innovation for a specified period of time. This gives innovative firms a temporary "monopoly" in which to earn back the expenditures they made to develop the innovation.

Network industries

A third kind of industry where higher concentration often increases welfare is network-based industries. These are also industries in which fixed costs are high but also where the value of investments increase as the size of the network increases. Examples include transportation (e.g., air travel, railroads), utilities (e.g., electricity, gas, water), and information (e.g., broadband and Internet applications). In some of these industries (e.g., gas and water) it makes economic sense to have only one provider, so most governments regulate the firms in the industry. However, in other network industries (e.g., airlines and broadband) there can be enough providers to ensure fairly robust competition.

Despite the benefits of scale in network industries, many decry concentration in Canadian sectors such as wireless communications and air travel (Hearn 2019). But in a small market like Canada it is hard to see how market forces could justify having many more competitors without productivity declining. If government policy were to induce more domestic competitors, this would likely make consumers and the economy worse off because total costs would, by definition, increase as multiple separate networks would have to be built and operated, but each network owner would now capture a smaller fraction

In the United States, airline consolidation has had major positive impacts on airline productivity.

of the customers. So costs would go up and revenue down, making it all but certain that prices would rise even if profits declined. One possible solution to more competitors going after the same pie is to encourage greater US-Canada integration and the removal of domestic ownership requirements; both could increase innovation and productivity.

The airline industry is an example of a more concentrated industry structure that provides real value to consumers in the form of more direct flights and better connections. At least in the United States, airline consolidation has had major positive impacts on airline productivity. Between 1997 and 2014, private, non-farm multi-factor productivity increased 19 percent. But airline productivity, in an era of mergers, increased a staggering 74 percent (US Bureau of Labor Statistics, US Bureau of Economic Analysis, and US Bureau of Transportation Statistics 2017). And prices increased more slowly than the overall consumer price index and profits were below the economy-wide average (Atkinson 2019).

We see a similar effect in Internet-based industries which are characterized by network effects for users, where the benefit from the product or service is magnified if more people use it. As a Council of Economic Advisors' report notes: "Some newer technology markets are also characterized by network effects, with large positive spillovers from having many consumers use the same product. Markets in which network effects are important, such as social media sites, may come to be dominated by one firm" (2016). Would users really be better off if Facebook were split into two companies: Facebook and Headbook? Half of your friends would be on Facebook, and the other half on Headbook. So every time you wanted to post a picture of your kid's birthday party, you'd have to do it twice.

In other words, there is a reason why there is one major social networking firm (Facebook), one micro-blogging site (Twitter), and so on: consumers get much more value by being able to communicate efficiently with a lot of people. Besides, we shouldn't really worry about current concentration levels in Internet-based network industries that provide their services free of charge because the relevant market from a competition perspective is not the social network or microblog network, it's the advertising market. All these firms compete for advertising dollars and, notwithstanding their size, have little market power in the ad market.

Industries in global competition

A fourth set of industries in which scale improves economic welfare are those facing global competition. Since 1980 global oligopolies have emerged in dozens of industries, usually based in Europe, Japan, and the United States. Take the semiconductor industry, for example, an industry that the United States pioneered. In recent years, the Chinese government has set about to depose the United States from its position as a leader in this industry and has decided that it will become a world-class player in all major segments of the semiconductor industry by 2030. One Chinese official has stated that the government intends to have "the visible hand of government join with the invisible hand of the market" (Asia Today 2014). The most visible manifestation of that hand comes in the form of investment, specifically National and Regional Integrated Circuit Funds that have already accrued more than $100 billion in assets, with most of the funds channeled from government through state-owned enterprises (SOEs) into a "private" equity firm so that China can use the veneer to claim that the funds will support "market-based" transactions in accordance with WTO principles.

It is not only in semiconductor industry that receives state-backed competition from China. China's 121 biggest SOEs increased their total assets from US$360 billion in 2002 to US$2.9 trillion in 2010, in part because during the 2008-9 financial crisis approximately 85 percent of China's US$1.4 trillion in bank loans went to state companies (The Economist 2012). SOEs account for over 40 percent of Chinese GDP and 70 percent of China's offshore foreign direct investment (OFDI) activity (US Department of State 2015). In fact, total Chinese OFDI stock has grown from US$4 billion in 1990 to US$298 billion in 2010 (Huang 2015, 57). As Huang notes, China's OFDI is "state-driven and centralized" and it's "probably historically unprecedented for the SOEs to invest on such a massive scale" (57).

China is not alone in practicing heavy-handed mercantilism designed to take on US commercial leadership. Brazil, India, Indonesia, Russia, and many other nations are savvy practitioners of this approach. In this environment, characterized by flaccid prosecution of trade enforcement and a weak administration, firm size provides at least one defence against fair and unfair foreign advantages.

Policy implications

Canada faces a conundrum. It is likely that Canada has higher rates of economic concentration than the United States even as it has a lower share of economic activity taking place in larger, more productive firms than in the United States. Too many firms in Canada are sub-optimally small and increasing competition by limiting the ability of firms to get larger would have negative consequences for productivity. At the same time, there can, in some cases, be negative consequences from too much concentration, including higher domestic prices.

There is no easy way around the conflict. Pushing competition policy to favour smaller firms at the expense of larger ones might mean slightly reduced profits and prices, but it would almost certainly mean reduced productivity and competitiveness. Pushing policy to encourage companies to scale up would likely mean higher productivity and competitiveness, but would likely also mean higher profits and domestic prices, at least in some sectors.

So, what are the implications for policy from this conundrum? There are several:

1. **To the extent possible, Canadian regulators should focus competition policy on conduct, not on structure.** Often, competition is limited not so much by the size of dominant firms as by particular anti-competitive conduct. Policy-makers should diligently investigate claims of anti-competitive conduct. A case in point from the UK and Europe is financial services. The UK and EU governments have adopted open data regimes for banks, giving consumers the right to have machine-readable access to their own data, thus enabling fin-tech innovation and competition (Castro 2021). Canada should do the same.

2. **Canada should work to expand the size of its markets.** If Canada were a 51st state, most of the perception that this country has a concentration problem would go away, as large American firms would serve the Canadian market, facing more competition than current Canadian firms and having higher productivity. At the same time, more successful Canadian companies would expand into the United States, as TD Bank has done.

Clearly such a political consolidation is not happening, but continued efforts to support deeper North American economic integration would enable greater scale and competition. Canada has significant barriers to foreign competition in sectors such as financial services, transport, and agriculture. There are even significant barriers to interprovincial trade. One place to start would be to open up the respective aviation markets so Canadian and American airlines could serve any city pair in the two countries. Likewise, opening up financial and communications markets, at least to US entry, would also spur competition.

3. **Be careful about changing the current efficiencies and competitiveness defence in any review of mergers, where firms can defend proposed mergers on the basis of improved productivity and global competitiveness.** The efficiencies and competitiveness defence provision was put in place in recognition that once Canada moved away from a more closed market in the 1960s to a more global one, that the country needed larger companies in order to compete effectively. This aspect of Canadian competition law is a target of Canadian "neo-Brandeisians" who oppose large corporations (Bednar and Shaban 2021). There is no question that limiting mergers and even breaking up large companies into multiple pieces would lower profits. The real question is whether those lower profits would translate into lower prices or if losses of productivity would be even larger. If there are price reductions, the question for policy-makers is whether the transfer payment to consumers is larger and worth more than the loss from lower productivity, less innovation, and reduced competitiveness. In most traded sectors the answer is likely no. But this is fundamentally a political choice about what Canadians value more.

4. **Resist the urge to radically change competition law to meet new industry conditions.** It is a common refrain of neo-Brandeisians, who reject the idea of economies with large corporations, to argue that there is something unique about today's economy, particularly with Internet platform companies, that requires a wholesale remake of antitrust law. Vass Bednar and Robin Shaban write that "Canada's Competition Act was not designed to protect competition in the digital world." They also claim that Canada's competition policy system "is unable to reliably address current issues in our economy such as algorithmic accountability, the growing dominance of digital firms, the role of data in creating competitive advantages; digital monopolies creating surveillance capitalism; or the increasing consolidation of media" (2021). First, competition policy was never designed to address issues of privacy and consumer protection. Second, current competition law is more than fit to address any challenges from digital platforms. It can block mergers and investigate and prosecute anticompetitive behavior. No new legislation is needed.

Finally, it is important to understand the nature of competition in most digital platform industries. High levels of market concentration have not hurt consumers in most digital markets because for the most part services are free. Moreover, in most industries the relevant market from a competition policy perspective is the advertising market. The companies are competing intensely for Canadian eyeballs. Every minute a Canadian spends watching a TikTok video is a minute less that they are on YouTube or Facebook.

5. **Help small firms boost productivity.** As noted above, small firms in Canada are less productive than large ones, and the productivity ratio is even worse in Canada than in the United States. While policy should encourage firms to get larger in many areas, in areas where this is not possible policy-makers should focus on policies that can help firms get more productive. For example, extending services to small farmers and small manufactures can help these firms embrace better technology and more productive work organizations. At the same time, the federal government should work with provinces to establish a network of sector-based small business boards to enable small firms to work together to raise productivity (Atkinson and Lind 2021).

6. **Embrace size neutrality.** Canada has placed itself in somewhat of a trap. In part because of policies that favour small business, it has a larger share of its economy in small business than in large business. And because it has such a large share of small businesses, policy-makers believe that they must help small businesses even more in order to help the economy. This is a dead end because it traps Canada in a low-productivity path. To fix that, policy-makers should embrace the concept of size neutrality, replacing small business favouritism in taxation, regulation, and other policy areas with size-neutral policies that treat all firms the same.

   Being size neutral means redesigning the tax code, including the R&D credit and investment incentives, to treat firms of different sizes alike. Size neutrality means repealing virtually all the special preferences in government procurement designed to favour small firms. Government agencies at all levels should be able to procure goods and services from whatever firm – large or small – provides the best value. Size neutrality means ending subsidies targeted at small business. All businesses, regardless of size, should pay the same fee for equivalent services from governments, such as patent applications for spectrum. Governments should also eliminate small business loan programs. If a small firm is qualified it should have no trouble getting a loan in the private marketplace, even if because of lack of economies of scale (smaller loans generate less revenue per dollar of cost for banks) they may have to pay slightly higher interest rates than large firms. All corporations should be subject to the same tax rate as opposed to the current system in which smaller firms enjoy a lower rate. Size neutrality also means eliminating most or all regulatory exemptions designed to excuse small firms from complying with regulations. If governments impose regulations on business, they should require all firms to comply, not just big ones.

There are two common responses to moving to size agnostic policies. The first is that such a move will lead to fewer small businesses and jobs. One would hope so – having a greater share of workers employed in larger firms would mean higher living standards. With respect to jobs, the consumer demand that small firms would have met will now be met by larger firms, creating jobs in the process. The reality is that the current unlevel playing field provides incentives for small firms to stay small.

The second response is that size agnostic policies will hurt emerging new firms, some of which might grow to be big. But embracing size neutrality is not the same as embracing age neutrality. To the extent that there is a rationale for policy differentiation based on firm characteristics, it should be based on age. Getting new firms off the ground can be difficult as reflected by the fact that so many of them fail in the first five years. For this reason, policy should be more accommodating for new firms. But to the extent it is possible, the focus should be on not on new firms per se, but on new firms that can and want to scale to become larger firms.

Conclusion

A “small is beautiful, big is ugly” narrative has become widespread in Europe, the United States, and Canada. Largely grounded in a broader anti-capitalist, anti-corporate animus, the results from policy-makers succumbing to those agitating for such a view will be significant: lower productivity and wage growth, worse working conditions, reduced innovation, and declining global competitiveness. Canada should seek ways to maximize productivity and competitiveness while at the same time ensuring that competitive forces remain robust.

About the author

Robert D. Atkinson (@RobAtkinsonITIF) is the founder and president of the Information Technology and Innovation Foundation, a technology policy think tank in Washington, DC. Atkinson's books include *Big is Beautiful: Debunking the Myth of Small Business* (MIT, 2018), *Innovation Economics: The Race for Global Advantage* (Yale, 2012), *Supply-Side Economics: Why Conservative Economics Fails, Liberal Economics Falters and Innovation Economics is the Answer* (Rowman Littlefield, 2007) and *The Past and Future of America's Economy: Long Waves of Innovation That Power Cycles of Growth*. Atkinson holds a Ph.D. in city and regional planning from the University of North Carolina, Chapel Hill. He was born in Calgary, Alberta.

References

Aghion, Philippe, Nicholas Bloom, Richard Blundell, Rachel Griffith, and Peter Howitt. 2005. "Competition and Innovation: An Inverted-U Relationship." *Quarterly Journal of Economics* 120, 2 (May): 701-728.

Allen, Jason, and Walter Engert. 2007. "Efficiency and Competition in Canadian Banking." *Bank of Canada Review* (Summer): 33-45. Available at https://www.bankofcanada.ca/wp-content/uploads/2010/06/allen-engert.pdf.

Asia Today. 2014. "China's Semiconductor Grab." *Asia Today*, August 24. Available at http://www.asiatoday.com/pressrelease/chinas-semiconductor-grab.

Atkinson, Robert D. 2019. "Airline Monopoly Fears Are Bunk." *Medium*, February 14. Available at https://medium.com/arc-digital/airline-monopoly-fears-are-bunk-eb07c71bff2b.

Atkinson, Robert D. 2021. *Anticorporate Progressivism: The Movement to Restrict, Restrain, and Replace Big Business in America*. Information Technology and Innovation Foundation [ITIF], July 12. Available at https://itif.org/publications/2021/07/12/anticorporate-progressivism-movement-restrict-restrain-and-replace-big.

Atkinson, Robert D., and Filipe Lage de Sousa. 2021. *No, Monopoly Has Not Grown*. Information Technology and Innovation Foundation [ITIF], June 7. Available at https://itif.org/publications/2021/06/07/no-monopoly-has-not-grown.

Atkinson, Robert D., and Michael Lind. 2021. *Small Business Boards: A Proposal to Raise Productivity and Wages in All 50 States and the District of Columbia*. Information Technology and Innovation Foundation [ITIF], April 5. Available at https://itif.org/publications/2021/04/05/small-business-boards-proposal-raise-productivity-and-wages-all-50-states.

Baldwin, John R., and Paul K. Gorecki. 1994. "Concentration and Mobility Statistics in Canada's Manufacturing Sector." *Journal of Industrial Econom-*

ics 42, 1 (March): 93-103. Available at https://www.jstor.org/stable/2950591.

Baldwin, John R., Danny Leung, and Luke Rispoli. 2014. "Canada-United States Labour Productivity Gap Across Firm Size Classes." *Canadian Productivity Review*, no. 033 (January). Statistics Canada. Available at https://www150.statcan.gc.ca/n1/pub/15-206-x/2014033/aftertoc-aprestdm2-eng.htm.

Basker, Emek, Shawn Klimek, and Pham Hoang Van. 2012. "Supersize It: The Growth of Retail Chains and the Rise of the 'Big-Box' Store." *Journal of Economics & Management Strategy* 21, 3 (Fall): 541-582.

Bednar, Vass. 2021. "The Chance to Lower Costs is Right in Front of Us. Will We Take It?" The Hub, August 3. Available at https://thehub.ca/2021-08-03/vass-bednar-the-chance-to-lower-costs-is-right-in-front-of-us-will-we-take-it/.

Bednar, Vass, and Robin Shaban. 2021. *The State of Competition Policy in Canada: Towards an Agenda for Reform in a Digital Era. Platform Governance*, April. Available at https://static1.squarespace.com/static/5ea874746663b45e14a384a4/t/607f17df0baee208181330ca/1618941921966/Competition+Policy+Report.pdf.

Canada. 2017. "Address by Minister Champagne at the Inaugural Commonwealth Trade Ministers Meeting." Roundtable on Leveraging Opportunities and Addressing Challenges to Intra-Commonwealth Trade and Investment. Government of Canada, Global Affairs, March 10. Available at https://www.canada.ca/en/global-affairs/news/2017/03/address_by_ministerchampagneat-theinauguralcommonwealthtrademinis.html.

Canada. 2021. "Part 2: Creating Jobs and Growth." *Budget 2021*. Government of Canada. Available at https://www.budget.gc.ca/2021/report-rapport/p2-en.html.

Castro, Daniel. 2021. "Comments to the CFPB on Consumer Access to Financial Records." Information Technology and Innovation Foundation [ITIF], January 26. Available at https://itif.org/publications/2021/01/26/comments-cfpb-consumer-access-financial-records.

Centre for the Study of Living Standards (CSLS). 2005. *What Explains the Canada-US ICT Investment Intensity Gap? CSLS Research Report* (2005-06), December. CSLS. Available at http://www.csls.ca/reports/csls2005-06.pdf.

Chen, Wen-Hao, and Tahsin Mehdi. 2019. "Job Quality in Canada." C*anadian Public Policy/Analyse de Politiques* 45, 2 (June): 173-191.

Competition Bureau of Canada. 2021. *Canada Needs More Competition: Takeaways from the Competition and Growth Summit*. Competition Bureau of Canada, June. Available at www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04595.html.

Council of Economic Advisors. 2016. *Benefits of Competition and Indicators of Market Power*. Issue Brief (updated May 2016). United States, Council of Economic Advisors. Available at https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160502_competition_issue_brief_updated_cea.pdf.

Duhamel, Mark, and Stéphane Crépeau. 2008. *Competition Intensity in Canada: A Critique of Recent OECD Findings*. Working Paper 2008-09. Industry Canada, September. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1690282.

Ferrer, Ana, and Stéphanie Lluis. 2008. "Should Workers Care about Firm Size?" *ILR Review* 62, 1 (October): 104-125. Available at https://doi.org/10.1177%2F001979390806200106 [paywall].

Gee, Kar-Fai, Huju Liu, and Carlos Rosell. 2020. *Understanding Developments in Individuals' Earnings Dispersion in Canada Using Matched Employer–Employee Data*. Paper Series 11F0019M, no. 444. Statistics Canada, Analytical Studies Branch Research, February. Available at https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2020007-eng.htm.

Grekou, Douwere, Wulong Gu, and Beiling Yan. 2020. *Decomposing the Between-firm Employment Earnings Dispersion in the Canadian Business Sector: The Role of Firm Characteristics*. Research Paper Series 11F0019M, no. 443 (February). Statistics Canada, Analytical Studies Branch. Available at https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2020006-eng.htm.

Hearn, Denise. 2019. "Canadian, U.S. Regulators Asleep at the Switch as Monopolies Thrive." *Globe and Mail*, February 25. Available at https://www.theglobeandmail.com/business/commentary/article-canadian-us-regulators-asleep-at-the-switch-as-monopolies-thrive/.

Huang, Yasheng. 2015. Business and Government Relations in China. Presentation. MIT Sloan School of Management, August.

Hutchins, Aaron. 2021. "'Big Scotch' Is Going after This Canadian Distiller for Naming His Whisky after Himself." *Maclean's*, June 29. Available at https://www.macleans.ca/economy/business/macaloneys-caledonian-distillery/.

Innovation, Science and Economic Development Canada. 2019. "Table 10: Contribution to GDP by Business Size and Industrial Sector, Average from 2010−2014." *Key Small Business Statistics*. Government of Canada, January. Available at https://www.ic.gc.ca/eic/site/061.nsf/eng/h_03090.html#table10.

Innovation, Science and Economic Development Canada. 2020. "4.2: How Do SMEs Contribute to Canada's Exports?" K*ey Small Business Statistics*. Government of Canada. Available at https://www.ic.gc.ca/eic/site/061.nsf/eng/h_03126.html#4.2.

Innovation, Science and Economic Development Canada. 2021. "Minister Ng Highlights Budget 2021 Investments in Small Businesses and Entrepreneurs." News release. *Cision*, April 29. Available at https://www.newswire.ca/news-releases/minister-ng-highlights-budget-2021-investments-in-small-businesses-and-entrepreneurs-845725317.html.

Kelly, Makena. 2021. "Congress Tries to Get the FTC in Fighting Shape." *Hill Report*, March 18. Available at https://www.theverge.com/2021/3/18/22338763/facebook-google-antitrust-cicilline-ftc-slaughter-monopoly.

Kennedy, Joe. 2020. "Monopoly Myths: Is Concentration Leading to Higher Profits?" Information Technology and Innovation Foundation [ITIF], May 18. Available at https://itif.org/publications/2020/05/18/monopoly-myths-concentration-leading-higher-profits.

Khan, Lina M. 2018. "The Ideological Roots of America's Market Power Problem." *Yale Law Journal* 127 (June). Available at https://www.yalelawjournal.org/forum/the-ideological-roots-of-americas-market-power-problem.

Klobuchar, Amy. 2019. "Klobuchar Presses Heads of DOJ Antitrust Division and FTC on Critical Issues of Competition in the US Economy." News Release. Amy Klobuchar, September 17. Available at https://www.klobuchar.senate.gov/public/index.cfm/2019/9/klobuchar-presses-heads-of-doj-antitrust-division-and-ftc-on-critical-issues-of-competition-in-the-u-s-economy.

Krugman, Paul. 2016. "Robber Baron Recessions." *The New York Times*, April 18. Available at https://www.nytimes.com/2016/04/18/opinion/robber-baron-recessions.html.

Li, Jiang, Benoit Dostie, and Gaëlle Simard-Duplain. 2020. *What is the Role of Firm-specific Pay Policies on the Gender Earnings Gap in Canada?* Research Paper Series 11F0019M, no. 456 (November). Statistics Canada, Analytical Studies Branch. Available at https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2020019-eng.htm.

Lluis, Stephanie. 2003. *Endogenous Choice of Firm Size and the Structure of Wages: A Comparison of Canada and the United States*. Working Papers 0203, Human Resources and Labor Studies. University of Minnesota.

Moscarini, Giuseppe, and Fabien Postel-Vinay. 2012. "The Contribution of Large and Small Employers to Job Creation in Times of High and Low Unemployment." *American Economic Review* 102, 6: 2509–2539. Available at http://dx.doi.org/10.1257/aer.102.6.2509.

Open Markets. 2019. *America's Concentration Crisis*. Open Markets Institute. Available at https://concentrationcrisis.openmarketsinstitute.org/.

Pryor, Frederic L. 1972. "International Comparison of Concentration Ratios." *Review of Economics and Statistics* 54, 2 (May): 130-140.

Rahman, K. Sabeel. 2020. "Dominant Tech Firms' Concentrated Economic Power Threatens Our Economic Well-being and Democratic Ideals." Testimony and Public Comment. Demos, October 1. Available at https://www.demos.org/testimony-and-public-comment/dominant-tech-firms-concentrated-economic-power-threatens-our-economic.

Shaban, Robin. 2021. "We Need Stronger Anti-Monopoly Laws if We Want to Curb Corporate Influence in the News." *The Monitor*, July 1. Available at https://monitormag.ca/articles/we-need-stronger-anti-monopoly-laws-if-we-want-to-curb-corporate-influence-in-the-news.

Sharpe, Andrew, Cristina Blanco Iglesias, and Myeongwan Kim. 2020. What Explains the Rising Profit Share in Canada? *CSLS Research Report* 2020-07. Centre for the Study of Living Standards. Prepared for Innovation, Science and Development Canada. Available at http://www.csls.ca/reports/csls2020-07.pdf.

Statistics Canada. 2021a. "Table 14-10-0020-01: Unemployment Rate, Participation Rate and Employment Rate by Educational Attainment, Annual." Statistics Canada. Available at https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1410002001.

Statistics Canada. 2021b. "Table 14-10-0215-01: Employment for All Employees by Enterprise Size, Annual." Statistics Canada. Available at https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410021501.

Statistics Canada. 2021c. "Table 33-10-0185-01: Average Expenditures on Innovation Activities, by Industry and Enterprise Size (x 1,000)." Statistics Canada. Available at https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3310018501.

Statistics Canada. 2021d. "Table 33-10-0395-01: Canadian Business Counts, with Employees, June 2021." Statistics Canada. Available at https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3310039501.

Tang, Jianmin. 2014. "Are Small or Large Producers Driving the Canada-U.S. Labour Productivity Gap? Recent Evidence from Manufacturing." *Canadian*

Journal of Economics/Revue canadienne d'Economique 47, 2 (May): 517-539.

The Economist. 2012. "New Masters of the Universe: How State Enterprise Is Spreading." *The Economist*, January 21. Available at http://www.economist.com/node/21542925 [paywall].

The Economist. 2016. "Too much of a good thing." Briefing. *The Economist*, March 26. Available at https://www.economist.com/briefing/2016/03/26/too-much-of-a-good-thing [paywall].

US Bureau of Labor Statistics, US Bureau of Economic Analysis, and US Bureau of Transportation Statistics. 2017. "Figure 5. Multifactor Productivity in Air Transportation and Private Nonfarm Business." Government of the United States. Available at https://www.bls.gov/opub/mlr/2017/images/data/russell-fig5.stm.

US Census Bureau. 2018. "2016 SUSB Annual Data Tables by Establishment Industry." United States Census Bureau, December. Available at https://www.census.gov/data/tables/2016/econ/susb/2016-susb-annual.html.

US Census Bureau. 2019. "Table CB1900CBP: All Sectors: County Business Patterns, including ZIP Code Business Patterns, by Legal Form of Organization and Employment Size Class for the U.S., States, and Selected Geographies: 2019." *Economic Surveys*. United States Census Bureau. Available at https://data.census.gov/cedsci/table?q=CBP2019.CB1900CBP&tid=CBP2019.CB1900CBP&hidePreview=true.

US Department of State. 2015. *U.S. Relations with China*. Fact Sheet. Bureau of East Asian and Pacific Affairs, US Department of State, January 21. Available at http://www.state.gov/r/pa/ei/bgn/18902.htm.

US Small Business Administration. 2019. 2019 Small Business Profile. Office of Advocacy, US Small Business Administration. Available at https://cdn.advocacy.sba.gov/wp-content/uploads/2019/04/23142719/2019-Small-Business-Profiles-US.pdf.

Vezzani, Antonio, and Sandro Montresor. 2013. *The Production Function of Top R&D Investors: Accounting for Size and Sector Heterogeneity with Quantile Estimations*. Working Papers on Corporate R&D and Innovation, number 02. Institute for Prospective Technological Studies [IPTS]. Available at https://www.econstor.eu/handle/10419/202146.

Wheelock, David C., and Paul W. Wilson. 2012. "Do Large Banks Have Lower Costs? New Estimates of Returns to Scale for U.S. Banks." *Journal of Money, Credit and Banking* 44, 1 (January): 171-199. Available at https://onlinelibrary.wiley.com/doi/10.1111/j.1538-4616.2011.00472.x [paywall].

Wheelock, David C., and Paul W. Wilson. 2017. *The Evolution of Scale Economies in U.S. Banking*. Working Paper 2015-021C. Research Division, Federal Reserve Bank of St. Louis, February. Available at https://research.stlouisfed.org/wp/2015/2015-021.pdf.

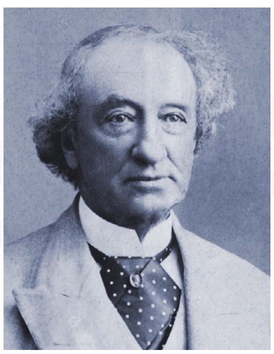
Endnotes

1 The North American Industry Classification System (NAICS) is the standard by which US federal statistical agencies classify business establishments. The more digits an industry code has, the more specific it is; a four-digit code is more specific than a three-digit code, but less specific than a six-digit code. For example, NAICS code 3111 is Animal Food Manufacturing, while 311111 is Dog and Cat Food Manufacturing.

TRUE NORTH
IN CANADIAN PUBLIC POLICY

WHAT DO WE DO?

MLI is the only non-partisan, independent national public policy think tank based in Ottawa that focuses on the full range of issues that fall under the jurisdiction of the federal government. At MLI, we strip away the complexity that makes policy issues unintelligible and present them in a way that leads to action, to better quality policy decisions, to more effective government, and to a more focused pursuit of the national interest of all Canadians.



SIR JOHN A. MACDONALD

SIR WILFRID LAURIER

WHAT IS IN A NAME?

The **Macdonald-Laurier Institute** exists to renew the splendid legacy of two towering figures in Canadian history:

Sir John A. Macdonald
and **Sir Wilfrid Laurier**.

A Tory and a Grit, an English speaker and a French speaker, these two men represent the very best of Canada's fine political tradition. As prime minister, each championed the values that led to Canada assuming her place as one of the world's leading democracies. We will continue to vigorously uphold these values, the cornerstones of our nation.

PROGRAM AREAS

The Institute undertakes an impressive program of thought leadership on public policy. Some of the issues we have tackled recently include:

- Building Canada's energy advantage;
- Achieving reconciliation with Indigenous peoples;
- Making Canada's justice system more fair and efficient;
- Defending Canada's innovators and creators;
- Controlling government debt at all levels;
- Advancing Canada's interests abroad;
- Regulating Canada's foreign investment; and
- Fixing Canadian health care.

MLI
TRUE NORTH IN CANADIAN PUBLIC POLICY

excellent THOUGHT-PROVOKING high-quality insightful CONSTRUCTIVE important forward-thinking

> "Canada shall be the star towards which all men who love progress and freedom shall come.
>
> – Sir Wilfrid Laurier

Critically acclaimed, award-winning Institute

The **Macdonald-Laurier Institute** focuses on the full range of issues that fall under Ottawa's jurisdiction.

- Winner of the Sir Antony Fisher International Memorial Award (2011)
- Templeton Freedom Award for Special Achievement by a Young Institute (2012)
- Prospect Magazine Award for Best North America Social Think Tank (2018)
- Short-listed for the Templeton Freedom Award (2017)
- Cited by five present and former Canadian Prime Ministers, as well as by David Cameron, the British Prime Minister.
- *Hill Times* says **Brian Lee Crowley** is one of the 100 most influential people in Ottawa.
- *Wall Street Journal*, *Economist*, *Foreign Policy*, *Globe and Mail*, *National Post* and many other leading publications have quoted the Institute's work.

WHERE YOU'VE SEEN US

CTV
cpac FOR THE RECORD
Corus ENTERTAINMENT
CBC news
FP Foreign Policy
tvo
The Economist
WALL STREET JOURNAL
THE HILL TIMES
THE GLOBE AND MAIL CANADA'S NATIONAL NEWSPAPER • FOUNDED 1844
NATIONAL POST

Ideas change the world

WHAT PEOPLE ARE SAYING ABOUT **MLI**

The Right Honourable Paul Martin

I want to congratulate the **Macdonald-Laurier Institute** for 10 years of excellent service to Canada. The Institute's commitment to public policy innovation has put them on the cutting edge of many of the country's most pressing policy debates. The Institute works in a persistent and constructive way to present new and insightful ideas about how to best achieve Canada's potential and to produce a better and more just country. Canada is better for the forward-thinking, research-based perspectives that the **Macdonald-Laurier Institute** brings to our most critical issues.

The Honourable Jody Wilson-Raybould

The **Macdonald-Laurier Institute** has been active in the field of Indigenous public policy, building a fine tradition of working with Indigenous organizations, promoting Indigenous thinkers and encouraging innovative, Indigenous-led solutions to the challenges of 21st century Canada. I congratulate **MLI** on its 10 productive and constructive years and look forward to continuing to learn more about the Institute's fine work in the field.

The Honourable Irwin Cotler

May I congratulate **MLI** for a decade of exemplary leadership on national and international issues. Through high-quality research and analysis, **MLI** has made a significant contribution to Canadian public discourse and policy development. With the global resurgence of authoritarianism and illiberal populism, such work is as timely as it is important. I wish you continued success in the years to come.

The Honourable Pierre Poilievre

The **Macdonald-Laurier Institute** has produced countless works of scholarship that solve today's problems with the wisdom of our political ancestors. If we listen to the **Institute**'s advice, we can fulfill Laurier's dream of a country where freedom is its nationality.

M A C D O N A L D - L A U R I E R   I N S T I T U T E

TRUE NORTH IN CANADIAN PUBLIC POLICY

323 Chapel Street, Suite 300,
Ottawa, Ontario K1N 7Z2
613-482-8327 • info@macdonaldlaurier.ca

@MLInstitute

facebook.com/MacdonaldLaurierInstitute

youtube.com/MLInstitute

linkedin.com/company/macdonald-laurier-institute