FRASER INSTITUTE
2024

COLLECTED ESSAYS

ESG: MYTHS and REALITIES

Putting Economics Back into ESG

Jack Mintz and Bryce Tingle

ABOUT THIS PUBLICATION

Copyright © 2024 by the Fraser Institute.
All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

Date of Issue
August 2024

Media
For media enquiries, please contact our Communications Department: 604.714.4582; e-mail: communications@fraserinstitute.org.

About the Fraser Institute
Our mission is to improve the quality of life for Canadians, their families, and future generations by studying, measuring, and broadly communicating the effects of government policies, entrepreneurship, and choice on their well-being.

Acknowledgments
The authors thanks two external reviewers for their very comments on an earlier draft. Any remaining errors are the sole responsibility of the authors. As the researchers have worked independently, the views and conclusions expressed in this paper do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.

FRASER INSTITUTE

Putting Economics Back into ESG

Jack Mintz, QM and Bryce Tingle, KC

One of the great statements about corporate law was penned in 1883 by Lord Bowen with reference to a corporate picnic for employees, “The law does not say that there are to be no cakes and ale, but there are to be no cakes and ale except such as are required for the benefit of the company” (Hutton v. West Cork Railway Co., 1883). The issue captured in Lord Bowen’s remark concerns the legitimate aims of the corporation and stretches as far back as the corporate form itself.

While the current debate revolves around the phrase “environmental, social, and governance” or “ESG,” the term has been at other times discussed as “corporate social responsibility (CSR)” “sustainability,” “triple bottom-line,” concern for “stakeholders,” or non-shareholder “constituencies,” and when applied to investors, “stewardship,” “socially responsible investing (SRI),” or just “responsible investment.” One should always be suspicious when an idea keeps changing its name.[1]

The debate about corporate purpose is old, but it is not founded on a fundamental error. There are significant conflicts of interest between the various constituencies of the corporation and it matters whose interests are paramount. The economic way of describing this conflict is whether companies ought to make investments with a net present value (or rate of return on capital) that is lower than the alternatives. Note that we are not framing the question as whether corporations should make investments with a negative rate of return. Obviously, a company that regularly made these sorts of decisions would rather quickly run out of money, go bankrupt, and thus remove itself as a vehicle for social and environmental justice. Rather, the question is whether a company should do things that benefit some group or purpose (including the environment) when doing something else would be more profitable. This is what advocates of ESG are really demanding.

An Interminable Debate without Economics

The fact that the argument about the proper purpose of the corporation has gone on for as long as business corporations have existed should tell us something about the argument. On one side, it is clear why the notions behind ESG keep popping up: corporations impact many people, and we would generally like those impacts to be positive. It is unlikely that a critical mass of our society will ever look at how a corporation treats its employees and say, "I hope the company is a bit harsher in the future." We care about a lot of things more than profitability (and unthinking people do not care about profitability at all). The temptation to ask more from business will always be with us.

The reason why the debate is not quickly resolved in favour of the moral intuitions behind ESG requires a bit more digging. Economics tells us that business corporations find themselves enmeshed in a variety of competitive markets. These markets include not only the markets for the various products sold by the corporation, but also the labour markets in which it hires its employees and executives, the financial markets in which it raises debt and equity capital, the markets made up of its suppliers, and often a market for control of the corporation itself. The existence of these competitive markets is almost totally ignored in most discussions of ESG. Partly this is because the existence of these markets is almost totally ignored in discussions of corporate governance generally, and partly because a lot of the people who are interested in ESG do not know much about business.

According to one poll, a random selection of American adults thought corporations make an average 36 percent profit, defined as a percentage of sales after taxes (Reason-Rupe, 2013). In fairness to ESG advocates, if this were true, one could safely ignore markets and immediately start instructing businesspeople on how they should spend company money. Unfortunately, it is not even close to being true. In a typical year, the profit margin of American businesses is just three percent (Bhattacharjee and Dana, 2024). Out of this margin, the average company needs to still pay taxes and cover the cost of its capital.[2]

How much do corporations make once all their expenses are paid? This is not an easy question to answer because the cost of capital is difficult to calculate, especially the cost of equity finance including risk and inflation (Witmer and Zorn, 2007; Olson and Pagano, 2023). Bazel and Mintz (2021) estimate the nominal cost of capital without risk and taxes to be 4.9 percent for multinationals operating in North America, consistent with integrated international capital markets. Risk, the most difficult component to measure, would result in a cost of capital of 7.9 percent for Canada and 8.5 percent for the United States.[3] Add in corporate income and other capital-related taxes, the minimum nominal return to compensate capital owners is 8.4 percent in Canada and 9.1 percent in the United States. In other words, the average corporation does not make very much at all over its costs including the imputed cost of equity (Fama and French, 1999; Alderson and Betker, 2009).

As economics makes clear, a corporation in a reasonably competitive market cannot make investments that will raise the cost of its products above those of its competitors. If there were a company that decided not to automate its factories solely out of a charitable concern to maximize the number of people it employs, that company would eventually be driven out of business by competitors that have embraced automation, in a process familiar to everyone who reads the business section of a newspaper.

ESG will also prove practically impossible for those rare businesses in Canada that earn above-normal profits (economic rents) due to the ownership of land or resources, regulatory protection, or barriers to entry in an industry. The value of these rents will be reflected in the company's share price because the share price will rise to take into account the future expected cash flows from these rents. Basic economic theory suggests that higher costs associated with ESG will result in a reduction of output, a rise in market prices, a fall in economic rents, and lower share prices. In other words, the firm will be unable to cover its cost of capital. This is not saying anything controversial: ESG is a transfer of wealth from shareholders to other parties. In general, shareholders do not like declining share prices and they tend to punish managers who are responsible.

"Basic economic theory suggests that higher costs associated with ESG will result in a reduction of output, a rise in market prices, a fall in economic rents, and lower share prices."

The impact of competitive markets is why employees do not toddle off every day stuffed with "cakes and ale." It is also why, when we look at the large body of empirical literature on corporate ESG activities, we find so much evidence that they are merely window-dressing unless they are secretly related to improving profitability (Tingle, 2024: 235-49).[4] Finally, it is why the idea behind ESG has never managed to gain much traction in the real world of economic actors, though it has gone in and out of favour with regulators.

Why Care about ESG?

Why should we worry about ESG if there is, in fact, no way for ESG to materially influence corporate behaviour without conflicting with their essential profit-making activities?

The problems with our current infatuation with ESG can be easily summarized:

i) To the extent that the expensive ideas that make up ESG are accepted by Canadian securities regulators and investors, it will render our public markets less attractive to new entrants (Cumming, 2023). New Canadian businesses take money from outsiders and eventually have to give that money back. Historically, this was done by taking the company public; increasingly, it is done by selling the business. In many

industries, especially high-tech industries, there are few Canadian purchasers, so selling the business often means it moves to the United States. Unattractive public markets (where ESG lives) are bad for Canada.

ii) To the extent regulation or shareholder pressure imposes some ESG obligations on Canadian companies, they will grow less competitive relative to their international peers (Pardy, 2023). For example, when Canada introduced its Extractive Sector Transparency Measures Act in 2014, it led to a transfer of assets from Canadian firms to their American competitors (Rauter, 2020).

iii) To the extent some ESG behaviours are imposed on Canadian corporations only, individual investors will be harmed as the competitive position of those corporations declines (Globerman, 2022a). This is already visible in the relatively poor financial performance of Canada's energy industry as a result of ESG pressures in this country (Mejia and Aliakbari, 2024).

iv) Much of our progress in improving the welfare of non-shareholder constituencies has come from business as usual. Focusing on ESG rather than the health of our markets and fostering innovation, reflects a major misunderstanding of where progress arises (Fama, 2022).

v) To these concerns, we would like to add one other. As we have seen, it is impossible in the presence of competitive markets for companies to make material, voluntary, unilateral ESG investments. In reality, advocates of ESG are not asking merely for more cake. They are trying to solve big problems, not the quality of breakroom snacks. A company that trumpets its commitment to employee welfare symbolized by its cake-filled picnics will cause irreparable harm to the social fabric of Canada if it finds itself compelled to off-shore its factories to Mexico or Asia. If ESG promises by investors and companies can only ever be honoured in the breach, trust in corporations and elites will decline.

What Can Be Done?

There is evidence that the current ESG movement is fading (Larcker et al., 2024). For now, how do we minimize the harms?

1. Expand what counts as ESG

As our main theme, ESG should be expanded to include economics. Shareholders will not be happy earning a poor return on capital. Neither will workers, who will be laid off or unable to gain wage increments from companies in financial trouble. And if Canada pushes ineffective but expensive ESG mandates, capital will move to those countries with a framework that includes economics in evaluating corporate success.

Security concerns could also be included in ESG (Mintz, 2022). When the unprovoked invasion of Ukraine occurred, it was discovered that investment funds with ESG mandates had been preferentially investing in Russian oil and gas operations (the principal source of funding for the Putin regime) because of their lower per barrel carbon emissions (Vandaelle, 2022). When Europe came to Canada looking for energy to make up for the imports lost from Russia, we were unable to contribute anything to the energy security of our allies and fellow democracies. We have some of the largest energy reserves in the world, but an embarrassingly narrow version of ESG has kept us from exploiting them.

“[Canada has] some of the largest energy reserves in the world, but an embarrassingly narrow version of ESG has kept us from exploiting them.”

2. Stop regulating in the name of ESG

The securities commissions in Canada (and elsewhere in the world) have been pulled into regulating purely political matters unrelated to facilitating price discovery and ensuring market integrity. In Canada, they are currently in the midst of a high-profile effort to revise corporate disclosure around carbon and diversity (CSA, 2023).

Securities commissions lack the experience, skills, processes, and oversight to regulate broad political matters. For example, there are reasons why corporations have tended to resist wholesale adoption of diversity targets and publicly tracking the results. These sorts of diversity, equity and inclusion, or “DEI” initiatives increase the salience of racial and other differences, discount merit in hiring and promotion decisions, reward those who can most credibly claim the status of victim (setting off a competition towards the bottom), ignore other types of diversity (such as differences in experience or viewpoint), and retrospectively call into question the merits of those minorities who are hired or promoted. No one seriously interested in managing and building an organization wants to import this dynamic.

Securities regulators in Canada need to seriously rethink their remit. They are not general regulators of corporate governance; they exist only to ensure Canada’s capital markets are fair and efficient, not to advance other goals. Responsibility for broader social goals lies with the legislature, which is subject to much more oversight and which enjoys the legitimacy provided by being elected.

There is another problem with ESG regulations: rules about disclosure and measurement must be standardized. ESG, with its variety of stakeholders and the harms it attempts to address, is poorly suited to standardization (Aliakbari and Globerman, 2023; Tingle, 2023). Some of the information is unquantifiable, some is incommensurate, some involve trade-offs between vulnerable parties, some requires subjective or value-laden judgment calls, and some requires an understanding of the company’s alternatives that no third party possesses. In

aggregate, this means that regulations will (perversely) encourage companies to ignore some problems and, at the same time, they will provide companies with ample opportunities to game the required metrics. ESG reporting is far more complex, expensive, and problematic than the financial reporting to which it is often compared.

3. Prosecute ESG-related fraud

Companies and investment funds that make ESG claims should be held liable in the normal course if those claims are untrue. Claiming to be an ESG fund has been a winning marketing strategy for investment funds over the last decade. There is considerable evidence, however, that ESG-branded funds do not, on average, hold more environmentally and socially responsible companies (Liang et al., 2021; Raghunandan and Rajgopal, 2020; Kim and Yoon, 2023). Some studies find ESG funds hold companies with worse track records for compliance with labour and environmental laws. A typical finding is that companies in ESG-branded funds "exhibit worse performance with respect to carbon emissions, in terms of both raw emissions output and emissions intensity" (Bolton and Kacperczyk, 2021). These studies demonstrate the presence of fraud in the securities market. We do not allow false representations on other subjects, so why would we permit it for representations about ESG?

4. Impose liability for the use of ESG ratings

Much of the current ferment about ESG in capital markets is underwritten by an industry comprised of somewhere between 80 and 125 firms that purport to measure, rate, rank, and provide a simple score about each company's ESG performance (Tingle, 2023: 215). Institutional investors require these third-party ESG ratings because they lack the resources, competence, and incentives to carefully investigate and compare the relative ESG performance of companies.

Over the last several years, over a dozen research teams have investigated ESG ratings, and all of them found that they are invalid (Tingle, 2023: 216). This research is easy to do: simply compare how rating firms score the same company. Viewed in its entirety, the empirical literature suggests that rating firms agree about the ESG credentials of a firm less than half the time.[5] This means that ESG ratings tell you nothing useful about a company (Chatterji et al., 2016: 1598).

Research that looks at how well ESG ratings predict actual corporate behaviour, finds that these ratings do a poor job of predicting future pollution and environmental compliance violations, as well as predicting future labour-related issues and enforcement actions (Chatterji et al., 2009; Raghunandan and Rajgopal, 2022). The invalidity of ESG ratings virtually guarantees that they will be a poor guide to what a company does. As investment managers are fiduciaries, they owe a legal duty to their funds' beneficial holders not to make decisions using deeply flawed ESG ratings data.

5. Regulate proxy advisors

Third-party proxy advisory firms have also played a major role in the rise of ESG. For almost two decades, these firms have been the de facto standard setters for corporate governance. Their influence over the voting decisions of institutional shareholders means that companies generally attempt to follow proxy advisors' corporate governance rules. Proxy advisors' work is often flawed and the assumptions behind their governance decisions are frequently contradicted by the empirical literature (Tingle, 2014, 2016).

Proxy advisors routinely undercut the careful decisions of securities regulators in this country. For example, Canadian securities regulators recently considered how companies should report on their diversity performance (CSA, 2023). However, in their Request for Comment, the securities commissions at least were alert to questions of what format for reporting was most likely to protect all minorities, what reporting was least likely to be "gamed" or reduced to a check-the-box exercise, and what sort of reporting was least likely to interfere with the exercise of directors' legal fiduciary duties. While the Canadian regulators engaged in discussions about these issues, the largest proxy advisor in the country, Institutional Shareholder Services, simply ignored the nuanced discussion and mandated a check-the-box diversity quota rule (ISS, 2024: 16–17).

Conclusion

We argue that—most importantly—economics needs to be put into ESG. Any conception of corporate governance that ignores economics (or markets) will prove irrelevant and harmful to corporations. We can draw considerable confidence from the fact that caring about corporate constituencies is usually good economics. Of course, companies pursuing their long-term interests may not be sufficient to achieve society's objectives. Instead, it is the role of elected legislatures to achieve these social objectives. It is not the securities regulators' or investment fund managers' responsibility to take on the role of a democratically elected government (which, in any event, is impossible). Pretending that we can solve our serious social and economic problems by adopting the version of ESG circulating in this country will do considerable harm to Canada without securing much of a valuable benefit in return.

"Pretending that we can solve our serious social and economic problems by adopting the version of ESG circulating in this country will do considerable harm to Canada without securing much of a valuable benefit in return."

Endnotes

1 There has been an evolution of academic justifications for what now goes under the name ESG (Globerman, 2022b).
2 The cost of capital is measured here as the weighted average of paying interest on corporate debt and providing a return to equity owners to compensate them for supplying and holding the riskiest financial claims on the corporation, net of the inflation rate.
3 Based on a long-run equity risk premium of five percent in Canada and six percent in the United States (Booth, 2019) and a market value of debt to assets equal to 0.4 for non-financial corporations (Bazel and Mintz, 2021).
4 Some voices claim that ESG activities increase firm profitability. The problem with these arguments is explaining what ESG brings to the business strategy. If market pressures are driving companies to make certain investment decisions, why do we need ESG regulation or pressure? These sorts of claims that companies can satisfy constituencies with conflicting interests were described by Nobel-prize-winning economist Robert Merton as "escap[ing] the dilemma by swift flight from it" (Merton, 1976: 88).
5 In contrast, credit rating agencies agree about 99 percent of the time (Berg et al., 2022).

References

Alderson, Michael J., and Brian L. Betker (2009). Additional Evidence on the Corporate Cost of Capital and the Return to Corporate Investment. *Journal of Applied Finance* 19, 1/2 (Spring/Summer): 91–102.

Aliakbari, Elmira, and Steven Globerman (2023). *The Impracticality of Standardizing ESG Reporting*. ESG: Myths and Realities: Collected Essays. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/ESG-myths-realities-impracticality-of-standardizing-ESG-reporting.pdf>, as of July 4, 2024.

Bazel, Philip, and Jack Mintz (2021). *2020 Tax Competitiveness Report: Canada's Investment Challenge.* School of Public Policy Publications. University of Calgary. <https://journalhosting.ucalgary.ca/index.php/sppp/article/view/72311>, as of July 4, 2024.

Berg, Florian, Julian F. Koelbel, and Roberto Rigobon (2022). Aggregate Confusion: The Divergence of ESG Ratings. *Review of Finance* 26, 6 (November): 1315–1344. <https://academic.oup.com/rof/advance-article/doi/10.1093/rof/rfac033/6590670>, as of July 4, 2024.

Bhattacharjee, Amit, and Jason Dana (2024). Lay Economic Reasoning: An Integrative Review and Call to Action. *Consumer Psychology Review* 7, 1: 3–39.

Bolton, Patrick, and Marcin Kacperczyk (2021). Do Investors Care About Carbon Risk? *Journal of Financial Economics* 142, 2 (November): 517–549.

Booth, Laurence (2019). Estimating the Equity Risk Premium and Expected Rates of Return: The Case of Canada. *Journal of Applied Corporate Finance* 31, 1 (Winter): 113–125. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jacf.12333>, as of July 4, 2024.

Canadian Securities Administrators [CSA] (2023). *Proposed Amendments to Form 58-101F1 Corporate Governance Disclosure*. <https://www.asc.ca/-/media/ASC-Documents-part-1/Regulatory-Instruments/2023/04/6089823-CSA-Notice-and-Request-for-Comment-Proposed-Amendments-to-Form-58-101F1-of-NI-58-101.ashx>, as of July 4, 2024.

Chatterji, Aaron K., David I. Levine, and Michael W. Toffel (2009). How Well Do Social Ratings Actually Measure Corporate Social Responsibility? *Journal of Economics and Management Strategy* 18, 1 (Spring): 125–169.

Chatterji, Aaron K., Rodolphe Durand, David I. Levine, and Samuel Touboul (2016). Do Ratings of Firms Converge? Implications for Managers, Investors and Strategy Researchers. *Strategic Management Journal* 37, 8 (August): 1597–1614.

Cumming, Douglas (2023). *ESG Disclosures and the Decision to Go Public.* ESG: Myths and Realities: Collected Essays. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/ESG-myths-realities-esg-disclosures-and-the-decision-to-go-public.pdf>, as of July 4, 2024.

Fama, Eugene F., and Kenneth R. French (1999). The Corporate Cost of Capital and the Return on Corporate Investment. *The Journal of Finance* 54, 6 (December): 1939–1967.

Fama, Eugene F. (2022). *Market Forces Already Address ESG and "Stakeholder Capitalism" Concerns.* ESG: Myths and Realities: Collected Essays. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/ESG-myths-realities-market-forces-address-esg-and-stakeholder-capitalism-concerns.pdf>, as of July 4, 2024.

Globerman, Steven (2022a). *ESG Investing and Asset Returns*. ESG: Myths and Realities: Collected Essays. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/ESG-myths-realities-esg-investing-and-asset-returns_0.pdf>, as of July 4, 2024.

Globerman, Steven (2022b). *The New Capitalism.* ESG: Myths and Realities: Collected Essays. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/ESG-myths-realities-new-capitalism_0.pdf>, as of July 4, 2024.

Hutton v West Cork Railway Co (1883) 23 Ch D 654.

Institutional Shareholder Services [ISS] (2024). Canada: Proxy Voting Guidelines for TSX-Listed Companies Benchmark Policy Recommendations. <https://www.issgovernance.com/file/policy/active/americas/Canada-TSX-Voting-Guidelines.pdf?v=1>, as of July 4, 2024.

Kim, Soohun, and Aaron Yoon (2023). Analyzing Active Fund Managers' Commitment to ESG: Evidence from the United Nations Principles for Responsible Investment. *Management Science* 69, 2 (February): 741–758.

Larcker, David F., Amit Seru, and Brian Tayan (2024). Is ESG a Luxury Good? Working Paper Forthcoming. Rock Center for Corporate Governance at Stanford University. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4816562>, as of July 4, 2024.

Liang, Hao, Lin Sun, and Melvyn Teo (2021). Greenwashing: Evidence from Hedge Fund. Working Paper. Singapore Management University. <https://ink.library.smu.edu.sg/lkcsb_research/6737/>, as of July 4, 2024.

Mejia, Julio, and Elmira Aliakbari (2024). *Canada-US Energy Sector Competitiveness Survey 2023*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/canada-us-energy-sector-competitiveness-survey-2023.pdf>, as of July 4, 2024.

Merton, Robert K. (1976). *Sociological Ambivalence and Other Essays*. Free Press.

Mintz, Jack (2022, March 17). How to put 'security' into ESG. *Financial Post*. <https://financialpost.com/opinion/jack-m-mintz-how-to-put-security-into-esg>, as of July 4, 2024.

Olson, Gerard T. and Michael S. Pagano (2020) The Empirical Average Cost of Capital. Working Paper. Villanova School of Business. <https://ssrn.com/ abstract=348800>, as of July 4, 2024.

Pardy, Bruce (2023). *ESG is Corporate Socialism*. ESG: Myths and Realities: Collected Essays. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/ESG-myths-realities-ESG-is-corporate-socialism.pdf>, as of July 4, 2024.

Raghunandan, Aneesh, and Shivaram Rajgopal (2020). Do Socially Responsible Firms Walk the Talk? *SSRN*. <https://ssrn.com/abstract=3609056>, as of July 4, 2024.

Raghunandan, Aneesh, and Shivaram Rajgopal (2022). Do ESG Funds Make Stakeholder-Friendly Investments? R*eview of Accounting Studies* 27, 3 (June): 822–863.

Rauter, Thomas (2020). The Effect of Mandatory Extraction Payment Disclosures on Corporate Payment and Investment Policies Abroad. *Journal of Accounting Research* 58, 5 (December): 1075–1116.

Reason-Rupe (2013). May 2013 Topline Results [Public Opinion Survey, May 17]. Scribd. <www.scribd.com/document/166175880/Reason-Rupe-Poll-May-2013-Toplines>, as of July 4, 2024.

Tingle, Bryce (2014). Bad Company! The Assumptions Behind Proxy Advisors' Voting Recommendations. *Dalhousie Law Journal* 37, 2: 709–748.

Tingle, Bryce (2016). The Agency Cost Case for Regulating Proxy Advisory Firms. *UBC Law Review* 49, 2: 725–787.

Tingle, Bryce, and Ari Pandes (2021). Reversing the Decline of Canadian Public Markets. *SPP Research Papers* 14, 13 (April). School of Public Policy Publications. <https://journalhosting.ucalgary.ca/index.php/sppp/article/view/69444>, as of July 4, 2024.

Tingle, Bryce (2023). What Do We Know About Shareholders' Potential to Solve Environmental and Social Problems? *Georgia Law Review* 58, 1 (November): 169–247.

Tingle, Bryce (2024). *Hard Lessons in Corporate Governance.* Cambridge University Press.

Vandaelle, Ian (2022, March 21). 'Shocking': ESG Funds Piled into Russian Oil over Canadian Energy. BNN Bloomberg. <www.bnnbloomberg.ca/esg-funds-missing-the-mark- on-social-and-governance-cibc-analysts-1.1740710>, as of July 4, 2024.

Witmer, Jonathan, and Lorie Zorn (2007). Estimating and Comparing the Implied Cost of Equity for Canadian and U.S. Firms. Working Paper 2007–48. Bank of Canada. <https://www.bankofcanada.ca/wp-content/uploads/2010/02/wp07-48.pdf>, as of July 4, 2024.

About the Authors

Dr. Jack M. Mintz, CM is the President's Fellow of the School of Public Policy at the University of Calgary after serving as the Palmer Chair and founding Director from January 1, 2008, to June 30, 2015.

He is a board member of Mackenzie Health, York Region, Ontario and the Aristotle Foundation for Public Policy. He is a Distinguished Fellow at the MacDonald-Laurier Institute, a Senior Fellow at the C.D. Howe Institute, and research fellow at International Tax and Investment Centre in Washington DC, CESIfo Germany, and Oxford's Centre of Business Taxation. He is a member of the editorial board of *International Tax and Public Finance*. He is also a weekly contributor to the *Financial Post* of Canada.

Dr. Mintz became a member of the Order of Canada in 2015 as well as receiving the Queen Elizabeth Diamond Jubilee Medal in 2012 for service to the Canadian tax policy community and Queen Elizabeth Platinum Medal in 2023 for serving as chair of the Alberta Premier's Economic Recovery Council from 2020 to 2022.

Bryce C. Tingle, KC holds the N. Murray Edwards Chair in Business Law at the University of Calgary. He is the author of many academic publications. His new book, *Hard Lessons in Corporate Governance*, was published in May 2024 by Cambridge University Press.

Mr. Tingle serves as a Member of the Alberta Securities Commission (ASC). He is also a Member of the National Special Advisory Group to the RCMP's Integrated Market Enforcement Team.

Mr. Tingle previously served on the Exempt Markets Committee of the Ontario Securities Commission (OSC), on the Securities Advisory Committee of the ASC, as Director of the Financial Regulation Programme of the School of Public Policy, as past Chair of the Business Law (Alberta) subsection of the Canadian Bar Association, and as a member of the Conduct Committee of the Law Society of Alberta.

Mr. Tingle is a member of the founding teams for several companies active in the technology, energy and financial industries. He has also served as a director and board chair of many private and public companies.