

Policy Brief No. 122 – February 2018

# Bondholder Governance

Steven L. Schwarcz

## Key Points

- In response to the financial crisis, regulators have considered harnessing risk-averse bondholders to help restrain the risk taking inherent in the shareholder-primacy model of corporate governance. But the current regulatory approaches are costly, and their effectiveness is questionable.
- The law could more effectively harness bondholder risk-aversion, as a means of balancing the shareholder-primacy model's risk-taking incentives, by including bondholders in the governance of systemically important firms.
- Including bondholders in governance would be justified not only for reducing systemic risk. Because bond pricing in modern financial markets depends on the financial condition and operations of the issuing firm, bondholders, like shareholders, now have a direct stake in their firm's future performance.
- There are at least two ways to include bondholders in governance without unduly impairing corporate profitability. Under a "sharing-governance" approach, bondholders could be given minority voting rights with a veto as needed to protect themselves against significant harm. Under a "dual-duty" approach, managers could be required to balance responsibilities to both bondholders and shareholders.

---

## Introduction

### Background on Shareholder Governance

Corporate governance traditionally views a firm's managers as acting primarily on behalf of the firm's owners — its shareholders (shareholder primacy). Managers engage the firm in risk taking to try to make corporate profits, which benefit the shareholders. This risk taking routinely causes externalities.<sup>1</sup> Realistically, however, regulation cannot control all those externalities, most of which are minor.<sup>2</sup>

That changes, however, when the risk taking causes "systemic" externalities — such as the failure of a firm that triggers a domino-like collapse of other firms or markets, creating a recession.<sup>3</sup> Shareholder primacy "lack[s] sufficient

---

1 Cf Steven L Schwarcz, "Collapsing Corporate Structures: Resolving the Tension Between Form and Substance" (2004) 60:1 Bus Lawyer 109 at 144 (observing that most "of a corporate structure's externalities result from the limited-liability rule of corporation law").

2 Cf Michael J Trebilcock, *The Limits of Freedom of Contract* (Cambridge, MA: Harvard University Press, 1993) at 58 (explaining that if externalities resulting from everyday transactions justified prohibiting the exchange process or putting constraints upon it, then "freedom of contract would largely be at an end"); RH Coase, "The Firm, the Market, and the Law" in RH Coase, ed, *The Firm, the Market, and the Law* (Chicago: University of Chicago Press, 1988) 1 at 24 (arguing that the existence of externalities does not establish a prima facie case for intervention because government regulation is also not without cost).

3 Steven L Schwarcz, "Systemic Risk" (2008) 97:1 Geo LJ 193 at 202.

---

## About the Author

**Steven L. Schwarcz** is a CIGI senior fellow with the International Law Research Program, and the Stanley A. Star Professor of Law and Business at Duke University School of Law, where he is the founding director of the interdisciplinary Global Financial Markets Center. His areas of research and scholarship include insolvency and bankruptcy law; international finance, capital markets and systemic risk; and commercial law. He is a fellow of the American College of Bankruptcy, a founding member of the International Insolvency Institute, a fellow of the American College of Commercial Finance Lawyers and business law adviser to the American Bar Association Section on Business Law.

incentives [for systemically important firms] to take precautions against their own failures.”<sup>4</sup>

In response to the financial crisis of 2007–2008, regulators have considered harnessing risk-averse bondholders<sup>5</sup> to help restrain the risk taking inherent in the shareholder-primacy model. Most notably, contingent capital regulation would require certain bond claims to convert to equity upon specified (deteriorating) financial conditions.<sup>6</sup> To reduce the chance those conditions will occur, holders of those bonds are expected to impose strict covenants on their bond-issuer’s ability to take risks.<sup>7</sup>

---

4 *Calibrating the GSIB Surcharge* (Washington, DC: Board of Governors of the Federal Reserve System, 20 July 2015), online: <[www.federalreserve.gov/aboutthefed/boardmeetings/gsib-methodology-paper-20150720.pdf](http://www.federalreserve.gov/aboutthefed/boardmeetings/gsib-methodology-paper-20150720.pdf)>; cf Steven L Schwarcz, “Misalignment: Corporate Risk-Taking and Public Duty” (2016) 92:1 *Notre Dame L Rev* 4-5 at 23 [Schwarcz, “Misalignment”] (explaining the relationship between that insufficiency and a tragedy of the commons, and arguing that the law should impose a public governance duty to take systemic externalities into account).

5 Bonds are simply long-term corporate debt securities.

6 In the United States, section 115 of the Dodd-Frank Act authorizes the Federal Reserve Board of Governors to issue regulations that “require any nonbank financial holding company...to maintain a minimum amount of contingent capital that is convertible to equity” when such a company fails to meet prudential standards, or the Federal Reserve determines that threats to financial system stability make regulation necessary. *Dodd-Frank Wall Street Reform and Consumer Protection Act*, Pub L No 111-203, 12 USC § 5325(c)(3)(A) (2012). Outside the United States, the European Union, Switzerland and the United Kingdom have actively pursued regulatory initiatives in this area in response to recommendations of the Financial Stability Board that global systemically important financial institutions “should have loss absorption capacity beyond the minimum Basel III standards, and depending on national circumstances, this additional capacity could be drawn from a menu of viable alternatives including...a quantitative requirement for contingent capital instruments.” Stability Oversight Council, *Report to Congress on Study of a Contingent Capital Requirement for Certain Nonbank Financial Companies and Bank Holding Companies* (2012) at 23, 26–29 [Financial Stability Oversight Council, *Report to Congress*], online: <[www.treasury.gov/initiatives/fsoc/studies-reports/Documents/Co%20co%20study\[2\].pdf](http://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/Co%20co%20study[2].pdf)>. Debt securities that are required to convert to equity securities upon certain conditions, such as the debtor-firm’s equity capital falling below a pre-set minimum, are often called contingent convertible securities or, more simply, “cocos.”

7 See Emiliios Avgouleas & Charles Goodhart, “Critical Reflections on Bank Bail-Ins” (2015) 1:1 *J Fin Reg* 3 at 4–5 (arguing that the possibility that their debt could be converted into equity should motivate bondholders to take on more of a “monitoring” role); Marcel Kahan & David Yermack, “Investment Opportunities and the Design of Debt Securities” (1998) 14 *JL Econ & Org* 136 at 138 (“Restrictive covenants, such as debt or dividend limitations, represent a common means for reducing agency costs....[C]ovenants control investment and financing decisions ex ante by prohibiting the company from taking actions expected to lower a firm’s value”); cf Simone M Sepe, “Corporate Agency Problems and Dequity Contracts” (2010) 36:1 *J Corp L* 113 at 127 (“[A]lthough the law grants creditors no special rights against managers, creditors can acquire substantial control powers over corporate operations by bargaining for both positive and negative covenants” (footnote omitted)).

Contingent capital regulation is costly, however, because bonds subject to such forced conversion are much riskier, and thus almost certainly will be more expensive, than ordinary bonds.<sup>8</sup> The effectiveness of contingent capital regulation is also questionable.<sup>9</sup> Bondholders may well trade off the protection of stricter covenants for a higher interest rate.<sup>10</sup> And the very possibility of a forced conversion can motivate a firm's managers to take even greater corporate risks.<sup>11</sup>

---

## Bondholder Governance

This policy brief argues that the law could more effectively harness bondholder risk-aversion, as a means of balancing the shareholder-primacy model's risk-taking incentives, by including bondholders in the governance of systemically important firms. Several reasons justify this fundamental change in corporate governance.

First, being more risk-averse than shareholders, bondholders should be included in governance, which should reduce systemic risk. The reason why bondholders are more risk-averse than shareholders goes beyond the traditional view (associated with holding bonds to maturity) that a bondholder is only entitled to principal and interest and therefore does not benefit from the firm's profitability. The increasing dominance of bond trading (explained

below) ties bondholder risk aversion to bond ratings.<sup>12</sup> A bond's rating signals the issuing firm's creditworthiness and therefore is critical to the bond's trading price.<sup>13</sup> The rating agency providing the rating, such as Moody's or Standard & Poor's, typically monitors the firm issuing the rated bonds. If the firm's creditworthiness remains stable, the bond rating should be preserved. But if the firm's creditworthiness declines, the bond rating could be downgraded, causing the bonds to fall in value.<sup>14</sup>

Although theoretically a firm whose creditworthiness increases should see an upgrade in its bond rating, that seldom happens in practice. For an average year, Moody's reports that only nine percent of bonds it rated investment grade<sup>15</sup> are upgraded,<sup>16</sup> whereas over 40 percent of those bonds are downgraded.<sup>17</sup> That differential holds constant for bonds rated non-investment grade: in an average year, less than 13 percent of those bonds are upgraded,<sup>18</sup> whereas over 60 percent are downgraded (or have their ratings withdrawn, the equivalent of downgrading).<sup>19</sup> Because a bond's trading price is more likely to fall if the

---

8 See e.g. Eric S Halperin, "Coco Rising: Can the Emergence of Novel Hybrid Securities Protect from Future Liquidity Crises?" (2011) 8:1 *BYU Int'l L & Mgmt Rev* 15 at 21–23 (explaining why issuing cocos to investors may be more expensive than issuing ordinary debt); Christopher Whittall & Juliet Samuel, "Buyer Beware: The Vulnerability of One Complex Debt Investment," *The Wall Street Journal* [20 February 2016, 8:30 AM], online: <[www.wsj.com/articles/buyer-beware-the-vulnerability-of-one-complex-debt-investment-1455964204](http://www.wsj.com/articles/buyer-beware-the-vulnerability-of-one-complex-debt-investment-1455964204)> (observing "[t]he sharp drop in prices" of debt issued as contingent capital and suggesting that investors may have underestimated their risks).

9 Some contingent capital regulation, however, may have an additional argument in favour of its efficacy: even if the stricter covenants fail to avert a default, a conversion to equity of the debt issued as contingent capital might cure the default.

10 Issuers of public bonds would especially favour that because of the difficulty of obtaining covenant waivers. Cf Kahan & Yermack, *supra* note 7 at 142–43 (observing that publicly issued corporate bonds typically have only minimal covenants because of the difficulty of obtaining waivers, if needed).

11 See George Pennacchi, "A Structural Model of Contingent Bank Capital" (2011) Fed Reserve Bank of Cleveland Working Paper No. 10-04, online: <<https://business.illinois.edu/gpennacc/ConCap030211.pdf>> ("A bank that issues contingent capital faces a moral hazard incentive to increase its assets' jump risks").

12 The controversies over the integrity of structured finance debt ratings and potential conflicts of interest in rating bonds are beyond the scope of this policy brief.

13 See Gregory Husisian, "What Standard of Care Should Govern the World's Shortest Editorials?: An Analysis of Bond Rating Agency Liability" (1990) 75 *Cornell L Rev* 411 at 412–13 ("[B]ond rating services are popular with investors because they can rate securities' riskiness far less expensively than can an individual investor").

14 See Marcel Kahan, "The Qualified Case Against Mandatory Terms in Bonds" (1995) 89 *Nw UL Rev* 565 at 578.

15 Cf Steven L Schwarcz, "Private Ordering of Public Markets: The Rating Agency Paradox" (2002) *U Ill L Rev* 1 at 7 [Schwarcz, "Private Ordering of Public Markets"] (explaining "investment grade" as ratings on debt securities of BBB- and above, indicating that full and timely payment is expected).

16 Jerome S Fons, "Understanding Moody's Corporate Bond Ratings and Rating Process", Special Comment (2002) (Moody's, New York) at 11, exhibit 8, online: <[www.moody.com/sites/products/ProductAttachments/eeSpecialComment.pdf](http://www.moody.com/sites/products/ProductAttachments/eeSpecialComment.pdf)>.

17 *Ibid* (reporting data for the period 1970–2001). During that same period, US GDP increased by an average of more than three percent annually. See "US Real GDP Growth Rate by Year", online: <[www.multpl.com/us-real-gdp-growth-rate/table/by-year](http://www.multpl.com/us-real-gdp-growth-rate/table/by-year)>. That statistic in an expanding economy suggests that the differential between rating downgrades and upgrades may be even larger in a static or declining economy. Also note that of the "just over forty percent" of bonds being downgraded, approximately half are downgraded to another investment grade and half are either downgraded below investment grade or have their ratings withdrawn. See Fons, *supra* note 16 at 11–12.

18 Of these upgraded bonds, less than one percent are upgraded to investment grade; the remainder are upgraded to merely another non-investment grade rating.

19 See Fons, *supra* note 16 at 11, exhibit 8.

firm issuing the bond does poorly than to rise if the firm does well, bondholders are less likely to share in the upside of success than in the downside of failure. Bondholders should therefore be more risk averse than shareholders, not wanting their firm to take risks if those risks carry a realistic chance of the firm failing even if the expected value of such risk taking to the firm is positive.

The second reason for including bondholders in corporate governance is that modern financial markets have minimized the traditional rationale for restricting governance to shareholders. Bondholders — just like shareholders — now realize their investment value by selling their securities to other investors (bond trading).<sup>20</sup> They, therefore, view their investment decisions from a market-pricing standpoint, rather than from a priority-of-claim standpoint.<sup>21</sup> Because market pricing depends on the financial condition and operations of the firm issuing the bonds, bondholders, like shareholders, now have a direct stake in their firm's future performance.

The third reason for including bondholders in corporate governance is that bonds increasingly exceed equity shares as the source of corporate financing. Indeed, bonds have now become the “principal source of external financing for U.S.

firms,”<sup>22</sup> dwarfing equity issuances.<sup>23</sup> In 2014, for example, newly issued corporate bonds raised approximately US\$1.49 trillion, compared to only \$175 billion (that is, \$0.175 trillion) raised by newly issued shares of stock.<sup>24</sup> Since 2006, new corporate bond issuances have exceeded new issuances of equity more than eightfold.<sup>25</sup>

For these reasons, the corporate governance of systemically important firms should include bondholders, assuming the benefits of such inclusion will exceed its costs. Next, consider two bondholder-governance approaches that should have minimal costs.

---

## Minimizing the Costs of Bondholder Governance

The principal cost of bondholder governance is that the same bondholder risk aversion that could reduce systemic risk might also reduce profitability. There are at least two ways to structure bondholder governance to minimize that potential cost. Under a “sharing-governance” approach, bondholders would have minority voting power except as needed to protect themselves from significant harm.

---

20 Most corporate bonds used to be held by investors to maturity, with investors expecting to receive their value through the periodic receipt of principal and interest payments. Today, however, the amount of bonds traded almost equals the amount outstanding — a turnover rate approximately twice that of equity securities. Itay Goldstein et al, “Investor Flows and Fragility in Corporate Bond Funds” (2015) [unpublished manuscript], online: <<http://ssrn.com/abstract=2596948>> (concluding that bond investors trade their securities more frequently than equity investors).

21 Steven L. Schwarcz, “Compensating Market Value Losses: Rethinking the Theory of Damages in a Market Economy” (2011) 63 Fla L Rev 1053 at 1056–58 (arguing that viewing a bond only in terms of periodic payments of principal and interest is “formalistic” and “questionable”).

22 Hendrik Bessembinder & William Maxwell, “Markets: Transparency and the Corporate Bond Market” (2008) 22:2 J Econ Persp 217 at 217–19; cf Hugh Thomas & Zhiqiang Wang, “The Integration of Bank Syndicated Loan and Junk Bond Markets” (2004) 28:2 J Banking & Fin 299 at 302 (observing the shift of corporate debt markets “from a bank liquidity orientation to a capital markets orientation”).

23 This compares the proceeds of newly issued corporate bonds and equity shares, excluding any increase of balance sheet equity resulting from retained earnings — the portion of a firm's net income (primarily built up through income from operations) that is retained by the firm rather than being distributed to shareholders as dividends. The reason for this exclusion is that categorizing retained earnings as equity is an accounting convention; even the retained net income of a firm financed primarily by debt would be categorized as equity under that convention. Any comparison between debt and equity proceeds is inherently imprecise, however, because debt securities have fixed maturities whereas equity securities are generally coterminous with the firm's existence.

24 See *New Security Issues, U.S. Corporations: October 2016* (Washington, DC: Board of Governors of the Federal Reserve System, 28 October 2016), online: <[www.federalreserve.gov/econresdata/releases/corpsecure/corpsecure20160930.htm](http://www.federalreserve.gov/econresdata/releases/corpsecure/corpsecure20160930.htm)>.

25 Between 2006 and 2015, newly issued corporate bonds raised approximately US\$14 trillion, while newly issued equity raised about \$1.7 trillion. See generally *New Security Issues, US Corporations: Release Dates* (Washington, DC: Board of Governors of the Federal Reserve System, 28 October 2016), online: <[www.federalreserve.gov/econresdata/releases/corpsecure/corpsecure2016.htm](http://www.federalreserve.gov/econresdata/releases/corpsecure/corpsecure2016.htm)> (collecting bond and stock issuance data for 2006 through 2015).

Under a “dual-duty” approach, managers would have to balance a duty to both bondholders and shareholders. Either approach would apply only to the governance of systemically important firms.<sup>26</sup>

The sharing-governance approach has several precedents. In the United States, preferred shareholders who are not paid scheduled dividends have the right to elect a minority of directors to the board. Although preferred-shareholder elected directors rarely prevail over common-shareholder elected directors in a dispute, the director diversity appears to result in better long-term decision making.<sup>27</sup>

Germany offers another precedent for sharing governance. The employees of large German firms have the right to elect directors to the supervisory board.<sup>28</sup> Although shareholder-elected directors retain a voting majority, the director diversity — including the employee-elected directors’ focus on maintaining the firm’s survival to preserve jobs — is believed to help curb excessive corporate risk taking.<sup>29</sup>

The dual-duty approach has more limited precedents, such as the scenario of directors of an insolvent firm who have duties to both shareholders and creditors. The dual-duty approach also requires directors to exercise more discretion in trying to balance those conflicting duties. On the other hand, that discretion might give directors more flexibility for profit making. And directors

would continue to be protected by a business judgment rule when exercising discretion.<sup>30</sup>

---

## Conclusion

Bondholders, who are more risk averse than shareholders, should be included in corporate governance not only to help reduce systemic risk but also because of two crucial changes in the bond markets. Bond issuances have dwarfed equity issuances as the source of corporate financing. Furthermore, bondholders — like shareholders — now typically trade their securities instead of holding them to maturity, thereby giving bondholders a vested interest in their firm’s performance.

There are at least two ways to include bondholders in corporate governance without impairing legitimate corporate profitmaking: enabling bondholders and shareholders to directly share governance, with shareholder representatives having voting control except as needed to protect bondholders from significant harm; and requiring a firm’s managers to balance a dual duty to both bondholders and shareholders. Both approaches should not only have lower costs but also more effectively reduce systemic risk than post-crisis regulatory experiments to try to harness bondholder risk aversion through the forced issuance of contingent capital.

## Author’s Note

This policy brief is based in part on the author’s article, “Rethinking Corporate Governance for a Bondholder Financed, Systemically Risky World” (2017) 58:4 *Wm & Mary L Rev* 1335.

---

26 The actual mechanics of these bondholder-governance approaches are beyond the scope of this policy brief. For a detailed discussion of these mechanics, see Steven Schwarcz, “Rethinking Corporate Governance for a Bondholder Financed, Systemically Risky World” (2017) 58:4 *Wm & Mary L Rev* 1335 at 1352–63.

27 See Grant Hayden & Matthew T Bodie, “Shareholder Democracy and the Curious Turn Toward Board Primacy” (2010) 51 *Wm & Mary L Rev* 2071 at 2103. Compare Antony Page, “Unconscious Bias and the Limits of Director Independence” (2009) *U Ill L Rev* 237 at 252 (finding that even supposedly “independent” directors “are members of the board of directors and...are likely to be biased in favor of other directors”); and compare Antony Page, William B Stevenson & Robert F Radin, “Social Capital and Social Influence on the Board of Directors” (2009) 46 *J Mgmt Stud* 16 at 17 (discussing factors that make certain individual directors more influential than others in the boardroom).

28 Henry Hansmann & Reinier Kraakman, “The End of History for Corporate Law” (2001) 89 *Geo LJ* 439 at 445.

29 Steen Thomsen, *An Introduction to Corporate Governance: Mechanisms and Systems* (Copenhagen, Denmark: DJØF Publishing, 2008) at 197.

---

30 Neither of these approaches would be a perfect solution to the problem of systemic risk because bondholder interests are not fully aligned with the interests of the public. See Schwarcz, “Misalignment”, *supra* note 4 at 9–10.



---

## About the International Law Research Program

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law.

The ILRP strives to be the world's leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program's mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world.

The ILRP focuses on the areas of international law that are most important to global innovation, prosperity and sustainability: international economic law, international intellectual property law and international environmental law. In its research, the ILRP is attentive to the emerging interactions between international and transnational law, Indigenous law and constitutional law.

---

## About CIGI

We are the Centre for International Governance Innovation: an independent, non-partisan think tank with an objective and uniquely global perspective. Our research, opinions and public voice make a difference in today's world by bringing clarity and innovative thinking to global policy making. By working across disciplines and in partnership with the best peers and experts, we are the benchmark for influential research and trusted analysis.

Our research programs focus on governance of the global economy, global security and politics, and international law in collaboration with a range of strategic partners and support from the Government of Canada, the Government of Ontario, as well as founder Jim Balsillie.

---

## À propos du CIGI

Au Centre pour l'innovation dans la gouvernance internationale (CIGI), nous formons un groupe de réflexion indépendant et non partisan qui formule des points de vue objectifs dont la portée est notamment mondiale. Nos recherches, nos avis et l'opinion publique ont des effets réels sur le monde d'aujourd'hui en apportant autant de la clarté qu'une réflexion novatrice dans l'élaboration des politiques à l'échelle internationale. En raison des travaux accomplis en collaboration et en partenariat avec des pairs et des spécialistes interdisciplinaires des plus compétents, nous sommes devenus une référence grâce à l'influence de nos recherches et à la fiabilité de nos analyses.

Nos programmes de recherche ont trait à la gouvernance dans les domaines suivants : l'économie mondiale, la sécurité et les politiques mondiales, et le droit international, et nous les exécutons avec la collaboration de nombreux partenaires stratégiques et le soutien des gouvernements du Canada et de l'Ontario ainsi que du fondateur du CIGI, Jim Balsillie.



---

## CIGI Masthead

President **Rohinton P. Medhora**  
Deputy Director, International Intellectual Property Law and Innovation **Bassem Awad**  
Chief Financial Officer and Director of Operations **Shelley Boettger**  
Director of the International Law Research Program **Oonagh Fitzgerald**  
Director of the Global Security & Politics Program **Fen Osler Hampson**  
Director of Human Resources **Susan Hirst**  
Interim Director of the Global Economy Program **Paul Jenkins**  
Deputy Director, International Environmental Law **Silvia Maciunas**  
Deputy Director, International Economic Law **Hugo Perezcano Díaz**  
Director, Evaluation and Partnerships **Erica Shaw**  
Managing Director and General Counsel **Aaron Shull**  
Director of Communications and Digital Media **Spencer Tripp**

### Publications

Publisher **Carol Bonnett**  
Senior Publications Editor **Jennifer Goyder**  
Publications Editor **Susan Bubak**  
Publications Editor **Patricia Holmes**  
Publications Editor **Nicole Langlois**  
Publications Editor **Lynn Schellenberg**  
Graphic Designer **Melodie Wakefield**

For publications enquiries, please contact [publications@cigionline.org](mailto:publications@cigionline.org).

### Communications

For media enquiries, please contact [communications@cigionline.org](mailto:communications@cigionline.org).

Copyright © 2018 by the Centre for International Governance Innovation

The opinions expressed in this publication are those of the author and do not necessarily reflect the views of the Centre for International Governance Innovation or its Board of Directors.



This work is licensed under a Creative Commons Attribution – Non-commercial – No Derivatives License. To view this license, visit ([www.creativecommons.org/licenses/by-nc-nd/3.0/](http://www.creativecommons.org/licenses/by-nc-nd/3.0/)). For re-use or distribution, please include this copyright notice.

Printed in Canada on paper containing 10% post-consumer fibre and certified by the Forest Stewardship Council® and the Sustainable Forestry Initiative.

Centre for International Governance Innovation and CIGI are registered trademarks.

---

## Centre for International Governance Innovation

67 Erb Street West  
Waterloo, ON, Canada N2L 6C2  
[www.cigionline.org](http://www.cigionline.org)

