

Comment on *Macromedical Regulation: What Can Be Learned from Financial Regulation*

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Last year, in the midst of the COVID-19 pandemic, Steven Schwarcz and I pulled together our preliminary thoughts on the implications of the unfolding health care crisis on the stability of the financial system and how the systemic risks of the pandemic differed from those created by the global financial crisis of 2008.¹ One of Professor Schwarcz's many contributions to that essay was the concept of macromedical regulation and the suggestion that public health officials might learn from the experience of financial regulators in developing a system of macroprudential regulation in the Dodd-Frank Act and other reforms undertaken in the aftermath of the 2008 crisis.² The discussion on macromedical regulation in our paper was limited to a few short, but suggestive paragraphs, and I am delighted that Professor Schwarcz has now joined forces with Professor Barak Richman to give the idea the more in-depth treatment that it warrants.

The notion that there might be a connection between public health policy and financial regulation has, in a sense, been hidden in plain sight for many years.³ Financial regulation borrows the term "contagion" from the medical lexicon to describe a form of destructive panic that can occur when an exogenous shock to one firm or sector of financial markets causes financial counterparties to withdraw funds from other firms or sectors, causing liquidity crunches and fire sales of assets with potentially profound consequences to the broader economy.⁴ These network effects are reminiscent of the kind of contagion that occurs when a disease is transmitted from one individual to another, though the analogy to financial contagion is not perfect, because bank runs and similar sort of panics can generate systemic risks even when the balance sheets of other firms are not actually infected with losses: panics can become destabilizing even if counterparties only suspect that problems might be forthcoming.⁵ Perhaps a more apt analogy to the contagion of disease is the

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¹ See generally Howell E. Jackson & Steven L. Schwarcz, *Protecting Financial Stability: Lessons from the Coronavirus Pandemic*, HARV. BUS. L. REV. (forthcoming 2021) (on file with the *Ohio State Law Journal*) (applying an analytical framework developed from the 2008 financial crisis to the current impact of coronavirus on financial systems).

² *Id.* (manuscript at 31–33).

³ See, e.g., Paul Glasserman & H. Peyton Young, *Contagion in Financial Networks*, 54 J. ECON. LITERATURE 779, 779 (2016).

⁴ See *id.* at 780–82.

⁵ Hiba Hafiz, Shu-Yi Oei, Diane Ring & Natalya Shnister, *Regulating in Pandemic: Evaluating Economic and Financial Policy Responses to the Coronavirus Crisis* 3, 14–15 (B.C. L. Sch. Legal Stud. Rsch. Paper, Paper No. 527, 2020), <https://ssrn.com/abstract=3555980> (on file with the *Ohio State Law Journal*).

financial risks that arose in the financial crisis when AIG ran into financial difficulties and the complex and opaque system of interconnectivity between that firm and its many counterparties in the OTC derivatives markets threatened to impair the solvency of a wide swath of the financial services industry.⁶ Technically speaking, the form of financial systemic risk is usually described as settlement risk or sometimes Herstatt risk.⁷ Still, technical nomenclature aside, some aspects of the way in which the network effects run through the financial systems resemble the transmission of infectious diseases and so we find the term contagion applied in both domains.⁸

What Professors Richman and Schwarcz add to the discourse is not, however, a rumination on different kinds of contagion but rather the assertion that public health officials should focus more of their attention on the institutional structure for the delivery of health care services, most particularly hospitals, recognizing that these institutions constitute a system—that is, another form of network—that is itself subject to systemic shocks and hence an appropriate target for macro-medical regulation, akin to the macro-prudential regulation that financial authorities have built out with respect to systemically important financial institutions over the dozen years since the last financial crisis.⁹ More specifically, they argue that public health authorities would be well-advised to study the lessons learned and techniques developed for the financial system since 2008 to inform the regulation of hospitals and other major nodes in the health care system.¹⁰

While *Macromedical Regulation* includes many thought-provoking suggestions, I will focus my remarks on the aspects of their article proposing that public health authorities take an “entity-based” approach to key providers of medical services—most notably hospitals—and to impose regulatory

⁶ See William D. Cohan, *The Fall of AIG: The Untold Story*, INSTITUTIONAL INV. (Apr. 7, 2010), <https://www.institutionalinvestor.com/article/b150qdkrd30ggk/the-fall-of-aig-the-untold-story> [<https://perma.cc/MBG6-87CU>]. Another potentially apt analogy would be systemic financial risk posed by firms like Fannie Mae (or from an earlier era Continental Illinois) that serve as financial hubs with many major financial creditors and whose failure might directly compromise the solvency of many of those creditors. See Renee Haltom, *Failure of Continental Illinois*, FED. RESRV. HIST. (Nov. 22, 2013), <https://www.federalreservehistory.org/essays/failure-of-continental-illinois> [<https://perma.cc/BQ4Z-CV7J>]; Katy O'Donnell, *Fannie, Freddie Pose Risk to Financial System, Panel Says in 'Historic' Finding*, POLITICO (Sept. 25, 2020), <https://www.politico.com/news/2020/09/25/fannie-mae-freddie-mac-financial-risk-421814> [<https://perma.cc/SAA7-MXGQ>]. For a taxonomy of these various forms of systemic financial risks, see MICHAEL S. BARR, HOWELL E. JACKSON & MARGARET E. TAHYAR, *FINANCIAL REGULATION: LAW AND POLICY* 771–74 (3d ed. 2018).

⁷ Jason Gordon, *Herstatt Risk—Definition*, BUS. PROFESSOR (Dec. 19, 2020), https://thebusinessprofessor.com/en_US/investments-trading-financial-markets/herstatt-risk-defined [<https://perma.cc/4NGD-SFZR>].

⁸ Jackson & Schwarcz, *supra* note 1 (manuscript at 3–5).

⁹ Barak D. Richman & Steven L. Schwarcz, *Macromedical Regulation*, 82 OHIO ST. L.J. 727, 730–32 (2021).

¹⁰ *Id.* at 730.

obligations on these entities that take into account the social benefits that may accrue in times of health care emergencies, rather than simply the care that these institutions provide to their patients during ordinary operations.¹¹ Drawing on analytical frameworks familiar to scholars of financial regulation, the authors assert that, left to their own devices, privately owned hospitals will underinvest in the socially optimal level of surge capacity and stockpiled supplies needed in medical emergencies.¹² Without government imposed obligations, these private parties will also neglect to put into place the kinds of information sharing systems necessary to engage in real-time collaborations needed to face unexpected patient volumes of the sort experienced in the Spring of 2020 and beyond.¹³

These analogies strike me as entirely apt.¹⁴ Just as banks and other financial firms may not voluntarily maintain sufficient levels of liquidity or capital reserves, private hospitals cannot be expected to maintain beds and inventories of protective equipment for low probability events like pandemics if those investments will detract from shareholder returns and business imperatives.¹⁵ As the article argues, some public intervention is necessary to encourage socially optimal behaviors.¹⁶ Of course, precisely what form of intervention makes sense is a separate question. The authors seem to favor mandated levels of beds and supplies, akin to liquidity and capital requirements for banks.¹⁷ However, one could also imagine centrally maintained reserves—akin to lender of last resort functions from a central bank—to supply extra beds and equipment in times of stress.¹⁸ The emergency hospitals and medical ships that federal authorities provided New York and other hard-hit cities in 2020 offer illustrations of this approach.¹⁹ Conceivably, centralized support functions of this sort might actually decrease the incentives of private hospitals to maintain

¹¹ See *id.* at 736, 763–66.

¹² *Id.* at 730–32.

¹³ *Id.* at 746–48, 753.

¹⁴ As other commentators note, this analogy between macro-prudential and macromedical regulation may not be complete and, as I discuss below, even where the analogy is apt the solutions appropriate for the health care systems may well differ from those appropriate for financial institutions and financial markets. See, e.g., Sophia S. Helland & Edward R. Morrison, *The Healthcare System and Pandemics: Where Is the Market Failure?*, 82 OHIO ST. L.J. 833, 836–37 (2021).

¹⁵ See Richman & Schwarcz, *supra* note 9, at 770–72.

¹⁶ See *id.* at 772–73.

¹⁷ See *id.* at 769, 774–75.

¹⁸ As Professor Monahan notes in her comment, public subsidies could also be used to encourage such investments. See Amy B. Monahan, *Two Cheers for the U.S. Health Security Infrastructure*, 82 OHIO ST. L.J. 823, 826 (2021).

¹⁹ Michael Schwirtz, *The 1,000-Bed Comfort Was Supposed to Aid New York. It Has 20 Patients.*, N.Y. TIMES (Apr. 2, 2020), <https://www.nytimes.com/2020/04/02/nyregion/ny-coronavirus-usns-comfort.html> [<https://perma.cc/WGA5-5MFX>]; cf. Don Thompson, *California's Hospitals Filling Up as Virus Cases Skyrocket*, ASSOCIATED PRESS (Dec. 8, 2020), <https://apnews.com/article/pandemics-sacramento-coronavirus-pandemic-california-gavin-newsom-f91b910c27d425ef6835cc0bcba29ac4> [<https://perma.cc/BZF5-2EGP>].

excess capacity, creating moral hazard problems for private hospitals similar to the moral hazard problem that FDIC insurance generates for banks and thrifts.²⁰ So, the ideal balance of hospital mandates and centralized back-up capacity is a challenging task, but Professors Richman and Schwarcz are on solid ground recommending that the issues be joined and that public health authorities focus on how best to ensure that excess capacity be available in times of health care crises.

Information-sharing systems and mechanisms of coordination in times of financial crisis are also investments that private firms are unlikely to make if allowed to follow their private preferences.²¹ Putting aside collective action problems, which might be solved through trade groups and professional organizations, the public benefits to be derived from the smooth coordination of hospital capacity in times of stress is unlikely to be factored into wholly private decisions.²² In the aftermath of the last financial crisis, reformers reached similar conclusions with respect to information sharing in the financial sector.²³ Some of the solutions were institutional—such as forcing many OTC derivatives into clearinghouse arrangements²⁴—but some were merely informational to be implemented through the newly created Office of Financial Research charged, among other things, with collecting data on financial risks and also developing new coding systems necessary to map the financial transactions in a consistent manner.²⁵ Of course, to invoke the analogy of the Office of Financial Research is also to acknowledge that creation of information sharing networks is a non-trivial exercise and difficult to sustain once memories of the last crisis start to fade.²⁶ But still a potentially relevant analogy for macromedical regulation.

In reading over Professor Schwarcz and Professor Richman's article, there was one aspect of the analysis that I found myself wondering whether the analogies to financial firms are entirely apt.²⁷ It is commonplace in financial regulation to recognize that a primary source of excessive risk-taking within financial institutions comes from the tendencies of corporate shareholders to promote excessive risk-taking and to underinvest in socially optimal safeguards such as liquidity buffers and capital reserves.²⁸ Much of financial regulation

²⁰ See Richman & Schwarcz, *supra* note 9, at 738, 765–66, 769.

²¹ See *id.* at 767–68.

²² See *id.* at 745–48.

²³ See BARR, JACKSON & TAHYAR, *supra* note 6, at 1262–69.

²⁴ *Id.* at 1263–64.

²⁵ See Hilary J. Allen, *Resurrecting the OCR*, J. CORP. L. (forthcoming 2021) (manuscript at 6–7), <https://ssrn.com/abstract=3727585> (on file with the *Ohio State Law Journal*).

²⁶ For a review of the work of the Office of Financial Research and its decline during the Trump Administration, see *id.* (manuscript at 11–13).

²⁷ See Richman & Schwarcz, *supra* note 9, at 733–36; see also Helland & Morrison, *supra* note 14, at 836–37; Thomas P. Miller, *Will New Macromedical Regulation Be Prudential?*, 82 OHIO ST. L.J. 803, 803–06 (2021).

²⁸ See Richman & Schwarcz, *supra* note 9, at 733–36.

seeks to solve this moral hazard problem through regulatory mandates.²⁹ Professors Richman and Schwarcz extend this analysis to private hospitals, but I wonder whether the defect of shareholder primacy is the principal source of distortion here.³⁰ A large share of hospitals in the United States are organized as non-profits and a substantial share of hospitals are affiliated with research universities where shareholder primacy is absent.³¹ My sense is that there has been a fair amount of study in the healthcare world about how for-profit hospitals and their non-profit counterparts differ in practice, and I am not aware of research that suggests that the problems that Professors Richman and Schwarcz have identified in terms of underinvestment in socially optimal measures are more acute for the for-profit sector.³² Certainly that would be an interesting issue to research, but in the absence of compelling differences, one would have to approach the shareholder primacy hypothesis with some caution.³³

To draw again on financial regulation, one might offer up another hypothesis in the form of the kinds of conflicts of interest that motivate requirements like Section 23A of the Federal Reserve Act, which strictly limits transactions between depository institutions and affiliated parties.³⁴ These restrictions were enhanced in the Dodd-Frank Act in response to the last financial crisis.³⁵ In the case of the health care industry, an analogous conflict

²⁹ See, e.g., BARR, JACKSON & TAHYAR, *supra* note 6, at 165–347 (exploring among other regulatory requirements, activities restrictions as well as capital and liquidity requirements for depository institutions).

³⁰ See Richman & Schwarcz, *supra* note 9, at 769–72; see also Helland & Morrison, *supra* note 14, at 840–41.

³¹ See *Fast Facts on U.S. Hospitals, 2021*, AM. HOSP. ASS'N (Jan. 22, 2021), <https://www.aha.org/statistics/fast-facts-us-hospitals> [https://perma.cc/W8R8-34N7]; see, e.g., UNIV. HOSPS., 2019 ANNUAL REPORT 6 (2019), <https://www.uhhospitals.org/-/media/Files/Publications/Annual-Report/2019-Annual-Report.pdf?la=en&hash=BBB5D13C4960FA5034B3E83197B8530D96669D54> [https://perma.cc/Q4NN-FGNR].

³² In her comment, Professor Monahan discusses one recent intervention that seems to have had little impact in terms of encouraging non-profit hospitals to engage in more public regarding behavior. See Monahan, *supra* note 18, at 827–29 (discussing the impact of the ACA mandate on non-profits); Helland & Morrison, *supra* note 14, at 839–41 (discussing limited evidence of differences between for-profit and non-profit hospitals).

³³ Possibly, market competition forces non-profits to follow profits in their behaviors, but that is also something that could be verified through empirical analysis. Interestingly, differences in corporate form are sometimes used as a regulatory solution in the field of finance, as was the case in the early twentieth century when insurance companies were encouraged to reorganize into a mutual ownership form so as to reduce what was perceived to be excessive risk taking by insurance companies organized as stock firms. See BARR, JACKSON & TAHYAR, *supra* note 6, at 366. And there is some empirical evidence that mutual financial firms maintain lower risk profiles. See, e.g., Howell E. Jackson, *The Superior Performance of Savings and Loan Associations with Substantial Holding Companies*, 22 J. LEGAL STUD. 405, 446 (1993).

³⁴ See BARR, JACKSON & TAHYAR, *supra* note 6, at 239–44.

³⁵ See *id.* at 245.

arises with respect to the expenditure of resources on medical treatments and sometimes prescription drugs that provide remuneration, in one form or another, to the prescribing medical professional.³⁶ Arrangements of this sort could contribute to the over-allocation of resources to the medical specialties identified in *Macromedical Regulation* as well as the underproduction of other socially optimal investments.³⁷ One wonders whether this misalignment of incentives, rather than shareholder primacy, is a more important target for a systemic approach to the problems that Professors Richman and Schwarcz are addressing in their article. Certainly, these factors seem equally applicable to for-profit and non-profit hospitals and would be consistent with evidence (should it exist) that both sectors face similar problems of underinvestment.³⁸ Were the authors to wish to extend their analysis in this direction, there are ample models of intervention in the field of financial regulation and corporate law more generally that have been developed to police and constrain conflicts of interests, ranging from disclosure requirements, to procedural safeguards, to price controls of various sorts, to outright prohibitions.³⁹ Given the ubiquity of conflicts, the financial regulatory responses have been manifold and diverse.

To the extent that public health authorities were to take up *Macromedical Regulation's* suggestions to incorporate requirements akin to those implemented to address systemic financial risks in the aftermath of the Global Financial Crisis, there remains a question of what level of legal authority should be charged with implementing these requirements.⁴⁰ For the most part, systemic risks are addressed at the federal level for financial regulation, but, as Professor Monahan notes in her comment, many aspects of public health administration are overseen at the state level, a fact that complicated certain aspects of our national response to COVID-19.⁴¹ For many of the issues identified in *Macromedical Regulation*, such as surge capacity and efficient utilization of hospital beds, local oversight might make more sense, assuming that problems associated with metropolitan regions spanning state boundaries can be addressed.⁴² Again to analogize to financial regulation, one could imagine periodic testing of the adequacy of these safeguards by federal authorities (perhaps as a condition of participation in federal programs like Medicare), akin

³⁶ See Hannah Fresques, *Doctors Prescribe More of a Drug if They Receive Money from a Pharma Company Tied to It*, PROPUBLICA (Dec. 20, 2019), <https://www.propublica.org/article/doctors-prescribe-more-of-a-drug-if-they-receive-money-from-a-pharma-company-tied-to-it> [https://perma.cc/8XL9-RSE5].

³⁷ See Richman & Schwarcz, *supra* note 9, at 758–59.

³⁸ See *id.* at 769–73 (applying regulation to non-profit and for-profit entities, in light of underinvestment problems, among others).

³⁹ See, e.g., Joel S. Demski, *Corporate Conflicts of Interest*, J. ECON. PERSPS., Spring 2003, at 51, 51–52 (examining the various models and methods the corporate world uses to manage conflicts of interest).

⁴⁰ See, e.g., Richman & Schwarcz, *supra* note 9, at 730–32 (presenting the question of who should be the regulators).

⁴¹ See Monahan, *supra* note 18, at 826–27.

⁴² See Richman & Schwarcz, *supra* note 9, at 767.

to the stress tests for capital requirements and reviews of living wills that federal authorities have imposed for systemically important financial institutions under the Dodd-Frank Act.⁴³

One final thought on the appropriate scope of macromedical regulation and our assessment of how well macromedical regulation worked with respect to COVID-19: the tone of the article is implicitly critical of current arrangements in the United States, certainly an understandable perspective when one thinks back to much of 2020, when U.S. hospitals were severely tested and the system, at times, seemed close to breaking down in certain areas.⁴⁴ Certainly, other countries in Asia and Europe and even North America seemed to have done a better job with basic public health measures and the deployment of existing resources.⁴⁵ But, in 2021, as success with vaccination programs and distribution efforts in the United States becomes more apparent, one wonders whether one should also classify these activities—and the many years of government-supported research funding with respect to mRNA technologies—as an aspect of macromedical regulation to which we should point with pride and seek to preserve.⁴⁶ One might also want to count the decision to precommit to the purchase of hundreds of millions of vaccine doses as a successful bit of macromedical regulation.⁴⁷ It is hard to know exactly how to balance the value of advance funding for basic scientific research of the sort necessary to produce the Moderna and Pfizer vaccines, but the clear-eyed macromedical regulator probably needs to weigh the social value of these investments alongside the social value of the other investments suggested in Professors Richman and Schwarcz's fascinating piece.⁴⁸ There may not be a perfect analogy in the area of financial regulation, but perhaps investments that some policy analysts are calling on federal authorities to make in a centralized clearing system for government securities would be analogous.⁴⁹ Of course, in finance as well as

⁴³ See BARR, JACKSON & TAHYAR, *supra* note 6, at 326–28, 1077–79.

⁴⁴ See Jackson & Schwarcz, *supra* note 1 (manuscript at 1–3); Richman & Schwarcz, *supra* note 9, at 744.

⁴⁵ See Richman & Schwarcz, *supra* note 9, at 744.

⁴⁶ See Arthur Allen, *For Billion-Dollar COVID Vaccines, Basic Government-Funded Science Laid the Groundwork*, SCI. AM. (Nov. 18, 2020), <https://www.scientificamerican.com/article/for-billion-dollar-covid-vaccines-basic-government-funded-science-laid-the-groundwork/> [<https://perma.cc/8DKX-J2WV>]; David Ingram, *100 Days of Doses: How the Vaccine Rollout Overcame Chaos to Be a Point of Pride*, ABC NEWS (Mar. 24, 2021), <https://www.nbcnews.com/health/health-news/vaccine-rollout-overcame-doubts-point-pride-rcna482> [<https://perma.cc/H873-E2XJ>].

⁴⁷ See Sarah Kliff, *The U.S. Commits to Buying Millions of Vaccine Doses. Why That's Unusual*, N.Y. TIMES (July 22, 2020), <https://www.nytimes.com/2020/07/22/upshot/vaccine-coronavirus-government-purchase.html> [<https://perma.cc/53NR-XEPA>].

⁴⁸ See Richman & Schwarcz, *supra* note 9, at 763–75.

⁴⁹ See, e.g., Andrew Metrick & Daniel K. Tarullo, *Congruent Financial Regulation*, BROOKINGS PAPERS ON ECON. ACTIVITY (forthcoming 2021) (manuscript at 6–7) (on file with the *Ohio State Law Journal*).

public health, anticipating the next crisis is a fraught assignment.⁵⁰ But one of the lessons of COVID-19 surely is that intelligent and well-financed advanced investments can yield huge results when disaster strikes.⁵¹

⁵⁰ See Jackson & Schwarcz, *supra* note 1 (manuscript at 3, 6).

⁵¹ See, e.g., Kliff, *supra* note 47 (noting the success of pre-investing in vaccine procurement).