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ACADEMIC AND PROFESSIONAL EMPLOYMENT:

Maurer School of Law, Indiana University, Bloomington, Indiana. University Scholar and Fellow in Commercial Law (1998 to present). Adjunct Associate Professor (Full-Time), (1991-1998). Visiting Associate Professor (1988-1989 and 1989-1990; Fall 1990).

The Columbus School of Law, The Catholic University of America, Washington, D.C., Visiting Assistant Professor, Spring 1991. *Course taught:* Commercial Transactions (two sections).

Federal Trade Commission, Washington, D.C. and Seattle, Washington, August 1974 through August 1, 1988, Attorney-Advisor and Confidential Legal Advisor.

HONORS RECEIVED:

American College of Commercial Finance Lawyers, appointed Chair of the Grant Gilmore Award Nominating Committee, November 2021; appointed Member of the Gilmore Award Nominating Committee, November 2022 and November 2020.

Uniform Law Commission, Project on Emerging Technologies and the Uniform Commercial Code, selected as member of the Consumer Issues Task Force, 2020 to present.

Uniform Law Commission, Project on Emerging Technologies and the Uniform Commercial Code, Observer 2019 to present.

American College of Consumer Finance Lawyers, elected to membership, Winter 2019.

American Law Institute, elected to membership, October 2000.

Recipient, Leon Wallace Distinguished Teaching Award, 1992-1993 (first female recipient; only untenured recipient to that date).

Gavel Awards for 1999-2000, 1996-1997, and 1995-1996 (one given by each graduating class for outstanding service to the class).

TERA Award, 1996-1997 (peer-reviewed award for teaching excellence sponsored by the University; one of the first group of recipients).

Selected as Member, Faster Payments Task Force, Federal Reserve Banks Faster Payments Project, May 2015 to present. Also designated Member Legal Working Group, Faster Payments Task Force, July 2015 to present.

Reporter, Drafting Committee on the Uniform Regulation of Virtual-Currency Businesses Act, June 2015 to present (legislation approved for state enactment on July 18, 2018).

Reporter, Drafting Committee on the Uniform Supplemental Commercial Law for the Uniform Regulation of Virtual-Currency Businesses Act, November 2017 to present (legislation approved for state enactment on July 25, 2018).

Reporter, Drafting Committee on Regulation of Virtual Currency Intermediaries Business Act, May 2015 to present.

Reporter, Study Committee on Alternative and Mobile Payments, Uniform Law Commission, March 2014 to May 2015.

Reporter, Standing Committee on Payments Systems—Check Clearing for the 21st Century Act), Permanent Editorial Board for the Uniform Commercial Code, 2003 to 2006.

Reporter, Study Committee on the Check Truncation Act of 2002 (later enacted as the Check Clearing for the 21st Century Act), National Conference of Commissioners on Uniform State Laws, November 2002 to present; 2003-2007 & 2010-2013.

Designated as the American Bar Association's Advisor, Money Services Act Drafting Committee, Uniform Law Commission, 2000-2004.

Recipient, Washington State Bar Association, Pro Bono Publico Service Commendations, 2003-2007, 2009, 2010, 2011, 2014, 2016, 2017, 2019, 2021, and 2022.

COURSES TAUGHT:

Banking Regulation; Financial Institutions Regulation; Lawyering in the Public Interest; Sales; Negotiable Instruments; Secured Transactions; Commercial Transactions (various combinations of the traditional commercial law courses); Federal White Collar Crime; Information Privacy; International Business Transactions.

Fieldwork Supervision, Maurer School of Law's DC Externship Semester, an eight-credit skills course per student since Fall 2015.

TREATISES:

Editor and Author, Volume 10A (Non-UCC Payments), HAWKLAND SERIES on the UCC, Thomson-Reuters/West Publishing, January 2015 to present. (Interim update submitted August 15, 2021.)

Contributing Editor, Update for 2021-2022, National Consumer Law Center Treatise on Payments Law, invited to assume role August 2021. (Manuscript submitted December 31, 2021.) (This is a pro bono contribution to the work of the NCLC.)

BOOKS AND BOOK CHAPTERS IN PRINT:

DIRECTORS' LEGAL HANDBOOK: ENTERPRISE TECHNOLOGY, Candace M. Jones, ed., book chapter entitled "*Payments Issues for Lawyers Advising Boards of Directors*," March 2021.

CLOUD 3.0 – DRAFTING AND NEGOTIATING EFFECTIVE CLOUD COMPUTING AGREEMENTS, Lisa R. Lifshitz and John Rothchild, eds., chapter entitled "Above, Beyond and Around the ABA's 2012 Model Rules of Professional Conduct: Growing On- and Off-shore and Low-Tech Challenges for U.S. Lawyers and Law Firms Using Cloud Computing." (March 2019).

RESEARCH HANDBOOK ON ELECTRONIC COMMERCE LAW, John A. Rothschild, ed., "Historical Substitutes for Legal Tender: Implications for the Regulation of Virtual Currencies," with Stephen T. Middlebrook, (2016, Edward Elgar Press, Cheltenham, UK and Northampton, MA). Invited chapter; ISBN 9781783479917.

RADIO FREQUENCY IDENTIFICATION DEVICES, NEAR-FIELD COMMUNICATIONS, AND MOBILE PAYMENTS – A GUIDE FOR LAWYERS, Curator, General Editor, and Contributor, American Bar Association, July 2013.

RESPONDING TO NATIONAL SECURITY LETTERS: A PRACTITIONER'S GUIDE, co-authored with David P. Fidler, American Bar Association, March 2009.

The Best of Internet Law, (Bowne Publications, 2001), book chapter based on my 1999 article "A Case for Regulating Cyberpayments." (The book won a national award in the Best of Cyberspace Law publications in 2002.)

BOOKS IN PROGRESS:

FOREIGN POLICY LAW ENFORCEMENT IN THE UNITED STATES: OFAC SANCTIONS ENFORCEMENT AFTER THE IRAN DEAL AND RELAXATION OF SANCTIONS AGAINST CUBA, Sarah Jane Hughes, book requested by Edward Elgar Publishing, Cheltenham, UK and Northampton, MA.

AI AND ROBOTICS, contributor to book being curated by Jon Garon, NOVA School of Law, for the American Bar Association, publication expected late 2024, chapter on AI and Payments.

CONGRESSIONAL TESTIMONY (TEXTS OF PREPARED STATEMENTS AVAILABLE ONLINE/ VIDEOS OF IN-PERSON TESTIMONY AVAILABLE FROM COMMITTEE WEBSITES AND C-SPAN):

House of Representatives, Committee on Financial Services, Subcommittee on Consumer Protection and Financial Institutions, September 29, 2021, Hearing on "The Future of Banking: Bank Consolidation, Nonbank Competition, and Technology."

House of Representatives, Committee on Energy & Commerce, Witness, December 1, 2015, Hearing on Consumer Protection Issues in Mobile Payments.

Senate Committee on Banking, Housing & Urban Affairs, Witness, November 19, 2013, Hearing on Need for Additional Regulation of Virtual Currencies, including Bitcoin.

Senate Committee on Banking, Housing & Urban Affairs, Witness, July 12, 2012, Hearing on Consumer Protection Regulations for Mobile Payments.

STATE LEGISLATIVE TESTIMONY:

Indiana Senate, Committee on Financial Services, Witness, February 6, 2019, Hearing on S.R. 9, a resolution seeking appointment of a study committee on the regulation of virtual-currency businesses in Indiana, Senator Eric Koch, sponsor.

ARTICLES AND MONOGRAPHS:

Articles in Peer-Reviewed or Law School Journals:

Developments in the Law Affecting Electronic Payments and Financial Services, forthcoming in 78 BUS. LAW. – (Fall-Winter 2023-2023), with Stephen T. Middlebrook and Tom Kierner (accepted September 2023).

Fair Warnings from OFAC's Settlements with Cryptocurrency Service providers: Compliance Should Include Lifetime-of-the-Relationship, In-Process geolocal Checks, BUS. LAW TODAY (February 21, 2023, re-published March 2023).

Tea Leaves and Tarot Cards: Developments in the Laws affecting Electronic Payments and Financial Services, 78 BUS. LAW. 293 (Winter 2022-2023) with Stephen T. Middlebrook and Tom Kierner.

Developments in the Law Affecting Electronic Payments and Financial Services, 77 BUS. LAW. 287 (Winter 2021-2022) with Stephen T. Middlebrook, Tom Kierner, and Peter Maslow.

Cryptoassets and their regulation under UK and EU Law in the post-Brexit UK, (U.K.) FIN. REG. INT'L. (June 30, 2021) with Sara Kobal, LL.M. (Peer-reviewed journal coordinated by the Faculty of Law, University of Lincoln, (U.K.), in collaboration with Lloyd's Law Reports (U.K.)
<https://www.financialregulationintl.com/regulation/cryptoassets-and-their-regulation-under-uk-and-eu-law-in-the-post-brexit-uk-147934.htm?origin=internalSearch>.

Do Blockchain Technologies Make Us Safer? Do Cryptocurrencies Necessarily Make Us Less Safe?, TEX. INT'L L.J. 373 (Summer 2020).

Developments in the Laws Affecting Electronic Payments and Financial Services, 75 BUS. LAW. 1695 (Winter 2020-2021), with Tom Kierner and Stephen T. Middlebrook.

Developments in the Laws Affecting Electronic Payments and Financial Services, 75 BUS. LAW. 1695 (Winter 2019-2020), with Tom Kierner and Stephen T. Middlebrook. This article is available as of January 14, 2020 at

<file:///C:/Users/Sarah%20Hughes/Downloads/TBL%2075-1%2020020%20Kierner,%20Cyberspace.pdf>.

Property, Agency, and the Blockchain: New Technology and Longstanding Legal Paradigms, 65 WAYNE L. REV. 1 (2019) (adapted from invited keynote speech at the Law Review's February 2019 symposium on Blockchain and the Law).

Conceptualizing the Regulation of Virtual Currencies and Providers: Friction Points in State and Federal Approaches to Regulating Providers of Payments Execution and Custody Services and Products in the United States, 67 CLEV. ST. L. REV. 43 (2019).

More Steps Toward Fully Electronic Interbank Check Collection and Return: Amendments to Federal Reserve Board Regulation CC and a Regulatory Resolution of a Circuit Court Split, 48 UNIFORM COMMERCIAL CODE LAW JOURNAL 399 (2019).

Developments in the Law Affecting Electronic Payments and Financial Services, 74 BUS. LAW. 267 (2018-2019), with Stephen T. Middlebrook and Tom Kierner.

Two Steps Forward, One Step Back: Developments in the Law Affecting Electronic Payments and Financial Services, 73 BUS. LAW. 277 (Winter 2017-2018), with Stephen T. Middlebrook and Tom Kierner.

Developments in the Law Affecting Electronic Payments and Financial Services, 72 BUS. LAW. 255 (Winter 2016-2017), with Stephen T. Middlebrook and Tom Kierner.

The Iran Deal Won't End Risks of Significant Sanctions for Violations of OFAC Regulations: What Lawyers Should Tell Clients about Potential OFAC Liability, BUS. LAW TODAY (Feb. 2016) (invited following September 2015 ABA Annual Meeting presentation). Available at http://www.americanbar.org/publications/blt/2016/02/04_hughes.html

Developments in the Law Affecting Electronic Payments and Financial Services, 71 BUS. LAW. 361 (Winter 2015-2016), with Stephen T. Middlebrook.

It's Not Over until the Forfeiture Sings: Self-Disclosure of OFAC and FinCEN Violations Won't Necessarily Decrease Forfeitures for Violations of OFAC and FinCEN Regulations, prepared for the May 1, 2015 CLE Program entitled "Reckoning with Iran: Transacting Amidst the Tightening or Unwinding of Sanctions," published by the International Law Section in connection with the Program April 29-May 1, 2015.

Advancing a Framework for Regulating Cryptocurrency Payments Intermediaries, 32 YALE J. REG. 495 (Summer June 2015) (invited article designated as the feature article in this volume), with Stephen T. Middlebrook.

Are These Game Changers? Developments in the Law Affecting Virtual Currencies, Prepaid Payroll Cards, Online Tribal Lending, and Payday Lenders, 70 BUS. LAW. 261 (Winter 2014-2015), with Stephen T. Middlebrook.

Regulating Cryptocurrencies in the United States: Current Issues and Future Directions, 40 WM. MITCHELL L. REV. 813 (2014), with Stephen T. Middlebrook.

Did the National Security Agency Destroy the Prospects for Confidentiality and Privilege When Lawyers Store Clients' Files in the Cloud – and, What, if Anything, Can Lawyers and Law Firms Realistically Do in Response? 41 N. KY. L. REV. 405 (2014).

Privacy and Data Security and Virtual Currencies: A Complex of Domestic and Foreign Compliance Standards and Issues to Consider, 13 PRIV. & SEC. LAW REPT. 1933 (Nov. 2014).

Did New York State Just Anoint Virtual Currencies by Proposing to Regulate Them, or Will Regulation Spoil Them for Some? 71 WASH. & LEE L. REV. ONLINE 51 (2014).

Virtual Uncertainty: Developments in the Law of Electronic Payments and Financial Services, 69 BUS. LAW. 263 (Nov. 2013), with Stephen T. Middlebrook.

L'Embaras du Choix: A Year of Developments in the Laws Affecting Remittance Transfers, Credit Cards, and Certain Prepaid Cards, 68 BUS. LAW. 233 (Nov. 2012).

Red Skies in the Morning – Professional Ethics at the Dawn of Cloud Computing, 38 WM. MITCHELL L. REV. 111 (2011) (invited symposium article), with Roland L. Trope. (This article runs 167 pages.)

The SEC Staff's Cybersecurity Disclosure Guidance: Will It Help Investors or Cyber-Thieves More? BUS. LAW TODAY (Dec. 19, 2011), with Roland L. Trope. Available at <http://apps.americanbar.org/buslaw/blt/content/2011/12/article-3-trope-hughes.shtm>

Developments in the Laws Governing Electronic Payments, 67 BUS. LAW. 259 (Nov. 2011).

Payments Data Security Breaches and Oil Spills: What Lessons Can Payments Security Learn from the Laws Governing Remediation of the Exxon Valdez, Deepwater Horizon, and Other Oil Spills? 5 BROOKLYN JOURNAL OF CORPORATE, FIN. & COMM. LAW 111 (Nov. 2010) (invited symposium article).

Developments in the Laws Governing Electronic Payments Through Gift Cards, Debit and Prepaid Cards, Credit Cards, and Direct Deposits of Federal Benefits, 66 BUS. LAW. 159 (Nov. 2010).

Federal Payroll, Gift, and Prepaid Card Developments: FDIC Deposit Insurance Eligibility and the Credit CARD Act of 2009, 65 BUS. LAW. 261 (Nov. 2009).

Developments in the Laws Affecting Electronic Payments and Stored-Value Products: A year of Stored-Value Bankruptcies, Significant Legislative Proposals, and Federal Enforcement Actions, 64 BUS. LAW. 219 (Nov. 2008), with Patricia J. Allouisie and Stephen T. Middlebrook.

Duty Issues in the Ever-Changing World of Payments Processing: Is It Time for New Rules?, 83 CHIC. KENT L.J. 721 (2008) (symposium issue for the Rethinking Payments Law Symposium, April 27, 2007, sponsored by the Federal Reserve Bank of New York and New York City Area Law Schools).

Developments in the Law Concerning Stored-Value Cards and Other Electronic Payments Products, 63 BUS. LAW. 237 (Nov. 2007), with Stephen T. Middlebrook and Broox W. Peterson.

Developments in the Law Concerning Stored Value and Other Prepaid Products, 62 BUS. LAW. 229 (Nov. 2006), with Stephen T. Middlebrook and Broox W. Peterson.

Stored-Value Cards: A Perspective from South of the Border – the Canadian-US Border, That Is, published by the IT Canada Association for Participants in the Tenth Annual Canadian IT Law Association Conference, Toronto, Canada, October 27, 2006.

A Case for Regulating Cyberpayments, 51 ADMIN. L. REV. 809 (Summer 1999), invited for the symposium “Regul@tion\$.gov: Coming to Terms with On-Line Commerce,” sponsored by the Washington College of Law, American University, Washington, D.C., on March 26, 1999.

Essay, “Law Enforcement Monitoring of Electronic Payments Systems, in L. Richard Fischer, ed., PRIVACY IN ELECTRONIC COMMERCE (American Bankers Association, Sept. 1997) (invited).

A Call for International Legal Standards for Retail Electronic Payment Systems, 15 ANN. REV. BANKING L. 197 (April 1996) (selected as the lead article).

Banking and Deposit Insurance: An Unfinished Agenda for the 1990s, 68 IND. L. J. 835 (1993) (invited).

Policing Money Laundering Through Funds Transfers: A Critique of Bank Secrecy Act Regulation, 67 IND. L. J. 283 (1992) (invited as part of a symposium on banking and financial services).

Monograph-Equivalent Research Projects:

Streamlined version of the Supplemental Commercial Law for the Regulation of Virtual-Currency Businesses Act, for consideration by the CitiBar Uniform Law Committee, City Bar of New York, December 2018-January 2019.

Uniform Supplemental Commercial Law for the Regulation of Virtual-Currency Businesses Act, for the Uniform Law Commission, June 2017 to present. (Legislation approved by ULC on July 25, 2018, by the American Law Institute and American Bar Association in 2019).

- First Draft, June 30, 2017.
- Second Draft, October 16, 2017.
- Third Draft, December 15, 2017.
- Fourth Draft, February 25, 2018 with draft Prefatory Note and Comments.
- Fifth Draft, April 16, 2018, with redrafted Prefatory Note and Comments.
- Final Draft for 2018 Annual Meeting, and
- Act as Approved with Prefatory Note and official comments, September 30, 2018.

Uniform Regulation of Virtual-Currency Businesses Act, Uniform Law Commission, June 2015 to ULC approval in July 2017.

- Draft delivered and published February 15, 2017.
- Drafts delivered and published in January, February, March, April, May, October, and December 2016, available at www.uniformlaws.org.
- Issues Memoranda, submitted and published January, March, and November 2016.
- Intermediate drafts for Drafting Committee purposes, January, March, April, and May 2017.
- Annual Meeting Draft, June 2017. Draft approved with amendments, July 19, 2017.
- Act as Approved with Prefatory Note and official comments, October 9, 2017.

Discussion Draft of the Uniform Regulation of Virtual Currencies Act, Uniform Law Commission, October 1, 2015, available at www.uniformlaws.org.

Report on the Check Clearing for the 21st Century Act, prepared for the Study Committee on Articles 3 and 4 and Check Truncation and for the Permanent Editorial Board for the Uniform Commercial Code, March 2003 – publication January 2004. (Prepared on a pro bono consultancy basis.)

ARTICLES AND BOOK CHAPTERS IN PROGRESS:

Assessing the Breadth of OFAC Sanctions Regimes: Setting New Parameters Following the Invasion of Ukraine, the second piece after the “Fair Warnings from OFAC’s Settlements with Cryptocurrency Service Providers: Compliance Should Include Lifetime-of-the-Relationship, In-Process Geolocational Checks,” in a series intended as chapters for the Book in Progress on U.S. Foreign Policy Law Enforcement mentioned above.

Stargazing Backwards: Paradigms in Tools and remedies from the Last Decade for Cryptocurrency Providers, the third piece in the progress towards the Book in Progress mentioned above.

What Will Venezuela’s Complaint against the United States for Violating the GATS When the United States Placed the State-Sponsored Cryptocurrency, the Petro, on the Sanctions List Mean for Sovereign Control over Currencies in their own Economies?

Jurisdiction of the United States and its Agencies and Courts in the Context of Sanctions: What Does Judge Pittman’s 2023 decision in Tornado Cash Offer?
This is another of the precis of chapters in the book-in-progress mentioned above.

Reprising “the Commercial Lawyer’s Take on the Electronic Purse”—This Time for Virtual Currencies and Blockchain Transaction-Execution. (A project planned to be completed in 2020 but delayed by time commitments of other members of this volunteer team during COVID and the UCC Revision Project, article committed to the ABA’s The Business Lawyer.)

2023 PRESENTATIONS INVITED AT LAW SCHOOL OR OTHER PROFESSIONAL MEETINGS:

Miami Law Web3 Society, NFT Symposium, University of Miami School of Law, December 2023.

CLE Presentation: “Looking for the ‘Goldilocks’ Solution: Sensible Protections for Consumers and Other Users of Currencies and Other Crypto Assets,” American Bar Association, Business Law Section Spring Meeting, April 28, 2023, Seattle, WA. (I am co-chairing this CLE and participating as a panel member.)

CLE Presentation: “Braving the Thucydides Trap: Challenges to Transit Through the Narrowing Straits of CFIUS Reviewed Investments in AI and Other Emerging technologies,” American Bar Association, Business Law Section Spring Meeting, April 28, 2023, Seattle, WA. (I am moderating this CLE program.)

SELECTED LAW SCHOOL OR OTHER PROFESSIONAL MEETINGS PRESENTATIONS:

Joint Maurer-IU Indonesia Alumni Association, CLE on Cryptocurrencies and Other Digital Assets and their Regulation in the U.S. and Indonesia, November 4, 2021.

CLE Presentation, *Payments in Pandemics and Natural Disasters (Part IV), Policing Fraud following the COVID-19 Relief Fundings provided from March 2020 through March 2021*, ABA Business Law Section, September 23, 2021, online.

CLE Presentation, *Payments in Pandemics and Natural Disasters: Lessons from Hurricane Katrina to the Stimulus Payments Authorized by the CARES Act of 2020*, ABA Business Law Section, May 9, 2020, online.

Featured Presenter: *Thoughts on Emerging Technologies and National Security: Can Blockchain-Based Technologies Make Us Safer? Can Cryptocurrencies Make Us Less Safe?*, invited presentation and paper for the symposium on international law and emerging technology, University of Texas School of Law, co-sponsored by the Texas International Law Journal and the Strauss Center for International Security and Law, January 24, 2020. (In person)

Panelist, webinar entitled “Libra: New Dimensions for Money?”, sponsored by The Center for Law and Economics at George Mason University's Antonin Scalia School of Law, Wednesday, September 25, 2019. Panelists included Brian Brooks, then-General Counsel of Coinbase, and Angela Angelovska-Wilson of

DXLaw. The panel was chaired by Professor Thomas Vartanian, Chair of the Center's Program on Financial Services and Regulation.

Featured Presenter, Antonin Scalia School of Law, George Mason University, May 16, 2019, First Annual Roundtable on Financial Services. Paper presented entitled *Permission-less Blockchain-Based Payment and Property Transactions Challenges to Global Anti-Money-Laundering and Counter-Terrorism Finance Laws Enforcement Regimes*

CLE Presentation, ABA Business Law Section Spring Meeting, March 29, 2019, State Law Developments and Blockchain Technologies, Vancouver, B.C.

Presenter, UCLA Law School Symposium on Blockchain, March 8, 2019.

Keynote address, "Property, Agency, and Blockchain," based on an invited article for the Wayne Law Review, delivered to the Law Review's symposium on February 22, 2019.

Participant, Authors' Roundtable, Antonin Scalia School of Law, George Mason University, March 1, 2019, session in preparation for May 16, 2019 Roundtable mentioned above.

CLE Presentation, "The CFPB's Coming Regulation on General-Purpose Reloadable Prepaid Cards, Amendments to Regulations E and Z," December 5, 2018.

Panel Participant, "'Smart Contracts' and the UCC," American Bar Association, Business Law Section, Orlando, FL, April 13, 2018.

Panel Participant, Symposium on Blockchain Law & Technology, Financial Applications and Regulation, Cleveland State University, Cleveland-Marshall College of Law, Cleveland, OH, April 6, 2018.

Panel Participant, Iran Sanctions, the Joint Comprehensive Plan of Action, and the Trump Administration's Take on Iran and the Iran Sanctions, American Bar Association, International Law Section, Washington, D.C., April 26-28, 2017.

American Bar Association, Business Law Section, Spring Meeting, New Orleans, LA, April 6-8, 2017.

Panel Participant, Current Issues in Virtual-Currency Business Regulation, American Bar Association, Business Law Section, Cyberspace Law Committee's Winter Working Meeting, San Diego, CA, January 27-28, 2017.

Panel Participant, Current Issues with Cybersecurity in Banking, American Bar Association, Business Law Section, Banking Law Committee's Mid-Year Meeting, Washington, D.C., January 7, 2017.

Personal Slide Presentation entitled: "Developments in Global Regulation of Virtual Currencies," American Bar Association, Business Law Section, Consumer Financial Services Committee & Cyberspace Law Committee, National Webinar: Emerging Issues in Global Digital Currency Payments, October 25, 2016.

Invited Panel Member re: "Current Challenges with Payment Systems," New England School of Law, Boston, MA, Annual International Commercial Law Conference, "Selling Goods into Foreign Markets," October 6, 2016.

Co-Chair, American Bar Association, Business Law Section, Cyberspace Law & Banking Law Committees' Joint Program entitled "Blockchain for Business: Emerging Legal Issues Associated with Using Distributed Ledger Technology in a B2B Environment?," September 10, 2016.

Panel Member, American Bar Association, Business Law Section, Sports Law Committee, "The Future of Daily Fantasy Sports after the FanDuel and DraftKings' Enforcement Actions," September 9, 2016.

American Bar Association, Business Law Section, Consumer Financial Services Committee, Winter Meeting CLE Program: Update on the ULC's Draft Regulation of Virtual Currency Intermediary Business, January 11, 2016, Park City, Utah, with Professor Keith Rowley and Professor Emeritus Fred Miller.

American Bar Association, Business Law Section, Cyberspace Law Committee, Winter Working Meeting CLE Program: Highlights of the ULC's Draft Regulation of Virtual Currency Intermediary Business, January 30, 2016, NOVA Southeastern School of Law, Fort Lauderdale, Florida, with Professor Keith Rowley and Professor Emeritus Fred Miller.

American Bar Association, Business Law Section, Spring Meeting CLE Program: The Emerging Cashless Society, April 8, 2016, Montreal, Canada.

American Bar Association, Business Law Section, Spring Meeting CLE Program: "Going Faster, Going Mobile, Going Block Chain: Does It Matter How I Pay?" (Innovations in Payments in the US and Canada), April 9, 2016, Montreal, Canada.

American Bar Association, Business Law Section, Annual Meeting, Banking Law Committee/Banking Law Teaching Subcommittee, September 10, 2016: Teaching Banking Law After Dodd-Frank – Faculty Perspectives Panel.

American Bar Association, SciTech Section, Symposium on Developments in and Regulation of Virtual Currencies, Washington, D.C., March 2016.

American Bar Association, Business Law Section, Spring Meeting: Storing Clients' Files and Information in the Cloud: Lawyers' Ethical Obligations under the ABA's Model Code of Professional Responsibility, April 17, 2015.

Panel Member and Presenter, on virtual currency regulation and data security issues, with Benjamin Lawskey, former Superintendent, New York State Department of Financial Services, and Valerie Abend, (former) Chair of the FFEIC Cybersecurity Assessment Task Force, Office of the Comptroller of the Currency, Federal Reserve Banks of Chicago, Cleveland, and Kansas City, Annual Symposium on Payments Innovations, Chicago, Illinois, September 24, 2015.

Moderator and Co-Arranger, "Avoiding Still Sanctionable Dealings with Iran and Cuba: Look Out for Icebergs," panel on U.S. economic sanctions penalties against Iran and the Joint Comprehensive Plan of Action between Iran and the G5+1, and developments in the U.S. sanctions against Cuba, American Bar Association, Business Law Section, Annual Meeting, Chicago, Illinois, September 19, 2015.

Co-Arranger and Presenter, Regulation Cryptocurrencies and Digital Payments around the Globe – What's Going on and How Do We Handle It? American Bar Association, Business Law Section, Annual Meeting, Chicago, Illinois, September 18, 2015.

Presenter, The ABA Model Rules of Professional Responsibility and Cybersecurity Concerns for Lawyers and Law Firms Using Cloud Storage (solo presentation), American Bar Association, Business Law Section, Annual Meeting, Chicago, Illinois, September 18, 2015.

Co-Arranger and Moderator, panel on U.S. economic sanctions against Iran, legislation providing special oversight of the negotiations with Iran by the G5+1, and the Joint Plan of Action, scheduled as "Reckoning with Iran: Transacting Amidst the Tightening or Unwinding of Sanctions." American Bar Association, International Law Section, Annual Meeting, Washington D.C., May 1, 2015.

Panel Member, Virtual Currency Regulation and Public Law Concerns, Association of American Law Schools, Annual Meeting, Washington, D.C., January 4, 2015.

OPINION/EDITORIAL:

A Surprising Hitch in the Deal with Iran, with Roland L. Trope, in THE HILL, September 12, 2015.

SELECTED PROFESSIONAL MEETING PRESENTATIONS PRIOR TO 2012:

Panel Member, “Regulating Mobile Payments Providers – What Consumer Protection Issues Should Regulators Worry About,” Conference of State Bank Supervisors Legal Affairs Conference, Raleigh, NC, August 25, 2011.

Panel Member, Webinar on Mobile Payments Issues, Pepper, Hamilton, May 18, 2011.

Panel Member, “Hang on, My Bank Just Texted Me: New Developments & Issues in the Evolution of Mobile Payment Systems and Technology,” ABA Spring Meeting, Boston, MA (CLE presentation), April 14, 2011.

Reprinted on July 19, 2011 as an ABA CLE Webinar.

Co-Moderator, “The Mobile Gold Rush: Panning for Mobile Payments,” ABA Annual Meeting, San Francisco, CA, August 6, 2010.

Co-Moderator, “It’s a Whole New Card Game: New Federal Regulation of Debit, Prepaid and Gift Cards,” CLE Presentation at the Spring Business Section Meeting, Denver, Colorado, April 22, 2010.

CLE repeated as an ABA Webinar, June 10, 2010.

Co-Moderator and Chair, “Hot Topics in Electronic Payments,” ABA Annual Meeting, Chicago, Illinois, July 30, 2009.

Co-Moderator and Chair, “What US Payments Lawyers Should Know about the Single European Payments Area,” ABA Spring Meeting, Vancouver, Canada, April 19, 2009.

Featured Presenter, Privacy Coalition, Monthly Colloquium Series, Washington, D.C., September 25, 2008. (Invited talk on federal funding and oversight of state and local law enforcement databases and issues with their enforcement by DOJ from 2000-2008.)

Presenter, Annual Meeting, American Bar Association’s Business Section, *Responding to National Security Letters: A Practical Guide for Legal Counsel*, with Jonathan S. Wilson, New York City, August, 2008. (PowerPoint distributed to every Business Section registrant at the meeting.)

Presenter, *A Primer on Electronic Payments Products*, Young Lawyers’ Institute, Spring Meeting–Business Section, American Bar Association, with Stephen T.

Middlebrook, Dallas, April 2008. (PowerPoint and supporting materials distributed to every Young Lawyers' Institute registrant.)

Presenter, Winter Working Meeting, American Bar Association's Cyberspace Law Committee, two presentations – one on white paper on uses of electronic payments and stored value in disaster relief and one on recent developments in stored value cards, Little Rock, January 2007.

Featured Presenter, IT Canada, Tenth Annual Canadian IT Law Association Conference, Toronto, Canada, October 27, 2006.

PROFESSIONAL EXTERNAL SERVICE (Prior to 2015):

Reporter, Study Committee on Alternative and Mobile Payments, March 2014 to May 2015.

Consultancy Group Member, American Law Institute, Restatement of the Law of Consumer Contracts, 2014 to present.

Co-Chair and Co-Editor, Task Force on RFID/Book Project, Cyberspace Law Committee, American Bar Association, January 2009 to 2013.

Co-Chair, Subcommittee on Electronic Payments Products and Financial Services, American Bar Association, Business Section/Cyberspace Law Committee, August 2008 to August 2011.

Co-Chair, Working Group on Electronic Payment Services, American Bar Association, Business Section/Cyberspace Law Committee, August 1998 to August 2008.

Reporter, Standing Committee on Payments, Permanent Editorial Board for the Uniform Commercial Code, October 2003 to March 2006, on issues related to faster check-clearing and other payments technologies. The Standing Committee ceased operation in March 2006.

Reporter, Study Committee on Check Truncation and the Check Clearing for the 21st Century Act, National Conference of Commissioners on State Laws, November 2002 to present. First report to the Study Committee, February 18, 2003.

Member of Advisory Group to the U.S. Department of State's Office of Legal Advisor, on the U.N. Convention on Guarantees (1997), which the United States has signed, but not ratified as of March, 2005.

Reporter, Cyberspace Law Committee, American Bar Association, White Paper Project on Safety and Soundness in Non-Depository Providers of Electronic Financial Services, November 1998 to present. (Two publications from the project so far in the November 2001 and November 2002 issues of the *Business Lawyer*; one more article forthcoming.)

American Bar Association Representative to the Drafting Committee, Money Services Act, National Conference of Commissioners on Uniform State Laws, May 2000 to March 2014.

A Crash Course in Check 21 for Business Lawyers: Answering Your Bank, Consumer, and Corporate Client Questions, a presentation in print and

PowerPoint prepared for the Spring Meeting of the American Bar Association's Business Law Section, Nashville, Tennessee, April 2, 2005.

"Promoting the Use of Electronic Payments: What Role Will/Can Consumer Protection Play?" Spring 2001 in Proceedings of the October 2000 Workshop on Promoting the Use of Electronic Payments: Considering Further Requirements, sponsored by the Federal Reserve Bank of Chicago, Chicago, Illinois. Observer, National Conference of Commissioners on Uniform State Laws, Drafting Committee for Revisions to Articles 3, 4, and 4A of the Uniform Commercial Code, April 2000 to 2006.

Informal advisor to the Reporter, National Conference of Commissioners on Uniform State Laws, Drafting Committee for the Money Services Business Act, January 1999 to May 2000. Also served as Observer and as Member of the Task Force on Electronic Payments from October 1999 to May 2000.

Observer, National Conference of Commissioners on Uniform State Laws, Article 2 and 2A drafting committees, 1995-1998.

Observer, National Conference of Commissioners on Uniform State Laws, Article 9 drafting committee, 1995-1997.

Member, The Task Force on Stored-Value Cards, 1998 to present. (The Task Force is a joint working group of the American Bar Association's Section of Business Law that is sponsored by various subcommittees including the Uniform Commercial Code Committee, Subcommittee on Payments, the Banking Law Committee, Subcommittee on Domestic and International Payments and EFT Transactions, and the Cyberspace Law Committee.)

Member, Subcommittees on Cyberspace Law, Consumer Financial Services, Uniform Commercial Code, Payments, Banking Law, and Consumer Involvement, Business Section of the American Bar Association; *and* Antitrust Section of the American Bar Association.

Informal advisor, Legal Adviser's Office, Department of State, on international electronic commerce and electronic payments issues, particularly as these issues are considered by UNCITRAL and UNIDROIT, 1997 to present; projects cover electronic signatures, transferable records, electronic sales transactions, and choice of law presumptions in cross-border e-commerce transactions.

Member, American Bar Association's Business Section's Task Forces on Articles 1, 2, and 9, Spring 1992 to July 1999.

Expert advisor, National Conference of Commissioners on Uniform State Laws, to the Drafting Committees for Uniform Commercial Code Articles 2 and 9 (invited), late 1995 to March 1999.

Consultant-Observer, U.S. Office of Technology Assessment, Assessment of Information Technology and Control of Money Laundering, May 1994 to September 1997. (Now dissolved, the OTA was one of the research arms of Congress.)

EARLIER PUBLIC SERVICE PUBLICATIONS/COMMENTS IN REGULATORY PROCEEDINGS:

Comments on Proposed Prohibition on Remotely Created Checks and Other Payment Instruments, Federal Trade Commission, filed under my own name, July 2013.

Comments on Proposed Rule concerning Garnishment of Accounts Containing Federal Benefit Payments, to be codified at 31 C.F.R. pt. 212, June 16, 2010, including template materials for other comments provided by Indiana Legal Services, Inc. offices. (Comment is available on the www.regulations.gov website.)

Comments on Proposed Amendments to DOJ Guidelines on Funding for Criminal Intelligence Systems, 28 C.F.R. Part 23, filed September 2, 2008 (template drafts for use by the Electronic Information Privacy Center and other privacy and consumer groups). (Comments are available on the www.regulations.gov website.)

Request for Rulemaking Extending Deposit Insurance to Payroll Cards, filed with the Federal Deposit Insurance Corporation, August 29, 2008 (with Gail Hillenbrand, Senior Counsel, Consumers Union, and others). (The FDIC adopted a final rule extending deposit insurance to payroll cards in response to our request on October 15, 2008.)

Comments filed under the name of the Permanent Editorial Board for the Uniform Commercial Code, on proposed amendments to Regulation CC, 12 CFR Part 229, to implement the Check Clearing for the 21st Century Act, March 11, 2004, and June 8, 2004. Comment filed on proposed amendments to Regulation J, 12 CFR Part 210, to implement the Act, prepared for the Permanent Editorial Board, filed July 26, 2004, under my own name because of external time demands on members of the Permanent Editorial Board. (Comments available on the website of the Board of Governors of the Federal Reserve System, and on the American Law Institute website.)

EDUCATION:

University of Washington School of Law, Seattle Washington, J.D., 1974. Board of Editors, Washington Law Review.

Mount Holyoke College, South Hadley, Massachusetts. A.B., Political Science, cum laude, 1971.

BAR MEMBERSHIPS:

District of Columbia (active since 1975).
State of Washington (admitted 1974, inactive since 1993).

VOLUNTEER and PRO BONO ACTIVITIES:

National Consumer Law Center, Pro Bono work updating chapters on payment systems in the United States, Fall 2021 to the present.

Member, Consultative Group, American Law Institute, Restatement of the Law of Consumer Contracts, 2018 to 2022.

Member, American Law Institute Consultative Group/Uniform Law Commission Study on the Uniform Commercial Code and Technology, November 2018 to present.

Member, American Bar Association, Joint Task Force on Blockchain-Based Negotiable Instruments Rule Book, 2018 to 2020.

Co-Chair, American Bar Association, Business Law Section, Cyberspace Law Committee, E-Payments and Financial Services Subcommittee, September 2016 to present, and September 2010 to 2013; Publications Chair, September 2013 to September 2016.

Uniform Law Commission,

- Enactment Committee for the Uniform Regulation of Virtual-Currency Businesses Act, August 2017 to present, and
- Enactment Committee for the Uniform Supplemental Commercial Law for the Uniform Regulation of Virtual-Currency Businesses Act, August 2018 to present.

Board of Trustees, The Yard, Inc., a colony for contemporary dance, Chilmark, MA. (member of the Board of Trustees, October 2005 to September 30, 2017). Vice President & Assistant Treasurer October 2014 to September 30, 2017. Vice President & Treasurer, 2011 to September 30, 2014. President, January 2007 to

September 30, 2011. Trustee and Treasurer, October 2005 to January 2007.
Advisory Board member, 1992 to October 2005.

Mount Holyoke College, South Hadley, MA. Member, Nominating Committee,
Class of 1971, 2011-2016. Alumnae Association Development Committee DC-
Area Liaison, 1982-1985; Head Class Agent for Class of 1971, 1970-1982;
Member, Development Committee, Alumnae Association 1970-1975.