EXHIBIT A

CRA Charles River Associates

Tiago Duarte-Silva

Principal

PhD, Finance
University of Rochester

MS, Applied Economics
University of Rochester

MS, Finance
Universidade Católica Portuguesa

Licenciatura, Business Administration
Universidade Católica Portuguesa

Dr. Tiago Duarte-Silva's experience at Charles River Associates spans US and international arbitration and litigation. He also teaches valuation as an adjunct professor at Boston College's Carroll School of Management and has several years of industry experience valuing companies in developed and emerging markets. He has offered expert opinions and testified at trial and deposition both in the US and abroad, in arbitration, in litigation in federal and state courts, and before the US Department of Commerce.

His expertise in commercial and investment disputes encompasses valuation, debt/equity issues and buybacks, rights issues, buyouts, minority shareholder oppression and appraisal actions in Delaware Court of Chancery, and lost profits involving breach of contract, breach of fiduciary duty, expropriation, and temporary injunction, among others.

His expertise in securities disputes covers class certification including event studies/ price impact analyses, analyses of market efficiency in the context of fraud-on-the-market assessments, loss causation and materiality, alleged accounting misstatements or omissions, and damages or settlement analyses within Rule 10b-5 and Section 11 matters, insider trading, and investigations of alleged market manipulation. The evidence he submitted as expert has led to the denial of class certification.

Dr. Duarte-Silva has worked on behalf of corporations and their officers and directors, private equity firms, financial institutions, auditors, the Securities and Exchange Commission, and other US and foreign regulators. His case experience includes support at deposition, trial, mediation, and settlement negotiations and spans various industries, including financial services, energy and natural resources, technology, consumer products, media, casinos, pharmaceuticals, chemicals, telecommunications, aerospace, insurance, education, outsourcing, and distribution.

Dr. Duarte-Silva's research on earnings announcements, event studies, the incorporation of information into prices, regulatory enforcement, prejudgment interest and quantum, commercial and investment banking, and equity and debt underwriting has been published in the *Journal of Financial Economics*, the *Journal of Applied Corporate Finance*, *Finance Research Letters*, the *Journal of International Arbitration*, *Law360*, *Global Arbitration Review*, the *World Arbitration and Mediation Review*, the *Westlaw Journal of Securities Litigation & Regulation*, *Kluwer Arbitration Blog*, the *Harvard Law School Forum on Corporate Governance and Financial Regulation*, the *Columbia Law School Blue Sky Blog*, and various journals of the American Bar Association. He has also refereed articles for several peer-reviewed journals, including the *Journal of Law and Economics*, *Journal of International Arbitration*, *Financial Analysts Journal*, and *Business Valuation Review*. He has been a speaker at MIT Sloan School of Management, Harvard Law School, and other institutions.

He chairs the American Bar Association's Damages subcommittee of the Alternative Dispute Resolution committee and co-chairs the Expert Witness subcommittee of the Commercial and Business Litigation committee. Dr. Duarte-Silva is also on the Advisory Board to the ICCA-ASIL Task Force on Damages in International Arbitration. He is perfectly fluent in English, a native speaker of Portuguese, conversant in Spanish, and has a reading knowledge of French.

Professional history

2016–Present *Adjunct Professor, Equity Securities Analysis.* Boston College, Carroll School of Management

2007–Present Charles River Associates

Past engagements include:

Commercial, investment, and shareholder disputes

- Valuation towards assessing equityworthiness and reasonableness of return in a limited partnership focused on aircraft manufacturing.
- Valuation of the US leading consumer packaged premium coffee business in the context of a binding arbitration following breach of a distribution contract. Favorable award exceeding $2.5 billion.
- Valuation of a chemical processing company in the context of a shareholder's appraisal action in Delaware Chancery Court pursuant to the company's acquisition.
- Valuation of a technology firm associated with an appraisal action in Delaware Chancery Court.
- Multiple appraisal actions in Delaware Chancery Court.
- Valuation of an operator of cell phone towers in an arbitration matter, including assessment of mid-year cash flows and time-varying discount rates.
- Valuation of a technology firm in the context of a disputed leveraged buyout and ensuing appraisal action.
- Damages from the forced redemption of the shares of a major entertainment corporation's largest shareholder and the redemption denomination attributed by the corporation's board of directors.
- Expert report rebutting plaintiff expert's valuation of future carried interest in private equity funds.
- Expert report concerning management performance following forced resignation of top management (earnings and stock price performance) and response to an acquisition offer of a company operating in real estate and cinema exhibition.
- Valuation / damages related to a dispute concerning the sale of an interest in a power plant belonging to a joint venture between a Japanese consortium and the Indonesian government.
- Valuation / damages in ICSID proceeding related to the expropriation of a gold mine in European country, claims in excess of $3 billion.
- Valuation / damages in ICSID proceeding related to the expropriation of a gold and copper mine in a Middle Eastern country, claims in excess of $12 billion.
- Successful defense of largest US producer and distributor of portion-pack coffee and brewers in preliminary injunction stemming from antitrust allegations prior to introduction of new brewer.
- Valuation of several subsidiaries and books of business following the bankruptcy of a global financial services firm.
- Evaluation of damages to a trust endowed with assets of a high net worth individual due to alleged funds mismanagement.
- Assessment of reasonable attorney fees associated with a settlement related to corporate governance changes in a global sports apparel company.

Securities litigation

- Expert report on behalf of defendant at class certification stage, including damages assessment under Section 10(b), and disgorgement of profits under Section 20A stemming from alleged insider trading.
- Declaration on behalf of defendant in regulatory action concerning alleged market impact and price discovery due to defendant's trades of Eurodollar futures.
- Opposition to class certification in a securities matter involving alleged misstatements and omissions concerning loan loss reserves in a major for-profit education company.
- Damages in Section 10b and Section 11 action against a major bank which failed following financial crisis.
- Multidistrict securities class action related to the restatement of a government-sponsored entity's earnings in the context of derivatives accounting, the consequent shortfall in regulatory capital, and the related change in capital structure. Plaintiff damages allegations reaching $12 billion.
- Litigation involving the reasonableness of a securities class action settlement in a matter related to a for-profit education company.
- Estimation of litigation exposure in a European insurance company targeted for acquisition, on behalf of the potential acquirer.
- International arbitration involving the reasonableness of a securities class action settlement in a matter related to a mobile technology company.
- Securities class action related to alleged misstatements of the expected growth of a leader in the business process outsourcing market.
- Securities class action related to a pharmaceutical company's alleged misstatements of its products' performance.
- Evaluation and estimation of magnitude of alleged market timing of mutual funds.

2003–2007 *Research Assistant and Teaching Assistant.* University of Rochester

1998–2002 *Equity Research Analyst.* Banco Português de Investimento
Valuation of technology, media, and distribution companies in Latin America, Spain, and Portugal, with $1-$10 billion in market capitalization. Real-time examination of accounting figures and the price impact of news, earnings announcements, and other disclosures. Roadshow promotion and sales of primary (IPO) and secondary issues.

1999–2000 *Lecturer, Money and Banking.* European University

Expert work and testimony

- *Sidney Gordon et al. v. Sonar Capital Management LLC et al.*: Southern District of New York, Case No. 11-CV-9665 (Rakoff). Class certification, damages under Section 10(b), and disgorgement of profits under Section 20A stemming from alleged insider trading.
  - Expert report on behalf of defendant filed on February 6, 2015. Exhibit for affidavit in opposition to class certification filed on February 13, 2015.
  - Class certification denied on March 20, 2015 based on evidence in expert report and affidavit.

- *Ian Jeddy v. JMC Management, LLC et al.*: American Arbitration Association, Docket No. 01-15-0005-2998. Valuation of future carried interest in private equity funds.
  - Expert report filed on June 3, 2016. Opposing counsel requested withdrawal from case on eve of scheduled deposition. Case settled.
- *U.S. Commodity Futures Trading Commission v. Yumin Li and Kering Capital Ltd*: Eastern Division of Northern District of Illinois, Case No. 1-15-cv-05839. Issues of market impact and price discovery in action involving defendant's trades of Eurodollar futures.
  - Declaration on behalf of defendant filed on July 1, 2016.
- *James J. Cotter Jr. individually and derivatively on behalf of Reading International, Inc. v. Margaret Cotter, Ellen Cotter, Guy Adams, Edward Kane, Douglas McEachern, Timothy Storey, William Gould et al.*: District Court, Clark County, Nevada, Case No. A-15-719860-B, P-14-082942-E, and A-16-735305-B. Earnings and stock price performance following forced resignation of top management and response to acquisition offer.
  - Expert report on behalf of plaintiff filed on August 25, 2016. Rebuttal expert report of Richard W. Roll's expert report filed on September 28, 2016. Deposition on October 18, 2016. Trial testimony expected in March 2018.
- *Autoridade da Concorrência v. Banco BPI, S.A. et al.*: Antitrust regulatory action against fifteen banks, alleging collusion via information exchanges concerning rates / spreads and volumes in various credit markets (mortgage, consumer, and corporate loans) from 2002 to 2013.
  - Expert report on behalf of Banco BPI, September 27, 2017. Deposition on November 22, 2017. Trial testimony expected in April 2018.
- *Australian Securities & Investments Commission v. Australia and New Zealand Banking Group*, *Australian Securities & Investments Commission v. National Australia Bank*, *Australian Securities & Investments Commission v. Westpac Banking Corporation*: Federal Court of Australia Proceedings VID197/2016, VID604/2016, and VID282/2016. Allegations of manipulation of interest rate benchmark and impact on interest rate futures prices.
  - Three expert reports on behalf of ASIC filed on March 31, 2017. Joint expert report filed on September 29, 2017. Responding memorandum filed on October 16, 2017. Trial testimony (hot tubbing and cross examination) on November 30 and December 1, 2017.
- *In The Matter Of 100- To 150-Seat Large Civil Aircraft From Canada*: United States Department of Commerce. Opinion on the review process associated with a $1.5 billion investment in relation to the usual investment practices of private investors.
  - Affidavit on behalf of Bombardier Inc. filed on July 24, 2017.

Publications

- Counterarguments to SEC statistical analysis in enforcement actions and inquiries, with N. Morgan (Paul Hastings), *Columbia Law School Blue Sky Blog*, February 2017.
- Prejudgment interest: What is a "normal commercial rate?", with A. Dolgoff, *Kluwer Arbitration Blog*, February 2017.
- Prejudgment interest – a mere afterthought?, with J. Mattamouros (King & Spalding), *Global Arbitration Review*, October 2016.

- Prejudgment interest and the fallacy of the invalid round trip, with A. Dolgoff, *World Arbitration and Mediation Review*, Volume 10, number 3, 2016.*
- Fund performance indicators the Securities and Exchange Commission may be watching, with A. Dolgoff, *ABA Business and Commercial Litigation Journal*, Summer 2016.
- Prejudgment interest: An economic review of alternative approaches, with A. Dolgoff, *Journal of International Arbitration*, Issue 33-1, 2016.*
- Event studies using contemporaneous forward-looking information, with A. Dolgoff, *ABA Securities Litigation Journal*, Summer 2015 and ABA's *Litigation News*, October 2015.
- Beware false positives in statistics-based SEC actions, with N. Morgan (Paul Hastings), *Law360*, August 2015.
- *Halliburton* fallout: Fate of the efficient market hypothesis and event studies in securities litigation, with N. Morgan (Paul Hastings) and C. McElroy (DLA Piper), *Westlaw Journal of Securities Litigation & Regulation*, July 2014.
- Fund performance indicators the SEC may be watching, with A. Dolgoff, *Law360*, May 2014.
- Testing excess returns on event dates: Log returns vs. dollar returns, with M. Tripolski-Kimel. *Finance Research Letters*, 2014, volume 11, pp. 173-182.[1,*]
- How do investors interpret announcements of earnings delays?, with H. Fu (Shanghai U.), C. Noe (MIT), and K. Ramesh (Rice U.), *Journal of Applied Corporate Finance,* 2013, volume 25, no. 1.[2,*]
- The market for certification by external parties: Evidence from underwriting and banking relationships, *Journal of Financial Economics*, December 2010, volume 98, issue 3.[3,*]
- *CRA Insights*
  - Implementation issues in setting prejudgment interest, March 2016.
  - "Commercial rates" as prejudgment interest in international arbitration, September 2015.
  - Fairness opinions in the context of recent Delaware Chancery Court decisions: Q&A with Professor David Denis, October 2014.
  - Measuring price impact with investors' forward-looking information, with A. Dolgoff, August 2014.[4]
  - Price impact of disclosures before, during, or after a trading day, with A. Dolgoff, July 2014.
  - Securities litigation settlement costs if large shareholders opt out, with M. Attari and A. Dolgoff, June 2013.

Other professional activities

- Chair of the Damages subcommittee of the ABA's Alternative Dispute Resolution committee.
- Co-chair of the Expert Witness subcommittee of the ABA's Commercial Litigation committee.
- Advisory Board to the ICCA-ASIL Task Force on Damages in International Arbitration.

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* Peer-reviewed articles.

[1] Summary in http://blogs.law.harvard.edu/corpgov/2014/05/14/the-statistical-significance-of-excess-dollar-returns/.

[2] Summary in https://blogs.law.harvard.edu/corpgov/2013/05/13/how-do-investors-interpret-announcements-of-earnings-delays.

[3] Input to European Commission's examination of the Liikanen Report's recommendations on forcing the separation of banks' market making and investment banking activities.

[4] Summary in http://blogs.law.harvard.edu/corpgov/2014/09/16/measuring-price-impact-with-investors-forward-looking-information/. Full working paper (Event studies using forward-looking information, with A. Dolgoff, 2013) in www.ssrn.com/abstract=2215096.

- Presenter / speaker at Harvard Law School, MIT Sloan School of Management, American Bar Association, BlackRock, Young ICCA, Financial Intermediation Research Society, Financial Management Association, European Financial Management Association, King & Spalding, Steptoe & Johnson, K&L Gates, Latham & Watkins, Skadden, others.
- Ad-hoc reviewer for *Journal of International Arbitration*, *Journal of Law and Economics*, *Financial Analysts Journal*, *Business Valuation Review*. Grant reviewer for Social Sciences and Humanities Research Council of Canada.
- Current / past member of American Finance Association, American Bar Association, International Bar Association, Young ICCA's Steering Committee, Financial Management Association.

Education

2007 *PhD*, Finance. University of Rochester
Minored in Accounting

2005 *MS*, Applied Economics. University of Rochester

2002 *MS*, Finance. Universidade Católica Portuguesa
Highest GPA in program history

1998 *Licenciatura*, Business Administration. Universidade Católica Portuguesa
Highest GPA in 1990s

Contact details

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