

MODERN FINANCE FALL 2019

Faculty:

Kathleen Traynor DeRose is a Clinical Associate Professor of Finance at the Stern School. She is the one of the architects of Stern's fintech programs and the Fintech Director at the Fubon Center. She is also a non-executive director on the board of the London Stock Exchange, a U.K. plc (public company), and of Voya Financial, and a non-executive director of Evolute AG, a WealthTech SaaS platform startup. She had a 30+ year distinguished career in asset and wealth management. She is a former Managing Director at Credit Suisse where she led strategy and product design in wealth management. Prior to that she was the Head of Portfolio Management and Research at a New York City hedge fund, and a Managing Director and Portfolio Manager at both Bessemer Trust, and at Deutsche Bank, having started her career at JPMorgan. In addition to managing public equities for over twenty-five years, she has been a successful startup investor.

Course Description:

"FinTech" refers to financial sector innovations involving technology-enabled business models that can facilitate disintermediation, revolutionize how existing firms create and deliver products and services, address privacy, regulatory and law-enforcement challenges, provide new gateways for entrepreneurship, and seed opportunities for inclusive growth.¹

FinTech is also the label for increasingly technological approaches to the five main financial intermediation functions: payments, (purchasing goods), allocating capital, money transfer (moving money across time and borders), managing uncertainty and risk, (insurance), and price discovery, (markets). Financial systems must also mediate information asymmetry and incentives. In today's FinTech businesses, consumers bank via mobile apps integrated into social media, institutions trade electronically, and "robo-advisers" make decisions about investment portfolios.

This mini- course provides an introduction to the emerging FinTech discipline. It is intended to be the starting point for students who may take additional courses in the FinTech area.

The question from Fintech is whether Fintech will deliver on its promises to make financial services lower cost, and more transparent and accessible. Is financial services innovation different from industrial innovation? Will traditional financial intermediaries adapt or will Fintech upstarts disrupt them? What are the critical technology strategies that shape fintech success or failure? How do new approaches reformulate financial services business models? And does Fintech mitigate risk or magnify it?

This mini-course uses three case studies of Fintech startups to address these questions. Students will use these case studies to evaluate not only the startups in question, but also to delve into three of the five key financial functions, explore the risks of fintech, and ultimately address the broader implications of technological transformation in financial services.

Students are expected to read the case materials (two case studies, and background material for Lending Club) and prepare bullet point answers to the first two sets of case questions, coming to class prepared to discuss all three cases. Class participation is expected.

¹ See: <http://www.stern.nyu.edu/programs-admissions/full-time-mba/academics/specializations/fintech>

Pirate Booty (Loot) is a B2C (business-to-consumer, or retail), “digital skin bank” automating traditional retail banking in the U.K. You will read an investor due diligence document that lays out the investment case for the company, enabling you to evaluate the company’s technology strategy in the context of bigger changes in global payments systems, the economic viability of the company’s go-to-market approach, and the company’s capital raising plans and valuation. This case provides a window on early stage funding in fintech startups, (we briefly review venture capital in fintech), and an example of the challenges and opportunities in fintech disruption in retail banking.

Trumid is a B2B (business-to-business, or wholesale), fintech market electrification platform for trading corporate bonds. This case explores what happens when markets digitize. Technology should make price discovery more efficient for all market participants, reducing information asymmetries and providing benefits for both buyers and sellers. But does the “law-of-one-price,” (LOOP), still hold? Or do electronic trading platforms, by controlling what information is available, who gets the information, and when it’s disseminated, reshape trading conditions in less than favorable ways? This case provides a window on a later stage fintech start-up simultaneously differentiating itself versus incumbents and old ways of trading and versus new fintech competitors.

Lending Club is a B2B and B2C “peer-to-peer” (P2P) online lender. This case investigates whether P2P lending provides a novel source of credit supply and demand. Is this a new business, or “old wine in new bottles,” simply what critics describe as “regulatory arbitrage” as startups evade regulatory rules. It also traces the arc of a fintech startup from founding to going public, and the challenge of fintech valuation.

Reading Materials:

General Fintech Background:

- Lerner, Josh, and Tufano, Peter. 2011. *The Consequences of Financial Innovation: A Counterfactual Research Agenda*. NBER Working Paper 16780. <http://www.nber.org/papers/w16780>
 - This paper lays out all the controversies about financial services innovation
- Cohen, Lauren, Malloy, Christopher, and Nguyen, Quoc. 2015. *Lazy Prices*. <http://laurenhcohen.com/wp-content/uploads/2017/09/lazyprices.pdf>
 - This paper applies machine learning to extract investable insights from the Risk section of company financial reports-there is also a You Tube video of Cohen you can watch
- Lee, Sung. 2019. *Fintech Nudges: Overspending Messages and Personal Finance Management*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3390777
 - This paper illustrates how behavioral nudging in an app influences financial decision-making.

Pirate Booty (Loot)

- **Pirate Booty Case** (on NYU classes)
- LTV: CAC: <https://medium.com/gringottswizardingventures/the-ultimate-guide-to-vcs-ltv-cac-analysis-c74019ad72af>
- **Venture Capital for Dummies** <https://www.amazon.com/Venture-Capital-Dummies-Nicole-Gravagna/dp/1118642236> (this book places more emphasis on entrepreneurs preparing to raise capital)
- Kerr, William R., Lerner, Josh, and Schoar, Antoinette. 2014. The Consequences of Entrepreneurial Finance: Evidence from Angel Financings. *Review of Financial Studies* 27, no.1. January: 20-55. Available at: www.hbs.edu/wkerr/KLS-Angels-Oct2011.pdf

- Sequoia Pitch Deck. Available at: <https://www.slideshare.net/PitchDeckCoach/sequoia-capital-pitchdecktemplate>

Trumid

- **Trumid Case** (on NYU classes)
- Flextrade Blog. 2018. *Electronic Bond Trading at the Crossroads*:
<https://flextrade.com/electronic-corporate-bond-trading-crossroads/>
- Bloomberg. 2018. *Electronic Bond Trading Gains Ground*
<https://www.bloomberg.com/news/articles/2018-02-15/electronic-bond-trading-gains-ground-as-market-finally-matures>
- videos on the Law of One Price (LOOP)
 - In international trade:
<https://www.youtube.com/watch?v=2WwO9eGiKL0>
 - In fixed income trading:
https://www.youtube.com/watch?v=pewCs_nP5pc

Lending Club

- Stanford Business Journal article about Gornall and Strebalaev, available at:
<https://www.gsb.stanford.edu/insights/silicon-valleys-unicorns-are-overvalued>
- Damodaran, Aswath. *The Dark Side of Valuation* Damodaran, Aswath. *The Dark Side of Valuation*. <http://people.stern.nyu.edu/adamodar/pdfiles/country/darkside.pdf>
- Corkery, Michael. 2016. *As Lending Club Stumbles, Its Entire Industry Faces Skepticism*. *The New York Times*. Deal Book. May 9. Available at:
- <https://www.nytimes.com/2016/05/10/business/dealbook/as-lending-club-stumbles-its-entire-industry-faces-skepticism.html>

Case Questions:

Pirate Booty (Loot)

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| <ul style="list-style-type: none"> • Prepare and Submit Case Questions: individual work, maximum 1 page total bullet point answers |
| <ul style="list-style-type: none"> ○ Would you invest in Pirate Booty? Why or why not? ○ Pirate Booty “outsourced” much of their tech stack. Why? ○ Pirate Booty chose not to obtain a banking license. Why? ○ In your view, what is the most optimistic assumption in Pirate Booty’s 5- year financial forecast. The most conservative one? Why? |

Trumid

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| <ul style="list-style-type: none"> • Prepare and Submit Case Questions: individual work, maximum 1 page bullet point answers |
| <ul style="list-style-type: none"> ○ Who are Trumid’s main competitors, and what is the source of Trumid’s competitive advantage versus these competitors? ○ Will Trumid make corporate bond markets trading more efficient? Please indicate how you would determine this. ○ How did Trumid induce dealers to join the platform? |

OPTIONAL Post-class assessment: Lending Club

- ***Please prepare a one-page single spaced essay answering the following question. You may take either side of the argument:***
 - Incumbents often accuse fintech startups of “regulatory arbitrage,” wherein the startup skirts well-established rules, like bank capital requirements. Is Lending Club a real fintech innovator, or an example of “regulatory” arbitrage?