ROMAN SIGALOV

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EDUCATION

Harvard University   *2017 - 2023 (expected)*
PhD Candidate, Business Economics

New Economic School   *2013 - 2017*
Bachelor of Arts in Economics, *summa cum laude*. Bachelor of Excellence award

WORK EXPERIENCE

Goldman Sachs, Summer Associate   *Jul. 2021 - Aug. 2021*
Investment Strategy Group. Systematic Option Strategies

RESEARCH

Jump risk: estimation and implications
(*with Nikunj Kapadia and Emil Siriwardane*)

- Estimated model free jump measure based on difference between risk-neutral variance and integrated variation for the full cross section of equity option
- Portfolio sorts on the average jump measure are priced in the cross-section of stock returns
- Used particle filter maximum likelihood to show that leading macro-finance models are inconsistent with the time-series of the empirical jump measure

Real and Financial Options: A Production Based Approach to Option Pricing

- Documented higher skews for growth firms in expansions but not in recessions.
- Priced options in a novel model based on firms investments consistent with the finding.
- Solved a dynamic optimization problem utilizing large scale parallelization with multiple GPUs to match the model quantitatively to the data.

Portfolio choice with sustainable spending: A model of reaching for yield
(*Journal of Financial Economics, 2022, with John Y. Campbell*)

- Solved a dynamic portfolio choice model with a constraint linking spending rate and expected portfolio return.
- Showed that a lower real interest rates lead to more risk-taking in both static and dynamic models.

TECHNICAL SKILLS

Programming Languages: Python (Numba, JAX for GPU acceleration), R, Julia

TEACHING EXPERIENCE

Teaching Assistant to Tarek A. Hassan, PhD Level Asset Pricing   *Spring 2021*

Teaching Assistant to John Y. Campbell, PhD Level Asset Pricing   *Fall 2019*