

Arnab Biswas

✉ arnabb18iimb@gmail.com; arnab.biswas18@iimb.ac.in ☎ +91 891 0873594
[LinkedIn](#) || [Website](#)

I am a Doctoral Scholar in the Finance and Accounting area at the Indian Institute of Management Bangalore (IIM B). My academic research primarily focuses on the significance of expectations and market frictions in macroeconomics and financial asset pricing. Additionally, I am a passionate learner of generative AI, machine learning, and deep learning techniques, which I incorporate into my research methodologies. Overall, my work falls within the field of financial economics, and my research interests are broadly categorized into the following areas:

RESEARCH INTEREST

- **Macro - finance**
- **Macro Economics - Monetary Policy, Heterogenous Agent Models**
- **Financial Economics and Computational Finance**
- **Theoretical and Empirical Asset Pricing**
- **Banking and Financial Markets**
- **Market Microstructure**

I usually work with both structural and empirical formulations. My thesis chapters are briefly defined below. With some revisions to address the feedback, both papers can be published in a respected financial economics journal.

WORKING PAPERS FROM THESIS

Paper 1: Monetary Policy, Unanchored Inflation Expectation Risk and Government Bond Premia: An Indian Market Perspective (Job Market Paper)

The paper examines the dynamics behind the **persistent term premium (risk premium)** of **ten - year Indian Gsecs**, particularly under the current **Inflation Targeting regime**, with a particular emphasis on the drifts in the ten - year ahead inflation expectations. The Expectation Hypothesis channel of the ten - year bonds declined with the implementation of a lower inflation target of 4%, but the term premium component of these long - term bonds continues to fluctuate on average in the range of 110 basis points (bps) to 220 bps in both the pre and post - IT periods. This persistently large magnitude of term premium primarily arises from **unanchored drifts** in long - term (ten - year ahead) inflation expectations of the bond - market participants, which occasionally get upward - revised during periods of counter - cyclical inflation. The underlying inflation in these periods exceeds substantially **upper rational bounds** with **short - term inflation expectations**. Such breaches recur frequently within a short span of five years, making bond market participants **hedge** the risk by charging a persistent term premium.

Paper 2: Corporate Borrowing Constraint and Bond Term Premium

This paper explains corporate bond yields and term premiums in the U.S. financial market, with a particular emphasis on the **financial market segmentation** and the **debt specifications** imposed on non - financial intermediaries, namely **earnings - based and**

collateral-based constraints. The research presents empirical evidence demonstrating that supply-side shocks, particularly investment shocks, exhibit a positive correlation between financial institutions' leverage (asset-to-equity ratio) and net worth with bond yields, term premiums, and corporate debt issuance. This, in turn, contributes to real economic expansion. The findings indicate that these relationships can be effectively modelled within a sticky price framework that incorporates earnings-based constraints and financial segmentation. However, the study also reveals that such quantitative modelling fails to hold in an economy primarily governed by collateral-based constraints, even when accounting for financial market segmentation.

WORKS OUTSIDE THESIS

- I am developing a framework that employs a recursive learning approach to generate a volatility index similar to the VIX and the Bloom index. This framework can be utilized to analyze time-varying premiums in major asset classes, including bonds and equities.
- I am also studying heterogeneity regarding firms' investment and cash holdings in developed economies shaped by monetary and fiscal policies.
- I have recently begun exploring the integration of LLM architecture into asset pricing forecast models. My primary focus is on combining the stochastic discount factor (SDF) with a context-aware and large-scale transformer architecture, primarily to achieve two key objectives: i) the flexible sharing of conditioning information across assets to produce context-aware forecasts and ii) the maximization of out-of-sample model performance by pushing the boundaries of model parameterization.

TECHNICAL SKILLSET

- Software Languages: R, RCpp, PYTHON, MATLAB, GAUSS, C++
- Cloud Computing Resources: AWS EC2, Google AI

FINANCIAL SKILLSET

- Financial Analysis and Valuation
- Investment Strategies
- Risk Management

WORKSHOPS ATTENDED

- Econometric Society Summer School in Dynamic Structural Econometrics on Deep Learning for Solving Dynamic Models 2023: Organized by University of Lausanne, Switzerland.
- Macro-Finance Summer School 2023: Organized by Bendheim Centre for Finance, Princeton University.
- Statistical Methods in Finance 2019: Jointly organized by Chennai Mathematical Institute and Indian Statistical Institute Bengaluru.

RESEARCH CONFERENCES ATTENDED

- Core, PhD Doctoral Colloquium 2022, Indira Gandhi Institute of Development Research (IGIDR).
- Annual Conference on Economic Growth and Development, ISI Delhi 2022.
- India Finance Conference 2022.

TEACHING ASSISTANSHIP

- Advance Value Investing ; Target Audience: Executive MBA and MBA
- Venture Capital , Private Equity and Public Markets; Target Audience: Executive MBA and MBA
- Accounting for Decision Making; Target Audience: MBA
- Financial Derivatives; Target Audience: MBA
- Global Securities Markets; Target Audience: MBA

TEACHING INTEREST

- **Research Themed Courses:** Macroeconometreics and Macro-finance || Time Series and Financial Econometrics || Stochastic Process || Linear and Non-Linear Optimization for Economist || Deep Learning & Machine Learning for Economists || Corporate Finance and Financial Institutions
- **Business Application Courses:** Debt market and Fixed income Strategies || Investment Management and Trading Strategies || Advance Value Investing and Valuation || Financial Derivatives || Corporate Finance || Cost Management

EDUCATION QUALIFICATION

- **Doctoral Programme, Finance & Accounting Area, IIMB (June 2018 - 14th February 2025)**
 - Overall CGPA 3.28 out of 4
- **Executive MBA, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur (IIT, KGP)(June 2016- March 2018)**
 - Attended 10 terms, CGPA 8.25 out of CGPA 9.25
- **BTech., Electronics and Instrumentation, Techno India SaltLake, West Bengal University of Technology (2007-2011)**
 - CGPA 8.82 out of 10
- **Senior School Certificate Examination, 2007 - 87.6%**
- **All India Secondary School Examination, 2005 - 88.2%**

PROFESSIONAL COURSES

- Algorithmic Trading Strategies by Nick Firoozye.

- Certification on Machine Learning and Generative AI from IIT, KGP.
- Advance Project Management Modules and Project Finance, L&T Institute of Project Management.

PROFESSIONAL EXPERIENCE

- **Assistant Manager Larsen and Toubro, Railway Business Unit (June 2011 - March 2017)**

I was assigned to the Railway Business Unit. My main roles and responsibilities involved but not limited to:

- Estimation of Cost to Completion in terms of project schedule.
- Preparing Job Cost Report at project level.
- Estimation of Daily Sales Outstanding and Accruals at project level.
- Estimating EBITDA and Cashflows and dealing the Billing Cycle(Account Receivables) at project level.

- **Selected in ICICI Bank (March 2018)** - Selected in their Business Leadership Program mainly to be posted in their group companies in the roles related to Treasury dealers, Fund Managers, Analysts, Institutional Sales Professionals, and Investment Advisors in the securities markets.

REFERENCES

- Prof. Chetan Subramanian
Dept. of Economics
Indian Institute of Management, Bangalore
chetan.s@iimb.ac.in
- Prof. Ravi Anshuman
Dept. of Finance and Accounting
Indian Institute of Management, Bangalore
anshuman@iimb.ac.in
- Prof. Sankarshan Basu
Dept. of Finance and Accounting
Indian Institute of Management, Bangalore
sankarshan.basu@iimb.ac.in
- Prof. Abhinav Anand
Dept. of Finance and Accounting
Indian Institute of Management, Khozicode
abhinav.anand@iimk.ac.in