

## Highlights of CAFRAL Activities

### Paper Publication:

1. [“Implementation of Labor Laws and Informality”](#) by Dr. Vidhya Soundararajan (with Ritam Chaurey and Gaurav Chiplunkar). *Accepted, Journal of Political Economy: Microeconomics*
2. [“Do Rural Roads Promote Inclusive Entrepreneurship?”](#) by Dr. Vidhya Soundararajan (with Ananyo Brahma). *Accepted, Journal of Economic Behavior and Organization*

### Newspaper Articles

1. [‘India’s Labour Codes: Towards a coherent, modern regulatory framework’](#) by Vidhya Soundararajan in The Pioneer, Nov 25, 2025

### Policy Article

1. [‘R&D tax credit policy, product development, and welfare gains’](#) by Dr. Sankalp Mathur in Ideas for India, Nov 20, 2025
2. [‘Deregulating deposits: What India’s experience tells us about banking today’](#) by Dr Nirupama Kulkarni in Ideas for India, Oct 6, 2025

## SEMINAR/CONFERENCE PRESENTATIONS

### **'Financially Constrained Procurement', Dr Emilio Bisetti, HKUST, November 13, 2025**



**Abstract:** We investigate how local governments’ financial constraints shape procurement markets and local economic outcomes. Using detailed data on Brazilian municipal procurement and population-based discontinuities in federal transfers, we show that higher transfers alter supplier market structure. Specifically, improved municipal finances enable larger, more frequent tenders and faster supplier payments, drawing previously excluded small and young firms into competition. This increases small supplier participation and overall bidder participation by 4-7%, while reducing procurement prices by 4-5% for a 10% transfer increase. Enhanced competition from new entrants induces large price reductions for essential public goods and services, suggesting pass-through effects to local populations.

**"Credit Contract Enforcement and Income Disparities across Indian States", Dr. Kriti Khanna, Plaksha University, 15th October 2025**



**Abstract:** This paper evaluates the role of enforcement of credit contracts in explaining the income per capita disparities across Indian states. Firstly, I develop and calibrate a dynamic heterogeneous-agents general equilibrium model, featuring voluntary and involuntary entrepreneurs, to capture how variation in credit contract enforcement shapes financial access, occupational choices, and the allocation of factors of production. In the model, state-specific enforcement capacity generates endogenous borrowing constraints that affect individuals' access to credit, the potential scale of firms they can operate, and the profits they can earn. Combined with labor market frictions and general equilibrium effects on wages and interest rates, these borrowing constraints jointly determine the distribution of talent, capital, and labor across production units. Improved

enforcement reduces misallocation and raises aggregate productivity and output per capita. Secondly, I verify the model's predictions on occupational choices using microdata from the National Sample Surveys of Employment and Unemployment. I exploit cross-state variation in the effective impact of a major judicial reform aimed at expediting the resolution of civil suit cases – to estimate the causal effect of improved credit contract enforcement on individuals' occupational outcomes. Consistent with the model's general equilibrium mechanisms, I find that greater judicial efficiency is associated with a lower likelihood of voluntary entrepreneurship and a tendency toward higher shares of involuntary self-employment and wage work.

**“Household Portfolio and Deposit Insurance: Implications for the Supply of Safe Assets”, Dr. Nishant Vats, Washington University, 10<sup>th</sup> October 2025**

**Abstract:** This paper investigates the effect of deposit insurance (DI) on household portfolio allocation between bank deposits and risky assets. Theoretically, limited DI creates a kink in the capital allocation line, causing depositor bunching at the DI threshold and increased equity holdings. Using a natural experiment in India and individual holdings on stocks, deposits, and mutual funds, we confirm depositor bunching at the DI threshold. Leveraging a bunching-in-differences design, we show that DI expansion shifts portfolios from equities and mutual funds to deposits, driven by unmet demand for safe assets.

Bunchers increase their deposits between 3.6% and 5.1% by liquidating their stock holdings, which were more exposed to safer state-owned enterprises, transiently affecting the asset prices of these stocks. We show that the share of bunchers is a sufficient statistic to measure the depositor-implied risk of bank default. Our estimates of the welfare effect of changes in DI show that depositors gain at least 4% as DI increases, even after accounting for the resulting moral hazard by banks.

**Highlighting Select CAFRAL New Working Papers**

**What Determines Household Expectations?**

**Authors:** Aditi Singh, Assistant Professor, CAFRAL (with Anushka Mitra)

**Abstract:** This paper examines which macroeconomic signals shape household expectations and finds that unemployment shocks play a more influential role than inflation shocks. Using daily data, we identify which announcements prompt households to revise their expectations. We construct two shock series—assuming households are either sophisticated or naive—based on the surprise components of announcements. Labor market news strongly influences both general economic sentiment and inflation expectations. Even when inflation rises and unemployment falls, households respond more to unemployment shocks. Most changes in inflation expectations are driven by labor market shocks. During negative supply and demand shocks, unemployment remains the dominant driver.

**Identifying Hand-to-Mouth Households: Evidence from India**

**Authors: Aditi Singh, Assistant Professor, CAFRAL (with Vivek Gupta and Fiorella Pizzolon)**

**Abstract:** This paper investigates the prevalence and characteristics of poor hand-to-mouth (P-HtM) and wealthy hand-to-mouth (W-HtM) households in India—an emerging economy where high household savings coexist with limited liquidity and weak credit access. Using a harmonized dataset that combines two nationally representative surveys, we construct household-level balance sheets including income, consumption, and liquid and illiquid assets. We classify households into poor and wealthy HtM categories following the methodology of Kaplan et al. (2014), and use a range of machine learning models to impute missing income data. Our findings indicate that while P-HtM households account for 2-5% of the population, W-HtM households comprise a much larger share—15-27%, with total HtM prevalence ranging from 17-32%. Classifications based solely on net worth substantially understate this share. We also find that average propensities to consume are similar across HtM and non-HtM groups, highlighting the broader financial constraints facing Indian households. These results underscore the importance of distinguishing between liquidity and net worth when evaluating consumption behavior and the transmission of fiscal and monetary policy in developing economies.

**Show Me the Dowry: How Traditional Customs Affect Education in Rural India**

**Authors: Natasha Jha, Assistant Professor, CAFRAL**

**Abstract:** This study examines the impact of a law that increased penalties for dowry on educational attainment in rural India, using data from the Rural Economic and Demographic Survey. A difference-in-differences approach reveals that the law effectively reduced dowry payments, but also female education, with the decline in female education being most pronounced in communities with higher dowry prevalence. Since dowry payments signal adherence to traditional values, after anti-dowry laws, families must come up with an alternative signal. Consequently, lowering female education becomes the alternative signal showing adherence to tradition. Hence, while the anti-dowry law combats an exploitative system, it inadvertently reduces female education.

**Agriculture and Arsenic: Can Overextraction of Groundwater Make Us Sick?**

**Authors: Natasha Jha, Assistant Professor, CAFRAL**

**Abstract:** This paper examines how groundwater irrigation in India, while crucial for poverty reduction, created an environmental externality through arsenic contamination. Using historical variation in groundwater stocks and high-yielding variety seed diffusion, I find that districts with richer groundwater endowments have 70% more habitats exceeding safe arsenic levels in their groundwater. The relationship is strongest in districts with medium-thick aquifers, which had higher early adoption of deep tubewells. Analysis reveals that historical irrigation practices, rather than contemporary agricultural inputs, drive arsenic contamination, highlighting the long-term environmental consequences of irrigation technology choices.

**Shaping Future Success: Evidence from an Early Childhood Human Capital Formation Intervention**

**Authors: Natasha Jha, Assistant Professor, CAFRAL (with Deepak Saraswat, Shwetlana Sabarwal, Lindsey Lacey, Nishith Prakash, and Rachel Chazan-Cohen)**

**Abstract:** Nearly 250 million children under five in low- and middle-income countries face developmental deficits despite expanding access to early childhood services. We present evidence from a large-scale randomized controlled trial (N=3,131 children in 201 schools) in Nepal's government school system testing three implementation models that combine classroom quality improvements with parental engagement. Following a 15-day teacher training, schools were randomly assigned to deliver caregiver sessions through teachers alone, teachers with in-class helpers, or external facilitators. All three models raised children's developmental outcomes by 0.10--0.20 standard deviations and improved caregiver engagement by similar magnitudes. The helper model proved most effective, sustaining classroom quality while maintaining teacher-family connections. Benefits are concentrated among the most disadvantaged, households with lower baseline engagement, higher stress, and less education, with the largest developmental gains among children starting furthest behind. Mechanism analysis reveals that the intervention transformed home and school from competing substitutes into complementary drivers of development. These findings demonstrate that feasible interventions embedded within existing systems can deliver scalable gains in early childhood human capital while narrowing inequality.

**Minimum Support Prices in Indian Agriculture: Supporting Whom and at What Price?**

**Authors: Natasha Jha, Assistant Professor, CAFRAL (with Shilpa Agarwal and Ishani Chatterjee)**

**Abstract:** Distortions introduced by price-controls may be underestimated if controls are captured for uses beyond fixing market failures. We study India's minimum support prices (MSP) for food grains, and find that the central government announces a higher MSP for a crop when a larger area under cultivation for that crop is slated to go for state elections. Since the government's procurement price is the same across states, this blunt instrument is used more when other policy instruments are unavailable, i.e., when the incumbent state government is unaligned with the center. Higher MSP directly reduces welfare by increasing consumer prices.

**Unequal Transmission: Monetary Policy and Household Consumption in India**

**Authors: Aditi Singh, Assistant Professor, CAFRAL (with Fiorella Pizzolon)**

**Abstract:** This paper provides new empirical evidence on the effects of monetary policy shocks on household consumption, income, and employment in a large developing economy. Using high-frequency identification of monetary surprises combined with local projection methods, we estimate dynamic impulse responses to both current and expected policy shocks. Our results indicate that a contractionary shock to the short-term policy rate raises consumption and income on impact but reduces them in the medium run, while employment declines persistently. In contrast, a contractionary shock to the expected path of future interest rates increase consumption and employment but lowers income. The effects are stronger after the first quarter, suggesting delayed transmission. We also observe heterogeneity across socio-economic groups: rural households, those with lower education, women, younger and older workers, and lower-caste groups exhibit significantly larger consumption declines. A back-of-the-envelope calculation yields a marginal propensity to consume of about 40 percent out of transitory, policy induced income changes. Our findings highlight the importance of distributional channels in shaping the aggregate transmission of monetary policy in developing economies.

### **Aggregate Savings in India: Where Do We Go From Here?**

**Authors:** Aditi Singh, Assistant Professor, CAFRAL (with Prachi Mishra)

**Abstract:** The savings rate in the Indian economy has declined sharply since 2007 and approached a low of 29% of GDP in 2020. In this paper, we take a closer look at the historical evolution of aggregate savings in India, as well as its different components. We use a simple framework that seeks to explain the time variation in savings over the sample period. We find that increased prosperity more than explains the decline in savings of Indian households, while the decline in old age dependency was a major offset. Our baseline forecast implies a roughly 2 percentage point decline in household savings as a fraction of GDP over the next five years. We build some medium-term scenarios to understand the trade-offs going forward.

### **Conference/Seminar Presentation:**

1. "The Effects of Smartphones versus Cash on Women's Economic Empowerment: Experimental Evidence from Malawi", Dr. Shreya Bhattacharya: Department Seminar, **ISI Delhi**, Nov 21
2. "The Effects of Smartphones versus Cash on Women's Economic Empowerment: Experimental Evidence from Malawi", Dr. Shreya Bhattacharya: Department Seminar, **Ashoka University**, Nov 19
3. "Breaking Barriers to Financial Access: Cross-Platform Digital Payments and Credit Markets", Dr. Nirupama Kulkarni: **IGIDR Mumbai**, Nov 19
4. "Financial Repression, Deposit Rate Deregulation and Bank Market Power", Dr. Nirupama Kulkarni: **ISI Macro Workshop**, Oct 23-24

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### **Highlights of Learning Programs**

#### **Virtual Conference on Draft IRAC Norms On ECL Based Provisioning and Standardized Approach for Credit Risk for Commercial Banks | November 25, 2025 | Online**

CAFRAL organised a half-day "Virtual Conference on Draft IRAC Norms on ECL-Based Provisioning and the Standardised Approach for Credit Risk for Commercial Banks" on November 25, 2025. Shri C. Sankaranarayanan, Senior Program Director, shared an overview of the program, highlighting its objectives, structure, and the growing importance of ECL in the evolving regulatory landscape.

In his inaugural address, Shri Manas Mohanty, Additional Director, underscored the need for preparedness for the forthcoming regulatory changes and emphasised the significance of strengthening risk management practices. Shri Vaibhav Chaturvedi, CGM, RBI, explained the RBI guidelines relating to Expected Credit Loss (ECL) and the Standardised

Approach for Credit Risk, outlining regulatory expectations and the broader supervisory context.

Shri Ajay Sirikonda, of E&Y, deliberated on the key imperatives and challenges in implementing the ECL framework, drawing attention to practical considerations and emerging issues faced by financial institutions. Shri Rajosik Banerjee, Partner, KPMG, covered credit risk under the Standardised Approach, including notable changes in the computation of capital charges and the application of various credit risk mitigation techniques. 136 officers of banks attended the interactive conference. The program concluded with Shri Sankaranarayanan expressing appreciation to the speakers and participants for their valuable insights and constructive engagement.

#### **Virtual Program on Risk Management for NBFCs | November 21, 2025 | Online**

CAFRAL organized a one-day Virtual Program on Risk Management for NBFCs on November 21, 2025. Shri Kamal P Patnaik, Senior Program Director, gave an overview of the risk management challenges in the NBFC sector and urged all the participants to make the best use of program by actively interacting with eminent speakers.

It also deliberated on liquidity risks emerging from the growing interconnectedness between NBFCs, banks, and mutual funds, and examined frameworks for co-lending arrangements along with related risk assessment and mitigation strategies. The sessions further explored ways to strengthen operational resilience through effective cyber

Shri Manas Mohanty, Additional Director, emphasised in his inaugural address the need for NBFCs to strengthen their governance and risk management frameworks in line with the sector's growing scale and interconnectedness. He highlighted the importance of proactive risk identification, robust compliance, and strong customer protection mechanisms. He noted that institutions investing in operational and cyber resilience will be better equipped to navigate emerging risks and ensure sustainable growth.

The program discussed key systemic challenges facing the NBFC sector, with a focus on aligning risk and compliance practices with supervisory expectations.

risk management, while also emphasizing the need to embed a strong risk culture, supported by a robust governance framework, across business verticals. The program concluded with discussions on building a sound compliance eco-system, highlighting the importance of KYC/AML practices and internal controls in enhancing institutional preparedness and operational resilience.

The program concluded with a heartfelt thanks from Shri C Sankaranarayanan, Senior Program Director, reiterating the significance of understanding the evolving risk landscape for NBFCs and the institutional capabilities required to navigate it effectively.

### **Virtual Program on IT Governance, Risks, Controls & Assurance | November 12, 2025 | Online**

CAFRAL conducted a virtual program on IT Governance, Risks, Controls & Assurance on Nov 12, 2025.

Shri Manas Mohanty, Additional Director, CAFRAL, commenced the program with a warm welcome and delivered the inaugural address. He highlighted the growing significance of robust IT governance frameworks and effective risk management mechanisms in an increasingly digitalised financial ecosystem.

The program provided a comprehensive overview of emerging trends, supervisory expectations, and best practices in IT governance, risk management, and assurance functions across the financial sector. Discussions emphasized effective management of technology lifecycle risks, including obsolescence, vulnerability exposure, and change control, to ensure system stability and resilience. The sessions also highlighted the importance of data-driven approaches in assessing cyber security posture through the use of metrics, automation, and analytics.

Participants explored strategies for enhancing oversight and resilience across third-party ecosystems, recognizing the critical role of vendor risk management in maintaining operational continuity. The evolving role of information systems audit was discussed, particularly the shift from traditional, point-in-time reviews to continuous assurance mechanisms that support operational resilience, observability, and incident response.

The program concluded with a heartfelt thanks from Shri Kamal P Patnaik, Senior Program Director, CAFRAL who expressed his gratitude to all the speakers and participants from banks and NBFCs for their active engagement and valuable contribution to the program.

### **Program on Compliance and Risk for Senior Officers of Banks, FIs and NBFCs | November 10-11, 2025 | Mumbai**



CAFRAL conducted a two-day program on Compliance and Risk for Senior Officers of Banks, FIs and NBFCs, on November 10-11, 2025. Shri C. Sankaranarayanan, Senior Program Director, CAFRAL presented the program overview, providing clarity on the agenda.

Shri Manas Ranjan Mohanty commenced the program with a warm welcome to all participants and delivered the inaugural address. The program discussed the evolving landscape of

The program also addressed financial crime risk and compliance, as well as issues relating to accountability and enforcement in the regulatory ecosystem. Additionally, discussions centred on the supervisory perspective of cyber security within the GRC framework, operational and compliance issues in third-party risk management, and approaches to consumer protection with regard to customer complaints and grievance handling. The program additionally

compliance and risk, highlighting the balancing act between adherence and operational agility. Deliberations covered emerging trends in governance, risk and compliance frameworks, with emphasis on strengthening organisational resilience. The sessions further examined key aspects of risk-based supervision and compliance assessment, alongside an in-depth exploration of the changing cyber security threat landscape, incident reporting mechanisms and crime prevention measures for financial intermediaries.

focused on the significance of internal audit in supporting the compliance function and concluded with critical insights into data localization, protection and privacy, outlining the challenges and considerations for regulated entities. The program concluded with thanks from Shri C. Sankaranarayanan, Senior Program Director who expressed his gratitude to all speakers and participants for their robust participation and the diverse viewpoints that enriched the overall discourse.

### Program on Operational Risk Management for Senior Officials of Banks, FIs & NBFCs | October 16, 2025 | Mumbai



CAFRAL organized a one-day Program on Operational Risk Management for Senior Officials of Banks, FIs & NBFCs on October 16, 2025. Shri Kamal P Patnaik, Senior Program Director provided a brief overview on highlighting the growing significance of operational resilience in a rapidly evolving risk environment. Shri Manas Mohanty, Additional Director in his inaugural address discussed the increasing complexity of operational risks and the need for institutions to build strong governance frameworks to address them.

Shri Baldev Prakash, DMD and Group Chief Risk Officer, State Bank of India, delivered the keynote address on the best practices in Operational Risk Management (ORM) for a Resilient Financial Sector. The program discussed a wide spectrum of themes central to strengthening operational resilience across financial institutions. Key deliberations covered best practices in ORM to enhance sectoral robustness, followed by insights into the evolving operational risk landscape and emerging regulatory expectations. The importance of effective cyber risk

identification, detection, and preventive mechanisms was also deliberated upon, highlighting the growing need for vigilance in an increasingly digital environment. The program further examined third-party and outsourcing risks in the context of the DPDP Act 2023, with a focus on prevention and mitigation strategies. Discussions also explored robust approaches to operational risk measurement and mitigation to support institutional resilience. The program concluded with an in-depth discussion on implementing best practices in Business Continuity Management to ensure preparedness and continuity across financial institutions.

The program concluded with a heartfelt thanks from Shri Kamal P. Patnaik, Senior Program Director, who expressed his gratitude to all speakers and participants for their active engagement and thoughtful contributions. He highlighted that the insights shared during the sessions would enable institutions to strengthen their operational resilience and adopt more forward-looking risk-management practices.

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### Upcoming Learning Program

**Program on Climate Change & Sustainable Finance | January 21, 2026 | Forum & Capitol, Hotel Taj President, Cuffe Parade, Mumbai**

#### **Background:**

The Annual United Nations Climate Conference officially opened on November 10, 2025, in Belém, Brazil, marking the start of high-stakes global negotiations on climate action. In his opening address, the President of Brazil declared that, "Climate change is no longer a threat of the future. It is a tragedy of the present."

Our Hon'ble Prime Minister Shri Narendra Modi has also emphasized the need for a collective action to combat climate crisis by adopting LiFE (Lifestyle for Environment) by every citizen. The climate change poses systemic risks to economic growth, financial

stability, and the resilience of financial institutions. Its impacts are widespread and interconnected, influencing multiple sectors simultaneously and affecting the portfolios and exposures of banks, NBFCs, and financial institutions. As India and the global economy transition towards a low-carbon pathways, industries—especially carbon-intensive ones—face significant adjustments requiring technology upgrades and transition finance. These shifts underscore the need for a stronger climate-risk assessment, enhanced governance, and alignment of business strategies with national climate commitments. Financial institutions, therefore, play a crucial role in managing climate-related risks and mobilising capital to support a sustainable, climate-resilient economy.

**Objective:**

This program aims to deepen understanding of climate-related financial risks and sustainable finance among senior leaders. It will focus on the evolving landscape of physical and transition risks, the integration of climate considerations into governance and risk-management frameworks, and explore emerging regulatory and disclosure requirements. The program will also provide an opportunity to ways towards a de-carbonized balance sheet in financial institutions and engage constructively with the regulators and experts, to support national climate commitments.

**Participants' Profile:**

Senior executives from banks, NBFCs, and financial institutions, including Heads of Risk, Strategy, Sustainability/ESG, Compliance, and Credit, as well as professionals involved in climate risk assessment, transition finance, and sustainable finance initiatives. The program is also relevant for Board Members and members of Board-level committees overseeing risk, strategy, and sustainability.

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**Program on Developments in Financial Market: Trends & Challenges** | February 3, 2026 | Forum & Capitol, Hotel Taj President, Cuffe Parade, Mumbai

**Background:**

Financial markets continue to evolve rapidly, shaped by major shifts in global monetary conditions, geopolitical situations, technological advancements, regulatory shifts, etc. Indian financial system, supported by strong macroeconomic fundamentals and steady growth momentum, is witnessing significant progress in market deepening, product innovation and modernization of market infrastructure. Regulators, including the Reserve Bank of India, have remained focused on strengthening market resilience, enhancing transparency, improving governance frameworks, and fostering responsible market conduct. Recent initiatives around digital market infrastructure, transition to ECL frameworks, enhanced risk management practices, and greater integration with global markets through GIFT City gateway, underscore the importance of building an efficient, competitive, and well-regulated financial markets.

Against this backdrop, a comprehensive understanding of emerging trends, regulatory priorities, and evolving challenges is critical for market participants to navigate the fast-changing landscape effectively.

**Objective:**

This one-day program seeks to update participants on the latest policy developments, regulatory trends, and structural shifts in India's financial markets. The program will also sensitise participants to emerging risks, including those arising from technological innovations, global market volatility, and treasury operations. Additionally, it will highlight measures undertaken to strengthen market resilience, promote fair market practices, and support India's ongoing efforts towards greater financial stability and export competitiveness.

**Participants' Profile:**

The program is designed for senior officials at the level of AGM and above from banks, NBFCs, financial institutions and regulatory bodies who are involved in:

- Treasury and investment management
- Financial markets operations
- Risk management and compliance
- Asset–liability management (ALM)
- Market research, strategy, and economic analysis
- Regulatory reporting and policy implementation

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