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CAFRAL
CENTRE FOR ADVANCED FINANCIAL RESEARCH AND LEARNING
Promoted by Reserve Bank of India

CAFRAL Newsletter
January 2024 – February 2024

Highlights of CAFRAL Activities

CAFRAL Conference on Resolution of Stressed Assets and IBC – Future Road Map | January 10-11, 2024 | Mumbai

Shri Shaktikanta Das, Governor, Reserve Bank of India at CAFRAL Conference on Resolution of Stressed Assets and IBC – Future Road Map

CAFRAL organized a conference on "Resolution of Stressed Assets and Insolvency & Bankruptcy Code – the Future Road Map," on January 10th and 11th at the Taj Mahal Palace in Mumbai. The conference showcased significant insights into the evolution and future direction of insolvency and bankruptcy proceedings in India. The keynote address was delivered by Shri Shaktikanta Das, Governor, Reserve Bank of India. The Governor in his address underscored the IBC's pivotal role in addressing the challenges of stressed assets and insolvency in India, highlighting its impact on enhancing the efficiency of capital allocation and promoting a culture of credit discipline. He elaborated on the strategic measures implemented by the Reserve Bank of India to dovetail with the IBC framework, aiming at resolving large value stressed accounts and fostering a principled approach towards out-of-court resolutions. Reflecting on the IBC's journey since its inception, the Governor

Shri Shaktikanta Das, Governor, Reserve Bank of India with CAFRAL Team.

pointed out the tangible benefits it has brought about, including the resolution of a significant number of corporate debtors, substantial recoveries for creditors, and a notable shift in borrower behavior towards more responsible credit practices.

His insights emphasized the ongoing commitment to refining the insolvency and bankruptcy landscape in India, ensuring it remains a powerful tool for economic recovery and stability.

The inaugural address by Shri Swaminathan Janakiraman, Deputy Governor of the Reserve Bank of India underscored the transformative impact of the Insolvency and Bankruptcy Code (IBC) since its enactment in May 2016, emphasizing its role in introducing a structured, time-sensitive, and institutionalized approach to financial distress resolution. He discussed the amendments and proposed changes aimed at enhancing the efficiency of the IBC process, including the mandatory admission of applications upon established default, increased reliance on records from Information Utilities, and streamlining the resolution process.

Shri Swaminathan Janakiraman, Deputy Governor, Reserve Bank of India at CAFRAL Conference on Resolution of Stressed Assets and IBC – Future Road Map

The event brought together a diverse group of stakeholders, including eminent jurists, policymakers, bankers, and resolution professionals. This conference, through its research presentations and panel discussions, not only provided a platform for rich discussions on the current state and future trajectory of the IBC but also highlighted the collective efforts required from all stakeholders to further strengthen India's insolvency and bankruptcy framework.

Conference of Chief Human Resources Officers (CHROs) and Chief Learning Officers (CLOs): To Build a Future Ready Workforce | January 18, 2024| Mumbai

Smt. Indrani Banerjee, Additional Director, CAFRAL, Shri Om Prakash Mishra, DMD (HR) & CDO, State Bank of India and other speakers with program participants at CAFRAL Conference of Chief Human Resources Officers (CHROs) and Chief Learning Officers (CLOs): To Build a Future Ready Workforce

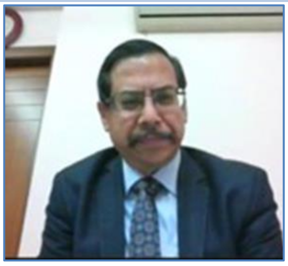
CAFRAL organised a half day conference of Chief Human Resources Officers (CHROs) and Chief Learning Officers (CLOs): To Build a Future Ready Workforce on January 18, 2024.

This conference aimed at bringing together potential leaders from the financial sector who would shape the future work force. The objective was also to obtain feedback and appreciate the learning gaps, enabling CAFRAL to plan to enhance the professional awareness and capabilities of senior executives and top management of banks who would be the future leaders in the financial sector.

Topics covered in this conference were Evolving HR Practices in Financial Institutions; Creating a Future Ready Workforce; Leadership Challenges in the Evolving Ecosystem – Emerging Trends in HR; CAFRAL Learning Programs – Approaches and Strategies; Learning Gaps and Developing Capabilities - Role of CAFRAL.

Rohit Jain, Executive Director, Reserve Bank of India delivered the keynote address. Other speakers in this conference were Faridun Dotiwala, Partner, McKinsey & Co. and Om Prakash Mishra, DMD (HR) & CDO, State Bank of India

CAFRAL Virtual Program on Financial Frauds & Forensic Audit | January 24, 2024 | Online


D.C. Jain


Indrani Banerjee


Mod Narayan Singh


Vyom Upadhyay


Dhruv Chawla


Tarun Bhatia


Sagarika Chakraborty


C. Sankaranarayanan

CAFRAL organised a one-day virtual program on Financial Frauds and Forensic Audit on January 24, 2024 through CISCO WebEx for senior officials and board members of Banks, FIs and NBFCs.

The virtual program aimed at providing a sound understanding of the audit and investigation processes relating to frauds with a view to strengthen the fraud governance and response systems of financial intermediaries and ensure effective implementation of fraud prevention measures.

Topics deliberated in the virtual program were Overview of Financial Frauds, Financial Crimes and Investigation; Fraud Monitoring & Mitigation Systems, Detection and Reporting – Regulatory Perspective; Forensic Audit – Processes, Techniques, Tools and Approaches; Evidence Collection, Maintenance of Record and Legal Resolutions – Case Studies and Discussion; Transaction Monitoring – Use of Advanced Techniques like AI & ML; Digital & Cyber Frauds – Case Studies.

D.C. Jain, Additional Director (Retd), Central Bureau of India delivered the keynote address. Indrani Banerjee, Additional Director, CAFRAL made the opening remarks and C. Sankaranarayanan, Senior Program Director, CAFRAL provided an overview of the program. Other Speakers were Mod Narayan Singh, General Manager, Department of Supervision, Reserve Bank of India; Vyom Upadhyay, Head- Data Science & Analytics, ICICI Bank; Dhruv Chawla, Partner and Head, India Financial Crime & Compliance, PWC India; Tarun Bhatia Managing Director and Head of South Asia, Forensic Investigations and Intelligence, Kroll India; Sagarika Chakraborty, Head, Gulf and Africa, IIRIS Consulting

CAFRAL – CEEI Financial Sector Leadership Program | February 5-9, 2024 | Mumbai


Shri Jayant Kumar Dash, Executive Director, Reserve Bank of India, Smt. Indrani Banerjee, Additional Director, CAFRAL and other speakers with program participants at CAFRAL–CEEI Financial Sector Leadership Program.

CAFRAL had organised a five-days Financial Sector Leadership Program in association with CEEI from February 5 to 9, 2024.

This program, designed for senior and middle management leaders of banking and financial services organizations in India, aimed to provide a leadership competency framework and enable the participants to create demonstrable and highly impactful leadership quotient. The program focused on high level functional skills of critical importance for financial sector leaders such as those relating to governance, strategy and risk.

Topics covered in this program included Emerging Paradigm in Banking Leadership; Macroeconomic Scenario: Shaping Indian Economy through Banking; Introduction to CAFRAL CEEI Leadership Competency Framework; Online Assessment of Competencies and Personality Test; Future Outlook for Leaders in the Financial Sector; Banking Policy Landscape – Present and Future; Fireside Chat Leadership Culture – Style and Substance; Creating Strategic Value; From Strategy to Execution; Winning in the Age of Digital Tsunami; Business Value Creation with Digital; Identifying Digital Business Models for Growth; Collaborative Leadership: Becoming a Trusted Advisor; Collaborative Leadership: Being Bold; Creating a Change Ready Mindset; Influencing to Drive Change; Governance & Assurance – Issues and Challenges; Unbundling Leadership Competency Assessment and Sample Report; Create a Leadership Development Plan.

Jayant Kumar Dash, Executive Director, Reserve Bank of India delivered the keynote address. Indrani Banerjee, Additional Director, CAFRAL made the opening remarks while Jyoti Kumar Pandey, Senior Program Director, CAFRAL gave an overview of the program. Other speakers in this program were G Mahalingam, Former Whole Time Member, SEBI; Ashwini Kumar Tewari, Managing Director, State Bank of India; R. Lakshmi Kanth Rao, Chief General Manager-in-Charge, Department of Regulation, Reserve Bank of India; Dr. D P Rath, Former Principal Adviser, Department of Economic and Policy Research, Reserve Bank of India; Prabir Jha, Founder & CEO, Prabir Jha People Advisory; Prof. Rajnish Dass, Academic Director, CEEI; Seema Shendye, Principal, Talent Strategy and Solutions, CEEI; Dr. Debjani Roy Choudhury, Program Director, CEEI; Prof. P.D. Jose, CEEI (from IIM Bangalore); Prof. Ramya Ranganathan, Visiting Faculty, CEEI; Jo Paulson, Senior Assessment Advisor, CEEI; Amritha Upadhyaya, Assessment Specialist, CEEI.

CAFRAL Virtual Program on Know Your Customer (KYC) and Anti Money Laundering (AML) | February 23, 2024 | Online


Indrani Banerjee


Arun Kumar Singh


S.S.K. Pradhan


Muralidharan R


Nihal Shah


Umesh Kumar Singh


S. Ramakrishna


C. Sankaranarayanan

CAFRAL organised a one-day virtual program on Know Your Customer (KYC) and Anti Money Laundering (AML) on February 23, 2024 through CISCO WebEx.

This virtual program sought to provide Directors on the Boards of Banks/FIs/NBFCs an overview of the KYC-AML framework and the associated risks to Regulated Entities on account of non-compliance. The program also aimed to provide an enhanced understanding and update on the changes in the KYC-AML regulations including the requisite management oversight required for an effective implementation of KYC-AML framework in the Regulated Entities.

Topics deliberated in the virtual program were KYC and AML Measures - Regulatory Framework; Supervisory Observations on KYC & AML Compliance - Use Cases; KYC & AML Compliance - International Perspective; Central KYC Registry and Compliance; Transaction Monitoring - Key Issues; KYC & AML - Compliance, Accountability & Enforcement.

Indrani Banerjee, Additional Director, CAFRAL made the opening remarks and C. Sankaranarayanan, Senior Program Director, CAFRAL provided an overview of the program. Other Speakers were Arun Kumar Singh, Chief General Manager in Charge, Enforcement Department, Reserve Bank of India S.S.K. Pradhan, General Manager, Department of Regulation, Reserve Bank of India; Muralidharan R, Deputy General Manager, Department of Supervision, Reserve Bank of India; Nihal Shah, Country AMLCO and South Asia Cluster AMLCO, Citi Bank- India; Umesh Kumar Singh, MD & CEO, CERSAI; S. Ramakrishna, General Manager & Principal Officer, AML-CFT, State Bank of India.

Release of CAFRAL Learning Calendar 2024 -25

Access Calendar: Learning Calendar 2024-25

RESEARCH PUBLICATIONS

Dr. Vidhya Soundarajan's paper titled **"Import Competition, Formalization, and the Role of Contract Labor"** (co-authored with Rahul Singh and Pavel Chakraborty) got accepted in the World Bank Economic Review (A journal)

Abstract: Does higher import competition increase formalization and aggregate productivity? Exploiting plausibly exogenous variation from Chinese imports, we provide empirical causal evidence that higher imports increases the share of formal manufacturing enterprise employment in India. This formal share increase is both due to the rise in formal-enterprise employment driven by the high productivity firms, and a fall in informal-enterprise employment. The labor reallocation is enabled by the formal firms' hiring of contract workers, who do not carry stringent string costs. Overall, Chinese import competition increased formal sector employment share by 3.7 percentage points, and aggregate labor productivity by 2.87%, between 2000-2001 and 2005-2006.

SEMINAR/CONFERENCE PRESENTATIONS

Dr. Gautham Udupa presented his paper **"Food, Fuel, and Facts: Distributional Effects of Global Price Shocks"** at **American Economic Association annual conference** during January 5-7, 2024, San Antonio, Texas

Abstract: In this paper we investigate the distributional implications of rising global food and oil prices using rich consumption and income panel data from India. We show that these external price shocks pass-through to domestic prices. We document that consumption inequality rises for the entire horizon of one year following a positive shock to global food and fuel prices. Using a household panel local projection method, we estimate heterogeneous consumption effects along the income distribution. We find robust evidence that lower income deciles are hit harder by rise in food prices, whereas rise in fuel prices hit both the lower and the middle income deciles. For both shocks, however, consumption of top income deciles is largely unscathed. The effects of external price shocks on inequality are quantitatively large and economically meaningful.

Dr. Yogeshwar Bharat presented the paper **"Food and Fuel Price Pass-through to Core Inflation – Evidence from Indian States"** at **5th Annual Economics Conference at Ahmedabad University** on January 5th, 2024

Abstract: We investigate how food and fuel price shocks pass through to core inflation using novel monthly state-level panel data in India. In a local projection framework, we find that food inflation transmits to core more than the fuel inflation. In a bilateral regression framework, the food and fuel inflation in one state spills over more to another state if the trade link between the two states is stronger. Do these results hold out in an IV framework?

Dr. Gautham Udupa presented the paper **"Direct and Indirect Effects of Improved Creditor Rights on the Macroeconomy"** at **the CAFRAL Conference on Resolution of Stressed Assets and IBC – the Future Road Map** during January 10-11, 2024.

Dr. Yogeshwar Bharat presented his paper **"Impact of IBC on the Twin Balance Sheet (TBS) challenge faced by Indian Economy"** at **the CAFRAL Conference on Resolution of Stressed Assets and IBC – the Future Road Map** during January 10-11, 2024.

Abstract: This paper studies the impact of Insolvency and Banking Code, 2016 on the balance sheet challenge of firms and banks simultaneously. Twin balance sheet problem has been a phenomenon in many emerging/developed economies post the great financial crisis. In our study, we show that post implementation of IBC, 2016 banks were able to clean up their balance sheet and it can be seen through various financial indicators. We further see that IBC gave these banks an extra procedure for resolution and we find that IBC had a much higher resolution rate compared to other existing mechanism. However, we do find that as time passed since the implementation of IBC, 2016 the share of resolution has dropped and reaching an equilibrium value which is higher than other mechanism, simultaneously the resolution period for IBC, 2016 is also increasing (same is true for dissolution too). We clearly find that for banks perspective, IBC had a positive impact and in the long term it might lead to a behavioural change in creditors and borrowers. The IBC, 2016 also had a significant impact on the balance sheets of firms too. To illustrate, we do a case study of the "Dirty Dozen" firms and list of top defaulter firms as recorded by IBBI. We find that financial indicators of these firms showed a clear uptrend post IBC, 2016 and all these firms were able to clean up their balance sheet. We clearly find the positive impact of IBC on firms balance sheet, not only the stressed firms, but the industry across firms of different sizes in general do show an improvement in financial health, alluding to a general behavioural change in the functioning of firms. We further find that default is not uniform phenomenon across sectors but some sectors are more prone to default compared to others. As a policy suggestion to IBC, we suggest to target these vulnerable sectors and may treat them separately compared to other sectors.

Dr. Yogeshwar Bharat presented his paper **"Asset side implications of banks' funding cost**" at the **Asia Meeting of the Econometric Society, IIT Delhi** on January 13th, 2024.

Abstract: Regulated banking systems with mandated fixed saving deposit rates below the prevailing market rates allow banks to raise deposits cheaply. Consequently, banks lean towards safer assets like government securities, limiting resources available for loans. We examine a 2011 deregulation episode in India using data from Indian banks from 2006 to 2020. Private sector banks increased their share of loans as a share of deposits by 7.6% compared to public sector banks. Private sector banks also increased loans as a percentage of assets by 2%. We construct a static banking model with heterogeneous banks and depositors to explain these empirical findings. Our paper underscores how deposit rate regulation can shape bank asset portfolios, potentially intensifying credit constraints and limiting the level of financial intermediation in the economy. By highlighting the impact of deposit rate deregulation in stimulating bank investment in high-yielding projects, our study aims to showcase how deregulation can alleviate credit shortages and promote economic growth.

Dr. Sankalp Mathur presented his paper **"Protectionism in a Green Suit? Market Power in Carbon Based Trade Policy Reform"** at the **International Conference on the Political Economy of Climate Change and Development co-organized by Royal Holloway University of London and IIM Calcutta in Kolkata, India** on January 29th 2024

Abstract: Carbon tariffs have received widespread support as a second-best policy tool to regulate foreign emissions indirectly. In this paper, I document novel evidence suggesting that carbon-intensive sectors have higher market power and thus charge higher markups. Thus, carbon tariffs lead to sizable profit-shifting across countries. I build a multi-industry structural model of international trade with input-output linkages to analyze the welfare implications of a carbon-based trade policy reform. I study the nature of profit shifting in response to the carbon-embodied tariffs and quantify the aggregate and distributional effects on welfare and emissions. The findings suggest that accounting for market power increases the effectiveness of trade policy in reducing global emissions. However, it generates heterogeneous effects across countries where countries may lose as high as four percentage points after accounting for profits with the counterfactual trade policy reform.

Dr. Nirvana Mitra presented a paper titled **"Sovereign Debt and Tax Smoothing in the Shadow of Corruption and Institutional Weakness"** at the **Delhi School of Economics** on February 8th, 2024

Abstract: Emerging countries exhibit volatile fiscal policies and frequent sovereign debt crises, that significantly diminish the well-being of their citizens. International advisors typically suggest developed-world solutions as a remedy. We argue that the root of the problem lies in the institutional environment, which does not incentivize responsible policymaking, particularly tax-smoothing practices. Focusing on democratic representation and control of corruption, our dynamic political-economy bargaining model shows that nations with weaker institutions experience frequent default episodes and greater economic volatility. Our results are in line with stylized facts from a panel of 58 countries between 1990 and 2022. Through counterfactual experiments, we find that while emerging economy policymakers might favor moderate reforms to improve democratic representation, achieving the institutional depth seen in developed countries is politically unfeasible, despite its clear advantages for citizens.

Highlights of CAFRAL Research Seminars

CAFRAL invited speakers from leading academic institutions and other central banks. A sampling of the abstracts of papers presented are given below:

Financial heterogeneity, NBFCs, and investment responses to monetary shocks in India by Dr. Ankit Kumar, Indian Institute of Management, Kolkata, on January 4th, 2024

Abstract: I examine the impact of financial friction, specifically borrowing from non-bank financial Corporations (NBFCs), on firm-level investment responses to the Reserve Bank of India (RBI) monetary policy shocks. My empirical analysis demonstrates that when firms borrow from NBFCs, their investment responsiveness to RBI monetary shocks decreases. I develop a quantitative New-Keynesian dynamic stochastic general equilibrium model with investment, default risk, and bank and NBFC borrowing to interpret this result. Until recently, the RBI's stringent regulations did not apply to NBFCs. In addition, they don't have creditor rights under various regulations, including the SARFECI Act. In my model, firms that borrow from NBFCs respond less because they face a steeper marginal cost of the financing curve. Particularly, the lower recovery rights translate into expensive NBFC loans, which results in a higher marginal cost of external financing. My findings indicate that the recent decision by the RBI to increase NBFC regulation and the government's decision to extend creditors' rights to them are likely to increase monetary policy transmission to private investment by approximately 40 basis points.

Sovereign Spreads and the Political Leaning of Nations by Prof. Alok Johri, McMaster University on February 1st, 2024

Abstract: Nations vary widely in how often they are governed by left-wing governments. Using data from 56 nations over 45 years, we find that the propensity of a nation to elect the left is positively correlated with both the average level and volatility of their sovereign spreads. To explain these facts, we build a quantitative sovereign default model in which two policymakers (left and right) alternate in power. Re-election probabilities are increasing in government spending, with the left having a small advantage (as found in the data). We use variation in the responsiveness of re-election probabilities to government spending in order to create economies that elect the left more or less frequently in equilibrium. We call these the left leaning and the right leaning economy. The left leaning economy faces worse borrowing terms due to higher default risk. Moreover, both policymakers have a greater reluctance for fiscal austerity and choose a higher share of government spending as compared to their counterparts in the right leaning economy. These features imply large welfare losses for households.

Buy-Now, Pay-Later and Purchase Level Undertaking by Ms Vasudha Nakula from Washington University in St. Louis on January 19th, 2024

Abstract: This paper examines the value and impact of using purchase-level information, specifically its role in alleviating the information asymmetry in the credit markets. Using a proprietary lending dataset from a firm operating in the BNPL industry, I evaluate the underwriting practices of the lender and document three findings - i) the lender's internal score predicts the likelihood of a loan defaulting with 18% greater accuracy than traditional credit score, ii) the lender's internal score incorporates purchase-level information, and iii) the lender prices a significant portion of loans using purchase-level information. I find that a model that includes purchase-level information can lend 33 percentage points more in loan count, increasing financial inclusion without having a negative effect on the default rate while also generating higher returns for the lender. Similarly, a model that includes purchase-level information reduces de- fault by 3 percentage points. Leveraging a randomized experiment conducted by the lender and discontinuity in lender pricing, I find that a 10 percentage point increase in offered interest rate decreases applicant take-up by 14.25 percentage points with no significant impact on the loan performance.

Universal Basic Income for Developing Economies by Mr. Kuldeep Singh from Washington University in St. Louis on February 5th, 2024.

Abstract: Universal Basic Income (UBI) has gained traction as an anti-poverty policy for developing economies, but financing it poses challenges due to the vast informal sector that remains outside the income tax net. This paper analyzes the feasibility of financing UBI under alternative financing schemes and studies the long-term aggregate and distributional ef- fects of UBI in developing countries. I build a general equilibrium life cycle model with incomplete markets that incorporates the decision to work in either the formal or in- formal sector. After calibrating it to Indian data, I find that a UBI equal to half the international poverty line cannot be financed through labor income taxes. An increase in labor income tax shrinks the formal sector, decreases labor supply and reduces human capital accumulation, ultimately leading to reduced tax revenues. Financing UBI via consumption taxes is feasible but results in lower output, capital, and aggregate labor, as well as an increase in income and wealth inequality. Nevertheless, both poor and rich prefer the policy, albeit for different reasons. Finally, I highlight that UBI and taxes have opposing effects on the size of the formal sector.

Time on your Side: Labor Market Effects of Foreclosure Delays by Ms. Avantika Pal from Washington University in St. Louis on February 14th, 2024

Abstract: I study the effect of foreclosure delays on labor income and employment outcomes, ex- ploiting a temporary CFPB rule that restricted servicers from initiating foreclosures. Using detailed employee-employer matched administrative data linked with individual credit profiles in the U.S., I employ a difference-in-differences design and compare bor- rowers who were 120+ days delinquent one month before versus one month after the cutoff eligibility date of the rule. I estimate a 2.5 percent increase in income for borrow- ers eligible for up to four months of foreclosure delays. The higher income is attributed to an increased probability of switching employers within labor markets with abundant job opportunities. Temporary liquidity and time to avoid costly foreclosure explain my findings. Furthermore, these delays lead to a persistent decrease in the probability of default and foreclosure over the year following the policy. Overall, my research suggests temporary delays, when implemented during the early stages of the foreclosure process, can empower borrowers to achieve financial stability by fundamentally reshaping their income prospects through the labor markets.

Heterogeneous Asset Returns and Monetary Policy Redistribution by Mr. Rajarshi Datta from University of Washington on February 23rd, 2024.

Abstract: Universal Basic Income (UBI) has gained traction as an anti-poverty policy for developing economies, but financing it poses challenges due to the vast informal sector that remains outside the income tax net. This paper analyzes the feasibility of financing UBI under alternative financing schemes and studies the long-term aggregate and distributional ef- fects of UBI in developing countries. I build a general equilibrium life cycle model with incomplete markets that incorporates the decision to work in either the formal or in- formal sector. After calibrating it to Indian data, I find that a UBI equal to half the international poverty line cannot be financed through labor income taxes. An increase in labor income tax shrinks the formal sector, decreases labor supply and reduces human capital accumulation, ultimately leading to reduced tax revenues. Financing UBI via consumption taxes is feasible but results in lower output, capital, and aggregate labor, as well as an increase in income and wealth inequality. Nevertheless, both poor and rich prefer the policy, albeit for different reasons. Finally, I highlight that UBI and taxes have opposing effects on the size of the formal sector.