

A Case for Public Credit Registry in India¹

Good Morning Governor, Deputy Governors S.S. Mundra, N.S. Viswanathan and B. P. Kanungo, our Chief Guest, Speakers and the team!

Introduction to the Annual Statistics Day

Taking off from Shri Chetan Bhagat's address in the pre-conference dinner last evening, I hope you are all 'alive' today, rather than just 'existing' or 'fading'. Thank you for coming in large numbers for the *Annual Statistics Day Conference* of the Reserve Bank of India. This auditorium has a limited capacity and many of our younger colleagues are watching this through video-conferencing at three other venues in this building.

2. This conference of the Reserve Bank is eleventh in the series but, for me, it is the first *Statistics Day Conference*. I am eagerly looking forward to being around and witnessing the deliberations.

3. Statistics Day in India is celebrated on the birth anniversary of Late Prof P.C. Mahalanobis, who graduated with honours in Physics in 1912 and was subsequently attracted to the realm of Statistics. In modern management parlance, Prof. Mahalanobis was an "out of the box" thinker. All his contributions emanated while studying statistical problems of immediate importance. As the Governor mentioned in his inaugural remarks, Prof

¹ Theme Talk delivered by Dr. Viral V. Acharya, Deputy Governor, Reserve Bank of India at the 11th Statistics Day Conference held at Reserve Bank of India, Central Office, Mumbai on July 4, 2017. Valuable insights provided by Dr. O. P. Mall and Shri Anujit Mitra are gratefully acknowledged.

Mahalanobis set up the Indian Statistical Institute (ISI) and the survey lab there subsequently blossomed into the present National Sample Survey Office (NSSO). The Reserve Bank has benefitted immensely over the years from its collaboration with the ISI on statistical issues and the NSSO on measurement issues.

4. In today's conference, we are privileged to have with us several distinguished guests. Dr. Martine Durand, our keynote speaker today is the Chief Statistician and Director, OECD Statistics Directorate, and a leading voice on global statistical issues. She has flown in early morning today from Paris. A warm welcome to India and to the Reserve Bank, Martine - *Namaste!*

5. Let me also welcome Prof. Chetan Ghate of the ISI-Delhi, who is a member of the Monetary Policy Committee (MPC) and a regular teacher at the RBI Academy, as well as Prof N. Balakrishna of the Cochin University of Science and Technology, who will both deliver special talks later today.

6. Prof. Dilip Nachane, who would join us in the afternoon, is Professor Emeritus, IGIDR-Mumbai and was a member of the Reserve Bank's Technical Advisory Committee on Monetary Policy (TAC-MP) and the Prime Minister's Economic Advisory Council (PMEAC) for a long time. He will be chairing the Panel Discussion on the Conference-Theme. Let me also welcome Dr D.K. Joshi of CRISIL, Ms. Pranjul Bhandari of HSBC, and Dr. Samiran Chakraborty of the Citibank, who are the other distinguished panel members. Thank you panelists for devoting your valuable time to the Statistics Day.

7. Let me now move to the Theme of today's conference, *viz.*, 'New Frontiers on Statistical Methods and Information Base for Central Banks'. Statistical techniques are an integral part of economic analysis. An interesting acknowledgement of this is the good share of "method awards" in award of the Nobel Prize for Economic Sciences. The first Nobel in Economics in 1969 went to Ragnar Frisch and Jan Tinbergen for their pioneering work on econometric model building, i.e., for their integration of economic theory and statistical methods. Over the years, Nobel "method awards" have also been awarded for input-output method, national accounts, micro-econometrics, co-integration and ARCH (to Rob Engle, colleague, co-author and dear friend when I was at NYU Stern).

8. The central role of statistical methods in economic analysis is also reflected in their constantly growing share in the curriculum for students in economics and finance. The global financial crisis and its aftermath has been a big structural break to explain which new approaches and methods are gaining ground. Macroeconomic forecasters have faced interesting questions during this last decade, as the outbreak of banking and sovereign crises has led to the most basic assumptions behind forecasts being violated. This has also necessitated further effort towards methodological refinements, not just in economic theory but also in statistical methods to test the theory. In many ways, this is an exciting time in my view to be studying economics.

9. The meeting of the G-20 Finance Ministers and Central Bank Governors in 2009 endorsed the G-20 Data Gap Initiatives (DGI), which focuses on (a) build-up of risk in the financial sector; (b) cross-border financial linkages; (c) vulnerability of domestic economies to shocks; and (d) improving

communication of official statistics. After the first phase of DGI was largely implemented, the second phase commenced in 2015 with the objective to strengthen the global statistical systems so as to aid deeper economic analysis. India's progress in this regard has been good so far and we are taking further strides, recognizing that such initiatives help individual countries and also the global economic system.

The Case for a Public Credit Registry in India

10. I will focus in the rest of my remarks on a topic which I feel is vital for the Indian economy at this juncture and where I expect the Reserve Bank, and more specifically, the Statistics Department, to play a rather important role. It concerns the setting up of a **Public Credit Registry (PCR)**, an extensive database of credit information for India that is accessible to all stakeholders. Generally, a PCR is managed by a public authority like the central bank or the banking supervisor, and reporting of loan details to the PCR by lenders and/or borrowers is mandated by law. The contractual terms and outcomes covered and the threshold above which the contracts are to be reported vary in different jurisdictions, but the idea is to capture all relevant information in one large database on the borrower, in particular, the borrower's entire set of borrowing contracts and outcomes.

11. A PCR, if put in place for India, will help in a) Credit assessment and pricing by banks; b) Risk-based, dynamic and countercyclical provisioning at banks; c) Supervision and early intervention by regulators; d) Understanding if transmission of monetary policy is working, and if not, where are the bottlenecks; and, e) How to restructure stressed bank credits effectively. The

extensive and incisive work of Professor José-Luis Peydró of Universitat Pompeu Fabra on such issues using the Spanish Credit Register is a testimony to the tremendous value a PCR can bring to clear understanding of the underlying economy. I encourage you to check out his work.

12. Let me start by explaining the motivation for creating such a database. A vast body of academic literature advocates transparency in credit markets, arguing that it improves the efficiency of the market and helps creditors as well as borrowers. One of the reasons the credit information is termed as a ‘public good’ is its utility to the credit market at large and to the society in general. In the absence of a central database of credit information, the creditors are restricted to the information they have about their clients based only on their limited transactions or interactions with the clients, and this could lead to suboptimal outcomes.

13. A central repository, which, for instance, captures and certifies the details of collaterals, can enable the writing of contracts that prevent over-pledging of collateral by a borrower. In absence of the repository, the lender may not trust its first right on the collateral and either charge a high cost on the loan or ask for more collateral than necessary to prevent being diluted by other lenders. This leads to, what in economics is termed as, *pecuniary externality* – in this case, a spillover of one loan contract onto outcomes and terms of other loan contracts. Furthermore, absent a public credit registry, the ‘good’ borrowers are disadvantaged in not being able to distinguish themselves from the rest in opaque credit markets; they could potentially be subjected to a rent being extracted from their existing lenders who enjoy an information monopoly over them. The lenders may also end up picking up fresh clients who have a

history of delinquency that is unknown to all lenders and this way face greater overall credit risk.

Current Credit Information Systems in India

14. Let us now have a look at the current credit information systems in our country. The private Credit Bureaus (CBs) operating in India are regulated by RBI under the Credit Information Companies (Regulation) Act, 2005 and include Credit Information Bureau (India) Limited (CIBIL), Equifax, Experian, and CRIF Highmark. Each one of these focuses on data analytics to provide credit scores, and allied reports and services. These analytics are useful for the member banks for issuing credit cards as well as for taking decisions (primarily on retail loans) as of now.

15. The Reserve Bank has set up the Central Repository of Information on Large Credits (CRILC) in 2014-15. It is now one of the most important databases for offsite supervision. Here the Scheduled Commercial Banks (SCBs) in India report credit information of their large borrowers, i.e., those having aggregate fund-based and non-fund based exposure of INR 50 million and above. It covers around sixty per cent of the loan portfolio and around eighty per cent of the non-performing loans of SCBs. The reporting is done on a quarterly basis but the slippages are required to be reported in another format on as-and-when basis. The CRILC is designed entirely for supervisory purposes and its focus is on the reporting entities' exposure to the borrower (as individual and/or as a group) under various heads, such as bank's exposure to a large borrower; the borrower's current account balance; bank's written-off accounts; and identification of non-co-operative borrowers, among

others. However, CRILC captures only limited detail about the borrowers such as the industry to which they belong and their external and internal ratings. The pooled information under CRILC is shared with the reporting banks but is not shared with the Credit Bureaus, larger lender community, or researchers.

16. My colleagues in DSIM are familiar with the Basic Statistical Return – I or BSR1, where account level credit information (an “account” being a specific loan or facility between a bank and a borrower) is reported by banks. As the name suggests, it is a statistical return which captures some metadata for the account such as *district and the population group* of the place of funds utilisation; type of account such as cash credit, overdraft, term loan, credit cards, etc.; *organisation type* such as private corporate sector, household sector, microfinance institutions, Non-Profit Institutions Serving Households (NPISH) and non-residents; and *occupation type* such as agriculture, manufacturing, construction, and various financial and non-financial services. The *interest rate* charged along with the flag for *floating vs fixed* is also reported here. These details are not present in CRILC which is a borrower-level dataset rather than an account-level dataset. Though BSR1 contains a “health code” for each account, it is not comprehensive enough to cater to the supervisory needs as it is not feasible to aggregate all accounts maintained by a borrower in the absence of a unique identifier across the reporting banks. Due to a number of reasons, even bank-level aggregation of delinquency in BSR1 will not in general match with that reported through CRILC. Aggregated statistical information with spatial, temporal and sectoral distribution from BSR1 is shared in the public domain for researchers, analysts and commentators. Account-level data is, however, kept confidential but is shared

by the Reserve Bank with researchers on a case to case basis under appropriate safeguards.

17. These databases maintained in the Reserve Bank are not available to individual banks in real time to take credit decisions at the micro level. They do not capture fully the credit data at origination level. In particular, the 360 degree view is not available to creditors in any of the systems discussed. Individually, some of these systems can be swiftly strengthened with just a few additional fields. For example, capturing in BSR1 the unique account-holder identifier in the form of Aadhar for individuals and Corporate Identification Number (CIN) for companies may make it possible to view all accounts of each borrower across banks.

18. Next, I would like to draw your attention to the company finance databases available with the Reserve Bank and with the MCA. These contain the audited or unaudited financial results of the corporates submitted by them at various frequencies. Here again the key identifier is the CIN. The power of the information can be substantially enhanced if we can make BSR1 and CRILC to talk to each other and further link them both with the MCA database containing financial results of the corporate sector.

International Experience with Public Credit Registers

19. Let me now turn to the international scenario. A survey conducted by the World Bank reported that as of 2012, out of 195 countries that were surveyed, 87 were having Public Credit Registers – the number must have increased by now. The private credit bureaus are also functioning well in

many of the developed countries and they co-exist with the PCRs. In US, the Dealscan by Thomson Reuters is a prime example which covers the syndicated loan origination data including information on arrangers; price and maturity terms; credit lines or term loans; and loan characteristics such as covenants. Since banks voluntarily provide credit data at the time of origination itself, it is almost a real-time dataset and one gets to know in a week or two weeks' time whether there is a change in the credit market conditions.

20. Dun & Bradstreet or DNB in short, is nearly two centuries old and has perhaps the largest commercial database in the world. Their website claims that they track over 265 million company records which they derive from 30,000 data sources and is updated 5 million times per day. DNB's own correspondents gather data on firms by visiting and telephoning the firm's principals. It is interesting to note that in the 19th century, these correspondents who were often lawyers, included such luminaries as Abraham Lincoln, Woodrow Wilson and Calvin Coolidge (ref. J.G. Kallberg, G.F. Udell / *Journal of Banking & Finance* 27 (2003) 449–469).

21. Let me give a real life example to illustrate the utility of such information systems. In the aftermath of the collapse of Lehman Brothers in September 2008, there were economists who asserted that the credit flow in the United States was unaffected by pointing out to the robust credit growth in bank loans. But a deeper analysis of the Thomson Reuters Dealscan data quickly revealed that the credit growth was almost entirely attributable to the corporates drawing down (a form of a "bank run") on the existing credit lines. The origination of new loans had indeed dried up.

How a Public Credit Registry can help in India

22. Let us now envisage how exactly a public credit registry can help in India. Firstly, it is required to improve the credit culture in our country. It has been demonstrated in the 'Doing Business 2017' report that credit information systems impart transparency in the credit market, following which access to credit improves and delinquencies decrease. At present, several Indian banks burdened with mounting NPAs appear less confident in taking credit decisions. A transparent public credit registry would help the bankers to rely on objective data for making credit decisions and also enable them to defend their actions with market evidence when subjected to scrutiny.

23. Second, large borrowers get a preference in credit markets due to their existing credentials in the public space. They have established credit history, brand value, and supply of collateral. In contrast, small and marginal aspirants, start-ups, new entrepreneurs, and small businesses in micro, small and medium enterprises (MSME) sector are disadvantaged as they lack many of those desired qualifications for credit. Transparency of credit information would serve as a "reputational collateral" for such borrowers. This would not only help promote financial inclusion, but also reward the good borrowers thereby imparting credit discipline. We just have to look at our willingness to transact on *eBay* to understand how reputation builds up for effectively anonymous sellers from their transaction records captured on a website. Similarly, public credit registry would help create a level-playing field among different sizes of borrowers.

24. Third, public credit registers in many countries have gone beyond the credit relationship of borrowing entities with financial institutions. They tap other transactional data of borrowers including payments to utilities like power and telecom for retail customers and trade credit data for businesses. Why might such data help? Lenders in the formal sector often hesitate to extend a line of credit to new customers due to the lack of credit scores. Regularity in making payments to utilities and trade creditors provides an indication of the credit quality of such customers. In turn, credit from the formal sector can become accessible to new borrowers, boosting financial inclusion. As a side benefit, the extent of financial inclusion will likely become more precisely measurable for policy makers.

25. Finally, public credit registry can have a profound impact for regulatory purposes. In its absence, only fragmented images are available of credit behaviour and indebtedness. PCR will help in getting to a complete picture that is necessary for supervisors and policy makers to assess credit risk of the entire system. To facilitate this, the PCR must cover the following aspects of the credit data: First, the bank-borrower loan-level data detailing loan terms at time of origination along with data on borrower's economic and financial health. Second, the internal and external ratings (or credit scores) and their evolution, and where applicable, market-based measures of firm-level and sector-level credit risks. Third, bank-borrower loan-level restructuring data with all details. Fourth, secondary loan sales and price information. Fifth, borrower-debt level Default and Recovery (LGD) data. This would be a good start!

Who should operate the Public Credit Registry?

26. Large Public Credit Registers are operated either by the central banks or state authorities in various countries. They are typically not operated by the private sector, though Credit Bureaus in some jurisdictions capture many of the items discussed above. In some jurisdictions, the raw data collected by the central PCR is shared with the CBs, which in turn make value addition by pooling data from other sources and come up with further analysis such as credit scores / reports to their clients, typically commercial lenders. Since we are talking about a large database containing lots of private information, it also needs to be handled by an authority which is trustworthy in the public eye as well as backed by appropriate judicial powers to ensure timely and accurate data gathering. Therefore, it is found internationally that with rare exceptions the Public Credit Registries are managed by central banking or banking supervisory authorities.

In Summary...

27. Let me conclude by restating that a transparent and comprehensive public credit register is the need of the hour in India. More and more countries are moving towards this with a view to improving the credit culture in their jurisdictions. Such registers help in enhancing efficiency of the credit market, increase financial inclusion, improve ease of doing business, and help control delinquencies. Incorporating unique identifiers for the borrowers (*Aadhar* for individuals and CIN for companies), Reserve Bank's BSR1 and CRILC datasets can quickly be converted into a useful PCR covering customers of SCBs to start

with. It can then be expanded to cover other financial institutions in India. A comprehensive PCR down the road will be even more effective.

28. Setting up a comprehensive PCR will, however, require much team work and vision. It will demand expertise to handle large volumes and varieties of data assembled from diverse sources. It will require working with several stakeholders, other regulators and international agencies with expertise in helping set up such registers. That's a worthy challenge for the pool of statisticians assembled here on the eve of the 11th Statistics Day. Governor and I hope we can set up, as a matter of priority, a high-level task force that can provide a roadmap for attaining this goal of developing and unleashing a powerful credit information system for our country.

29. There are several other "information base" challenges for the long horizon for the team: Employment Statistics; Household Inflation Expectation Survey in rural and informal economy; Big-data real-time indicators of prices and consumption; Google images and mobile-phone data for economic activity indicators; to just a list few. Having a go at some of these will be a fitting tribute to Prof. Mahalanobis whose contributions were truly long-term and have lived far beyond his immediate life-span.