

**Key Note Speech of Mr. Jameel Ahmad – Governor SBP, on
Potential Role of Big Data in Economic Policy**
(SAARCFINANCE Seminar March 06, 2024, Islamabad)

Honorable delegates, esteemed speakers and panelists, distinguished guests, Ladies and Gentlemen – Assalaam-o-Alaikum and Good Morning!

It is my pleasure to welcome all of you to the SAARCFINANCE Seminar on “Potential Role of Big Data in Economic Policy”. I would like to extend my special gratitude to all the distinguished delegates from the SAARC region, and to subject matter experts, who are joining us virtually and in-person here in Islamabad. I hope that all of us will gain valuable insights from this seminar and take back with ourselves useful experiences and pleasant memories.

If there is one thing we can all agree on, it is that the volume of data generated by digital devices on our social and economic behaviors and mobility is unprecedented. Effective and timely utilization of this data in policymaking can contribute to sustained and inclusive economic growth, enhance societal welfare, reduce poverty, and improve the living standards for our citizens across the diverse and dynamic SAARC region. A region, which is home to a quarter of the world's population.

Ladies and gentlemen!

In my today’s talk, firstly, I will discuss the evolution of Big Data and how it is impacting various sectors of the economy. Secondly, I will outline the implications of the use of Big Data in economic policy, and finally I will highlight key challenges that policymakers face when it comes to utilizing Big Data. I hope that participants will gather useful insights on these aspects from discussions by our speakers and panelists today.

In my view, there are three key factors that have led to the widespread usage of Big Data in policymaking:

- The first and perhaps most significant factor is the availability of an unprecedented level of data. This emanates from the increased mobile phone and internet penetration, which have revolutionized the way we interact with each other and go about our daily lives. From interactions on social media to e-commerce and other digital transactions, each of us generates multitude of data every day, often in real time. Moreover, this non-traditional data often plugs in the gaps in traditional data, which is why it is so invaluable for businesses and governments alike. For instance, satellite imagery data can provide timely information

regarding food crop patterns, allowing policymakers to make timely decisions about import or export of key commodities to stabilize their prices.

- Second, the cost of data storage and computing power has consistently declined over the past decade. Therefore, it has now become more affordable for companies and institutions to log and store the vast amount of data being generated by consumers every day. These enormous and granular records of data provide policy makers with data and useful insights for policy making.
- Finally, there has been a corresponding increase in the analytical toolkit available with policymakers and businesses to analyze this vast amount of data in an efficient manner, to come up with timely policy interventions and innovative product offerings. The recent development of specialized machine learning algorithms, generally referred to as deep learning, have allowed computers to see and recognize images and videos, understand and generate human-language texts and speeches, drive cars, and perform other tasks nearly as good as, or sometimes better than, us humans can do. Needless to say, there are profound implications of artificial intelligence for our labor markets and societal well-being in the years to come.

Ladies and gentlemen!

I would now like to discuss how policymakers, especially central banks, are leveraging this Big Data revolution.

More and more central banks are now using Big Data, including for nowcasting and forecasting of key economic variables for monetary policymaking and assessment of financial stability. A survey by Bank of International Settlements in 2020 found that around 80 percent of the respondent central banks were regularly using Big Data, up from just 30 percent of respondents in 2015. Central banks are also utilizing Big Data for supervision and regulation of the financial system, including for fraud detection and prevention, and for compliance with local and global legal and regulatory requirements.

Another important area where usage of Big Data is proving to be invaluable is in financial inclusion. Policymakers now actively engage with financial and telecom firms to identify gaps in access to formal financial services, and then design products and services that can bridge this gap.

Ladies and Gentlemen!

Let me briefly share with you about how we, at the State Bank of Pakistan, are incorporating Big Data analysis in our policymaking.

- We are using various aspects of Big Data analytics in economic analysis. For instance, we are using natural language processing to scour major newspapers in order to prepare the Economic Policy Uncertainty index for Pakistan. We also use satellite imagery data for our forecasts of agriculture production, and other high frequency data to gauge the level of economic activity. These data sources supplement our analysis based on traditional data, such as quarterly GDP.
- Big Data analytics is also at the cornerstone of our plan to achieve multiple Strategic Goals that we have set for ourselves over the next five years. These strategic goals would leverage the large amount of payment systems data that we have access to, in order to improve the efficiency and fairness of the financial system and increase the general public's access to financial services. The amount of payments data at our disposal has grown exponentially since we introduced the real-time payment gateway, RAAST. We are working to harness the power of data and machine learning algorithms to timely predict suspicious or fraudulent transactions, thereby enabling proactive intervention.
- SBP is also working to foster a culture of consent-driven data portability, interoperability and collaborative partnerships among regulated financial institutions and non-regulated fintech firms. For this, SBP is working to develop the open banking framework as an enabler for financial inclusion and digitization. We are hopeful that open banking would allow for the aggregation of data across different financial institutions and accounts, giving a holistic view of a customers' financial behavior. When combined with big data analytics, these insights would lead to the development of more personalized banking services, tailored financial advice, and improved customer engagement.
- SBP has also allowed banks to use cloud services in Pakistan for their customer data storage. This offers numerous benefits, such as enhancing operational efficiency, data security, scalability, and innovation. It also reduces the costs associated with purchasing, maintaining, and upgrading physical servers and data centers. This would help facilitate the development of cost-effective digital financial services so that they are accessible to a broader segment of the population.

Ladies and gentlemen!

While there is no doubt about the utility of Big Data in policymaking, there are also multiple challenges that we need to be aware of and proactively address. The first relates to the legal and regulatory issues pertaining to the privacy and confidentiality of data. Therefore, strong data protection laws are required to safeguard the interests of common citizens.

Second, despite the gradually declining cost of technology adoption, the current costs associated with arranging the technological infrastructure and skilled human resource is still quite elevated. As such, it is paramount for businesses and governments to conduct a thorough cost benefit analysis, and to opt for solutions that are the most feasible to deploy.

Lastly, regulators must ensure an effective and proactive supervision system in response to the latest trends in financial services. We must keep pace with these technological developments, not only to improve the efficiency of their own internal processes, but also to mitigate the new risks that they may pose.

Ladies and Gentlemen!

In the end, I would like to mention that the SAARC region stands on the cusp of a new era. As we embrace the use of Big Data, we must also be cognizant of the challenges it presents. Data privacy and security are paramount concerns that must be addressed through robust legal frameworks and ethical guidelines. We must ensure that the benefits of Big Data are inclusive, reaching every segment of society.

In this spirit, I call upon the member nations of SAARC to collaborate in the building of a data-driven ethos in region, so that we can respond with agility to the economic challenges of the new age. Let us harness the power of Big Data to create policies that are more responsive to the needs of our citizens, fostering an environment where innovation thrives and our economies flourish. I also believe that multilateral and regional economic bodies, like SAARC, can play an important role in designing industry standards and regulatory best practices to facilitate the adoption of Big Data analytics in our countries.

With that, I would like to thank you for your time, and look forward to engaging in insightful discussions with our panelists and participants today.
