



Shardul Amarchand Mangaldas

# Tax & Technology

Where is India now and  
Where are we headed?





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## Introduction

Indian tax administration's digital transformation journey has been fast paced and is rapidly evolving<sup>1</sup> as India vies for the ideal of Organization of Economic Cooperation and Development's ("OECD") "Tax administration 3.0". Admittedly, the Government's objective behind this journey has been to use technology tools for transitioning India into "a tax compliant society" and offering better taxpayer services digitally. In the last eight years, the Indian Government has implemented bold steps for formalization of the Indian economy, adopted measures to significantly increase digital data sources and simultaneously grow its e-administration that now comprises of a digital identity [including integration of AADHAAR, PAN, and Goods and Services Tax Identification Number ("GSTIN")], e-invoicing, e-filings, e-assessments, and e-appals. Moreover, with the implementation of Project Insight, Business Intelligence and Fraud Analysis Platform and Project Advanced Analytics in Indirect Taxation ("ADVAIT"), the Indian tax administration has forayed into the use of advanced data analytics for selection of tax audit cases and detection of non-compliance. In another development, Indian tax collections are at their highest ever. India's gross revenue collection soared to a record high of INR 27.07 trillion in Financial Year 22 and its tax-to-GDP ratio jumped to an over two-decade high of 11.7 per cent.<sup>2</sup>

How did we get here? Indeed, the advent of new technologies (such as data analytics, data warehousing, cloud computing, blockchain, artificial intelligence, and machine learning) and the digitalization of our everyday lives (accelerated by the pandemic) are key catalysts. However, host of other factors have led to the rapid technification of the Indian tax administration. From a global standpoint, the growing cooperation amongst tax administrations for reporting and exchange of tax information pursuant to the Base Erosion Profit Sharing ("BEPS") project has resulted in increased data flows

that need processing. In addition, development of new tax rules for digitalized business models with OECD's Pillar 1 and Pillar 2 has led to a new wave of international tax cooperation and diplomacy. This in turn has aided unification of efforts amongst Governments (including through international organizations such as OECD, World Bank, Asian Development Bank) for knowledge sharing and capacity building to implement best practices for tax enforcement. On the domestic front, the Indian Government (like many other countries) made a policy choice to close the tax gap through better enforcement measures as against increasing tax rates in the face of international tax competition.

The new reality is that businesses cannot go back to operating as they were. They need to rethink and reimagine their tax functions, build people and organizational capacities, procedures and processes and harness technology themselves to keep pace.<sup>3</sup> Against such backdrop, this paper discusses the increasing use of technology in the Indian tax administration, addressing key aspects of its impact, risks, and challenges. Drawing inspiration from Asian Development Bank's recent paper on 'Launching a Digital Tax Administration Transformation' and OECD's building blocks for a digital tax administration, this paper is structured in five parts. Part I gives a broad overview of India's recent journey in integrating technology within its tax administration and its current state. Part II reflects on the impact that such digital transformation can have in terms of efficiency gains and tax effectiveness. Part III highlights the key risks and challenges surrounding India's technology in tax experience. Part IV reflects on how multinationals and taxpayers are responding to the tech revolution in tax administration. Finally, the conclusion briefly reflects on the future of the India's digital tax administration.



## Overview of recent developments in the digitalization of the Indian tax administration

Since 2014, India has followed a two-pronged approach for digitizing its tax administration. First, the Government has implemented several tax and non-tax measures to move towards a cashless economy. These measures have a complementary impact on the effectiveness of technology solutions adopted for enforcement of tax laws considering cash economies make it easier for under-reporting and falsification to occur absent a record trail.<sup>4</sup> Second, the Indian Government has been working towards what OECD identifies as the key building blocks of a digital tax administration. This has involved significant work in the fields of digital identity, suite of e-services and data collection, integration, and management for more effective enforcement<sup>5</sup>.

### Cashless Indian economy

Like many other developing countries, India has also grappled with the issues surrounding the key sectors of its economy being largely cash-based. In the absence of a record trail, data collection is challenging, and unaccounted transactions are difficult to audit, which in turn has facilitated tax evasion. During his budget speech in 2017, Mr. Arun Jaitley (India's finance minister at the time) lamented on the direct tax collections being starkly incommensurate with the income and consumption pattern of the economy. He identified the predominance of cash in the economy as a key reason for India being a largely "non-tax complaint society".<sup>6</sup> Ever since, the Government has implemented several measures to curb the cash economy.

In November 2016, the Indian Government took the country by surprise when it demonetized high currency bank notes, which constituted 86.9 per cent of the total currency under circulation.<sup>7</sup> To establish provenance for such currency notes, individuals were given a small window within which they were to deposit them in their

bank accounts. Soon after, the Government launched Operation Clean Money where technological tools were used to mine data on cash deposits and identify tax evaders.<sup>8</sup> The Income Tax Department ("ITD") onboarded specialised data analytics agencies to augment departmental capability in analysing large volume of cash deposit data, track the compliance status of taxpayers and reporting entities.<sup>9</sup>

Another related change was the introduction of Goods and Services Tax ("GST"). In the past, the Central Government had little data on small manufacturers and consumption because excise was imposed only at the manufacturing stage. On the other hand, states had little data on the activities of local firms outside their borders. Under GST, there is now a seamless flow of availability of common sets of data to both the Centre and the State Governments on the GST portal, which allows for end-to-end digital checking of invoices and transactions.<sup>10</sup> GST also presented as a tool for formalizing the economy by bringing informal sector enterprises into the tax net. Many exempt businesses are now compelled to register considering their trading partners would only deal with registered businesses for seamless flow of GST credits.<sup>11</sup>

Several changes were made to Indian tax laws to deter cash transactions. Businesses were not allowed tax deduction for expenses more than INR 10,000 made in cash<sup>12</sup>. Certain tax incentives for research<sup>13</sup>, employment<sup>14</sup> and depreciation for capital expenditure<sup>15</sup> were not made available in case of cash payouts. Acceptance<sup>16</sup> of cash payment of INR 20,000 or more for immovable property transaction and repayment thereof<sup>17</sup> was prohibited. Any cash transaction more than INR 2,00,000 was prohibited<sup>18</sup>. The income tax rate under the presumptive tax regimes was lower for non-cash transactions<sup>19</sup> and exemptions were provided to certain businesses from getting their



accounts audited if the percentage of cash transactions was low<sup>20</sup>. Limits were imposed on acceptance of cash donations by charities<sup>21</sup> and political parties<sup>22</sup>. Third party reporting mechanisms were built in tax rules for reporting cash transactions exceeding a specified value<sup>23</sup>. Moreover, a person who deposits more than INR 10 million his bank account was mandatorily required to file a tax return<sup>24</sup>. A nominal withholding tax was imposed on cash withdrawals from banks above INR 10 million to track cash withdrawals<sup>25</sup>.

Finally, the Indian Government has given a major boost to enhance digital payments infrastructure under its “Digital India” drive.<sup>26</sup> Towards this end, the Reserve Bank of India (“RBI”), in collaboration with the Indian Banks Association, set up the National Payments Corporation of India (“NPCI”), as an umbrella organisation to operate retail payment and settlement systems in India. The NPCI has exhibited a strong focus on creating and harnessing digital technologies to widen the reach of such systems. Pivotal among these products, launched in 2016, is the United Payments Interface (“UPI”), a real-time interoperable payment platform to facilitate peer-to-peer and person-to-merchant transactions. As of July 2022, a total of 338 banks are live on the UPI platform, which recorded 6.28 billion transactions in July 2022 alone.<sup>27</sup>

In addition to payment products, regulatory sandboxes for digital payment solutions<sup>28</sup> and digital literacy initiatives such as the Pradhan Mantri Gramin Digital Saksharta Abhiyaan (“PMGDISHA”) have also provided a fillip to digital payments in India.<sup>29</sup> With over 74 billion digital transactions in FY 2021-22 alone,<sup>30</sup> India now ranks number one among countries using digital payment methods.<sup>31</sup> In 2022, in another move signaling the increased adoption of such payment methods, the Finance Minister unveiled the Government’s plan to launch India’s own sovereign digital currency.

### Digitalization of Indian tax administration

Observably, India has embarked on three separate sets of digital transformation journeys for income tax, GST, and customs, which has been a natural fall out of India’s

legacy systems that have a strong top-down division between India’s direct and indirect tax departments. For instance, the customs department (with its close nexus to the World Trade Organization) was one of the early adapters of technology with automation of processes that began in 1995, with introduction of Indian Customs EDI (“Electronic Data Interchange”) System (“ICES”) in New Delhi, followed by the introduction of its taxpayer facing web portal Indian Customs Electronic Gateway (“ICEGATE”) in 2003 and a Risk Management System in 2006 to screen imports and exports before clearance. On the other hand, the ITD, introduced e-filings in 2004 that were gradually made mandatory for different categories of taxpayers, followed by the setting up a Centralized Processing Centre (“CPC”) for automated bulk processing of income tax returns in 2010. However, the major push for technification came pursuant to the Tax Administration Reforms Commission Report dated May 30, 2014, that called for greater integration between the direct and indirect tax departments, adoption of a consumer-based focus towards the taxpayer and greater use of technology for tax compliance and enforcement. In comparison, GST, which is a center-state levy implemented by the GST Council, was launched in 2017 to be a full-fledged digitally administered tax.

Despite the disparate timelines of their digital journeys, the current state of the income tax, customs and GST administrations are all marked by a technology driven administration that comprises of a digital identity, suite of e-services with a consumer-based focus, data integration, management and analytics for better enforcement and intra-governmental cooperation. Interestingly, each department also has a version of Directorate of Systems & Data Management, which has been entrusted with the implementation of the projects related to Information & Communication Technology (“ICT”). Against such background, this section features some of the significant technology-based reforms in India’s tax space.

### Digital identity

Every taxpayer in India has a taxpayer identification number [for instance, permanent account number issued



by the ITD] which together with other identifying elements (such as a password based on date of birth or date of incorporation, as the case may be) creates a digital identity of the taxpayer within the tax administration. A range of digital taxpayer services (such as online filings, tax payments, electronic proceedings) are unlocked on the tax department's digital platform by using the taxpayer's digital identity. Notably, GSTIN is also PAN based. The PAN-linked GST system has significantly helped the tax department to cross-check income tax payment against GST related payments and disclosures.<sup>32</sup> For purposes of customs as well, the import and export code issued is the same as the firm's PAN, again allowing for data integration. PAN was recently also integrated with AADHAAR (India's biometric id for Indian residents). This gave the tax department deeper access to a taxpayer's activity trail.<sup>33</sup>

The Union Ministry of Electronics and Information Technology ("MeitY") is now working on the concept of 'federated digital identities', as a core building block of the proposed India Digital Ecosystem Architecture 2.0 ("InDEA 2.0").<sup>34</sup> This framework aims to develop an interlinked and interoperable digital architecture consisting of an optimal set of federated digital IDs. Towards this end, the draft report on InDEA 2.0 recommends that all registries be built to allow a single sign-on ("SSO") along with eKYC, using existing digital IDs in other registries. Where uniqueness is crucial to the purpose for which the registry has been created, it recommends allowing users to link such digital IDs to their Aadhaar or to other Aadhaar-linked digital IDs, so that the need for multiple digital IDs can be minimized. Further, towards achieving interoperability, the report recommends that ID-providers explore open API specifications, where possible. These measures are geared to ensure that registries are not stand-alone systems and can be used as 'sources of truth' for other systems.

The concept of interoperable digital IDs and registries promises enhanced convenience and reduced costs for individuals as well as businesses, in maintaining and accessing their financial records. An interlinked

architecture of IDs and registries can eliminate the need for a taxpayer to actively procure and collate information from various sources for the purpose of submission to tax authorities. An architecture of perfectly interoperable datasets can also eliminate the need for the taxpayer to actively translate relevant information collected from various sources into the reporting semantics of the tax authorities.

In parallel, interlinkages between various registries can allow tax authorities to efficiently access relevant financial information relating to an individual or a business and streamline the processes of assessment and verification. Under an architecture characterized by interlinked registries and digital IDs, information relating to a taxpayer from disparate sources can potentially become available readily to the tax authorities, via interlinked unique identifiers (such as the taxpayer's Aadhaar ID, her passport, her PAN or any other unique identifier issued to the taxpayer). In theory, this could eliminate the need for the authorities to requisition such information from either the taxpayer or from the relevant institution that has access to such information. Not only would this be an efficiency-gain, but it would also allow authorities a framework to access a wider range of information in relation to a taxpayer's taxable transactions and assets. Further, it would allow access higher-quality information relating to a taxpayer, since information sourced from third parties (including public and private financial institutions) would have already undergone the verification processes employed by such third parties.

### Suite of e-services

Income tax, customs, and GST, each have their separate e-filing portals that serve as their 'taxpayer touchpoints' to access taxpayer services. Through these portals, every aspect of the tax administration process (often referred to as 'modules') from registration, filings, assessments, refunds, credits, and payments is now electronic. Notably, these portals are not interoperable and interlinked yet and require separate sign-ins and management.



To illustrate, a new income tax filing portal was launched in 2021 for better e-filing experience and faster processing of tax returns. The portal purports to serve as a one-stop interface with all interactions, uploads or pending actions that were displayed on a single dashboard. The portal was also integrated with immediate processing of the income tax returns (“ITR”), to issue quick refunds to taxpayers. Facilities such as a free ITR preparation software with interactive questions, were made available for certain return categories. There was also a facility for pre-filled ITRs, with salary income, interest, dividend, and capital gains. A new call center for taxpayers’ assistance and user tutorials, such as detailed FAQs, user manuals, videos, and chatbot/live agent were provided. Functionalities for filing income tax forms, adding tax professionals, submitting responses to notices in faceless scrutiny or appeals are made available. In addition, the new tax portal enabled tax payments through RTGS/NEFT, credit card, UPI, and net-banking.<sup>35</sup> At the back end, the Income Tax Business Application portal was launched for the tax department that is designed as a single user interface to access all functionalities within the department and was subsequently integrated with the e-filing portal for e-proceedings.<sup>36</sup> The ITD also has a separate portal for Tax Deduction at Source and Tax Collected at Source filings called TDS Reconciliation Analysis and Correction Enabling System (“TRACES”).

Similarly, the ICEGATE is the national portal of Indian Customs of Central Board of Indirect Taxes and Customs (“CBIC”) Through this facility, Indian Customs offers a host of services, including electronic filing of the Bill of Entry (import goods declaration), Shipping Bills (export goods declaration), e-Payment of Customs Duty, a customs duty calculator, a free of cost web-based common signer utility for signing all the customs documents, facility to file online supporting documents through e-Sanchit, end to end electronic IGST refund etc. ICEGATE is internally linked with multiple partner agencies including RBI, Banks, DGFT, DGCIS, Ministry of Steel, Directorate of Valuation and other various partner government agencies involved in export and import trade enabling faster customs clearance.<sup>37</sup> A use case of such integration has been the ‘India Customs

Single Window’ that allows importers and exporters, the facility to lodge their clearance documents or any other documents for permission for import / export online at a single point only, for scrutiny by the partner government agencies. Required permissions, if any, from the partner / regulatory agencies are then obtained online without the importer / exporter having to approach these agencies.<sup>38</sup>

Likewise, GST filings are managed through the GST portal which also has similar functionalities such as online registration, tax payments, filings, viewing the cash ledger, E-Liability, and E-Credit ledgers [being accounts of the taxpayer maintained by GST system relating to their tax payments, liabilities, and input tax credits (“ITC”)], etc.<sup>39</sup>

The underlying objective across these taxpayer touchpoints has been to augment the taxpayer’s user experience, facilitate efficient and meaningful interaction with the tax administration and promote ease of doing business.

### Faceless assessments and appeals

The ITD pioneered the faceless assessment scheme in 2020, which was built on the existing e-proceedings protocol that was previously launched in certain cities on a pilot basis. Admittedly, the policy intent underlying the use of technology in the faceless assessment scheme was to enhance trust, accountability, and transparency in the tax system.<sup>40</sup>

Previously, tax assessments (irrespective of whether such proceedings were conducted electronically or physically) were carried out by the jurisdictional assessing officer (, i.e., the assessing officer, within whose jurisdiction the taxpayer set up its principal place of business or is resident<sup>41</sup>). Under the faceless scheme, a new organizational structure has been set up for tax assessment, which involves a national e-assessment center (“NeAC”) that centrally controls the tax assessment process. All communications with the taxpayer are routed through the NeAC (and not through individual officers) without any human interface. Under the NeAC, there





are seven regional e-assessment centers, each having an assessment unit (with a functional specialization on matters relating to determination of liabilities and assessment), a verification unit (which is responsible for enquiries, cross verification, examination of books of accounts, witness and recording of statements) and a review unit (that reviews the propriety of the draft assessment order). The NeAC also has technical units that provide legal and technical expertise on accounting, valuation, and other specialized matters.<sup>42</sup>

To briefly explain, once a case is selected for scrutiny (through a computer aided automated process and data analytics), the NeAC through an algorithmic allocation system (that draws on artificial intelligence and machine learning tools) assigns the case to a specific assessment unit located in any regional e-assessment centers to carry out the assessment.<sup>43</sup> In case the assessment unit, needs any verification or enquiries done or requires say any technical input, the assessment unit reports back to the NeAC, which again through the algorithmic allocation assigns the case for verification or technical inputs to any one of the verification units located in the regional assessment centers or the technical units under it.<sup>44</sup> The underlying objective of the algorithm-based allocation of cases is to limit human discretion in deciding which case will be referred to which tax officer and enhance transparency in the process.<sup>45</sup> The assessment is finally carried out by the assessment unit based on the inputs received from the verification and technical units. Notably, the assessment is now carried out by a team of officers (as against by a single individual, which was the case in the past). The assessment unit makes the draft assessment order available to the NeAC, which then applies the risk management strategy provided by the CBDT to the draft assessment order again through automated examination tools. In case the draft assessment order does not pass the muster of the risk assessment strategy, the NeAC assigns the case to a review unit again based on the algorithm allocation system. In case the review unit concurs with the assessment unit, the order is finalized. However, in case the review unit disagrees, the NeAC again algorithmically assigns the matter to another

assessment unit.<sup>46</sup> Accordingly, a draft assessment order undergoes several levels of checks and balances before being finalized.<sup>47</sup>

The Government foresees the following benefits to the e-assessment scheme. First, transparency because under the technologically driven faceless scheme, there is no human interface. With dynamic jurisdiction, the taxpayer is never aware of which tax officer is handling her case. Second, accountability, because all communications with the taxpayer are routed through the NeAC with a document identification number. There is no room for personal communication, which occurs outside of the system. Third, efficiency in the form of economies of scale and functional specialization through team-based assessments. In due course, the tax office hopes that centralizing the tax assessment process would bring about standardization in their responses and uniformity in the application of tax rules.<sup>48</sup>

Ever since the Government has expanded the scope of the faceless scheme to other tax administration processes such as appeals, penalties, inquiries, and valuation. It is now proposed to set up a faceless income tax appellate tribunal.

In 2019, the Indian customs department also launched a faceless assessment mechanism, where a Bill of Entry for scrutiny (non-facilitated Bill of Entry) and clearance for home consumption is assigned to an assessing officer who is physically located at a Customs station, which is not the situational Port of Import of the goods in the Customs Automated System. It separates the assessment process from the physical location of Port of Import, using a technology platform.<sup>49</sup>

### **Data integration, management, and analytics**

The next key tech driven change has been the move from manual selection of cases for tax scrutiny to data driven tax audits that are less intrusive. Income tax, customs, and GST departments, each now have their own business intelligence and data analytics platforms.



As such, income tax and tax deducted at sources returns are centrally processed in bulk through an automated system at the CPCs and only few cases are picked for tax scrutiny. In 2015, the ITD launched Computer Assisted Scrutiny Selection (“CASS”), where under cases for tax audits were selected through an automated system based on detailed analysis of risk parameters and 360-degree data profiling of taxpayers<sup>50</sup> CASS has now dovetailed into Project Insight, which is the ITD’s integrated data warehousing and business intelligence platform. The data warehouse provides for end-of-day integration of key projects/data sources of ITD. The project also operationalizes two new centers namely Income Tax Transaction Analysis Centre (“INTRAC”) and Compliance Management Centralized Processing Centre (“CMCPC”).<sup>51</sup>

Admittedly, INTRAC performs tasks related to data integration, data processing, data quality monitoring, data warehousing, master data management, data analytics, web/text mining, alert generation, compliance management, enterprise reporting and research support. The new platform is being used for identifying high risk non-filers, selection of cases for scrutiny and processing of information received under Automatic Exchange of Information (“AEOI”), Foreign Account Tax Compliance Act (“FATCA”), social networks, other government organizations, etc.<sup>52</sup> Notably, the ITD launched a Non-filers Monitoring System (“NMS”), now under Project Insight, which aims to identify and monitor persons who enter high value transactions and have potential tax liabilities but have still not filed their tax returns. Analysis was carried-out to identify non-filers about whom specific information was available in the database of the ITD. The sources of information include Statement of Financial Transactions (“SFT”), Tax Deduction at Source (“TDS”), Tax Collection at Source (“TCS”), information about foreign remittances, exports, and imports data etc.<sup>53</sup>

On the other hand, the CMCPC uses campaign management approach (consisting of emails, SMS, reminders, outbound calls, letters) to support voluntary compliance and resolution of compliance issues. A dedicated reporting

portal has been set up for reporting entities to provide them comprehensive interface with the tax department. Moreover, a compliance portal has been separately operationalized to enable e-verification (i.e., capture of response on specific compliance related issues in a structured manner) for effective compliance monitoring and evaluation. The compliance portal also enables a seamless, secured two-way structured communication to enhance the transparency and functional efficiency of the department. ITD has rolled out the new Annual Information Statement (“AIS”) on the Compliance Portal which provides to the taxpayer a comprehensive view of the information that the ITD has on the taxpayer to promote voluntary compliance.<sup>54</sup>

Similarly, for GST as well, after building the core functionalities, GST Network has now entered its third phase where in the Government has launched the Business Intelligence and Fraud Analysis platform that leverages data to generate actionable insights using a combination of business intelligence tools and artificial intelligence/ machine learning based models to detect fraud and improve tax compliance. A scalable enterprise data lake has been set up. The platform works towards detection of tax evasions including use of artificial intelligence and machine learning to identify potential fraudulent transactions, outlier analysis, fraud propensity assessment and community detection.<sup>55</sup> It also aims to provide policymakers statistical insights.

Under customs also, shipments are scanned and checked for the risk profile of the importer / exporter, the nature of shipment, and they can be further selected for enhanced scrutiny through the risk management system (“RMS”), which employs machine learning<sup>56</sup>. RMS processes the data in the Bill of Entry through a series of steps and generates an electronic output for the customs department. This output will determine whether the Bill of Entry will be taken-up for action (appraisal or enhanced examination, or both, by the officers) or such self-assessed Bill of Entry is given Out of Charge directly, i.e. after duty payment but-without enhanced assessment



and examination.<sup>57</sup> In addition, Project ADAIT was launched, which includes comprehensive analytical tools such as data matching, network analysis, text mining, pattern recognition, predictive analytics, forecasting and policy studies.<sup>58</sup>

The Directorate General of Analytics and Risk Management (“DGARM”) has been set up in 2018, to provide intelligence inputs and carry out big data analytics to assist the tax officers for better policy formulation and nabbing evaders. The DGARM functions under the CBIC, mainly to use internal and external sources for detailed data mining to generate actionable inputs. The DGARM is an attached office of the CBIC which reports to Chairman, CBIC through Member (Investigation). This Directorate General functions for Customs, Central Excise and GST. The ITD has a Directorate of Risk Assessment, which works closely with the Directorate of Systems<sup>59</sup> and carries on data analytics and risk profiling of cases in where large data set is involved.

## Other technological tools

### E-invoicing & API Integration with taxpayer’s natural systems

To tackle fake invoicing and false input credit claims<sup>60</sup>, the GST council has implemented an electronic invoice system in a phased manner, according to threshold limits of revenue earned by taxpayers. E-Invoicing is a system where taxpayers generate B2B invoices on their own accounting system according to the prescribed standard format that has been laid down by the government. The next step involves authenticating the invoice on a common portal, known as the Invoice Registration Portal (“IRP”). Once authenticated or validated, the IRP generates an invoice reference number (“IRN”) and QR code and digitally signs the invoice. This invoice, now known as an e-invoice, is then returned to the original taxpayer, and the data from the e-invoice is sent to the e-way bill and GST portals for generating e-way bills and for populating the GST returns.<sup>61</sup> The objective of e-invoicing was the standardization of the invoice format and interoperability

amongst both business and tax ecosystems. E-Invoicing helps the government track every B2B transaction being carried out by businesses in real-time, which helps eliminate fake invoices and ITC fraud. Every e-invoice has a QR code printed on it, which helps tax officers in establishing their authenticity, especially in the case of goods in transit.

In addition, the GST portal has also enabled e-invoicing API integration. Taxpayers can integrate their business systems and processes (i.e., their accounting ERP) with the e-Invoice system through these APIs for seamless registration of the invoices, generated and prepared on their systems.

### E-way bills and Internet of Things

In addition, the Government introduced e-way bills system to ensure that goods being transported comply with the GST Law and to track movement of goods to check tax evasion. QR code is provided in the e-Way Bill to facilitate quick verification. As a leading example of Internet of Things, with effect from January 1, 2021, the government has integrated RFID (“Radio Frequency Intervention Device”) / FasTag with the e-way bill system and a transporter is required to have a RFID tag in his vehicle and details of the e-way bill generated for goods being carried by the vehicle is uploaded into the RFID. When the vehicle passes the RFID Tag reader on the highway, the details fed into the device gets uploaded on the government portal. Therefore, GST authorities will now be able to track real-time data of commercial vehicle. This will allow live vigilance for e-way bill compliances by businesses and help prevent revenue leakage by real-time identification of cases of recycling of e-way bills or non-generation of e-way bills.

### Electronic cargo tracking systems

Customs has introduced Electronic Cargo Tracking Systems (“ECTS”) for Nepal bound transit. The ECTS offers the facility of sealing the containers using high security electronic seals, having tracking functionality embedded in them. This new modality hopes to immensely benefit



Nepalese traders as it would ensure safe and secure transit, simplified border formalities, reduction in transit time and transaction cost and improved shipment visibility.<sup>62</sup> The customs department also launched electronic tracking of containerized cargo using smart locks and is running a pilot application built on Blockchain technology at ICD Tuglakabad.

### **API integration and Blockchain in CPC 2.0 for tax deducted at source**

The ITD is also working on CPC -2.0 for Tax deducted at Source (which is based on the SAINTS ideology – seamless, automated, symbiotic, intuitive, transactional, and natural).<sup>63</sup> The new system hopes to harness artificial intelligence, analytics and blockchain to bring further improvement in service delivery. For instance, it is proposed that the details of tax deducted in respect of a deductee will be transmitted automatically from the deductor to CPC TDS after deductee makes an entry in its books of accounts using natural systems and API integration. Intimations will be sent to the deductees on a real time basis through emails, text messages, etc.

### **Blockchain use cases**

In parallel, the tax department is also proposing to deploy blockchain in the tax administration processes.

The ITD has some use cases enabled on the blockchain. For instance, under the Indian tax rules, banks are not required to deduct tax at source on interest income if the income of the individual is below the taxable thresholds. For such, purposes banks often rely on a self-declaration provided by the individual in the prescribed form. The key issue with this approach is that banks lack a consolidated view of the individual's interest income earned across other banking relationships. A common ledger where interest income across all banks will give the tax department a complete picture, which can then flag an individual once interest income crosses the prescribed thresholds. This can help bank verify its tax deducted at source obligations on a real time basis.<sup>64</sup>

Similarly, Form 26AS (which details all the receipts received by a taxpayer pursuant to tax deduction) is often used by banks as a proof of income for loans. As such, at present banks have no mechanisms to check the authenticity of this form. There is no scope in law for the tax office to verify such form. With the use of blockchain, a common reporting application that collects this data from all tax depositors can provide cryptographically enhanced reports for downstream applications. Lenders can validate its authenticity by comparing the hash value of the document submitted by the borrower with the one on the platform.

The Government is also mulling the use of blockchain for GST purposes<sup>65</sup> considering that blockchain based GST records will be immutable, tamper free as data can be appended-only. No modification, deletion will be possible, providing all stakeholder agencies with required information for day-to-day enforcement activities.

### **Intra-governmental cooperation**

The Indian tax office has entered a new phase of intra-governmental cooperation for better enforcement. We no longer have government departments that act in silos. Notably, the ITD and the indirect tax department entered a memorandum of understanding in July 2020 for data exchange between the two organizations on an automatic and regular basis. In addition to regular exchange of data, the two departments will also exchange with each other, on request and spontaneous basis, any information available in their respective databases which may have utility for the other organization. These synergies are now visible considering Form 26AS will now include turnover information received from GST authorities.<sup>66</sup> Moreover, recently the Government issued tax notices basis the mismatch between income tax and GST filings indicating underreporting of income or use of shell entities.<sup>67</sup> Similar Memorandum of Understanding (“MoUs”) have been signed by the tax departments with SEBI and the Ministry of Corporate Affairs.<sup>68</sup>



## What has been the impact of the tax tech transformation in India?

The impact of India's digital transformation may be measured against some metrics suggested by ADB of increased effectiveness, efficiency, and speed. Unfortunately, there hasn't been a coherent study that measures the impact that technology has had in India against these metrics. While India's tax collections are the highest ever, there is no study that directly co-relates the increase in revenue and higher compliance rates to the technology related changes in the tax administration.

Similarly, as such, there has been no comprehensive study on the precise efficiency gains and costs savings to the Indian tax administration because of technification of the tax functions. Moreover, there are no taxpayer satisfactions surveys that have been conducted in India in this respect. While the taxpayer's response to the e-filings systems and faceless assessment schemes has been mixed primarily because of technical glitches that taxpayers are experiencing, the expectation is that in the long run both taxpayers and tax administration will experience a more efficient and speedier tax administration process. Some indicators of improved efficiency are as follows. TRACES is the ITD's portal for online management of withholding tax (TDS) filings and credits. In the legacy system, the deductee claimed TDS credits based on manual TDS certificates, issued by the deductors. Delayed refunds were a source of large number of grievances. Government's internal communique of 2014 notes that pursuant to the launch of TRACES, the average

processing time for the TDS statements is three days. In May 2020, the Minister of State for Finance informed the Lok Sabha that the average time for release of refunds during FY 2019-20, until January 31, 2020, was 59 days from the date of verification of the income tax return filed by the taxpayer. Further, in FY 2019-20, 65 per cent of the refunds were released within 30 days as compared to 50 per cent in FY 2018-19. India has also seen significant movement in the post-filing index, from a score of 4.5 in 2014 to a score of 49.3 in 2018.

Finally, it is hoped that use of technological tools will allow the Indian Government to gain policy insights and understand the Indian tax gap. In its document Vision 2020, the Indian ITD noted that the starting point for the revenue optimization effort would be to ascertain the potential tax base of the country and the extent of revenue leakages.<sup>69</sup> In its Report for 2021-2026, titled *Finance Commission in Covid Times* ("Report"), the Finance Commission has estimated India's tax gap to be more than 5 per cent of its GDP, compared to its potential.<sup>70</sup> Further, the Report identifies a host of measures to address this gap. Relevantly, these measures include tech-centric recommendations, such as improving the IT platforms for GST to ensure seamless invoicing and identification of frauds.<sup>71</sup> It is hoped that the business intelligence platforms such as ADAIT will also be used by the Government to gain policy insights and undertake statistical analysis.



## Risks and challenges

India's journey to digitalization of the tax administration has been extremely fast paced and, in some sense, disruptive even. While the intent underlying the technification of the tax administration has been noble, this journey has had its own set of risks and challenges.

### System integrity of technology employed in taxation

'System integrity' is a crucial lens through which any technological system can be qualitatively assessed. According to the Computer Resource Security Centre of the US National Institute of Standards and Technology, system integrity refers to "the quality that a system has when it performs its intended function in an unimpaired manner, free from unauthorized manipulation of the system, whether intentional or accidental".<sup>72</sup> For a technological system deployed in the tax administration to facilitate communication between a taxpayer and the tax authorities, system integrity may entail the following: (a) the system provides a convenient and accessible avenue for the taxpayer to communicate with the authorities; and (b) the system does not suffer from malfunctions or interruptions.

Indian tax administration, however, continues to suffer such interruptions. Taxpayers in India have experienced glitches in their use of tax systems.

Among such systems, the income tax and GST portals have experienced significant difficulties in maintaining integrity.. ITD's e-filing portal 2.0 exhibited technical glitches for several weeks, after being launched in June 2021. The nature and the frequency of the problems experienced by users on the portal, drove the government to extend the timeline for e-filing of annual returns for FY 2020-21. While some of the patent glitches seem to have

been managed and resolved over a span of months<sup>73</sup>, these technical difficulties have been continually reported by users. The occurrence of frequent glitches on the portal has also been cited in the successive audit reports released by the Comptroller and Auditor General ("CAG") on the GST regime.

The experiences of the tax administration as well as taxpayers with the e-filing portal 2.0 and the GSTN portal underline the need for higher levels of system integrity of the technological systems employed to enhance tax administration in India. A report by the World Bank has noted that frequent disruptions in technological systems may significantly undermine taxpayers' trust in the tax administration.<sup>74</sup> In fact, the disruptions experienced by users on the e-filing portal 2.0 resulted in rumours of a data breach on the portal, which prompted the Chairperson of the Central Board of Direct Taxes ("CBDT") to specifically clarify the absence of any such breach by way of a public statement.<sup>75</sup>

Public concerns over the integrity of tax technology highlight the role that such integrity plays in building taxpayers' trust.. As the OECD has observed, taxpayer's trust in the tax administration has clear linkages on their propensity to pay taxes.<sup>76</sup> Illustratively, working towards higher levels of systems integrity would involve formulating meaningful parameters for assessment of technological tools and periodically auditing such tools against these parameters, prior to and after their roll-out.

### Right balance between human touch and technology

Similarly, the overemphasis on elimination of 'human intervention' and excessive reliance on data under the faceless assessment scheme has also presented



challenges in several respects. Issues such as denial of principles of natural justice, arbitrary allotment of cases to assessment teams with limited technical background, blind reliance on data, and technical glitches on the portal have adversely impacted the intended impact of the faceless scheme.

To illustrate, in a bid to eliminate human intervention, the right to a personal hearing was made discretionary. Upon receiving a request from the taxpayer, the tax department could determine if the case merited a personal hearing, which would then be provided through video conferencing. It was observed that in several cases no personal hearing was granted or ignored despite requests being made. Resultantly, taxpayers were compelled to rely exclusively on written submissions to defend their case, which was not always suited to offer a complete perspective or explanation.<sup>77</sup> Several writ petitions have been filed in courts to preserve the right of the taxpayer to a hearing and courts have consistently held that the right to hearing is a constitutional right, which must be preserved and respected under the faceless scheme.<sup>78</sup>

Moreover, NeAC allots cases to assessment units through an automated system. Taxpayers have often experienced that their cases have been allotted to assessment units, which might not have the necessary expertise to deal with complex commercial matters. Whereas in the erstwhile system, assessing officers located in Delhi and Mumbai had the requisite experience to handle more complex commercial matters. While faceless scheme has the option for the assessment units to refer technical matters that require nuanced expertise to the technical units, the implementation of the scheme to secure such functional specialization may not have been felt in practice. Moreover, taxpayers have felt that the requirement to adhere to standard operating procedures under the faceless scheme has prevented tax officers to adopt a more dynamic approach to cases that may entail different business models or transactions.<sup>79</sup>

Additionally, the scheme has frequently experienced

technical glitches. These glitches negatively shape a taxpayer's interaction with technology. Crucially, such interactions may stunt the application of the principles of natural justice to assessment proceedings.

This includes the inability to upload responses on the portal beyond timelines (even where there are valid reasons for delay), inaccuracies in the taxpayer database have resulted in taxpayers not receiving intimations of notices and restrictions in uploading documents beyond a particular size has prevented taxpayers from making complete submissions.<sup>80</sup> Assessment orders have been passed without considering requests for adjournments or taxpayer 'submissions. Short timelines have been provided to respond to show cause notices and excessive information has been requested in tax notices. Amid this, the only effective remedy available to the taxpayer has been invoking the writ jurisdiction of the High Courts, which have come down heavily on the tax department for lapses in due process.<sup>81</sup>

A recent example of overreliance on data sets and systems integrity was in the case of *S R Cold Storage Vs. Union of India*<sup>82</sup>, where in the Allahabad High Court imposed costs of INR 5 million on the tax department, for neglecting the assessee's submissions and raising a tax demand based on incorrect information supplied by Insight. High Court further directed CBDT implement the faceless assessment mechanism in a manner that leads to no harassment to the public and tax officers are made accountable. The court held that the information obtained through the Insight platform should be verified before initiating tax proceedings.

Similarly, under GST, a key controversy has been the transition of credits under the indirect tax laws, prevalent prior to GST onto the GST portal. Several taxpayers were unable to claim these transition credits because of technical glitches on the portal. Writ petitions were filed before the various High Courts, which directed the department to reopen the GST portal for claiming transition credits. Governments' attempts to resolve the



issue by way of a grievance redressal mechanism also did not work in the interim, and the problems remained unaddressed. Recently, the Supreme Court has put an end to the dispute and given a one-time opportunity to all taxpayers to file and revise the relevant forms to claim such credits pertaining to the erstwhile indirect tax regime (even if they have not filed a writ or lodged a grievance for the same in any period).<sup>83</sup> A standard operating procedure to enable the same is expected to be released by the GST Council.

The broad procedural issues under the faceless assessment scheme and glitches on the tax portal may lead to a certain degree of mistrust amongst the taxpayers in the tech driven tax regime. This is more burdensome for taxpayers that are unable to pursue legal remedies because of limited resources. While the Government is looking to remedy the technical glitches and procedural infirmities, this has become more of an ongoing work in progress.

While most technology has focused on building enforcement and compliance capabilities, less is known about the way such technologies strengthen trust between governments and taxpayers. The way AI systems influence such trust has been previously discussed in literature. Firstly, AI systems that are not trained on standardized data can result in sub-optimal tax technology. An example of this was cited by Darren Campbell at EY, who reported the existence of an AI model trained on human captured data. The purpose of the model was to classify sales and use tax data. However, due to certain data points (such as vendors, descriptions, and accounts, etc.) being coded differently within the training dataset, the model failed to product the required results.<sup>84</sup> Naturally, deploying such a model would adversely impact public trust.

Secondly, trust is also impacted by the degree of human involvement in such technology. In *Salem Sree Ramavilas Chit Company v. Deputy Commissioner of Income Tax*, the Madras High Court noted that while the introduction of faceless assessment was laudable, such proceedings

can lead to erroneous assessments if officers are unable to understand the accounts of an assessee without offering them a hearing.<sup>85</sup> Evidently, a hearing in this context, would help build trust in the deployment of tax technology. Simultaneously, it would also preserve a taxpayer's right to a fair hearing.

Overall, the overuse of technology can have a detrimental impact on the efficacy of taxation systems. In assessing the limits of technology in transforming tax compliance, the World Bank has previously noted that technology cannot act as a panacea.<sup>86</sup> A more holistic view of tax technology, notes the Bank, involves multi-channel policy movement – technology ought to be accompanied by organizational improvements, capacity development and business process re-engineering. Regulators may add to this, an adapted variant of 'due process' to minimize any adverse effects of such technology. This can further build trust in the use of such technology among taxpayers.

### Data privacy

Large-scale processing of such personal information by novel tax technology can create novel privacy risks. In India, for instance, monitoring mechanisms like NMS pose significant privacy risks, since they profile individuals based on their non-filing of tax returns. Similarly, news reports indicate that in addition to government-generated personal information, Project Insight may capture social media data of individuals, to better assess tax-evasion related risks.<sup>87</sup> Capturing deeply sensitive personal data, coupled with the likelihood of creating databases out of such data, manifests further privacy risks. Such privacy risks range from data and security breaches (including in the context of private actors who assist in implementing the tax department's tech systems), state surveillance, misuse of data and general lack of dominion and visibility on how a taxpayer's data is being used and processed.

Notably, Section 138 of the IT Act expressly allows disclosure of information received by any income-tax authority in the performance of its functions to any officer, authority, or body, performing any function under





any law relating to the imposition of tax, cess or duty, or dealings in foreign exchange. Section 138 also permits such disclosure to officer, authority, or body, performing any function under any law, as the Central Government may specify by notification in the Official Gazette. The only pre-condition for such disclosure is that the income tax authorities must believe such disclosure is in public interest.<sup>88</sup> The CBDT has notified several government agencies under such provision for sharing information. However, more recently, the Government notified schedule commercial banks as a body that would be entitled to receive information from the tax office.<sup>89</sup> This means henceforth the ITD may share a taxpayer's financial data with banks. The law also allows any person to make an application to the tax authority for any information on any taxpayer, and the tax department can share such information if it is satisfied that it is in the public interest to do so. Moreover, the tax department's decision in this respect cannot be questioned in any court of law. On the other hand, Central Goods and Services Tax Act, 2017 ("CGST Act") bars disclosure of any information produced in accordance with the Act. However, the CGST Act provides an extremely wide range of information, which is exempted from the application of this bar on disclosure. Crucially, this exemption also extends to information provided to agency appointed by the administration for operating, maintaining, or upgrading any automated system, where such agency is contractually bound by confidentiality obligations.

The above discussed dimensions of tax technology illuminate the privacy risks that both novel and extant technology solutions may pose to taxpayer information. Such risks require an optimal regulatory response, focusing on the robust application of data privacy principles.

Crucially, however, India lacks a comprehensive data privacy law. Up until 2017, the right to privacy was not recognized as a constitutional right. Especially in the context of allowing evidence that is collected pursuant to an illegal search, the Supreme Court in *Pooran Mal v.*

*The Director of Inspection (Investigation), New Delhi & Ors [1974 (1) SCC 345]* held that "unless there is an express or necessary implied prohibition in the Constitution or other law, evidence obtained as a result of illegal search or seizure is not liable to be shut out." Additionally, the court noted that there is no recognized right to privacy under the Indian Constitution.<sup>90</sup> Therefore, there is limited jurisprudence in India that explores the taxpayer's right to privacy vis-a-vis data collected and processed by the tax department.

However, discussions around right to privacy vis-a-vis taxpayer's rights has surfaced in the aftermath of the Indian Supreme Court's 2017 decision to declare privacy a fundamental right.<sup>91</sup> The taxpayer's charter, which was adopted by the Indian Government in 2021, recognizes the privacy of the taxpayer in that the ITD is enjoined to follow due process of law and be no more intrusive than necessary in any inquiry, examination, or enforcement action. Moreover, the tax department is not to disclose any information regarding by the taxpayer unless authorized by law. Relatedly, in the context of the RTI Act, 2002 the Supreme Court has held that tax returns constitute personal information.<sup>92</sup>

While the Hon'ble Supreme Court introduced the tests of legality, legitimate aim, and proportionality to assess any ingress into the right of privacy, these tests are yet to be deliberated in the context of data processing and analytics by the tax department. Limited examples include the Aadhaar case, where the Supreme Court allowed the linking of PAN and Aadhaar based on public interest after evaluating these tests of legality, necessity, and proportionality. Other jurisprudence relates to the use of electronic devices like mobile phones that are seized during a search. In the case of *Virendra Khanna vs. State of Karnataka* (in WP No. 11759 of 2020, judgment dated 12.3.2021), the Karnataka High Court held that providing a password for the authorities to access such mobile device was neither 'self-incrimination' nor a violation of right to privacy.



In this backdrop of nascent and underdeveloped data privacy law, the Government should develop adequate regulation that effectively safeguards privacy rights as it amplifies its novel tax technology systems.

The application of privacy principles to tax information has been discussed by the Committee of Experts constituted to recommend a data protection framework for India. The Committee, in its report titled, 'A Free and Fair Digital Economy: Protecting Privacy Empowering Indians' ("Data Protection Report"), noted that unlawful processing of, *inter alia*, taxation data may cause significant harm to individuals.<sup>93</sup> These observations were made in the context of the Committee's decision to account for governments as data fiduciaries under its proposed regulatory regime, thereby indicating its desire to enjoin certain privacy protections to data processing carried out by governmental agencies.<sup>94</sup> Notably, however, the Data Protection Report adopts a conservative attitude towards protecting some forms of processing related to personal tax information. Specifically, it noted that the processing of personal data to investigate tax contraventions shall be exempt from certain data protection obligations. These include the obligations to notice, consent, use and disclosure.<sup>95</sup> One must, however, be mindful of the fact that this observation was made largely in the context of processing data for investigating tax contraventions. Its application to processing the same personal data for other purposes, such as sharing the data with a third party to obtain additional insights, may be limited.

Relatedly, according to recent reports, the Department of Revenue ("DoR") has proposed to exempt the CBEC's apex body for data analytics and risk management, the DGARM, from application of the Right to Information Act, 2005 ("RTI Act"). The DoR has reportedly argued that allowing requests for information under the RTI Act from the DGARM would undermine the confidentiality of sensitive data relating to taxpayers. Further, it has claimed that this would have adverse implications on national security.<sup>96</sup>

On one hand, the concerns cited by the DoR appear to have a legitimate basis. The DGARM has been involved in, *inter alia*, investigating evasions in payment of GST.<sup>97</sup> Hence, it may understandably require a certain level of confidentiality to conduct its investigative operations effectively. However, it is crucial to note that the DGARM's stated functions are not limited to carrying out investigations, it has also been tasked with broader responsibilities that include risk management and provision of inputs to assist the CBIC in formulating policies.

The above discussion serves to further underline the need for a comprehensive Indian law on data privacy. In context of the operation of units of the tax administration that rely extensively on data analytics in their operations, such a law would provide a principled legal basis to balance the considerations of confidentiality, national security, and transparency.

### Capacity building in Ministry of Micro, Small and Medium Enterprises ("MSMEs")

The adoption of tax technology has manifested unique challenges for MSMEs in India. This statement requires context; broadly, adopting novel digital solutions at large remains a challenge for Indian SMEs. A case study by the Indian Brand Equity Foundation mentions a cross-jurisdictional study wherein 84 percent of sampled Indian firms, "reported difficulties in executing their digitization goals, citing a shortage of digital skills and adequate talent, followed by lack of funds and insight into data"<sup>98</sup>. These identified roadblocks to digitization hold true for the adoption of tax technology as well, meaning that firms may struggle to keep up the demands of technology intensive regulation.

A closer look at the implementation of the e-invoice, a landmark compliance tool, reveals some of the hurdles manifested by tech-intensive regulation. The mechanism for e-invoicing has multiple, moving digital parts, several of which raise potential concerns for MSMEs. For example, commentators note that the generation of e-way bills linked to e-invoicing has introduced a need for MSMEs



to separate documents that require e-way bill generation from others.<sup>99</sup> This task requires MSMEs to deploy automation tools. In the absence of automation, this task can be particularly resource intensive, leading to a negative impact on the MSME's productivity. The knowhow and capital to deploy automation tools is also needed in other aspects of e-invoicing. Such tools are required to separate different types of invoices or reconcile e-invoice data. Compliance with such obligations that mandate such separation or reconciliation, require further inputs from MSMEs.<sup>100</sup> The above discussed illustrations highlight the need for robust capacity building among MSMEs for technology adoption. MSMEs need end-to-end solutions that smoothly automate tax compliance. Moreover, they also require staff to be accordingly retrained to deploy these technology solutions.<sup>101</sup>

The notion of retraining also brings to light another capacity building challenge for MSMEs. Often, MSMEs are provided little to no time to retrain themselves for such large-scale technology adoption.

To better understand this, consider the following example. In March 2022, the CBIC lowered the turnover threshold for e-invoicing from INR 500 million to INR 200 million. Affected entities were asked to comply with this change by April 1, 2022.<sup>102</sup> Effectively, entities were asked to build institutional capacities for e-invoicing in the span of a month.

The low turnaround time to build compliance capacity is likely to cause disruption among MSMEs.<sup>103</sup> Additionally, it may lead to diminished compliance rates. Consequently, lending support to build such capacity is crucial for the government.

It is important to acknowledge that the government has taken positive steps in this regard. A recent notification, further lowering the turnover threshold for e-invoicing, allows entities to develop compliance strategies over a slightly longer timespan (2 months).<sup>104</sup> However, a detailed regulatory study on optimal compliance deadlines is particularly relevant to the deployment of tax technology.

## Administrative capacity of the tax administration

In developing countries, the lack of 'administrative capacity' (defined by reference to skilled human capital) is a crucial roadblock in the functioning of the tax administration.<sup>105</sup> As Bird notes in his study on technology-driven tax reform, the success of any program for modernization relies ultimately "on human resources, i.e., on the training and skills of the people who are expected to use and operate the technology".<sup>106</sup> Okunogbe suggests that integration of technology may even require a redefinition of roles and skill-sets within tax administration authorities.<sup>107</sup>

In 2014, the Tax Administrative Reforms Commission ("TARC") noted that with the rapid pace of digitization in India, the importance of computer-based audits is bound to increase, and conventional audits are bound to diminish in relative importance. The skills in this area, however, require significant improvement.. Most officers had very limited knowledge of the potential of Computer Assisted Audit Programme ("CAAP"), owing to lack of exposure and training.<sup>108</sup>

The integration of a wider range of digital tools in the Indian tax administration has only enhanced the need for the development of specialized skills relating to the operation and management of such tools within the administration. To illustrate this, consider once more the Faceless Assessment Scheme of the ITD, under which cases are allocated to respective Assessment Units for e-assessment, by means of an automated process, without any exercise of human discretion. Further, the Scheme, in effect, abolishes territorial jurisdiction, since a return filed by an assessee in one jurisdiction can be allocated for assessment to an Assessment Unit located in another. This process of automated allocation necessitates those personnel staffed across all Assessment Units in the country possess the requisite degree of expertise and experience to effectively carry out the e-assessment process in respect any assessee, irrespective of the complexity of the assessment.



### Concerted strategy on tax technology adoption

The Indian government has rolled out and integrated numerous initiatives relating to adoption of digital tools, under its flagship Digital India program. As discussed in this paper, such initiatives include solutions geared specifically towards modernizing the Indian tax administration.

However, the government is yet to articulate a comprehensive strategy that underpins the adoption of digital tools in the Indian tax administration, across the income tax, GST and customs regimes. Thus, regulatory initiatives on adoption of technology in taxation appear as disaggregated developments aimed at addressing specific challenges/inefficiencies as they emerge in the respective regimes, through technological solutions.

On one hand, this piecemeal approach compels taxpayers to continuously tinker with their internal systems and processes to adapt to technology-driven changes, since they have little visibility on prospective changes. For the tax administration and its constituent divisions, the approach hinders building of capacities in the long-term, in terms of technology as well as in terms of human capital.

The need for a clear long-term strategy towards digitization of taxation processes has also been articulated by the OECD. The OECD has observed that the digital transformation, although incremental in nature, requires a paradigm shift involving the coordinated participation of public and private institutions.<sup>109</sup> Thus, without coordination towards clearly articulated end-goals, incremental changes could result in siloed deployment of individual technological solutions and counter-productively result in loss of efficiency and increased compliance costs.<sup>110</sup> Towards successfully achieving the digital transformation of tax administration, the ADB has also recommended the formulation of a strategy ranging from 2 to 5 years, which would take into account the current state of technology in the jurisdiction.<sup>111</sup>

In the specific Indian context too, the TARC observed in 2014 the need “to articulate an ICT vision and strategy, derived from business strategy that reflects the departments’ vision and mission”.<sup>112</sup> Such a strategy will “provide an overarching setting for the design of the ICT architecture, which will “provide consistency and coherence across different ICT projects, systems and sub-systems”. Additionally, a long-term strategy can also spur and provide direction to private-sector innovation in tax-technologies, as has been the case in India with financial-technologies (FinTech).



## How are taxpayers responding?

Consistency and accuracy in tax filings have always been important for a business. However, as tax administrations adopt smarter tools such as data analytics, AI, and machine learning to spot anomalies and gain greater visibility on the taxpayer, the tax risk profile for all businesses will increase manifold. Add to this, the compliance burden of tech intensive regulations such as e-invoicing and complex new rules on profit allocation for digitized business, pillar II calculations, multi-jurisdictional transfer pricing and Country by Country filings, and increased reporting obligations under tax transparency frameworks. In this changing world, the current practice of the tax function operating in silos, managing multiple compliances in a piecemeal way across regulators and jurisdictions that rely on scattered and decentralized data flows from other business functions is unlikely to work in the future. Irrespective of its size, each business will need a well thought out compliance strategy that takes stock of its varied tax compliances and how they intersect in terms of data sources and reporting parameters. The taxpayer's internal systems and processes need to be redesigned for centralization of data, standardization in reporting and detection of any outlier transactions and inconsistencies that could be a red flag for the tax administration, allowing for timely risk mitigation<sup>113</sup>. In its 2021 survey that interviewed 300 tax and finance executives globally, Deloitte found that 93 per cent of survey respondents said transformative changes to the way companies are being required (electronic filing, real-time reporting, etc.) to provide tax information to revenue

authorities is creating an imperative to modernize the tax function at a faster pace.

Resultantly, with the digital transformation of the tax administration, a new parallel of "tax tech" has emerged to digitally transform the tax function within businesses. Interestingly, businesses are also mirroring the same processes employed by the tax department in their tax function, including digitization, automation, and data integration across business functions for real time updates<sup>114</sup>, cloud and AI/ machine learning. Tech providers are offering varied products either as compliance related solutions (aimed at automation of tax filings), insight related solutions (that carry out functions of data extraction, data cubing and data insights), process management related solutions (these look at work flow management to ensure that the relevant information available with the right people) or infrastructure related solutions (software applications or cloud environments).<sup>115</sup> EY's 2020 Survey of 100 global MNEs suggests that tax transformation spend, annual technology budgets and hiring of data skills increased by more 40 per cent for companies surveyed that are dealing with Digital Tax Administrations.<sup>116</sup>

The tax function within businesses will need to upskill employees and build tech driven competencies. Many businesses are also evaluating outsourcing and co-sourcing tax functions when they do not have the ready skill sets to deal with tech intensive compliances.



## Conclusion

India's rapid digitization of its tax administration falls broadly under the Government's vision for a Digital India - a flagship program that among other things looks to build e-governance across all governmental processes in India. Importantly, India is also a member of OECD's Forum of Tax Administration, which is currently advancing the ideal of Tax Administration 3.0. Its key features include embedding tax administration processes within the taxpayer's natural systems to secure compliance by design, use of interoperable ecosystems that enable validation & automation of data and data flows, and artificial intelligence tools and algorithms to support characterization and assessment of liabilities and decision-making.<sup>117</sup> And, while there is no white paper or policy statement from the Indian Government confirming this, it would be safe to say that India's general direction (for instance e-invoicing and envisaging of CPC TDS 2.0)

is towards Tax Administration 3.0. The hope is that the Government pauses to take stock and assesses the impact of its existing tech measures and effectively addresses the risks and challenges that are currently being experienced before moving forward. To this end, it is key that the Government's long-term strategy for digitizing its tax administration is comprehensively set out and evaluated with all stakeholders through an open-door consultative policy process, followed by putting in a place a robust legal basis for audit of the tax department's technical systems and protecting the rights of taxpayers. For such purpose, the Government may consider as a first step, the formulation of a specific study group within the Ministry of Finance, which is devoted to analyzing the impact and issues surrounding the varied technological tools deployed by the Indian tax administration and makes actionable recommendations on the path forward.



## Endnotes

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**Shardul Amarchand Mangaldas, founded on a century of legal achievement, is one of India's leading full service law firms. Our mission is to enable business by providing solutions as trusted advisors through excellence, responsiveness, innovation, and collaboration.**

We are one of India's most well recognised firms, and are known globally for our integrated approach. With approximately 785 lawyers including 161 partners, we provide exceptional services across practice areas which include General Corporate, Merger & Acquisition, Private Equity, Banking & Finance, Insolvency & Bankruptcy, Competition Law, Dispute Resolution, Projects & Project Finance, Capital Markets, Tax, Intellectual Property and Venture Capital. We are at the forefront of global and Indian M&A and private equity transactions, cutting edge high risk litigation and advice on strategically important matters across a spectrum of practices and industries for our multi-jurisdictional clients.

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