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FROM THE
CONTENTS

	Page no.
From the President's Desk	(iv)
Editorial	(v)
India Chooses Fiscal Prudence Amidst Global Uncertainties	1
Dr. SUBHASH CHANDRA PANDEY	
Data Tsunami and Big Data Analytics Challenges and Opportunities for Public Auditors	24
K.P. SHASHIDHARAN	
Taxing Agricultural Income	42
Dr. GOVIND BHATTACHARJEE	
Economic Growth, Inflation and Taxation – A Trichotomic Perspective	55
ADHAR LAL CHAND	
Invester's Perception and Awareness Towards Mutual Funds in India : Myths and Facts	65
C.A. (Dr.) PRAMOD KUMAR PANDEY & IRSAD ALAM	
The Aadhaar (Targeted Delivery of Financial and other Subsidies, Benefits and Services) Act, 2016	77

FROM THE PRESIDENT'S DESK

This 22nd issue of Journal, now in your hand covers a wide spectrum of issues relevant for Governance and Performance Audit. IPAI is publishing its Journal for over 10 years and 21 issues have been published so far. The Journal disseminates knowledge and professional information to a wide readers to contribute for this Journal. Articles should broadly cover aspects relating to Public Accountability, Financial Management, Accounts Audit, Public Administration with focus on Good Governance.

Institute encourages critical thinking, research and originality in interpretation and presentation of views and factual correctness of the information adduced in the articles for our Journal.

I am pleased to acknowledge contribution by authors. I feel the readers will find the Journal stimulating and interesting. I welcome comments on the articles and suggestions for improving the quality of Journal.

ANUPAM KULSHRESHTHA

EDITORIAL

It is no more anybody's case that that government is best which governs the least. Ayn Rand's governmental prescription of a proper government with proper functions of police, armed forces and the law courts only to objectively control use of private force by private individuals have few takers. Even the most liberal government on earth the US, has gone the way of Obamacare; what to speak of struggling third world countries like India which have to have big ticket governmental intervention to provide the basic irreducible minimum of civilised living. Governmental spending is accepted as axiomatic but the attendant implications of excessive governmental spending triggering the cascade of deficits of different hues, governmental borrowing which result in inflation and elbowing out of private borrowing necessitate inescapably that this be ring-fenced. Democratic way of functioning unlike totalitarian systems subject the government to pulls and pressures which require that the deficits and consequential borrowing be regulated instead of it being left to voluntary governmental wisdom and self-limitation. A look back in the time machine at governmental efforts in this regard particularly the budgetary years of 2008-09 which hit fiscal deficit for a sixth to 7.8% of GDP, the

result of unavoidable fiscal stimulus, reinforce the argument to leave little discretion to government except through an operative band or escape clause. Or left to it, the government may introduce sophistries like effective revenue deficit which though has much force in the concept yet waters down the revenue deficit.

The FRBM Act of 2003 was a landmark legislation in this regard, which was followed by the rules of 2004. This was largely based on the report of Sarma committee which was later revised by Kelkar committee. The new FRBM Committee of 2016 was formed to have a look at the deficits and borrowings which was a result of change in the financial scenario as a result of change in oil prices, percentage of household savings, intervention induced changes like demonetization to name a few. The recommendations of Debt and Fiscal Responsibility Act, targets of debt 60%, FD 2.5% and RD 0.8% of GDP by 2022-23, formation of a Fiscal Council will go a long way in this regard. The Fiscal Council though supposedly doing the function of review which appropriately is the province of Audit is already doing stellar work in this regard.

This issue of the Journal contains an article on new FRBM committee of 2016, which looks into the whole gamut

of deficit, borrowing. The author himself being part of the studies and deliberations of the Committee, brings special insight into the article. All this points towards bolstering of revenue which is one of the twin bullocks of the cart of deficit management along with expenditure circumscribing. Another article looks at the issue of taxation of agricultural income - the desirability of taxing the same for equitable taxation and widening of tax base, apart from garnering higher revenue, which had been recommended as early as 1972 by Raj committee. Of course, no justification whatsoever can be dished out for keeping big farmers agricultural income out of tax net. Another article looks at the issue of perplexing and bewildering alternatives for investment by the individual and also the risky alternative of investing in competing MFs for maximising gain. The study has thrown interesting conclusions on returns and investor preferences-huge chunk of investors prefer public sector mutual funds to private sector mutual funds. Another author has taken the task to write on the concepts of growth, inflation, taxation to clear the cobwebs often noticed in the discourses and in the minds of common men and their inter-linkage, joining the debate of growth vs inflation and appropriate taxation system.

The present era in digital evolution is the era of big data with its exponential explosion of data with regard to volume, variety, velocity, veracity and value with technological leaps in data reach and sifting. Data Analytics and Innovation requires that Audit gears itself up to evolve new audit approaches to audit big data to bring out audit conclusions which will provide full audit assurance being the resultant of the sifting through whole auditable population. However, it does not mean end of the auditing approach of auditors going to material field offices to audit the ground records, acting as 'itinerant therapists'. Perhaps, two approaches will work together as remote data drilling. Auditing will reduce audit to a machine audit which cannot substitute on the ground physical audit. The article on Big Data has analyzed how innovative audit processes in Big Data audit through audit process revamping and skill upgradation can take audit to a new level to provide assurance to the stakeholders of governance process.

AJIT PATNAIK
Editor

INDIA CHOOSES FISCAL PRUDENCE AMIDST GLOBAL UNCERTAINTIES

DR. SUBHASH CHANDRA PANDEY*

The Fiscal Responsibility and Budget Management Act (FRBM) 2003 is widely held to be one of the most significant institutional reforms undertaken by the country to reengineer the institutional framework of fiscal management. In an increasingly financially integrated world, India has responsibly chosen to pursue financial sector reforms, tax base expansion and digitally facilitated fiscal consolidation, shunning the softer options of monetary easing. This Paper summarizes and explains the main arguments and recommendations of the FRBM Review Committee (January 2017).

Introduction

There is an ongoing and intense debate worldwide about the role of fiscal policy on economic activity. It is argued that when private economic activity is not creating enough demand to create full employment, fiscal policy can be used to increase demand and thereby to create more jobs, especially in emerging and developing economies with infrastructure needs, and lack of adequate incentive for markets to produce public goods. However, a country cannot spend its way to prosperity and certainly a borrow-and-spend is not a prudent or sustainable fiscal policy. It is

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advisable to choose caution over exuberance and fiscal restraint over profligacy as only fiscal prudence can increase credibility and investor confidence in an increasingly financially integrated world. This paper traces the evolution of FRBM Act, 2003, its implementation and its recent review by the Committee headed by Shri N K Singh.

Evolution and implementation of the FRBM Act, 2003

Statutory regulation of borrowings under Article 292 of the Constitution was repeatedly recommended by the Estimates Committee, the Public Accounts Committee, and the Reserve Bank of India since 1957 but was not found acceptable by the governments for various reasons. While working as Director Budget in the Ministry of Finance, I took the initiative in 1999 to study international legislative practice in controlling public debt and deficits and suggest a draft 'Public Debt and Guarantee Limitation Act' for India. On perusal of this study report, the Finance Minister constituted a committee (January 17, 2000) chaired by Dr. E.A.S. Sarma, then Secretary, DEA, to draft a suitable legislation. The Committee recommended (July, 2000) progressive reduction in the fiscal deficit by 0.33 percent of GDP every year so as to reduce to 3 percent of GDP in five years and complete elimination of the revenue deficit in five years through annual reductions of 0.5 percent of GDP. The proposed legislation also limited guarantees to 0.5 percent of GDP in any given financial year and sought to achieve a debt-GDP ratio of 50 percent within a period of 10 years commencing on April 1, 2001.

Importantly, the Sarma Committee did not borrow from the European Union's Stability and Growth Pact as is commonly believed. The fiscal deficit target of 3 percent was, in fact, adopted with twin considerations of a) consistency with the forecast trend of household financial savings and b) the target being considered sufficient for reducing the stock of outstanding government liabilities to the level of 50 per cent of the GDP within 10 years. The 3% deficit limit in the EU was for the general government deficit whereas the FRBM's limit of 3% was for the Central government's deficit alone.

The stiff provisions in the Bill introduced by the government were diluted on the recommendations of the Department Related Parliamentary Standing Committee. The Act passed in November 2003 and the Rules made under the Act were brought into force by the newly elected government on July 5, 2004.

The FRBM Act did make a significant difference. The general government deficit declined from a peak of 9.6% in 2001-02 to 4% in 2007-08. The Centre's fiscal deficit declined to 2.5% of GDP in 2007-08, a year in advance from when the 3% deficit target was to be achieved. The debt to GDP ratio declined during this period from 83% in 2002-03 to 71% in 2007-08. Entire fiscal adjustment came from enhanced revenues rather than expenditure compression. In fact, there was an increase in quasi-fiscal expenditures, issuance of subsidy related bonds, etc.

The fiscal deficit *apparently* declined from 4.34 percent in 2003-04 to 2.54 percent in 2007-08, achieving the target of 3 percent of GDP one year in advance and the revenue deficit also *apparently* came down from 3.5 percent of GDP in 2003-04 to 1.1 percent of GDP in 2007-08, and closer to the target of nil in 2008-09. But as the CAG would later point out, the actual revenue and fiscal deficit figures were under-reported mainly due to exclusion of bonds issued in lieu of subsidies as the computation of the deficit and such exclusion was not in conformity with the definition of the deficits given in the FRBM Act.

The process of fiscal consolidation was reversed in 2008-09. The budgeted fiscal deficit for 2008-09 was 2.5 percent of GDP, while the revised estimates shown in the interim budget presented in February 2009 was 6 percent of GDP. However, the Centre's actual fiscal deficit in 2008-09, inclusive of the off-budget expenditures of oil and fertilizer bonds, was, in fact, 7.8 percent despite significant under-reporting through deferment of expenditure liabilities. Thus, the total deterioration in the fiscal deficit in 2008-09 was a dramatic 5.3 percent of GDP. The revenue deficit also ballooned considerably in 2008-09, from the budgeted 1 percent to the revised 4.4 percent of GDP. Accounting for the off-budget bonds brought the number to an unprecedented 6.3

percent of GDP. The general government deficit reached 9.3% in 2009-2010.

Thus, all the earlier gains were eroded. The government had attributed the deterioration in the fiscal deficits from 2007-08 to 2008-09 to the 'fiscal stimulus' provided to cushion the impact of the global financial crisis. In anticipation of the upcoming 2009 general elections, expenditure slippages had started well before the financial crisis hit the global economy in the third quarter of 2008-09. These infractions primarily consisted of populist spending policies on account of a farm debt waiver, the abrupt expansion of the MNREGA from 200 to over 600 districts, large subsidies on account of oil, food, and fertilizers, and the implementation of the recommendations of the 6th Pay Commission.

The 'fiscal stimulus' measures were announced purportedly to offset the impact of the GFC on the Indian economy. The measures included across the board major cuts in indirect taxes and a substantial step-up in government expenditure with relaxed debt ceilings for States as well. These measures were not targeted at any particular sector facing demand contraction. Given the inertia in the economic data gathering system, it is highly unlikely that the government had credible information on which sectors were actually impacted by the GFC and to what extent. India's exports had been growing faster than the overall economy, but the contribution of net exports to India's GDP had been quite marginal. Hence, the measures to boost demand in a supply constrained situation only fuelled spiraling inflation. Thus, the main cause of fiscal deterioration in 2008-09 onwards had a rather tenuous link with fiscal measures genuinely needed to deal with the global crisis. Instead, they had more to do with populist fiscal decisions on taxes, subsidies, loan waivers and other expenditure increases in the wake of upcoming General Elections in 2009. The credibility of fiscal policy was dented and government announced return to the path of fiscal consolidation only in September 2012.

The FRBM practically remained in abeyance for a period of five years. In 2012, the FRBM Act was amended pushing the deadlines for numerical targets from 2008-09 to 2014-2015 and revising the target for the revenue deficit from zero to 2% of GDP.

Specific findings of the CAG on the implementation of the FRBM Act

The CAG's first Audit Report on FRBM implementation was tabled in Parliament in July 2016. It brought out that the deficits reported in the Budget were not being computed exactly as per the definition provided in the FRBM Act, leading to significant underreporting of actual deficit in some years. Deficits were under-reported to the extent of reduction in transfers to the States because the States were short-paid as much as Rs.81,648 crore in their due share of Central taxes during the period 1996-97 to 2014-15. Large-scale tax refunds (including interest on refunds of taxes) ranging from 12 to 17 percent of the gross direct tax collection during the period 2010-15 pointed to a systemic bias in tax administration towards the practice of 'tax borrowing' vitiating the reported deficits. The CAG further commented that the FRBM did not target inefficient management of the small savings operations. The National Small Savings Fund (NSSF) was created in the Public Accounts in April 1999 and the cumulative operating loss of NSSF, which was a modest Rs.1682 crore at the end of 1999-2000, had steadily increased to Rs.90,708 crore at the end of 2014-15. This represents cumulative understatement of the government's annual interest payments, revenue deficits and the primary deficit.

Why a new FRBM?

India is in a very different place than it was in 2003. India is increasingly getting financially integrated with the world economy. Capital flows have increased dramatically over the last five decades (gross capital flows increased 81 times since 1970); but the real takeoff happened since the early 2000s. In particular, portfolio flows have increased sharply. Increased international financial integration has coincided with domestic financial sector reforms leading to reduction in pre-emption of investible funds of Banks and FIs. The Statutory Liquidity Ratio (SLR) requirements imposed on banks to hold a minimum fraction of their deposits in the form of government bonds have also come down from 30% in the late 1990s to 21.5% recently. In fact, the *de facto* SLR requirement is even lower at 11.5%.

Increased financial integration of India with increased dependence on foreign capital and stressed balance sheets of commercial banks due to rising burden of Non-Performing Assets have direct and important implications for the fiscal framework. Government can no longer expect automatic financing of high fiscal deficits by banks. The financial repression, viz., government forcibly taking away resources from Banks and FIs has reduced and is likely to decline further in the future. Demonetization of Rs.500 and Rs.1000 banknotes was carried out to tackle the problem of counterfeit currency, which is increasingly being channeled towards funding terrorism and other illegal activities, and to effectively nullify black money hoarded in cash. The FRBM Review Committee opined that the impact of the measure on growth is likely to be transient and over a longer period, as the parallel economy moves to "white", the move is anticipated to lead to an increase in accounted income, and have a positive impact on tax collections by the government. The expectation is that over the medium-term, more and more households would be induced to move from cash to digital mode, which would reduce transaction costs, and lead to gains in efficiency for the economy. This is already happening.

The global backdrop has also changed. The prolonged global slowdown – characterized by some economists as a secular stagnation - developments in China, uncertainties in the Eurozone, demographic imbalances in several countries (like the aging population of Japan) significant debt burdens, low inflation, and the pursuit of unconventional monetary policy by many central banks under pressure to restore growth and achieve their inflation targets, have made the international environment increasingly challenging. The global environment continues to be highly uncertain about level of protectionism and the direction of fiscal and monetary policies in the advanced economies. These external challenges also come at a time when India has become increasingly globalized in trade and investments necessitating policymaking to become far more cognizant of global events. Domestic policies must reckon with an increasingly challenging, uncertain, and volatile exogenous environment. Simultaneously, however, the

thinking on fiscal rules globally has changed. Most countries have multiple fiscal rules, with well-crafted escape clauses and provision for independent fiscal councils and automatic correction mechanisms.

The initial FRBM targets need revisit when there is major change in the assumptions underlying those targets. The fiscal deficit target needs review to factor (a) change in the net household financial savings and (b) in the profile of government's capital expenditure. The 3 percent of GDP ceiling on the fiscal deficit recommended by the Sarma Committee was intended to achieve stabilization of the Central government's debt/GDP ratio to 50 percent in 10 years and was consistent with availability of household financial savings, to affordably finance this level of fiscal deficit without increasing dependence on external debt.

The fiscal deficit was targeted at 3 percent of GDP at a time when household financial savings were 10 to 12 percent of GDP. Now these savings have reduced to about 7.5 percent of GDP. The continued crowding out by general government has led to increase in the country's external debt on private/corporate account, although external indebtedness in the Central government's books of accounts is modest.

Further, the target for the gross fiscal deficit at 3 percent of GDP was fixed at a time when the Centre was extending substantial loans to state governments and the target for Centre's Gross Fiscal Deficit (GFD) presumed continuation of this practice. However, on the recommendation of the 12th Finance Commission, the Centre stopped giving Plan loans to States except against external aid. With the Centre having substantially given up its financial intermediation role (borrowing and lending to CPSUs and States) and with the shifting of asset creation to special purpose vehicles (SPVs) of various hues, the scope of direct capital expenditure by the Central government is largely confined to defence and railways. Even the financing of capital-intensive national highways and industrial corridors is through grants to parastatal. Thus, the very rationale of the original FRBM target of fiscal deficit of 3 percent of GDP only for 'capital expenditure' and lending on government account merits reconsideration.

FRBM Review Committee (2016)

In recent years, there has been some improvement in the fiscal balances, but clearly insufficient to what the situation demands. The Finance Minister constituted (May, 2016) a Committee chaired by Shri N. K. Singh and having Shri Sumit Bose, Dr. Urjit R Patel, Dr. Arvind Subramanian and Dr. Rathin Roy as Members, to review the working of the FRBM Act and to suggest the way forward, keeping in view the broad objective of fiscal consolidation and prudence and the changes required in the context of the uncertainty and volatility in the global economy. The Committee was tasked to look into various aspects, factors, considerations going into determining the FRBM targets; to examine the need and feasibility of having a 'fiscal deficit range' as the target in place of the existing fixed numbers (percentage of GDP) as fiscal deficit target; if so, the specific recommendations of the Committee thereon; and to examine the need and feasibility of aligning the fiscal expansion or contraction with credit contraction or expansion respectively in the economy.

Core recommendations of the FRBM Review Committee

The FRBM Review Committee submitted its Report on 19th January, 2017. The Committee provided draft of a Debt and Fiscal Responsibility Act to replace the existing FRBM Act, 2003 with the following changes from current framework:-

a) Target to reduce general government debt to 60% of GDP by 2022-23** (40% for the Centre, 20% for the States.) from the current level of Centre's total liabilities being 49.4% of GDP in *Budget 2016-17 and States' aggregate liabilities being *21% of GDP in 2016-17*. (Although the Committee's remit was mainly to review the working of the Centre's FRBM Act, but given the deep fiscal inter-relationship between the Centre and the States, the Committee referred to 'general government debt'. Prima facie, the recommendation seem to cast a stiffer responsibility of debt reduction on the Centre from 49.4% to 40% of GDP while the States are expected to move from 21% to merely 20% of GDP. However, for a fuller appreciation of extent of fiscal consolidation required by the Centre and the States one has to factor the deep

impact of Centre's fiscal consolidation on State finances as well.)

b) Centre's Fiscal Deficit, which was 3.5% of GDP in Budget 2016-17, to be restricted to 3.0% of GDP till 2019-20 and thereafter reduced to 2.8% in 2020-21, 2.6% in 2021-22 and 2.5% in 2022-23 and thereafter**, consistent with reducing the Centre's debt to 40% by 2022-23.

c) Centre's Revenue Deficit, which was 2.3% of GDP in Budget 2016-17, to be restricted to 2.05%, 1.8%, 1.55%, 1.30%, 1.05%, and 0.8% during the years 2017-18 to 2022-23, respectively.

d) Adhere to the above fiscal deficit target except when 'Escape Clauses' are invoked by the Government on the advice of a 'Fiscal Council'. The deviations from the stipulated fiscal deficit target shall not exceed 0.5 percentage points in a year.

- The 'Escape Clauses' are (a) Over-riding consideration of national security, acts of war; calamities of national proportion and collapse of agriculture severely affecting farm output and incomes. (b) Far-reaching structural reforms in the economy with unanticipated fiscal implications. (c) Sharp decline in real output growth of at least 3 percentage points below the average for the previous four quarters.
- The Escape Clauses can be invoked by the Government after formal consultations and advice of the Fiscal Council provided it is accompanied by a clear commitment to return to the original fiscal target in the ensuing fiscal year.
- Significantly, the Committee also stipulated that if there were to be a sharp increase in real output growth of at least 3 percentage points above the average for the previous four quarters, then fiscal deficit must fall by at least 0.5 percentage points below the target. Similar to the escape clause, this buoyancy clause can be invoked by the Government after formal consultations and advice of the Fiscal Council.)

Other recommendations of the FRBM Review Committee Institutional reforms in general government's fiscal management

- Detailed policy guidelines be evolved on the procedure for Central Government consent to State borrowings under Article 293 of the Constitution of India.
- Annual issuance of a consolidated annual prospectus for planned annual bond and loan issues by each government to provide guidance to the market with Credit Rating of each such Issue by approved Credit Rating Agencies.
- Ministries should disclose in their Annual Report (i) the total number of capital works/projects sanctioned along with the total value of the works sanctioned till the previous year; (ii) number of capital works and projects pending completion along with the estimated amount required for completing these works sanctioned in the past year; (iii) the total number of new capital works and projects sanctioned during the year and the estimated budgetary implications.
- Minimize interest payment on refund of taxes or advance deposits of taxes.
- Minimize delays and mismatches in actual collection of taxes and sharing of prescribed percent of net proceeds with the State Governments.

Fiscal transparency

- Move towards international best practices for compilation and presentation of fiscal accounts, as laid out in the International Monetary Fund Government Finance Statistics Manual 2014 (GFSM 2014).
- Effectively utilize provisions of Article 150 of the Constitution of India to improve accounting and fiscal reporting on Central and General Government finances.
 - Initiate a review of the principles and practices governing classification of expenditure as Revenue and Capital, based on best international practices, for

uniform application by the central and all State governments.

- Initiate standardization of Object Heads across Centre and States and publish Object-head wise summary of public expenditure on a fixed periodicity, say at least once in a year.
- Expeditiously review and finalise the policy on management of the NSSF.
- Explore the feasibility of selling the portfolios of government loans or NSSF investments to raise resources for large financing requirements.
- Transfer the unutilised proceeds of any Cess to designated Reserve Funds created in the Public Accounts at the end of the year, as has also been recommended by the Expenditure Management Commission.

Why an explicit Debt Target? What is an appropriate debt target?

The Committee recommends a move to public debt to GDP ratio as a medium-term anchor for fiscal policy. Central to a credible, transparent and predictable policy framework is the concept of a rule-based anchor indicating the final goal of fiscal policy to guide the expectations of economic agents. By acting as a constraint on policy discretion, an anchor dis-incentivizes time inconsistency, including due to pressures from interest groups.

Key arguments favoring desirability of moving to an explicit debt ceiling as a medium-term anchor of fiscal policy are as follows. First, the standard government solvency constraint suggests debt control to be the ultimate objective of fiscal policy. Second, there was broad consensus that a debt ceiling combined with fiscal deficit as an operational target can jointly provide a robust fiscal framework for India. Third, India, with a public debt close to 70% of GDP, currently stands out as among the most indebted countries amongst the relevant peer group of emerging markets. Finally, public debt exemplifies an important factor in the assessments of rating agencies. In addition to these economic

arguments, a non-economic, albeit powerful and convincing rationale for moving to debt as the anchor put forth by several members of the committee, and considered to be particularly relevant in the Indian ethos, was that "debt", and "debt repayments" are concepts that can be communicated easily to the public, and are also embedded in the psyche of the ordinary citizen.

There are also two common myths regarding public debt that need be dispelled.

A common perception seems to be that countries like India with a high domestic debt burden but a small fraction of external debt should not worry about public debt. One reason for this perception is the belief that governments can never default on domestic debt as they can always print money and inflate away their debt. However, in practice, high inflation could be costly as well. Moreover, domestic defaults do occur, and evidence suggests that these can be costlier than external defaults. In fact, there are ongoing discussions in Basel to attach risk-weights to sovereign paper – irrespective of whether the borrowing is from domestic or external sources.

A second commonly perceived wisdom is that debt to GDP ratio has been on a declining trend in India, therefore, it should not constitute a source of concern. The Committee agreed that more than fiscal prudence by the government, it is the high nominal growth rate (due to high inflation) relative to interest rates has facilitated the reduction in Debt : GDP ratio. This trend, however, is not sustainable. We cannot expect inflation to reduce the debt to GDP ratio in future with a formal inflation targeting system already in place.

The Committee used seven different approaches based on theoretical considerations, cross country evidence, as well as estimations and simulations using Indian data, to determine an appropriate or prudent ceiling for general government debt in India. For example, a debt threshold was calibrated by estimating the level of debt to GDP at which debt has a negative effect on economic growth. A second approach relied on the concept of "debt intolerance", which refers to levels of debt where emerging

markets have difficulty accessing capital markets. Based on this approach, the maximum threshold that will keep India from dropping to a more debt intolerant club was estimated. An alternative methodology the Committee employed distinguished between an “anchor” and a “cliff” for public debt. A cliff is a level of debt beyond which a country goes into debt distress, the government’s solvency or liquidity is put into question, and the government loses control over its debt dynamics. An anchor, on the other hand, is defined as a level such that there is a low probability of reaching the “cliff” over a given horizon if negative shocks occur. The idea is that the guardrail of fiscal policy needs to be set far enough from the cliff such that there is a sufficient buffer when countries are subject to macro and fiscal shocks.

While each approach may not be conclusive on its own, taken together with cross country evidence and assessment methodology of rating agencies, they suggest a ceiling of around 60% of GDP. The ceiling is still above the average for emerging markets but it would provide sufficient space for higher private investment and higher growth, provide a sufficient buffer when the country is subject to macro and fiscal shocks, provide some headroom for future contingent liabilities, and would also be a level of debt that is sustainable under possible assumptions on long run primary balances and interest-growth differentials.

A debt sustainability analysis for the central government suggests that a debt ceiling of 40% of GDP for the central government can be attained in the next 5-6 years if the government sticks to the fiscal path envisaged under the present FRBM.

A sub-ceiling of 40% GDP for the Centre is based on calibrating a level beyond which additional borrowing would crowd out space for productive investment and social spending, and have an adverse effect on economic growth. The balance of 20% of GDP is a prudent ceiling for the States. Currently, the level of debt stock is much higher for the Centre compared to the States (49.4% and 21% respectively in 2016-17).

The initial debt assumption is based on the figure for total liabilities of the central government. The total liabilities include

“debt” and other liabilities, and broadly represent public account liabilities, and are currently estimated at Rs.74,38,481 crores, or 49.4% of GDP (see Annex 5 (i) of Receipts Budget 2016-17). The total liabilities of the central government include the securities issued by the Centre under the Market Stabilization Scheme that are used by the RBI for liquidity management operations, and also all the liabilities of the Centre under the NSSF that are invested in special securities issued by the States. These are of a sizeable magnitude, and they together account for 2.6% of GDP.

Rationale for the Fiscal Deficit target

A central argument for adopting a fiscal deficit target of 3 percent 2003 FRBM Act was based on household savings. The Committee relied on a savings-based argument to arrive at a path for the fiscal deficit. Based on the latest data from the CSO and the RBI, net household financial savings were reported at 7.6% of GDP for 2014-15. Further, India’s external borrowing needs can be proxied by its sustainable current deficit India in the medium-term, which is estimated at around 2.3% of GDP.¹ Therefore, a total of 10% of GDP of household savings and external borrowing would be available, which can be assumed to be allocated equally between the public and private sector. This would lead to a combined fiscal deficit of the Centre and the States of 5% of GDP, and at the same time ensure an investment of 5% of GDP. The 5% general government deficit, divided equally between the Centre and the States, would imply a 2.5% deficit for the Centre in the medium-term.

The Committee recommends sticking to a fiscal deficit target of 3% of GDP upto 2019-20 based on two additional arguments: (i) The cost to credibility of deviating from a path of fiscal deficit agreed on by two successive governments and a deviation from the fiscal deficit target in the short-term could also lead to a loss in India’s credibility among foreign institutional investors, which would reduce the demand for Indian government securities, reduce their price, and increase government bond yields. The rise in government bond yields would lead to an increase in interest burden on new debt, and also for the old debt that is re-priced. Given that India is increasingly getting financially

integrated with the world economy - with foreign holdings in government and corporate bonds, having increased sharply over the last few years, and the recent decision to allow foreign participation in state government securities – such costs to credibility can be substantial. (ii) India's own experience in the past when it has deviated from a path of fiscal prudence. An unsustainable fiscal deficit buildup had indisputably resulted in the BoP crisis in 1991; and post global financial crisis, the years when India did not adhere to the envisaged path of fiscal consolidation, were also associated with macroeconomic instability, leading to the "taper tantrum" crisis of 2013. In post-crisis years, the advanced economies have resorted to heavy reduction in interest rates thereby flooding their markets with cheap money that in turn flooded the emerging economies. There has been intermittent speculation if and when the US Federal Bank will start tapering off this monetary easing and start raising the interest rates to start sucking back the excess liquidity released by them. This has kept the Central Banks in all emerging economies including India on tenterhooks.

Rationale for the Revenue Deficit target

The distinction between revenue and capital accounts is rooted in the history of budget making process and in the Constitution of India. The current FRBM Act has stipulated a revenue deficit reduction target for the central government. The rationale for doing so is both analytical and specific to the Indian public finance context. The revenue deficit broadly measures the extent of borrowings used for revenue expenditure, and is a subset of overall fiscal deficit. Theoretically, revenue expenditure is considered to be consumption expenditure (as opposed to capital or investment expenditure). However, as pointed out in the report of the 13th Finance Commission, this classification is actually intended to specify the recurrent nature of such expenditure and not whether it creates future capital assets including human capital assets.

The logic of this is that borrowing for expenditures that are to be incurred year after year is neither desirable nor sustainable; these should be tax-financed. This is the basis of the commonly

known as the 'golden rule'. Current expenditure on important public services have to be provided for year after year since the services provided by such expenditures in a given year (for example, on a teacher or health worker) are 'exhausted' within the year when this job is done. This does not negate the need to continue employing them in subsequent years. Therefore, such public expenditures are recurrent expenditures and must be financed out of current receipts.

The ratio of revenue to fiscal deficit for the Centre rose sharply from 1.3 percent in 1980-81 to almost 80 percent in 2000-01, though it has declined to 66% since then. There has been a steady "structural" shift in the government spending towards current spending though successive central governments have repeatedly asserted their preference for high capital spending to maximize growth. The argument that revenue spending is essential to deliver public services that complement growth (such as health and education) does not hold in this case since these are the principal responsibilities of the states, and the fiscal role of the central government in these areas is limited.

Increasing the central government revenue to GDP ratio from 9.1 percent to 11.5 percent, *ceteris paribus*, can eliminate revenue deficit but such growth is uncertain and it would be unreasonable to assume that such increases would either be adequate or fully deployed to reducing the revenue deficit, given other demands on the central government.

While the Committee acknowledged the principle of the 'golden rule', it also recognized the difficulties in separating current and capital expenditures, and the government's inability to eliminate the revenue deficit due to inflexibilities attached to interest payment, subsidies, grants, salaries and pensions and security related expenditure. Hence, the path envisaged by the Committee is less ambitious and more realistic than the path presented in Budget 2016-17. The Budget 2016-17 seeks to sharply cut revenue deficit from 2.3% of GDP in 2016-17 to 1.3% of GDP in 2018-19 whereas the Committee is merely seeking to reduce revenue deficit to only 1.8% of GDP by 2018-19. This path of fiscal correction implies that the revenue deficit to fiscal deficit

ratio would reduce steadily from its current level of 66% to 32% and leave sufficient room for increased capital spending to maximize growth.

Effective Revenue Deficit

The original FRBM Act targeted elimination of the revenue deficit to which a derived measure of 'effective revenue deficit' (ERD) was added from 2012-13. The ERD is the difference between the revenue deficit (as traditionally understood *i.e.*, based on all grants in aid being treated as revenue expenditure) and 'grants for creation of capital assets'. The intention was to separately report the grants which were used to finance current expenditure and those used to create capital assets by the recipient grantee entity. The 2012 amendment to the FRBM Act mandated the government to eliminate the ERD by 2014-15 and to cap the revenue deficit at 2% of GDP by 2014-15. The target has since been deferred to 2017-18. The CAG pointed out deviations and inconsistencies in the correct accounting classification of Central grants in several major schemes that were used for expenditure on general community works with no clear ownership, or for assets like houses whose ownership vested in individual beneficiaries. In view of fungibility of resources at the grantee level, the end-use of grants for asset-creation is desirable only if there is credible assurance that it is not leading to mere refinancing or replacement of existing spending on asset creation and that the assets that would have been created but for these grants continue to be actually so created. Since the income stream attached to the grant-financed assets does not belong to the central government, financing them from borrowed funds results in the cost of debt service entirely devolving on the central government. The 14th Finance Commission recommended discontinuance of ERD as it is not recognized in the standard government accounting. The FRBM Review Committee has endorsed this recommendation and not included any stipulation about ERD in their suggested new law.

Why Fiscal Council?

In recent years, an increasing number of advanced and some emerging economies are using independent bodies to further

enhance the credibility of their fiscal rules. While less than 15 countries had fiscal councils before 2005 by 2015, the number had gone up to about 40. International experience suggests that fiscal councils can improve fiscal outcomes and forecast accuracy, especially when they are independent; have a strong media profile; are tasked with monitoring fiscal rules; and are involved in forecast assessment.

The Committee has recommended creation of a new statutory body, viz., the Fiscal Council consisting of a Chairperson and two Members to be appointed by the Central Government. Only persons with domain expertise in public finance, economics, or public affairs not in current employment of the Central Government or State Government in any capacity are to be eligible to become Chairperson or Member for a non-renewable term of four years. Their salary is not to be reduced during their continuance in office.

Positive analysis, long-term sustainability assessments and forecasting are the most frequent missions of fiscal councils. Evaluating compliance with fiscal rules is a feature of more recently established councils. Fiscal Councils can serve both *ex ante* and *ex post* functions.

The Committee recommended that the Council should be assigned the following functions: (a) prepare multi-year fiscal forecasts for Central and General Government; (b) prepare a debt and fiscal sustainability analysis that makes projections on key fiscal indicators; (c) provide an independent assessment of the Central Government's fiscal performance and compliance with targets set under this Act; (d) prepare the Macroeconomic Framework Statement; (e) recommend suitable changes to fiscal strategy to ensure consistency of the annual financial statement with targets set under this Act; (f) take steps to improve quality of fiscal data; (g) prepare a comprehensive statement of liabilities; (h) produce an annual fiscal strategy report relating to clauses (a) to (g) in such manner as may be prescribed; (i) provide policy guidance to Central Government on any matter relating to fiscal policy where advice is sought; (j) advise the Central Government on whether conditions exist to permit a deviation for invocation in

the escape or buoyancy clause;(k) make recommendations to the Central Government on the action plan for returning to the stipulated fiscal targets from which the deviations have taken place. The Fiscal Council may require any entity or person to furnish information on any matter under the consideration of the Council. Such person shall be deemed to be legally bound to furnish such information within the meaning of section 176 of the Indian Penal Code.

The Sarma Committee (2000) had recommended setting up a Fiscal Management Review Committee (FMRC) to oversee the implementation of the Act and to conduct reviews of the fiscal situation. The representative of the CAG dissented with it stating *inter alia* that the existing institutions of the CAG obviated the need for the FMRC. The FMRC provision was included in the draft law proposed by the Committee, arguing that the FMRC would “supplement rather than supplant” existing institutions. The government dropped the provision. On the 13th Finance Commission’s recommendation the FRBM Act was amended in 2012 to provide for the government entrusting a review of FRBM implementation to the CAG.

The recommended Fiscal Council does not preclude the CAG from doing what is within the CAG’s Constitutional mandate. The Council has an executive role in *ex ante* advising the government on acceptable prerequisites of deviations and return to fiscal consolidation path. Its *ex post* function can include assisting the government in addressing the issues raised by the CAG and monitoring the follow up action.

Rationale for the Escape Clauses

More and more countries are adopting “escape clauses” in their rules that provide flexibility when policymakers have to contend with external events such as the vagaries of the business cycle and exogenous shocks. To ensure that the “escape” clauses are not mis-used, the Committee ensured that these have been defined very narrowly and specifically, unlike the first FRBM wherein the definition of “exceptional circumstance” is defined very opaquely and is liable to mis-use. They are constrained by the

quantum of the deviation, and a path of returning to the baseline is specified.

Who has the bigger burden of fiscal consolidation: the Centre or the States?

During last decade, the Centre's fiscal deficit has increased more than that of States due to significant enhancement in Central tax devolution and other transfer of resources both under Plan and non-Plan accounts and successful implementation of VAT. Central transfers have led to relative moderation in the growth of expenditure by the States in some areas and the overall general government expenditure as percent of GDP has remained almost stagnant.

Given a ceiling of 60% of GDP for the general government, with a sub-ceiling of 40% for the Centre, the balance 20% of GDP sub-ceiling is set as a prudent ceiling for the States. The detailed guidelines and modalities for the states to achieve 20% debt can be considered by the Fifteenth Finance Commission. The current level of debt stock is much higher for the Centre compared to the states (49.4% and 21% respectively). Thus, while the proposed framework envisages consolidating the Centre's debt stock from 49.4% to below 40%, States are envisioned to stay at roughly the same level. Baseline (2016-17) debt to GDP ratio for States is assumed at 21% of GDP which includes the debt of state power utilities taken over the state governments under the UDAY scheme, but excludes the NSSF debt invested in State securities to avoid double counting.

The central government's overall fiscal deficit is higher than that for the states, but is directed mainly towards making interest payments on existing borrowings. In contrast, primary deficit is much higher for the States. Hence, States' debt cannot be brought down to 20% under the "Present FRBM" scenario. They require stiffer fiscal consolidation. While the States have generally adhered to a 3% fiscal deficit target but the quality of compliance has sharply deteriorated through an increase in off-budget contingent liabilities such as the debt of the power utilities taken over by the state governments under the Ujjwal DISCOM

Assurance Yojana (UDAY) scheme, irregularities in food credit accounts of state governments with commercial banks, off-balance-sheet expenditures and accounting engineering to evade the stated target. These deviations need to be discouraged and a combination of penalties and incentives needs to be imaginatively crafted for enabling the States to better conform to prescribed fiscal norms.

The Centre trying to reduce its total liabilities (including NSSF debt invested in State securities) from 49.4% to 40% of GDP will inevitably entail some pressure on State finances. Since the Committee submitted its Report, emerging trend of farm loan waivers can potentially affect ability to comply with the fiscal deficit reduction targets but there are expected gains from more efficient management of subsidies through direct benefit transfers and increase in tax revenues following demonetization and GST implementation.

Conclusions

The implementation of the FRBM Act brings into sharp focus the need of having a well-defined and credible escape clause with a mandatory requirement of a roadmap to return to fiscal consolidation path in case of a breach. The fiscal deficits of governments will continue to be a matter of concern so long as the economy has limited financial resources. We need to attract foreign capital, preferably equity, to augment the resource pool in the economy and to bring technology. This is what the government is currently doing by liberalizing FDI inflows under the Make-In-India programme. Developing an equity culture through well-regulated capital markets and broadbasing the ownership of PSUs is also on the agenda to reduce general dependence on debt resources to finance major investments.

A rapidly growing economy is the only medium we know to improve the quality of life and address poverty. Thus, job-creating growth remains the central objective of overall economic policy. However, to ensure macroeconomic stability and intergenerational equity, we must strive for responsible growth. FRBM discipline continues to be relevant. We cannot emulate advanced economies where old orthodoxies have been shunned and

printing currency to spend is acceptable. Our general government debt is about three times its revenues. Resources are, no doubt, required to exploit the growth potential but with growth must come income augmentation for the government. Prudence requires matching debt with income-earning assets. GDP is the 'asset' from which the government extracts income for debt servicing and hence a proxy for the revenue base. There is a gestation involved in realizing these increased revenues as we need to provide for enough government intervention to reap the limited window of the demographic dividend. We still live in an unequal world and the rules are different for different sovereigns. The systemic central banks of the world continue to pose uncertainty for emerging markets. As the earlier orthodoxy of fiscal discipline gives way to fiscal policy being handed over to monetary authorities by advanced economies to support fiscal expansion and we are hard put to influence the course of financial flows across national borders, dexterous fiscal management is a monumental challenge.

In a large, populous and vibrant democracy, the perspective on the role of the State is a more nuanced one. Demographic compulsions necessitate accelerating skill development and job creation at a time when new technological changes and technology-enabled business models and productivity improvements are increasingly changing the required size and skill profile of workforce. The challenge is not just creation of jobs but of quality jobs without crippling the global competitiveness of the Indian economy. A steady change in the profile of public expenditure together with concerted efforts to widen the tax base is therefore being undertaken in right earnest.

The real challenge for policy makers is to balance the growth-related needs of our resource-starved economy with that of staying on the course of fiscal rectitude for responsible growth.

The prospects for fiscal consolidation are bright. Steady steps being taken to curb black money generation, expand the tax base through Demonetization and GST, boost savings through financial inclusion, encourage investment of savings in financial instruments rather than in gold, use technology to cut leakages of government benefits, remove idle cash with parastatal lying outside

the government accounts, unlock the hidden wealth in PSUs and above all, to increasingly formalize the economy and include hitherto unreported economic activities in the GDP reckoning thereby boosting the coverage of GDP.

We have moved away from discretionary fiscal policy to a more rules based approach. The government's widely acknowledged track record and hard work in bringing about macroeconomic stability needs to be supported through a new fiscal framework that tries to enhance credibility, and transparency, build institutions, and create some degree of flexibility to external shocks.

DATA TSUNAMI AND BIG DATA ANALYTICS: CHALLENGES AND OPPORTUNITIES FOR PUBLIC AUDITORS

K P SHASHIDHARAN*

In the digital world of today, the auditing landscape is fast changing. This is caused due to exponential growth of data from multiple applications of Internet Communication Technology (ICT), Internet of Things (IoT), Cyber Physical Systems, social networks, Apps, cloud computing, and other disruptive, techno-managerial solutions. Besides, audio, video, text, picture, social media, e-commerce platforms, mobile and internet banking, telephony, Apps, web-entertainment, and innumerable internet activities of day to day life add enormous complexity and challenges to auditing profession in the digital world. Shri K. P. Shashidharan, in his article elaborates how data analytics tools can help the public auditor to conduct audit more effectively in the digital world.

In India, the C&AG of India's constitutional mandate includes audit of the government expenditures, tax and non-tax revenue of the three tier government machinery. The Value for Money audit and Performance Audit are intended to ensure public accountability, better service delivery, and quality governance. The public audit has an inexorable responsibility to audit the new delivery models like Public Private Partnerships, Joint Ventures, Special Purpose Vehicles to ensure them to be accountable to the Parliament through the audit reports by providing valuable insights on financial discipline, expenditure control, and thereby helping

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the executive to take better policy formulation, planning, implementation of schemes, projects and programmes.

Big data analytics can enable continuous risk assessment; enhance audit efficiency, effectiveness, and value addition; providing critical value inputs and early detection of frauds, abuse and waste of resources, provided the public auditors are geared to take on the new challenges. Big Data Analytics can enable the auditor to subject the entire population for data analytics to look for anomalous patterns and suspicious transactions. Innovative audit software can only empower the auditors to face the data tsunami of the digital world. Big data analytics will enable to produce better audit evidence, risk assessment, perform analytical procedures, substantive procedures and validation of internal control process and thereby ensuring enhanced audit quality. Of course, there is increasing need for capacity building for the public auditors to face the new challenges posed by data explosion, but it can lead to improvement in the auditor's confidence level when audit is able to subject the entire population for testing instead of representative sampling.

Data Tsunami

The Public Auditors face now new challenges consequent to the exponential growth of big data mines, created by multiple applications of Internet Communication Technology (ICT), Internet of Things (IoT), Cyber Physical Systems, social networks, Apps, cloud computing, advanced Artificial Intelligence (AI), "cognitive computing", and numerous innovative, disruptive, techno-managerial solutions transforming the entire gamut of industry, business, administration and governance.

The 'twenty-first Century Data Tsunami' is created by Internet users 'key-strokes, clicks, swipes, along with Global Positioning System, online platforms for services, sharing digital information in audio, video, text, picture, image, content through social media, e-commerce platforms, mobile and internet banking, telephony, Apps, web-entertainment, social networking and innumerable activities of day to day life in a digital world.

Big Data Applications

Due to increasing applications in businesses and industry, vast amount of sensory data in addition to stored historical data construct the big data in manufacturing. For instance, Oil and Gas industry companies like ONGC and OIL have massive data fields relating to different phases covering survey, exploration, drilling, production gathered in real time data and stored internal and external sources.

Smart traffic lights have sensors to know the traffic flow, use GPS and adjust timing of signals. Online e-mail, search, web navigation, e-commerce, social networking activities on Facebook, Twitter, and Instagram, online entertainment media like Netflix, Pandora, and Spotify; space-sharing services, cameras, devices and sensors fixed on drones or airport terminals, documents, records, maps, and related sources, real-time data on parking spots, air quality, weather forecast, scientific data, Industrial Internet, and cyber-physical systems, data from fitness trackers sensing heart rate, data used in manufacturing agriculture, research, management, the public and private sector contribute data tsunamis.

Big data analytics has helped healthcare by providing personalized medicine and prescriptive analytics, clinical risk intervention and predictive analytics, automated external and internal reporting of patient data by sensors attached to them and use of IoT.

The use of big data in an enterprise is called IT Operations Analytics (ITOA). In Formula One races, sensors can collect data on tire pressure, fuel burn efficiency in order to win a race and to predict the time by simulations as well as enabling right decisions when to replace parts and undertake service and maintenances.

Big Data Analytics

Big Data analytics can be done applying technological solutions like Hadoop, Microsoft MURA platform, IBM InfoSphere, Oracle 11+ etc. for performance excellence in operations, productivity and reduction in costs and enhanced bottom line. New tools like NoSQL and the open source software Hadoop have been developed. In-house data collected from point-

of-sale terminals and loyalty cards by industry provide valuable information for marketing, but when the internal data is combined with relevant useful database sourced externally, big data analytics can be undertaken for trend analysis, customer preference, development of innovative products and processes.

In certain situations speed of data processing is important in analytics even in real time analysis of data 'in motion', while data is generated or 'at rest' in data mines. In 2014, Gartner developed HTAP - Hybrid Transaction/Analytic Processing to analyze in memory database. Many businesses follow HTAP for doing better business like trending items for identifying best sellers and sensing customer preferences. The big data refinery is a new system capable of storing, aggregating and transforming a wide range of multi-structured raw data sources into usable formats for analysis to red flag certain types of events to respond.

Datafication is used to put these multiple source of structured and unstructured flooding of information in an analyzable format. 'Connected Sensors' attached to the Internet of Things (IoT), the Industrial Internet, and cyber-physical systems transmit data.

Data Analytics and Innovation (DAI)

Data Analytics and Innovation (DAI) needs technologically savvy competent knowledge auditors. Exponentially exploding big data create "Data Tsunami", which is unparalleled in volume, variety, velocity, veracity and value (5Vs) of information generation, storage, dissemination, analysis, and disruptive applications. Some experts therefore call big data as the "new oil" hinting at its transformative impact on industry, business, administration, governance, economic and societal domains.

Data analytical tools show the auditor hidden patterns, correlations, anomalies to go further deep into data drilling to detect fraudulent transactions. Cognitive computing systems are capable to perform memory retention, recall, validation, judgment, inference. Advanced machine learning and Artificial Intelligence (AI) is powerful to perform mega analysis, self-training,

observation, and experience, with minimal "supervision" by humans providing enormous value to audit process and outcome.

Action by CAG of India - One of the Pioneers in Big Data Analytics

CAG of India had taken several initiatives for adaption of latest technological solutions of data analytics for audit planning and analysis. The national auditor had geared up to innovate its methodology and techniques for environmental audit for better impact, as explained by the Comptroller and Auditor General of India, Shri Shashi Kant Sharma, while delivering a key note address at the 1st Meeting of the Supreme Audit Institutions of BRICS countries in Beijing in September, 2016. The CAG of India also shared its contributions in enhancing transparency and accountability in governance and in promoting economic and social development.

The CAG also mentioned many steps taken by the governments of BRIC countries 'to address the challenges faced by these countries and the people by automating service delivery, choosing partners in development through Public Private Partnership arrangements, opening up economy for foreign direct investments and by focusing on sustainable development,' brining new challenges to the SAI auditors. This facilitated enhanced demands for greater objectivity in public dealings and transparency in governance.

The governments' many measures to automate services rendered by it by collecting, compiling and reporting data on its programme interventions, has resulted in a digital data explosion, opening up new challenges and opportunities to the SAIs. The CAG of India had made it clear in his address that how SAI would be one of the few agencies to have access to such vast data held by different government agencies. "Big data" has provided new avenues of examination to the SAI auditors of the audited agency data comparing with related data obtained from other sources.

Realizing this trend, India had formulated a Big Data Management Policy and established a Data Analytics Centre. The pilot results on using sophisticated data and visual analytic tools by

CAG of India had produced promising results. It is expected that the use of improved data analytics will 'enable the SAIs to come up with more incisive audit findings and to assist the governments in taking appropriate policy decisions.'

SAI India has assumed the Chairmanship of the BRICS. The theme of India's BRICS Chairmanship was 'Building Responsive, Inclusive and Collective Solutions.' A five-pronged approach has been adopted by SAI India:

(i) Institution building to further deepen, sustain and institutionalize BRICS cooperation; (ii) Implementation of the decisions from previous Summits; (iii) Integrating the existing cooperation mechanisms; (iv) Innovation and (v) Continuity.

The CAG's Centre for Data Management and Analytics (CDMA) can certainly play a catalytic role to synthesize and integrate relevant data into auditing process, as stated by the Comptroller and Auditor General of India while inaugurating the Centre. The CDMA 'will help to enhance the efficiency and accuracy of evidence in the audit process and will be a game changer in the field of public audit.' The CDMA aims to build up capacity in the Indian Audit and Accounts Department in Big Data Analytics. The CAG had brought out a Big Data Management Policy for the Indian Audit and Accounts Department. A task force was also set up to study the policy document and recommend its implementation. The CAG of India had become one of the pioneers in institutionalizing data analytics in government audit in the international community. Rightly so, the CAG of India is also a member of 'Data Analytics' project under the Working Group on IT Audit of International Organization for Supreme Audit Institutions.

Action by GAO

Realizing the importance of big data in auditing, United States' General Accounts Office (GAO) convened the Forum on Twenty-first Century Data and Analytics, in January 2016 in Washington, D.C to understand the Data and Analytics Innovation (DAI) and analytical tools that could revolutionize the way public audit was conducted. DAI can help the auditor to do better risk

assessment, validating internal auditing and performing external audit not by taking samples causing sampling errors but by subjecting the entire population for analytics and analysis by using powerful software applications.

Transformative New Audit Process

New auditing has to be transformative, capable to provide not just hindsight, but deeper analysis, insights, foresights, critical inputs and value additions for policy formulations, planning, implementation, monitoring, preventive and corrective actions to help the executive to achieve the desired outcome from projects, programmes and schemes. For that innovative auditing methodology, techniques and approach must be integrated to audit process. Transformative auditing can only provide needed value inputs to legislature, executive, and other stakeholders for executing innumerable many a time overlapping schemes, programmes, and projects by the three tiers of the gargantuan government machinery.

Making Public Auditing to be more useful is possible only when the audit process evolves with appropriate updates in approach, methodology, techniques and skills to provide inputs for better service delivery, budgeting and accounting; and maximizing tax and non tax receipts, enforcing better financial acumen in expenditure management with transparency, accountability, and by help achieving the executive the planned outcome. The government audit must be able to perform effective risk assessment in the digital landscape to be able to provide critical value addition to policymakers while overseeing the effectiveness of internal auditing of government ministries, departments, attached and subordinate entities and conducting performance audit of flagship Programmes, Centrally Sponsored Schemes and Public Private Partnership Projects, Joint Ventures and Special Purpose Vehicles.

Application of right technological solutions for auditing is the crying need for reformative, transformative, progressive public auditing. As sharing of big data is like playing with a double edged sword as it may lead to encroaching the privacy concerns of the citizens; application of big data analytics, whether in government

or audit, must be used judiciously for maximizing the potential benefits and minimizing the inherent negative impacts. Only then the office of the Comptroller General of India may be able to function truly like the nation's 'conscience keeper' going far beyond than 'just an accountant'.

How Big Data Analytics Can Improve Audit Outcome

Budget documents, account statements, sanction orders for release of funds, utilization certificates on Flag ship programmes, Centrally Sponsored Schemes, and other Projects from the three tier government infrastructure, data flow among the three wings of government, viz. Legislature, Executive, and Judiciary, news, media, reports, replies to Right to Information cases, court cases, internal audit and social audit findings, banking data, online transactions, telephony, apps, social media networks can be linked using mobile number, credit/debit card numbers, bank account details, PAN, Aadhar numbers, sanction orders, emails, expenditure vouchers, contracts, procurement of goods and services, pricing details from market sources, websites, e-commerce platforms, apps can be integrated, reconciled, compared and analyzed.

Impact of demonetization can be analyzed once relevant data from finance ministry, Internet and mobile banking, data from RBI and banking system are linked with Pan Number and Income tax returns, revenue intelligence data and data from other investigative agencies. The demonetization impact on tax revenues to the public exchequer can be analyzed by linking data relating to expenditure on printing of currency notes, RBI dividend to the Consolidated Fund, banking transactions and the follow-up action including raids by the Revenue Department, which can indicate risks, errors, omissions and commissions, potential tax evaders, failures to pursue the identified suspects, selective and arbitrary pursuance of leads and consequences thereof, etc in audits.

Direct and indirect taxation data, online tax returns, sources of income, bank transactions, corporate financial statements, expenditure and investment can be subjected to data analytics to show patterns. The GST is a game changer in the indirect tax

domain. Audit can integrate data from direct and indirect tax sources and link them with departments of States and the Union, relevant documents, returns and information required for analysis. Leveraging technology in public audit and environment audit will help audit to discharge its constitutional mandate with greater confidence, finesse and accurate audit evidence.

Relevant structured and unstructured, online and stored data from all possible internal and external sources relating to budgeting, sanctions, expenditure, and accounting of the three tier government at the centre, states/UTs, ULBs and PRIs can be consolidated and analyzed with internal audit and social audit data and findings to identify anomalous patterns and correlations.

Similarly, projects executed through Public Private Partnerships, Special Purpose Vehicles, Joint Ventures can be audited with greater finesse by obtaining relevant big data from all relevant sources and matching, comparing and contrasting to find possible deviance showing suspicious visual patterns hinting at fraud. Big data on passenger and freight of Indian Railway collected from multiple sources including online data and internal data sources, meaningful audit inferences can be derived.

Procurement data of goods and services linking with inventory management, indenting, purchase, inspection, receipt, accounting and payment can be linked with the concerned ministries, departments like Defense Railway, Telecommunication, Public Sector Enterprises, Autonomous Bodies, Regulatory bodies, subordinate and attached offices and compared with relevant pricing data collected from market sources, DGS&D, CPWD and relevant department and external agencies involved may bring possible mismatches indicating abnormal hiking of prices.

DAI has enormous value in all forms of audit, Expenditure Audit, Revenue Audit, Financial Audit of entities including public enterprises, Compliance Audit of bodies substantially financed by grant and loans, Performance Audit or Value for Money audit of Centrally Sponsored Schemes, Central and States' flagship programmes.

Integrating Big Data Analytics for Better Budgeting, Accounting and Audit

Expertise in business analytics, business intelligence and data mining may become essential for doing competent budgeting, accounting, financial monitoring and auditing functions. Data analytics provides descriptive analysis showing "what is"; predictive analysis indicating "what will be"; prescriptive analysis highlighting "What should be done?" prescriptive analysis helps to select the best option for the planned outcome. Predictive analytics and prescriptive analytics provide actionable insights for entities by integrating data from relevant sources like ERP systems, point-of-sale, and customer relationship management systems to predict future outcomes using regression-based modeling. Computation of a credit score shows the likelihood of timely future credit payments. Sourcing relevant data for performing analyses is important to provide insights for decision-making. Auditors need not become data scientists or computer engineers but must know how to use tools to be more proficient in audit practice with available technology.

AICPA 'Journal of Accountancy' in an article, "Next Frontier in Data Analytics" by Norbert Tschakert divides data analytics into four types as shown below:

4 types of data analytics

Type of analytics	Explanation	Examples
Descriptive analytics	Provides insight based on past information. What is happening?	Used in standard report generation and in basic spreadsheet functions such as counts, sums, averages, and percent changes and in vertical and horizontal analyses of financial statements.
Diagnostic analytics	Examines the cause of past results. Why did it happen?	Used in variance analyses and interactive dashboards to examine the causes of past outcomes.
Predictive analytics	Assists in understanding the future and provides foresight by identifying patterns in historical data. What will happen? When and why?	Can be used to predict an accounts receivable balance and collection period for each customer and to develop models with indicators that prevent control failures.
Prescriptive analytics	Assists in identifying the best option to choose to achieve the desired outcome through optimization techniques and machine learning. What should we do?	Used in identifying actions to reduce the collection period of accounts receivable and to optimize the use of payables discounts.

Big Data and Predictive Analytics are powerful to transform the world of accounting and auditing by using predictive analytics, predictive accounting, and predictive auditing. Audit Data Analytics (ADA) provides methodologies for identifying and analyzing anomalous patterns and outliers in data, mapping and visualizing financial performance across operating units, systems, products, focusing on audit risks, building business models using statistics to identify significant deviations. ADA helps identifying and assessing the risks of material misstatement by performing preliminary analytical procedures, evaluating internal controls and performing substantive analytical procedures to ascertain the risks of material misstatement, fraud, and to form an overall audit conclusion.

Why Sampling When Full Population Can Be Audited?

Technology can be used to provide a higher level of audit assurance by taking the entire relevant data fields for analytics using instead of taking a few samples. Audit software can be used to perform tests on 100 percent population highlighting redflags, unexpected patterns and outliers requiring investigation. Technology helps in recording, measuring and capturing any activity into data and tracking many events in real time capturing numbers, text, images, sound, and video requiring petabytes of storage capacity.

When an auditor wants to verify risky journal entries, she can analyze the entire journal entries to look for unusual patterns hinting at fraud, bankruptcy, or going concern issues. Continuous Auditing and Continuous Assurance are possible with cutting edge technology by auditing an entity's transactions at frequent intervals, validating automated internal controls, identifying potential risks. Continuous monitoring and auditing can be done in today's digital age using web-based technologies instantly online with interactive data reporting standards such as XBRL. Data analytics helps auditor to gain confidence and deeper insights by drilling large relevant data mines in the entity's ERP system and data warehouse systems.

Forensic Data Analytics (FDA)

Forensic data analytics has big potential. Building expertise with right technological tools for analyzing large volumes of big data can enhance the risk assessment process and fraud detection and radically transform audit, improving quality and greater insight to management, audit committees, Board of Directors, regulators and investors. Technological companies like Google, Amazon can apply their data

analysis techniques for investors looking at predictive data than historical audit data to aid decision-making.

There is a growing need to organizations to move ahead from traditional audit approaches to a fully integrated auditing methodology and techniques backed by big data analytics in a seamless manner. Auditors must be prepared to adapt and adopt requisite changes in the profession to keep pace with the dynamics of big data landscape and enhance the competence and skills to do meaningful analysis applying disruptive technological solutions and software programmes.

External auditor has to invariably check the adequacy and effectiveness of Internal Auditing system extant in an organization while carrying out statutory external audit duties. Whether it is Financial Audit, Compliance Audit or Performance Audit, data analytics become indispensable. Sampling methodology of auditing is going to be replaced by continuous auditing for continuous monitoring and analysis taking the entire population and full data sets. Big data and analytics are enabling external auditors to better identify financial reporting, fraud and operational business risks, and tailor their approach to deliver a more relevant audit. Audit data analytics methods can be used in audit planning and for improving auditors' knowledge about the transactions and balances underlying the financial statements. This will enable the auditor to assess the risk by analyzing data to identify patterns, relationships, and any variation from models. This will improve the quality of analytical procedures in all the phases of audit as these methods give auditors new insights about the entity and its risk.

Big data analytics help better financial planning by highlighting patterns in customer behavior and market trends. Auditors must know how to integrate analytics into the audit process to improve audit outcome by quality audit evidence, reducing repetitive tasks, better risk assessment. Realizing the significance of analytics for quality audit, a joint AICPA Assurance Services Executive Committee and Auditing Standards Board Task Force is developing an Audit Data Analytics Guide, which will replace the existing Analytical Procedures guide. Audit data standards will help with extraction of data and audit data analytics in audit programs. Cloud services can reduce cost of applying analytical software but competency building in data analytics is the most critical factor.

Automated Audit Reporting and Tracking System (AART)

AART is an Automated Audit, Reporting, and Tracking system applied to leverage the availability of information on a 24/7 basis. AART was initially configured and customized for Maximum Likelihood Estimation. It helps in understanding the client's business, conducting audit review by seeing trends, anomalies, and patterns. AART can be customized with audit status indicators flashing green, red and yellow and pink warning icons pointing to a key control parameter in a centralized SAP system. Unusual transactions and operations can be identified by clicking on red button to red flag for audit review.

Daily Transaction Testing Report on random testing, the audit team can satisfy that the evidence and explanations provided were appropriate and sufficient. Unresolved issues can be reviewed by using statistical techniques, and obtaining reports, charts, and graphs produced by AART to arrive at an audit opinion whether the financial statements of the entity are free from material misstatements, reflect true and fair state of affairs and accordingly issue the appropriate audit certification.

AART had radically changed the audit dynamics. The audit can be conducted with a few highly experienced, technically competent specialists. The audit and reporting models need to incorporate the changing dynamics in auditing process using right technological applications. Many of the audit procedures can be deconstructed into tasks to be performed wherever it can be done in a more effective manner: evaluating internal controls, meetings with the executives, outsourcing certain tasks like bank confirmations to third party specialist organizations that perform such tasks at the highest standards of reliability and security. Analytical procedures or journal entry testing for audits in an office located anywhere in the world can be performed by a specialist team stationed geographically anywhere. This Internet-enabled deconstruction of tasks into separate processes is possible with the aid of innovative technology.

More Effective Audit Data Analytics (ADA)

Data science technologies incorporate theories, techniques, software applications for data analytics, business intelligence, using mathematics, probability, statistics for pattern recognition, data visualization, gamification, big data analytics, and text and process mining to conduct effective audits in a wired digital world. Challenge before the Chartered Accountants is to learn appropriate skills in

applying technological solutions to audit more effectively and efficiently and economically.

Audit Data Analytics (ADA) helps identifying and analyzing patterns, anomalies, and extracting relevant audit evidence and facts from unstructured vast data mines. ADA helps the auditor in audit analysis, modeling, visualization, identifying anomalous patterns and outliers by drilling and analyzing big data mines indicating financial performance, operations of units, systems, processes and products.

Using statistical methods like regression models provide insights. Preliminary and substantive analytical procedures assist the auditor to form an overall conclusion on financial statements of the entity. ADA helps auditors in audit planning, identifying risks, fraud indicators and assessing the risks of material misstatement providing assurance about whether management's assertions are materially correct and the financial statements are free from material misstatement. The visual exploratory techniques show patterns, trends, and outliers that are otherwise hidden with linkages. Exploratory data analytics is detective in nature and confirmatory data analysis is judicial or quasi-judicial while auditing financial statements in line with GAAS.

- Big Data Analytics empower the auditor in:
- Risk assessment like the risks of bankruptcy or management fraud;
- Assessing material misstatement;
- Test internal controls; and;
- Operating effectiveness by adopting preliminary analytical procedures; and;
- By applying substantive analytical procedures, identifying material misstatement, fraud; and'
- To form an overall audit opinion on the true and fair state of the entity's financial statements.

Data Analytics in Accounting

There are various issues and challenges. First, auditor must identify relevant data for meeting the audit objective, audit issues, seeking to answer audit questions. He must know how to access the data, what analytics tools to be used to consolidate data for analysis to produce actionable information. Sometimes multiple accounting systems within

the entity and complexity and multiplicity of data sourcing for analytics remain one of the key challenges. If done well, Big Data Analytics can provide better business risks assessment, new insights, identifying frauds and errors in internal control and compliance failures transforming the audit process for better financial reporting.

Data Analytics in Internal Auditing

Internal audit plays a key role in ensuring that the company is operating under a sound internal control environment by carrying out various testing and internal control procedures. Internal auditors act as strategic advisors by analyzing data to produce actionable information. The value of integrating analytics into the audit will only be realized when used by auditors to modify and customise the scope, nature and extent of the audit. This will require auditors to develop new skills and techniques on knowing what relevant questions pertaining to the data are to be asked, and the ability to use analytics output to produce audit evidence and draw conclusions. The data analytics tools will allow the internal auditors to test 100 percent of various data attributes, which would help the internal auditors identify the potential business risk, such as fraudulent payments and payroll fraud.

Transforming Internal Audit Process

The Institute of Internal Auditors refers to the Three Lines of Defense model referring to corresponding responsibilities of auditors, controls and compliance professionals, and management. Internal auditors act as strategic advisors by analyzing data to produce actionable information.

The value of integrating big data and analytics into the audit will only be realized when used by auditors to influence the scope, nature and extent of the audit. This will require auditors to develop new skills on knowing what questions to ask of the data, and the ability to use analytics output to produce audit evidence, draw audit conclusions and business insights. Auditors encounter hundreds of different accounting systems within the same company. Data extraction has not historically been a core competency within audit.

Integrating analytics into audits has to face many challenges: access to audit relevant data can be limited; availability of qualified personnel, resources, and timely integration of analytics into the audit are key issues.

Skills Enhancement Training

In-house training is a must to improve auditors' analytics skills. First, auditor must understand the business objective and how to obtain relevant internal and external data sources for analytics. Second, he or she must possess good technical skills in application of data. Third, auditor must have clear understanding of the business context and an inquisitive and intellectual mindset to link the data analytics to the desired audit issues and objectives.

Training in data analytics to the audit function can begin with one's knowledge of basics like using Excel and Access, and data extracting software or CAATs such as ACL and IDEA. Risk based auditing can be effectively performed only by using data analytics. Whether it is transaction audit/expenditure audit/compliance audit; attestation audit/financial audit; or Value for Money/Performance Audit of projects, schemes and programmes, data analytics can provide better audit evidence, critical insights, value addition and better audit outcome. In the domain of tax and non tax receipt audit, validating internal audit systems of the organizations, reviewing and continuous monitoring activities data analytics tools will help analyzing large data sets relating to transactions, payroll, vendor payments and continuous monitoring activities.

Innovative software analytics models help how to analyze the big data, categorizing it to identify data patterns with the aid of specialized software to analyze both structured and unstructured data. Use of analytics can help internal and external auditing more effective and efficient by integrating analytics into the audit process for higher quality audit evidence and outcome.

Big data analytics helps gathering audit evidence and better business risks assessment and auditor judgment based on data analytics and analysis. Auditors as well as those involved in risk management and compliance have their respective roles to play in addressing the risks of big data mostly from a variety of sourced databases and analysis of the big data to derive new insights into risks, identify fraud, error, abuse, waste and other internal control and compliance failures better audit outcomes and transforming audit process, risk management, maintaining operational excellence, internal controls, better financial reporting.

Audit Process Re-Engineering

Audit profession can improve tremendously by adoption of right technological aids. There must be more audit research in universities,

firms, professional bodies, technology providers, and specialists in related fields like Artificial Intelligence, machine learning, statistics, and big data analytics to improve audit profession.

Optimal use of technology can improve audit of financial statements. Audit needs to be conducted associating with other specialists in tax, information technology, valuations, statistics, and actuarial science. There are opportunities for the audit firms for expanding the assurance services in the areas of data quality, security, compliance, fraud prevention and detection, and internal controls. Audit procedures can be continuous by conducting tests throughout the year.

Cloud computing creates opportunities for more automated corporate and audit systems. Multiple audit opinions can also be provided for the needs of different stakeholders. A "pink" indicator in the automated system can be programmed for taking immediate corrective action.

Auditing guidance and standards must encourage application of big data analytics, innovative methodologies, techniques and technologies to auditing. Auditing standards at present deal with audit sampling, but using big data analytics, auditor can examine 100 percent population, increasing audit effectiveness. Audit guidelines and standards need suitable amendments for incorporating current dynamics. Auditors must be encouraged to adopt technological solutions for providing better level of assurance and they must be encouraged to use latest auditing tools, techniques and competencies to do value added auditing applying big data analytics.

Transformative Public Audit

The CAG is mandated to audit the government expenditures, tax and non tax receipts of the three tier government machinery in India. He certifies the accounts of all government departments, public sector companies, departmental undertakings and autonomous bodies and submits the reports to Parliament commenting on whether the resources are used for the purpose approved and voted by the Parliament efficiently, effectively, economically, ethically and equitably. While doing so, CAG highlights best practices noticed during the audit and suggest wherever applicable along with recommendations to improve value for money, better accountability, delivery of public services, and good governance with planned outcome. It is his mandate that the new delivery models like Public Private partnerships, Joint Ventures, Special Purpose Vehicles are made accountable and for that audit reports must

provide observations containing valuable insights and inputs not only as hindsight, financial discipline but also foresight for future policy formulation, planning, implementation of schemes, projects and programmes and their monitoring to achieve desired outcome. Big data analytics enables continuous risk assessment; enhancing audit efficiency, effectiveness, and value addition; helps audit to provide deeper insights, critical value inputs and key risk areas; facilitates early detection of frauds and abuse and waste of resources, more effective in auditing ERP systems.

Instead of taking a representative sample that can lead to sampling errors, auditor is able to analyze the entire population for data analytics and finding out anomalous patterns. Innovative disruptive technological solutions and emerging audit software help auditors to conduct data analytics of relevant data from internal and external sources. Big data analytics enables auditors in evidence gathering, risk assessment, performing analytical procedures, substantive procedures and validation of internal control process. Benefits include enhanced audit quality by using data analytics and analysis techniques and methodology with more relevant audit evidence by looking at patterns, identification of anomalies, trends, correlations and fluctuations. Auditor's confidence level increases by subjecting the entire population for testing instead of sampling.

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TAXING AGRICULTURAL INCOME

DR. GOVIND BHATTACHARJEE*

In 1925, the Indian Taxation Enquiry Committee had noted, "There is no historical or theoretical justification for the continued exemption from the income tax of income derived from agriculture. There are, however, administrative and political objections to the removal of the exemption at the present time."¹ Nine decades have since passed by, and nothing has changed. It is time to think of a beginning and correct a distortion which has long invaded and metastasized our body politic.

In March 2016, in response to an RTI application filed in May 2015 by a retired Indian Revenue Service official, Mr. Vijay Sharma, the Income Tax Department revealed that agricultural income recorded an exponential increase from 2004 to 2013. The agricultural income earned by the 6.57 lakh assessees who filed returns in 2011, stood at nearly Rs. 2,000 lakh crore, which was over 20 times the country's gross domestic product of over Rs. 84 lakh crore in that year. During this period, the total area under cultivation and agricultural production had remained almost constant. In 2012, the agricultural income from these farmers exceeded six times the country's GDP. The data provided by the Department were mind-boggling:²

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¹ "Why India should tax agricultural income", Livemint, May 04, 2017. <http://www.livemint.com/Opinion>, accessed 30/07/2016.

² The Hindu, "Farmers Grow Massive Incomes for Select Few", New Delhi, March 19, 2016.

Table 1: Agricultural Income Tax Data Provided by Income Tax Department

Year	No. of individual taxpayers disclosing agricultural income	Average income per individual assessee (Rs)
2004	1	3.12 lakh
2005	1	1.2 lakh
2006	85	1.9 lakh
2007	78794	2.9 lakh
2008	205671	8.2 lakh
2009	245731	6.7 lakh
2010	425085	19.7 lakh
2011	656944	30.4 crore
2012	812426	83 crore
2013	914506	1.8 lakh

Expectedly, the news rocked the Parliament in session. The Government admitted that many prominent people were being investigated by the Income-Tax Department for masquerading taxable income as agricultural income. Mr Sharma again filed another RTI application seeking access to details of top 100 assesseees in the past five years. However, the Income-Tax Department refused to provide any further data stating that the disclosure of personal information was prohibited under Section 8 1(J) of the RTI Act, unless there was an overriding public interest, and in its opinion there was none. Mr Sharma then approached the Patna High Court which prompted the CBDT to issue an internal letter to verify the genuineness of agricultural income exceeding Rs 1 crore made by taxpayers in their income tax returns pertaining to the period 2010-11 to 2012-13. There were 1080 such cases. Even at the threshold value, it meant declared agricultural income of at least Rs 1080 crore, which pointed to the strong possibility of laundering of black money in the garb of agricultural income.³ The Income Tax Act, 1961, indeed prescribes for punishment of those misrepresenting their income.

The Income Tax Department then launched an investigation on those reporting farm incomes of more than Rs 1 crore a year.

³Times of India, "As 'Crorepati' Farmers Mushroom, Tax Officials Go Digging for Evasion", March 13, 2016.

Official data pegged this number at 307 in the assessment year 2015-16, up from 180 in the assessment year 2007-08. Of the total of 2,746 such cases pertaining to the period 2006-07 to 2014-15 that the Department was probing, Bengaluru recorded the highest of 321 followed by Delhi with 275 and Kolkata with 239 cases from across the country. Other cities were not much behind, Mumbai reported 212 cases, Pune 192, Chennai 181 and Hyderabad 162. These assesseees had filed their returns from these cities, and it raised eyebrows on the existence of all these cultivable land that produced such huge agricultural incomes. After the enforcement of land ceiling act in different states, the land holding had come down drastically. With the existing small holdings, it was well-nigh impossible for genuine farmers to extract crores of rupees of income from the land.⁴

Subsequently, however, in January 2017, the Income Tax Department, in a response submitted to the Standing Committee on Finance, attributed the reason for reporting such huge agricultural incomes in IT Returns primarily to data entry errors that erroneously extrapolated farmer incomes over 300 times the actual, on verification of 2,517 of the 2,746 cases by field authorities. It found that in 838 cases, the corrected agriculture income actually amounted to Rs 1,395 crore as against Rs 4,31,617 crore entered by assessing officers or taxpayers in I-T returns. Another 324 cases showed data entry errors in agriculture income or misclassification of income. It also detected some cases where non-genuine income was shown as agriculture income.⁵ Even extrapolation of the reduced income for all the identified cases would account for more than Rs 4000 crore of agricultural income lying outside the tax net during these years.

It is to be mentioned that the authenticity of these data can be established only when these are audited by the CAG. As reported in Economic Times, the CAG had initiated an audit of entities claiming tax exemption on agricultural income amid suggestions from some political parties and income tax authorities

⁴Deccan Chronicle, "Time to Tax the Farms", April 2, 2016.

⁵Indian Express, New Delhi, "Income surge behind farm tax proposal was data entry error", January 26, 2017.

that a blanket exemption be done away with and tax to levied after a threshold. As per this report, the CAG had written to the Finance Ministry seeking details of entities which have declared agricultural income and the amount of tax exemption granted to them. Finance ministry data showed that nearly four lakh people declaring farm income had been granted exemption during 2013-14. Total agricultural income exempted from tax in 2013-14 was Rs 9,338 crore, going by the returns filed till November 2014.⁶

In June 2016, at the Rajasva Gyan Sangam, a two-day conference of tax administrators, suggestion was made by tax administrators to the Prime Minister "on the need to target farmers with non-agricultural income above a certain threshold, an idea that was pitched as a low-hanging fruit that could potentially bolster ongoing efforts to widen the country's taxpayer base."⁷ It may be mentioned that of the 25 crore taxpaying households in the country, 15 crore households are designated as agriculturalists and the remaining 10 crore are non-agriculturalists, according to estimates produced at the conference.

Agriculture is exempt from income tax, under Section 2(1A) of the Income Tax Act which defines agricultural income as rent/revenue from land, income derived from this land through agriculture and income derived from buildings on that land. Further, unless there is specific taxing entry in the Union or State List under the Seventh Schedule to the Constitution, no tax can be imposed by the Union or the State. The tax on agricultural income is listed under the State List (Entry 46), and hence the Central Government cannot tax such income. As such, section 10 (1) of the Income Tax Act, a Central Act, excludes agricultural income from the computation of total income. This exemption would, however, be available only in cases where the income in question constitutes agricultural income within the meaning of Section 2(1A). Thus farmers who have no other sources of income are not required to

⁶Economic Times, "CAG lens on entities avoiding tax with 'farm income' claim", Oct 03, 2016. Actually CAG has not initiated any audit for want of relevant data.

⁷Indian Express, New Delhi, "Income surge behind farm tax proposal was data entry error", January 26, 2017.

file income-tax returns. It is only those farmers who derive income from sources other than agriculture who are required to file returns in which agricultural income exceeding Rs 5000, where the total income excluding net agricultural income exceeds Rs 2.5 lakh in a year, is to be reported for determination of their appropriate income slab for chargeability of tax. Tax on agricultural income is deducted from the total tax thus computed for the assessee.

Any decision to tax agricultural income by the Centre will require an amendment to the Constitution. For that a taxing entry need to be inserted in the Union List and appropriate changes should be made in Part XII of the Constitution, dealing with Finances of the Union and the States, and an appropriate arrangement of assignment of such taxes to the states should be worked out. Of course, states have to be involved in the process, as at present it is the states that can impose any tax on agricultural income. It will be foolish to expect that states, already reeling under agitations by farmers, will take the plunge. For the Centre also, it will be a contentious issue, with various lobbying groups trying to protect the interests of the big farmers. But the danger of avoiding or postponing this will spell doom for the economy and defeat the Government's earnest attempts to eliminate black money, as the untaxed agriculture sector will continue to absorb black money. It is also extremely unfair on the considerations of equity and simplification of tax administration.

Various Committees appointed by the Government in the past had proposed bringing the agricultural sector under the tax net. But agriculture being the holy cow of the economy, such proposals always met with the most vociferous disapproval from the strong farmers' lobbies and also from the Government on the supposed loss of vote banks. It is a no brainer that the vote bank consideration is based on pure myth. Even if the sector is brought under the tax net, it is only a minuscule percentage of the total number of agricultural workers who would be affected by such a tax. Even at present, hardly 2 percent of the assesseees declare any agricultural income.

In December-2015, the Ministry of Agriculture released data pertaining to the Agriculture Census 2010-11.⁸The Census estimated the total number of operational holdings in the country at 138.35 million and total operated area at 159.59 million hectare. The average size of the holding was estimated as 1.15 hectare, which has been declining steadily since 1970-71. The Size-Group wise percentage of number and area of operational holdings are as follows.

Table 2: Operational Holdings according to Size Groups in the Country

Sl.No	Size-Group	Percentage of number of operational holdings to total	Percentage of area operated to total
1	Marginal (below 1.00 ha.)	67.10	22.50
2	Small (1.00 - 2.00 ha.)	17.91	22.08
3	Semi-medium (2.00 - 4.00 ha.)	10.04	23.63
4	Medium (4.00 - 10.00 ha.)	4.25	21.20
5	Large (10.00 ha. & above)	0.70	10.59

Thus about 86 percent of the operational holdings are with the small and marginal farmers only, accounting for about 45 percent of the total area under cultivation. Only nine States, viz., Andhra Pradesh, Karnataka, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Punjab, and West Bengal together account for about 78 per cent of the Gross Cropped Area estimated at 193.76 million hectares in the country. Out of the net total irrigated area of 64.57 million hectare, 48.16 percent is accounted by small and marginal holdings, 43.77 percent by semi-medium and medium holdings and 8.07 percent by large holdings.

Small and marginal farmers are not required to file any income tax returns under the present dispensation if agriculture is their only source of income, and even if the sector is brought under

⁸Press Information Bureau Release, Government of India, Dec 09, 2015.

tax, in all likelihood, their income threshold will be below the tax limits. It is only the semi-medium, medium and large farmers who account for only 14 percent of the operational holdings and 55 percent of total cultivable land who will be affected by any tax imposed on agricultural income.

The agricultural census showed that there were 138 million holdings in India in 2010-11, of which 118 million were held by marginal and small farmers (93 million – marginal; 25 million – small). This figures can be related to the 2011 census figures, according to which there were 313 million main workers in the country, of which 176 million (56.6%) were engaged in 'Agricultural and allied activities'. The number of cultivators was 127 million. Thus, roughly we can estimate that the number of small and marginal farmers was 118 million, the same as their number of holdings - they account for about 93 percent of the total farmers in the country. The remaining 7 percent farmers who share between them 55 of the total cultivable land would be the target group for the incidence of any future tax on agriculture. They certainly do not constitute a major vote bank, though their voice may be loud enough for any political party to yield to their demands for continued exemption from the tax net. Further, going by the past trends which indicate that the number of small and marginal farmers and their share in the total number of operational holdings have increased continuously since 1970-71, and which trend is likely to continue, the number of medium and large farmers are not likely to increase in the future so as to ever constitute a major vote bank for any party. It is also to be remembered that agriculture sector contributes only 16 percent to our GDP in which the share of crops is around 10 percent only.⁹ Its growth has been stagnant, the percentages of growth during 2012-13 to 2016-17 being 1.5, 4.2,-0.2, 1.2 and 4.1 respectively.

⁹2014-15 figures at 2011-12 constant prices:
<http://mospi.nic.in/publication/national-accounts-statistics-2016>,
30/07/2017, accessed

Table 3: Number of holdings, operated area and average size of holdings – All Social Groups

Sl. No.	Size Groups	1970-71	1976-77	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06	2010-11
1	Marginal	36200	44523	50122	56147	63389	71179	75408	83694	92826
2	Small	13432	14728	16072	17922	20092	21643	22695	23930	24779
3	Semi-Medium	10681	11666	12455	13252	13923	14261	14021	14127	13896
4	Medium	7932	8212	8068	7916	7580	7092	6577	6375	5875
5	Large	2766	2440	2166	1918	1654	1404	1230	1096	973
	All Sizes	71011	81569	88883	97155	106637	115580	119931	129222	138348

Source: Agricultural Census, 2010-11, Table 1(a)

According to the Situation Assessment Survey (SAS) of Agricultural Households conducted in the 70th Round of NSSO Survey during January 2013 to December 2013, the average monthly income per agricultural households during the agricultural year July 2012- June 2013 was estimated as Rs 6426.¹⁰ The net receipt from farm business (cultivation and farming of animals) accounted for about 60 percent of the average monthly income per agricultural household. The average monthly consumption expenditure per agricultural household was Rs 6223, while the income was Rs 6426. Only for the large farmers (>10 ha. of holding), the income was Rs 41,388 per month, above the income tax threshold. These data show that only the large farmers who account for a miniscule 0.70 percent of the total operational holdings will only be liable to pay any income tax.

¹⁰Income, Expenditure, Productive Assets and Indebtedness of Agricultural Households in India, NSS 70th Round, (January– December 2013), Government of India

Table 4: Average monthly income and consumption expenditure (Rs) per agricultural household for each size class of land

Size class of land possessed (ha.)	wage income	net receipt from cultivation	Net receipt from animals	Total income	Net receipt from non-farm business	Total consumption expenditure	Net investment in productive asset	Agricultural households		
								Estimated (00)	Sample	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
<0.01	2902	30	1181	447	4561	5108	55	23857	1900	
0.01-0.40	2386	687	621	459	4152	5401	251	287381	6344	
0.41-1.00	2011	2145	629	462	5247	6020	540	315008	7203	
1.01-2.00	1728	4209	818	593	7348	6457	422	154810	9808	
2.01-4.00	1657	7359	1161	554	10730	7786	746	83964	7413	
4.01-10.00	2031	15243	1501	861	19637	10104	1975	33519	2019	
10.00+	1311	35685	2622	1770	41388	14447	6987	3499	220	
all size	2071	3081	763	512	6426	6223	513	902039	34907	
Agrl. Households	Estimated (000)	47281	83178	64276	8990	90089	90204	58951	xx	xx
	sample	17876	31826	24942	3637	34848	34907	21143	xx	xx

Source: Table T1, Report of the NSSO 70th Round, Page 41.

Further, the survey shows that only the farmers who are semi-medium, medium or large in terms of their landholdings have substantial non-farm income above the income tax threshold; hence they are liable to file income tax returns showing their agricultural income. It was only in respect of these farmers that the Income Tax Department had instituted the inquiry referred to earlier and admitted data entry errors, yet to be verified. They are the ones who are presently enjoying the exemptions.

Table 5: Average expenses and receipts (Rs) from non-farm business per agricultural household during a period of 30 days by size class of land possessed

Size class of land possessed (ha.)	Expenses	Receipts	Net Receipts	No. per 1000 agrl households engaged in non-farming business	Agrl. households engaged in non-farming business	
					Estimated (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.01	5990	10135	4144	111	2653	191
0.01-0.40	9901	13809	3908	121	34887	890
0.40-1.00	15336	20805	5469	89	28039	738
1.01-2.00	16129	22163	6033	98	15205	973
2.01-4.00	28750	36078	7328	76	6357	650
4.01-10.00	41353	53396	12043	72	2419	164
10.00+	156325	174351	18026	98	344	31
All sizes	153442	206322	5290	100	89903	3637
Estimated No. of Agrl Households	87225	90716	89160	89903	xx	xx
Sample No. of Agrl Households	3539	3663	3602	3637	xx	xx

Source: Table T12, *Ibid.*

Even the agro-companies growing crops are entitled to the same tax reliefs as individuals in respect of agricultural income, which defies all logic when we consider the scale of exemptions enjoyed by these companies. Let us take a few examples. More than four lakh taxpayers claimed exemption for agricultural income in the assessment year 2014-15. The biggest beneficiaries were Kaveri Seeds, which claimed Rs 186.63 crore as exemption, and multinational Monsanto India, which claimed Rs 94.40 crore as exemption, and they had earned Rs 215.36 crore and Rs 138.74 crore profits respectively before tax.¹¹ It may be mentioned that Monsanto is the company that sells the genetically modified Bt-Cotton seeds in the country and earns huge profits therefrom. If this is not inequitable and irrational, one wonders what is. According to an estimate, taxing only the richest 4.1 percent agricultural households, as much as Rs 25000 crore could be collected as tax.¹²

Table 6: Inequitable Exemptions¹³

Company	Exempt Agricultural Income (Rs crore)
Kaveri Seeds	186.6
Monsanto India	94.4
McLeod Russel India	73.1
MP Rajya Van Vikas Nigam	62.6
Vandana Farms and Resorts	61.1
Karnataka Forest Devt Corp	52.8
Ankur Seeds	27.6
Nath Bio-genes	27.4
Shiv Shakti Bio Tech	21.6
Ganga Kaveri Seeds	19.6

¹¹Deccan Chronicle, "Time to Tax the Farms", April 2, 2016.

¹²Awasthi, Rajul, "Break the Agricultural Black Money Shelter and Tax the Rich Farmer", <https://thewire.in/131032/agricultural-income-tax-rich-farmer/>, 02/05/2017, accessed 30/07/2017.

¹³ Source: Rediff.com, "Not just rich farmers, even agri cos with Rs 215 cr profit pay no tax", May 16, 2016.

It is not that the Government did not get similar inputs earlier. Committee after Committees appointed by it had warned the Government about the pitfalls of non-taxing the agriculture sector. As early as 1972, the K N Raj Committee (Committee on the Taxation of Agricultural Wealth and Income) had recommended "A rational system of direct taxation of agriculture, (1) should take account of the differences in productivity of land depending upon the particular crops grown in a region, (2) its incidence should be uniform in different parts of the country, and (3) it should reflect changes in productivity and prices over a period of time." To build an element of progression into such a tax, it suggested introduction of a tax on agricultural holdings.¹⁴

The Tax reforms Committee (1991) headed by Raja Chelliah also examined this question and in its report stated that the absence of taxation of agricultural income had "left open a major loophole for tax avoidance and evasion and for the laundering of tax evaded money". It recommended that agricultural income above Rs 25000 accruing to non-agriculturists should be taxed "to promote equity and reduce the scope for evasion".¹⁵

Report of the Task Force on Direct Taxes (2002), Para 10.37, said: "With a view to encourage the States to tap the full potential of their taxing powers and to prevent laundering of non-agricultural income as agricultural income, the Task Force recommends (i) A tax rental arrangement should be designed whereby States should pass a solution under Article 252 of the Constitution authorising the Central Government to impose income tax on agricultural income. The taxes collected by the Centre would however be assigned to the States; (ii) Tax from agricultural income for the purposes of allocation between States will be the difference between the tax on total income (including agricultural income) and the tax on total income net of agricultural income; (iii) Where a taxpayer derives agricultural income from different States, the venues attributable to a State will be in the ratio of the income derived from a particular State to the total agricultural

¹⁴Sreekantaradhya, B S, *Structure and Reform of Taxation in India*, Deep and Deep, New Delhi, 2000, 76.

¹⁵Para 79, TRC Report.

income; (iv) A separate tax return form should be prescribed for taxpayers deriving income from agriculture.”

The Central Board of Direct Taxes, in a white paper on black money released in May 2012, admitted that: “Giving credit to agricultural income for income-tax purposes without verification of claim allows an avenue for bringing black money into the financial system as agricultural income.” Finally, the Tax Administration Reform Commission report by Parthasarathi home in 2014 stated unequivocally: “Agricultural income is exempt from taxation in spite of large agricultural holdings... a large number of rich farmers, who earn more than salaried employees in the cities, get away with paying no tax in view of the government’s lack of will to consider an agricultural income-tax.” It further said, “Agricultural income of non-agriculturists is being increasingly used as a conduit to avoid tax and for laundering funds, resulting in leakage to the tune of crores in revenue annually.” The Government, however, has always remained overtly cautious and extra-sensitive to any proposal for taxing of agricultural income and all these reports were shelved.

In an article published recently, the Niti Aayog member, Mr. Bibek Debroy has proposed that agricultural income should be taxed.¹⁶ He pointed out that long before the present Income Tax Act of 1961 had come into effect, there was the Income Tax Act of 1860 which had taxed agricultural income till 1886 when it was abolished, presumably due to resentment against colonial rule. He had further pointed that acts for taxing agricultural income existed in many states of India, though mostly during colonial times, and such a tax could be, and should be, brought in again. The Government and the Niti Aayog promptly dissociated themselves from Mr. Debroy’s views due to the sensitivity of the issue and because of the hue and cry that followed. But it was not simply in the colonial times that such taxes were imposed. Even now it exists in the form of taxation of income from tea, coffee and rubber plantations. Under Rule 8 of the Income Tax Rules, 1962, income derived from the sale of tea grown and manufactured by the seller

¹⁶Debroy, Bibek, “Twelve reasons why”, Times of India, Delhi, May 3, 2017.

in India shall be computed as if it were income derived from business, and 40 per cent of such income shall be deemed to be income liable to tax. Similar provisions also exist for rubber and coffee plantations under rules 7A and 7B respectively.

Given that only 3.98 crore individuals filed returns in 2015-16 in a country of population exceeding 130 crore, and only 2.6% of population paid any taxes (39% in USA for comparison), and only 25 lakh paid tax at the highest rate- 90 percent of them from the organised sector where taxes are compulsorily deducted at source, if we are serious about expanding the tax base, this hitherto untaxed sector must be brought under the tax net. Of course given the highly informal nature of business in this sector, tax administration will pose serious problems initially, but that is expected of any new domain. It should be ensured that the tax liability rests only on the shoulders of the rich farmers while insulating the small and marginal farmers.

ECONOMIC GROWTH, INFLATION AND TAXATION- A TRICHOTOMIC PERSPECTIVE

ADHAR LAL CHAND*

GDP Growth rates, to start with, alongwith myriad new concepts generated over the years, have merely confounded existing confusion in public mind. It has been explained with examples taken from "ECONOMICS" by noble laureate P A Samuelson The distinction between 'Real' and 'Nominal' growth and PPP has also been woven into the discussion.

Inflation, as is commonly understood, has many facets that every country - be it developed or developing-seeks to keep under close and direct watch. Its interface with GDP growth rate has also been explored.

Taxation, the most vexatious and abhorred aspect of human civilisation, has been delineated with reference to Indian context- thus treading its path since independence till modern era.

Finally, the country's latest flagship programme, i.e. GST, has been dealt in some detail that it is expected to affect the business community in particular and the economy in general.)

The remarkable stride India has made in myriad fields since attainment of political independence during past near seven decades has earned encomiums from international for a keeping in view the diversity in its population composition measured by yardsticks like caste, creed, sect, religion, language, social habits and cultural and ethical behaviour. That it still prides itself as the 'largest democracy' in the world where governments do regularly change by authority of ballots (rather than bullets) in a peaceful

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manner has surprised most advanced and economically progressed nations too.

This is a modest attempt in looking at the unprecedented economic progress made by India since independence despite myriad adverse situations-both internal and international. For a common man 'economic growth' means whether his overall living condition has improved over the years. This in economic parlance is measured by what is known as growth in GDP (Gross Domestic Product). Simply stated it refers to the value of aggregate goods and services produced in the country in a year. Another fashionable terminology economists prefer to talk in this respect is: GDP (with Purchasing Power Parity; *i.e.* PPP). This involves expressing the value of one country's GDP with reference to the exchange price of its currency vis-a-vis a stable currency like US dollar.

A few statistics will not be out of place in this context to explain the economic growth India has achieved since independence. Equally important with the GDP growth is per capita income growth over the years. From a modest population of 34.45 crore in 1947 to a staggering 124 plus crore in 2016, India's GDP (nominal) grew from Rs 2.7 lakh crore to Rs 160 lakh crore in 2016. Per capita income in nominal terms surged from a meagre Rs 7800 to around Rs90000 (at current prices) in 2016. Annualised rate of growth of GDP which covered around 2.8% post-independence touched its peak of 8% plus in 2007-08, and slightly declined to 7.1% in 2016-17. Such that Indian economy is the seventh largest in the world by way of nominal GDP, and third largest by PPP. It is presently classified as a newly industrial country with an average growth rate of approximately 7% over the last two decades. Indian economy now is the fastest growing major economy surpassing its closest neighbour China. The long term growth prospective is positive owing to its young population (about 65% below 35 years of age), low dependency ratio, healthy rate of savings (30%+), rate of inflow of foreign investments, and increasing integration with the global economy. Major research and studies have indicated that Indian economy has potential to become world's third largest economy by the next decade (third to China and USA), and one of the two (next only to China) largest

economies by mid-century. India's foreign exchange reserve at present stands at a staggering level of \$389 billion vs a miniscule \$2 billion in 1947.

A major FE crisis in 1991 (that reduced the reserve to a lowly \$1.2 billion that was barely sufficient to finance three weeks' essential import) necessitated pledging of 67 tons of gold with Bank of England. India now boasts of the fastest growing services sector in the world growing at an annual rate of above 9%, and contributed to about 57% of GDP. The country has become a major exporter of I T services like BPO (Business Process outsourcing) services and software services with \$167 billion export turnover. Its I T sector has proved to be the largest employer in private sector. Similarly India prides in claiming to be the third largest start-up hub in the world with over 3100 technology start-ups in 2014-15.

A controversy of not so distant origin is the dichotomy between economic growth vs inflation in the economy. Inflation, as is commonly understood, refers to increase in general price level of essential goods- both of daily and long-term consumption- as compared to the prices of immediately preceding year. For instance if a basket of goods costs, say Rs100, in 2016 and c Rs 110 in 2017, then in simple economics terminology, it represents 10% inflation. Similarly if the GDP is valued at say Rs 100 crore in a year, and the economy produces goods and services worth Rs110 crore in the following year, then we say GDP has grown by 10%. Now a debate that has engulfed social media, written and visual media by way of an unsolved riddle is which situation is preferred: an 8-10% inflation with 7-8% GDP growth vs 2-3% inflation with 7+% growth rates. This has obvious reference to the decade we had during UPA regime vs first three years of present regime. To explain the dichotomy with the help of a simple example: a GDP growth rate of 8% during UPA regime implied that though nominally GDP increased to Rs108 during this period, the same quantum of G and S has costed Rs110 during the same period. Hence in effect, the people have got $\text{Rs}108/110 \times 100$ i.e. Rs 98.18 worth of goods in the later period. In sharp contrast to this, during the new regime 7% GDP growth means Rs107 worth of G & S

produced in the later year, which in real terms mean $Rs107/103*100$, which equals Rs 103.88. So the "real GDP" is more by Rs5.7 in the latter situation. This phenomenon was explained by ex RBI governor Dr R. Rajan with the help of his famous "dhosha economics" example. People in general are more likely to be guided by GDP growth figures completely ignoring the set-back effect of inflation on it. Similar effect is interest on bank FDs vs rate of inflation. Senior citizens in particular are the first to be adversely affected by gradual reduction in FD interest rates (from 10% during UPA time to about 6-7% at present). Application of similar calculation to these two situations will clearly establish that the present situation with much lower rate of inflation is preferred over slightly higher rate of interest and much higher rate of inflation !It may sound unrealistic, yet it is mathematically true. Another example can be cited of developed economies like USA and developed European countries where annual rate of inflation is below 1% and GDP growth rate at 3-4 % per annum. Human being is directly and immediately affected by reduction in interest rate, but crawlingly absorbs benefits of lower rate of inflation.

Last point of discussion is taxation and its interface with GDP and inflation. A lot has been said historically-in a serious and jocular vein- about taxation. Lord J M Keynes, father of neo-classical economics is stated to have said: "Two things are certain in this world- death and taxation". Similarly noble laureate scientist Einstein is reputed to have remarked: "I find taxation being the most complex of all calculations". Last, but not the least, Justice Oliver Wendell Holmes said: "Taxes are what we pay for a civilised society". Taxes, as we all are aware, are as old as civilisation. Kautilya's "Arthashastra" also mentions about taxation as a sovereign right and duty of a king with a rider that he must extract as much tax from his subjects as a honey-bee collects honey from the flowers for its own need without hurting the flower, and allowing it to survive and glow as before. In those days the economic activities primarily centred around-agriculture and small trade and vocational pursuit. Fiscal policy therefore centred around taxing a reasonable (or substantial) portion of agricultural

produce (depending on royal need and greed- by force or coercion) as taxes for the crown. Kautilya also mentioned of about 10% of agricultural produce as the King's right to collect as tax. With advance of age and change in form of governance, mode and method of taxation underwent paradigm shift. Guided Royalty yielded place to an elected government 'of the people, by the people and for the people'. Royal whims were replaced by vox populi in all matters of governance. Both mode and method of taxation were a codified legislation. In India modern taxation was introduced in 1860 by James Wilson by introducing first codified Income-tax Act, 1860. It sought to bring within taxation ambit sources of income like land, profession/trade, employment and securities. Then followed Income tax Act-1886, which expanded the source of income to include 'profits of companies'. Next came Income Tax act-1922, which was a comprehensive statute with a dedicated administration like setting of "Central Board of Revenue", rate of tax to be stated in annual Finance Bill, provision of 'ex-parte' assessment, TDS, reopening of assessments, and setting up of office of Commissioner of Income-Tax etc.. The last and latest among taxation legislation is present Income-Tax Act-1961. Besides this, we had three other direct taxes acts like Wealth Tax Act-1957 (repealed in 2015); Gift Tax Act, 1958 (repealed in 1998), and Estate Duty Act, 1953 (repealed in 1985). These are called "direct taxes acts", which levies tax on the persons, who cannot shift the burden to anybody else. Indirect taxes like Excise, customs, sales tax, VAT, services tax, octroi, local taxes are so called as the first 'incidence' falls on the person manufacturing/supplying the goods/services, who later on passes it on the ultimate consumer (who finally bears the 'impact' of taxation) of such G and S. Two aborted attempts were made in 1997 and 2009-13 to repeal the present Indian I T Act, 1961 without any fruition as the concerned legislation could not be passed by the union legislature.

Akin to the history of the Indian Income Tax Act, the rates of taxes have been drastically brought down from a whopping 85% (during 1970-74) (plus surcharge for income exceeding a certain level) to a reasonable 30% at present- that favourably compares

with international standards. During that period income tax plus surcharge and 'wealth tax' payable at a certain high level exceeded the income earned by the person concerned! With gradual lowering of the marginal rate of taxes, collection of taxes has also risen over the years. While net DT collection soon after independence stood around Rs 100 crore, the first four-figure mark was reached as late as in early seventies. Collections reached first five-figure mark in the year 1990-91. And it surged to six figures in 2003-04. Till that time the ratio of direct taxes vs Indirect taxes collection was in the ratio one is to two. For the first time DT collections overshadowed indirect taxes collections during 2007-08; and thereafter it registered a canter-like growth with present ratio standing at 53:47. It is interesting to note at this stage that DT collection is rising at an average annual rate of 12-14%, whereas GDP has grown over last decade around 7% per annum.

Finally the interface of taxation with GDP growth rate and rate of inflation. Taxes, as already stated earlier, burns a hole in the disposable income pocket of the individual, of course with a basic exemption limit. Hence taxes like inflation reduce the 'disposable income' of the individual. The difference of course being while inflation affects everyone, irrespective of the level of income, equally, taxes are 'progressive' in nature-implying thereby a person with higher 'capacity to pay' is taxed at a higher rate than one with lower 'disposable income'. It, therefore, implies that a person with lower level of disposable income with same rate of inflation will be 'relatively speaking' better off than one with higher income. An example will illustrate this point: between two individuals with same income of Rs100 and varied rate of taxation of 10% and 30% with rate of inflation and GDP growth being 10% and 8% respectively. For the first individual gross income of Rs108(result of 8% GDP growth) gets reduced to Rs98.18(owing to 10% inflation) which later on get reduced to Rs68.73 (after being subjected to 30% taxation). And the second person with same income of Rs100, raised to Rs108, next reduced to Rs98.18 (post inflation), but left with a 'higher' net disposable income of Rs. 88.36(post taxation). Once this basic principle is understood, actual quantum of 'disposable income' with persons with varying

income level and rate of taxation, and constant rate of inflation (which of course is subject to variation depending on types of 'goods and services' consumed under indirect tax system including present GST) and uniform rate of growth of GDP can be computed with little difficulty.

A few words to explain two intermingled concepts; 'tax evasion' vs 'tax avoidance'. While the first refers to artificially reducing one's tax liability by various means like wrongful claim of expenses, exemptions, incorrect application of law etc, which are trans-legal, 'tax avoidance' is perfectly legal way of reducing one's tax liability by remaining within four corners of the law and availing of all the reliefs and concessions provided in the statute. Tax evasion sought by way of concealment of taxable income, non-filing of return of income, illegal transfer of income to someone else with lower marginal rate of tax etc are considered illegal 'leakage' of revenue that reduces tax kitty of the sovereign, and hence reduces gross GDP too. Secondly accumulation of untaxed income with persons leads to lavish and ostentatious (and sometimes illegal criminal activities) lifestyle that artificially raises demand for specific types of G and S that too propels inflation. Thus this close and interwoven interface between GDP growth, rate of inflation and taxation regulates economic activities of individuals in general and the nation in particular.

Amidst economic crisis across the globe, India has posed a beacon of hope with ambitious growth rates, supported by a bunch of strategic undertakings such as 'Make in India', and 'Digital India' campaign. The "Goods and Services Tax" (GST in short) is another such growth-propelling engine that is expected to provide much needed stimulant to economic growth in India by transforming the existing base of 'indirect tax' (that is characterised by a system where both 'incidence', *i.e.* the initial burden, and 'impact', *i.e.* the final burden of taxation, as opposite to direct taxes delineated *ex ante*, fall on different persons) from 'origin-based taxation' to 'delivery-based taxation' that is expected to ensure free flow of goods and services across the country, to eliminate cascading effect of multiple taxes that are levied between

production of goods and services and the point they reach the ultimate user/consumer.

GST, as introduced within the country amidst much adulation and fervour at midnight of 30th June, 2017 midnight vide a specially convened joint session of parliament (a la ex-PM J L Nehru's iconic "India's tryst with destiny" speech at midnight of 14th August, 1947 at the same venue), subsumes within itself as many as eleven myriad taxes levied by the Central government (e.g. Central Excise Duty, Additional Excise Duty, Service Tax, Counter veiling Duty, and Additional Customs Duty); State Governments (e.g. State VAT/Sales Tax, Central Sales Tax, Entertainment Tax, Purchase Tax) and finally by local authorities like Octroi and Entry Tax. The proposed benefits of GST, as envisaged, are:

- Removal of bundle of indirect taxes levied by various statutory bodies,
- Improve tax compliance and simplified tax policy,
- Removal of cascading effect of taxes, ie remove 'tax on tax' at multiple stages,
- Reduction of manufacturing costs due to lower burden of taxes on the manufacturing sector that is likely to bring down prices of consumer goods,
- Lower tax burden on the common man as most of the goods, with uniform tax rates of 0%, 5%, 12%, 18%, & 28%, of mass consumption will be cheaper than before- thereby leaving more surplus balance with average consumer to be spent on items of personal 'comfort' and 'luxury';
- That is expected to increase 'overall demand' for goods and services,
- That again will lead to higher supply of goods and services through higher production, which will also result in increase in employment opportunities within the country,
- Control 'black(or 'unaccounted') money in circulation as most small and medium size traders and shopkeepers are

expected to shift to digital mode, file regular return of sales that will substantially check corruption, raise revenue and widen the indirect tax base,

- And finally boost the Indian economy in the long run.

This pure economic analysis has also been spelt out by both the Finance Minister and Prime Minister in their separate interface with the media. The Prime Minister even described it as “GOOD and SIMPLE TAX” that is simple to understand, and implement. The Finance Minister too various features and effect on Indian economy as follows:

- Inflation will remain low as GST rates on essential goods such as food grain, household consumer items, and essential services are either exempt or kept low
- Similarly among services like health, education, miscellaneous segment, transportation are kept outside the ambit of GST. So the official estimate is that GST will have neutral impact on headline CPI (Consumer Price Index), and average inflation of sub-4% during 2017-18. With increased production of goods and services GDP growth rates for the year 2017-18 is projected at a higher rate, *i.e.* 7.4% vs 7.1% in 2016-17
- Lower inflation may not result in immediate reduction in interest rate by the RBI as it will watch out on the monsoon progress, and how the GST benefits are passed on.
- With a smooth-sailing new taxation regime with transparency, certainty and reduced level of corruption, ‘ease of doing business’ will improve-thereby inviting more and more of FDI (Foreign Direct Investment)
- Finally with increased collection of ‘indirect taxes’, direct tax collection kitty is also expected to swell as both are *intrinsically* linked to each other with expanded direct tax base as well.

Implementation of the landmark GST reforms said the Secretary, DEA, will contribute to making India a more integrated

market. By reducing the tax cascading, it will boost competitiveness, investment and job creation. The GST Reform- designed to be revenue-neutral- need not be complemented by a Reform and Property taxes, vide the Economic Survey,2017.

In an underdeveloped and less developed country like India, often political compulsions ride over these basic economic principles(most of which are based on standard assumption of 'ceteris paribus'- implying all other things remaining unchanged) which are also subject to some external factors which are unpredictable like social environment, climatic conditions and international political and economic scenario, on which the government can exercise very little control so that the ultimate consequence on the economy may not be as distinctly discernible as delineated in this write-up.

INVESTOR'S PERCEPTION AND AWARENESS TOWARDS MUTUAL FUNDS IN INDIA: MYTHS AND FACTS

**C.A. (DR.) PRAMOD KUMAR PANDEY AND IRSAD
ALAM***

Mutual fund as an investment option is getting high popularity among the investors in India. However, still a long way to go as far as the size of investors is concerned in India. In most of the cases either the investors are not fully aware about the mutual funds or they have many myths about mutual funds. Due to lack of awareness, they are still relying on conventional modes of investments. The basic objectives of this article is to study the factors considered by the investors while making investment and level of awareness in them about mutual funds and finally to make a comparative study of conventional Investment alternatives and mutual funds in terms of Risk and Return. For better understandability a case study of five large cap equity funds has been included.

I. Introduction

Mutual Fund is a common pool of resources invested in specified assets as per the objective of the fund. Mutual funds are managed by professional managers. As compared to equity, they have lower risks but when compared to conventional investment modes, they have higher returns. However, due to lack of awareness and common myths, they are still outside the basket of investments of many investors. Mutual Funds are of different types

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depending on maturity period, investment objective, liquidity, tax investing, sector specific etc. Mutual funds are bought and sold at its Net Asset Value (NAV). After meeting the expenses of fund, returns of mutual funds are distributed among unit holders. Mutual fund Industry has originated in India since 1963. Till then it has seen many phases in last 53 years. Today its corpus of net assets has reached to around Rs. 17 Trillion. However, it is still a lot to go having regard to the market size in India. Higher returns and the facility of Systematic Investment Plan (SIP) is making the mutual fund more attractive for retail investors. Besides SEBI which is the main body for controlling activities of mutual funds in India, RBI, AMFI are also playing important role for protecting the interests of common investors. In spite of all above, there are many myths and disbeliefs in the minds of common retail investors regarding the mutual fund.

A mutual fund is setup in the form of a trust, which has Sponsor, Trustees, Asset Management Company and Custodian. The trust is created by sponsors and the trustee is responsible for managing the property of the trust. The investments of the funds are under direction and control of Asset Management Company while custodian is responsible for holding the securities. Security exchange board of India (SEBI) is the main authority behind regulation and control of mutual funds in India.

While investing in mutual Fund investors should make their own investment objective, time frame, investible amount and risk tolerance capacity. The open ended schemes are required to disclose their NAV on daily basis while the close ended schemes on weekly basis. Further, there is no system of knowing the NAV during market hours. Higher or lower NAV is irrelevant and what matters is Returns generated. Lower NAV does not imply that it is cheaper.

II. Measuring return and risk of mutual funds

Performance evaluation of Mutual Funds is a challenge for a common person. There are many ratios and other performance parameters through which a common person may evaluate the performance of a Mutual Fund.

Mutual Funds may be classified into many types depending on maturity period, investment objective, liquidity, tax investing, sector specific etc. As case study we have selected five popular large cap equity funds, namely SBI blue chip growth fund, Kotak select focus fund - Regular (G), ICICI Prudential top 100 fund (G), Birla Sunlife top 100 (G) and ICICI Prudential focused blue chip Equity (G).

i) **Fund Return:** Fund return shows how much return has been generated by the fund during a particular period of time. Fund return may be computed on daily basis, weekly basis, quarterly basis, monthly basis or yearly basis. However, return in isolation cannot be taken as the yard stick for evaluating the performance of mutual fund. For proper evaluation of performance, return should be compared with risk involved in generating the return. Further, return should also be compared with any standard yard stick say Nifty or Sensex Index in India for better results. Return of the fund may be computed by the following formula:

$$\frac{\text{Closing NAV} - \text{Opening NAV}}{\text{Opening NAV}} \times 100$$

ii) **Fund Risk:**

- a) **Standard Deviation:** Standard deviation is one of the popular methods for measuring fund risk. It shows the variability of return from the mean return generated by the fund. Higher the standard deviation, higher the risk and vice-versa.
- b) **Beta:** Beta is a measure for volatility or sensitivity of fund with respect to market say Nifty or Sensex. If Beta of a fund is greater than one, it will imply that fund is more volatile than the Index. Beta of a fund is measured as covariance of fund return with index return divided by variance of index return.
- c) **Alpha.** Alpha is the difference between actual fund return over expected fund return. Nifty or Sensex return may be taken as expected fund return. Positive Alpha implies that actual fund return is greater than minimum expected return.

iii) Performance evaluation ratios for Mutual Funds:

The popular ratios for evaluating performance of Mutual Funds are:

- Sharpe Ratio
- Sortino Ratio
- Treynor Ratio
- Information Ratio

Sharpe Ratio: This ratio has been coined by the famous Nobel laureate William F. Sharpe. This ratio is computed after taking the difference of actual return over risk free return divided by standard deviation of the fund. Thus this ratio focuses on excess of actual return over risk free return per percent of risk.

$$\frac{\text{Actual Fund Return} - \text{Risk Free Return}}{\text{Standard Deviation of Fund}}$$

However, greatest limitation of this ratio is that it takes risk free return as the yard stick for measuring the performance of the fund. It completely ignores the comparison of actual fund return with any popular bench mark like Nifty Index in India.

Sortino Ratio: This ratio has been introduced by F.A. Sortino. This is a superior ratio over Sharpe ratio as instead of standard deviation it takes into consideration negative fund returns. However this ratio also suffers the same limitation of ignoring the comparison of actual fund return with any popular bench mark like Nifty Index in India.

$$\frac{\text{Return of Fund} - \text{Risk Free Return}}{\text{Standard Deviation of Negative Fund Returns}}$$

Treynor Ratio : Treynor ratio has been named after Jack. L. Treynor. This ratio is similar to Sharpe ratio except that it uses Beta of fund in denominator instead of fund standard deviation. Since this ratio also does not take into consideration any popular bench mark for performance evaluation, it is also not free from limitation.

$$\frac{\text{Return of Fund} - \text{Risk Free Return}}{\text{Beta of Fund}}$$

Information Ratio: Information ratio is the most suitable ratio for evaluating the performance of mutual funds. This ratio is computed after taking the difference of actual return over any benchmark return (called active return) divided by standard deviation of the active return also called tracking error.

Return of Fund – Benchmark Return
Tracking Error

Table -1: Showing Returns for all five Funds and Nifty on annualized basis

Financial Year	SBI Blue Chip Fund - Growth	Kotak Select Focus Fund - Regular (G)	ICICI Pru Top 100 Fund (G)	Birla Sunlife Top 100 (G)	ICICI Pru Focused Bluechip Equity (G)	Nifty
2012-13	17.20	10.94	8.02	11.76	10.16	13.85
2013-14	18.24	22.39	24.54	24.36	21.74	8.16
2014-15	48.30	51.55	31.46	41.24	36.18	41.23
2015-16	16.43	28.57	29.82	23.68	24.98	19.51
2016-17	15.73	8.38	7.75	9.63	8.39	8.90
2012-17 (Average)	27.18	30.85	22.49	25.99	22.31	14.44
Rank	II	I	IV	III	V	VI

Table -2: Showing Standard Deviation for all five Funds and Nifty on annualized basis

Financial Year	SBI Blue Chip Fund - Growth	Kotak Select Focus Fund - Regular (G)	ICICI Pru Top 100 Fund (G)	Birla Sunlife Top 100 (G)	ICICI Pru Focused Bluechip Equity (G)	Nifty
2012-13	10.66	12.13	11.59	12.47	11.28	13.28
2013-14	15.89	15.39	15.28	16.49	11.37	13.24
2014-15	12.21	14.14	13.15	14.03	11.24	13.06
2015-16	15.28	16.15	16.4	16.5	11.34	13.19
2016-17	11.53	12.3	11.24	11.89	10.8	12.72
2012-17 (Average)	13.31	14.15	13.71	14.44	13.97	14.99
Rank	I	IV	II	V	III	VI

Chart -1: Showing Average Returns for all five Funds and Nifty

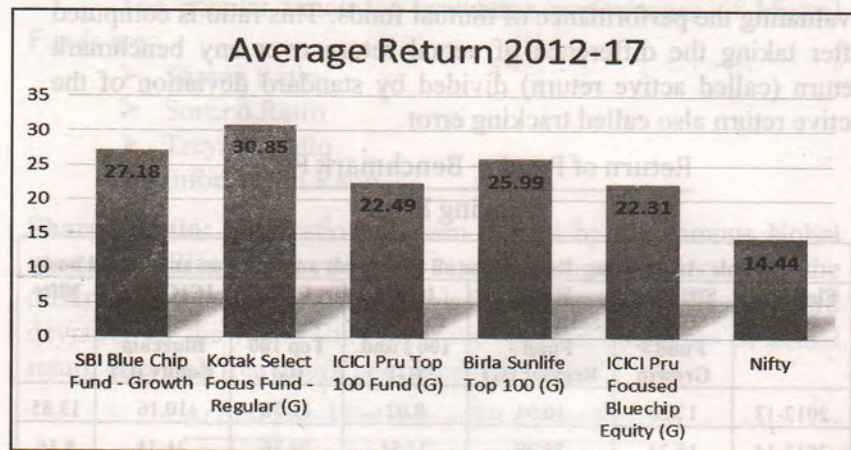
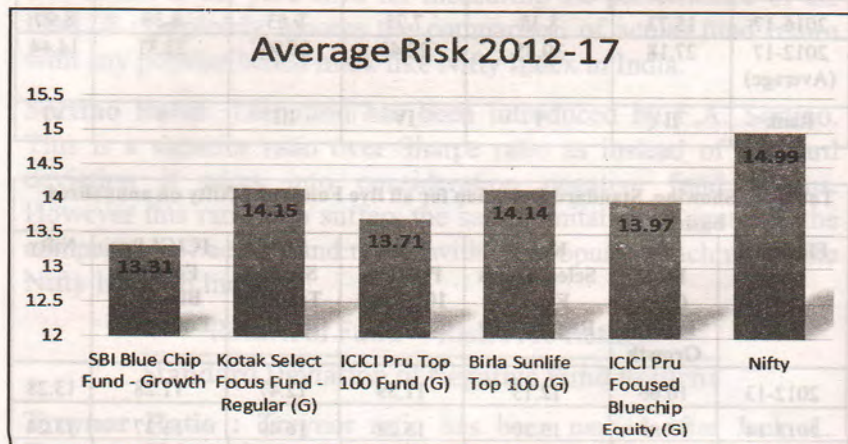


Chart -2: Showing Average Risk (Standard deviation) for all five Funds and Nifty



III. Analysis of Data collected through questionnaire

A random sample of 102 investors was taken and they were all asked to answer a questionnaire true to their knowledge. The feedbacks obtained from the investors were very encouraging to understand the perception and selection behavior of the investors towards mutual funds. It also highlighted the factors which

influence them to make decisions while investing. The data collected in questionnaire has been described as below:

- **Responses regarding Investment instruments**

While considering Investment instruments, the responses revealed that FD is the most popular, while insurance is second most sought after option. Mutual fund comes at third position.

- **Preferences towards type of mutual fund**

While surveying about preferred mutual fund, most of the people have chosen SBI mutual fund with percentage as high as 46%. Other company's mutual funds are far behind this figure with ICICI at 18% only. This shows that people have great faith in Government owned mutual funds

- **Preference towards return expectations**

Return expectation in terms of percentage return is always the most important part of any investment. In our survey most of the respondents i.e. 66% were expecting a return between 10% to 20%. However some (21%) expecting less than 10% return while 5% people were expecting very high return of more than 30%. This shows the wide variance in the thinking of investors.

- **Responses for risk appetite**

While talking about risk appetite, 52% of the respondents have shown moderate risk bearing capacity while 45% have minimum risk capacity. Very less i.e. 3% are ready to take high risk

- **Preference towards mutual funds as comparison to conventional investment modes**

75% people are very optimistic about mutual fund and they think that it can give higher return in comparison to other instruments of investments. However, 25% still think that it cannot outperform others.

- **Responses regarding mutual fund as safe investment**

81% people consider mutual fund as safe instrument for investment.

- **Responses for comparison between return of mutual fund and bank FD**

When we talked about profitability comparison between fixed deposit and mutual fund, 71% were of the view that mutual fund is more profitable than fixed deposits

- **Level of awareness regarding mutual fund**

In our survey of awareness about mutual fund, we found that 30% having partial knowledge, 30% having knowledge about specific mutual funds while 29% are totally ignorant. Only 11% were fully aware about MF. This shows that awareness programme is needed for investors.

- **Preferences for public sector Vs. Private sector mutual fund**

Our survey revealed that 78% respondents have faith in public sector mutual funds. It shows that people have still less faith in private players as only 22% respondents preferred it.

- **Responses towards main source of awareness about mutual funds**

The responses clearly revealed that advertisement is the main source of awareness about mutual funds. 52% people accepted that they knew about MF through advertisement. Peer group is another main source of awareness as 30% people knew from this source.

- **Reasons behind likings for mutual funds**

This study also tried to know the features of mutual funds which attract the investors most. The above chart shows that 37% investors like MF due to its 'better return and safety feature' while 23% investors like its tax benefit feature

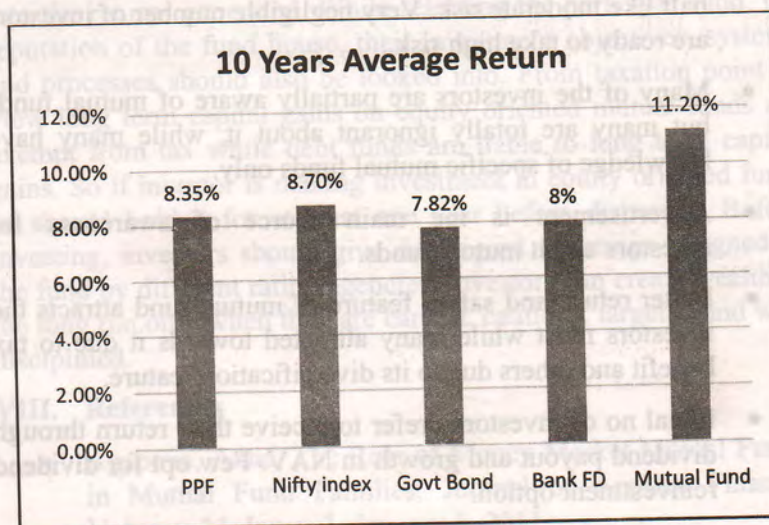
- **Preferences towards dividend and capital appreciation**

When talking about return preference from investment in mutual funds it was found that most investors i.e.40% like to take their return through Dividend payout, 38% like through growth in NAV and 22% prefer to reinvest the dividend

IV. Comparison of average returns of Investment alternatives

We have compared the average return for last ten years of various investment alternatives by following chart.

Chart -3: Showing average returns of conventional modes and mutual fund of last 10 years



The various return figure shown above clearly shows that return in mutual fund over a long period is far more than any other conventional investment alternatives. However it is also worth mentioning that mutual fund is subject to market risk and more prone to risk than any other conventional investment alternatives.

V. Findings of the study

- Mutual funds are not the most preferred investment instrument among the investors. Majority of the investors prefer fixed deposits to mutual funds.
- Investors like to invest more in mutual funds of govt. owned company and prefer govt. owned AMC's. Most of investors also like to buy mutual funds directly through the AMC's.
- Majority of investors have expectation of moderate to high return.
- Almost half of the investors like to bear minimum risk and half like moderate risk. Very negligible number of investors are ready to take high risk..
- Many of the investors are partially aware of mutual funds but many are totally ignorant about it, while many have knowledge of specific mutual funds only.
- Advertisement is the main source of awareness for investors about mutual funds.
- Better return and safety feature of mutual fund attracts the investors most while many attracted towards it due to tax benefit and others due to its diversification feature.
- Equal no of investors prefer to receive their return through dividend payout and growth in NAV. Few opt for dividend reinvestment option.
- Comparison of other conventional investment alternatives with mutual funds shows that return through mutual fund is very high as compared to other options. However risk is also high in case of mutual funds.

VI. Recommendations and conclusion

Mutual fund may be one good investment option because of its higher return generating capacity. However, since it is guided by the movements of the market, it may involve more risk than

conventional investment modes like bank FD and PPF etc. It is desirable that a time horizon of at least 3 years should be selected in case of mutual fund investment. Further, debt funds are less risky than equity funds and large cap equity funds are less risky than small and medium cap funds. It should be noted that higher or lower NAV does not matter. What matters is return generated consistently over long period of time. So lower NAV neither means cheaper nor higher NAV reflects dearer. Selection of mutual fund should be made based on individual's investment goals. Systematic investment plans may be taken on regular basis; however lump sum amount should be invested only when market index is on the lower side. Selection of funds should be made based on risk adjusted returns rather than simply looking into the returns generated. While selecting the particular fund, the reputation of the fund house, their investment objectives, systems and processes should also be looked into. From taxation point of view long term capital gains on equity oriented mutual funds are exempt from tax while debt funds are liable to long term capital gains. So if investor is making investment in equity oriented fund, he should hold it for at least one year before disposing. Before investing, investors should give due regard to ratings assigned to the fund by different rating agencies. Investors can create wealth in the long run only when they are careful, cautious, targeted and well disciplined.

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THE AADHAAR (TARGETED DELIVERY OF FINANCIAL AND OTHER SUBSIDIES, BENEFITS AND SERVICES) ACT, 2016

NO. 18 OF 2016

[25th March, 2016.]

An Act to provide for, as a good governance, efficient, transparent, and targeted delivery of subsidies, benefits and services, the expenditure for which is incurred from the Consolidated Fund of India, to individuals residing in India through assigning of unique identity numbers to such individuals and for matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Sixty-seventh Year of the Republic of India as follows:—

CHAPTER I PRELIMINARY

Short title, extent and commencement 1 (1) This Act may be called the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016.

(2) It shall extend to the whole of India except the State of Jammu and Kashmir and save as otherwise provided in this Act, it shall also apply to any offence or contravention there under committed outside India by any person.

(3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint; and different dates may, be appointed for different provisions of this Act and any reference in any such provision to the commencement of this Act shall be construed as a reference to the commencement of that provision.

Definitions 2. In this Act, unless the context otherwise requires,—

(a) “Aadhaar number” means an identification number issued to an individual under sub-

section (3) of section 3;

- (b) "Aadhaar number holder" means an individual who has been issued an Aadhaar number under this Act;
- (c) "authentication" means the process by which the Aadhaar number alongwith demographic information or biometric information of an individual is submitted to the Central Identities Data Repository for its verification and such Repository verifies the correctness, or the lack thereof, on the basis of information available with it;
- (d) "authentication record" means the record of the time of authentication and identity of the requesting entity and the response provided by the Authority thereto;
- (e) "Authority" means the Unique Identification Authority of India established under subsection (1) of section 11;
- (f) "benefit" means any advantage, gift, reward, relief, or payment, in cash or kind, provided to an individual or a group of individuals and includes such other benefits as may be notified by the Central Government
- (g) "biometric information" means photograph, finger print, Iris scan, or such other biological attributes of an individual as may be specified by regulations;
- (h) "Central Identities Data Repository" means a centralised database in one or more locations containing all Aadhaar numbers issued to Aadhaar number holders along with the corresponding demographic information and biometric information of such individuals and other information related thereto;
- (i) "Chairperson" means the Chairperson of the

Authority appointed under section 12;

(j) “core biometric information” means finger print, Iris scan, or such other biological attribute of an individual as may be specified by regulations;

(k) “demographic information” includes information relating to the name, date of birth, address and other relevant information of an individual, as may be specified by regulations for the purpose of issuing an Aadhaar number, but shall not include race, religion, caste, tribe, ethnicity, language, records of entitlement, income or medical history;

(l) “enrolling agency” means an agency appointed by the Authority or a Registrar, as the case may be, for collecting demographic and biometric information of individuals under this Act;

(m) “enrolment” means the process, as may be specified by regulations, to collect demographic and biometric information from individuals by the enrolling agencies for the purpose of issuing Aadhaar numbers to such individuals under this Act;

(n) “identity information” in respect of an individual, includes his Aadhaar number, his biometric information and his demographic information;

(o) “Member” includes the Chairperson and Member of the Authority appointed under section 12;

(p) “notification” means a notification published in the Official Gazette and the expression “notified” with its cognate meanings and grammatical variations shall be construed accordingly

- (q) "prescribed" means prescribed by rules made by the Central Government under this Act;
- (r) "records of entitlement" means records of benefits, subsidies or services provided to, or availed by, any individual under any programme;
- (s) "Registrar" means any entity authorised or recognised by the Authority for the purpose of enrolling individuals under this Act;
- (t) "regulations" means the regulations made by the Authority under this Act;
- (u) "requesting entity" means an agency or person that submits the Aadhaar number, and demographic information or biometric information, of an individual to the Central Identities Data Repository for authentication;
- (v) "resident" means an individual who has resided in India for a period or periods amounting in all to one hundred and eighty-two days or more in the twelve months immediately preceding the date of application for enrolment;
- (w) "service" means any provision, facility, utility or any other assistance provided in any form to an individual or a group of individuals and includes such other services as may be notified by the Central Government;
- (x) "subsidy" means any form of aid, support, grant, subvention, or appropriation, in cash or kind, to an individual or a group of individuals and includes such other subsidies as may be notified by the Central Government.

CHAPTER II ENROLMENT

- Aadhaar number.* 3. (1) Every resident shall be entitled to obtain an Aadhaar number by submitting his

demographic information and biometric information by undergoing the process of enrolment:

Provided that the Central Government may, from time to time, notify such other category of individuals who may be entitled to obtain an Aadhaar number

(2) The enrolling agency shall, at the time of enrolment, inform the individual undergoing enrolment of the following details in such manner as may be specified by regulations, namely:—

(a) the manner in which the information shall be used;

(b) the nature of recipients with whom the information is intended to be shared during authentication; and

(c) the existence of a right to access information, the procedure for making requests for such access, and details of the person or department in-charge to whom such requests can be made.

(3) On receipt of the demographic information and biometric information under sub-section (1), the Authority shall, after verifying the information, in such manner as may be specified by regulations, issue an Aadhaar number to such individual

Properties of Aadhaar number 4. (1) An Aadhaar number, issued to an individual shall not be re-assigned to any other individual.

(2) An Aadhaar number shall be a random number and bear no relation to the attributes or identity of the Aadhaar number holder.

(3) An Aadhaar number, in physical or electronic form subject to authentication and other conditions, as may be specified by regulations,

may be accepted as proof of identity of the Aadhaar number holder for any purpose.

21 of 2000

Explanation.— For the purposes of this sub-section, the expression “electronic form” shall have the same meaning as assigned to it in clause (r) of sub-section (1) of section 2 of the Information Technology Act, 2000.

Special measures for issuance of Aadhaar number to certain category of persons. 5.

The Authority shall take special measures to issue Aadhaar number to women, children, senior citizens, persons with disability, unskilled and unorganised workers, nomadic tribes or to such other persons who do not have any permanent dwelling house and such other categories of individuals as may be specified by regulations.

Update of certain information. 6.

The Authority may require Aadhaar number holders to update their demographic information and biometric information, from time to time, in such manner as may be specified by regulations, so as to ensure continued accuracy of their information in the Central Identities Data Repository.

CHAPTER III AUTHENTICATION

Proof of Aadhaar number necessary for receipt of certain subsidies, benefits and services, etc 7.

The Central Government or, as the case may be, the State Government may, for the purpose of establishing identity of an individual as a condition for receipt of a subsidy, benefit or service for which the expenditure is incurred from, or the receipt therefrom forms part of, the Consolidated Fund of India, require that such individual undergo authentication, or furnish proof of possession of Aadhaar number or in the case of an individual to whom no Aadhaar number has been assigned, such individual makes an application for enrolment:

Provided that if an Aadhaar number is

not assigned to an individual, the individual shall be offered alternate and viable means of identification for delivery of the subsidy, benefit or service.

Authentication of Aadhaar number. 8. (1)

The Authority shall perform authentication of the Aadhaar number of an Aadhaar number holder submitted by any requesting entity, in relation to his biometric information or demographic information, subject to such conditions and on payment of such fees and in such manner as may be specified by regulations.

(2) A requesting entity shall—

(a) unless otherwise provided in this Act, obtain the consent of an individual before collecting his identity information for the purposes of authentication in such manner as may be specified by regulations; and

(b) ensure that the identity information of an individual is only used for submission to the Central Identities Data Repository for authentication.

(3) A requesting entity shall inform, in such manner as may be specified by regulations, the individual submitting his identity information for authentication, the following details with respect to authentication, namely:—

(a) the nature of information that may be shared upon authentication;

(b) the uses to which the information received during authentication may be put by the requesting entity; and

(c) alternatives to submission of identity information to the requesting entity.

(4) The Authority shall respond to an authentication query with a positive, negative

or any other appropriate response sharing such identity information excluding any core biometric information.

Aadhaar number not evidence of citizenship or domicile, etc 9. The Aadhaar number or the authentication thereof shall not, by itself, confer any right of, or be proof of, citizenship or domicile in respect of an Aadhaar number holder.

Central Identities Data Repository. 10. The Authority may engage one or more entities to establish and maintain the Central Identities Data Repository and to perform any other functions as may be specified by regulations.

Establishment of Authority 11. (1) The Central Government shall, by notification, establish an Authority to be known as the Unique Identification Authority of India to be responsible for the processes of enrolment and authentication and perform such other functions assigned to it under this Act.

(2) The Authority shall be a body corporate by the name aforesaid, having perpetual succession and a common seal, with power, subject to the provisions of this Act, to acquire, hold and dispose of property, both movable and immovable, and to contract, and shall, by the said name, sue or be sued.

(3) The head office of the Authority shall be in New Delhi.

(4) The Authority may, with the prior approval of the Central Government, establish its offices at other places in India.

Composition of Authority. 12. The Authority shall consist of a Chairperson, appointed on part-time or full-time basis, two part-time Members, and the chief executive officer who shall be Member Secretary of the Authority, to be appointed by the Central Government.

*Qualifications
for appointment
of Chairperson
and Members of
Authority.*

13

The Chairperson and Members of the Authority shall be persons of ability and integrity having experience and knowledge of at least ten years in matters relating to technology, governance, law, development, economics, finance, management, public affairs or administration

*Term of office
and other
conditions of
service of
Chairperson and
Members.*

14.

(1)

The Chairperson and the Members appointed under this Act shall hold office for a term of three years from the date on which they assume office and shall be eligible for re-appointment:

Provided that no person shall hold office as the Chairperson or Member after he has attained the age of sixty-five years.

(2)

The Chairperson and every Member shall, before entering office, make and subscribe to, an oath of office and of secrecy, in such form and in such manner and before such Authority as may be prescribed.

(3)

Notwithstanding anything contained in subsection (1), the Chairperson or Member may—

(a)

relinquish his office, by giving in writing to the Central Government, a notice of not less than thirty days; or

(b)

be removed from his office in accordance with the provisions of section 15

(4)

The salaries and allowances payable to, and the other terms and conditions of service of, the Chairperson and allowances or remuneration payable to part-time Members shall be such as may be prescribed

*Removal of
Chairperson and
Members.*

15.

(1)

The Central Government may remove from office, the Chairperson, or a Member, who—

(a)

is, or at any time has been adjudged as

- insolvent;
- (b) has become physically or mentally incapable of acting as the Chairperson or, as the case may be, a Member;
- (c) has been convicted of an offence which, in the opinion of the Central Government, involves moral turpitude;
- (d) has acquired such financial or other interest as is likely to affect prejudicially his functions as the Chairperson or, as the case may be, a Member; or
- (e) has, in the opinion of the Central Government, so abused his position as to render his continuance in office detrimental to the public interest.

(2) The Chairperson or a Member shall not be removed under clause (b), clause (d) or clause (e) of sub-section (1) unless he has been given a reasonable opportunity of being heard.

16. The Chairperson or a Member on ceasing to hold office for any reason, shall not, without previous approval of the Central Government,—

- (a) accept any employment in, or be connected with the management of any organisation, company or any other entity which has been associated with any work done or contracted out by the Authority, whether directly or indirectly, during his tenure as Chairperson or Member, as the case may be, for a period of three years from the date on which he ceases to hold office:

Provided that nothing contained in this clause shall apply to any employment under the Central Government or a State Government or local authority or in any

Restrictions on Chairperson or Members on employment after cessation of office.

18 of 2013.

statutory authority or any corporation established by or under any Central, State or provincial Act or a Government Company, as defined in clause (45) of section 2 of the Companies Act, 2013;

(b) act, for or on behalf of any person or organisation in connection with any specific proceeding or transaction or negotiation or a case to which the Authority is a party and with respect to which the Chairperson or such Member had, before cessation of office, acted for or provided advice to, the Authority;

(c) give advice to any person using information which was obtained in his capacity as the Chairperson or a Member and being unavailable to or not being able to be made available to the public; or

(d) enter, for a period of three years from his last day in office, into a contract of service with, accept an appointment to a board of directors of, or accept an offer of employment with, an entity with which he had direct and significant official dealings during his term of office.

Functions of Chairperson

17. The Chairperson shall preside over the meetings of the Authority, and without prejudice to any provision of this Act, exercise and discharge such other powers and functions of the Authority as may be prescribed.

Chief executive officer

18. (1) There shall be a chief executive officer of the Authority, not below the rank of Additional Secretary to the Government of India, to be appointed by the Central Government.

(2) The chief executive officer shall be the legal representative of the Authority and shall be responsible for—

(a) the day-to-day administration of the

Authority:

- (b) implementing the work programmes and decisions adopted by the Authority;
- (c) drawing up of proposal for the Authority's decisions and work programmes;
- (d) the preparation of the statement of revenue and expenditure and the execution of the budget of the Authority; and
- (e) performing such other functions, or exercising such other powers, as may be specified by regulations.

(3) Every year, the chief executive officer shall submit to the Authority for approval—

- (a) a general report covering all the activities of the Authority in the previous year;
 - (b) programmes of work;
 - (c) the annual accounts for the previous year; and
 - (d) the budget for the coming year.
- (4) The chief executive officer shall have administrative control over the officers and other employees of the Authority.

Meetings of Authority.

19. The Authority shall meet at such times and places and shall observe such rules of procedure in regard to the transaction of business at its meetings, including quorum at such meetings, as may be specified by regulations.
- (2) The Chairperson, or, if for any reason, he is unable to attend a meeting of the Authority, the senior most Member shall preside over the meetings of the Authority.
 - (3) All questions which come up before any meeting of the Authority shall be decided by a majority of votes by the Members present and

voting and in the event of an equality of votes, the Chairperson or in his absence the presiding Member shall have a casting vote.

(4) All decisions of the Authority shall be signed by the Chairperson or any other Member or the Member-Secretary authorised by the Authority in this behalf.

(5) If any Member, who is a director of a company and who as such director, has any direct or indirect pecuniary interest in any manner coming up for consideration at a meeting of the Authority, he shall, as soon as possible after relevant circumstances have come to his knowledge, disclose the nature of his interest at such meeting and such disclosure shall be recorded in the proceedings of the Authority, and the Member shall not take part in any deliberation or decision of the Authority with respect to that matter.

*Vacancies, etc.,
not to invalidate
proceedings of
Authority.*

20 No act or proceeding of the Authority shall be invalid merely by reason of—

(a) any vacancy in, or any defect in the constitution of, the Authority;

(b) any defect in the appointment of a person as Chairperson or Member of the Authority; or

(c) any irregularity in the procedure of the Authority not affecting the merits of the case

*Officers and
other employees
of Authority.*

21. The Authority may, with the approval of the
(1) Central Government, determine the number, nature and categories of other officers and employees required by the Authority in the discharge of its functions.

(2) The salaries and allowances payable to, and the other terms and conditions of service of, the chief executive officer and other officers and other employees of the Authority shall be

Transfer of assets, liabilities of Authority.

22. On and from the establishment of the Authority—

(a) all the assets and liabilities of the Unique Identification Authority of India, established vide notification of the Government of India in the Planning Commission number A-43011/02/2009-Admin. I, dated the 28th January, 2009, shall stand transferred to, and vested in, the Authority.

Explanation.—The assets of such Unique Identification Authority of India shall be deemed to include all rights and powers, and all properties, whether movable or immovable, including, in particular, cash balances, deposits and all other interests and rights in, or arising out of, such properties as may be in the possession of such Unique Identification Authority of India and all books of account and other documents relating to the same; and liabilities shall be deemed to include all debts, liabilities and obligations of whatever kind;

(b) without prejudice to the provisions of clause (a), all data and information collected during enrolment, all details of authentication performed, debts, obligations and liabilities incurred, all contracts entered into and all matters and things engaged to be done by, with or for such Unique Identification Authority of India immediately before that day, for or in connection with the purpose of the said Unique Identification Authority of India, shall be deemed to have been incurred, entered into or engaged to be done by, with or for, the Authority;

(c) all sums of money due to the said Unique

Identification Authority of India immediately before that day shall be deemed to be due to the Authority; and

(d) all suits and other legal proceedings instituted or which could have been instituted by or against such Unique Identification Authority of India immediately before that day may be continued or may be instituted by or against the Authority.

Powers and functions of Authority.

23. (1) The Authority shall develop the policy, procedure and systems for issuing Aadhaar numbers to individuals and perform authentication thereof under this Act.

(2) Without prejudice to sub-section (1), the powers and functions of the Authority, inter alia, include—

(a) specifying, by regulations, demographic information and biometric information required for enrolment and the processes for collection and verification thereof;

(b) collecting demographic information and biometric information from any individual seeking an Aadhaar number in such manner as may be specified by regulations;

(c) appointing of one or more entities to operate the Central Identities Data Repository;

(d) generating and assigning Aadhaar numbers to individuals;

(e) performing authentication of Aadhaar numbers;

(f) maintaining and updating the information of individuals in the Central Identities Data Repository in such manner as may be specified by regulations;

(g) omitting and deactivating of an Aadhaar

number and information relating thereto in such manner as may be specified by regulations;

- (h) specifying the manner of use of Aadhaar numbers for the purposes of providing or availing of various subsidies, benefits, services and other purposes for which Aadhaar numbers may be used;
- (i) specifying, by regulations, the terms and conditions for appointment of Registrars, enrolling agencies and service providers and revocation of appointments thereof;
- (j) establishing, operating and maintaining of the Central Identities Data Repository;
- (k) sharing, in such manner as may be specified by regulations, the information of Aadhaar number holders, subject to the provisions of this Act;
- (l) calling for information and records, conducting inspections, inquiries and audit of the operations for the purposes of this Act of the Central Identities Data Repository, Registrars, enrolling agencies and other agencies appointed under this Act
- (m) specifying, by regulations, various processes relating to data management, security protocols and other technology safeguards under this Act;
- (n) specifying, by regulations, the conditions and procedures for issuance of new Aadhaar number to existing Aadhaar number holder;
- (o) levying and collecting the fees or authorising the Registrars, enrolling agencies or other service providers to collect such fees for the services provided by them under this Act in such manner as may be specified by

regulations;

(p) appointing such committees as may be necessary to assist the Authority in discharge of its functions for the purposes of this Act;

(q) promoting research and development for advancement in biometrics and related areas, including usage of Aadhaar numbers through appropriate mechanisms;

(r) evolving of, and specifying, by regulations, policies and practices for Registrars, enrolling agencies and other service providers;

(s) setting up facilitation centres and grievance redressal mechanism for redressal of grievances of individuals, Registrars, enrolling agencies and other service providers;

(t) such other powers and functions as may be prescribed.

(3) The Authority may,—

(a) enter into Memorandum of Understanding or agreement, as the case may be, with the Central Government or State Governments or Union territories or other agencies for the purpose of performing any of the functions in relation to collecting, storing, securing or processing of information or delivery of Aadhaar numbers to individuals or performing authentication;

(b) by notification, appoint such number of Registrars, engage and authorise such agencies to collect, store, secure, process information or do authentication or perform such other functions in relation thereto,

as may be necessary for the purposes of this Act.

(4) The Authority may engage such consultants, advisors and other persons as may be required

for efficient discharge of its functions under this Act on such allowances or remuneration and terms and conditions as may be specified by contract.

CHAPTER V GRANTS, ACCOUNTS AND AUDIT AND ANNUAL REPORT

Grants by Central Government 24. The Central Government may, after due appropriation made by Parliament by law in this behalf, make to the Authority, grants of such sums of money as the Central Government may think fit for being utilised for the purposes of this Act.

Other fees and revenues. 25. The fees or revenue collected by the Authority shall be credited to the Consolidated Fund of India.

Accounts and audit. 26. (1) The Authority shall maintain proper accounts and other relevant records and prepare an annual statement of accounts in such form as may be prescribed by the Central Government in consultation with the Comptroller and Auditor-General of India.

(2) The accounts of the Authority shall be audited annually by the Comptroller and Auditor-General of India at such intervals as may be specified by him and any expenditure incurred in connection with such audit shall be payable by the Authority to the Comptroller and Auditor-General.

(3) The Comptroller and Auditor-General of India and any person appointed by him in connection with the audit the accounts of the Authority under this Act shall have the same rights and privileges and authority in connection with such audit as the Comptroller and Auditor-General generally has in connection with the audit of Government accounts, and in particular, shall have the right to demand production of books, accounts, connected vouchers and other

documents and papers, and to inspect any of the offices of the Authority.

(4) The accounts of the Authority, as certified by the Comptroller and Auditor-General of India or any other person appointed by him in this behalf, together with the audit report thereon shall be forwarded annually to the Central Government by the Authority and the Central Government shall cause the audit report to be laid, as soon as may be after it is received, before each House of Parliament.

Returns and annual report, etc. 27. (1) The Authority shall furnish to the Central Government at such time and in such form and manner as may be prescribed or as the Central Government may direct, such returns and statements and particulars in regard to any matter under the jurisdiction of the Authority, as the Central Government may from time to time require.

(2) The Authority shall prepare, once in every year, and in such form and manner and at such time as may be prescribed, an annual report giving—

(a) a description of all the activities of the Authority for the previous years;

(b) the annual accounts for the previous year; and

(c) the programmes of work for coming year.

(3) A copy of the report received under sub-section (2) shall be laid by the Central Government, as soon as may be after it is received, before each House of Parliament.

CHAPTER VI PROTECTION OF INFORMATION

Security and confidentiality of information 28. (1) The Authority shall ensure the security of identity information and authentication records of individuals.

(2) Subject to the provisions of this Act, the Authority shall ensure confidentiality of identity information and authentication records of

individuals.

(3) The Authority shall take all necessary measures to ensure that the information in the possession or control of the Authority, including information stored in the Central Identities Data Repository, is secured and protected against access, use or disclosure not permitted under this Act or regulations made thereunder, and against accidental or intentional destruction, loss or damage.

(4) Without prejudice to sub-sections (1) and (2), the Authority shall—

(a) adopt and implement appropriate technical and organisational security measures;

(b) ensure that the agencies, consultants, advisors or other persons appointed or engaged for performing any function of the Authority under this Act, have in place appropriate technical and organisational security measures for the information; and

(c) ensure that the agreements or arrangements entered into with such agencies, consultants, advisors or other persons, impose obligations equivalent to those imposed on the Authority under this Act, and require such agencies, consultants, advisors and other persons to act only on instructions from the Authority.

(5) Notwithstanding anything contained in any other law for the time being in force, and save as otherwise provided in this Act, the Authority or any of its officers or other employees or any agency that maintains the Central Identities Data Repository shall not, whether during his service or thereafter, reveal any information stored in the Central Identities Data Repository or authentication record to anyone:

Provided that an Aadhaar number holder may request the Authority to provide access to

his identity information excluding his core biometric information in such manner as may be specified by regulations

Restriction on sharing information. 29. No core biometric information, collected or created under this Act, shall be—

(1) (a) shared with anyone for any reason whatsoever; or

(b) used for any purpose other than generation of Aadhaar numbers and authentication under this Act.

(2) The identity information, other than core biometric information, collected or created under this Act may be shared only in accordance with the provisions of this Act and in such manner as may be specified by regulations.

(3) No identity information available with a requesting entity shall be—

(a) used for any purpose, other than that specified to the individual at the time of submitting any identity information for authentication; or

(b) disclosed further, except with the prior consent of the individual to whom such information relates.

(4) No Aadhaar number or core biometric information collected or created under this Act in respect of an Aadhaar number holder shall be published, displayed or posted publicly, except for the purposes as may be specified by regulations.

Biometric information deemed to be sensitive personal information. 30. The biometric information collected and stored in electronic form, in accordance with this Act and regulations made thereunder, shall be deemed to be “electronic record” and “sensitive personal data or information”, and the provisions contained in the Information Technology Act, 2000 and the rules made thereunder shall apply to such information, in addition to, and to the

21 of 2000.

extent not in derogation of the provisions of this Act.

Explanation.— For the purposes of this section, the expressions—

21 of 2000. (a) “electronic form” shall have the same meaning as assigned to it in clause (r) of sub-section (1) of section 2 of the Information Technology Act, 2000;

21 of 2000. (b) “electronic record” shall have the same meaning as assigned to it in clause (t) of sub-section (1) of section 2 of the Information Technology Act, 2000;

(c) “sensitive personal data or information” shall have the same meaning as assigned to it in clause (iii) of the Explanation to section 43A of the Information Technology Act, 2000.

Alteration of demographic information or biometric information. 31. (1) In case any demographic information of an Aadhaar number holder is found incorrect or changes subsequently, the Aadhaar number holder shall request the Authority to alter such demographic information in his record in the Central Identities Data Repository in such manner as may be specified by regulations

(2) In case any biometric information of Aadhaar number holder is lost or changes subsequently for any reason, the Aadhaar number holder shall request the Authority to make necessary alteration in his record in the Central Identities Data Repository in such manner as may be specified by regulations.

(3) On receipt of any request under sub-section (1) or sub-section (2), the Authority may, if it is satisfied, make such alteration as may be required in the record relating to such Aadhaar number holder and intimate such alteration to the concerned Aadhaar number holder.

(4) No identity information in the Central Identities Data Repository shall be altered except in the

manner provided in this Act or regulations made in this behalf.

Access to own information and records of requests for authentication.

32. (1) The Authority shall maintain authentication records in such manner and for such period as may be specified by regulations

(2) Every Aadhaar number holder shall be entitled to obtain his authentication record in such manner as may be specified by regulations.

(3) The Authority shall not, either by itself or through any entity under its control, collect, keep or maintain any information about the purpose of authentication.

Disclosure of information in certain cases.

33. (1) Nothing contained in sub-section (2) or sub-section (5) of section 28 or sub-section (2) of section 29 shall apply in respect of any disclosure of information, including identity information or authentication records, made pursuant to an order of a court not inferior to that of a District Judge:

Provided that no order by the court under this sub-section shall be made without giving an opportunity of hearing to the Authority.

(2) Nothing contained in sub-section (2) or sub-section (5) of section 28 and clause (b) of sub-section (1), sub-section (2) or sub-section (3) of section 29 shall apply in respect of any disclosure of information, including identity information or authentication records, made in the interest of national security in pursuance of a direction of an officer not below the rank of Joint Secretary to the Government of India specially authorised in this behalf by an order of the Central Government:

Provided that every direction issued under this sub-section, shall be reviewed by an Oversight Committee consisting of the Cabinet Secretary and the Secretaries to the Government of India in the Department of Legal Affairs and

the Department of Electronics and Information Technology, before it takes effect:

Provided further that any direction issued under this sub-section shall be valid for a period of three months from the date of its issue, which may be extended for a further period of three months after the review by the Oversight Committee.

CHAPTER VII OFFENCES AND PENALTIES

Penalty for impersonation at time of enrolment 34.

Whoever impersonates or attempts to impersonate another person, whether dead or alive, real or imaginary, by providing any false demographic information or biometric information, shall be punishable with imprisonment for a term which may extend to three years or with a fine which may extend to ten thousand rupees or with both.

Penalty for impersonation of Aadhaar number holder by changing demographic information or biometric information. 35.
Penalty for impersonation

Whoever, with the intention of causing harm or mischief to an Aadhaar number holder, or with the intention of appropriating the identity of an Aadhaar number holder changes or attempts to change any demographic information or biometric information of an Aadhaar number holder by impersonating or attempting to impersonate another person, dead or alive, real or imaginary, shall be punishable with imprisonment for a term which may extend to three years and shall also be liable to a fine which may extend to ten thousand rupees.

36.
Penalty for 37.

Whoever, not being authorised to collect identity information under the provisions of this Act, by words, conduct or demeanour pretends that he is authorised to do so, shall be punishable with imprisonment for a term which may extend to three years or with a fine which may extend to ten thousand rupees or, in the case of a company, with a fine which may extend to one lakh rupees or with both.

Whoever, intentionally discloses, transmits,

disclosing
identity
information.

copies or otherwise disseminates any identity information collected in the course of enrolment or authentication to any person not authorised under this Act or regulations made thereunder or in contravention of any agreement or arrangement entered into pursuant to the provisions of this Act, shall be punishable with imprisonment for a term which may extend to three years or with a fine which may extend to ten thousand rupees or, in the case of a company, with a fine which may extend to one lakh rupees or with both.

Penalty for
unauthorised
access to the
Central Identities
Data Repository

38. Whoever, not being authorised by the Authority, intentionally,-

- (a) accesses or secures access to the Central Identities Data Repository;
- (b) downloads, copies or extracts any data from the Central Identities Data Repository or stored in any removable storage medium;
- (c) introduces or causes to be introduced any virus or other computer contaminant in the Central Identities Data Repository;
- (d) damages or causes to be damaged the data in the Central Identities Data Repository;
- (e) disrupts or causes disruption of the access to the Central Identities Data Repository;
- (f) denies or causes a denial of access to any person who is authorised to access the Central Identities Data Repository;
- (g) reveals any information in contravention of subsection (5) of section 28, or shares, uses or displays information in contravention of section 29 or assists any person in any of the aforementioned acts;
- (h) destroys, deletes or alters any information stored in any removable storage media or in the Central Identities Data Repository or diminishes its

value or utility or affects it injuriously by any means; or

- (i) steals, conceals, destroys or alters or causes any person to steal, conceal, destroy or alter any computer source code used by the Authority with an intention to cause damage,

shall be punishable with imprisonment for a term which may extend to three years and shall also be liable to a fine which shall not be less than ten lakh rupees.

21 of 2000

Explanation.—For the purposes of this section, the expressions “computer contaminant”, “computer virus” and “damage” shall have the meanings respectively assigned to them in the Explanation to section 43 of the Information Technology Act, 2000, and the expression “computer source code” shall have the meaning assigned to it in the Explanation to section 65 of the said Act.

Penalty for tampering with data in Central Identities Data Repository.

39.

Whoever, not being authorised by the Authority, uses or tampers with the data in the Central Identities Data Repository or in any removable storage medium with the intent of modifying information relating to Aadhaar number holder or discovering any information thereof, shall be punishable with imprisonment for a term which may extend to three years and shall also be liable to a fine which may extend to ten thousand rupees

Penalty for unauthorised use by requesting entity.

40

Whoever, being a requesting entity, uses the identity information of an individual in contravention of sub-section (3) of section 8, shall be punishable with imprisonment which may extend to three years or with a fine which may extend to ten thousand rupees or, in the case of a company, with a fine which may extend to one lakh rupees or with both.

Penalty for noncompliance

41.

Whoever, being an enrolling agency or a requesting entity, fails to comply with the

with intimation requirements.

requirements of sub-section (2) of section 3 or sub-section (3) of section 8, shall be punishable with imprisonment which may extend to one year or with a fine which may extend to ten thousand rupees or, in the case of a company, with a fine which may extend to one lakh rupees or with both.

General penalty. 42.

Whoever commits an offence under this Act or any rules or regulations made thereunder for which no specific penalty is provided elsewhere than this section, shall be punishable with imprisonment for a term which may extend to one year or with a fine which may extend to twenty-five thousand rupees or, in the case of a company, with a fine which may extend to one lakh rupees, or with both.

Offences by companies. 43.
(1)

Where an offence under this Act has been committed by a company, every person who at the time the offence was committed was in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act if he proves that the offence was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence.

(2)

Notwithstanding anything contained in sub-section (1), where any offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to, any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of the offence and

shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purposes of this section—

(a) “company” means anybody corporate and includes a firm or other association of individuals; and

(b) “director”, in relation to a firm, means a partner in the firm.

Act to apply for offence or contravention committed outside India. 44. Subject to the provisions of sub-section (2), the provisions of this Act shall apply also to any offence or contravention committed outside India by any person, irrespective of his nationality.

(2) For the purposes of sub-section (1), the provisions of this Act shall apply to any offence or contravention committed outside India by any person, if the act or conduct constituting the offence or contravention involves any data in the Central Identities Data Repository.

Power to investigate offences. 45. Notwithstanding anything contained in the Code of Criminal Procedure, 1973, a police officer not below the rank of Inspector of Police shall investigate any offence under this Act

2 of 1974

Penalties not to interfere with other punishments. 46. No penalty imposed under this Act shall prevent the imposition of any other penalty or punishment under any other law for the time being in force.

Cognizance of offences. 47. (1) No court shall take cognizance of any offence punishable under this Act, save on a complaint made by the Authority or any officer or person authorised by it.

(2) No court inferior to that of a Chief Metropolitan Magistrate or a Chief Judicial Magistrate shall try any offence punishable under this Act.

CHAPTER VIII MISCELLANEOUS

Power of Central Government to 48. (1) If, at any time, the Central Government is of the

supersede
Authority.

opinion,—

(a) that, on account of circumstances beyond the control of the Authority, it is unable to discharge the functions or perform the duties imposed on it by or under the provisions of this Act; or

(b) that the Authority has persistently defaulted in complying with any direction given by the Central Government under this Act or in the discharge of the functions or performance of the duties imposed on it by or under the provisions of this Act and as a result of such default the financial position of the Authority or the administration of the Authority has suffered; or

(c) that a public emergency exists,
the Central Government may, by notification, supersede the Authority for such period, not exceeding six months, as may be specified in the notification and appoint a person or persons as the President may direct to exercise powers and discharge functions under this Act:

Provided that before issuing any such notification, the Central Government shall give a reasonable opportunity to the Authority to make representations against the proposed supersession and shall consider the representations, if any, of the Authority.

(2) Upon the publication of a notification under sub-section (1), superseding the Authority,—

(a) the Chairperson and other Members shall, as from the date of supersession, vacate their offices as such;

(b) all the powers, functions and duties which may, by or under the provisions of this Act, be exercised or discharged by or on behalf of the Authority shall, until the Authority is reconstituted under sub-section (3), be exercised and discharged by the person or persons referred

to in sub-section (1); and

(c) all properties owned or controlled by the Authority shall, until the Authority is reconstituted under sub-section (3), vest in the Central Government.

(3) On or before the expiration of the period of supersession specified in the notification issued under sub-section (1), the Central Government shall reconstitute the Authority by a fresh appointment of its Chairperson and other Members and in such case any person who had vacated his office under clause (a) of sub-section (2) shall not be deemed to be disqualified for reappointment.

(4) The Central Government shall cause a copy of the notification issued under sub-section (1) and a full report of any action taken under this section and the circumstances leading to such action to be laid before each House of Parliament at the earliest.

*Members,
officers, etc., to
be public
servants.
45 of 1860*

49. The Chairperson, Members, officers and other employees of the Authority shall be deemed, while acting or purporting to act in pursuance of any of the provisions of this Act, to be public servants within the meaning of section 21 of the Indian Penal Code.

*Power of Central
Government to
issue directions.*

50. (1) Without prejudice to the foregoing provisions of this Act, the Authority shall, in exercise of its powers or the performance of its functions under this Act be bound by such directions on questions of policy, as the Central Government may give, in writing to it, from time to time:

Provided that the Authority shall, as far as practicable, be given an opportunity to express its views before any direction is given under this sub-section:

Provided further that nothing in this section shall empower the Central Government to issue

- directions pertaining to technical or administrative matters undertaken by the Authority.
- (2) The decision of the Central Government, whether a question is one of policy or not, shall be final.
- Delegation.** 51. The Authority may, by general or special order in writing, delegate to any Member, officer of the Authority or any other person, subject to such conditions, if any, as may be specified in the order, such of its powers and functions under this Act (except the power under section 54) as it may deem necessary.
- Protection of action taken in good faith** 52. No suit, prosecution or other legal proceeding shall lie against the Central Government or the Authority or the Chairperson or any Member or any officer, or other employees of the Authority for anything which is in good faith done or intended to be done under this Act or the rule or regulation made thereunder.
- Power of Central Government to make rules** 53. The Central Government may, by notification, make rules to carry out the provisions of this Act.
- (1)
- (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—
- (a) the form and manner in which and the authority before whom the oath of office and of secrecy is to be subscribed by the Chairperson and Members under sub-section (2) of section 14;
- (b) the salary and allowances payable to, and other terms and conditions of service of, the Chairperson and the allowances or remuneration payable to Members of the Authority under sub-section (4) of section 14;
- (c) the other powers and functions of the

- Chairperson of the Authority under section 17;
- (d) the other powers and functions of the Authority under clause (t) of sub-section (2) of section 23;
- (e) the form of annual statement of accounts to be prepared by Authority under sub-section (1) of section 26;
- (f) the form and the manner in which and the time within which returns and statements and particulars are to be furnished under sub-section (1) of section 27;
- (g) the form and the manner and the time at which the Authority shall furnish annual report under sub-section (2) of section 27;
- (h) any other matter which is required to be, or may be, prescribed, or in respect of which provision is to be or may be made by rules.

Power of Authority to make regulations 54.

- (1) The Authority may, by notification, make regulations consistent with this Act and the rules made thereunder, for carrying out the provisions of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing power, such regulations may provide for all or any of the following matters, namely:—
 - (a) the biometric information under clause (g) and the demographic information under clause (k), and the process of collecting demographic information and biometric information from the individuals by enrolling agencies under clause (m) of section 2;
 - (b) the manner of verifying the demographic information and biometric information for issue of Aadhaar number under sub-section (3) of section 3;
 - (c) the conditions for accepting an Aadhaar number as proof of identity of the Aadhaar number

- holder under sub-section (3) of section 4;
- (d) the other categories of individuals under section 5 for whom the Authority shall take special measures for allotment of Aadhaar number;
 - (e) the manner of updating biometric information and demographic information under section 6;
 - (f) the procedure for authentication of the Aadhaar number under section 8;
 - (g) the other functions to be performed by the Central Identities Data Repository under section 10;
 - (h) the time and places of meetings of the Authority and the procedure for transaction of business to be followed by it, including the quorum, under sub-section (1) of section 19;
 - (i) the salary and allowances payable to, and other terms and conditions of service of, the chief executive officer, officers and other employees of the Authority under sub-section (2) of section 21;
 - (j) the demographic information and biometric information under clause (a) and the manner of their collection under clause (b) of sub-section (2) of section 23;
 - (k) the manner of maintaining and updating the information of individuals in the Central Identities Data Repository under clause (f) of sub-section (2) of section 23;
 - (l) the manner of omitting and deactivating an Aadhaar number and information relating thereto under clause (g) of sub-section (2) of section 23;
 - (m) the manner of use of Aadhaar numbers for the purposes of providing or availing of various subsidies, benefits, services and other purposes for which Aadhaar numbers may be used under

- clause (h) of sub-section (2) of section 23;
- (n) the terms and conditions for appointment of Registrars, enrolling agencies and other service providers and the revocation of appointments thereof under clause (i) of sub-section (2) of section 23;
- (o) the manner of sharing information of Aadhaar number holder under clause (k) of sub-section (2) of section 23;
- (p) various processes relating to data management, security protocol and other technology safeguards under clause (m) of sub-section (2) of section 23;
- (q) the procedure for issuance of new Aadhaar number to existing Aadhaar number holder under clause (n) of sub-section (2) of section 23;
- (r) manner of authorising Registrars, enrolling agencies or other service providers to collect such fees for services provided by them under clause (o) of sub-section (2) of section 23;
- (s) policies and practices to be followed by the Registrar, enrolling agencies and other service providers under clause (r) of sub-section (2) of section 23;
- (t) the manner of accessing the identity information by the Aadhaar number holder under the proviso to sub-section (5) of section 28;
- (u) the manner of sharing the identity information, other than core biometric information, collected or created under this Act under sub-section (2) of section 29;
- (v) the manner of alteration of demographic information under sub-section (1) and biometric information under sub-section (2) of section 31;
- (w) the manner of and the time for maintaining the request for authentication and the response thereon under sub-section (1), and the manner of

obtaining, by the Aadhaar number holder, the authentication records under sub-section (2) of section 32;

(x) any other matter which is required to be, or may be, specified, or in respect of which provision is to be or may be made by regulations.

Laying of rules and regulations before Parliament.

55. Every rule and every regulation made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or regulation, or both the Houses agree that the rule or regulation should not be made, the rule or regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or regulation.

Application of other laws not barred.

56. The provisions of this Act shall be in addition to, and not in derogation of, any other law for the time being in force.

Act not to prevent use of Aadhaar number for other purposes under law

57. Nothing contained in this Act shall prevent the use of Aadhaar number for establishing the identity of an individual for any purpose, whether by the State or anybody corporate or person, pursuant to any law, for the time being in force, or any contract to this effect:

Provided that the use of Aadhaar number under this section shall be subject to the procedure and obligations under section 8 and Chapter VI.

Power to remove difficulties.

58. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order, published in the Official Gazette, make such provisions, not inconsistent with the

provisions of this Act as may appear to be necessary for removing the difficulty:

Provided that no such order shall be made under this section after the expiry of three years from the commencement of this Act.

(2) Every order made under this section shall be laid, as soon as may be after it is made, before each House of Parliament.

Savings.

59.

Anything done or any action taken by the Central Government under the Resolution of the Government of India, Planning Commission bearing notification number A-43011/02/2009-Admin. I, dated the 28th January, 2009, or by the Department of Electronics and Information Technology under the Cabinet Secretariat Notification bearing notification number S.O. 2492(E), dated the 12th September, 2015, as the case may be, shall be deemed to have been validly done or taken under this Act.

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Additional Secy. to the Govt. of India

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