

Consultation Paper No. 22/2019



Telecom Regulatory Authority of India

**Consultation Paper
on
Tariff Issues of Telecom Services**

17th of December 2019

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Written Comments on the Consultation Paper are invited from the stakeholders by 17th January 2020. Counter-comments, if any, may be submitted by 31st January 2020. Comments and counter-comments will be posted on TRAI's website www.trai.gov.in. The comments and counter-comments may be sent, preferably in electronic form, on the e-mail address advfea2@traigov.in.

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CHAPTER I: INTRODUCTION

Background

- 1.1 The Telecom Regulatory Authority of India (TRAI/Authority) was set up pursuant to Telecom Regulatory Authority of India Act, 1997 (TRAI Act) *inter alia* to protect the interest of the service providers and consumers in the telecom sector, to promote and ensure orderly growth of the telecom sector and for matters connected therewith or incidental thereto¹.
- 1.2 As per Section 11(2) of the TRAI Act, 1997, the Authority has, *inter-alia*, the mandate to regulate tariff for telecommunication services in India. The said Section of the Act lays down that:

“(2) Notwithstanding anything contained in the Indian Telegraph Act, 1885 (13 of 1885), the Authority may, from time to time, by order, notify in the Official Gazette the rates at which the telecommunication services within India and outside India shall be provided under this Act including the rates at which messages shall be transmitted to any country outside India:

Provided that the Authority may notify different rates for different persons or class of persons for similar telecommunication services and where different rates are fixed as aforesaid the Authority shall record the reason therefor.²”

- 1.3 In exercise of this power, Telecommunication Tariff Order (TTO), 1999³ was notified for the first time on 9th March 1999. Amendments to the TTO, 1999 have been made from time to time to reflect the evolving telecommunication landscape in the context of telecom tariff offered in India and abroad by Telecom Service Providers licensed by Department of Telecommunications (DoT)⁴. In addition to the TTO, various regulations, directions and advisories have been issued by TRAI to meet the regulatory requirements⁵.

¹ Preamble to the TRAI Act, 1997

² The TRAI Act, 1997

³ https://main.trai.gov.in/release-publication/regulation?body_value=&field_division_tid=2383&field_start_date_value%5Bmin%5D%5Bdate%5D=&field_start_date_value%5Bmax%5D%5Bdate%5D=&field_start_date_value_1%5Bvalue%5D%5Byear%5D=

⁴ *ibid*

⁵ <https://main.trai.gov.in/release-publication/regulation>

1.4 In the last 18 years since the TTO was first notified, the telecommunication sector in India has witnessed many changes in the telecom ecosystem in respect of technologies deployed, types of telecom services, market composition, competition, and most important the user profile and usage pattern. The main highlights of the TTO are:

- i. Limits on Tariff: Provision of ceiling on certain telecommunication services, when deemed fit by the Authority.
- ii. Reporting Requirement: TSPs must report to TRAI any new tariff and the subsequent changes in the tariffs reported.
- iii. Transparency and Consumer Protection: Tariff charged along with the terms and conditions attached to it by the TSPs should be published in a manner as prescribed by TRAI from time to time.

Regulation of Tariff: From Fixation to Forbearance

1.5 The definition of tariff given in the TTO refers to the *rates and related conditions*⁶ at which telecommunication services are offered. The Authority has moved, over the years, from fixation of tariffs to 'Forbearance with prior Approval stage' and finally to a 'Forbearance regime with post-facto reporting obligation' with regulatory oversight⁷. Currently, except for the ceiling tariffs for national roaming, fixed rural telephony, international private leased circuits, domestic leased circuits and mobile number portability charges, tariffs for all other telecommunication service are under forbearance. In accordance with the policy of 'light-touch regulation' being followed, the tariff framework gives the TSPs, which include Internet Service Providers, the freedom to design the tariffs according to the prevailing market conditions. This has resulted in emergence of new and innovative products in the market that are designed to provide telecom services at affordable and competitive price to the consumers⁸.

1.6 A TSP has the flexibility to decide various tariff components for different service areas of their operation subject to the reporting requirement and adherence to other regulatory guidelines in vogue. Flexibility given to the TSPs by tariff forbearance is a core feature of current tariff framework. At the same time, several regulatory principles have been laid down to ensure protection of consumer interest and orderly growth of the sector.

⁶ https://main.trai.gov.in/sites/default/files/CP_27112019_0.pdf

⁷ https://main.trai.gov.in/sites/default/files/TTO_Amendment_Eng_16022018.pdf

⁸ *ibid*

Forbearance and the flexibility in respect of tariff are, however, not unbridled and are inextricably linked with an obligation on TSPs to ensure adherence to regulatory framework. The primary responsibility to ensure consistency of tariff with the regulatory principles, directions and guidelines now rests with the TSPs. The tariff filing provision⁹ plays a critical role in this regard, enabling TRAI to monitor the prevalent tariffs and effectively intervene, wherever required.

- 1.7 Forbearance of tariff for a service signifies that TRAI has not, for the time being, notified any tariff for that particular telecommunication service and the service providers are free to fix tariff for such service. Tariff forbearance has never been and is not a permanent policy followed by TRAI. It is always open to the Authority to withdraw, wholly or partly, from the forbearance regime, if the situation so demands. There are already precedents wherein the Authority had stepped in to determine tariff in respect of services, which were initially kept under forbearance, *e.g.* tariff for National Roaming Services fixed in 2002¹⁰. However, the Authority has intervened in terms of tariff ceilings sparingly¹¹. From the inception of the TTO, it has made conscious efforts to move towards a greater degree of forbearance keeping in view the economic principles as well as the suggestions of the stakeholders including, *inter alia* the TSPs. As mentioned earlier, the price ceilings as on date remain only in four areas and there has been a demand to remove these price ceilings also and move to complete forbearance in telecom tariffs.
- 1.8 The Authority, in 2012, floated a consultation paper¹² seeking comments from all the stakeholders on review of the existing regime of tariff forbearance and the desirable tariff regime for data services. Based on the consultation process, the Authority concluded¹³ that policy of forbearance in telecom tariff should continue as it was based on economic rationale appropriate for the then prevailing situation. It was held to be in accordance with international best practices and was overwhelmingly supported by the stakeholders. The Authority also concluded in 2012 that the policy of forbearance in data tariff should continue as market for data services was in infancy in 2012 and TSPs had made drastic cuts in data tariff at that point in time. The Authority also noted that selective regulation and improvement in tariff framework

⁹ <https://main.traigov.in/sites/default/files/CP-Differential-Pricing-09122015.pdf>

¹⁰ https://main.traigov.in/sites/default/files/Eighteenth_Amendment_30_Jan_2002.pdf

¹¹ https://main.traigov.in/sites/default/files/57Fifty_Seventh_Amendment_14_Jul_2014.pdf

¹² https://main.traigov.in/sites/default/files/CP_Review-Policy-Forbearance-Telecom-Tariffs.pdf

¹³ https://main.traigov.in/sites/default/files/A_TwentyYear_Odyssey_1997_2017.pdf

were inbuilt in current regulatory mechanism and is an ongoing process. Further, the Authority had been taking several steps from time to time to address market distortions when it was felt that intervention was necessary for protection of consumers.

- 1.9 The policy of forbearance in telecom tariffs was again reviewed by the Authority in the year 2017 when a few operators were of the view that there should be some form of floor price in the tariff so that the possibility of predatory pricing could be avoided. The Authority had a meeting with the Telecom Service Providers to exclusively discuss the issue of floor price and whether Interconnection Usage Charges (IUC) could be the floor for retail tariffs. After detailed discussion, the TSPs were found to be generally in agreement that the Authority should not prescribe floor for retail tariff and existing policy of forbearance in telecom tariff should continue for the present. Majority of the telecom players agreed that given the complexities involved in fixation of floor price by the Regulator, it was not an idea worth pursuing¹⁴.

Recent Developments in usage of telecom Services and Tariff Offerings

- 1.10 In the year 1999 when the TTO framework was put in place, the telecom sector was primarily voice centric. However, over the last few years, the sector has witnessed a significant shift from voice to data, driven by technological and other factors like change in user profile, proliferation of social media, development of innovative content and mobile applications, falling cost of devices, bundled tariff offerings, more economical tariff, *etc.*
- 1.11 Globally, the trend towards convergence of services like triple-play offerings (video, voice and data) has resulted in shifts in pricing strategies of service providers¹⁵, in particular, the growing prevalence of bundled tariffs¹⁶. Initially, telecom services predominantly meant delivery of voice or SMS through telecom network. In the recent past, even in India, offer of bundled services – voice, data, SMS and content– have become the main feature of tariff offerings by the TSPs¹⁷.

¹⁴ Record of discussion enclosed as Annexure VI.

¹⁵ OECD (2015-06-18), "Triple and Quadruple Play Bundles of Communication Services", OECD Science, Technology and Industry Policy Papers, No. 23, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/5js04dp2q1jc-en>

¹⁶ https://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR12/documents/GSR12_BBReport_Koboldt_SMP_8.pdf

¹⁷ https://main.trai.gov.in/sites/default/files/CP_27112019_0.pdf

- 1.12 The last four years have witnessed unprecedented growth in wireless data usage for communication and allied activities such as entertainment, *etc.* With the entry of a new TSP using Long Term Evolution (LTE)/4G technology and the subsequent gradual adaptation of this technology by the leading incumbents, data usage has grown by leaps and bounds, and it is expected to grow further in future also. Upgradation of mobile networks from 2G to 4G in large parts of the country along with availability of smart phones at relatively affordable prices is driving the mobile internet subscriptions. On one hand, with the steep decline in tariffs of telecommunication services, the affordability has increased, on the other hand the content, not only in English and Hindi, but in regional languages also, is readily available at affordable prices to the consumers. As a result, consumption of data has increased multifold. Access to internet has empowered tens of millions of users by giving them access to real-time information, government services, e-markets, and social media. This development is having positive impact on improving their quality of life with digital information¹⁸.
- 1.13 As can be seen from the following Table 1, total number of wireless data subscribers increased from 281.58 million at the end of year 2014 to 664.80 million at the end of September 2019 and achieving a yearly growth rate of 36.36% in 2018 over 2017 (Y-o-Y).

Table 1: Wireless Data Subscribers (Million)

Year ending	No. of Wireless Subscribers	No. of wireless data subscribers	Yearly growth in Wireless Subscribers	Yearly growth in Wireless Data Subscribers
2014	943.97	281.58	-	-
2015	1010.89	303.40	7.09%	7.75%
2016	1127.37	367.49	11.52%	21.12%
2017	1167.44	424.02	3.55%	15.38%
2018	1176.00	578.20	0.73%	36.36%
2019 (As on Sep-19)	1173.75	664.80	-0.19%	14.97%

Source: Data furnished by the TSPs to the Authority

¹⁸ https://main.trai.gov.in/sites/default/files/Wireless_Data_Service_Report_21082019_0.pdf

1.14 Further, it can be seen from the following Table 2, that the volume of total wireless data usage increased from 828 million GB during the year 2014 to 46,404 million GB during the year 2018¹⁹. The wireless data usage in the year 2019 is expected to surpass the previous year usage by a significant margin (as reflected by usage of 54917 million GB till September 2019).

Table 2: Volume of Wireless Data Usage (Million GB)

Year	2G data usage	3G data usage	4G data usage	CDMA data usage	Total data usage	Total data usage per subscriber per year (in GB)
2014	340	349	0	138	828	3.18
2015	479	700	0	196	1375	4.77
2016	477	1221	2775	169	4642	14.16
2017	423	3187	16426	56	20092	49.59
2018	443	5656	40304	3	46406	92.29
2019 (up to Sep-19)	337	3748	50832	0	54917	82.61

Source: Data furnished by the TSPs to the Authority

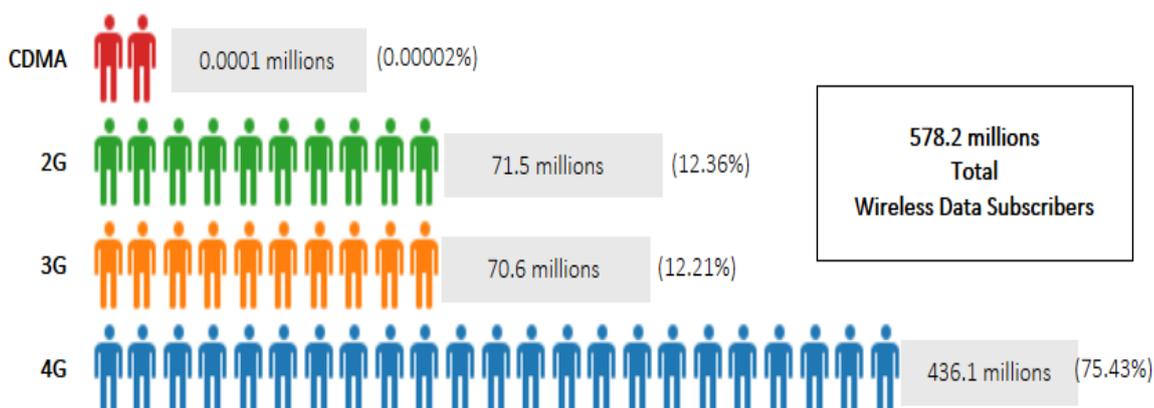
1.15 4G technology (LTE – Long Term Evolution) was introduced in India during the year 2016. During a short period of time, 4G data technology became the market leader in wireless data usage. As can be seen from Table 2, the share of 4G data usage in total volume of wireless data usage has been 86.85% during the year 2018²⁰. The following Figure 1 indicates that the data subscribers using 4G technology are about 75% of the total wireless data subscribers in India during the year 2018²¹.

¹⁹ ibid

²⁰ https://main.trai.gov.in/sites/default/files/Wireless_Data_Service_Report_21082019_0.pdf

²¹ ibid.

Figure 1: Number of wireless data subscriber's technology wise at the year ending December 2018



Source: Data furnished by the TSPs to the Authority

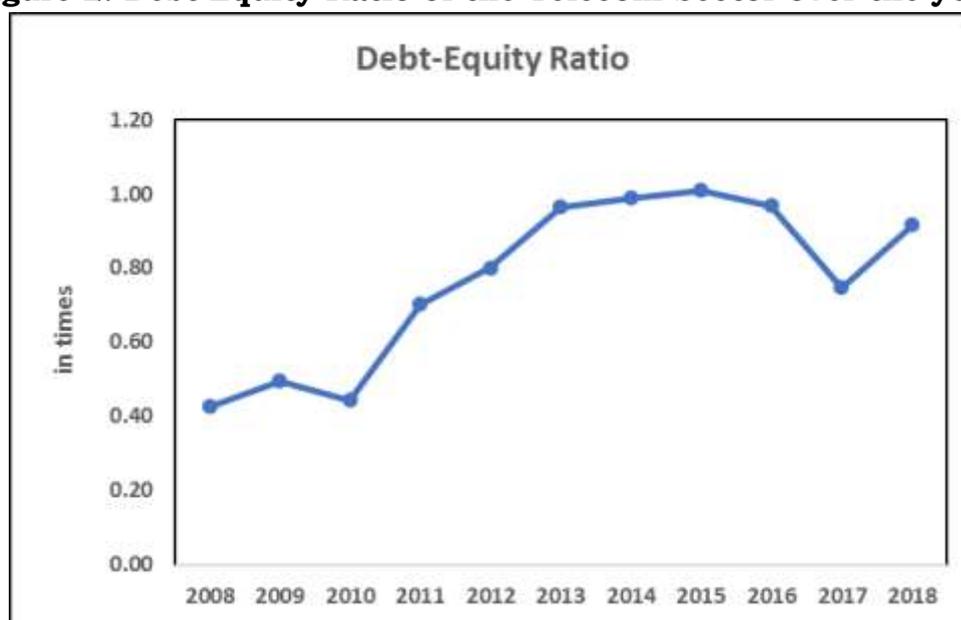
1.16 Traditionally, the Indian telecom sector has been voice driven. However, over the past couple of years, the Indian telecom industry has been going through a paradigm shift from a voice-centric market to a data-centric market. The shift can be attributed to technological transformation from 2G to 4G network coupled with changing preference & demand pattern. The components of voice, SMS and data before the year 2016 were treated as different products. Entry of the new incumbent with initial offer of free voice calls and data tariff plans over the LTE services has also contributed to shift in the business model from a voice-centric to a data-centric one. Now, the TSPs are offering Data, Voice, Video and Messaging as a single offering as a bundle to its customers²².

1.17 Over the last few months, there have been press reports, industry representations, *etc.* indicating that the Indian Telecom Sector is going through a phase of turbulence, with intense competition and pricing pressures leading to a decline in revenues and profitability. At the same time one has to keep in mind that Telecom is one of the sectors which is always in need for fresh capital investment in order to meet the requirements of network expansion, technology upgradation, and greater fiberisation in the face of incessant march of technology and ever increasing appetite for data usage. There has been no year since the opening of the Telecom Sector in India in the early 1990s, when the TSPs and their Associations have not demanded financial relief.

²² https://main.trai.gov.in/sites/default/files/Wireless_Data_Service_Report_21082019_0.pdf

1.18 It has been reported that the industry is weighed down by high debt levels and the continuous capital requirement is further expected to increase the debt levels. As per the sectoral credit deployment report of the Reserve Bank of India, the exposure of the telecom industry to credit extended by scheduled commercial banks in India is about Rs. One lakh and Fifteen thousand crore as of September 2019. However, many reports also indicate that the financial liabilities of the telecom industry may be higher. The trend of debt-equity ratio for the telecom industry is indicated in the following graph:

Figure 2: Debt Equity Ratio of the Telecom Sector over the years



Source: Data furnished by the TSPs to the Authority

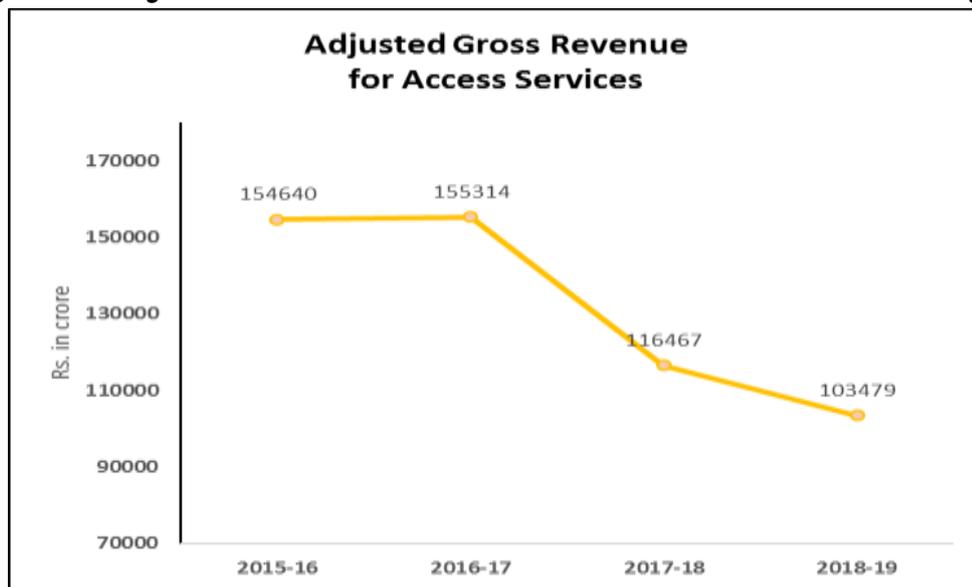
1.19 As can be seen from Figure 2, the debt-equity ratio for the telecom industry has been rising since 2008. While many have talked about rising debt burden, some other stakeholders have argued that the reason for high debt levels of some of the companies lies elsewhere, for example, conscious decision of the company management to resort to easily available cheaper debt rather than infusion of equity by the promoters. It has also been argued that the decision about Capital structure of a company lies in the domain of company management and not of the Government and Sector Regulator. It has been also pointed out that, after a long hiatus, when two of the incumbent TSPs issued their preferential shares, they were over subscribed²³ and that there are many

²³ https://www.indiaonline.com/article/news-top-story/bharati-airtel%E2%80%99s-right-issues-worth-rs25-000cr-oversubscribed-119051800418_1.html &

other unexplored options available to the two debt-ridden players. One of the major TSPs has declared its intention to be net debt free by next year²⁴.

- 1.20 It has been argued by some that while there has been a significant growth in subscriber numbers and data usage, the revenue of the sector has not grown proportionately, as indicated by the adjusted gross revenue (AGR) reported by the industry over the years shown in the following Figure 3:

Figure 3: Adjusted Gross Revenue for Access Services over the years



Source: Data furnished by the TSPs to the Authority

- 1.21 But at the same time, one has to keep in mind that diminishing of traditional TSP revenues and increased pressure for investment is a global phenomenon. Strategists and companies elsewhere are looking for innovative and alternative ways to augment revenues and investment rather than looking towards Government for subsidies and relief²⁵.

<https://m.economictimes.com/markets/stocks/news/vodafone-idea-promoters-contribute-rs-17920-crore-to-rights-issue-following-over-subscription/articleshow/69186593.cms>

²⁴ <https://www.ril.com/getattachment/b79b398e-ec16-493e-b9f4-ea0b7580fa46/Reliance-Industries-Limited-to-Setup-a-Wholly-Owned.aspx>

²⁵ <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/overwhelming-ott-telcos-growth-strategy-in-a-digital-world> & <https://www.strategyand.pwc.com/gx/en/insights/2018/tale-of-two-telcos.html> & <https://etno.eu/datas/publications/annual-reports/ETNO%20Annual%20Economic%20Report%202019%20final%20web.pdf>

- 1.22 Economists have consistently and successfully demonstrated the distortions in the market, especially in pricing, that could result from the Government or Regulatory intervention.
- 1.23 However, in the past few months there have been many reports and articles in print media, advocating for fixation of a floor for telecom tariffs. There have also been reports and articles arguing against any intervention by the regulator in this regard. Since these reports are readily available in public domain, they are not being specifically cited here.
- 1.24 Department of Telecommunications has forwarded representations received by it from the telecom service providers regarding various issues, *inter alia* including demand from some of the TSPs seeking floor tariff fixation by the regulator/Government.
- 1.25 The major private TSPs have, meanwhile, announced a revision in their tariff offerings, applicable from the 3rd and 6th of December 2019 for the different TSPs. These revisions have been analysed and attached as annexures to this Consultation Paper. As can be seen from the analysis, the hikes announced are quite substantial and range from 15 to 50% increase in tariffs for the various tariff offerings of these TSPs. There have been minor adjustments by the TSPs to their tariff offerings since the initial announcement. It is to be seen whether further readjustments in tariffs will be done in view of the high level of competition in the market. In such a scenario, where the TSPs have recently announced a substantial hike in tariffs, it needs to be discussed whether there is still a need for any regulatory intervention.
- 1.26 In the meantime, the Authority has received a representation from Cellular Operators Association of India (COAI), the industry body of the private TSPs. The representation is attached as Annexure IV to this Consultation Paper. COAI has stated “**that the tariff correction in the current level of fierce competition is not possible by any service provider voluntarily and thus the only option available is prescription of a minimum tariff for mobile data service by the Authority.**” However, at the same time as asking for a floor price for data services, COAI has, intriguingly, asked for forbearance in respect of voice services, stating that “the Authority would be aware that unlike mobile data, voice services are considered as essential services especially by the

subscribers at bottom of pyramid and therefore would need to be continued under the present forbearance regime”.

- 1.27 The representation further submits that “*All the current telecom service providers in the private sector namely Bharti Airtel Limited, Reliance Jio and Vodafone Idea Limited are in complete agreement that TRAI be requested to regulate tariffs by setting floor price for data services.*”
- 1.28 Voice service is delivered by different TSPs networks using different technologies. While it uses independent resources in 2G and 3G networks, it is a service using data packets in 4G networks. It is, in effect, a by-product (Voice over LTE) of data services in a 4G network. Therefore, regulating the data tariff in turn regulates the voice tariff, at least on a 4G network. As such, it does not seem logical, on part of COAI, to request the Authority to regulate data tariffs by prescribing floor price while keeping voice services under forbearance.
- 1.29 Further, since the publication of “*An Enquiry into the Nature and causes of the Wealth of Nations*” by Adam Smith in 1776, a generation of influential economic thinkers and policy planners have eulogized and championed the virtue of competition and its critical role in promoting efficiency in production, distribution and allocation of resources in the economy for the common good of masses. Competition, in general and amongst producers and service providers in particular, is considered the key to ensuring efficient production and distribution of goods and services in the economy. The belief that the “*invisible hand*” of market, through free interplay of forces of demand and supply delivers the best result has acquired the status of gospel truth, notwithstanding occasional detour beyond the reach of invisible hand. This has been explained in detail giving theoretical and empirical arguments by noted economist, Prof. Kaushik Basu in his seminal work²⁶. Prices determined in free and competitive market situation are taken as the best signal for production, distribution and allocation of resources on economic efficiency and equity considerations. Perfectly competitive markets, though a theoretical construct, ensure (a) allocative efficiency, (b) distributive efficiency and (c) dynamic efficiency leading to lower prices, better quality, increased choice of goods & services and innovation. From the perspective of Competition Law, this has been put succinctly in the book by Bishop and Walker²⁷. More the competition, better is the

²⁶ Kaushik Basu, *Beyond the Invisible Hand*, Princeton University Press, 2010.

²⁷ Simon Bishop and Mike Walker, *The Economics of EC Competition Law*

outcome on all these counts. The economic theory and practice have come to favor market determined price in competitive market situation over any form of state intervention and administered price but for in few well recognized exceptional situations. A recent textbook which breaks new ground in the study and teaching of basic economics brings this out in simple terms.²⁸

1.30 At the same time, there are valid and widely accepted theoretical justifications and numerous practical instances of intervention by the state in case of market failures occasioned by information asymmetry, externalities, public good and in the face of market power enjoyed by monopolies. Intervention by the state in the free play of market forces in competitive market situation have been few and far between in the last three decades. The Nobel laureate, Jean Tirole, has argued this point in one of his recent books.²⁹ There has been systematic dismantling of non-market determined, administered price regime at global and local level and state has consciously endeavored to promote and sustain competition in the marketplace.

1.31 Floor Price implies setting a price below which no TSP can offer its services. One may argue that fixation of any floor price is a difficult and complicated decision. It is generally avoided by regulators in the developed countries, as it is considered anti-competitive and anti-consumer by the economists. It is generally accepted that this intervention reduces the freedom and ingenuity of the Service Providers to offer consumer-friendly tariff offerings. It reduces the efficiencies in the system and encourages inefficiencies. It can delay the adoption of new technologies and create hidden entry barriers for new operators to enter the market. It artificially makes the telecom services more expensive for the consumers and can, thus, have a cascading effect on the other sectors of the economy that ride on telecom for the provision of their services. On these grounds, opponents of Floor Price fixation state that it is not advisable for the Governments and regulators to venture into this, even though it might appear as a very tempting quick fix to correct market turbulence.

²⁸ The CORE Team, *The Economy, Economics for changing world*, OUP, 2017 – The CORE Team is a global community of learners, teachers and researchers which offers an open-access platform to everyone to learn economics.

²⁹ Jean Tirole, *Economics for the Common Good*, Princeton University Press, 2018

- 1.32 There is another aspect of floor price that merits discussion. It can be argued that floor price in telecom is essentially an assurance of a minimum sale price (MSP) to the TSP and thereby assuring a minimum revenue to service providers. In other words, some may say that prescribing a floor price not only guarantees service providers, irrespective of their organisational and other efficiencies, a minimum revenue but also insulates them from the vagaries of competition. As part of our strategic national objective of attaining food security, an economic policy measure of a minimum support price, to ensure income to farmers, has been in vogue since decades. Another instance of prescribing a minimum price level is mandating a statutory minimum wage, the purpose of which is to protect workers against unduly low pay, which helps in ensuring a just and equitable share of the fruits of progress to all sections of society. As against the above mentioned goals, namely meeting the strategic national objective of food security and as a welfare measure, it can be argued that the prescription of floor price for an industrial product or service will result in ensuring a minimum revenue for the producers and service providers who may be guided solely by the economic considerations of profit maximisation. Prescription of floor price, thus, effectively amounts to substituting the “*invisible hand of market forces*” by an administrative fiat.
- 1.33 Most economists are sceptical about price controls as they tend to distort the allocation of resources. They have argued that Price floors tend to convert a consumer-surplus into a producer-surplus, thus benefiting the producers at the cost of consumers. Fixing of a floor price is, thus, fundamentally against the consumer interest. Not only this, price controls cause a net Dead Weight Loss³⁰ to the economy, resulting in the loss of productive efficiency in the economy. A floor price is, therefore, considered inefficient for the economy.
- 1.34 A price floor must be higher than the equilibrium price in order to be effective. The equilibrium price, commonly called the "market price", is the price determined by the market forces of demand and supply. In this case, the price floor has a measurable impact on the market. It ensures prices stay high, causing a surplus in the market. On the contrary, if the floor price is set below the equilibrium price, then it would be meaningless and would not affect the market outcomes as the consumer is already willing to pay a higher price and the seller is willing to sell at

³⁰ http://economics.fundamentalfinance.com/micro_price-floor.php

that price. Therefore, the market won't sell below equilibrium and the price floor will be irrelevant.

- 1.35 A price floor set above the market equilibrium price has several side-effects. The consumers are forced to pay a higher price for the same product. As a result, the demand from the consumers is reduced. On the other hand, suppliers increase production/supply due to higher price prevailing in the market. The net impact of demand contraction and supply expansion is that of excess supply (known as a "surplus") of the product in the market. Mandating a higher price transfers some of the consumer surplus to producer surplus, while creating a deadweight loss as the price moves upward from the equilibrium price. A price floor may lead to market failure if the market is not able to allocate scarce resources in an efficient manner.
- 1.36 To quote Fiona M. Scott Morton, a well-known economist³¹ , *“The imposition of price controls on a well-functioning, competitive market harms society by reducing the amount of trade in the economy and creating incentives to waste resources. Many researchers have found that price controls reduce entry and investment in the long run. The controls can also reduce quality, create black markets, and stimulate costly rationing.”*
- 1.37 However, as per COAI³², telecom sector is a highly capital-intensive sector that requires large investments to sustain itself. COAI sets out that the current industry situation does not permit these large investments to be meaningfully mobilised, except through an increase in tariffs. COAI also argues that in the prevailing atmosphere of hyper competition, tariff correction is not possible voluntarily by any TSP, and only a floor price fixation of mobile data services by the Authority will lead to “tariff correction”.
- 1.38 The intense competition in the telecom market is resulting in a “race to the bottom” of tariff offerings, which is apparently resulting in reduced efficiencies of operation of TSPs and a poor quality of service to the consumers. A good quality of service is essential to enable the different verticals in the economy to grow. In order to do that, the economic health of the telecom sector has to be good for enabling the requisite capital investments. It has been advocated by COAI that the telecom consumer, being highly price-sensitive, is highly amenable to a churn in subscriber

³¹ Fiona M. Scott Morton, Yale University. ‘The Problems of Price Control’

³² COAI Letter dated 3rd December 2019 (Annexure IV)

base due to a difference in tariff offerings. As such, COAI argues that due to the highly competitive nature of the telecom sector, any meaningful “tariff correction” can only be brought about by the Authority fixing a price floor for data services.

- 1.39 It is worth noting that the telecom tariff presently prevailing in India is amongst the lowest in the world. Adoption of 5G technology and upgradation of the present networks to provide better quality of services will require substantial capital investment. Slow data download speeds, insufficient mobile network coverage, poor voice quality on telecom networks are some of the concerns of the consumers. Hence, these also require to be addressed on a priority basis.
- 1.40 COAI has unanimously asked for the fixation of floor price by the regulator, which is prima facie anti-consumer, as it will result in increase in tariffs for the consumer. On the other hand, one of the members of the COAI, in its comments to the Authority on the Review of Interconnection Usage Charges, has argued that the postponement of the Bill and Keep (BAK) regime by TRAI will be anti-consumer and anti-poor as it will cause an increase in tariffs. Thus, there seems to be a contradiction in the two different stands espoused by some of the members of COAI.
- 1.41 In these difficult circumstances, it may be necessary to have a meaningful discussion with all the stake holders, *inter alia* including consumers, to find out the best way forward in this complicated issue.
- 1.42 It is also noted that, in spite of announcements regarding tariff readjustments by all major TSPs, there are speculative media reports about floor price fixation by the regulator and unhealthy competition if such interventions are not done. The debate in the media, however, overwhelmingly reflects the viewpoints of industry players and reports of investment bankers. However, some writers have categorically argued against the industry request for a floor price. The media debate does not reflect the views of all stakeholders, particularly consumers, adequately. A lopsided deliberation will only result in confusion, uncertainty and may not be beneficial for the smooth growth of the telecom sector. Accordingly, the authority has decided to float a consultation paper on the issue so that all the stakeholders can get an opportunity to fully participate in the deliberations and give their views on such crucial issues.

1.43 In view of the above, the Authority invites comments from all the stakeholders on various issues relating to tariff in telecom sector. Chapter II deals with various issues related to fixation of floor price and Chapter III summarises the questions arising for consultation.

CHAPTER II: Issues involved in fixation of Floor Tariff

2.1 The telecom sector has been experiencing unprecedented growth of data consumption per subscriber per month. While it is beneficial for the consumer, it also puts pressure on telecom service providers to expand their network for meeting consumer requirements. The availability of adequate resources is paramount requirement to maintain Quality of Service (QoS) of Telecom services. TSPs also require adequate financial resources for upgradation of existing network and adoption of new technology.

Changing Telecom Market Structure

2.2 Currently, pursuant to consolidation and mergers in the telecom sector, only three major private and BSNL/MTNL as the public sector telecom service providers (in terms of subscribers and revenue share) are existing in the market. The market is witnessing a high degree of competition with the data tariffs being amongst the lowest in the world. With the drop in price, data has become affordable for the masses and consequently there is a sharp increase in Data Usage and revenue from Data.³³ However, it has been argued by some stakeholders that such low tariffs are unsustainable and, hence, a correction in tariffs is necessary for the industry to remain competitive. Several suggestions have been put forth, including introducing a floor tariff by the Regulator for the various products and services³⁴.

2.3 A meeting of all TSPs was called by TRAI to discuss the present state of the sector and its sustainability with respect to network upgradation to maintain quality of service and adoption of new technologies.³⁵ All TSPs were of the view that due to competitive pressures, the telecom services are being offered with almost no margin, which is likely to pose serious constraints on generation of adequate funds for future upgradation. They were of the view that fixation of floor price for data services is desirable. Some of the TSPs also raised the issue of prescribing a floor price for bundled offers, particularly where unlimited voice calls are being given along with data. In this respect data submitted by the TSPs for the last few quarters have been analysed and details of outgoing MOUs per

³³ https://main.traigov.in/sites/default/files/Wireless_Data_Service_Report_21082019_0.pdf

³⁴ COAI letter dated 3rd December, 2019 (Annexure IV)

³⁵ Record of discussion dated 15th November, 2019 (Annexure V)

subscriber and average outgo (voice) per outgoing minute from Home Service Area (HSA) is given below in Table 3:

Table 3: Outgoing MOU per subscriber vs. Average Outgo

	Jun'16	Jun'17	Jun'18	Jun'19
Outgoing MOU per subscriber per month (min)	181	213	306	352
Average Outgo (voice) per outgoing minute from HSA (in Rs.)	0.49	0.27	0.14	0.13

Source: TRAI Performance Indicator Reports

2.4 The above Table 3 indicates that even though outgoing MOUs have almost doubled since 2016, the average outgo for subscriber (or revenue for TSPs) has declined to almost one-fourth of its value in 2016. However, as mentioned earlier in this paper, fast diminishing returns from voice traffic is not confined to India. It is a general global trend³⁶, only the pace varies across the jurisdictions.

Table 4: Data Usage vs. Data Revenue

	2014	2015	2016	2017	2018
Data Usage (in Petabytes)	828	1375	4642	20092	46406
Data Revenue (in Rs. Crore)	22265	31120	35079	38882	54671

Source: TRAI Wireless Data Services in India: An Analytical Report

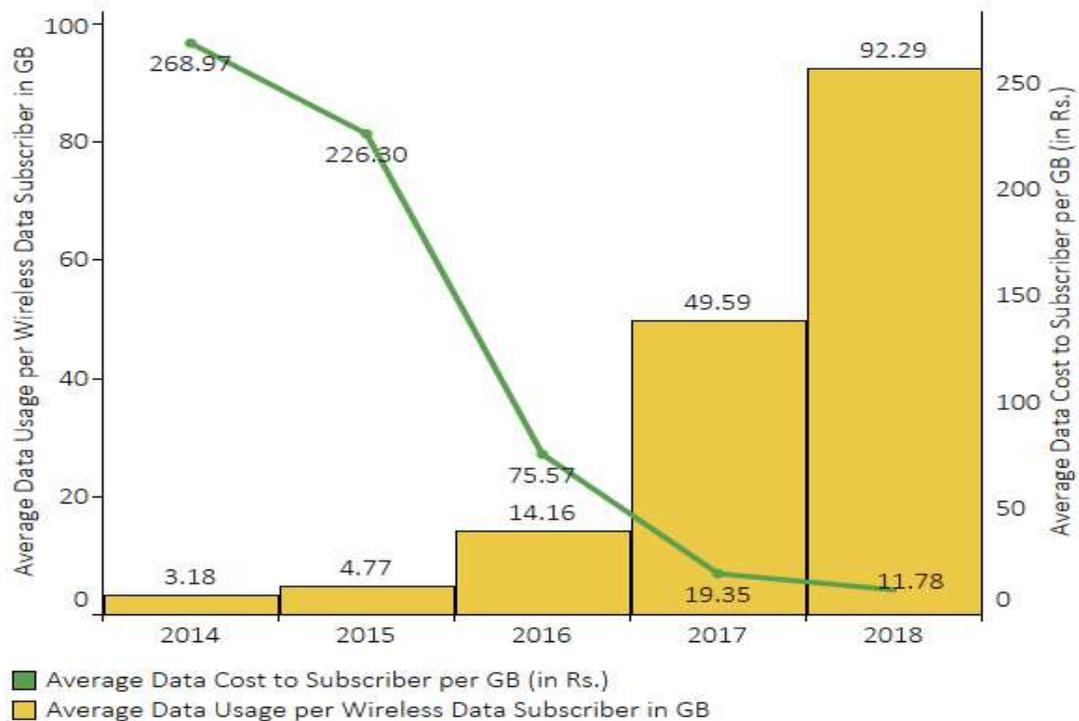
2.5 As far as data is concerned, its usage and revenue has been compiled in Table 4 given above. As can be seen, both data usage and data revenue in India has seen an exponential growth. Data usage of more than 5500% from 2014 to 2018, whereas data revenue has had a comparatively lower growth rate of 145% from 2014 to 2018. None the less, in absolute terms, data revenue has more than doubled from 2014 to 2018, which is quite impressive. As pointed out in various reports by independent experts/bodies, the data tariffs in India are amongst the lowest in the world.³⁷ A trend comparison of the average data usage per

³⁶ <https://www.dubber.net/thought-leadership/infographic-telco-revenue/>

³⁷ <https://www.cable.co.uk/mobiles/worldwide-data-pricing/>

subscriber per year with average data cost to subscriber per GB is given in the following Figure 4:

Figure 4: Trend Analysis of Data Usage vis-à-vis average data cost to subscribers



Source: TRAI Wireless Data Services in India: An Analytical Report

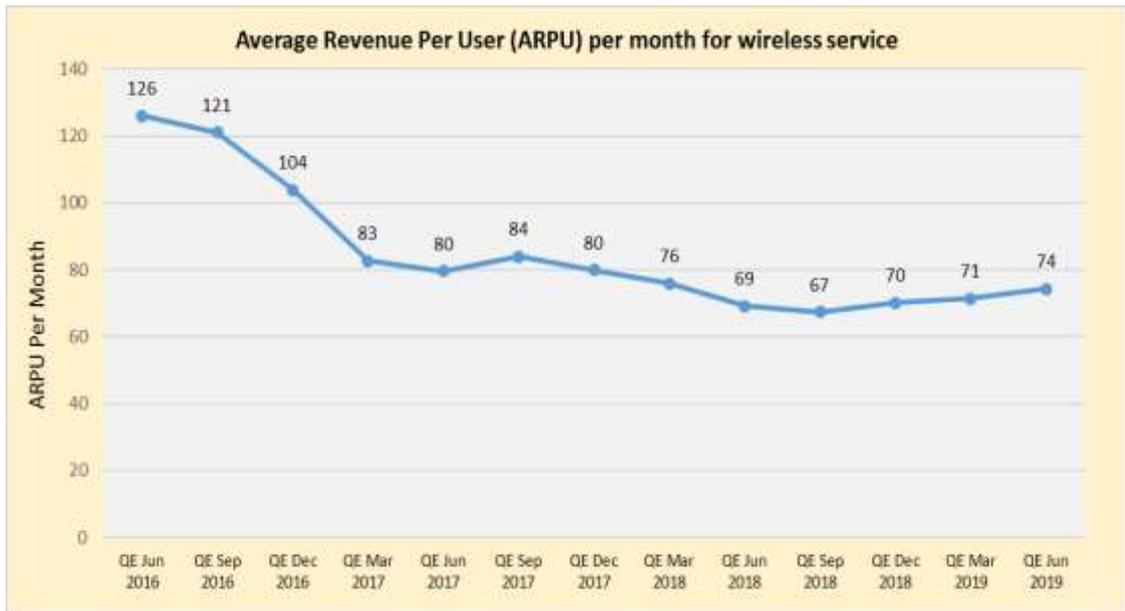
2.6 The Authority has also analysed average data price/GB in other countries as published by various expert bodies like International Telecom Union³⁸ (ITU), Alliance for Affordable Internet³⁹, etc. It is noted that the average data price/GB in India is amongst the lowest in the world.

2.7 The trend in the average revenue per user (ARPU) clearly indicates that there has been a consistent reduction. However, the ARPU reflected in the following Figure 5 have to be read with caution as these include all the customers, whether active or inactive. The ARPU data published by the TSPs follow a different methodology and, hence, show higher values. But it is certain that ARPU has reduced over last few years.

³⁸ ICT Price Basket data published by ITU as available at <https://www.itu.int/net4/ITU-D/ipb/>

³⁹ Mobile Broadband Pricing data as available at https://a4ai.org/extra/mobile_broadband_pricing_usd-2018Q4

Figure 5: Quarterly ARPU of the telecom Industry since QE June 2016



Source: Quarterly Reports published by TRAI

- 2.8 While the overall revenues of the industry have shown a declining trend in recent years, the data revenues have shown some growth in the recent past. In the year 2018, the revenue from data services was almost 58% of the overall industry revenue. As per the TRAI Wireless Data Services Report⁴⁰, almost 87 % of the total wireless data usage by volume was on 4G technology. As such, data usage may be considered technology-neutral to some extent.
- 2.9 The current state of the sector indicates that competition, pricing pressures and the consolidation has impacted revenue of the TSPs in an adverse manner. However, many reports⁴¹ indicate that a similar situation is being faced by TSPs all over the world.
- 2.10 It is reported that 77% of data utilization is for multimedia services. With the fast proliferation of OTT media services, the probability of even higher consumption cannot be ruled out. Bulk data consumption for OTT service puts huge data demands on telecom networks and requires capacity upgradation. The network capacity enhancements demand huge investments. Therefore, industry demand⁴² requires examination whether there is a need to fix floor price for data services and/or bundled services.

⁴⁰ https://main.trai.gov.in/sites/default/files/Wireless_Data_Service_Report_21082019_0.pdf

⁴¹ <https://www.dubber.net/thought-leadership/infographic-telco-revenue/>

⁴² COAI letter dated 3rd December, 2019 (Annexure IV)

2.11 In the context of the representations made by the sector players, it would be worthwhile to also look at price fixation exercises by other telecom regulators. Following table details the experience of the SAARC and few other countries.

International Experience in Floor Price Setting for Telecom Services

Country	Present status of floor prices
SAARC Countries	
Sri Lanka	<ul style="list-style-type: none"> • Introduced in: July, 2010 • Reason for introduction: It aimed at benefitting existing large incumbent players to insulate them from competitive pricing by new entrants. • Floor Price: For end-user tariffs with per second billing basis - USD 0.0083 per minute (On-net calls) and USD 0.013 per minute (Off-net calls) For end-user tariffs with per minute billing basis – USD 0.0083 per minute (On-net calls) and USD 0.011 per minute (Off-net calls) For SMS – USD 0.00056 per message • Revision took place on 1st February,2016 • Reason for continuation: to support competition between large and small network operators, a common minimum retail voice call rate for on-net and off-net domestic voice calls was introduced • Revised Floor Price: For end-user tariffs with per second billing basis -USD 0.01 per minute for both on-net and off-net calls For end-user tariffs with per minute billing basis - USD 0.0083 per minute for both on-net and off-net calls For SMS – USD 0.001 per message • Withdrawn on 21st August, 2018 • Reason for withdrawal: <i>Telecom and Digital Infrastructure Minister Mr. Harin Fernando told reporters that the move is targeted at bringing more benefit to telecom users as well as companies. He further told reporters that the move</i>

	<p><i>will result in cost optimization and allow more competition in the industry. “The floor rates were implemented in 2010 to help the large operators. The new move will ensure cost optimisation by operators and will give hope for small operators,”</i></p> <ul style="list-style-type: none"> • The move comes as new Finance Bill amendments proposed to slap more taxes on the industry. As approved by Parliament, the Government now charge a levy of Rs. 200,000 per annum for each tower from 1 January 2019 for all mobile telephone operators who own cellular towers compared to the previously proposed Rs. 200,000 per month charge. The amendment also proposed a levy on Short Message Services, charging 0.25 per SMS for all bulk advertising messages, payable by the advertiser.
Pakistan	<ul style="list-style-type: none"> • Pakistan Initiated a consultation on floor price in 2016 but no final decision has been taken as on date
Bangladesh	<ul style="list-style-type: none"> • Services for which floor and ceiling price is set: As a part of Significant Market Player (SMP) regulation on Grameen phone • Introduced in 2018: Currently, the minimum call rate is Tk 0.45 a minute and after adding the value-added tax and other duties it goes up to Tk 0.54 to any operator. But for Grameenphone it will be about Tk 0.61 a minute. • However, the hike in minimum call rate is unlikely to impact the existing Grameenphone users as the operator is already charging much higher than the floor price, said Md. Jahurul Haque, chairman of the telecom watchdog. Grameenphone’s average call rate is now Tk 0.70 a minute, according to their financial statement. The higher floor price is one of the four restrictions that the Bangladesh Telecommunication Regulatory Commission has come up with for the country’s leading mobile operator. The market leader will also have to pay 5 paisa more to other operators for calls its subscribers make to another network. • BTRC withdrew all the above Significant Market Player (SMP) restriction in 2019 when it was challenged in

	<p>Court by Grameen Phone and has now proposed a list of 20 SMP restrictions (including Floor Price) and asked for comments of the SMP player.</p> <ul style="list-style-type: none"> • As per presentation made by Chairman of BTRC 55% of the revenues of TSPs are transferred to Government of Bangladesh • The market has been experiencing increased competition with the introduction of uniform voice tariff for offnet and on net calls. • There was some reduction in outgoing minutes of usage after implementation of new voice tariff structure. • No floor for data price • BTRC is planning to introduce tariff floor for data price
<p>Some Other Countries where floor price regulation has been attempted</p>	
Zimbabwe	<ul style="list-style-type: none"> • Has set price floor for voice and data in 2017 • Reason for introduction: Due to price-war situations which led to declining revenues • Services for which Floor Price is set: Voice and Data both including promotional packages • Floor Price: 12 US cents per minute for voice services and 2 US cents per megabyte for data services
Nigeria	<ul style="list-style-type: none"> • The regulator in May 2013 imposed a price floor on telecoms operators in the country • Reason for introduction: As a means of controlling anti-competitive behaviours by operators considered to have attained the dominant status in the industry. • The regulator removed the same in 2015 • Reason for withdrawal: to enable ISPs to bring down their internet data price as low as possible so as to gain more subscribers and to give the Telecom Service Providers the freedom to reduce their data tariffs below the set lowest industry prices

Turkey	<ul style="list-style-type: none"> • Price floor prescribed in 2009 for Significant Market Player (SMP) Turkcell for retail mobile voice and SMS messaging services has been abolished in 2016 • Reason for withdrawal: They are stated as developments in the mobile electronic communication market, the increasing significance of mobile internet service, the proliferation of over-the-top (OTT) services enabling communication over the internet, and the declining significance of voice and SMS services as compared to the period when the regulations were put into practice, as well as the decline in the proportion of on-net traffic and in the price difference between on-net and off-net calls.
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Source: TRAI Research

- 2.12 Previous exercises undertaken by the Authority in 2012 and 2017 on forbearance and data price setting/floor price have been detailed in para 1.8 and 1.9. In 2012, the Authority had decided that market for data service was in infancy and, therefore, the policy of forbearance may be continued with reference to data prices. It was also mentioned that if need be the Authority may intervene. In 2017, it was decided that fixation of floor price by the regulator was not an idea worth pursuing at that point in time after a meeting with the telecom service providers.
- 2.13 If we contrast the market situation in 2012 with the current market situation, it is evident that the data market has witnessed a sea change (as discussed above) and is no longer at a nascent stage. The number of service providers has reduced to three major private players and one public sector player (BSNL/MTNL) and the competition is intense amongst these players. The barriers to data usage in terms of technology, content and tariff have practically gone and accordingly, data usage has gone up. It is today within the reach of the common man.
- 2.14 World-over, the telecommunication services are being recognized as an enabler of socio-economic development. International experience also suggests that telecommunication services catalyse the growth of all sectors of economy, particularly, the fundamental sectors *viz.* health, education, agriculture, digital services, and industry. The telecom sector acts as the infrastructure provider for digital services, which provide

impetus to the economic, social and political growth of a nation. The bottom-of-the pyramid gains the most from the virtuous cycle of growth fuelled by telecommunication services. As per ITU Study on Economic Impact of broadband in developing countries, 1% increase in fixed broadband penetration results in 0.23% increase in GDP/capita. The same study also points out that 1% increase in mobile broadband penetration results in 0.28% increase in GDP/capita.

- 2.15 The Indian telecommunication sector has undergone a revolutionary transition in the last two decades to become one of the largest and most innovative telecommunication markets in the world in terms of products and services. Presently, India is also one of the fastest growing telecommunication markets for voice and data usage. India has the largest mobile data usage per subscriber. In the coming years, the telecom sector will continue to play a leading role in successful implementation of various Government programmes like Digital India, Make in India, and development of Smart Cities. These programs and initiatives present a plethora of opportunities for the telecom sector especially for the telecom infrastructure providers as the telecommunication infrastructure is the bedrock for achieving the vision of Digital India.
- 2.16 There is an issue with the exercise of fixing a floor price for mobile data service, but for voice services to be kept under forbearance, as COAI⁴³ demands. Voice over LTE (VoLTE) involves provision of voice with data packets, which one operator is currently providing, and other operators are increasingly switching over to it. In short, even the provision of voice involves the use of data in 4G networks. Thus, any exercise in fixing a floor price for data involves fixing a price for voice calls also, especially for those provided on a 4G network. Any exercise of fixing a floor price for data on a 4G network would in effect work as a floor price for voice also, while as the same would not be true for voice calls on 2G/3G networks. This would mean that 2G/3G voice tariffs would be under forbearance, whereas the voice services under 4G are under a price floor regime. This would create a disparity between the service providers providing the same service.
- 2.17 With adaption of 4G technology, voice calls are being increasingly handled as packets (one operator is operating only in 4G LTE) and their separation from data is difficult. Even in cases where voice over LTE is

⁴³ COAI letter dated 3rd December, 2019 (Annexure IV)

not implemented or not adopted by subscribers, the fixation of floor price for voice call may be difficult. The voice calls in three Indian networks are being provided using combination of 2G, 3G and 4G technologies. Cost of processing the calls on different technologies is widely different. While the cost of a voice call on 4G networks is very low, it is comparatively higher in the case of 2G and 3G networks. So, it becomes very difficult to arrive at a benchmark cost that is applicable across all technologies. At a time, when about 500 million subscribers are still latching on to 2G/3G networks, cost fixation for voice calls becomes a very important and difficult exercise.

- 2.18 It is noted that most of the mobile tariff offers in India are in the form of bundled plans i.e. they include voice call minutes, SMS and data. Some TSPs and COAI have mentioned the need to regulate bundled offers, having unlimited voice calls minutes. Since, bundled offers include voice and data, the bundled plans may be difficult to exclude from any exercise of floor price fixation for data and/or voice.
- 2.19 As per the Accounting Separation Reports submitted to TRAI by the TSPs for the year 2018-19, the data cost per GB for the leading TSPs varies from Rs. 4.40 (Rupees four and forty paise) to Rs. 11.19 (Rupees eleven and nineteen paise). The data cost for some non-TSPs is higher. As per the quarterly data revenue for the QE September'19 reported by the same TSPs, the data revenue per GB varies from Rs. 9.45 (Rupees nine and forty-five paise) to Rs. 15.25 (Rs fifteen and twenty-five paise). As can be seen, the data revenue is more than the cost per GB to the TSPs. In such a scenario, it needs to be considered if there is a need to fix a floor price for mobile data services, especially when the TSPs have announced a hike in tariffs.
- 2.20 Setting up of a floor price administratively by the regulator restrains service providers from offering their services below a fixed minimum price. The setting up of floor price, therefore, must be made dependent on the cost of provision of service. It is universally acknowledged that different service providers have different cost structures and, therefore, different cost of delivery of services. Therefore, the most critical question is the selection of a representative cost for the exercise. Selection of appropriate methodology assumes significance in case stakeholders are of the view that floor price for voice services, and/or data services, and/or bundled services is to be fixed.

- 2.21 The issues involved in fixing a floor price for telecom services are complicated and need to be discussed here. As mentioned above, the cost of provision of voice services varies across technologies. Similarly, the cost of provision of Data services also varies widely for the TSPs. As such, the issue of determining the representative cost of provision of telecom services becomes a complicated one. Should the most efficient, least cost operator or the least efficient, highest cost operator be chosen as the representative cost operator? If the most efficient operator cost is chosen, the other operators will be forced to price below cost; while if the least efficient operator is chosen, it could result in windfall profits for the most efficient operator. In between these two extremes, there could be a variety of possibilities, including taking an average. A simple average will benefit the most efficient operator, while those with cost above the average would bleed. If the weighted average is taken, then the basis of the weight assigned to each operator becomes important. Should the assignment of weights be based on the revenue share or subscriber base or some other relevant basis? Should a floor price be determined for each operator separately or should there be a uniform floor price for telecom services? What should be the mark up over the cost to fix a floor price? These issues are of great significance which have huge bearing not only on the TSPs concerned, but also on the telecom consumers ultimately.
- 2.22 COAI in its letter⁴⁴ has suggested prior approval of all tariff plans, inter alia, including segmented offers and one to one offer. Segmented offers are tariff offers available to an identified segment of the subscribers, without being available to the general subscribers. COAI has called for the segmented plans to be subject to the prior approval of the Authority for examination of compliance to floor tariff. The Authority has always called for the reporting of any segmented offers to be examined for transparency, non-discrimination and non-predation. It had also issued a Direction reiterating the mandatory reporting of all tariff offers and revisions thereto, but some operators had obtained a stay order from the Hon'ble TDSAT and are not reporting the segmented tariffs. The Authority has appealed against it and the matter is currently sub judice in the Hon'ble Supreme Court.
- 2.23 It has been estimated in some reports that India's digital economy has the potential to reach USD 1 trillion by the year 2025 driven by increased proliferation of smart phones, increased internet penetration, growth of mobile broadband, growth of data and social media. The commercial

⁴⁴ COAI letter dated 3rd December, 2019 (Annexure IV)

launch of 5G services is envisaged to be the key catalyst that would fuel this growth⁴⁵. As per reports, the Government of India intends to launch 5G services in India in near future. The process has been kickstarted with issuance of guidelines for 5G trials across different spectrum bands. The commercial launch of 5G services will be preceded by auction of 5G spectrum which would entail significant financial commitment from the TSPs. Besides, the network rollout of 5G services will also involve heavy financial investments. It is widely reported that the financial stress in the sector may dampen the environment to invest in 5G services.

2.24 As discussed above, given the pivotal position that the telecom sector enjoys in enabling the growth and development of Indian economy and society, it becomes incumbent on the regulator to enable an orderly growth of the sector.

2.25 In view of the foregoing discussion, the following questions arise for consultation:

Q1. Do you foresee any requirement of regulatory intervention at this stage in tariff fixation to protect the interest of telecom service providers as well as the consumers? Please support your comments with justification.

Q2. Do you foresee any need for change in TRAI policy of forbearance in tariffs? Please give reasons for your response.

Q3. If the answer to Q1 is in affirmative, is fixing a floor price, i.e. a standing prohibition on TSPs not to offer services below a predetermined price level, the answer? Please give detailed reasons for your response.

Q4. Do you perceive a need to fix floor price despite the fact that the TSPs have increased their tariff recently? Please support your response with detailed justification.

Q5(a). What methodology should be used to fix floor price by the Authority and why? Please give detailed methodology with calculations and supporting justification.

⁴⁵ Report titled *5G: The Catalyst to Digital Revolution in India* published by Deloitte available at <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/technology-media-telecommunications/in-tmt-the-catalyst-report-one-noexp.pdf>

Q5(b). If a floor price is considered, what should be the mark up over the relevant costs for arriving at a floor price? Please give detailed calculations and justification for your response.

Q6: Considering that cost of delivery of telecom services is likely to be different for different TSPs, what parameters should be considered to decide floor price and why? How can it be ensured that such a floor price fixation exercise does not result in windfall profits to few TSPs? Please give your response with detailed reasoning.

Q7. Is there a need to fix floor price for mobile data service? If yes, can such floor price be applied uniformly to different categories of subscribers such as retail consumer, corporate, tendered or otherwise contracts, segmented and any other including one on one? If it cannot be applied uniformly, will it not result in discrimination between various categories of subscribers? Please give your answer with detailed reasons and justification.

Q8. What should be the basis and methodology for floor tariff fixation for mobile data service? Give detailed justification and calculations for your response.

Q9. What should be the representative cost for fixing a floor price for mobile data service? Give detailed calculations and justification for your response.

Q10. Should fixation of floor price be considered for voice calls also? Please give your comments with detailed justification.

Q11. If the answer to Q10 is affirmative, given that different technologies are being used to provide voice services (2G, 3G and 4G), what should be the methodology used to arrive at a floor price for voice services? Please give detailed calculations and justification for your response.

Q12: Should there be any limit on TSPs to offer free offnet calls? Please explain your response with justification.

Q13. If your answer to Q12 is affirmative, how should unlimited voice calls be defined? Please give your comments with detailed justification.

Q14. If a floor price is considered, should there be any floor price prescribed for bundled offers, including those having unlimited voice calls and data? Please give your comments with methodology and detailed justification.

2.26 The primary concern of any regulator is to safeguard the interest of consumers along with ensuring the orderly growth of the sector. To serve the fulfilment of this purpose, the following questions arise.

Q15. If a floor price is considered, should there be a price ceiling also to safeguard consumer interest? Please give your comments with detailed justification.

Q16. If your answer to Q15 is in affirmative, what should be the methodology used for fixing a price ceiling for mobile data service, voice services and bundled offers. Please give detailed calculations and justification for your response.

Q17. Should all the tariff plans (retail consumer, corporate, tendered or otherwise contracts, segmented and any other including one on one) offered by the TSPs be subject to floor price tariff orders? Please give detailed justifications for your answer.

2.27 COAI has urged the Authority to ensure effective implementation of floor price regulations and to prescribe guidelines for offering discounts and promotions for any specific plans or circumstances. In the light of the above, following questions emerge for consultation.

Q18. How can it be ensured that all the tariff plans of TSPs (retail consumer, corporate, tendered or otherwise contracts, segmented and any other including one on one), comply with the floor tariff orders? Please give you response with detailed justification.

Q19. Any other relevant issue that you would like to highlight in relation to the above issues?

CHAPTER III: Issues for Consultation

Q1. Do you foresee any requirement of regulatory intervention at this stage in tariff fixation to protect the interest of telecom service providers as well as the consumers? Please support your comments with justification.

Q2. Do you foresee any need for change in TRAI policy of forbearance in tariffs? Please give reasons for your response.

Q3. If the answer to Q1 is in affirmative, is fixing a floor price, *i.e.* a standing prohibition on TSPs not to offer services below a predetermined price level, the answer? Please give detailed reasons for your response.

Q4. Do you perceive a need to fix floor price despite the fact that the TSPs have increased their tariff recently? Please support your response with detailed justification.

Q5(a). What methodology should be used to fix floor price by the Authority and why? Please give detailed methodology with calculations and supporting justification.

Q5(b). If a floor price is considered, what should be the mark up over the relevant costs for arriving at a floor price? Please give detailed calculations and justification for your response.

Q6: Considering that cost of delivery of telecom services is likely to be different for different TSPs, what parameters should be considered to decide floor price and why? How can it be ensured that such a floor price fixation exercise does not result in windfall profits to few TSPs? Please give your response with detailed reasoning.

Q7. Is there a need to fix floor price for mobile data service? If yes, can such floor price be applied uniformly to different categories of subscribers such as retail consumer, corporate, tendered or otherwise contracts, segmented and any other including one on one? If it cannot be applied uniformly, will it not result in discrimination between various categories of subscribers? Please give your answer with detailed reasons and justification.

Q8. What should be the basis and methodology for floor tariff fixation for mobile data service? Give detailed justification and calculations for your response.

Q9. What should be the representative cost for fixing a floor price for mobile data service? Give detailed calculations and justification for your response.

Q10. Should fixation of floor price be considered for voice calls also? Please give your comments with detailed justification.

Q11. If the answer to Q10 is affirmative, given that different technologies are being used to provide voice services (2G, 3G and 4G), what should be the methodology used to arrive at a floor price for voice services? Please give detailed calculations and justification for your response.

Q12: Should there be any limit on TSPs to offer free offnet calls? Please explain your response with justification.

Q13. If your answer to Q12 is affirmative, how should unlimited voice calls be defined? Please give your comments with detailed justification.

Q14. If a floor price is considered, should there be any floor price prescribed for bundled offers, including those having unlimited voice calls and data? Please give your comments with methodology and detailed justification.

Q15. If a floor price is considered, should there be a price ceiling also to safeguard consumer interest? Please give your comments with detailed justification.

Q16. If your answer to Q15 is in affirmative, what should be the methodology used for fixing a price ceiling for mobile data service, voice services and bundled offers. Please give detailed calculations and justification for your response.

Q17. Should all the tariff plans (retail consumer, corporate, tendered or otherwise contracts, segmented and any other including one on

one) offered by the TSPs be subject to floor price tariff orders? Please give detailed justifications for your answer.

Q18. How can it be ensured that all the tariff plans of TSPs (retail consumer, corporate, tendered or otherwise contracts, segmented and any other including one on one), comply with the floor tariff orders? Please give you response with detailed justification.

Q19. Any other relevant issue that you would like to highlight in relation to the above issues?

List of Acronyms

S. No.	Acronym	Description
1.	2G	2nd Generation
2.	3G	3rd Generation
3.	4G	4th Generation
4.	5G	5th Generation
5.	AGR	Adjusted Gross Revenue
6.	ARPU	Average Revenue per User
7.	BSNL	Bharat Sanchar Nigam Limited
8.	BAK	Bill and Keep
9.	COAI	Cellular Operators Association of India
10.	DoT	Department of Telecommunication
11.	IUC	Interconnection Usage Charges
12.	ITU	International Telecommunication Union
13.	LTE	Long Term Evolution
14.	MSP	Minimum Sale Price
15.	MTNL	Mahanagar Telephone Nigam Limited
16.	MOU	Minutes of Usage
17.	OTT	Over the Top
18.	PSU	Public Sector Undertaking
19.	QoS	Quality of Service
20.	SAARC	South Asian Association for Regional Cooperation
21.	SMP	Significant Market Power
22.	SMS	<i>Short Message Service</i>
23.	TDSAT	<i>Telecom Disputes Settlement and Appellate Tribunal</i>
24.	TRAI	Telecom Regulatory Authority of India
25.	TSPs	Telecom Service Providers
26.	TTO	Telecommunication Tariff Order
27.	VoLTE	Voice over Long Term Evolution

Comparative chart showing pre-hike and post-hike tariff for Airtel

Particulars			Pre-hike tariff		Post-hike tariff		Variation		Variation in %		
S No.	Tariff Details	Validity (Days)	LSAs	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)
Combo Vouchers											
1	CV 19	2	Gujarat	19	150 MB	19	150 MB	0	0	0.00%	0%
2	CV 35	28	22 Circles	35	100 MB	49	100 MB	14	0	40.00%	0%
3	CV 65	28	22 Circles	65	200 MB	79	200 MB	14	0	21.54%	0%
28 Days Validity Packs											
4	STV 129	28	22 Circles	129	2	148	2	19	0	14.73%	0%
5	STV 169	28	22 Circles	169	1 GB Per Day	248	1.5 GB Per Day	79	0.5 GB Per Day	46.75%	50%
6	STV 199	28	22 Circles	199	1.5 GB Per Day	248	1.5 GB Per Day	49	0	24.62%	0%
7	STV 249	28	22 Circles	249	2 GB Per Day	298	2 GB Per Day	49	0	19.68%	0%
84 Days Validity Packs											
8	STV 448	82	22 Circles	448	1.5 GB Per Day	598	1.5 GB Per Day	150	0	33%	0%
9	STV 499	82	22 Circles	499	2 GB Per Day	698	2 GB Per Day	199	0	40%	0%
365 Days Validity Packs											
10	PV 998	336	22 Circles	998	12	1498	24	500	12	50%	100%
11	PV 1699	365	22 Circles	1699	1.5 GB Per Day	2398	1.5 GB Per Day	699	0	41%	0%

Comparative chart showing pre-hike and post-hike for Voda Idea

Particulars				Pre-hike tariff		Post-hike tariff		Variation		Variation	
S No.	Tariff Details	Validity (Days)	LSAs	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)
Combo Vouchers											
1	CV 34	28	21 Circles	34	100 MB	49	100 MB	15	0	44%	0
2	CV 64	28	22 Circles	64	200 MB	79	200 MB	15	0	23%	0
28 Day Validity Plans											
3	NA	NA	NA	NA	NA	149	2	NA	NA	NA	NA
4	STV 169	28	22 Circles	169	1 GB Per Day	249	1.5 GB Per Day	80	0.5 GB Per Day	47%	50%
5	STV 255	28	22 Circles	255	2 GB Per Day	299	2 GB per Day	44	0	17%	0%
6	STV 349	28	2 Circles	349	3 GB Per Day	399	3 GB Per Day	50	0	14%	0%
84 Day Validity Plans											
7	NA	NA	NA	NA	NA	379	6	NA	NA	NA	NA
8	STV 399	84	22 Circles	399	1 GB Per Day	599	1.5	200	0.5 GB Per Day	50%	50%
9	STV 495	84	22 Circles	495	1.5 GB Per Day	699	2	204	0.5 GB Per Day	41%	33%
365 Day Validity Plan											
10	PV 999	365	22 Circles	999	12	1499	24	500	12	50%	100%
11	PV 1699	365	19 Circles	1699	1 GB Per Day	2399	1.5	700	0.5 GB Per Day	41%	50%

Annexure-III

Comparative chart showing pre-hike and post-hike tariff for RJIO

Particulars				Pre-hike tariff		New Plan		Variation		Variation (Percentage)	
S No.	Tariff Details	Validity	LSAs	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)	Price (Rs.)	Data (GB)	Price	Data (GB)
28 Days Validity Packs											
1	STV 98	28	All India	98	2	129	2	31	0	31.63%	0%
2				No Corresponding plan		199	1.5 GB per day	NA	NA	NA	NA
3	STV 198	28	All India	198	2 GB per day	249	2 GB per day	51	0	25.76%	0%
4	STV 299	28	All India	299	3 GB per day	349	3 GB per day	50	0	16.72%	0%
56 Days Validity Packs											
5	No Corresponding plan					399	1.5 GB per day	NA	NA	NA	NA
6	STV 333	56	All India	333	2 GB per day	444	2 GB per day	111	0	33.33%	0%
84 Days Validity Packs											
7	No Corresponding plan					329	6	NA	NA	NA	NA
8	STV 399	84	All India	399	1.5 GB per day	555	1.5 GB per day	156	0	39.10%	0%
9	STV 448	84	All India	448	2 GB per day	599	2 GB per day	151	0	33.71%	0%
365 Days Validity Packs											
10	No Corresponding plan					1299	24	NA	NA	NA	NA
11	STV 1699	365	All India	1699	1.5 GB per day	2199	1.5 GB per day	500	0	29.43%	0

COAI Letter



RSM/COAI/2019/210

December 03, 2019

Sh. R. S. Sharma
Chairman, Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan (next to Zakir Hussain College),
Jawaharlal Nehru Marg (Old Minto Road)
New Delhi-110002

Subject: Measures to increase revenue of Telecom Sector for orderly growth

Dear Sir,

1. This is in furtherance to the meeting called by the Authority on 15.11.2019 to discuss matters relating to the telecom tariffs as well as meeting held on 27.11.2019 with the heads of the service providers wherein the idea for fixing of a floor price to increase the Industry revenues and to address other challenging circumstances prevailing currently, posing severe challenges on the viability of the sector were discussed.
2. The telecom sector is a highly evolving sector in terms of technology with large capex requirements. Our member operators are committed to meet the ambitious targets for the telecom sector as set out by the Government. However, we would like to point out that all these goals require mammoth investments, which the telecom industry is currently not able to generate as all sources of investments namely equity infusion, loans and surplus of the operators have dried up.
3. We submit that only remaining measures that can help sustain the sector and support investments are rationalization of taxes and levies and increase in tariffs. The rationalization of taxes and levies, though desperately needed, will also provide only a semblance of relief, while the real and sustainable remedy can only be the increase in tariffs.
4. Such long-term remedy could be achieved by rationalising the present tariffs for data services. We submit that a tariff correction for data services will not be out of sync with the global trends as India has the lowest data tariffs globally. In fact,



the Data tariffs in India are around 50 times lower than the tariffs of major developing/developed economies.

5. We further submit that the tariff correction in the current level of fierce competition is not possible by any service provider voluntarily and thus **the only option available is prescription of a minimum tariff for mobile data service** by the Authority. At the same time, the Authority would be aware that unlike mobile data, voice services are considered as essential services especially by the subscribers at bottom of pyramid and therefore would need to be continued under the present forbearance regime.
6. All the current telecom service providers in the private sector namely Bharti Airtel Limited, Reliance Jio and Vodafone Idea Limited are in complete agreement that TRAI be requested to regulate tariffs by setting floor price for data services. This should be done as soon as possible. Necessary orders as per the statutory provisions of TRAI act and the mandate of TRAI be issued urgently. We expect tariffs regulated and decided by TRAI will ensure that the Telecom industry remains healthy and robust, there is orderly competition and above all, the resources are available with TSP's to enhance QoS and expansion of networks to achieve the vision of Digital India. We are providing herewith some suggestions that have been agreed by all our members, enclosed as Annexure-I.

We hope that our submission will merit your kind consideration and support.

With Regards,

Yours faithfully,

Rajan S. Mathews
Director General

Copy to:

1. Sh. Ravi Shankar Prasad, Hon'ble Minister of Communications, Sanchar Bhawan, 20 Ashoka Road, New Delhi 110001
2. Sh. Anshu Prakash, Secretary (Telecom) and Chairperson (Digital Communications Commission)



Annexure-1

Tariff Consultation for Mobile Telephone Services by TRAI

1. **Effective date for Withdrawal of Existing Plans:** TRAI must fix an effective date by amendment to existing TTO, from which all existing plans (Corporate, Consumer, Segmented, Tendered or otherwise contracts and any other) for mobile Telephone Services of all operators shall stand withdrawn.
2. **Validity of Current Plans:** All plans should close at the end of validity of existing fully paid plan for pre-paid and post-paid and corporate plans should close at the end of the billing cycle, following the billing cycle on the date on which the change is announced or implemented
3. **End of Tariff protection:** Currently, operators have to comply with 6 months protection requirement for tariff change. This mandatory tariff protection requirement to be dispensed with for all existing plans.
4. **Prior Approval of Tariffs:** Operators to submit to TRAI any new plans to be launched. It will be considered deemed approved if no objection is received from TRAI within 48 hours of submission. Operators must file segmented and one to one plans as well.
5. **Segmented Plans :** : This prior approval includes segmented and one to one plans which must not be offered below the floor price.
6. **Floor for All Categories:** Floor to be prescribed for data service for all categories (Corporate, Consumer, Segmented, Tendered or otherwise contracts and any other) of customers. For abundant clarity, the GST should not be a part of the floor and be shown separately and TRAI mandated limit of number of plans should include all these categories. Irrespective of data or voice one must recognise the need for levy a base minimum charge as there are various costs incurred in just providing connectivity to the customer even if the customer does not use any services.



7. **Voice under forbearance:** Voice tariff should continue to be under forbearance as before as the same will affect the masses and will be difficult to implement. No operator can issue bundled plans with unlimited free off-net calls along-with data. Beyond the bundled off net minutes, the rate charged per minute cannot be lower than the IUC rate.
8. **Gradual Increase in Floor Tariffs.** TRAI to consider to set the floor price with gradual increase as the Indian consumers are price sensitive and without affordability there is real chance of contraction of demand. Hence, it is proposed to do this over 9 months in 2 steps
9. **Amount to be attributed towards wireless Data Floor calculations:** While calculating data floor, TRAI should clearly specify how value towards bundled services like voice, SMS, VAS, Apps, content will be calculated, to have transparent and uniform implementation across operators
10. **Floor should be determined on Headline Tariffs:** To avoid any ambiguity, the data floor to be Determined on Headline Tariffs (and not on realized tariffs)
11. **Methodology for Post-paid and Prepaid:** MRP to be considered for floor consideration Further, the rate of bundled GB usage above plan entitlement should be the same.
12. **Breakage/Carry Forward Data:** At present carry forward of the data is made available to postpaid subs and may be required for prepaid subs as well in view of increased tariffs,. This carry forward data should be excluded while calculating the per GB value of the plan as long as the customer renews on the same or a higher plan.
13. To ensure effective implementation of the floor price, TRAI to prescribe clear guidelines for offering discounts and promotions for any specific plans or circumstances.
14. **Provision for review:** TRAI may incorporate review provision for the TTO after 3 years to provide clear visibility and predictability.

Record note of discussion in the meeting with Telecom Service Providers with TRAI on 15.11.2019 on tariff related issues

A meeting of telecom service providers was called on 15th November, 2019 at 1500 hrs to discuss the tariff related issues. The meeting was held in TRAI Conference Room, 3rd Floor, MDS Bhawan, New Delhi and was chaired by Secretary, TRAI. Following officers attended the meeting: -

TRAI Officers: -

1. Mr. S.K. Gupta, Secretary, TRAI
2. Mr. U.K. Srivastava, Pr. Advisor (NSL)
3. Mr. S.K. Mishra, Pr. Advisor (F&EA)
4. Mr. Amit Sharma, Advisor (F&EA)
5. Mr. R.R. Tewari, Advisor (Legal)

Representatives from Industry: -

1. Mr. P Balaji, Vodafone
2. Mr. Sundeep Kathuria, Vodafone
3. Mr. Ravi Gandhi, Airtel
4. Mr. Amit Kushwaha, Airtel
5. Mr. K.S. Guliani, RJIL
6. Mr. P.K. Mittal, RJIL
7. Mr. Harinder Makkar, BSNL

Secretary, TRAI welcomed the participants to the meeting drawing their attention to the letter of a TSP urging regulatory interventions to protect the interests of service providers and consumers. He also pointed out that there have been various reports in the media regarding stress in the sector. Further, he invited views of the TSPs as to how a good quality of service can be provided to consumers particularly with reference to upgradation of their networks to meet the increasing demands of the consumers.

Mr. P Balaji of M/s Vodafone informed that in changing scenario telecom plays a very vital role and therefore the need of vibrant telecom sector cannot be over emphasised. He was of the view that adoption of new technology is not only urgently required in urban areas but equally in the rural areas. In order to make available huge financial resources for upgradation of the network, the earnings of TSPs need to be enhanced which can only be achieved by fixation of the floor price. He further emphasised that since about 90 per cent of data consumption is through 4G networks therefore fixation of floor price for data services may suffice the purpose.

Mr. K S Guliani of RJIL said that customer must get good quality of service at competitive rates. Accordingly, he also informed that they will not oppose fixation of floor price for data services.

Mr. Ravi Gandhi of Airtel was of the opinion that though in past they have not demanded any fixation of floor price, but in present circumstances, they recommend fixation of floor price for tariffs, at least for some limited time say 1-2 years. He also emphasized that floor price for voice calls may also be fixed as most of the plans are bundled in nature. He was of the view that since standalone 4G networks carry voice call over LTE, therefore, only fixation of floor price for data may be misused to provide unlimited voice calls which may defeat the purpose of floor price.

Mr. Harinder Makkar of BSNL informed that they welcome fixation of floor price for data services. He also raised similar issues for fixation of floor price for voice service also as they have no 4G network and standalone 4G operators may impact the BSNL customers by offering unlimited voice services at much cheaper price.

The fixation of floor price for voice services was further dealt in detail. Secretary, TRAI pointed out that a customer may utilise various technology networks such as 2G and 3G for making a call while on move and segregation of minutes of usage in 2G and 3G networks is difficult. Therefore, how floor

price can be fixed and implemented? He further pointed out that how a consumer will be aware of his net outgo while making a call if floor price of voice services is fixed differently for 2G, 3G and 4G networks.

After deliberations, all TSPs except RJIL agreed that while it may not be possible to fix the floor price of voice call on per minute basis, there is a need to consider the floor price for bundled tariff offers particularly those which are providing unlimited voice services. TSPs flagged the urgency to look into their request of fixing floor price for data services on priority basis and hoped that such interventions will be in the interest of the telecom industry and consumers in general. The meeting ended with a vote of thanks by Secretary, TRAI.

Record Note of discussion in the meeting with CEOs of the Telecom Service Providers with TRAI on 21.7.2017 to discuss fixing of floor and/or ceiling price for voice, data and SMS service.

A Meeting of CEOs with the Authority was held on 21.7.2017 at Hotel Sangri-La Eros, New Delhi on the topic 'fixation of floor price and/or ceiling price for voice, data and SMS service'. The Meeting was attended by CEOs/their representatives of the TSPs. (List of participants at F/A). M/s R Com and M/s Videocon had intimated their inability to attend the meeting.

2. Following Welcome address by Pr. Advisor (F&EA), Chairperson, TRAI(CP) made the opening remarks. CP stated that the focus of the discussion would be guiding principles of floor price fixation so as to decide which cost of delivering service would be taken into account for the purpose. He further pointed out that purpose behind the meeting called by TRAI is to deliberate on the demand of floor price fixation in a manner to avoid any damage to the existing framework of forbearance which has worked so well over the past years. Following this, Advisor (F&EA) made a brief presentation on various phases of tariff framework from the system of administrative price with prior reporting to that of forbearance and post implementation reporting. Discussion included a discourse on the meaning and level of floor price, consideration of ceiling together with floor price, apart from existing regulatory framework.

3. M/s Airtel, in their submission, while insisting that there is no need for floor price fixation in telecom tariffs, initially argued that tariff should not be below IUC. It was pointed out that such a demand would amount to supporting floor price and has no ground if IUC compliance is not clearly defined. Then, Airtel stated that they would not like floor price fixation by TRAI. M/s RJIL made a presentation in which they put forth their arguments against floor price fixation. They insisted that if cost is the basis, every TSP would have their own cost in an environment where voice has negligible cost on LTE platform. M/s Idea said

that they have not been against forbearance for last so many years and still support it, however, considering the emergency situation today they would like to support setting a floor price by Regulator for a limited period as all TSPs except one is making losses and closing down its non-profitable networks (rural etc.) M/s Vodafone supported the points raised by M/s Idea. They argued for a transparent consultative approach towards the determination of IUC. M/s Telenor stated that floor price can be avoidable at this point of time.

4. M/s BSNL said that they were not seeking any change as far as the policy of forbearance is concerned M/s MTNL said that they were of a considered view that floor price should not be there because it leads to a distortion in market based economy. M/s Aircel stated that they would like to stick with forbearance policy. At the same time they pleaded for parity in off-net and on-net calls. M/s MTS said that they were neither supporting nor not supporting the concept of floor pricing.

5. In his concluding remarks, CP said that after sharing their views and counter-views, the TSPs were generally in agreement that the existing policy of forbearance in telecom tariff should continue for the present. CP reiterated that forbearance policy is going on since 2003 and has worked well for the sector. He recalled an occasion in 2012 when Authority undertook a public consultation process to review the forbearance policy and fix a ceiling tariff. However, the policy of forbearance was decided to be continued without disturbance and this has stood test of time. CP thanked the representatives of TSPs for sharing their views. He summarized by saying that after the meeting, which was called for having a collective wisdom of the industry on the issue, it was an agreed decision of the entire house that fixing of floor price is not a workable idea which needs to be pursued at this point of time.

6. The meeting concluded with a Vote of Thanks delivered by Joint Advisor (F&EA).

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