

# Demand for Grants 2020-21 Analysis

## Telecommunications

The Department of Telecommunications under the Ministry of Communications is responsible for making policies, licensing, monitoring, regulation, research and international co-operation in the field of telecommunications. The Department operates several Public Sector Undertakings involved in providing telecommunication services, consultancy, and equipment manufacturing. This note presents the trends in expenditure and discusses some of the issues in the sector.

### Overview of Finances

#### Expenditure<sup>1,2</sup>

In 2020-21, the Department has been allocated Rs 66,432 crore, a 184% increase over the revised estimates of 2019-20. 61% of the allocation is towards revenue expenditure and the remaining 39% is towards capital expenditure. As shown in Table 1, in 2020-21, capital expenditure and revenue expenditure have increased by 422% and 121% over the revised estimates of 2019-20, respectively.

The significant increase in allocation is to provide for the revival plan for BSNL and MTNL, which was approved by the Union Cabinet in October, 2019.<sup>3</sup> A total of Rs 37,268 crore has been allocated for this purpose (56% of total allocation). The revival plan provides for: (i) capital infusion for allotment of the 4G spectrum (capital expenditure), and (ii) costs to be incurred towards voluntary retirement scheme.<sup>3</sup> Excluding the revival plan, total expenditure is budgeted to grow at 25% over the revised estimates of 2019-20, with growth in revenue expenditure at 30% and that in capital expenditure at 7%.

**Table 1: Allocation to the Department of Telecommunications (in Rs crore) (2020-21)**

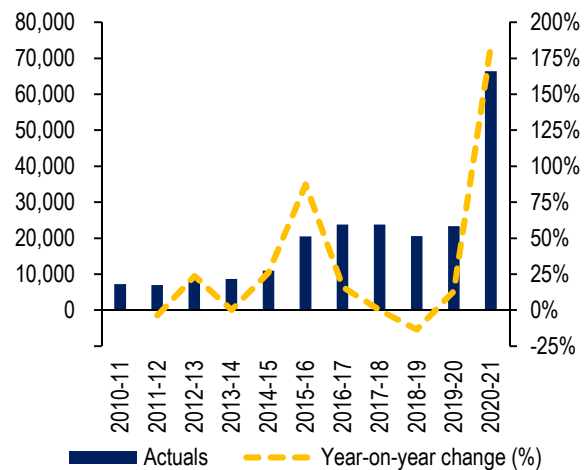
	2018-19 Actuals	2019-20 RE	2020-21 BE	% change (RE 2019-20 to BE 2020-21)
Revenue	18,492	18,435	40,757	121%
Capital	2,114	4,915	25,675	422%
<b>Total</b>	<b>20,606</b>	<b>23,350</b>	<b>66,432</b>	<b>184%</b>

Note: RE: Revised Estimates; BE: Budget Estimates.  
Sources: Demand No. 13, Department of Telecom, 2020-21, PRS.

Figure 1 shows the trend in actual expenditure during the 2010-21 period. During the 2010-20 period, actual expenditure has increased at an annual average growth rate of 13.8%. The higher increase in expenditure since 2015-16 as compared to previous years is due to allocation towards BharatNet (a scheme to connect all gram panchayats by broadband), and Optical Fibre Network for Defence Services scheme.

As seen in Figure 2, funds allocated to the Department have been underutilised in general, except in 2015-16 and 2016-17, where actual expenditure exceeded budget estimates by 52% and 29% respectively. In 2015-16, the increased expenditure was mainly due to allocation for a refund of upfront charges to BSNL and MTNL towards surrender of certain spectrum. In 2016-17, it was due to increased allocation towards BharatNet at the revised stage. In 2018-19, actual expenditure was 27% less than the budgeted expenditure. As per the revised estimates of 2019-20, 85% of the allotted funds will be utilised.

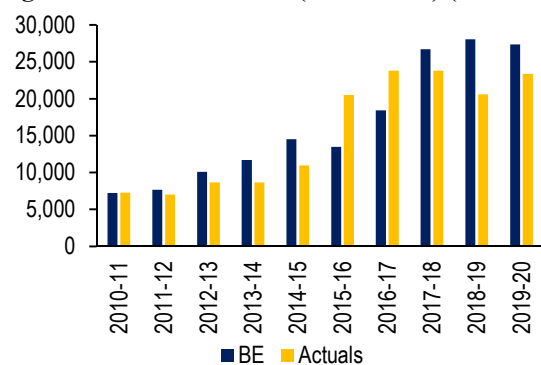
**Figure 1: Trends in expenditure (in Rs crore)**



Note: Revised Estimates used for 2019-20. Budget Estimates used for 2020-21.

Sources: Demands of Department of Telecom, 2010-21; PRS.

**Figure 2: Fund utilisation (in Rs crore) (2010-20)**



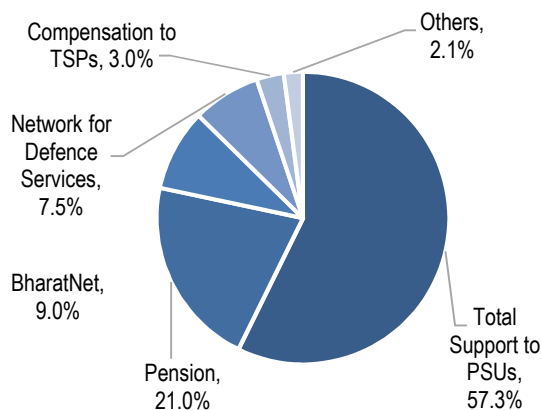
Note: BE: Budget Estimates; Revised Estimates used for 2019-20.  
Sources: Demands of Department of Telecom, 2010-20; PRS.

#### Major Expenditure Heads

In 2020-21, 57% of the total allocation is towards support to PSUs (Rs 38,045 crore). This is mainly to provide for the revival plan of BSNL and MTNL (Table 3). Expenditure on pensions continues to be a high proportion of the Department's expenditure (Figure 3). In 2020-21, 21% of the total allocation is towards

pension (Rs 13,982 crore). Rs 6,000 crore has been allocated towards the BharatNet scheme (9% of the total allocation). Under the expenditure head “Compensation to Telecom Service Providers”, funds are being provided to finance various schemes for the creation and augmentation of telecom infrastructure and services in rural and remote areas.

**Figure 3: Composition of expenditure in 2020-21**



Sources: Demand No. 13, Department of Telecom, 2020-21, PRS.

**Table 2: Major expenditure heads (in Rs crore)**

Expenditure Head	2018-19 Actuals	2019-20 RE	2020-21 BE	% Change (RE 2019-20 to BE 2020-21)
Total support to PSUs	437	1,284	38,045	2863%
Pension	11,991	13,190	13,982	6%
BharatNet	4,316	2,000	6,000	200%
Network for defence services	1,927	4,725	5,000	6%
Compensation to TSPs	473	1,000	2,000	100%
Others	1,056	1,211	1,265	4%
<b>Total</b>	<b>20,606</b>	<b>23,350</b>	<b>66,432</b>	<b>184%</b>

Note: TSP: Telecom Service Provider. RE: Revised Estimates; BE: Budget Estimates.

Sources: Demand No. 13, Department of Telecom, 2020-21, PRS.

**Table 3: Total support to PSUs (in Rs crore)**

Expenditure Head	2020-21 BE	% of the total allocation
Capital infusion in BSNL for 4G spectrum	14,115	21%
Capital infusion in MTNL for 4G spectrum	6,295	9%
Ex-gratia for retiring employees of BSNL/MTNL	9,890	15%
Implementation of VRS (BSNL/MTNL)	3,295	5%
Grants-in-aid to BSNL for payment of GST	2,541	4%
Grants-in-aid to MTNL for payment of GST	1,133	2%
Financial Infusion to ITIL	405	1%
Others	372	1%
<b>Total</b>	<b>38,045</b>	<b>57%</b>

Note: ITIL: Indian Telephone Industries Limited.

Sources: Demand No. 13, Department of Telecom, 2020-21, PRS.

## Universal Service Obligation Fund

The Universal Service Obligation Fund (USOF) was established to provide widespread, non-discriminatory, and affordable access to quality information and communication technology services to people in rural and remote areas.

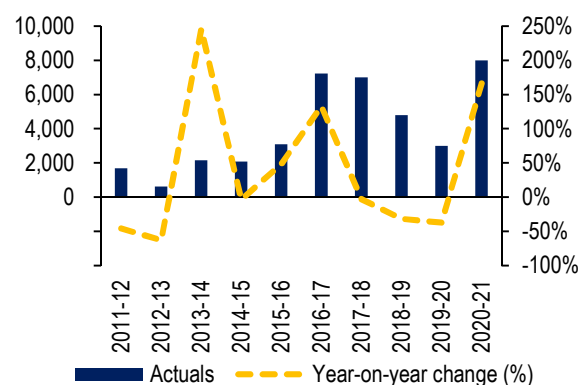
Resources for this fund are raised through a Universal Access Levy (UAL) which is 5% of the Adjusted Gross Revenue (AGR) earned by all the operators under various licenses currently.<sup>4</sup> Adjusted Gross Revenue is the value of gross revenue after deduction of taxes and roaming/PSTN charges from Gross Revenue. UAL is first credited to the Consolidated Fund of India and then disbursed to the USOF.

The ongoing schemes funded through USOF include:

- BharatNet, (ii) setting up of towers in left-wing extremism affected areas, and (iii) comprehensive telecom development plan for the north-east region.

A total expenditure of Rs 8,000 crore from this fund has been planned for 2020-21. This is an increase of 167% over the revised estimates of 2019-20. However, note that in 2019-20, only 36% (Rs 3,000 crore) of the budgeted allocation (Rs 8,350 crore) is estimated to be utilised (revised estimates). During the 2011-21 period, expenditure from the USOF has grown at an annual average growth rate of 18.9%.

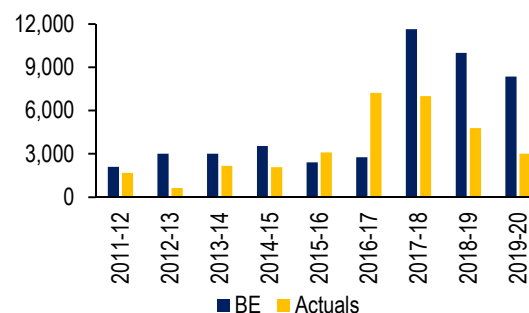
**Figure 4: Expenditure from USOF (in Rs crore)**



Note: Revised Estimates used for 2019-20. Budget Estimates used for 2020-21.

Sources: Demands of Department of Telecom, 2011-21; PRS.

**Figure 5: Fund Utilisation-USOF (in Rs crore)**



Note: Revised Estimates used for 2019-20.

Sources: Demands of Department of Telecom, 2011-20; PRS.

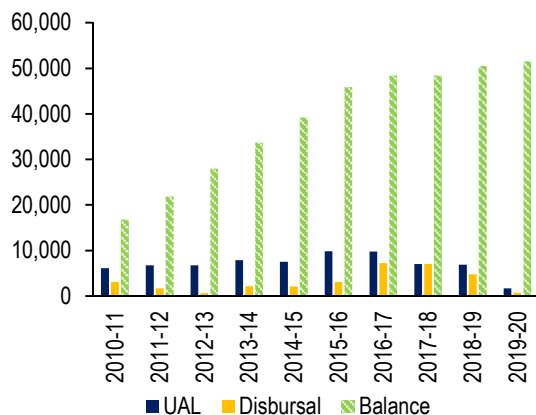
Figure 5 depicts the trend in fund utilisation under the USOF during the 2011-20 period. The fund utilisation has been low in the last three years. In the years 2017-18 and 2018-19, only 60% and 48% of the allocation

was utilised respectively. As per the revised estimates, in 2019-20, only 36% of the allocation from USOF will be utilised.

**Balance of Funds under USOF:** In its audit report of the Ministry of Communications for the FY 2017-18, the Comptroller and Auditor General of India (CAG) observed that a large amount earned as Universal Access Levy (UAL) is yet to be transferred to the Universal Service Obligation Fund (USOF).<sup>5</sup> By the end of 2019-20, a total of Rs 51,552 crore remains to be transferred to the USOF by the central government.<sup>6</sup> The disbursement to the USOF has been only a small fraction of UAL over the years. A total of Rs 70,198 crore has been earned as UAL during the 2010-20 period, out of which only Rs 32,465 crore has been disbursed (46%).<sup>6</sup>

As shown in Figure 6, the gap between disbursement and UAL has been high over the years, which has led to a rise in balance. In January 2015, the Telecom Regulatory Authority of India (TRAI) had observed that the Department has not been able to devise enough schemes to utilise the earnings of UAL.<sup>7</sup> It also recommended reducing UAL from 5% to 3%.<sup>7</sup>

**Figure 6: UAL vs Disbursement vs Balance of USOF (in Rs crore)**



Note: UAL: Universal Access Levy; Disbursement: Amount transferred to USOF; Balance: Balance at the end of that Financial Year. Sources: USOF Website as accessed on February 7, 2020; PRS.

In March 2018, the Standing Committee on Information Technology noted that with increasing outlay on schemes including BharatNet, Mobile Towers in Left Wing Extremism Affected Areas and Comprehensive Telecom Development Plan for the North-East, utilisation of USOF funds will improve.<sup>4</sup>

**Progress of comprehensive telecom development plan for the north-east region:**

The comprehensive development plan for the north-east region was approved in September 2014 to: (i) install 6,673 mobile towers at 8,621 identified uncovered villages, (ii) install 321 mobile towers along the national highways, and (iii) strengthen the transmission network in the region.<sup>8</sup> The Standing Committee on Information Technology (2019) made following observations regarding the plan:

- In 2018-19, no amount was utilised from the budget allocation of Rs 400 crore. Similarly, in 2019-20, no amount has been proposed by the

Department at the revised estimates stage as compared to Rs 1,100 crore at the budget stage.

- A total of 2004 towers were to be set up by October 2019, however, only 878 towers (44%) were installed as of October 22, 2019.
- The Committee recommended forming an inquiry committee to establish responsibility for the implementation failure of the plan so far.<sup>8</sup>

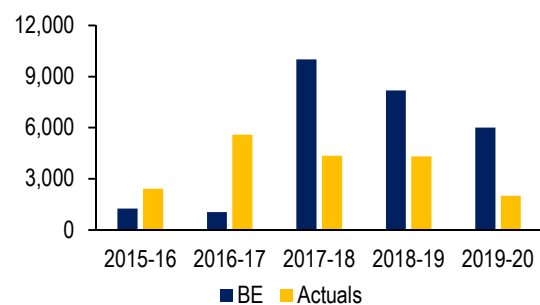
**BharatNet**

BharatNet aims to create a network to connect all the Gram Panchayats (approximately 2.5 lakh) by broadband by laying around 6.5 lakh km of optical fibre. It seeks to provide non-discriminatory access to the network to all the telecom service providers. These service providers include mobile operators, Internet Service Providers (ISPs), Cable TV operators, content providers. Bharat Broadband Network Limited (BBNL) is a special purpose vehicle to create, operate, maintain and manage the BharatNet infrastructure. The project is financed through the USOF. The estimated total cost of the project is Rs 42,068 crore.<sup>4</sup>

BharatNet is divided into three phases. Phase-I to connect 1.2 lakh panchayats was completed in December 2017. Phase-II to connect the remaining panchayats is underway, and phase-III is earmarked for future purposes. The scheme also aims to provide last-mile connectivity through Wi-Fi by creating five access points per GP (12.5 lakh Wi-Fi hotspots).<sup>9</sup>

As seen in Table 2, In 2020-21, the budget allocation of the scheme has increased by 200% over the revised estimates of the previous year. Note that, as per the revised estimates, only 33% of the allotted funds were utilised in 2019-20 (Figure 7). The corresponding figure for 2017-18 and 2018-19 was 44% and 53% respectively.

**Figure 7: Fund Utilisation-BharatNet (in Rs crore)**



Note: BE: Budget Estimates; Revised Estimates used for 2019-20. Sources: Demands of Department of Telecom, 2015-20; PRS.

**Delay in Completion:** In March 2018, the Standing Committee on Information Technology noted that although approved in 2011, the initial target of BharatNet had to be revised in 2014 due to inadequate planning and design, and unpreparedness to address the issues.<sup>10</sup> Under the revised deadline, phase-I was due by March 2017 but could be completed by December 2017.<sup>10</sup> Phase-II, which was to be completed by March 2019, is not near completion and the target was revised to March 2020.<sup>10,11</sup> Table 4 shows the status of BharatNet as of February 2020.<sup>12,13</sup>

**Table 4: Status of BharatNet (February 2020)**

Parameter	Target	Achievement	In %
Length of OFC laid*	6.5 lakh km	4.14 lakh km	64%
Number of panchayats where OFC laid*	2.5 lakh	1.48 lakh	59%
Number of panchayats which are service-ready*	2.5 lakh	1.35 lakh	54%
Number of panchayats where Wi-Fi installed#	2.5 lakh	0.45 lakh	18%
Number of panchayats where Wi-Fi operational#	2.5 lakh	0.18 lakh	7%

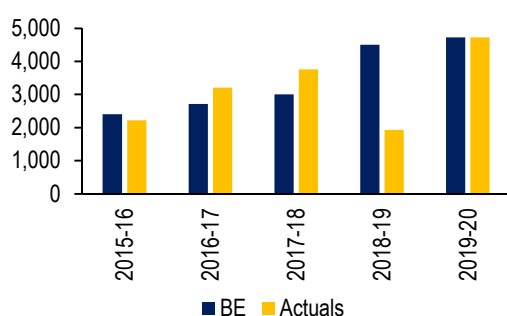
Note: \*as of February 7, 2020, #as of February 10, 2020.

Sources: Website of BBNL as accessed on February 10, 2020; PRS.

**Under-utilisation of BharatNet network:** The Standing Committee on Information Technology (2019) observed that efforts are required towards improving the uptime and utilisation of network infrastructure created under BharatNet.<sup>8</sup> As on February 10, 2020, BharatNet had 12,91,780 users and total data used per month was 89,224 GB.<sup>13</sup> This implies that average data consumption per user per month was around 71 MB.

### Network for Defence Services

This project aims to provide a dedicated pan-India optical fibre cable-based network for use by defence services. The original total sanctioned cost of the project is Rs 13,334 crore.<sup>4</sup> In May 2018, the central government announced that the budget of the project has been increased to Rs 24,664 crore.<sup>14</sup> BSNL is the implementing agency for the project. A total of 60,000 km of the optical fibre network is to be laid under this project.

**Figure 8: Fund Utilisation-Network for Defence Services (2015-20)**

Note: Revised Estimates used for 2019-20.

Sources: Demands of Department of Telecom, 2015-20; PRS.

In 2020-21, the allocation to the scheme (Rs 5,000 crore) has increased by 6% over the revised estimates of the previous year (Table 2). The revised estimates of 2019-20 for the scheme was the same as the budget estimates of that year. Figure 8 shows the trend in fund utilisation under this scheme during 2015-20. In 2018-19, only 43% of the budgeted fund was utilised.

**Delay in completion:** The project was to be completed by July 2015.<sup>4</sup> As of December 2019, 94% of the 60,000 km of optical fibre network has been laid.<sup>8</sup> The revised deadline for completion was set for May 2020, however, the project is now estimated to be completed by December 2020.<sup>14</sup> The Standing Committee on

Information Technology (2018) observed that the delay has resulted in huge cost overruns from the initial estimation of Rs 8,098 crore in 2009 to Rs.24,664 crore in 2018.<sup>4</sup>

### Receipts<sup>15, 16</sup>

Communication services are one of the major sources of non-tax revenue of the central government. In 2016-17, the non-tax revenue from communication services was the largest contributor to the non-tax revenue of the central government, accounting for 26% of the total non-tax revenue.<sup>17</sup> This includes receipts from spectrum auctions, one-time fee from new operators and recurring license fees and spectrum charges from telecom service providers which is a percentage share of the Adjusted Gross Revenue (AGR) of the operators.

### Non-Tax Revenue

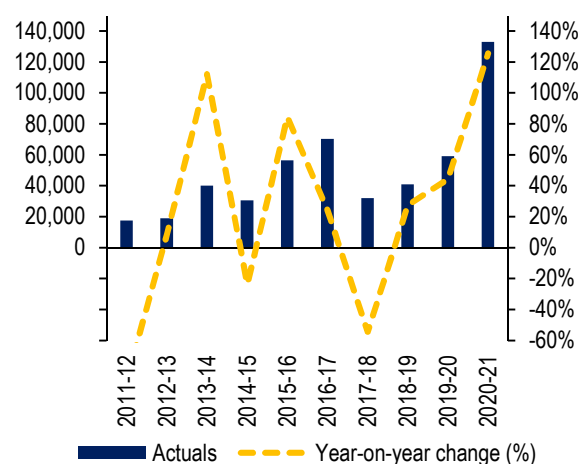
The projected non-tax revenue for 2020-21 from communication services is Rs 1,33,027 crore, 126% higher than the revised estimates of 2019-20 (Rs 58,990 crore). Although budget documents do not provide clarity, this increase may be due to anticipated recovery of past dues from the service providers as per a recent Supreme Court decision on the definition of gross revenue. It could also come from spectrum auction in the coming financial year. In 2019-20, the non-tax revenue from communication services is estimated to be 17% higher than the budget estimates. Note that the actual revenue in 2018-19 was 16% less than the budget estimates of that year.

**Table 5: Non-tax revenue-communication services (in Rs crore)**

	2018-19 Actuals	2019-20 RE	2020-21 BE	% Change
<b>Total</b>	<b>40,816</b>	<b>58,990</b>	<b>1,33,027</b>	<b>126%</b>

Source: Union Budget 2020-21; PRS.

Note: RE: Revised Estimates; BE: Budget Estimates.

**Figure 9: Non-tax revenue-communication services (in Rs crore) (2011-21)**

Sources: Union Budget Documents, 2011-21; PRS.

As shown in Figure 9, during the 2017-2020 period, non-tax revenue from communication services was lower as compared to earlier years in absolute terms. There was a decrease in the revenue of the telecom sector owing to stiff competition and aggressive pricing

war.<sup>4</sup> As per the budget estimates of 2020-21, the revenue is expected to show an upward trend.

At the end of 2018-19, the arrears of non-tax revenue from communication services is 30% of the total arrears of non-tax revenue of the central government (Table 6). Of the arrears of non-tax revenue overdue by less than a year, the arrears of communication services comprise of a major portion of the total arrears (80%).

**Table 6: Arrears of non-tax revenue from communication services (in Rs crore) (at the end of reporting the year 2018-19)**

Duration (Year)	Arrears-Communications	Arrears of non-tax revenue Total	% share*
0-1	66,832	83,196	80%
1-2	4,533	19,729	23%
2-3	8,660	23,788	36%
4-5	520	25,966	2%
>5	985	115,029	1%
<b>Total</b>	<b>81,530</b>	<b>267,709</b>	<b>30%</b>

Note: \* % share indicates the share of non-tax revenue from communication services in the total arrears of non-tax revenue of the central government.

Sources: Union Budget Documents, 2020-21; PRS.

## Issues for Consideration

### State of Finances of Telecom Sector

In March 2018, the Standing Committee on Information Technology observed that after entry of a new private player in 2016, the sector has seen a stiff competition and aggressive pricing war.<sup>4</sup> This has led to reduced tariffs and a notable decline in revenue. In the aftermath, the weaker players have exited the market and consolidation among other companies is ensuing. The telecom sector has large capital expenditure requirements. The near-term implication has been a serious drop in profitability and a problem of high debt.

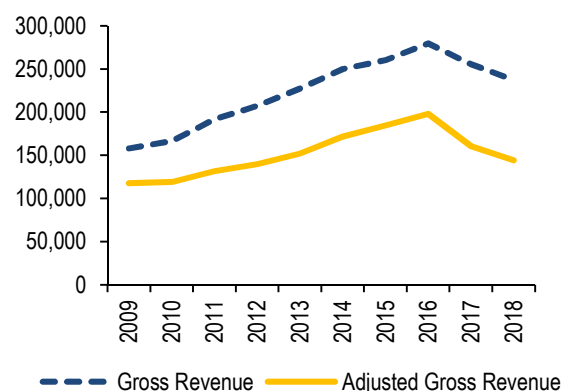
**Trends in subscriber base:** With the introduction of 4G, the telecom sector has shifted from the 'voice-centric' to 'data-centric' market.<sup>18</sup> Between the fourth quarter of 2016 and the third quarter of 2019, the total number of internet subscribers has increased from 39.1 crore to 68.7 crore.<sup>19, 20</sup> Between the fourth quarter of 2016 and the third quarter of 2019, the price of per GB data has gone down from Rs 163.8 to seven rupees.<sup>19, 20</sup> The data consumption per user per month during the same period has grown from 878.6 MB to 10.4 GB.<sup>19, 20</sup>

At the end of the third quarter of 2019, the total internet subscribers per 100 population are 52.1 in India.<sup>20</sup> The total urban internet subscribers per 100 population are 104.3 whereas the total rural internet subscribers per 100 population are 27.6.<sup>20</sup> As per the International Telecommunications Union Report, in 2019, the number of internet users per 100 inhabitants was 53.6 in the world, 82.5 in Europe, 77.2 in Americas and 48.4 in Asia-Pacific.<sup>21</sup>

**Trends in revenue:** Even though consumption has increased manifold and the subscriber base continues to

grow, due to a steep reduction in tariffs, the gross revenue of the telecom sector has seen an adverse effect (Figure 10).<sup>4</sup> The Adjusted Gross Revenue fell by 18.9% between 2016 and 2017 and by 10.2% between 2017 and 2018. Adjusted Gross Revenue is the value after deduction of taxes and roaming/PSTN charges from Gross Revenue. During the first three quarters of 2019, the Adjusted Gross Revenue has seen a 3.7% increase as compared to the first three quarters of the previous year.

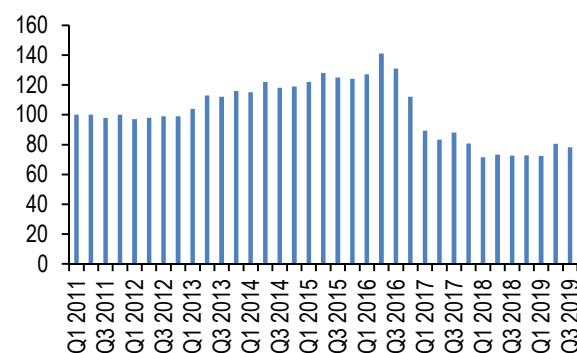
**Figure 10: Gross Revenue and Adjusted Gross Revenue of Telecom Sector (in Rs crore) (2009-18)**



Sources: TRAI Performance Indicator Reports, 2009-18; PRS.

Figure 11 shows the trend in Average Revenue Per User (ARPU) between 2011 and 2019. ARPU has dropped from Rs 110-140 levels seen between 2013 and 2016 to Rs 70-80 levels between 2018 and 2019.<sup>22</sup>

**Figure 11: Average Revenue Per User (in Rs)**



Sources: TRAI Performance Indicator Reports, 2011-19; PRS.

**Trends in debt:** As of October 2017, the total debt of the telecom sector stood at Rs 7.9 lakh crore.<sup>4</sup> This is more than three times the gross revenue of the sector in 2018. This included Rs 2.6 lakh crore of total borrowings out of which Rs 1.8 lakh crore was domestic borrowing.<sup>4</sup> This also included deferred liability worth Rs 3.0 lakh crore to the Department of Telecommunications on account of spectrum fees.<sup>4</sup> In July 2017, the Inter-Ministerial Group on Stressed Assets noted that some operators are facing financial stress due to low operating cash flows, inadequate equity infusion and unsustainable debt.<sup>4</sup> As of December 2019, gross domestic bank credit to the telecom sector stood at 1.34 lakh crore, an increase of 16% as compared to 1.20 lakh crore at the end of 2018-19.<sup>23</sup>

**Impact of a recent Supreme Court judgement:** Since 2003, there has been a dispute between telecom service providers and the Department regarding what constitutes gross revenue.<sup>24</sup> Over these years, service providers have paid a lower license fee and spectrum usage charges as compared to the demands raised by the Department. In October 2019, the Supreme Court in its judgement upheld the demands of the Department.<sup>24</sup> The Court also held that the service providers are liable to pay the interest, penalty, and penalty on interest on these dues.<sup>24</sup>

As a result, the service providers are required to pay an additional amount of Rs 92,642 crore as license fee and Rs 55,055 crore as spectrum usage charges on account of dues for years between 2003 and 2019.<sup>24</sup> This amount is provisional and subject to revision for updation of interest and penalty. As per the judgement, the service providers have been given three months to pay these dues from the date of the judgement.<sup>24</sup> This is likely to increase the financial burden of the service providers. They will also be required to pay a higher license fee and spectrum usage charges going forward as compared to what they have been paying so far. This will further impact their profit margins.

Note that in November 2019, the Union Cabinet approved deferred payment of spectrum auction instalments due for years 2020-21 and 2021-22.<sup>25</sup> This measure is expected to ease the cash outflow of financially stressed service providers and facilitate payment of statutory liabilities and interest on bank loans.<sup>25</sup> The telecom service providers will have the option to defer payments due for the years 2020-21 and 2021-22, for one or both years. The deferred payment will be spread equally in the remaining instalments to be paid by the service providers. Interest charges will be applicable as per the provisions under the terms and conditions of the spectrum allotment.

**Trends in foreign investment:** During 2010-2019, the telecom sector has been the third-largest recipient sector of FDI equity inflow.<sup>26</sup> The FDI equity inflow in the Financial Year 2017-18 was Rs 39,748 crore whereas the FDI equity inflow in the Financial Year 2018-19 was Rs 18,337 crore, a decrease of 54%.<sup>26, 27</sup>

### Spectrum Fees and Taxes

The Economic Survey of India (2017-18) noted that the telecom sector is facing an issue of higher spectrum charges.<sup>28</sup> It observed that lower spectrum charges will augment the spread of telecommunication services and will help in socio-economic transformation.<sup>28</sup>

In January 2015, Telecom Regulatory Authority of India (TRAI) in its report observed that the total effective rate of the license-related levy has gone up significantly in the recent past and that spectrum prices in the country are amongst the highest in the world.<sup>7</sup> The total taxes and levies are as high as 30% of the revenue of an operator.<sup>7</sup> This adversely impacts the need to continue a low tariff regime in the country. It had recommended that the license fee should be reduced from 8% to 6% by reducing Universal Access Levy from 5% to 3%.<sup>7</sup> As of December 2019, the

license fee is 8%.<sup>19</sup> In 2017, TRAI, as well as the Department of Telecommunications, had recommended lowering Goods and Services Tax (GST) from 18% to 5% and 12% respectively for the telecom sector.<sup>29</sup>

### Spectrum Management

One of the key functions of the Department of Telecommunications is to allocate, monitor and manage spectrum. The Comptroller and Auditor General of India (CAG) in its audit report for FY 2017-18 had noted that the National Frequency Register was not being properly maintained and was not the correct reflection of spectrum assignments.<sup>5</sup> National Frequency Register (NFR) is the basic record for all frequency assignments and is referred to identify assignable frequency for any new applicant.<sup>30</sup> A substantial amount of spectrum identified for commercial use was allotted to Railways and Defence. Due to limited use by these departments, such spectrum was left unused and its commercial potential remained unutilised.<sup>5</sup>

There were serious deficiencies in the effective monitoring of the spectrum.<sup>5</sup> The updated database of wireless licenses was not being provided to monitoring stations thereby reducing the whole monitoring process in an ineffective exercise. There was inattention towards maintenance of monitoring equipment.<sup>5</sup> Ineffective monitoring could lead to unauthorised uses or misuse of the spectrum by undesirable entities.<sup>5</sup>

### 5G Readiness

5G is the next technology frontier in the telecom sector. According to the High-Level Forum of the Department on 5G, 5G is predicted to create a cumulative economic impact of USD one trillion in India by 2035.<sup>31</sup> As of December 2019, 5G services are being rolled out on a commercial basis in countries like South Korea, USA, Spain and Italy, although on a limited scale.

TRAI has observed that spectrum availability is one of the most important issues in full realization of the potential of 5G.<sup>18</sup> In August 2018, the High-Level Forum of the Department on 5G recommended that fresh spectrum should be allocated for 5G services.<sup>31</sup> As of January 2020, the auction of spectrum for 5G is yet to be completed.

As per TRAI's white paper on 5G, an additional investment of 4.0-4.5 lakh crore rupees will be required by the telecom sector to seamlessly implement 5G networks.<sup>18</sup> 3.5 GHz spectrum band is likely to be the first band to be globally used for 5G deployment.<sup>18</sup> The Department is yet to auction spectrum in that band. The telecom service providers are likely to incur an additional investment initially while launching 5G services on account of spectrum cost.<sup>18</sup>

### Promotion of domestic manufacturing of telecom equipment

The Standing Committee on Information Technology (2019) observed that India is highly dependent on the import of telecom equipment.<sup>8</sup> During 2017-18 and 2018-19, India imported telecom equipment worth Rs

1.4 lakh crore and 1.2 lakh crore, respectively.<sup>8</sup> The Committee observed that this indicates a lack of requisite ecosystem for the promotion of domestic manufacturing.<sup>8</sup> The Committee noted that some of the reasons for the dependence on import are: (i) import of telecom equipment at zero duty as agreed in international treaties, (ii) low investment in research and development and creation of intellectual property rights, and (iii) lack of market access for indigenous manufacturers.<sup>8</sup> The Committee noted that imports are likely to increase substantially with the introduction of newer technology such as 5G.<sup>8</sup>

## State of PSUs

### Telecom Service Providers

BSNL and MTNL are the public sector undertakings (PSUs) engaged in providing telecommunication services in the country. BSNL and MTNL have been incurring losses continuously since FY 2009-10.<sup>32</sup> As per the Department of Public Enterprises guidelines, both these PSUs have been declared as 'Incipient Sick'.<sup>32</sup> A PSU is considered 'Incipient Sick' if its net worth is less than 50% of its paid-up capital in any financial year, or if it had incurred losses for three consecutive years.<sup>33</sup> In 2018-19, as against the revenue target of Rs 26,000 crore, actual revenue of the two PSU operators was Rs 17,761 crore.<sup>8</sup> In 2018-19, BSNL and MTNL posted a net loss of Rs 14,904 crore and Rs 3,390 crore respectively (Table 7).<sup>8</sup>

**Table 7: Financial performance of BSNL and MTNL in 2018-19 (in Rs crore)**

Parameter	BSNL	MTNL
Income Target	23,150	2,850
Actual Income	19,321	2,607
Total Expenditure	34,225	5,997
Net Profit/Loss	-14,904	-3,390
Total asset*	135,482	14,677
Total liability*	35,729	24,412
Net worth*	74,734	-9,735
Outstanding debt*	-15,983	19,750

Note: \* as of March 31, 2019. Outstanding debt of BSNL does not include overdraft. That of MTNL does not include bonds worth Rs 4,533 crore.

Sources: First Report of the Standing Committee on Information Technology (2019); PRS.

The Standing Committee on Information Technology (2019) noted that challenges for the PSU operators in earning revenue include: (i) absence of 4G services (except in few places for BSNL) in data-centric telecom market, (ii) lack of cash flows hindering capital outlay and expansion, (iii) sharp decline in average revenue per user across all services due to competition in the sector, and (iv) rapid decline in landline business due to changing market needs.<sup>8</sup>

The market share of PSU operators in the number of total subscribers as well as revenue share has seen a decline. The share of PSU operators in total

<sup>1</sup> Demand No. 13, Demand for Grants, Union Budget 2020-21, <https://www.indiabudget.gov.in/doc/eb/dg13.pdf>.

<sup>2</sup> Expenditure Budget, Department of Telecommunications, Union Budget 2019-20, <https://www.indiabudget.gov.in/doc/eb/sbe13.pdf>.

subscribers declined from around 13%-14% during 2012-13 to 10%-11% levels during 2017-19. The share of PSU operators in Adjusted Gross Revenue of the sector declined from around 12%-13% during 2012-13 to 9%-10% levels between 2017-19.

BSNL and MTNL spend a significant share of their income on staff salaries. As of June 2019, the employee cost for BSNL and MTNL was 75% and 87% of their total income respectively.<sup>34</sup> In comparison, the employee cost for private telecom service providers varied between 5%-7% of their total income.<sup>8</sup>

In March 2018, the Standing Committee on Information Technology noted that there has been continuous underperformance by telecom PSUs in meeting Internal and External Budgetary Resources (IEBR) targets.<sup>4</sup> IEBR is an important revenue source for implementing various schemes of the PSUs and it constitutes the resources raised by PSUs through profits, loans and equity.<sup>35</sup> The shrinking revenue has hampered its capabilities to generate resources.<sup>4</sup> Only 26.6%, 39.0% and 24.1% of the IEBR target was met in 2014-15, 2015-16 and 2016-17 respectively.<sup>4</sup>

**Revival plan for BSNL and MTNL:** In October 2019, the Union Cabinet approved a revival plan for BSNL and MTNL.<sup>3</sup> The plan also provided in-principle approval for the merger of both PSUs. Key features of the plan are as follows: (i) allotment of 4G spectrum with funding from central government of Rs 23,814 crore, (ii) sovereign guarantee for raising long-term bonds of Rs 15,000 crore for restructuring debt and meeting expenditure requirements, (iii) funding of Rs 17,169 crore for offering voluntary retirement scheme to employees aged 50 years and above, along with coverage of cost towards pension and gratuity.<sup>3</sup>

### Indian Telephone Industries Limited (ITIL)

Indian Telephone Industries Limited is involved in telecom equipment manufacturing. A package worth Rs 4,157 crore was approved for ITIL as part of a revival plan in 2014.<sup>17</sup> ITIL has seen a consistent increase in its turnover since 2015-16.<sup>4</sup> Its total income has increased from Rs 620 crore in 2014-15 to Rs 2,005 crore in 2018-19.<sup>8</sup> The company posted a net profit of Rs 93 crore in 2018-19.<sup>8</sup> The Standing Committee on Information Technology (2018) observed that ITIL's turnover is mainly coming from government business and recommended that it should work toward increasing its share in private business.<sup>4</sup>

Funds allocated to ITIL for capital upgradation have not been in line with demand.<sup>8</sup> For instance, against a request of Rs 405 crore in 2019-20, ITIL received only Rs 105 crore.<sup>8</sup> This affected the projects undertaken by ITIL under the revival plan.<sup>8</sup> Out of Rs 2,264 crore for capital expenditure under the revival plan, ITIL received only Rs 769 crore as of December 2019.<sup>8</sup>

<sup>3</sup> "Union Cabinet approves revival plan of BSNL and MTNL and in-principle merger of the two", Cabinet, Press Information Bureau, , October 23, 2019, <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1588848>.

- <sup>4</sup> “47th Report: Demands for Grants (2018-19) of Department of Telecommunications (Ministry of Communications)”, Standing Committee on Information Technology, March 13, 2018, [http://164.100.47.193/lssccommittee/Information%20Technology/16\\_Information\\_Technology\\_47.pdf](http://164.100.47.193/lssccommittee/Information%20Technology/16_Information_Technology_47.pdf).
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- <sup>11</sup> Unstarred Question No 621, Rajya Sabha, Ministry of Communications, June 27, 2019, <https://164.100.158.235/question/annex/249/Au621.pdf>.
- <sup>12</sup> “BharatNet Status as on January 31, 2020”, Website of BBNL as accessed on February 7, 2020, <http://bbnl.nic.in/BharatNet.pdf>.
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- <sup>14</sup> “Cabinet approves enhancement of budget for implementation of Network for Spectrum for Defence Services”, Cabinet, Press Information Bureau, May 16, 2018, <http://www.pib.nic.in/PressReleaseDetail.aspx?PRID=1532262>.
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