

IV. End Result of Monopoly Capital's Tight Control

Finally, in this section we will discuss four remarkable features of the monopoly capital that has emerged in the telecom industry in India; we will also provide some further evidence for the arguments being made here.

1. State Institutions in the Service of Monopoly Capital

It is striking that the telecom industry in India has come to be controlled by merely three private operators, with one of the three in a very precarious financial condition. The State-owned operator's position has been absolutely marginalised. This implies that just two operators control the bulk of the vast and vital Indian telecom industry. With virtually all the Indian big business houses attempting to get hold of a slice of the industry, in collaboration with some of the largest international telecom players over the years, how did the sector reach this point?

As has been discussed in sections II and III above, all through there have been new players who were willing to sink in increasingly bigger capital, both towards actual investments as well as for undercutting the existing players, to create new markets as well as to capture existing markets. Thus, the stakes in this 'winner takes all' game have risen exponentially over the years. The important considerations for big capital in this cut-throat game have been not only the profits to be made directly from the supply of telecom services, but also the indispensability of telecom for providing critical services, from banking to media to commerce, to the vast population of the country. Thus, once monopolistic control is achieved in telecom, terms can be dictated to many other industries and State agencies, as well as to the final consumer.

Historically there have been many examples of monopolistic control – John D. Rockefeller’s control of US petroleum at one time, or the control of the US automobile industry by just three firms in the 20th century, or the overarching control by Wal-Mart in the retail sector in US. Control over telecom services means access to enormous quantities of private data of the vast consumer base. The consumer base accounts for almost the entire population, as people are increasingly compelled to use their cell phones to obtain access to various services. This provides the operators enormous potential for surveillance and control of consumers/citizens of this vast country, as well as for commercialisation of their private data. Moreover, the telecom provider stands to make vastly more from the add-on services (from entertainment to retail trade) than from the basic service. It is these stakes, and not the revenue from telecom services alone, that have driven investments by numerous firms over nearly three decades.

Additionally, in the regime of monopoly capital, even intense and prolonged competition is merely a prelude to consolidation, which is the norm. In India’s telecom sector, now that the rivalry has been reduced to a mere three operators, the game has ceased to be ‘competitive’. They have been providing each other space, and at times even cooperate with one another to push for common interests.

Schumpeter coined the term ‘corespective’ system to describe the relationship between the big three auto corporations controlling the US market at the time of World War II: these firms followed a ‘live and let live’ policy vis-à-vis one another.⁶¹ Thus Reliance and Airtel agreed in 2013 on an arrangement for sharing telecom infrastructure – optical fibres, submarine cable networks, towers, and Internet broadband services.⁶² A much starker example of such ‘corespective’ behaviour can be seen in the price fixing by the three operators towards the end of 2019. Once all the bloodletting had happened after Jio’s entry in 2016, and most of the competition had been decimated, the three remaining operators announced substantial price hikes in quick succession. The hikes announced in their plans ranged from

61 Joseph A. Schumpeter, *Capitalism, Socialism & Democracy*, 1994 (first published: 1942).

62 Naazneen Karmali, “Onetime Rivals Mukesh Ambani And Sunil Mittal Ink Telecom Pact,” *Forbes*, December 11, 2013. <https://www.forbes.com/sites/naazneen-karmali/2013/12/11/onetime-rivals-mukesh-ambani-and-sunil-mittal-ink-telecom-pact/?sh=b9196546a1a4> accessed on 25/10/ 2022.

15 to 47 per cent. Not only was the hike by the three obviously coordinated, reports even suggest that it involved some ‘nudging by top echelons in the government’,⁶³ a telling culmination of three decades of the telecom ‘miracle’.

The close relation between the State and monopoly capital can be illustrated by the case of Vodafone Idea. At present it is the third largest telecom company, but when it was formed out of a merger in 2018, it had briefly emerged as the largest operator. Competition with Reliance, and its failure to make provision for unpaid AGR and spectrum dues, led to soaring accounting losses and debt for the company in subsequent years. As of March 31, 2022, its debt had mounted to a humongous Rs 1.98 lakh crores, primarily owed to the Government for unpaid AGR and spectrum dues. After the Supreme Court judgment on AGR agreed with the Government’s plea, and held the operators liable for paying the dues along with accumulated interest, the media suddenly woke up to the ‘catastrophic’ possibility that Vodafone Idea might go under, and thus the country might be left with only two operators (or even one!). Experts propounded prescriptions for reviving Vodafone Idea, which principally consisted of the Government doing *karza maaf* (debt forgiveness), in stark contrast to such experts’ stance regarding defaults by farmers or small industries. Predictably, the Government came up with a four-year moratorium for the paying of dues, and even agreed to convert the interest owed into equity in Vodafone Idea. Finally, in February 2023, the Government agreed to take up 33 per cent equity. This percentage is even higher than that of either of the errant parents, Vodafone and the Aditya Birla group. Apart from the promoters and Indian media, the UK India Business Council too applied appropriate ‘pressure’ on the Government, saying that a failure to resolve it “would have negative implications for the... overall investment climate”.⁶⁴

We have been told *ad nauseam* that the State has no business in the

63 Deborshi Chaki, Mobis Philipose. “Inside the battle to save Vodafone Idea,” *Mint*, March 3, 2020, <https://www.livemint.com/industry/telecom/inside-the-battle-to-save-vodafone-idea-11583165208038.html> accessed on 25/10/ 2022.

64 Aneesh Phadnis, Abhijit Lele & Surajeet Das Gupta, “Govt gets 33% stake in Vodafone Idea, promoters to invest as well,” *Business Standard*, February 3, 2023. https://www.business-standard.com/article/companies/govt-clears-vi-s-interest-conversion-to-become-largest-single-shareholder-123020301731_1.html accessed on 08/02/2023.

telecom sector (or most other sectors for that matter), and hence it should sell off the telecom public sector units (PSUs). The State has achieved the same end by simply not investing adequately in its PSUs, thereby converting a once-thriving BSNL into a company on its deathbed.⁶⁵ And yet such experts have no problems with the Government holding the largest stake in Vodafone Idea. Significantly, Vodafone India has fought a bitter battle over 14-15 years with the Indian government to avoid paying the capital gains tax due after it took over Hutch-Essar,⁶⁶ wasting precious public resources and time on lengthy legal battles. Contrast this with the Government's treatment of public sector BSNL. The debt of BSNL is Rs 33,000 crore, not a small amount, but only one-sixth that of Vodafone Idea. While the Government is leaving no stone unturned in facilitating the entry of private operators in 5G services, it is only now belatedly considering allocating BSNL some funds primarily to improve its 4G services.⁶⁷

As the telecom sector gradually gets reduced to two operators, the Government will have no option but to seek their support for extending all sorts of critical services, blurring further the lines between the State and monopoly capital. Take just two more examples in brief. In the New Telecom Policy of 1999, the Government had made provision for the Universal Service Obligation Fund (USOF), by drawing a levy from telecom operators. The purpose was to reach telecom services to un-served, remote and backward areas. Recently, the Government has allocated close to Rs 3,700

65 How systematically successive governments have throttled and marginalised the PSUs in telecom sector needs a separate analysis by itself and is beyond the scope of this article. See the following to appreciate the complex set of issues involved in the decline of BSNL: Nachiket Kelkar, "Can the Centre arrest the decline of BSNL?" *The Week*, April 20, 2019. <https://www.theweek.in/theweek/business/2019/04/18/can-the-centre-arrest-the-decline-of-bsnl.html> accessed on 12/03/2023, and Sanjeevani Jain, "Wrecking of BSNL to promote private telecom operators", AIFAP, July 25, 2022. <https://aifap.org.in/6062/> accessed on 12/03/2023.

66 Rahul Varman, "The Larger Issues Underlying the Claim of Cairn Energy on Air India," *rupeindia*, June 17, 2021. <https://rupeindia.wordpress.com/2021/06/17/the-larger-issues-underlying-the-claim-of-cairn-energy-on-air-india/#more-2172> accessed on 29/10/2022.

67 Erick Massey, "BSNL Revival Package: Will The Government Manage To Save Ailing Telecom Company?," *Outlook*, July 28, 2022. <https://www.outlookindia.com/business/bsnl-revival-package-will-the-government-manage-to-save-bsnl-why-bsnl-is-in-losses-news-212570> accessed on 29/10/2022.

crores to Jio and Airtel⁶⁸ for reaching 4G services to villages of economically backward districts in several states. In an even more striking development, the largest public sector bank, the State Bank of India (SBI), with its vast reach and resources, entered into a joint venture called Jio Payments Bank (with a majority stake by Jio) on the alibi of reaching rural areas and bringing in ‘innovations’.⁶⁹

Though the surviving firms in the telecom industry have become a ‘co-respective’ system, to use Schumpeter’s term, they do compete with one another in certain significant respects: the realm of their competition is *in trying to influence State agencies*. Telecom operators have formed the Cellular Operators Association of India (COAI), an active collective body to lobby for them. Yet they lose no opportunity to lobby State agencies to take sides vis-à-vis one another, and they approach all available forums (tribunals, courts, international arbitration) as well. The State’s main role is reduced to taking sides between the warring parties. A second reason for firms to pursue lobbying and litigation is in order to extract concessions from the State, or to avoid paying statutory dues to the State.

Such conflicts continue forever, with disputes moving from one theatre to the next – Department of Telecom (DoT), Telecom Disputes Settlement and Appellate Tribunal (TDSAT), High Courts, the Supreme Court, international arbitration, and so on. There are two standard explanations: either that all these activities are ‘corruption’; or alternatively, they are part of the ‘democratic process’. Both characterisations are highly misleading. This lobbying is in the very nature of monopoly capital. Here are a few examples:⁷⁰

- Take the infamous Radia Tapes. Telephonic conversations between the political lobbyist Niira Radia and politicians, media persons,

68 3/4th of it to Jio: See “Rs 3.7K cr project given to Jio, Airtel for 4G services in untapped areas,” *Business Standard*, May 30, 2022. https://www.business-standard.com/article/companies/rs-3-7k-cr-project-given-to-jio-airtel-for-4g-services-in-untapped-areas-122053001319_1.html accessed on 29/10/2020.

69 For a critical analysis and the problems with SBI-Jio nexus, see: Abir Dasgupta, Paranjay Guha Thakurta, “Jio Payments Bank and SBI: A Camel Inside A Tent?,” *News-click*, 02 Jul 2020. <https://www.newsclick.in/Jio-payments-bank-sbi-a-camel-inside-a-tent> accessed on 29/10/2022.

70 Some of these have been discussed, even if briefly, earlier; for the rest references are not being given, for the sake of brevity..

bureaucrats, and industrialists which were leaked to the press, perhaps through the intervention of a corporate rival. The conversations centred on the high-stakes telecom industry: the appointment of the telecom minister, how the spectrum dues would be computed, how the legal cases concerning telecom would be fought, matters relating to telecom debated in parliament, the Tatas, the Ambani brothers, Airtel, and other telecom firms.

- The litigations and disputes among the private firms began with the award of the very first licenses themselves in 1992; in fact the litigations against the first award delayed the entry of private operators by three years, till 1995!
- The Vodafone tax dispute is a telling example: The British telecom giant Vodafone refused to pay the mandatory withholding tax in India when it bought the Indian telecom firm Hutch-Essar in 2007. The case went from the Indian income tax authorities to the Bombay High Court to the Supreme Court and finally to international arbitration, under bilateral treaties, including a new provision in the relevant Act by Parliament. Finally the Government of India gave up its claims in 2021, and the matter got settled in favour of Vodafone.
- Even in the ‘2G scam’, the Central Bureau of Investigation court finally ruled in favour of the operators, and since then, several operators have filed claims against the Government in various forums seeking remedy for their purported losses. They have even filed cases against one another due to loss of spectrum and markets.

2. A Chaotic Industry that Is Grossly Wasteful

Given the consolidation in the industry, one would expect that the handful of operators left in the fray would be performing well, and the industry would demonstrate strong financial indicators. But the reality turns out to be exactly opposite. One standard metric for the health of the telecom industry is ARPU – Average Revenue Per User. In 2006, before the 2G scam, in spite of the existence of several operators and fairly well performing PSUs (BSNL and MTNL), the ARPU was Rs 347/ month.⁷¹ From that

⁷¹ Nivedita Mookerji, “A telco’s call to action,” *Business Standard*, September 1, 2021. https://www.business-standard.com/article/opinion/a-telco-s-call-to-action-121090101586_1.html accessed on 3/11/2022.

point the ARPU has been steadily coming down: in 2008 it dropped to Rs 247/ month, in 2011 it was down to Rs 113; after the entry of Jio it went down to Rs 100 in 2017 and fell further to Rs 70 in 2018. And these are the nominal figures; this means that the fall would be even more significant if we account for inflation. The actual user base has risen by three times since 2008, but the fall in ARPU is so steep that the industry is not able to raise its earnings. The industry's net income, EBITDA,⁷² fell from Rs 54,000 crore in 2016 to Rs 24,400 crore in 2019.

Such a precipitous fall in industry revenues also has implications for Government earnings from the industry. It was reported that DoT cut its revenue target of Rs 47,305 crore for 2017-18 by a whopping 40 per cent.⁷³ The prevalent discourse has been that the telecom industry is doubly burdened because of being capital intensive and having to pay unfairly huge tax and spectrum dues to the Government.

Prima facie this seems true. Sunil Mittal, head of Bharti Airtel, complained that in 2021, 35 per cent of the industry revenues went towards State levies, while reports suggest that in 2019, the capital expenditure to sales ratio for the Indian telecom was as high as 50 per cent, against global standards of 17-18 per cent.⁷⁴ But the industry experts conveniently neglect to mention the firms' revenues were depressed by their own cut-throat price-slashing tactics (which were pursued with the aim of monopolising the industry, in the process bleeding each other dry). These industry practices have serious implications for the sustainability of their huge public sector bank debts as well. In 2017, banks put the total debt of the telecom sector at around Rs 8 lakh crore, including loans from the Indian banks, overseas borrowings and annual instalments for spectrum bought over the

72 Earning before (deducting for) interest, taxes, depreciation and amortisation: Surajeet Das Gupta, "25 years since the first mobile call: Roller-coaster ride for telecom," *Business Standard*, July 24, 2020. https://www.business-standard.com/article/companies/25-years-since-the-first-mobile-call-roller-coaster-ride-for-telecom-120072301886_1.html accessed on 3/11/2022.

73 "The telecom mess", *Business Standard*, October 9, 2017. https://www.business-standard.com/article/opinion/the-telecom-mess-117100901242_1.html accessed on 3/11/2022.

74 "Telecom capex intensity to see moderation till 5G comes in: ICRA", *Economic Times*, September 26, 2019. <https://economictimes.indiatimes.com/industry/telecom/telecom-news/telecom-capex-intensity-to-see-moderation-till-5g-comes-in-icra/article-show/71318203.cms> accessed on 3/11/2022.

previous few years.⁷⁵

In a system driven by Capital, the entire aim of production is to accumulate capital, in the sense of the private wealth of the capitalist class, particularly the monopoly capitalist class in the present context. However, this accumulation process is massively wasteful, as reflected by the financial losses made at different junctures by various telecom firms. Vast sums of money capital disappear without leaving a trace in the form of lasting real assets. It is very difficult to come up with an authoritative, consolidated figure of the scale of waste, given that most of the wheeling and dealing by monopoly capital is behind complex and opaque structures, to which the public have little access. We give below a few examples⁷⁶ to provide a sense of the wastefulness of this system:

- In 2017 when Jio doled out extended freebies, Sunil Mittal complained that the move had been a disaster for the existing operators, and that “\$40-50 billion (Rs 3-4 lakh crore at present exchange rate) had been written off by various companies.”⁷⁷
- When Aircel, at one time one of the important telecom operators, filed for bankruptcy in 2018, banks had to suffer a 99 per cent ‘haircut’⁷⁸ on Rs 20,000 crore of loans.
- Telenor, the Norwegian public sector telecom corporation, claimed that it lost Rs. 28,000 crores of investment when it decided to leave, after the Supreme Court ruled against the 2008 spectrum allocation in the wake of the ‘2G scam’.⁷⁹

75 “Bharti Airtel, Vodafone and Idea Cellular reject Reliance Jio’s charge on financial stress made at IMG meeting,” *Telecom Tiger*, June 17, 2017. <http://www.telecomtiger.com/fullstory.aspx?storyid=22606> accessed on 3/11/2022.

76 It is even more striking in a capital scarce country like India. The examples are from a data set created by the author on each telecom operator over these three decades.

77 “How Reliance Jio’s Entry...”, *op. cit.*

78 Meaning they will get back mere 1 per cent of their loans: Dev Chatterjee, “Aircel lenders agree to take 99% haircut on dues worth Rs 20,000 crore,” *Business Standard*, May 17, 2019. https://www.business-standard.com/article/companies/aircel-lenders-agree-to-take-99-haircut-on-dues-worth-rs-20-000-crore-119051701501_1.html accessed on 4/11/2022.

79 Kalyan Parbat & Romit Guha, “It became too competitive for us to make any money in India: Sigve Brekke, CEO, Telenor Group,” *Economic Times*, May 17, 2018. <https://>

- Sistema, Russia's largest publicly held conglomerate, entered the Indian telecom market in 2008 with an investment of \$3.6 billion, but quit within 8 years in 2016.⁸⁰
- RCom had a debt of Rs 50,000 crore when it filed for bankruptcy in 2017.
- Repeated initiatives by the powerful house of the Tatas for 22 long years to corner a monopoly position in the telecom industry through various international collaborations, and through several corporate entities, are a striking example of destruction of capital.⁸¹ Apparently, the Tatas have invested around Rs 50,000 crores over the years in their failed telecom ventures. The Japanese firm Docomo bought a 26 per cent stake in one of the Tata telecom entities for \$2 billion, and they were the first to launch 3G operations in India in 2010; but Docomo exited in 2014 after suffering a loss of \$1.3 billion.⁸² Finally, the Tatas decided to throw in the towel and pass on their vast operations and huge setup to Bharti Airtel in 2017 in a 'debt-free cash-free deal'. In 2017 they had close to 5 crore users, with operations across the country. However, after the entry of Jio, their net worth eroded by Rs 12,000 crores within just a year.
- Compare this performance of private capital with that of the public sector. As the Government itself decided to systematically bleed BSNL dry, it has been making losses since 2010. It has made cumulative losses of more than Rs 1 lakh crore in these 13 years (before that it was consistently making profits).⁸³ While BSNL's performance is

economictimes.indiatimes.com/opinion/interviews/it-became-too-competitive-for-us-to-make-any-money-in-india-sigve-brekke-ceo-telenor-group/articleshow/64198773.cms accessed on 4/11/2022.

80 "Sistema Shyam gets new Russian CEO", *Business Standard*, April 25, 2013. https://www.business-standard.com/article/companies/sistema-shyam-gets-new-russian-ceo-113042400315_1.html accessed on 4/11/2022.

81 "Bharti Airtel gets Tata Teleservices' mobile unit for nothing: All you need to know about the deal," *Firstpost*, October 13, 2017. <https://www.firstpost.com/business/bharti-airtel-gets-tata-teleservices-mobile-unit-for-nothing-all-you-need-to-know-about-the-deal-4138127.html> accessed on 5/11/2022.

82 A lengthy legal battle with Tatas ensued.

83 Vignesh Radhakrishnan & Jasmin Nihalani, "Data | How BSNL bled: The story

criticised, and experts call for its sale, there is no such talk about the performance of the private sector; their poor performance is simply attributed to bad Government policies!

Obviously, the chaotic development of the sector has implications for employment, and job losses are regularly reported in the sector. Interestingly, the Government and industry bodies flaunt figures of the fresh employment provided in telecom, but never share figures about job losses, and hence the *net* growth in employment. There are no organised bodies of employees in these new sectors, and one can only get an idea about job losses from sporadic newspaper reporting. A few examples are cited below to give an idea of the scale of job losses involved and careers and lives lost in the process, about which there is a complete conspiracy of silence:

- Apparently there are around 20 lakh jobs in the entire telecom sector across manufacturing of equipment, services as well as infrastructure. During the Covid lockdown 70,000 jobs were lost, not counting the closure of the telecom manufacturing, where 7 lakh were affected.⁸⁴
- But even before Covid-related dislocations, 40,000 jobs were lost in 2017 and 90,000 jobs in 2018 in telecom services itself, most likely due to the entry of Jio and the mayhem that it caused in the industry.⁸⁵
- When Aircel filed for bankruptcy in 2018, it put 30,000 jobs at stake.⁸⁶
- Tata's telecom arm had around 5,000 employees on its rolls when it

behind public telecom giant's fall in 6 charts," *The Hindu*, August 12, 2022. <https://www.thehindu.com/data/data-how-bsnl-bleed-the-story-behind-public-telecom-giants-fall-in-6-charts/article65758495.ece> accessed on 5/11/2022.

84 "COVID-19: 70000 job losses in telecom industry in India," *Economic Times*, May 22, 2020. <https://telecom.economictimes.indiatimes.com/news/covid-19-70000-job-losses-in-telecom-industry-in-india/75884075> accessed on 6/11/2022.

85 Anshuman Tiwari, "How the great Indian telecom revolution turned into a tragedy of losses and job cuts," *dailyo*, May 4, 2018. <https://www.dailyo.in/business/telecom-industry-spectrum-job-losses-telecom-revolution-idea-cellular-bharti-airtel-reliance-jio-23882> accessed on 6/11/2022.

86 Sindhu Bhattacharya, "Aircel files for bankruptcy: Why consolidation is the way forward for telecom industry," *Firstpost*, March 5, 2018. <https://www.firstpost.com/business/aircel-files-for-bankruptcy-why-consolidation-is-the-way-forward-for-telecom-industry-4376761.html> accessed on 6/11/2022.

decided to close operations and pass on the infrastructure and subscribers to Airtel in 2017. Most of them were asked to leave on a ‘voluntary retirement’ plan⁸⁷.

- In addition, the public sector firms BSNL and MTNL decided to drastically cut their manpower by offering a ‘voluntary retirement scheme’ to their regular employees in 2019. They together brought down their employment numbers by close to 93,000, cutting their employee strength by 50 per cent and 80 per cent respectively. Most of those who left were technical employees, affecting the services provided by the two PSUs severely.⁸⁸

One important reason for the low revenues in the telecom industry is the lack of purchasing power of the people in general. The extension of the telecom consumer base has been greatly accelerated by the rapid fall in prices. The other driving force in expanding the consumer base is the fact that telecom has become a necessity for people, as more and more critical services get linked with the mobile, and it becomes one of the only means to bring some certainty in the uncertain life of a by-and-large contingent/migrant workforce in the country, as was so tragically demonstrated during the Covid lockdown.

And yet even these so-called cheap services form a substantial percentage of overall consumer expenditure, given the meagre resources of the masses. Some evidence is available for this proposition. For example, according to the National Sample Survey of 2014-15, of total consumer expenditure on services, mobile services accounted for 11 per cent in rural India, and 12.5 per cent in urban India. Monthly per capita expenditure on communication services in 2014-15 was among the highest of all expenditures on services - Rs 36.35 for rural India and Rs 102.46 in urban areas on an average.⁸⁹ Note how high the percentage is and how low the actual

87 ‘Bharti Airtel gets Tata...’, *op. cit.*

88 Megha Manchanda, “BSNL, MTNL users put on hold as voluntary retirement scheme hits service” *Business Standard*, February 24, 2020. https://www.business-standard.com/article/companies/bsnl-mtnl-users-put-on-hold-as-voluntary-retirement-scheme-hits-service-120022300740_1.html accessed on 13/03/2023.

89 NSSO, “Key Indicators of Household Expenditure on Services and Durable Goods,” NSS 72nd Round, 2014-15. After ‘food expenditure in hotels’ and ‘transport services’, it is the highest expenditure for both rural and urban consumer on a specific service.

amount is! Another example of the low purchasing power of potential telecom consumers is the rise in consumer base when incoming calls were made free of any charge in 2004; as a result of this change, the number of subscribers increased four times within three years.⁹⁰

Note also that, in this system, ‘cheap’ services come with poor quality. This we can observe all along in this telecom miracle, amply confirmed by personal and other anecdotal experiences. In 2016 the Telecom Regulatory Authority of India (TRAI) reported a call drop rate of as high as 24.6 per cent for 2G services and 16.1 per cent for 3G – this was against their own standard of *less than 2 per cent!*⁹¹ In 2018, India ranked 113th in mobile internet speed, with download speeds of 9.14 Mbps, while the global average was 2.5 times that, at 22.2 Mbps. Notably among our neighbours, China was ranked 37th and Sri Lanka 79th on the same metric.⁹² A 2023 report in *The Hindu* brings out the fact that broadband speeds are still poor in most of the smaller towns and villages in the country, and lag far behind speeds in the cities, due to lack of investment in telecom infrastructure by the operators – precisely because the non-metro customers do not constitute an attractive market.⁹³

While, on the one hand, operators have tried to reach cheap services to more and more consumers, on the other hand, in their drive to undercut one another, not enough investments have been made in the requisite infrastructure; obviously services would suffer. For instance, in 2020, the length of the fibre-based telecom network in India was only 2.8 million kilometres, against the target of 5 million kilometres set by the Government for 2024. Moreover, a substantial 800,000 kilometres out of this is BSNL’s

90 ‘25 years since...’ *op. cit.*

91 Prabir Purkayastha, “Claiming Victory in Defeat: The Spectrum Auction Fiasco,” *Newslick*, October 22, 2016. <https://www.newslick.in/claiming-victory-defeat-spectrum-auction-fiasco> accessed on 6/11/2022.

92 Prabhakar Thakur, “New Telecom Policy Is Here but What About the Previous One?,” *Gadgets360*, August 30, 2018. <https://gadgets.ndtv.com/telecom/features/national-telecom-policy-2018-targets-2012-policy-achievements-gaps-analysis-1908692> accessed on 6/11/2022.

93 Aroon Deep, “New broadband definition highlights the plight of India’s barely connected ‘grey spots’,” *The Hindu*, February 13, 2023. <https://www.thehindu.com/news/national/new-broadband-definition-highlights-the-plight-of-indias-barely-connected-grey-spots/article66500639.ece> accessed on 15/02/2023.

investment, and as BSNL has been bled dry, all this public investment will finally end up with private operators. In 2020, achieving the target meant an estimated additional investment of substantially over Rs 130,000 crores. Not surprisingly, in India only 32 per cent of towers have been fiberized, in comparison to more than 75 per cent in China.⁹⁴

3. Overarching Logic of Monopoly-Finance Capital

As we have mentioned before, telecom business requires very high fixed costs, while the marginal cost of serving an additional customer is fairly low. Thus a large consumer base is essential for drawing the advantage of economies of scale.⁹⁵ Moreover, telecom services for the consumer are an undifferentiated ‘commodity’; the only differentiation that service providers can offer is in the price. Therefore, all along, there has been overwhelming pressure to cut prices and gain market share.

If this is the case, then how do operators make money? We can see a four-part pattern here:

1. As we have already said, one overarching motivation appears to be able to gain pre-eminent market power; this would provide control over the pipeline for providing many essential services, as well as data that can be monetised.⁹⁶
2. In part II we have also seen that many operators exited while making speculative gains on their investments, in particular on the licenses and spectrum that they had cornered through Government allocations and auctions.
3. Another important means appears to be, as has been discussed especially in Part III, to get increasing Government concessions and ‘freebies’.
4. Beside the above, the surviving operators appear to be also in the

94 Muntazir Abbas, “Fiber deployment critical for quality of service, economic benefits: Telecom, infrastructure companies,” *Economic Times*, November 13, 2020. <https://telecom.economicstimes.indiatimes.com/news/fiber-deployment-critical-for-quality-of-service-economic-benefits-telecom-infrastructure-companies/79208500> accessed on 6/11/2022.

95 The high fixed costs get distributed over a larger base.

96 This needs a full-fledged separate analysis and hence has not been developed in this article.

business of financialisation of their respective businesses and investments, that is, making money out of monetary assets, independent of whatever is happening to their actual telecom operations. We elaborate on this aspect in this subsection.

Let us take the example of Airtel, who were the early entrants in the industry. A Bharti Airtel share had a price of Rs 12 in 2002, but by 2022 it rose to Rs 760, an appreciation of more than 60 times in 20 years. Sunil Mittal, the main promoter of the firm and first generation entrepreneur, has become one of the wealthiest persons in India, with a net worth close to \$15 billion.⁹⁷ How wealth can be created from financial manipulation, and how Airtel has done it, is brought out in some detail by a draft report of the CAG in May 2015. For instance, the report brings out how financial wealth worth more than Rs 44,000 crore was created by mere corporate restructuring and transferring assets back and forth from one entity to another during 2006-10. The report explains how Airtel spun off several of its divisions and created subsidiaries to which assets were transferred at book value (i.e., the original cost of these assets minus depreciation). These subsidiaries then revalued the assets at the market price, which was much higher than the book value. After two or three years, the subsidiaries were remerged with the parent company, creating ‘wealth’!⁹⁸ A somewhat similar manoeuvre of ‘wealth creation’ by RCom through mere restructuring was discussed in Part III (section 3), as revealed in the Veritas Report.

No less remarkable is the massive interest that international finance has come to have in the largest private operator in India, Reliance Jio. The parent company of Jio, Reliance Industries, floated an in-between holding company in 2019, Jio Platforms Ltd. (JPL), in order to control Jio Telecom and other digital initiatives of the group that will ride on their telecom network. In an extraordinary sequence of events, in April-June 2020, a series of 11 investments were made in JPL, in quick succession, by big international finance and tech companies. Thus, JPL raised around Rs 1.1 lakh crore by selling over a fifth of its ownership stake, with an ‘astound-

97 “India’s 100 Richest People,” <https://www.forbes.com/india-billionaires/list/#tab:overall> accessed on 8/11/22.

98 P. G. Thakurta and A. R. Ghatak, “What Lies Behind the Incredible Rise and Rise of Bharti Airtel.” *The Wire*, August 6, 2015 <https://thewire.in/economy/what-lies-behind-the-incredible-rise-and-rise-of-bharti-airtel> accessed on 20/12/2022

ing' valuation of 165 times of its EBIT.⁹⁹ Facebook (now Meta) bought 10 per cent of JPL shares for \$5.7 billion, Google invested \$4.5 billion, while other investors included Qualcomm, American investment company KKR, Mubadala (the Abu Dhabi state investment arm), the Saudi sovereign wealth fund, and several other influential international investors. Before this series of investments, the Reliance group had a huge overhang of debt. But by selling almost 30-32 per cent of the JPL stake in a space of a few months, it raised \$20-22 billion from big tech and international finance and cleared its debts. Remarkably, the bulk of these investments were made while India was reeling under the Covid-19 pandemic and was in the midst of an absolute lockdown.

Airtel and Jio are only two important instances of financialisation of the telecom services and investments. But given the extent of India's dependence on foreign knowhow and the huge capital involved in acquiring it, international finance is involved in every step of the game:

- To begin with, even in conducting the spectrum auction Government agencies have sought the expertise of international bodies. For the 3G e-auction in 2010, it was reported that the house of Rothschild and consultants DotEcon provided advice to the Government.¹⁰⁰
- As most of the equipment is of foreign origin, equipment purchase is generally done through supplier's credit that is financed by export credit agencies of manufacturers' home-countries.
- Most of the foreign investments in the sector have been to buy existing companies (or shares in existing companies), and not to make fresh investments. Even acquisitions by one operator of another have involved big finance. Operators regularly leverage their shares to acquire bank funds for acquisitions, rather than bringing in fresh equity.¹⁰¹

99 Generally, a valuation-to-earning ratio of 10 is considered to be 'healthy' in finance circles. For details on the series of investments in JPL and their analysis, see this story: Abir Dasgupta, Paranjy Guha Thakurta, "Is Reliance's Rights Issue Over-Valued?," *Newslick*, May 20, 2020. <https://www.newslick.in/Reliance-Industries-Limited-Rights-Issue-Mukesh-Ambani-Facebook-Jio-Deal> accessed on 8/11/22.

100 Alok Kumar, "3G Spectrum Auctions in India: A Critical Appraisal," *EPW*, vol xlvi, no 13, March 26, 2011, pp. 121-129.

101 'Claiming victory in defeat...', *op. cit.*.

- Operators facing financial stress have often resorted to financialising their infrastructure, for example, selling off cell towers to real estate and financial interests, and then rehousing the towers on rent. It was reported that 2/3rd of the 4 lakh cell towers of the four big operators in 2017, Bharti, Vodafone, Idea and RCom, were up for sale. They were bought by international financial and real estate firms such as KKR, ATC and Brookfield.¹⁰²
- International private equity has been a major participant in the telecom sector. For example, Warburg Pincus invested \$292 million in Airtel between 1999 and 2001, and made \$1.83 billion when it left in 2004 and 2005, thus earning an extraordinary return of 5.5 times on its investment in merely five years!¹⁰³

4. Woeful Dependence on Foreign Know-how

India's telecom industry is often flaunted as the 'second largest telecom market' in the world. And yet it is rarely mentioned that it has little to show in terms of indigenous capabilities. Most tellingly, we have lost even the limited technological capabilities which were built in pre-1990s' telecom sector, primarily in the public institutions such as the Indian Telephone Industry (ITI) and Centre for Development of Telematics (CDoT). Further, in spite of three decades of telecom sector under the leadership of big private capital, India has miserably failed to make any progress in catching up with the industrialised nations. On the contrary it has fallen way behind even China, which had been at a similar level of technological capability in telecom in the 1990s.

Precisely because of lack of the required know-how in cellular telephony, and with the idea that India would be able to catch up under the

102 Surajeet Das Gupta, "260,000 towers up for grabs as telcos look to repay debt and boost network," *Business Standard*, November 4, 2017. https://www.business-standard.com/article/companies/260-000-towers-up-for-grabs-as-telcos-look-to-repay-debt-and-boost-network-117110400059_1.html accessed on 10/11/2019.

103 Raghavendra Kamath, "Airtel DTH exit a blip in Warburg Pincus' blockbuster India story," *Business Standard*, February 20, 2021. https://www.business-standard.com/article/companies/airtel-dth-exit-a-blip-in-warburg-pincus-blockbuster-india-story-121022000020_1.html accessed on 10/02/2023.

leadership of big private capital, foreign collaboration was a requirement right from 1992, when the first licenses were granted. But beyond lip service, the establishment had no real agenda to pursue an independent path whereby India would become technologically capable at any point of time. All along, the policy framework was hijacked by the short-term calculus of the private players. One example: often manufacturers of even something as rudimentary as handsets complained that the duty structures that the government pursued were rather ‘inverted’, where raw materials and intermediate goods had a higher duty structure than finished goods, and thus it was cheaper to import ‘made in China’ stuff and sell it in India rather than trying to invest in manufacturing facilities and/or R&D institutions with all their uncertainties.¹⁰⁴

The true state of India’s telecom sector manufacturing and its technological prowess in general is reflected in the state of indigenous mobile handset manufacturers. All along, every single policy pronouncement talked about encouraging indigenous capabilities, especially as the Indian telecom market was becoming progressively larger. Anywhere you look, advertisements, hoardings, sponsors, ecommerce are dominated by mobile phone brands. And yet, despite the huge demand base, Indian manufacturers have all but disappeared. This reflects the reality of Indian monopoly-finance capital, and that of Indian State policy.

The presence of Indian brands in the handset market is shockingly low today, as low as 1 per cent. They have been over taken predominantly by Chinese brands¹⁰⁵ such as Xiaomi, Realme, Vivo, Oppo, etc., along with the Korean brand Samsung. Each of these hold substantial market share in smartphone market, which has come to dominate the industry in value terms. Even the feature phone market, now only 5 per cent of the mobile phone market, is dominated by international brands such as ITEL, Samsung and Nokia. At various points of time, Indian brands such as Lava, Micro-

104 Prabir Purkayastha, “NTP 2011: Yesterday’s Scam as Policy Today,” *NewsClick*, October 20, 2011. <https://www.newsclick.in/ntp-2011-yesterdays-scam-policy-today> accessed on 10/11/22.

105 In terms of volumes, Chinese brands occupied a staggering 99 per cent market share. See: Krishna Veera Vanamali, “How did Chinese smartphones wipe out Indian brands?,” *Business Standard*, January 19, 2022. https://www.business-standard.com/podcast/current-affairs/how-did-chinese-smartphones-wipe-out-indian-brands-122011900113_1.html accessed on 11/11/22.

max, Intex, iBall and Karbonn have occupied some space in the market. But their story is similar to that of the telecom services industry: the Indian handset firms have entered with the limited agenda of making quick profits and cornering Government incentives. In the process each of them has lost to international competitors and ended up leaving the market or becoming insignificant. Three decades down we have almost no presence in the handset market, let alone in the market for relatively high-tech switching and network gear, where we are completely dependent upon international vendors, as we will briefly discuss below.¹⁰⁶ In its 13th Report to the Parliament, the Standing Committee on Information Technology on the Ministry's Demand for Grants for 2019-20 voiced its distress in the following words:

India had imported telecom equipment worth... Rs. 1,41,168 crore in 2017-18 and Rs. 1,24,992 crore in 2018-19. China remains the number one country from where India is making the maximum import. The Committee feels that the import of telecom equipment will increase substantially with the introduction of newer technology like 5G and desires to know why the Department have made no plans to develop 5G indigenously (emphasis added).¹⁰⁷

Ever since the talk began of rolling out 5G services, the head of the Reliance group, Mukesh Ambani, has claimed on many occasions that they were going to use 'indigenous', 'in-house' technology. The Finance Minister, Nirmala Sitharaman, even claimed that India is ready to supply indigenous 5G technology to the world. But as yet no hard evidence has emerged for these claims, whether in terms of expenditure on R&D, filing of any patents, or manufacturing base for the network equipment.¹⁰⁸

106 Such handset manufacturing plants as India possesses belong largely to foreign brands. These do not develop any indigenous capabilities, as their facilities are a black box, protected further by the global IP regime.

107 Quoted in: E A S Sarma, "5G Spectrum – Is it a distress sale? CAG may look at it carefully," *Countercurrents*, 13/08/2022. <https://countercurrents.org/2022/08/5g-spectrum-is-it-a-distress-sale-cag-may-look-at-it-carefully/> accessed on 11/11/22.

108 Surajeet Das Gupta, "How ready is India to sell indigenous 5G technology globally? Jury's out," *Business Standard*, October 18, 2022. https://www.business-standard.com/article/companies/explained-how-ready-is-india-to-indigenous-5g-technology-to-the-world-122101801143_1.html accessed on 11/11/22. The article reports that both Jio and the Tatas are trying to develop indigenous 5G technology, but there is no clarity about the

A study reported that during 2000-2015 period almost all the patents filed related to mobile technology in India were by the foreign companies and *none* issued to any Indian company.¹⁰⁹

In any case, as the roll out of 5G services has begun, it is reported that both Airtel and Jio have been sourcing the equipment, combined with the knowhow for putting together the network, from the standard global suppliers – Samsung, Ericsson and Nokia (the Chinese have been excluded by policy of the Indian government). In fact, Jio’s 4G network was outsourced to Samsung, so it is a mystery how they claim to be suddenly leapfrogging into putting together a 5G network. A short Appendix discusses some more aspects of the claims regarding sourcing of 5G technology by the Indian monopoly capital as well as the policy makers.

Leapfrogging in the race for technology requires a long-term policy and close collaboration between State institutions and firms, and long term investments, particularly in R&D, as most of the know-how is locked up in intellectual property rights (IPRs) that the international corporations are extremely unwilling to part with. That this is not an impossible task, especially for a resource-rich nation like India of sub-continental proportions, can be best illustrated through a brief discussion of the Chinese example.

China has been able to make huge strides in indigenous telecom technology in the same two to three decades since India embarked on telecom expansion under the leadership of big private capital. In China’s case, the role of State institutions and policy has been the key, even if some of the development was carried out under the private sector. Unlike India¹¹⁰, China leveraged its vast markets to compel foreign firms to provide access to state-of-the-art technology, and to ensure transfer of technology and manufacturing hardware. Moreover, the leading role was reserved for the public sector, and the largest of the telecom service providers in the vast country

timeline; at best these may supplement the existing imported technology in a few areas. In the absence of the deployment of this technology in India, it is difficult to understand how it is ready to be supplied to the world.

109 Sunil Mani, “Developing India’s Mobile Phone Manufacturing Industry,” *EPW*, Vol LV, No. 19, pp. 50-57, May 9, 2020.

110 This should make us seriously question the commonly held idea that, the vast reach and pace of telecom development in India would not have been possible but for under the leadership of the big private capital.

even today work under the government sector.¹¹¹

The developments in Chinese telecom are reflected in the remarkable rise of Huawei. It came from nowhere and had no background in sophisticated technology of any sort beforehand, like much of the Indian capital in telecom. Huawei was founded in 1987 by a Red Army engineer, Ren Zhengfei, as a trading company, which began trading in telecom switching gear in early years. But in a mere two decades it became a central actor in global telecom manufacturing and technological development. That has been the reason for all the geopolitics around Huawei, since telecom is a strategic sector with huge security implications. In 2018, its revenues were more than \$100 billion annually. It was the largest telecom equipment producer and the second largest smartphone maker in the world, with 180,000 employees and operations in 170 countries. Even the envious and unsympathetic western press has had to grudgingly admit the remarkable rise of Huawei, and report on its unique ‘culture’ and other unusual features such as the nature of its ownership – founder Zhengfei retains only a 1.4 per cent stake in the company, and the rest is distributed among 81,000 employees, no doubt a motivating factor for its employees’ efforts.

Among global tech companies Huawei has one of the largest R&D expenditures, at \$13 billion in 2018, with 80,000 working only for R&D.¹¹² Perhaps its massive R&D expenditure is the key to its rise. Between 2002 and 2010 it opened 57 company-owned innovation centres across the globe, each specialising in a specific domain. By 2015, the number of international patent applications submitted by Huawei reached a record 2,180,000, and they owned over 35,773 patents.¹¹³ *Wall Street Journal* had to admit in 2018 that merely a fraction of the semiconductor components inside Huawei’s top-of-the line P20 smartphone came from US suppliers. Contrast any of these features and developments with the best of Indian

111 Sandeep Hasurkar, “A tale of two policies,” CNBCTV18, Aug 11, 2021. <https://www.cnbctv18.com/economy/a-tale-of-two-policies-telecom-economic-reforms-china-vs-india-10333811.htm> accessed on 13/11/22.

112 Dan Strumpf, Min Jung Kim and Yifan Wang, “How Huawei Took Over the World,” *The Wall Street Journal*, December 25, 2018. <https://www.wsj.com/articles/how-huawei-took-over-the-world-11545735603> accessed on 13/11/22.

113 B. Joseph, “The Company that Apple is Frightened by: Huawei,” Medium, August 12, 2018. <https://medium.com/swlh/the-company-that-apple-is-frightened-by-huawei-e897ec1bc564> accessed on 13/11/22.

capital, not only in telecom, but, for that matter, in any sector.

Huawei's emergence would not have been possible without a whole ecosystem and its priorities and constraints, in contrast to the particular type of monopoly-finance capital that has come to corner the vast Indian telecom market and its priorities. A small anecdote reported by the *Harvard Business Review* illustrates the priorities of Huawei and its leadership: when Stephen Roach, chief economist for Morgan Stanley, wanted to visit the Huawei headquarters in Shenzhen with the intention of investing in the company, Zhengfei declined to give him an appointment. A disappointed Roach commented, "He was rejecting a team with \$3 trillion." And Zhengfei retorted, "He is not a customer,"¹¹⁴ meaning that his priority was not to cosy up with US finance capital.

At present there is talk that India is about to leapfrog into global manufacturing, and will finally realise the aim of an '*atmanirbhar bharat*' (self-reliant India). Last year the Government announced a \$10 billion incentive to global semiconductor manufacturers for India to become a player in the chip-making global supply chain. It has announced a Rs 2 lakh crore Production Linked Incentive (PLI) scheme in 2020 across a number of sectors to incentivise 'domestic' manufacturing. In the 2019 Union Budget the Finance Minister had announced a drastic cut in corporate taxes (estimated at Rs 1.5 lakh crores) to incentivise corporate sector investments. Global semiconductor manufacturers such as Foxconn and Taiwan Semiconductor Manufacturing Company (TSMC), global telecom equipment manufacturers such as Samsung, Nokia, Ericsson, and Flextronics, global mobile handset manufacturers such as Apple (through its three contract manufacturers) and Samsung, as well as several Indian (e.g. Tata, Vedanta) and global corporate groups across several industries, are availing of these 'incentive' schemes.¹¹⁵ The establishment propagates the view that this will

114 David De Cremer & Tian Tao, 'Huawei's Culture Is the Key to Its Success,' *Harvard Business Review*, June 11, 2015. <https://hbr.org/2015/06/huaweis-culture-is-the-key-to-its-success> accessed on 13/11/22.

115 Raghuram Rajan, Rohit Lamba and Rahul Chauhan show that the PLI scheme may be merely subsidising assembly operations of multinationals like Apple in India without significant value added in India; in fact, once the very substantial repatriated profits and royalties to Apple are subtracted, the net foreign exchange earning for India would be even lower. "Are Government Freebies Under PLI Scheme Truly Necessary to Enhance Manufacturing in India?". *The Wire*, January 24, 2023. <https://thewire.in/economy/freebies-pli-scheme-manufacturing> accessed on 14/03/2023.

somehow enable India to leapfrog stages of development and become ‘another China’.

It is not for the first time that Indian and international big capital are being incentivised to propel India into the ranks of the industrialised nations. But there is little analysis of what has not worked in the past. The telecom sector is considered an outstanding achievement of India’s three decades of economic reforms under the leadership of monopoly capital. As we have seen, the sector’s actual achievements in developing domestic capabilities are meagre, the expansion of the consumer base has come at the cost of a range of large State subsidies, often hidden, and the sector remains dependent on foreign firms and tied to international finance capital. ‘More of the same’ – leaving things to monopoly capital and providing it more and more ‘incentives’ – is likely to produce more of the same results.