Enhancing Export Competitiveness of India's Electronic Hardware Manufacturing Ecosystem

Policy Measures and Recommendations

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PREFACE

The study commissioned by MAIT identifies policy measures and recommendations to create an export-led globally competitive electronic hardware manufacturing ecosystem in India.

This paper analyses the three subsectors of **Mobile Phones and Chargers, PCs, and Network Equipment**. With support from The Dialogue, a New Delhi based think-tank, the report identifies and estimates India's' disabilities and recommends short-term and long-term interventions to create an export-led electronics manufacturing ecosystem in the country.

The study involved primary and secondary research with participation of leading manufacturers in the above sectors. The study methodology adopted a qualitative enquiry followed by quantitative compilation. The suggestions made herewith have been developed keeping in mind that interventions need to be WTO compliant.

The report has been prepared under the guidance of MAIT's Export Focus Group

ACKNOWLEDGEMENT

The data presented and analyzed in this study by MAIT was collected via detailed questionnaires and individual interviews with the major stakeholders of the electronics hardware industry. The research was conducted from June 2019 to August 2019, with the support of The Dialogue. MAIT gratefully acknowledges the generous support of these agencies and are grateful to all stakeholders who guided MAIT and The Dialogue through this study with their expertise.

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EXECUTIVE SUMMARY

WTO Compliant Incentive

In 2017, WTO notified India that its GNI was $1,051 in 2013, $1,100 in 2014 and $1,178 in 2015. As MEIS is expected to be waived off by December 2019, we have suggested alternative reimbursements and production-based incentives that are compliant with the terms set by the WTO. **Since WTO does not permit any discrimination in production incentives for domestic consumption or export purposes, this paper recommends measures that can contribute to India incentivizing its electronic manufacturing sector while remaining compliant with the WTO standards. (Refer Annexure - M)**

The Recommendations

This study outlines a combination of policy reforms, consisting of reimbursements of state and central tax levies, relaxation on corporate income tax and production-based incentives. In order to compensate for the discontinuation of the Merchandise Export from India Scheme (MEIS) framework, India needs a policy framework that makes up for India's disabilities. The suggestions and recommendations have been identified with this objective.

Indian electronics hardware ecosystem suffers an export related disability of up to 18% with respect to China, Vietnam, Taiwan and other South-East Asian countries. The disabilities, however, vary from country to country and from product to product. This implies that electronic hardware products made in India are at a competitive disadvantage on account of export incentives offered by competing economies, the absence of component ecosystem and tariff structures. Due to these, India is not the preferred manufacturing destination for global supply chain players. Additionally, India’s higher finance cost has a hidden cascading impact through the value chain.

To overcome these disabilities in electronic manufacturing, a net incentive of minimum 8% needs to be given to the electronic manufacturing sector.

It is recommended that the incentives be given under the following heads which are WTO compliant:

1. **Rebate of State & Central Taxes and Levies**
2. **Complete tax holiday to the electronics manufacturing industry for the initial 5 years following which a corporate tax of 15%**
3. **Production based incentives on products that are meant for domestic consumption and exported from India**

Sector specific recommendations are contained in the respective sections below.

Harmonization of Chargers and Mobile Phones incentives resulting in equal treatment of both must be considered, due to the potential of chargers' value addition going **up to 45%**.

For products under ITA-1 which are tied to 0% Basic Custom Duty (BCD), including PCs and servers an **incentive of 10% GST reimbursement, on products manufactured in India for domestic shipments, and a similar incentive on exports and to overcome India's disabilities.**

A capital investment framework similar to Modified Special Incentive Package Scheme **(M-SIPS)** to **support the heavy capital investment involved in building and creating the local manufacturing ecosystem needs to be put in place**. Additionally, this framework should also grant **Capital Investment interest subsidies.**

The new policy framework must put in place a time bound release of incentives and refunds improving the ease of doing business and lowering of India's disability.

The Network equipment products are unique in nature, and since manufacturing of these products in India is at a nascent stage, there is a need to constitute a separate phased manufacturing plan. At the initial stage, what is required, is to encourage "System integration" by allowing all components including PCBA at zero duty.

As India progresses to execute the policy measures for an export-led electronics manufacturing ecosystem, it needs to be highlighted to potential investors that India assures a highly stable policy environment, that the measures announced will not be retracted before the committed period and changes if any will be progressive. Further, it is very important that India reaches out and aggressively markets these policy measures and positions itself as one of the most attractive destination for investments in electronic manufacturing.

The Rationale

India's Disabilities

Electronic manufacturing in India suffers disabilities on account of non-availability of local component ecosystem, lack of local supply chain, uninterrupted power supply, connectivity to ports and airports (& the lack of global transshipment hubs for sea & air out of our country), delays in allocation of land, customs clearances, etc. **(Refer Annexure C)**. Beyond the short-term interventions recommended, India needs to execute in parallel on the long-term structural reforms to eliminate these disabilities permanently. **(Refer Annexure F and Annexure G for Fiscal and Non-Fiscal Measures respectively)**

Embedded Domestic Taxes

The export of embedded taxes in the domestic value chains has to be eliminated. Reimbursement of embedded taxes is WTO compliant, therefore, the government must consider refunding all embedded taxes that are levied during the manufacturing process. The taxes levied at different stages of the value chain and exports contribute to making Indian manufacturing non-competitive. Apart from the output tax, there are embedded taxes levied at different stages of the value chain **(Refer Annexure E).**

The Inertia of Shifting Supply Chains to India

Competing nation-economies offer a number of incentives and rebates on taxes levied by them **(Refer Annexure D). Amending Section 80-IB, Income Tax Act, 1961 to include the electronics manufacturing industry to provide a complete** tax holidays for a period of 5 years from coming into profit.

To attract investments into the electronic manufacturing sector, India has to compete with countries such as Vietnam, China & other South East nations. India needs to match or better the fiscal incentives and operating environment provided by them to make itself an attractive destination. Else the possibility of shifting electronic manufacturing to India is remote.

There are fiscal and EXIM reforms required to support the setting up of an export led electronic manufacturing ecosystem including permeability between SEZ and DTAs, local Component Hub ecosystem etc. Initial disruption and set up lead times for the shift to occur will need to be accounted for before expecting immediate results.

Ease of Doing Business

The process of claiming incentives tends to be complex involving multiple Govt. agencies and lengthy delays. It is critical that government puts in place a simple single window mechanism for realization of manufacturing incentives.

A contract framework is recommended between the Central government and the State governments participating in the development of an export-led manufacturing ecosystem. A state that agrees to the framework of state incentives paid through the central government becomes a preferred destination for companies to set up their plants. In this framework, a mechanism is to be put in place, wherein, the Central govt. deducts the revenue payable to the states, to the tune of incentives payable.

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INTRODUCTION

'Make in India' launched by the Hon'ble Prime Minister on September 25, 2014 calls for making the country a global manufacturing hub. The country has set a target that India's Manufacturing sector should contribute 25% of the GDP by 2025[1] as a part of India's goal of achieving a $5 trillion economy. Today, 50% of the manufacturing GDP[2] is from the auto sector creating the need to de-risk India's growth strategy by developing other sectors.

The **Electronic Hardware manufacturing sector** with its relatively short gestation period, can contribute majorly to India's GDP. Further, the electronic import bill of the country **is the second largest after oil and it is projected to increase rapidly**. Hence, the urgent need for India to evolve an **export-led electronics manufacturing strategy** that will not only contribute to the GDP but also ensure that India is net foreign exchange positive on its electronic consumption.

An export led electronics manufacturing strategy is critical for the following reasons:

1. **To realize India's aspiration to become a $5 Trillion economy**
2. **Make India net foreign exchange positive on the electronics import bill**
3. **It builds an electronics manufacturing ecosystem that is globally competitive**
4. **Employment Generation and increase in labour productivity**
5. **It brings about technological progress**
6. **Utilization of idle capacity within the country.**

The first decade and a half (2000-2015) of driving electronic manufacturing was targeted at import substitution, through BCD tariffs to give an impetus to local manufacturing. This strategy has delivered good returns in terms of domestic manufacturing capacity set up for mobile phones and PCs. But it has an inherent disadvantage of limiting manufacturing for domestic consumption and shielding India's domestic manufacturing inefficiencies. For India to realize its dream it has to pursue an aggressive export-led manufacturing strategy.

Thus, the objective of the second phase of India's electronic manufacturing cycle should be to set up an export led manufacturing ecosystem. Inherently, for such a competitive ecosystem to be globally competitive-

a. **It has to be of a global scale**
b. **Must be interlinked with the upstream and downstream global value chain**
c. **Must work closely with and evolve into a design led ecosystem.**

[1]Make in India, The vision, New Processes, Sectors, Infrastructure and Mindset, Make In India, Retrieved From: http://www.makeinindia.com/article/-/v/make-in-india-reason-vision-for-the-initiative

[2]Ashok Kumar, et.al, (Sept. 7, 2019), Wheels of Misfortune: On Crisis in Automobile Industry, The Hindu Retrieved From: https://www.thehindu.com/business/Industry/wheels-of-misfortune/article29354773.ece; See Also: Malini Goyal, (April 28, 2019) With India's Economy Growing at About 7%, Why the Auto Industry is Hurting So Badly, The Economic Times, Retrieved From: https://economictimes.indiatimes.com/industry/auto/auto-news/when-indias-economy-is-growing-at-about-7-then-how-could-auto-industry-be-hurting-so-badly/articleshow/69075048.cms?from=mdr

Today the electronic manufacturing hubs are located in China, Vietnam, Indonesia, Malaysia, Taiwan, Korea etc. and India has two challenges in creating a similar ecosystem in the country:

1. **Overcome its disabilities and make electronic manufacturing out of India globally competitive**
2. **Attract major brands and their EMS companies and component vendors to shift their manufacturing base from the existing hubs to India.**

India had introduced two frameworks in the last decade: MSIPS in 2012 and MEIS in 2015. M-SIPS was discontinued on 31st December 2018 putting India at a disadvantage with other economies. In addition, MEIS was recently challenged at the WTO and in all probability will be deemed to be inconsistent with WTO rules.

It is essential that policy makers **now address the uncertainty surrounding MEIS & MSIPS due to which investment decisions of large companies are on hold, as well as launch alternative policy and mechanisms in the probability that MEIS will be discontinued.**

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SECTOR WISE ANALYSIS

MOBILE PHONES AND CHARGERS

Mobile phone exports from India have grown to $1.61 Billion in 2018-2019 from $0.21 Billion in 2017-2018[3] showing a steady growth.

Table No. I

Market Size (2019 and Projected 2025) for Mobile Phones

Global Market Size (2019)	India Market Size (2019)	Global Market Size (2025)	India Market Size (2025)
$495 Bn	$24 Bn	$640 Bn	$80 Bn

Table No. II

Exports from FY 2016 to FY 2019 (Apr-June) for Mobile Phones

Product Category[4]	HS Code	Exports in 2016-17 (Mn$)	Exports in 2017-18 (Mn$)	Exports in 2018-19 (Mn$)	Exports in 2019-20 (Apr-June) (Mn$)
Mobile Phones	851712	171.55	212.00	1,612.65	661.47

This growth is credited to the collateral effect of the domestic manufacturing capacity set up in the country and the MEIS and M-SIPS framework. Although, the above table demonstrates a growth in exports, it is important to note that India's mobile phones exports are only 0.32% of the global market. In the absence of MEIS or alternate scheme(s), even these meagre exports would once again plunge to what they were before the introduction of the scheme.

NPE 2019 has set the goal of building of $190 Bn mobile handsets industry by 2025. NPE 2019 envisions $110 Bn of exports and $80 Bn domestic production.

It is pertinent to keep in mind that the estimated domestic consumption of $80 Bn by 2025 will place a heavy strain on the balance of payment and this export led manufacturing strategy will give India the opportunity to make it net foreign exchange positive as simulated. (Annexure I)

[3]Annual Report, Ministry of Electronics and Information Technology, Retrieved from:https://meity.gov.in/writereaddata/files/MeiTY_AR_2018-19.pdf
[4]Export Import Data Bank, Department of Commerce, Retrieved From: https://commerce-app.gov.in/eidb/ecomq.asp?hs=851712

Table No. III

Projection for Mobile Phones for 2025

TARGETED PRODUCTION	TARGETED EXPORTS	TARGETED VALUE ADDITION
$190 Bn	$110 Bn	34%

The major manufacturing bases for mobile phones are in just two countries, namely China & Vietnam, catering to five brands that constitute 80-85% of the global mobile phone market. As a strategy, India needs to attract 2-3 of these leading brands to shift manufacturing into India. The Global Value Chains supplying components and allied services will automatically follow the geographical shift of these leading brands, so that the integrity and speed of the supply chain remains intact.

In addition to this strategy, actions need to be taken to reverse the current exports trend from the Indo-ASEAN-FTA countries, otherwise there would be an inertia against the shift into India from these geographies. It is worth noting, that exports from AIFTA countries are given preferential duty treatment (BCD of 0 duty, if the rules of origin are met). Thus, the manufacturing bases located in AIFTA countries can feed the Indian market at 0% BCD and also address the global markets simultaneously as these countries have better infrastructure and operating environments.

In the upcoming absence of MEIS, the existing incentives do not compensate for the manufacturing disability of India. To overcome this disability, the industry needs minimum support of **8% under an MEIS equivalent, consistent with WTO norms.**

The **export disability** of the mobile phone sector arises on account of the high production costs due to the **lack of infrastructure**, **lack of component eco-system and the fiscal constraints surrounding taxes on different levels.** In order to compensate for the above-mentioned disabilities, **The Government of India needs to introduce policies that would encourage exporters around the world to manufacture and export goods from India.**

CHARGERS

India has the opportunity to become the leading exporter of chargers to the world if there is harmonization of manufacturing incentives equivalent to mobile phones. The estimated global market for chargers is $10 Bn in 2025.

Current HS code classifies mobile phone handsets and mobile phone chargers as two separate commodities. Under the MEIS, the incentive on chargers is only half of (2%) of that given-on mobiles. This leads to a disparity between the two products, despite the disabilities having the same effect on both.

As the table below shows, mobile chargers have delivered stable growth through the years and will continue to do so at an accelerated rate if incentives for charger manufacturing are harmonized with that of mobile handsets.

Table No. IV

Exports from FY 2016 to FY 2019 (Apr-June) for Chargers

Product Category[5]	HS Code	Exports in 2016-17(Mn$)	Exports in 2017-18 (Mn$)	Exports in 2018-19 (Mn$)	Exports in 2019-20 (Apr-June) (Mn$)
Chargers	85044030	143.05	122.35	236.49	61.84

Table No. V

Projection for Chargers for 2025

TARGETED PRODUCTION	TARGETED EXPORTS	TARGETED VALUE ADDITION
$6 Bn	$5.50 Bn	45%

PERSONAL COMPUTERS AND MONITORS

Personal Computers fall under the purview of ITA-1, pegging the import BCD at 0%. However, under an aspirational strategy led by PMA (Preferential Market Access) the manufacturing of PCs saw an all-time high between the years of 2008 and 2012, with all the five major brands setting up manufacturing plants in the country. However, due to inherent Indian manufacturing disabilities and several other reasons, including subdued demand, the scale did not pick up and today it is more expensive to manufacture a PC in India vis-a-vis imports.

Currently, the Indian market size for PCs is **$5.5** Bn, the bulk of which is catered to by imports, despite India having a domestic capacity of **6 Mn units.**[6]

With a global PC market worth $237 Bn[7] as of 2019 with approximately **392.6 Mn units** being shipped worldwide (including tablets), the goal for India in Phase I should be to aim for **20% of the global market.** Thus, an export led Indian PC manufacturing industry is looking at a **$51** Bn manufacturing opportunity leading to job creation and achieving a foreign exchange positive for the country.

[5]Export Import Data Bank, Department of Commerce, Retrieved From :https://commerce-app.gov.in/eidb/ecomq.asp?hs=851712

Table No. VI

Market Size (2019 and Projected 2025) for PCs[8]

Global Market Size (2019)	India Market Size (2019)	Global Market Size (2025)	India Market Size (2025)
$237 Bn	$5.53 Bn	$237 Bn	$5.50 Bn

As per IDC projections, during 2019-2023, the global desktop-laptop market is predicted to grow at a CAGR of -1.2%. Interestingly, though there is a de-growth in numbers by 0.4%, in value terms the numbers remain flat because laptops are becoming a larger percentage of the market. Assuming that the value will remain flat, global market for PCs in 2025 is estimated to be $237 Bn.

India today has an estimated PC penetration of 15.53 PCs per population of 1000 (vis-a-vis 784 per 1000 for USA and China at 40.88 per 1000)[9]. With India evolving into a major knowledge & services economy to the world, a PC is a basic productivity tool.

Though this report has taken a very conservative projection of a flat domestic scenario, the fact is that the **current low PC penetration in India underlines the gap and the opportunity for India**. Spurring demand for PCs is critical if India has to build manpower capacity for its aspiration of becoming the leading services economy to the world. The follow-through services will add to India's GDP, creating employment and directly improving the quality of life of its citizens.

This rising domestic demand then becomes another incentive for setting up manufacturing and exporting PC's from India.

Table No. VII

Exports from FY 2016 to FY 2019 (Apr-June) for PCs

Product Category[10]	HS Code	Exports in 2016-17 (Mn$)	Exports in 2017-18 (Mn$)	Exports in 2018-19 (Mn$)	Exports in 2019-20 (Apr-June) (Mn$)
PCs	84713010	8.25	43.48	40.86	1.83

[6]Export Import Data Bank, Department of Commerce, Retrieved From :https://commerce-app.gov.in/eidb/ecomq.asp?hs=851712
[7]Personal Computing Devices Market Share, (June 18, 2019), International Data Corporation, Retrieved From: https://www.idc.com/promo/pcdforecast
[8]Personal Computing Devices Market Share, (June 18, 2019), International Data Corporation, Retrieved from: https://www.idc.com/promo/pcdforecast
[9]Media Personal Computer Per Capita, Countries Compared, Nation Master,Retrieved from: https://www.nationmaster.c om/country-info/stats/Media/Personal-computers/Per-capita
[10]Export Import Data Bank, Department of Commerce, Retrieved From: https://commerce-app.gov.in/eidb/ecomq.asp?hs=851712

Today with the shift in India's electronics manufacturing strategy from import substitution to export-led manufacturing under NPE 2.0 policy, this domestic PC manufacturing capacity can be leveraged into an export led manufacturing capacity, if the right incentives to overcome India's disability are provided by Government of India.

The last half decade has seen the trend of **'Servicification of Manufacturing'** and the emergence of EMS companies in India, thus enhancing India's capability for value addition.

With the right strategy on desktops and laptops, the following subsystems can be manufactured in India: **PCBA, SMPS, Cabinet, Harnesses and Connectors, SSD, Memory Modules, Monitors**, and Product Assembly achieving a value addition of greater than 20% in a phased manner.

Towards setting up an export led PC and laptop ecosystem, following are our recommendations:

1. **Overcoming India's disability, an export incentive of 10%**
2. **Being an ITA-1 product, the pegging of BCD to 0%, the manufacturing for domestic consumption needs to be incentivized by 10%**

Towards spurring domestic demand which will give impetus to building scale:

1. **100% depreciation for Made in India products**
2. **Rs. 25,000 deduction permitted under Section 88 for individual consumers for a Made-in-India product.**

With the country now focusing on net economic value addition, the norms for Preferential Market Access (PMA) need to be revised. The following must be done:

1. **Value addition threshold for Make in India eligibility to be at 20% on PCs.**
2. **70% of Government procurement under PMA**

Further to encourage the manufacturing of monitor in the country as an independent product the following policy amendment needs to be released:

1. **Monitor to be notified as a separate item in Public Procurement Order (PPO) 2017**
2. **Value addition threshold for Make in India eligibility to be at 20% on Monitors.**

The disability surrounding PCs is higher since importing smaller parts can be done through air cargo, bigger components for PCs are imported through shipping cargo, which is severely impacted due to **the lack of infrastructure, poor logistics and transport and a lack of component ecosystem leading to higher costs of manufacturing.**

Further, being an ITA-1 product, the India disabilities cannot be shielded by applying import BCD.

Thus, the strategy has to facilitate scale by an incentive of 10% on bothdomestic and export. With this, not only will manufacturing turn profitable for PC companies in India, it will encourage the shift of global supply chains from their existing bases to India. This would enable India to cater to the worldwide electronic demand.

Table No. VIII

Projection for PCs for 2025

TARGETED PRODUCTION	TARGETED EXPORTS	TARGETED VALUE ADDITION
$47.40 Bn	$41.90 Bn	25%

A $8.95Bn/Rs. 7,2513 Cr. FE positive opportunity

NETWORK EQUIPMENTS

The current Indian market for Datacom Products is $1,30 Bn[11] and the global market at $49.70 Bn. With the advent of 5G, the demand for datacom products is projected to grow substantially in the coming decade. However, by nature of its functionality the absolute quantity of this segment will be low volume. Thus, network products are one of the sectors that needs to be prioritized.

Indian policies need to recognize the uniqueness of network equipment considering its diversity. The spectrum of products ranges from “high-volume low-complexity” consumer products (access devices) to “low-volume high-complexity” enterprise/service provider datacom products. As in the other two sub-sector the networking products suffer from similar disabilities and to achieve a landed cost parity, the industry recommends an 8% export incentive to enable the shifting of datacom product manufacturing into the country. An export led strategy will also allow India to achieve a net foreign exchange positive on its import of datacom products

Further, since, domestic manufacturing of networking equipment in India is at a nascent stage, there would be limited value addition potential in the initial years. A separate phased manufacturing plan would support a step by step increase in value addition in this segment and at stage one, India should encourage “System integration” by allowing all components including PCBA at zero duty.

[11]Shivani Anand (April 5, 2019), India Networking Market saw strong YoY growth of 33.8% in Q4 2018, IDC India Reports, International Data Corporation, Retrieved from:https://www.idc.com/getdoc.jsp?containerId=prAP44999219

Table No. IX
Market Size (2019 and Projected 2025) for Network Equipment

Global Market Size (2019)[12]	India Market Size (2019)[13]	Global Market Size (2025)	India Market Size (2025)
$ 49.70 Bn (Ethernet Switches, WLAN & Routers)	$1.30 Bn (Ethernet Switches, WLAN & Routers)	$112.27 Bn (Ethernet Switches, WLAN & Routers)	$2.87 Bn (Ethernet Switches, WLAN & Routers)

The Global Market (2017-2025) YoY growth for Router, Wireless LANs and Ethernet switches is 15.6%, 4.3%, 9.1% respectively. For the India Market, assuming a growth in Switches & WLAN and Routers at 15% and 5% YoY respectively for the next 5 years, the global market and Indian market will be $112.27 Bn, and $2.87 Bn respectively.

Table No. X
2018 Global and India Market Size for Ethernet Switches, Router and WLAN

Product Category	Global Market Size (2018)	India Market Size (2018)
Ethernet switches	$28,100 Mn	$580 Mn
Router	$15,500 Mn	$550 Mn
WLAN	$61,00 Mn	$210 Mn

Table No. XI
Projection for Network Equipment for 2025

TARGETED PRODUCTION	TARGETED EXPORTS	TARGETED VALUE ADDITION
$15.60 Bn	$13.80 Bn	18%

If India aims for 20% of the Global Market in 2025, then it gives India a $1.94Bn/Rs. 15,737 Cr. FE positive opportunity.

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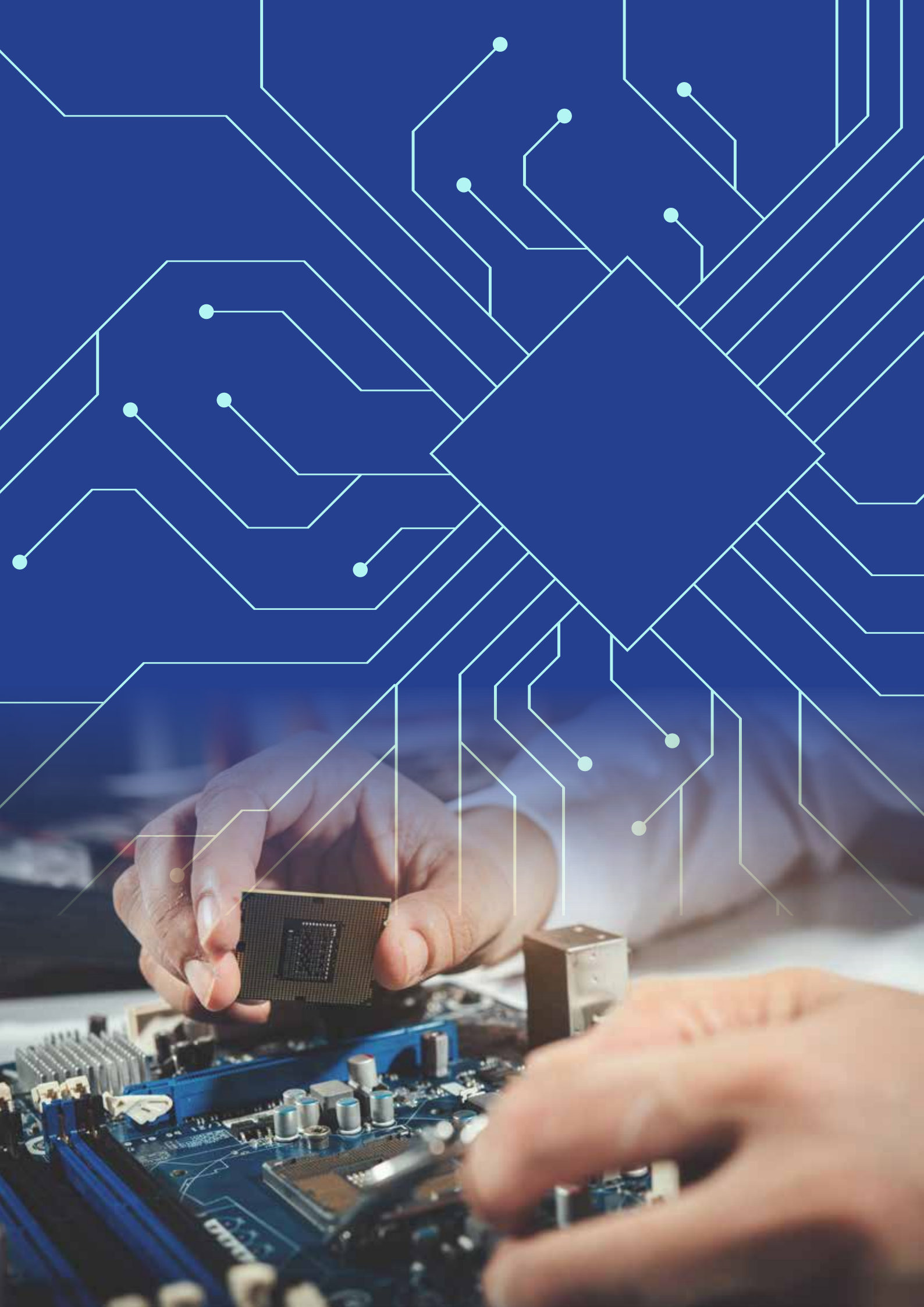
[12]Rohit Mehra, IDC's Worldwide Quarterly Ethernet Switch and Router Trackers Show Strong Growth in the Fourth Quarter and Full Year 2018, International Data Corporation, Retrieved from: https://www.idc.com/getdoc.jsp?containerId=prUS44898419; Michael Shirer IDC Finds Worldwide Enterprise WLAN Market Growth Accelerated in Q4 and the Full Year 2018, International Data Corporation, Retrieved from: https://www.idc.com/getdoc.jsp?containerId=prUS44892019

[13]Quarterly India Networking Market Data, International Data Corporation, Retrieved from:
Q1-2018: https://www.idc.com/getdoc.jsp?containerId=prAP44068818;
Q2-2018: https://www.idc.com/getdoc.jsp?containerId=prAP44383718;
Q3-2018: https://www.idc.com/getdoc.jsp?containerId=prAP44587818;
Q4-2018: https://www.idc.com/getdoc.jsp?containerId=prAP44999219



BENEFITS TO THE NATION

Net Positive Foreign Exchange

Currently, India's electronics import bill is much higher than its exports earnings at India's electronic imports reaching $55.63 Bn and export at only $8.80 Bn. Taking the example of mobile phones, the import bill in 2018-2019 was $16.59 Bn whereas the total value of exports was only $1.20 Bn, while domestic production has been $24.20 Bn approximately. This makes India net foreign exchange negative at an astonishing $15.39 Bn.

In 2018-2019, with a meager export of $1.20 Bn, the net outflow of foreign exchange was about $ 15.39 Bn. (Rs. 1,09,265 Cr.) at a value addition of 14%.

Even if the value addition more than doubles to 34%, exports remain at the current level and the domestic market in India reaches $80Bn, (as envisioned in NPE 2019) the net outflow of foreign exchange would be a staggering $39.15Bn (Rs. 2,77,965 Cr.). It is obvious that increasing value addition alone will not solve the issue of a high import bill.

On the other hand, if India focusses on exports and achieves $110Bn and domestic market attains the level of US$ 80 billion, at a value addition of 34%, India will become net foreign exchange positive at $1.43Bn. (Rs. 10,153 Cr.)

Achieving the production target of NPE 2019 (for the year 2025) $190Bn (India domestic $80Bn, Exports $110Bn) implies that India will be home to about 30% of the world's production. At this scale, component ecosystem would shift to India and the value addition would go beyond 34%.

The PC market, on the other hand, has to operate at a 20% value addition in the next 3-4 years for India to achieve net foreign exchange neutral. (Annexure K)

The staggering import bills cannot be brought down by increasing value addition and import substitution alone. The only way to counterbalance the outflow of foreign exchange is by making in India for the world (exports) and ensuring global scale manufacturing.

Employment Generation

A rapid growth of exports would provide a growth rate in the output from the electronics manufacturing sector, which in turn would contribute to employment generation.[14]

[14] Biswanath Goldar, Impact of Trade on Employment Generation in Manufacturing in India, Working Paper Series No. E/297/2009, Institute of Economic Growth, University of Delhi, Retrieved From: http://iegindia.org/upload/pdf/wp297.pdf

Increase in Investments

By getting access to the world market through the export strategy, **there will be new opportunities for investments in India. This access to the world market, would allow investors to earn more and invest more in the country.**

Emergence of product testing and design sectors (emergence of new sectors)

To make Indian products globally competitive, supporting local design manufacturing is imperative. There is a need to incentivize and support indigenous designs and product testing which can help the country develop its own R&D processes.

Further, nurturing local talent to 'Design in India' should be the way forward and towards incentivizing companies that are investing heavily to build research centers is required.

Value Addition

In phase I, the goal is to set up global scale manufacturing capacity in the country, and in phase II target increase in value addition.

It should be recognized the value addition in India is low despite the best efforts of ODMs/ OEMs primarily due to the underdeveloped component eco-system. In fact, it is in the interest of OEM's to increase value addition in India as importing of components contributes to cost escalation. It is in the inherent business interests of OEM to increase value addition wherever possible.

Currently, there is a unique phenomenon where greater value addition in India leads to greater increase in costs. To encourage manufacturing in India, a pragmatic expectation on value addition is required. Focus should be on encouraging component eco-system and leave it to the market forces to determine the value addition feasibility.

India must focus on attracting larger companies and brands into India. ODM's/OEM's will automatically follow these brands leading to a natural increase in value addition.

[15]Export Import Data Bank, Department of Commerce, Retrieved From: https://commerce-app.gov.in/eidb/default.asp

Leveraging FTAs

India's existing FTAs have not yielded good results for the country. All the current FTAs have resulted in the loss of opportunities for Indian businesses. In 2018-19, electronic imports from the ASEAN countries to India was recorded at $59.32 Bn and electronic exports from India to ASEAN countries at $37.47 Bn[15]. Therefore, currently there is a negative trade balance and the sectors which are suffering from this negative trade balance constitute 75% of India's electronic exports to ASEAN.[16]

Once India establishes itself as a competitive export-led electronic manufacturing hub, it will be in a position to leverage its geo-political position and other FTAs to reverse this scenario. In the interim, it is extremely critical for India to renegotiate/review the existing FTAs to put a stop to the dumping of electronic products.

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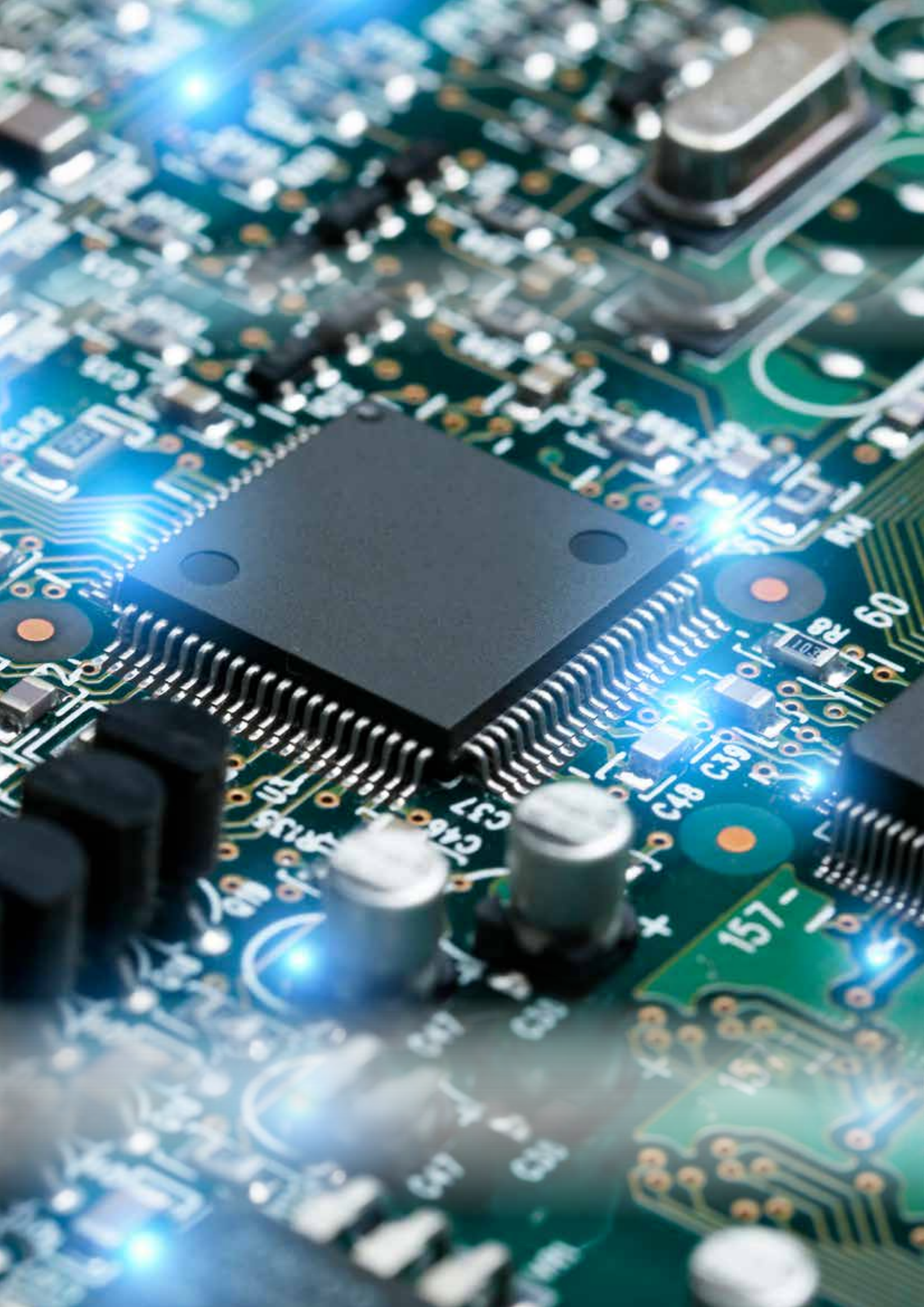
[15]Export Import Data Bank, Department of Commerce, Retrieved From: https://commerce-app.gov.in/eidb/default.asp
[16]Prachi Priya (December 6, 2017), 'Regional Comprehensive Economic Partnership (RCEP): India Pushes for Greater Market Access, ASEAN Irked', Financial Express, Retrieved From: http://www.financialexpress.com/economy/regional-comprehensive-economic-partnership-rcep-india-pushes-for-greater-market-access-asean-irked/962428/



LIST OF ANNEXURES

ANNEXURE-A

Table No. 1
CURRENT MARKET SIZE (FY 2018)

GLOBAL MARKET - SIZE ESTIMATE			
Product Category	Global Market Size	India Market Size	Exports from India (2018-19)
Mobile (Feature + Smartphone)	$495 Bn	$24 Bn	$1.61 Bn
PC (Laptop + Desktop -Exclude Tablets)	$65 Bn	$5.53 Bn	$0.04 Bn
Datacom (Switches. Router (EDGE, WIFI and Enterprise - excludes carrier class)	$49.7 Bn	$1.3 Bn	$0.08 Bn

ANNEXURE-B

Table No. 2
EXPORTS FROM INDIA

Product Category[17]	HS Codes	Exports in 2016-17 ($Mn)	Exports in 2017-18 ($Mn)	Exports in 2018-19 ($Mn)	Exports in 2019-20 (Apr-June) ($Mn)
Mobile Phones	851712	171.55	212	1612.65	661.47
PCs	84713010	8.25	43.48	40.86	1.83
Network Equipment	85176930	Router: 4.79	Router: 9.77	Router: 10.92	Router: 3.61

[17]Export Import Data Bank, Department of Commerce, Retrieved From: https://commerce-app.gov.in/eidb/ecomq.asp?hs=851712

ANNEXURE-C

Table No. 3

INDIAS' DISABILITIES

THEME	REASONING	FACTORS TO CONSIDER	DISABILITY %[18]
LOCAL SUPPLY CHAIN	• Limited raw material available in India. • Limited component suppliers/distributors available in India. Components have to be imported from China, Taiwan, etc. • Lack of upstream value addition ecosystem within the country.	• Allows for a reduction in cost • Will be better served with expansion of Special Economic Zones and Industrial Clusters • India needs a larger availability of components	3-4%
TRANSPORTATION	• India has an extensive 7,500 km coastline with 12 major ports and just under 200 minor ports, of which 70% are functioning. Primarily, the major ports deal with 95% of India's total foreign trade by volume. However, these ports are underperforming because of serious logistical and connectivity problems. Port-linked industrialization under the Sagarmala project will be critical to improving infrastructure for external trade. • Air Cargo direct link to sourcing and selling markets and one-way cargo should be compensated. • Due to the inadequate road connectivity from rural & semi-urban manufacturing sites to urban markets, many investors are wary of getting involved in business in the region. Private-public partnerships are necessary to expediting the development of transport infrastructure. • Supply chains vary from state to state and depend on the availability of raw material, local talent and government support. Greater focus should be given to regional and cluster development.	• Lack of accessible seaports from the smaller towns and cities. • Poor connectivity via roads. • Manufacturing sites are much further away from the major seaports than desirable. • Currently India does not have any international transshipment points, and depends on Oman and Sri Lanka for imports and exports of goods.	2%

[18] Indicative

POWER	• Polluted, unstable and erratic power supply. • The cost of power in India remains lower than that of other Southeast Asian countries. An aggressive shift must be made from coal and oil consumption towards renewables and alternate sources for energy requirements. • Manufacturers require a plug-and-play model and integrated hard and soft infrastructure to incentivize them to invest in India.	• Increases the cost of production as manufacturing companies need to invest in power generation/power backup equipment. • Power is subsidized to a large extent for other sectors in India and which impacts the remaining manufacturing industries' costs.	
LABOUR	• Other economies have a lead of two decades over India on electronic manufacturing. Giving them a large pool of skilled manpower who can be scaled to meet the electronic industry.	• The cost of labor in India is lower than China. • However, the quality and efficiency of the same labor is higher in China compared to India. • The attrition rate of labour in India is also high as that of China. • Lack of availability of skilled labour. • Disincentives for Women Workforce.	
CUSTOM CLEARANCE	• Customs in India has to come at par with the current world standards and adopt the developing technologies used by its competitors. • There has been substantial streamlining over the past decade, making it much simpler and easier. The customs now need to focus on coming at par with competing economies to give India a manufacturing advantage.	• The uncertainty of the head under which new products are to be cleared and duty claims with retrospective effect is major challenge. • Electronic Industry is a highly dynamic vertical with product and subsystems continuously evolving. Delay in classification is a major hurdle in ease of doing business contributing to increase landed cost backdated demands on duties.	1%
TAXES	• 25% corporate tax is levied on companies whose turnover is up to 400 Cr. and 30% above that. Compared to Southeast Asian countries like Singapore (17%), Vietnam, Thailand and the Philippines (20% for all), the corporate tax rate in India is prohibitively higher. • Tax holidays are provided to all companies for sizeable investments only. Also, they differ from state to state.	• High corporate tax • No tax holidays • A 100% rate of depreciation to be provided	2-3%

ANNEXURE-D

Table No. 4

COMPARISON OF THE MANUFACTURING ENVIRONMENT OF INDIA VIS-A-VIS OTHER GLOBAL MANUFACTURING HUBS

THEME	CHINA	VIETNAM	MALAYSIA	TAIWAN	BRAZIL	INDIA
FREIGHT	1% of the cost of production	8-10% of the cost of production	NA	NA	NA	13-15% of product cost 1 percent and 3 percent of the export FOB value per unit.
TOTAL TURNAROUND TIME	0.5-1 day	2.5 days	0.5 - 1 day	0.5-1 day	1.5 days	2-10 days for large firms, and 14-21 days for SMEs
TAX (DIRECT)	• Corporate Income Tax is levied at 25%	• Corporate income tax exemption • 10% tax rate for companies that are involved in high-tech manufacturing	Corporate Income Tax is levied at 24%	• Corporate Income Tax is levied at 20%. • The tax credit is capped at 30% of the corporate income tax payable for the current year and may not be carried forward.	Corporate Income Tax is levied at 15%	Corporate Income Tax is 25%
TAX (INDIRECT)	• Zero rated or exempt' goods on Exports • Refundable VAT. • Consumption tax exemption	• Import tax holiday	Tax exemption of 20% - 70% for increased value exported goods	Exported goods are Zero rated	• Reduction in Excise tax up to 70% - 85% for industrial plants located a region. • Expenses carried out for technological research and innovation are deductible from income tax.	Exported Goods are zero rated
BANK LENDING RATES	4.3%	4%	5.52%	2.3%	39.1%	12-13%

LABOUR	$950-1200/Month	$237-350/Month	$1000-1100/ Month	$1800/Month	$750-950Month	$250-300/Month
COST AND AVAILABILITY OF POWER	7.5 US cents/KWH Uninterrupted Power Supply	7.4 US cents/KWH Uninterrupted Power Supply	Cost of Power – NA Availability – Uninterrupted Power Supply	9 US Cents/ KWH Uninterrupted Power Supply	$ 19 US Cents kWh Interrupted Power Supply	14.5 US cents/KWH
COMPONENT ECOSYSTEM	Localized	Import Dependent	Semi-localized	Localized	Import Dependent	Import Dependent
INCENTIVES	• Rebate of 17 % to exporter companies, ECR companies/ enterprises exempted from paying VAT. The output of VAT with ER • Exempts exported goods from any kind of consumption tax. • 175% tax deduction on R&D expenses for small and medium sized technology-based enterprises.	• Import tax breaks • Offsets in the form of refunds on import duties • Exemption from VAT for exporters	• Allowance on increased exports • Income tax exemption for significant increase in exports, penetration of new markets and an Export Excellence Award.	• Tax incentives for exporting in Free Trade Zones. • R&D tax credits up to 15% of the total R&D expenditures.	• PROEX incentive • Exemption from the taxes levied on import of certain products used for the final exported product.	• 2-5% MEIS Scheme depending on the nature of goods exported along with the countries to which goods are exported. • Institution of Services export incentive (SEIS) of 3-5% for mobile application development, testing and advertising services. • Increase in the import duty drawback rate from the current 1 percent to 2–4% to reflect the increase in rate and scope of applicable PMP duties • MSIPS

ANNEXURE-E

Table No. 5

EMBEDDED TAXES	
S. No	**Taxes Levied**
1	GST Compensation
2	VAT Compensation
3	Custom Handling Fees
4	Land Tax
5	Toll Tax
6	Subcontracted Services
7	Cost of Compliance

ANNEXURE-F

Table No. 6

PROPOSED MEASURES: FISCAL (WTO COMPLIANT)

S.No.	Structural Reforms	Reasoning
1.	Depreciation of Capital Goods	Depreciation rates of capital goods should be enhanced
2.	Reimbursement of Central and State Taxes	Taxes levied at central and state levels on different steps on the value chain should be reimbursed
3.	Corporate Tax & Tax Holidays	For new exporters in the market, the government should exempt them from paying taxes for at least 5-10 years in order to promote exports
4.	Production Based Fiscal Incentive	Production based fiscal incentives but to be uniform across domestic consumption and export of products
5.	Training and Women Employment	• Fiscal incentives for skills training of workforce • Fiscal incentives for the employment of women

ANNEXURE-G

Table No. 7

PROPOSED MEASURES: NON-FISCAL (TO MAKE INDIAN MANUFACTURING COMPETITIVE AND SUSTAINABLE)

S.No	Long Term Structural Reforms	Reasoning
1.	Local Supply Chain at a Global Scale	Focus must be on developing a strong value chain at a global competitive scale which would ensure that product components are manufactured in India instead of being imported
2	Component Hub	Availability of components locally enabling just in time is a critical component of building a globally competitive electronics manufacturing capability. To address this requirement, India needs to set up 'Component Hubs' within the country that will serve the large manufacturing capacity that is moving into the country.
3.	Transport & Logistics	• For a country aiming to become the manufacturing hub to the world, India though located at a central location doesnot have global transshipment facility for sea cargo and air cargo. Creating this will give India substantial advantage. • Major issues for exporters are to take the products to and from the ports which creates hurdles in exporting. • Electronic industry specific air cargo and ship cargo facilities need to operate 24X7. • A direct connectivity to sourcing and consuming market must be established. • Attention must be paid to the roads and inland waterways used for transporting raw materials and finished goods within the Country.
5.	Power	Even a second of power cut costs companies millions of dollars. India needs to provide manufacturers with uninterrupted power or a backup source at reasonable rates.
6.	R&D Innovation	India needs to aim to become a hub for R&D to attract the global design manufacturers
7.	Custom Clearance	• Faster custom clearance. • Convergence Cell - A single window expert cell towards faster response to classification of emerging components and sub-systems in the fast-evolving field of electronics • Facility for a green channel from carrier to plant
8.	Labour Reforms	• Skilling of labour should be prioritized through intensive training programs facilitated by the government and the companies together • The number of women employed in the electronics sector must be encouraged as permitted by the WTO
9.	Involvement of State Government	The Central government should give export targets to state governments as well in order to increase their interest in promoting exports
10.	Special Economic Zones	India must increase the number of SEZs as they create a more open market for India and attract more investors
11.	Plug and Play Model	To attract investors India must provide them a readymade infrastructure wherein they just have to bring their machineries and laborers to begin the manufacturing process.
12.	Product Certification	To increase the global reputation of the products exported from India, the government must set certain certification standards and certifying laboratories for electronic products being exported.
13.	Reviewing FTAs	Currently, FTAs have led to an increase in imports rather than increase in exports. India needs to review its current FTAs and take more export friendly measures.

ANNEXURE-H

Table No. 8

GROWTH IN INDIAN EXPORTS SINCE THE INTRODUCTION OF MEIS

In the Foreign Trade Policy of 2015-2020, the Merchandise Exports from India Scheme (MEIS) came into effect in April 2015 with an objective to offset infrastructural inefficiencies and associated costs involved in the export of goods manufactured in India.

The scheme provided subsidization to exporters in the form of duty scrips which were issued to make payments of the duties imposed and thereby help Indian exporters to close in on India's disability vis-a-vis its competitors. It is based on the FOB value of exports. With the implementation of MEIS, exports from India grew.

Product Category[19]	HS Codes	Exports in 2016-17 ($Mn)	Exports in 2017-18 ($Mn)	Exports in 2018-19 ($Mn)	Exports in 2019-20 (Apr-June) ($Mn)
Mobile Phones	851712	171.55	212	1612.65	661.47
PCs	84713010	8.25	43.48	40.86	1.83
Network Equipment	85176930	Router: 4.79	Router: 9.77	Router: 10.92	Router: 3.61

As seen MEIS had a positive effect in boosting exports and it is critical that an alternate policy be put in place.

[19]Export Import Data Bank, Department of Commerce, Retrieved From: https://commerce-app.gov.in/eidb/ecomq.asp?hs=851712

ANNEXURE-I

Table No. 9

SIMULATIONS FOR NET FOREIGN EXCHANGE FOR MOBILE PHONES

Year	Type	Margin %	Sales	Production Value	Value Addition %	Domestic Content	Import	Avg. Exchg. Rate	Imports
			USD Bn	USD Bn		USD Bn	USD Bn		INR Crore
2018-19	Domestic Prod.	25%	24.20	18.15	14.00	2.54	15.61	71.00	1,10,824
	Exports	5%	1.20	1.14	14.00	0.16	0.98	71.00	6,961
	Total		25.40	19.29		2.70	16.59		1,17,785

Table No. 10

Mobile Phones Projected Scenario - 2025

Year	Type	Margin %	NPE 2025 Target	Production Value	Value Addition %	Domestic Content	Imports	Exchg. Rate	Imports
			USD Bn	USD Bn		USD Bn	USD Bn		INR Crore
2025-26	Domestic Prod.	25%	80.00	60.00	34.00	20.40	39.60	71.00	2,81,160
	Export	5%	110.00	104.50	34.00	35.53	68.97	71.00	4,89,687
	Total		190.00	164.50		55.93	108.57		7,70,847

Net FOREX positive $(110.00 – 108.57) Bn = $1.43 Bn

ANNEXURE-J

Table No. 11
VALUE ADDITION OF CHARGERS

Scenario	MEIS Incentive on Chargers	Employment Generation	Value Add
Present	2%	28,600	17%
Projected	8%	34,600	45%
Difference			
	6%	21%	28%

Table No. 12
CHARGERS PROJECTED SCENARIO (FOREX PREDICTION BREAKEVEN TABLE) (2025)

Year	Type	Margin %	NPE 2025 Target	Production Value	Value Addition %	Domestic Content	Imports	Exchg. Rate	Imports
			USD Bn	USD Bn		USD Bn	USD Bn		INR Crore
2025-26	Domestic Prod.	25%	0.5	0.38	45.00	0.17	0.21	81.00	1,671
	Export	5%	5.50	5.23	45.00	2.35	2.87	81.00	23,777
	Total		6.00	5.60		2.52	3.08		24,948

Chargers market provides $2.42Bn/INR 19, 602 Cr.FE positive opportunity

ANNEXURE-K

Table No. 13

SIMULATIONS FOR PROJECTED NET FOREIGN EXCHANGE (2025) FOR PERSONAL COMPUTERS

PC Projected Scenario (2025)

Year	Type	Margin %	Sales 2025	Production Value	Value Addition %	Domestic Content 2025	Imports 2025	Exchg. Rate	Imports 2025
			USD Bn	USD Bn		USD Bn	USD Bn		INR Crore
2025-26	Domestic Prod.	25%	5.50	4.13	25.00	1.03	3.09	81.00	25,059
	Export	5%	41.90	39.81	25.00	9.95	29.85	81.00	2,41,815
	Total		47.40	43.93		10.98	32.95		2,66,874

The PC market provides $8.95Bn/Rs. 7,2513 Cr. FE positive opportunity

ANNEXURE-L

Table No. 14

SIMULATIONS FOR PROJECTED NET FOREIGN EXCHANGE (2025) FOR NETWORK EQUIPMENT

Year	Type	Margin %	Sales 2025	Production Value	Value Addition %	Domestic Content 2025	Imports 2025	Exchg. Rate	Imports 2025
			USD Bn	USD Bn		USD Bn	USD Bn		INR Crore
2025-26	**Domestic Prod.**	**25%**	1.80	1.35	18.00	0.24	1.11	81.00	8,967
	Export	5%	13.80	13.11	18.00	2.36	10.75	81.00	87,077
	Total		15.60	14.46		2.60	11.86		96,044

Network Equipment has the potential of a $1.94Bn/Rs. 15,737 Cr. FE positive opportunity

ANNEXURE-M

THE WTO ISSUE

In the year 2018, The United States of America filed a complaint against India and its trade policies specifically MEIS. The complaint was later on supported by the countries like Brazil, Canada, China, Egypt, the European Union, Japan, Kazakhstan, Korea, the Russian Federation, Sri Lanka, Taiwan and Thailand. The US brought this issue in front of the WTO Dispute Settlement Body, arguing that the subsidy-based system that is in place in India goes against the regulations set by the WTO under The Agreement on Subsidies and Countervailing Measures (ASCM). [20]

US presented figures that show despite the expiry of India's exemption under the WTO's special and differential provisions for developing countries in 2015, the latter has increased the size and scope of these programs.

The application sent in by the US Government says:

"Through these programs, India provides exemptions from certain duties, taxes, and fees; reduces import duty liability; and benefits numerous Indian exporters, including producers of steel products, pharmaceuticals, chemicals, information technology products, textiles, and apparel. According to Indian Government documents, thousands of Indian companies are receiving benefits totaling over $7 billion annually from these programs" [21]

"Export subsidies provide an unfair competitive advantage to recipients, and WTO rules expressly prohibit them. A limited exception to this rule is for specified developing countries that may continue to provide export subsidies temporarily until they reach a defined economic benchmark. India was initially within this group, but it surpassed the benchmark in 2015. India's exemption has expired, but India has not withdrawn its export subsidies. The Merchandise Exports from India Scheme in 2015, which has rapidly expanded to include more than 8,000 eligible products, nearly double the number of products covered at its inception."[22]

India falls outside the ambit of 'developing nation'

As a rule, the WTO has prohibited subsidizing exports contingent on performance, since they have the tendency to have trade-distorting effects. This prohibition has been highlighted in Article 3 of the ASCM.[23] However, they have also recognised the important role played by subsidies in the initial stages

[20]Article 3, Agreement on Subsidies and Countervailing Measures, 1869 U.N.T.S. 14
[21]Office of the United States Trade Representative " United States Launches WTO Challenge to Indian Export Subsidy Programme, Retrieved From: https://ustr.gov/about-us/policy-[22]offices/press-office/press-releases/2018/march/united-states-launches-wto-challenge Ibid.
[23]Article 3, Agreement on Subsidies and Countervailing Measures, 1869 U.N.T.S. 14

of a developing country when establishing themselves in the market. Therefore, a compromise has been achieved between the contrasting scenarios in Article 27. Special and differentiated treatment has been given to developing countries, allowing them to grant subsidies to their exporters.

Under this regime, India, along with twenty other low-income developing countries, belongs to a special category of "annex VII(b) countries", which states that:

"The developing country Members not subject to the provisions of paragraph 1(a) of Article 3 under the terms of paragraph 2(a) of Article 27 are:

(b) Each of the following developing countries which are Members of the WTO shall be subject to the provisions which are applicable to other developing country Members according to paragraph 2(b) of Article 27 when GNP per capita has reached $1,000 per annum: Bolivia, Cameroon, Congo, Côte d'Ivoire, Dominican Republic, Egypt, Ghana, Guatemala, Guyana, India, Indonesia, Kenya, Morocco, Nicaragua, Nigeria, Pakistan, Philippines, Senegal, Sri Lanka and Zimbabwe."

Therefore, these countries are permitted to retain their export subsidies so long as their gross national income ("GNI") per capita at constant $1990 does not exceed $1000 for three consecutive years. Further, if any Indian product achieves export competitiveness, i.e., its exports have a share in world trade of at least 3.25% for two consecutive years, export subsidies for that product must be gradually phased out over an eight-year period. Therefore, under WTO rules, a country can no longer offer export subsidies if its per-capita GNI has crossed $1,000 for three years in a row. In 2017, WTO notified India that its GNI was $1,051 in 2013, $1,100 in 2014 and $1,178 in 2015. Therefore, India, starting from 2013 crossed the threshold and became a developed economy. According to Article 27(2)(b) of the ASCM, only developing countries, whose GNI per capita was above $1000 on the date of entry into force of the WTO Agreement, are given an eight-year period to phase out their export subsidies. However, during consultations with the US last month, India stated that the WTO informed the country only in 2017 that it has crossed the aforementioned threshold and hence requested that the eight-year period required to phase out subsidisation begin from 2017. Its contention is based on the argument that when ASCM was implemented in 1994-95, the countries with GNI higher than $1,000 got eight years to get rid of their export subsidies and, therefore, it should get the same.

The challenge with this contention is that India has not made it in accordance with the text of ASCM. The argument has no basis in the legal text. The ASCM clearly states that upon graduating from the status of 'developing' a country has eight years to phase out its policies granting subsidisation. The WTO is not required to notify the member country about this graduation. It is assumed that the country in question, India, would be aware of the same once it saw the growth of its market and its value annually.

[24] Ibid

Since taxes cannot be exported and the WTO does not permit any discrimination in productions for domestic consumption or export purposes, the recommendations in this paper will allow India to incentivize its electronic manufacturing sector while in a manner that is accepted by the WTO.

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LIST OF ABBREVIATIONS

AIFTA	ASEAN-India Free Trade Agreement
ASEAN	Association of South-East Asian Nation
BCD	Basic Custom Duty
CAGR	Compound Annual Growth Rate
DTA	Domestic Tariff Areas
DVA	Domestic Value Add
EM	Electronic Manufacturing
EXIM	Export - Import
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GST	Goods and Services Tax
IT	Information Technology
ITA	Information Technology Agreement
M-SIPS	Modified Special Incentive Package Scheme
MEIS	Merchandise Export From India Scheme
MSME	Micro Small and Medium Enterprise
NPE	National Policy on Electronics
ODM	Original Design Manufacturer
OEM	Original Equipment Manufacturer
PC	Personal Computer
PMA	Preference for Domestically Manufactured Electronic Goods
PPO	Public Procurement Order, 2017
SME	Small and Medium Sized Enterprises
SMPS	Switched-Mode Power Supply
USA	United States of America
USD	United States Dollar
WTO	World Trade Organization

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