FICCI 10 GLORIOUS YEARS
CASCADE

ILLICIT MARKETS: A THREAT TO OUR NATIONAL INTERESTS

2022

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TARI is a privately-funded, independent, non-partisan Indian think-tank and works with government, industry, civil society and other stakeholders on:

- Corporate Governance
- Sustainability
- Economics
- Public Policy

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Note from the Authors

Note from the Authors

Counterfeiting, smuggling, and tax evasion-clubbed under the head of organized crime, are distinct in terms of the inherent nature of the activities from which they emerge. Together, they comprise the Grey or Illicit Market, which simply covers all goods sold outside the authorized channels of trade. In addition, it may also include artisanal-home products produced outside the regulatory framework and the resale of expired products.

While illicit market/ trade attains global attention, there is no standard definition of the term grey market and the terms often are used interchangeably since most of the transactions involve all or some of the elements in conjunction. Various terms such as illegal trade, unrecorded and informal trade are used to describe the trade. For instance, in the case of the sale of counterfeited goods, there would always be tax evasion; such goods can be domestically produced or illegally imported from a foreign land. For this study, the illicit markets have three elements:

- Legitimately/illegitimately produced goods that are smuggled across state or international borders without paying taxes;
- Counterfeit or fake goods produced at low cost, designed and affixed with a legitimate brand/logo closely resembling the original brands; and
- Domestic manufacturers who manufacture products but evade taxes/duties.

However, it is important to mention that estimating each component of the illicit market is not possible under this study and therefore challenging to distinguish loss/impact amongst the three components. Further, the impact under each of these categories will be different for different industries/ products. For example, in the packaged food industry smuggling component may be less as compared to counterfeiting and tax evaded goods.

As illicit marketers or traders operate outside the law, estimating the extent of counterfeiting and piracy and the harm these activities cause is extremely challenging. OECD points out that quantifying any illicit trade of a given product with absolute precision is quite difficult due to its secretive nature and lack of verifiable data. Illegal businesses do not report information on their activities to any government agency and therefore measuring their size requires using indirect methods.

Our methodology estimates illicit markets through demand and supply gaps. Impact on the economy is ascertained through multiplier effects using the Input-Output model developed by Nobel economic laureate Wassily Leontief, which is widely accepted. The multiplier effect shows the total impact on the economy per unit change in demand of the industry. The main purpose of this report is to highlight the consequences of the illicit market on the industry and economy.

Our findings are based on credible data sources from the Government of India, Ministry of Statistics and Programme Implementation (MoSPI) such as the Annual Survey of Industries and NSSO survey, Private Final Consumption Expenditure (PFCE) provided by Central Statistical Office (CSO), NSSO 73rd Round Survey on the Unincorporated Non-Agricultural Enterprises (Excluding Construction) in India, Parliamentary Questions and Reports, NCAER Input-Output tables dated 2016, and Directorate General of Commercial Intelligence (DGCIS) under the Ministry of Commerce and Trade.

Quantifying any illicit market with absolute precision is quite difficult due to its secretive nature and lack of verifiable data. This renders the assignment of making any estimates about the illicit market and assessing its impact on the industries and the overall economy quite perplexing and intricate. This research, as each research has to, makes certain assumptions and works with limitations in the absence of reliable data, resources, and time. We have highlighted these assumptions and limitations at appropriate places in the report. We used appropriate imputation techniques to take care of some missing data values.

Estimates about the illicit market and its impact on the economy are based on data analysis from different sources: 7 digit NPCMS product classification for ASI; 4/6 digit NIC Industry classification from ASI; 6/8 digit HS Codes for imports data from DGCIS; 3-digit product classification from un-incorporated enterprises from 73rd round NSSO survey; consumption level data from PFCE data provided by CSO, MOSPI;2 digit product/ sector in 130* 130 matrix of the Input-Output tables from NCAER. As data is coming from different sources, an exact mapping of data sources may not be possible. Best efforts have been made to map these data sources appropriately to estimate the illicit market and its impact on the industry and the economy.

Impact on the industry due to estimated illicit market in a given manufacturing industry is equal to their output loss due to illicit market. The tax loss to the exchequer is estimated on this output loss and the implied GST rate applied to the industry. We assume that loss due to illicit trade/market is attributable to legitimate industry. Impact on the formal or legitimate economy (Output, GVA, and Employment loss) is ascertained through the multiplier effect using the Input-Output model. Further, multiplier effects estimated here only take care of direct and indirect effects due to industry/ sectoral linkages and do not include any induced effects.

We thank the members of the FICCI CASCADE think tank for their comments, observations, and direction during the course of this research and report.

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Foreword

Foreword

Illicit trade is a global phenomenon affecting nearly all countries in the world. It is among the main factors that hold up the growth of legitimate manufacturing sectors and harm the economy of a country, in multidimensional ways. It undermines local industries, reduces the volume of revenue collected by the governments, suppresses innovation and investments, fuels transnational crimes and hampers the health of citizens. Moreover, the ongoing COVID-19 pandemic has resulted in new avenues for criminals to cash in on the crisis by further boosting their illicit activities.

Federation of Indian Chambers of Commerce and Industry (FICCI) through its vision of widespread advocacy has been working diligently to outline the impact of smuggling and counterfeiting on the society as a whole. FICCI's dedicated Committee against Smuggling and Counterfeiting Activities Destroying the Economy [CASCADE] has been working towards elimination of illicit trading activities. In furthering this objective, CASCADE has prepared a study titled 'Illicit Markets: A Threat to our National Interests'. This report is an update on the 2015 study that provides estimates on the country's losses in revenue and employment due to illicit commercial activities in the following industries:

1. FMCG Household and Personal Goods

2. FMCG Packaged Foods

3. Tobacco Products

4. Mobile Phones

5. Alcoholic Beverages

Estimates on the scale of illicit markets in the five key industries and the employment lost in the economy signal towards the criticality of the problem faced by the country. It is hoped that this study will stimulate deliberations to understand and address this malicious threat that the nation is facing currently.

I would like to thank and congratulate all stakeholders who have contributed significantly towards this study, particularly the Think Tank members of FICCI CASCADE.

I wish FICCI CASCADE success in its future endeavors.

Arun Chawla
Director General
FICCI

Chair's Message

Chair's Message

Over the last decade India is increasingly unleashing and realising its economic potential. It is well on its way to becoming an economic powerhouse in the next 15 years. Much of this is possible as India has a large consumer base and its consumer market is expanding its size and volume exponentially. While on one hand, we are witnessing this unprecedented level of economic development, lifting with it the desires of an aspirational India, on the other, it is also seeing a massive growth of illicit trade in smuggled and counterfeit goods. In fact, this today has become a huge menace and poses to be one of the biggest challenges for our country and its industry, impacting its image in the global arena.

By its very nature, illicit trade is difficult to track and tough to quantify as this problem is extremely deep rooted and vested interests have continuously identified areas of opportunity to fulfil their nefarious intentions. However, without tracking this information it is difficult for appropriate policies to be designed and implemented to tackle this scourge.

For the 1st time in 2012 and then in 2015, FICCI CASCADE in its pioneering studies had estimated the financial losses to the economy and industry due to illicit trade. Both the reports were ground breaking compilations of the extent of this problem in India in key industry sectors. Over the years, FICCI CASCADE has not only been at the forefront in understanding this complex adversary but has constantly monitored, reviewed and assessed the extent of the negative impact of illicit trade both in terms of value and volume on various categories of products in select sectors.

As we continue to track sectors and expand our understanding of illicit markets, I am delighted to present our study, "Illicit Markets- A Threat to our National Interests" which is yet another attempt in our continued endeavour to present updated estimates of this mounting threat. This study shares quantitative analysis of the value, scope, and magnitude of illicit markets and its economic impact on legitimate domestic manufacturing industries and the entire economy along with employment opportunities lost in five key industry areas.

This research highlights the various aspects of this perilous activity and also showcases the challenges ahead if concerted efforts are not made to minimize its effects. As India celebrates 75 years of its glorious independence, I am of the strong view that blunting the impact of illicit trade will certainly pave the way for a thriving national economy for a prosperous India.

I would like to thank the think-tank members of CASCADE who continue to guide and give their inputs to fine tune our efforts for superior outcome and TARI for their remarkable contribution in compiling and analysing data. I'm sure you will find this an interesting read.

Anil Rajput

Chairman, FICCI CASCADE

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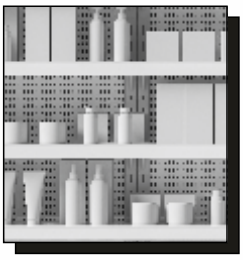

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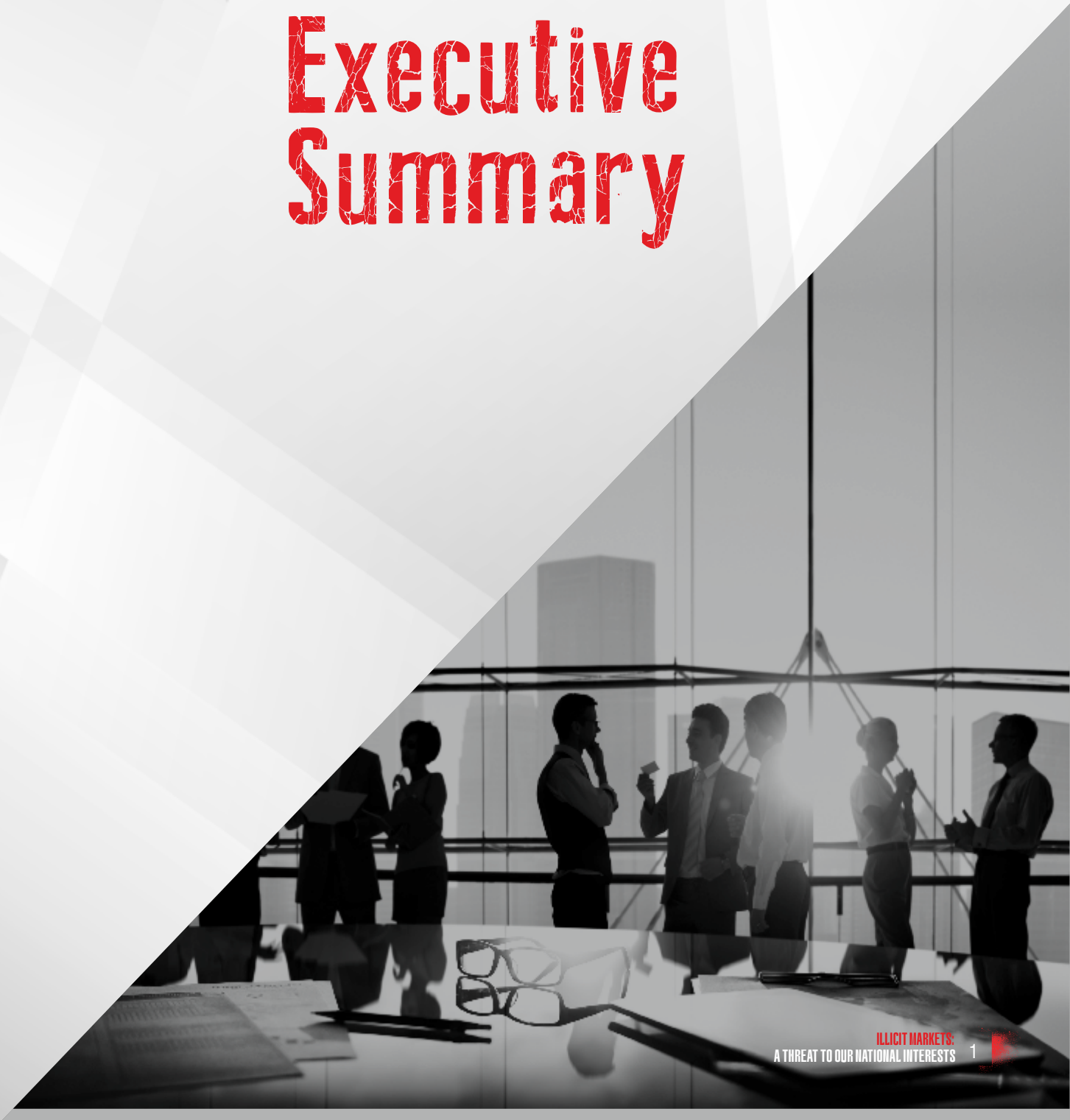
Executive Summary



Executive Summary

1. Illicit Markets and Its Impact on Economy

Counterfeiting, smuggling, and tax evasion-clubbed under the head of organized crime, are distinct in terms of the inherent nature of the activities from which they emerge. Together, they comprise a grey or illicit market[1] that covers all goods sold outside the authorized channels of trade.

Illicit markets tend to emerge spontaneously where governments impose stiff price ceilings or stringent tariff barriers or the regulatory environment creates insurmountable hurdles to conduct commerce legitimately.

Illicit trade is termed as the crime of the 21st century on the account of its impact on all world economies, be it the developed or emerging ones. Despite global efforts, it continues to grow into a lucrative proposition for some, at the cost of causing significant losses for the industry, governments, and society at large.[2] The World Economic Forum (WEF) estimates that all together illicit trade results in an annual drain of US$2.2 trillion (approx. 3 percent of world GDP) on the global economy.[3]

Regardless of different approaches to this complex issue, the effects of illicit trade are numerous and socio-economically significant. It is a serious problem and its impact is far-reaching, affecting various stakeholders including the Government, domestic industries, the entire economy, and citizens of the country.

While severely impacting legal trade, the demand-supply disruptions amid the global COVID-19 pandemic have provided criminals unparalleled opportunities to increase their already significant illicit activities.[4] Euromonitor International's[5] white paper highlights that the ongoing pandemic caused an increase in illicit trade activities across an array of industries including pharmaceuticals, tobacco, alcoholic drinks, PPE products, home, and personal sanitizing products, luxury goods, beauty, and personal care products. Illicit marketers are leveraging consumer susceptibilities, given the deficiencies in the global supply chain across these product categories.

The illicit market in India is quite pervasive and its growth is evident as well. The FICCI CASCADE commissioned study highlights that the extent of the grey markets in 7 key industries has grown as is apparent from a comparison of grey market percentages for the year 2012 vis-à-vis 2010.[6] This study presents an updated quantitative analysis of the

[1] *For uniformity, we will refer this as "illicit market" in future course of report*

[2] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at: http://dx.doi.org/10.1787/9789264251847-en*

[3] *UNCTAD Illicit Trade Forum, Background Note. Palais des Nations, Geneva.3-4 February, 2020.*

[4] *OECD (2020). Illicit Trade in Context of COVID-19 and Future Pandemics. Business at OECD, 22 April 2020*

[5] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020. Available at : https://go.euromonitor.com/white-paper-consulting-2020-COVID-19-and-illicit-trade.html*

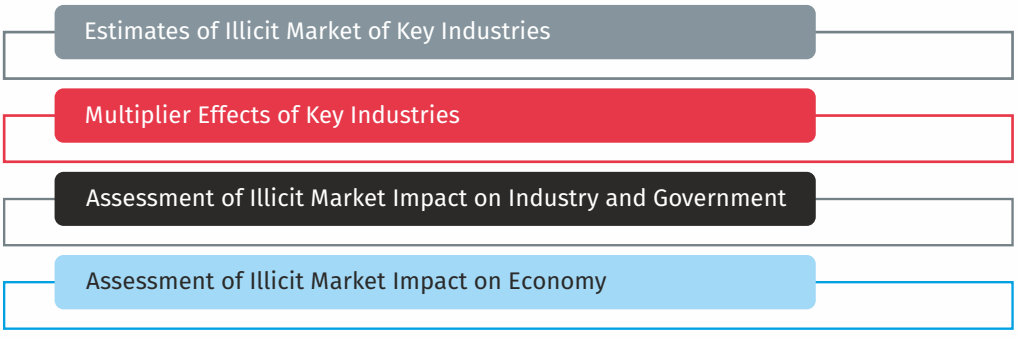
[6] *FICCI CASCADE and TARI, 'Illicit Markets – A Threat to our National Interests' (2015)*

value, scope, and magnitude of illicit markets and its economic impact on legitimate domestic manufacturing industries and the entire economy.

For this study, the illicit markets have three elements:

- Legitimately/illegitimately produced goods that are smuggled across state or international borders without paying taxes;
- Counterfeit or fake goods produced at low cost, designed and affixed with a legitimate brand/logo closely resembling the original brands; and
- Domestic manufacturers who manufacture products but evade taxes/duties.

However, it is important to mention that estimating each element of illicit market is not possible under this study and therefore challenging to distinguish loss/impact amongst the three components. Furthermore, impact under each of these elements will be different for different industries. This study sets out the following objectives:



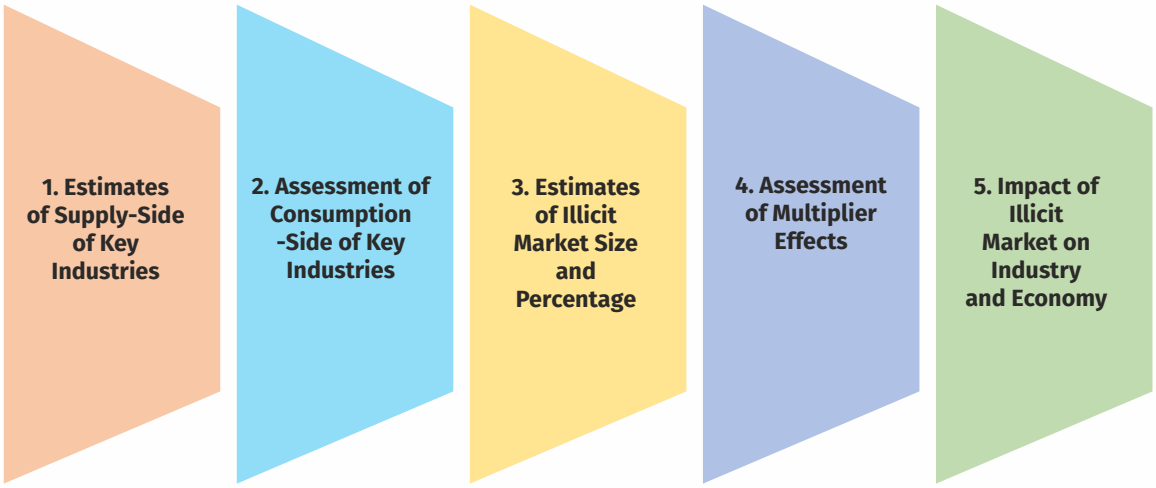
2. Research Approach and Methodology

Quantifying any illicit trade of a given product with absolute precision is difficult due to its secretive nature and lack of verifiable data. An even more challenging task is assessing its socio-economic impact on the country.[7] Under these circumstances, our methodology estimates the illicit market through the demand and supply gap and calculates the impact on the economy using multiplier effects that rely upon the Input-Output model. Multiplier effect shows total impact on the economy on per unit change in demand of the industry. This research makes certain assumptions and works with limitations in the absence of data that have been highlighted at appropriate places.

Our findings are based on credible data sources from the Government of India, Ministry of Statistics and Programme Implementation (MoSPI) such as Annual Survey of Industries, NSSO survey, Private Final Consumption Expenditure (PFCE), Directorate General of Commercial Intelligence (DGCIS) under the Ministry of Commerce and Industry. This study adopts a five-staged research approach to meet objectives.[8]

[7] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at: http://dx.doi.org/10.1787/9789264251847-en*

[8] *Detailed research approach methodology given in the main report and Annexure-I*



3. Illicit Market in Five Key Industries: The Size of Loss

Based on our adopted methodology, the size of illicit markets in five key industries is ₹ 2,60,094 crores for the year 2019-20. The FMCG industry - household & personal goods and packaged foods together account for 3/4th of the total illicit value of goods. The illicit market percentage (as a percentage of the total consumption of products) shows that it varies significantly, from as low as 7.56 percent (in case of mobile phones) to as high as 34.25 percent (in case of FMCG - household & personal goods) with a median value of 20.04 percent (in case of tobacco products, FMCG - household & personal goods).

Illicit Market Size and Estimated Loss: 2019-20					
Indicators	Mobile Phones	FMCG - Household & Personal Goods	FMCG - Packaged Foods	Tobacco Products	Alcoholic Beverages
Illicit Market (₹ Cr)	15,884	55,530	1,42,284	22,930	23,466
Illicit Market (%)	7.56%	34.25%	25.09%	20.04%	19.87%
Employment Loss (Lakh)	0.35	2.989	7.94	3.7	0.979
Tax Loss (₹ Cr)	2,859	9,995	17,074	13,331	15,262

Source: TARI Estimates

Illicit goods in these five key industries result in a total estimated legitimate employment loss of 15.96 lakh. The FMCG industry - household & personal goods and packaged foods, due to their illicit market size, together account for about 68.5 percent of job loss. The estimated tax loss to the Government due to illicit goods in these five key industries is ₹ 58,521 crores in 2019-20. Two highly regulated and taxed industries namely tobacco products and alcoholic beverages, account for 49 percent of tax loss.

The impact of the illicit market of these industries on the economy is significant because of the backward linkages of these industries with other sectors of the economy resulting in a multiplier effect.

4. Mobile Phones: Estimates of Illicit Market and Impact on Economy

Mobile telephony has seen a substantial rise in the last 15 years. At the end of March 2020, India has a total of 115.7 crore mobile users (nearly 55 percent based at urban centres) and a tele-density of 85.87.[9] In the contemporary digital world, mobile phones, particularly smartphones, have become core to the internet and information access, digital communications, and transactions.

India has become the second-largest mobile phone manufacturing nation globally in volume terms and also in terms of sales volume with monthly sales of 10 million handsets. The industry is shifting from import substitution to large-scale manufacturing and exports and has received a significant impetus to become the flagship sector under the Government of India initiative of "Make in India". Production of mobile phones has gone up from 6 crore units valued at ₹ 19,000 crores in 2014-15 to 33 crore units valued at ₹ 2,14,000 crore in 2019- 20.[10]

In 2019-20, there were a total of 152.8 million smartphones sold in India with Xiaomi (28.7 percent) at lead position and including other Chinese manufacturers accounting for nearly 70 percent of the market share.[11] The estimated demand side of mobile phones for 2017-18, 2018-19, and 2019-20 are ₹ 1,74,299 cores, ₹1,88,920 crores, and ₹ 2,10,104 crores respectively.

The European Union Intellectual Property Office (EU IPO) reports that in 2015, globally 184 million counterfeit smartphones were sold resulting in a loss of 45.3 billion euros or 12.9 percent of the total sales.[12] The study estimates show that the illicit market is gradually coming down in recent years, from levels of 11.62 percent in 2017-18 to 7.56 percent in 2019-20. This can be attributed to policy emphasis and incentives on domestic manufacturing and reducing dependence on imports.

Mobile phones (communication equipment) have a GVA coefficient of 0.296 and employment coefficients of 0.022. Illicit mobile phone results in GVA loss of ₹ 4,694 crore and legitimate employment loss of 0.35 lakh to industry for the year 2019-20. Taking Goods and Services Tax (GST) of 18 percent on mobile phones, resulting tax loss to the Government is ₹ 2,859 crores in 2019-20.

Mobile Phones Illicit Market: Impact on Industry and Government

Illicit Market	Output Loss (₹ Cr)	GVA Loss (₹ Cr)	Employment Loss (Lakh)	Tax Loss (₹ Cr)
2017-18	20609	6091	0.454	3710
2018-19	18820	5562	0.415	3388
2019-20	15884	4694	0.350	2859

Source: TARI Estimates

[9] *Telecom Regulatory Authority of India (TRAI), Annual Reports and Data*

[10] *MEITY Annual Reports, 2017-18, 2018-19, 2019-20*

[11] *TARI Estimates based on IDC Quarterly Mobile Tracker*

[12] *EU IPO (2017), The Economic Cost of IPR Infringement in the Smartphones Sector, February 2017*

Multiplier effect shows the total impact on the economy per unit change in demand of the industry. For an output multiplier of 2.542 and GVA multiplier of 3.035, illicit mobile phones result in an output loss of ₹ 40,374 crores and GVA loss of ₹ 14,248 crores in the economy for the year 2019-20. Illicit mobile phones, in the same vein, for an employment multiplier effect of 10.465 results in a total legitimate employment loss of 3.66 lakh in the economy.

Mobile Phones Illicit Market: Impact on Economy			
Illicit Market	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**
2017-18	52387	18487	4.75
2018-19	47837	16881	4.34
2019-20	40374	14248	3.66

Source: TARI Estimates

5. FMCG - Household and Personal Goods: Estimates of Illicit Market and Impact on Economy

FMCG (fast-moving consumer goods) sector is the fourth-largest sector in the Indian economy, generating revenues expected to touch US$103.7 billion by FY2021.[13] Household and personal goods are one of the key sectors of FMCG goods. Three segments, skincare, deodorant & perfumes, and household care together account for more than 60 percent of these goods by value. The urban segments contribute around 55 percent of total revenues, while the rural segment is rapidly catching up.

The FMCG- household and personal- has both organized and unorganized sectors, with multinational and national companies dominating at the top, followed by a large number of SMEs and micro-enterprises at the base of the pyramid thriving on local needs and requirements. The supply side of the industry is estimated at ₹ 87,389 crores in 2017-18 and increased to levels of ₹ 1,06,611 crores in 2019-20. Of this, the formal sector is the main contributor with a 93.8 percent share while the informal sector contributes to about 2.1 percent. Import dependency on household and personal goods is relatively low and contributes only to 3.9 percent to 4.5 percent.

A large population base, demographic changes (median age of 28 years), rapid urbanization, growing income levels, and sociological factors are driving the growth of personal and beauty care products in an unprecedented way. Demand-side of household and personal goods has increased for the year 2018-19 to levels of ₹ 1,54,266 crores (1.36 percent of total PFCE) but has shown a declined trend in 2019-20 and estimated at ₹ 1,62,142 crores (1.31 percent of total PFCE). Due to a decrease in tax of 8 percent due to GST implementation, personal goods became cheaper, and demand increased significantly.[14] Covid-19 pandemic in 2019-20 has witnessed an overall decrease in discretionary spending and has reduced consumption in this sector in 2019-20.

[13] *IBEF Report; https://www.ibef.org/download/FMCG-January-2021.pdf*

[14] *https://www.attitudetallyacademy.com/Blog/understanding-gst-rates-structure/*

Illicit market estimates of household and personal goods show that it has increased from ₹ 47,301 crores in 2017-18 to ₹ 55,530 crores in 2019-20. However, the illicit market percentage has come down to 34.25 percent in 2019-20 from the levels of 35.12 percent in 2017-18 and 2018-19 that may be attributed to decreased consumption/demand for these goods. One of the main driving factors for the illicit market in this segment is the high price of branded and premium products.

Household and personal goods have a GVA coefficient of 0.210 and employment coefficients of 0.054. Illicit household and personal goods result in a GVA loss of ₹ 55,530 crores and legitimate employment loss of 2.99 lakh to industry for the year 2019-20. Taking GST of 18 percent on these goods, the resulting tax loss to Government is ₹ 9,995 crores in 2019-20.

FMCG - Household and Personal Goods Illicit Market: Impact on Industry and Government

Indicators	Output Loss (₹ Cr)	GVA Loss (₹ Cr)	Employment Loss (Lakh)	Tax Loss (₹ Cr)
2017-18	47301	9928	2.546	8514
2018-19	54174	11371	2.916	9751
2019-20	55530	11655	2.989	9995

Source: TARI Estimates

Multiplier effect shows total impact on the economy per unit change in demand of the industry. For an output multiplier of 2.809 and GVA multiplier of 4.533, illicit household and personal goods result in an output loss of ₹ 1,56,012 crores and GVA loss of ₹ 53,071 crores in the economy for the year 2019-20. Illicit household and personal goods, in the same vein, for an employment multiplier effect of 6.683 results in a total legitimate employment loss of 19.88 lakh in the economy. Overall, the economic impact is significant due to the size of the illicit market and the multiplier effect.

FMCG - Household and Personal Goods Illicit Market: Impact on Economy

Indicators	Output Loss (₹ Cr)	GVA Loss (₹ Cr)	Employment Loss (Lakh)
2017-18	132891	45206	17.02
2018-19	152200	51774	19.49
2019-20	156012	53071	19.98

Source: TARI Estimates

6. FMCG - Packaged Food: Estimates of Illicit Market and Impact on Economy

Processed food is one of the key segments of FMCG with more than 50 percent contribution to the overall FMCG market. Based on private final consumption expenditure data from NAS consumption, dairy products (41 percent) constitute a large segment, followed by vegetable oils and fats (28 percent) and confectionery items from packaged food consumption perspective.

The Indian food processing industry is considered a sunrise sector because of its large potential for growth and socio-economic impact.[15] It is one of the largest industries in India and is ranked 5th in terms of production, consumption, and export. The industry contributes about 11.6 percent to agriculture GDP and 9.3 percent to manufacturing GDP.[16] Total employment in the food processing industry is 47.32 lakh.[17]

FMCG - packaged foods supply side is estimated at ₹ 3,40,029 crores in 2017-18 that is estimated to increase to levels of ₹ 4,24,829 crores in 2019-20. Of this, the formal sector is the main contributor with an 87.10 percent share, while the informal sector contributes about 7.81 percent. Unorganized segment varies across categories and approximately 75 percent of the market in India is still unorganized.[18] With a large agriculture base and large multinational firms being locally based, import dependency on food products is relatively low and largely in edible vegetable oils.

Consumption of food and food products in India constitutes the largest chunk of household budgets and about 30 percent of total household expenditure as per PFCE data. The demand-side of FMCG - packaged foods has increased in 2018-19 to levels of ₹ 5,23,828 crores (4.63 percent of total PFCE) but has shown a declined trend in 2019-20 and estimated at ₹ 5,67,113 crores (4.61 percent of total PFCE).

Globally it is estimated that the illicit food markets including sub-standard, fake, smuggled, and illegal agri-foods cost about US$ 30-40 billion each year to the worldwide food industry.[19] The estimates of the illicit market of FMCG packaged foods in India shows that it has increased from ₹ 1,06,486 crores in 2017-18 to ₹ 1,42,284 crores in 2019-20. However, the illicit market percentage has come down from 25.19 percent in 2018-19 to 25.09 percent in 2019-20, and this may be attributed to a reduction in consumption levels of packaged foods.

Food products have a GVA coefficient of 0.198 and employment coefficients of 0.056. Therefore, legitimate output loss of ₹ 1.422 lakh crores due to illicit packaged food for the year 2019-20 results in a GVA loss of ₹ 28,147 crores and legitimate employment loss of 7.94

[15] *Rais, M., Acharya, S., & Sharma, N. (2013). Food processing industry in India: S&T capability, skills and employment opportunities. Journal of Rural Development, 32(9), 451-480*

[16] *Assocham and TARI (2016), Food Processing Industry : Contributing to Make in India*

[17] *Periodic Labour Force Survey (PLFS), Annual Report 2017-18, MOSPI, NSO, May 2019*

[18] *Vandana Tyagi, 2014. Agro food-processing: A sunrise sector of the Indian economy. International Journal in Management and Social Science, Vol.2 Issue-12, page 393*

[19] *TRACIT (2019). Mapping the Impact of Illicit Trade on the Sustainable Development Goals, Chapter 1 SDG and Illicit Trade in the Agri-Food Industry*

lakh to industry. For assessing tax loss to Government, the study takes a median value of 12 percent GST on food products, resulting in a tax loss of ₹ 17,074 crores to the Government for the year 2019-20.

FMCG - Packaged Foods Illicit Market: Impact on Industry and Government				
Indicator	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**	**Tax Loss (₹ Cr)**
2017-18	106486	21065	5.94	12778
2018-19	131975	26107	7.37	15837
2019-20	142284	28147	7.94	17074

Source: TARI Estimates

Multiplier effect shows total impact on the economy per unit change in demand of the industry. For an output multiplier of 2.424 and GVA multiplier of 5.416, illicit packaged food results in an output loss of ₹ 3.45 lakh crores and GVA loss of ₹ 1.56 lakh crores in the economy for the year 2019-20. Illicit packaged food, in the same vein, for an employment multiplier effect of 13.686 results in a total legitimate employment loss of 109 lakh in the economy. Overall, the economic impact is significant due to the size of illicit market and multiplier effects.

FMCG- Packaged Foods Illicit Market: Impact on Economy			
Indicator	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**
2017-18	258167	114081	81
2018-19	319964	141389	101
2019-20	344956	152432	109

Source: TARI Estimates

7. Tobacco Products: Estimates of Illicit Market and Impact on Economy

India is the third-largest producer of tobacco with a total of 800 million kg of tobacco leaf production.[20] The economic activities related to tobacco and tobacco products are estimated to generate livelihood for over 4.57 crore people including farmers, farm labour, traders, manufacturers, distributors, retailers, and tendu leaf workers.[21]

The Indian tobacco industry is divided into three distinct sectors: bidis (smoking products hand- rolled in tendu leaves), smokeless tobacco (mainly chewing tobacco), and cigarettes. The supply-side estimates of tobacco products excluding bidis are estimated at ₹ 87,916 crores in 2018-19 and ₹ 91,513 crores in 2019-20. The study does not

[20] *ICAR- Central Tobacco Research Institute, Annual Report 2020*

[21] *Condition of Tobacco Growing Farmers, Rajya Sabha Unstarred Question No. 1799, December 28, 2018, Answered by Shri Gajendrra Singh Shekhwat, MoS in MOA&FW*

consider 2017-18 for tobacco products due to significant data discrepancy and gaps in gross sales value of Annual Survey of Industries (ASI) on account of change in indirect tax regime due to implementation of GST regime in 2017-18. Data gaps continued to exist in 2018-19 when sales data was checked with sales data of cigarettes companies from prowess data of Centre for Monitoring Indian Economy (CMIE) and adjusted accordingly.

The industry has both organized and unorganized sectors. Beedi production and various other forms of tobacco SLT (smokeless tobacco) production largely takes place under an unorganized sector.[22] While the legal cigarette industry in India is in the organized sector, has statutory oversight and regulatory compliance. As India is a leading producer of tobacco, import dependency on tobacco products is relatively low.

India is the second-largest consumer of tobacco with 266.8 million of all adults, i.e., 28.6 percent of the total population, using tobacco in any form in 2016-17.[22] Beedis are consumed 8 times more than cigarettes as the unit price of beedi is low (₹ 0.4) compared with cigarettes (₹ 3.1); although smoke-less tobacco (SLT) is consumed in the highest amount, such a correlation has not been possible and studies are typically on cigarettes and beedis.[23] Based on the PFCE data, the consumption value of tobacco products has increased from ₹ 1,09,727 crores in 2018-19 to ₹ 1,14,443 crores in 2019-20.

Estimates show that the illicit market of tobacco products has increased from ₹ 21,811 crores in 2018-19 to ₹ 22,930 crores in 2019-20. The illicit market percentage has also increased from 19.88 percent in 2018-19 to 20.04 percent in 2019-20. According to global consensus and estimates, illicit cigarette consumption is 600 billion sticks or 10 percent of the total cigarettes consumption.[24] In urban retail settings of 14 low- and middle-income countries (LMICs), a 2017 study finds that 23.8 percent of cigarettes packs purchased were illicit, while for India it was 30.4 percent higher than the average of surveyed countries.[25]

Tobacco products have a GVA coefficient of 0.493 and low employment coefficients of 0.161. Legitimate output loss of ₹ 22,930 crores due to illicit tobacco products for the year 2019-20 results in a GVA loss of ₹ 11,314 crores and legitimate employment loss of 3.70 lakh to the industry. Considering a tax of 58.14 percent on tobacco products excluding bidi, the estimated tax revenue loss to the Government due to illicit tobacco products is ₹ 13,311 crores.

Euromonitor (based on surveys and their own methodology) estimate that nearly one fourth of the cigarettes sold in India are illicit, which happen mostly on the higher end of the value chain. When the size of illicit markets for cigarettes as determined by Euromonitor is valued based on consumption patterns and is added to the size of illicit

[22] *GATS India, GATS 1- 2009-10 Survey and GATS 2- 2016-17 Survey*

[23] *Mohan, P., Lando, H. A., & Panneer, S. (2018). Assessment of Tobacco Consumption and Control in India. Indian Journal of Clinical Medicine. https://doi.org/10.1177/1179916118759289*

[24] *S Dutta (2019), Confronting Illicit Tobacco Trade: A Global Review of Country Experiences, Technical Report of the World Bank Group Global Tobacco Control Program*

[25] *Cherukupalli, R., Washington, C., Ferguson, J., & Clegg Smith, K. (2017). An analysis of purchase price of legal and illicit cigarettes in urban retail environments in 14 low- and middle-income countries. Addiction (Abingdon, England), 112(10), 1854-1860. https://doi.org/10.1111/add.13881*

markets for other tobacco products (as determined by this report), the estimated tax losses are assessed at ₹ 15,500 crores, which is higher than our estimates.

Hence, the estimated tax losses using our methodology and that as estimated using data of Euromonitor (as explained above) can be between ₹ 13,331 to ₹ 15,500 crores.

Tobacco Products Illicit Market: Impact on Industry and Government				
Indicator	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**	**Tax Loss (₹ Cr)**
2018-19	21811	10762	3.52	12681
2019-20	22930	11314	3.70	13331

Source: TARI Estimates

Multiplier effect shows total impact on the economy per unit change in demand of the industry. For an output multiplier of 1.844 and GVA multiplier of 1.929, illicit tobacco products result in an output loss of ₹ 42,293 crores and GVA loss of ₹ 21,824 in the economy for the year 2019-20. Illicit tobacco products, in the same vein, for an employment multiplier effect of 2.672 results in a total legitimate employment loss of 9.89 lakh in the economy.

Tobacco Products Illicit Market: Impact on Economy			
Indicator	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**
2018-19	40230	20759	9.41
2019-20	42293	21824	9.89

Source: TARI Estimates

8. Alcoholic Beverages: Estimates of Illicit Market and Impact on Economy

Indian alcoholic beverages market is among the fastest-growing and third-largest markets in the world. Alcohol consumption in India as per IWSR data equalled 5.376 billion litres in 2017 and sharply increased in the last three years to reach levels of 6.177 billion litres in 2020.[26] The alcoholic beverages can be segmented into IMFL (Indian Made Foreign Liquor), Country Liquor (Indian Made Indian Liquor), Wine and Beer. India is the 9th largest market of alcohol and the 2nd largest in the case of spirits by volume consideration. IMFL accounts for only 35 percent by volume but in terms of value captures 65 percent of market share. Country liquor, which is localized liquor and produced in local distilleries, accounts for 33 percent sales by volume but only around 9 percent by value. Beer has a market share of 31 percent by volume and about 25 percent by value with strong beer (6 - 8 percent of alcohol content) dominating with 85 percent market share.

[26] *IWSR Report*

Alcoholic beverages industry in India is one of the most regulated industries in the country. The regulatory landscape on alcohol encompasses all aspects including production, imports, distribution, and consumption, and is largely driven by the State Governments laws, alcohol being in the state subject list. Alcoholic beverages supply-side was ₹ 86,997 crores in 2017-18 and estimated to increase to levels of ₹ 102,063 crores in 2019-20. Of this, the formal sector is the main contributor with a 93.78 percent share while the informal sector, which predominately supplies country liquor, contributes about 1.79 percent. Import dependency is relatively low due to high tax arbitrage.

Alcoholic beverages also have restrictions on consumption. As per WHO data, per capita, alcohol consumption has increased from levels of 2.2 liters in 2000 to 5.61 liters in 2019. Consumption of alcoholic beverages (as a percentage of total PFCE) is showing a declining trend from 1.185 percent in 2017-18 to 1.028 percent in 2019-20 and estimated to be ₹ 1,17,200 crores in 2019-20.

Illicit alcohol is within the large umbrella of unrecorded alcohol and is quite difficult to estimate. It is driven by both supply-side (business practices) and demand-side (consumers) factors with interplay of the regulatory landscape. According to a 2018 Euromonitor study, illicit alcohol represents 25.8 percent of global consumption, i.e., 1 out of 4 alcohol bottles are illicit.[27] The estimates of illicit alcoholic beverages show that it is gradually coming down from 23.88 percent in 2017-18 to 19.87 percent in 2019-20. Even in value terms, it is coming down and estimated to be ₹ 23,466 crores in 2019-20.

Beverages have a GVA coefficient of 0.49 and low employment coefficients of 0.042. Legitimate output loss of ₹ 23,466 crores due to alcoholic beverages for the year 2019-20 results in a GVA loss of ₹ 11,503 crores and legitimate employment loss of 0.98 lakh to industry. Based on the analysis of 14 liquor companies and excise duty paid by them, tax paid is in the range of 64- 65 percent. Accordingly, the estimated tax loss of the exchequer due to illicit alcohol ranges from ₹ 15,000 crores to ₹ 17,000 crores.

Alcoholic Beverages Illicit Market: Impact on Industry and Government

Indicators	Output Loss (₹ Cr)	GVA Loss (₹ Cr)	Employment Loss (Lakh)	Excise Duty and VAT	Tax Loss (₹ Cr)
2017-18	26711	13094	1.114	63.86%	17057
2018-19	22336	10949	0.932	64.25%	14351
2019-20	23466	11503	0.979	65.04%	15262

Source: TARI Estimates

Multiplier effect results in a widespread impact on the economy. For an output multiplier of 2.035 and GVA multiplier of 1.971, illicit alcoholic beverages result in an output loss of ₹ 47,755 crores and GVA loss of ₹ 22,678 crores in the economy for the year 2019-20.

[27] *Euromonitor International. (2018). Size and Shape of the Global Illicit Alcohol Market. London: Euromonitor*

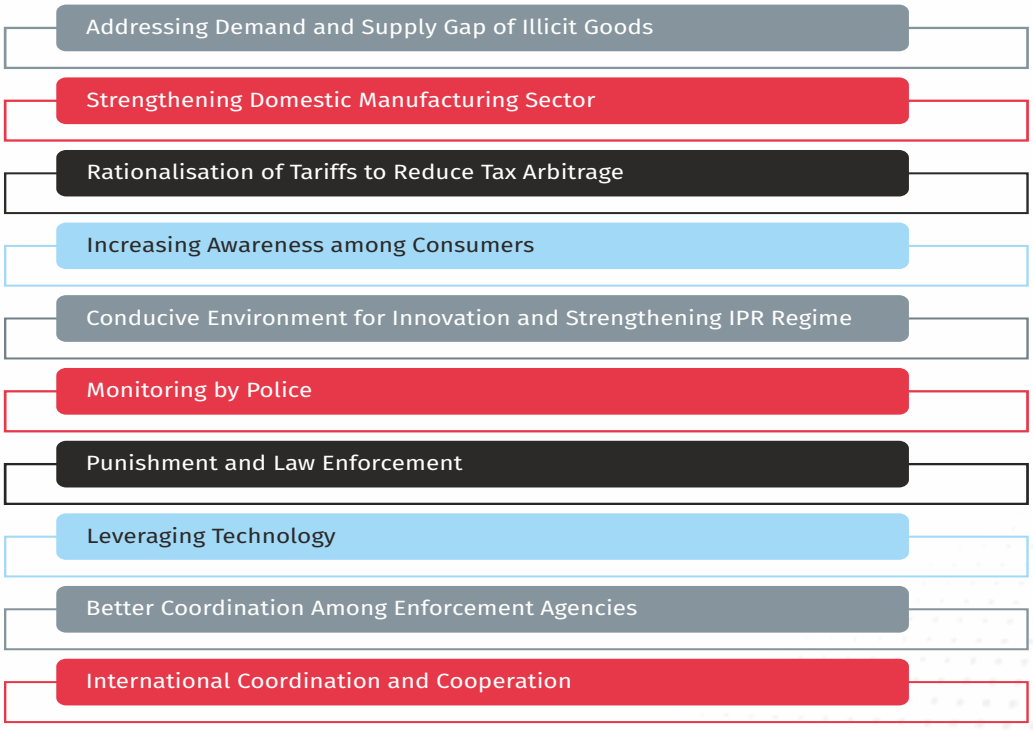
Similarly, an employment multiplier effect of 6.067 illicit alcoholic beverages results in a total legitimate employment loss of 5.94 lakh in the economy.

Alcoholic Beverages Illicit Market: Impact on Economy			
Multipliers	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**
2017-18	54359	25814	6.76
2018-19	45455	21586	5.65
2019-20	47755	22678	5.94

Source: TARI Estimates

9. Conclusions and Way Forward

Illicit trade and markets are a global phenomenon affecting nearly all countries in the world. The OCED has highlighted that[28] "Combating illicit trade at the national level is a shared responsibility which requires a whole-of-society approach involving relevant government agencies, the manufacturers and distributors of impacted industries, consumers and the general public." Estimates of the illicit market in the five industries and its direct and indirect impact on the industry, Government, and economy signal toward the criticality of the problem faced by the country. Following are the possible ways forward to deal with this growing menace:



Illicit trade is all-pervasive with industry, government, and society directly bearing its brunt. Naturally, concerted efforts of the government, industry, consumers, and international bodies are needed to achieve the challenging and mammoth task of reducing illicit markets. The cooperation of all stakeholders to tackle this scourge is the only way forward.

[28] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at: http://dx.doi.org/10.1787/9789264251847-en*

1

Illicit Markets and Its Socio-Economic Impact on Indian Economy

1. Illicit Markets and Its Socio-Economic Impact on Indian Economy

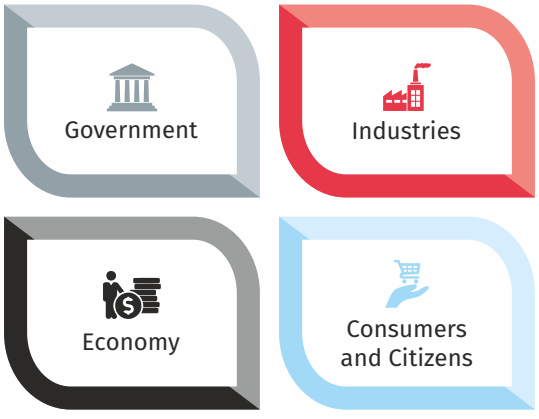
1.1 Illicit Trade - The Problem

Illicit trade has become a global phenomenon and continues to grow notwithstanding the endeavors of governments, international organizations including law enforcement and multilateral agencies, and private sector businesses.

Illicit markets tend to emerge spontaneously where governments impose stiff price ceilings or stringent tariff barriers, or the regulatory environment creates insurmountable hurdles to conduct commerce legitimately.

Regardless of different approaches to this complex issue, the effects of illicit trade are numerous and socio-economically significant. It is a serious problem, and its impact is far-reaching, affecting various stakeholders including the Government, domestic industries, the entire economy, and citizens of the country.

The global trade in counterfeit and pirated goods accounts for the largest economic value of all forms of illicit trade, robbing the legitimate economy of jobs and economic growth, while at the same time putting consumers at risk to unsafe, inferior, and ineffective products.[29]



Source: TARI Representation

Transnational Alliance to Combat Illicit Trade (TRACIT) 2020 report points that the socio-economic impacts of illicit market present significant deterrence to all 17 of the SDGs - holding back progress, increasing costs and pushing achievement of the goals further away, and presenting a triple threat to financing the necessary "billions to trillions" dollar gap needed to reach the SDGs.[30] The report says, "Lost taxes of all kinds-corporate, sales, personal income, excise and value-added-rob governments of revenues intended

[29] *May, C. (2017). Transnational Crime and the Developing World. Washington DC: Global Financial Integrity. Retrieved from: http:// www.gfintegrity.org/wp-content/uploads/2017/03/Transnational_Crime-final.pdf*

[30] *Transnational Alliance to Combat Illicit Trade, Mapping the Impact of Illicit Trade on the Sustainable Development Goals, Executive Summary*

for schools, infrastructure, and other public services. Illegal and unfair competition reduces sales and dampens the ability of legitimate companies to create lasting and dignified job opportunities. The spectre of criminality and associated instabilities erodes the rule of law that underpins investment and weakens a country's credit ratings, which are needed to secure financing and attract investment. Taken together, economic leakages across the sectors susceptible to illicit trade create an annual drain on the economy of US$2.2 trillion and present a triple threat to financing the necessary "billions to trillions" dollar gap needed to reach the SDGs."[31]

1.2 Illicit Market: Defining the Landscape

Counterfeiting, smuggling, and tax evasion-clubbed under the head of organized crime, are distinct in terms of the inherent nature of the activities from which they emerge. Together, they comprise Grey or Illicit Market[32], which simply covers all goods sold outside the authorized channels of trade. In addition, it may also include artisanal-home products produced outside the regulatory framework and resale of expired products.

While illicit market/ trade attains global attention, there is no standard definition of the term grey market, and the terms often are used interchangeably since most of the transactions involve all or some of the elements in conjunction. Various terms such as illegal trade, unrecorded and informal trade are used to describe the trade.[33] For instance, in the case of the sale of counterfeited goods, there would always be tax evasion; such goods can be domestically produced or illegally imported from a foreign land. For this study, the illicit markets have three elements:

- Legitimately/illegitimately produced goods that are smuggled across state or international borders without paying taxes;
- Counterfeit or fake goods produced at low cost, designed and affixed with a legitimate brand/logo closely resembling the original brands; and
- Domestic manufacturers who manufacture products but evade taxes/duties.

Source: TARI Representation

[31] *TRACIT, "Mapping the Impact of Illicit Trade on the Sustainable Development Goals"*

[32] *For uniformity, we will refer this as "illicit market" in future course of report*

[33] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020*

Various components under the ambit of the illicit market are shown above. However, it is important to mention that estimating each component of illicit market is not possible under this study and therefore challenging to distinguish loss/impact amongst the three components. Further, impact under each of these categories will be different for different industries/ products. For example, in the packaged food industry smuggling component may be less as compared to counterfeiting and tax evaded goods.

As illicit marketers or traders operate outside the law, estimating the extent of counterfeiting and piracy and the harm these activities cause is extremely challenging. OECD points out that quantifying any illicit trade of a given product with absolute precision is quite difficult due to its secretive nature and lack of verifiable data.[34] Illegal businesses do not report information on their activities to any government agency and therefore measuring their size requires using indirect methods.[35]

Due to non-standardization in the definition of the problem and difficulty in its measurement, illicit market/ trade remains an intricate issue worldwide for researchers and policymakers and is fraught with various challenges.

1.3 Illicit Markets: Magnitude of Problem

Illicit trade is termed as the crime of the 21st century on account of its impact on all world economies, be it developed or emerging ones. Despite global efforts, it continues to grow itself into a lucrative proposition for some, at the cost of causing significant losses for industry, governments, and society at large.[36]

Estimates of illicit markets vary considerably as quantifications made by various agencies range from as low as $200-600 billion to as high as $1 trillion, with little agreement on definitions and unanimity based on measurement.[37] The World Economic Forum (WEF) estimates that all together illicit trade results in an annual drain of US$2.2 trillion (approx. 3 percent of world GDP) on the global economy.[38]

In recent years, illicit trade and counterfeiting have diversified from traditional activities centred around tobacco, alcohol, luxury, and branded goods, toward other products such as electronic goods, mobile phones, packaged foods, personal goods, pharmaceuticals, and automotive components, amongst others.

In 2017, Global Financial Integrity, a Washington-based think tank, found that of all transnational crimes which together turned over between US$ 1.6 to 2.2 trillion annually, counterfeiting was the most lucrative estimated at US$ 1.13 trillion.[39]

[34] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at : http://dx.doi.org/10.1787/9789264251847-en*

[35] *Estimating the global economic and social impacts of counterfeiting and piracy, BASCAP, 2011*

[36] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at: http://dx.doi.org/10.1787/9789264251847-en*

[37] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at: http://dx.doi.org/10.1787/9789264251847-en*

[38] *UNCTAD Illicit Trade Forum, Background Note. Palais des Nations, Geneva.3-4 February, 2020.*

[39] *Global Financial Integrity, 'Transnational Crime and the Developing World' (March 2017)*

Counterfeiting, driven by a globally active network of organized crime groups has been on the rise. According to OECD-EUIPO study,[40] trade in counterfeit and pirated goods has risen in the last few years, which as of 2016 stood at 3.3 percent as against 2.5 percent of the world trade in 2013. The International Chamber of Commerce estimates that the global counterfeit trade would be about US$4 trillion by 2022.[41]

1.4 Covid-19 Pandemic and Its Impact on Illicit Trade

Coronavirus (Covid-19) pandemic emergence at the beginning of 2020 not only disrupted human lives but had a significant negative impact on the economies of the world. The pandemic has triggered a crisis impacting government revenues, businesses models, and profitability, breaking down of supply chains, job markets, consumer income levels, and expenditure, etc.

While severely impacting legal trade, the demand-supply disruptions amid the global COVID-19 pandemic have provided criminals unparalleled opportunities to increase their already significant illicit activities.[42] Euromonitor International's[43] white paper highlights that the ongoing pandemic caused an increase in illicit trade activities across an array of industries including pharmaceuticals, tobacco, alcoholic drinks, PPE products, home, and personal sanitizing products, luxury goods, beauty, and personal care products. Illicit marketers are leveraging on consumer susceptibilities, given the deficiencies in the global supply chain across these product categories.

The Covid-19 has affected various drivers, processes, and stakeholders of both legitimate and illicit trade in the short term to long term. While the detailed impact on the illicit trade is still a topic of research, here we are providing a brief overview of work in impact areas by international and multinational organizations:

Disruptions in the Supply Chain

Global disruption in the supply chain due to closed international borders and restrictive lockdowns in various countries has impacted the sourcing of raw materials, intermediaries, and semi-finished products and inputs for businesses and the accessibility of finished goods. Euromonitor International highlights[44] that scarcity of raw materials/ goods from China, which is the manufacturing powerhouse of the world, would have increased the interest of illicit players to push goods through smuggling, reaping higher profits. At the same time to fulfil the demand-supply gap and overcome procurement difficulty, local retailers would have gained access from the illicit channels/unorganized intermediaries otherwise not possible through formal channels to reap benefits.[45]

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[40] *OECD/EUIPO (2019), Trends in Trade in Counterfeit and Pirated Goods, Illicit Trade, OECD Publishing, Paris/European Union Intellectual Property Office, https://doi.org/10.1787/g2g9f533-en*

[41] *International Chamber of Commerce. (2017, June 2). Global impacts of counterfeiting and piracy to reach US$4.2 trillion by 2022*

[42] *OECD (2020). Illicit Trade in Context of COVID-19 and Future Pandemics. Business at OECD, 22 April 2020*

[43] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020. Available at: https://go.euromonitor.com/white-paper-consulting-2020-COVID-19-and-illicit-trade.html*

[44] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020. Available at: https://go.euromonitor.com/white-paper-consulting-2020-COVID-19-and-illicit-trade.html*

[45] *E&Y (2020), Brand Protection in a Covid-19 Era: Challenges and Response Plan*

Trade Routes

OCED has highlighted that closures of some businesses and disruptions in transport methods in the near term leading to significant distortions in the supply chains is likely to reshape trade routes and the composition of illicit trade. It points out that criminal networks were well aware of the disruptions in transport channels and managed them accordingly.[46]

Illicit Finance

Amid the Covid-19 crisis, many businesses particularly micro and small enterprises suffered financial liquidity crises to keep their business running. Euromonitor International[47] highlights that limited or lack of capital from formal channels to these players makes them vulnerable to organized criminal networks and mafias. This in turn allows illicit players to take advantage and reach an understanding for carrying out fraudulent activities and selling illicit goods. The covid-19 pandemic has aggravated such a financing gap that already exists across many countries of the world.

Change in Consumer Behaviour

Covid-19 pandemic has severely affected income levels of consumers, particularly those belonging to lower strata, affecting their expenditure behaviour. Euromonitor International[48] points out that decline in income levels and economic uncertainties are driving consumers to look for cheaper products/ alternatives leading them to buy illicit products knowingly or unknowingly. OECD suggests that financial crunch could spur consumers to purchase various illicit and counterfeited goods in the product categories of pharma, electronics, apparel, FMCG, alcoholic beverages, and tobacco.[49] Further, consumers are now focused on essential goods such as foods and healthcare (including PPE products) where illicit markets have increased due to an increase in demand and scarcity of goods through formal/ legal channels.

Growing Online Purchase

With the Covid-19 pandemic disrupting physical interaction and supply chains, online/ e-commerce platforms have garnered due attention of purchasers. The forced shift in consumer behaviour toward purchasing from online/ e-commerce platforms also increases their vulnerabilities to buy a counterfeited product, thus increasing illicit markets. According to Euromonitor International, global e-commerce sales through e-commerce platforms are expected to double in 4 years, with an increase from US$ 2 trillion in 2020 to US$ 4 trillion in 2024. Most of the counterfeited products are sold online rather than physical retailers, where it is primarily done by third-party sellers that access consumers on e-commerce platforms.[50] The International Chamber of Commerce believes that by 2022, the global counterfeit trade is about US$4 trillion with significant

[46] *OECD (2020). Illicit Trade in Context of COVID-19 and Future Pandemics. Business at OECD, 22 April 2020*

[47] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020. Available at : https://go.euromonitor.com/white-paper-consulting-2020-COVID-19-and-illicit-trade.html*

[48] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020.*

[49] *OECD (2020). Illicit Trade in Context of COVID-19 and Future Pandemics. Business at OECD, 22 April 2020*

[50] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020.*

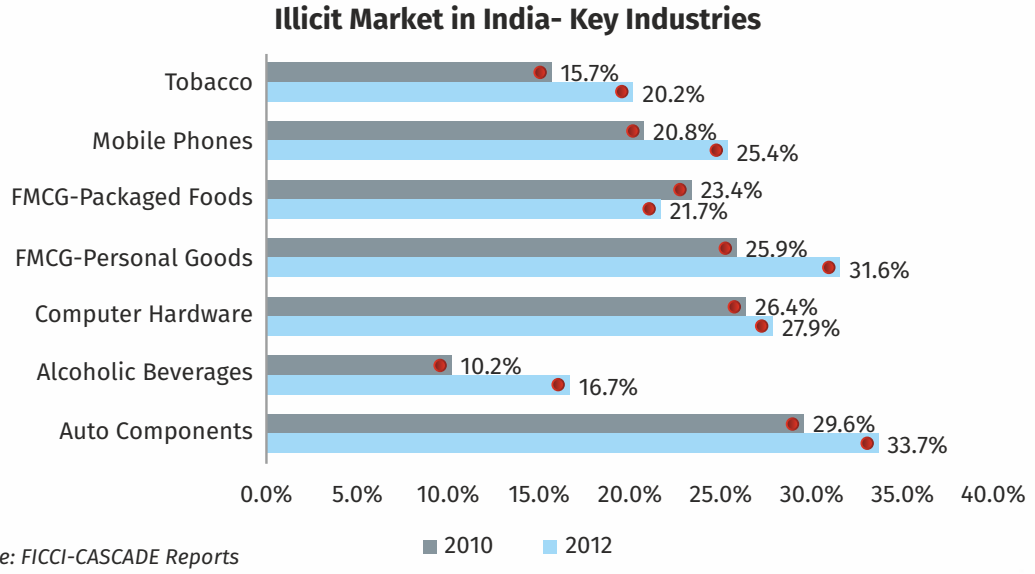
contribution from e-commerce sales.[51] Illicit marketers and counterfeiters are manipulating the growing interest in online platforms to supply fake or substandard products.[52]

Rule of Law and Enforcement

Euromonitor International[53] highlights that rule of law and weak enforcement have aggravated in the Covid-19 pandemic where criminal networks are strengthened due to a lack of police capacity and enforcement resources. Highly regulated products such as alcoholic beverages and the tobacco market have observed massive distortion in many countries, where illicit trade has grown to reap benefits on account of an increase in excise duties, artificial channelling, and a rise in the price of raw materials.

1.5 Illicit Markets in India: Problem Landscape

In 2012, FICCI CASCADE published a report compiling facts and figures on counterfeiting, smuggling, and tax evasion in seven key industry sectors in India, in what was a bold attempt to estimate the levels of counterfeiting. The extent of the grey markets[54] in key industries studied in this report has grown as is apparent from a comparison of grey market percentages for the year 2012 vis-à-vis 2010.[55] In these sectors, the grey market in India has increased in all but one sector.



Source: FICCI-CASCADE Reports

1.6 Setting the Objectives

The manufacturing sector can be a game-changer in fulfilling the dream of a US$ 5 trillion economy while realizing the aspirations of millions of people. In addition, India needs its manufacturing sector to grow and provide the necessary space to accommodate its bulging labour force. However, the share of manufacturing in generating income and employment has been low. While the share of the manufacturing

[51] *International Chamber of Commerce. (2017, June 2). Global impacts of counterfeiting and piracy to reach US$4.2 trillion by 2022*

[52] *OECD (2020). Illicit Trade in Context of COVID-19 and Future Pandemics. Business at OECD, 22 April 2020*

[53] *Euromonitor International (2020). Illicit Trade in Times of Coronavirus. White Paper, August 2020.*

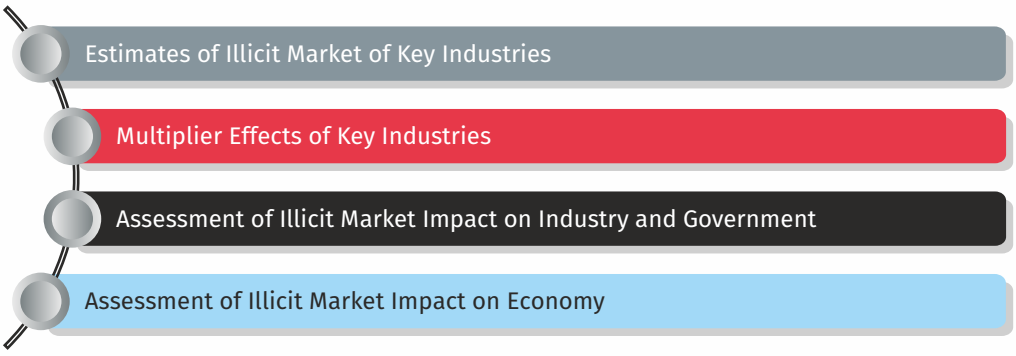
[54] *Grey market defined as the sum of three components: counterfeiting, smuggling, and tax evasion*

[55] *FICCI CASCADE and TARI, 'Illicit Markets – A Threat to our National Interests' (2015)*

sector in GDP, with the base year 2011-12, is increasing slowly, it still hovers around 18 percent, while the majority of the share still lies with the services sector. This share of manufacturing is still very low compared to developed economies. The Indian manufacturing sector is, however, affected by competition from international trade and is also afflicted by illicit and counterfeit trade. This results in significant loss to the legitimate domestic manufacturing industries, the Government, and the entire economy.

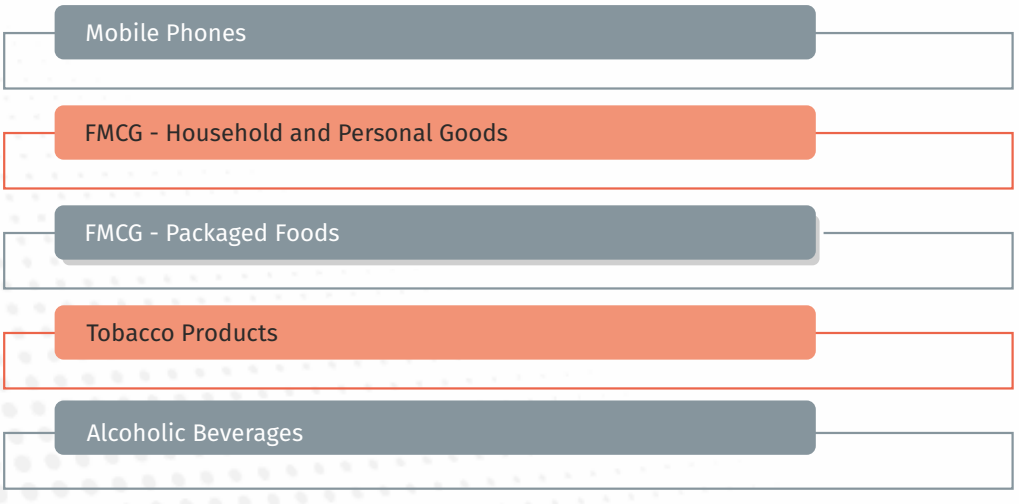
Six years have elapsed since the last study in 2015 and an accurate assessment of the real costs of counterfeiting, smuggling, and tax evaded goods is vital to convince decision-makers that strong action is necessary to understand the pattern and growth of illicit markets, their impact on stakeholders and develop strategies to collectively counter them. This study presents an updated quantitative analysis of the value, scope, and magnitude of illicit markets and its economic impact on the legitimate domestic manufacturing industries and the entire economy.

This study sets out the following objectives:



Source: TARI Representation

For ascertaining the illicit market, we have to determine the different kinds of products that have to be considered under each industry category. We have identified five products through literature reviews and consultation with FICCI-CASCADE Think Tank members and industry representatives. These products are more susceptible to illicit trade, counterfeiting, and tax evasion, and also analysed in the earlier studies done on the topic. The key products/ industries selected for this study include:



2

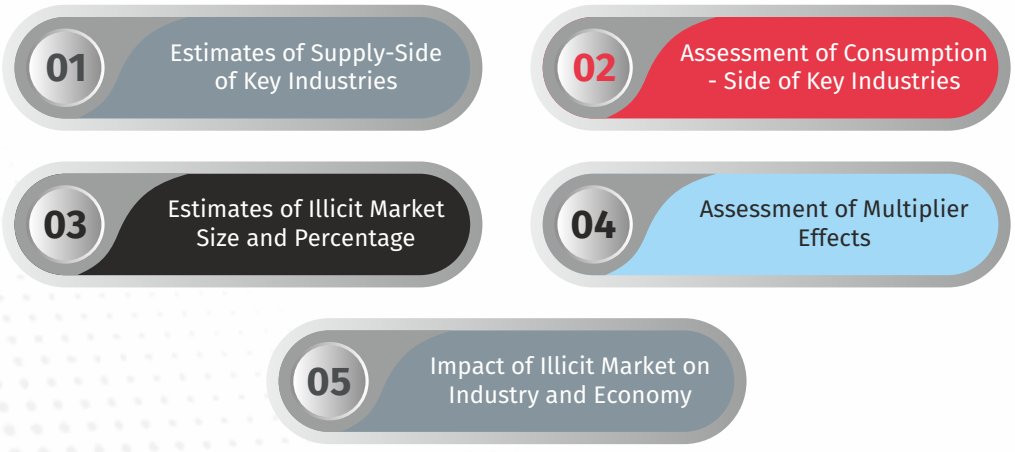
Research Approach and Methodology

2. Research Approach and Methodology

This section focuses on the research approach and methodology that enables us to make estimates about the illicit market and its impact on the industry as well as on the economy. Our research uses credible data sources from the Government of India, Ministry of Statistics and Programme Implementation (MoSPI) such as the Annual Survey of Industries and NSSO survey, Private Final Consumption Expenditure (PFCE) provided by Central Statistical Office (CSO), and Directorate General of Commercial Intelligence (DGCIS) under the Ministry of Commerce and Industries. Our methodology estimates illicit markets through demand and supply gaps. Impact on the economy is ascertained through multiplier effects using the Input-Output model developed by Nobel economic laureate Wassily Leontief, which is widely accepted. Multiplier effect shows total impact on the economy per unit change in demand of the industry. The main purpose of this report is to highlight the consequences of the illicit market on the industry and economy.

2.1 Research Approach

Quantifying any illicit market with absolute precision is quite difficult due to its secretive nature and lack of verifiable data. Even more challenging is the task of assessing its socio-economic impact on the country.[56] This renders the assignment of making any estimates about the illicit market and assessing its impact on the industries and the overall economy quite perplexing and intricate. This research, as each research has to, makes certain assumptions and works with limitations in the absence of reliable data, resources, and time. These assumptions are highlighted at appropriate places in the report. The study adopts a five-staged research approach to achieve objectives:

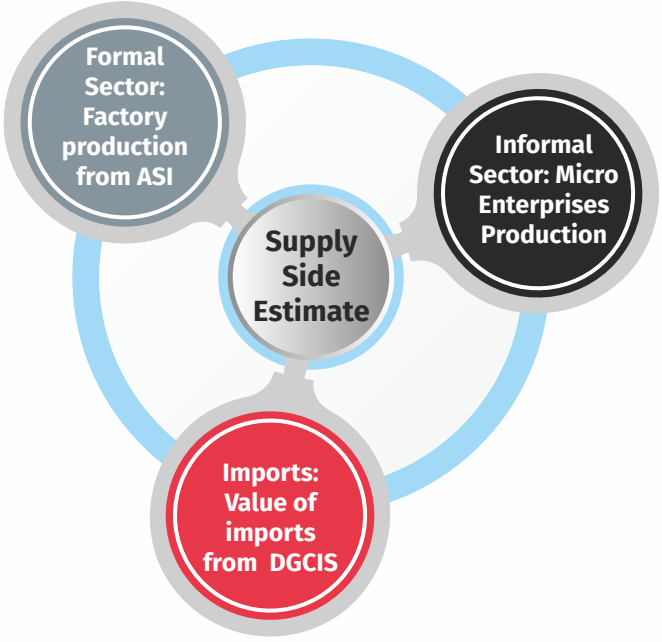


Source: TARI Representation

[56] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at : http://dx.doi.org/10.1787/9789264251847-en*

2.2 Estimates of Supply-side of Key Industries

The first stage of research focuses on the estimation of the supply side of key Industries. We arrive at holistic estimates of the supply-side including formal sector (incorporated) and informal sector (unincorporated enterprises) of the industry with publicly available national-level data from the Annual Survey of Industries (ASI), MoSPI, and 73rd round NSSO survey of the unincorporated enterprises of India and imports from foreign counties through DGCIS data.



Source: TARI Representation

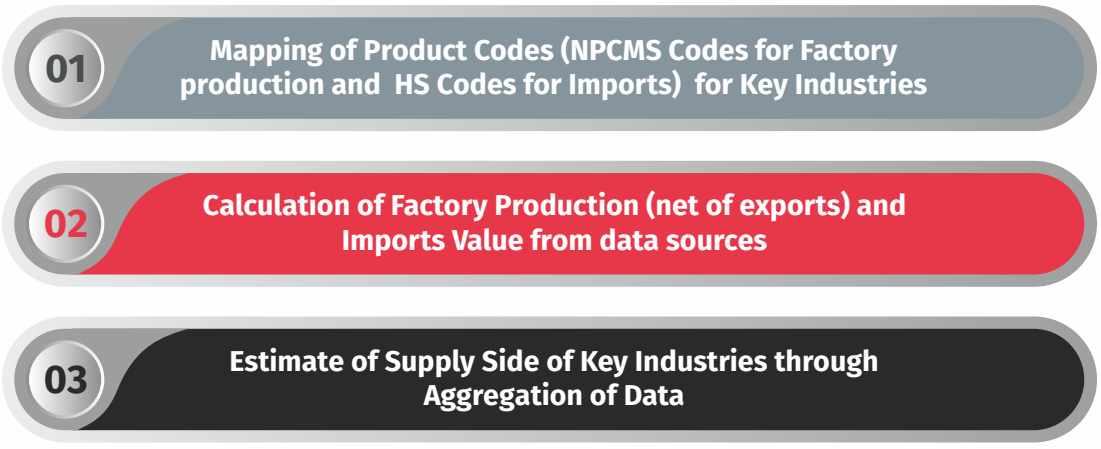
Formal Sector Production ASI - Gross Sales Value: The Central Statistical Organisation (CSO) of MoSPI collects national data on manufacturing activity for each district (rural and urban) to compile the Annual Survey of Industries (ASI) statistics. Gross Sales Value (GSV) in ASI data includes product cost, excise duty, sales tax, Goods and Service Tax (GST), and other distribution expenses.

Informal Sector: Informal sector comprising of unincorporated enterprises is important for the Indian economy because of the large number of enterprises and the magnitude of employment. This study includes them through NSS 73rd round survey data, which covers the informal sector (Unincorporated Enterprises) involved in diverse domains of non-agricultural production activities.

Imports: The value of goods imported into the country has been taken from the data (upto 6 or 8 digits HS Codes) published by the Directorate General of Commercial Intelligence and Statistics (DGCIS) under the Ministry of Commerce and Industry.

[57] *Refer Annexure-I for more details*

Three critical steps of this research stage[57] to arrive at the supply-side estimates of key industries are:

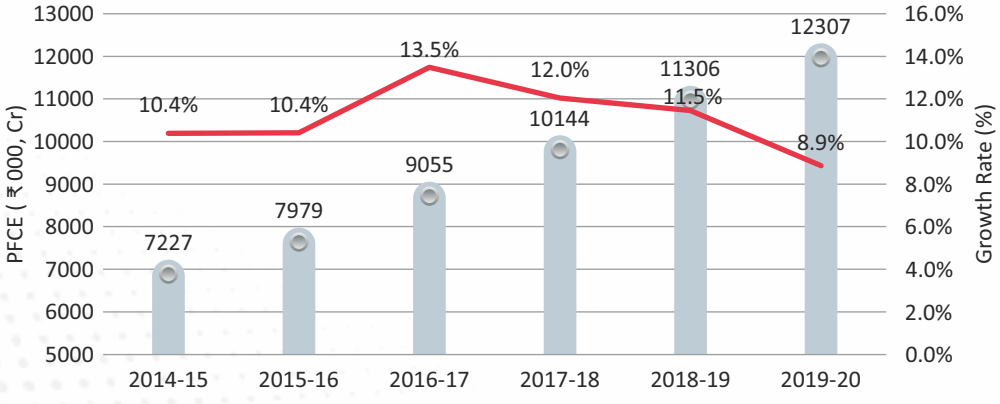


Source: TARI Representation

2.3 Assessment of Consumption-side of Key Industries

In a previous study by TARI on the illicit market for years 2011-12, the demand/ consumption side estimates were based on the NSSO data. MOSPI has not published any consumption data report since 2011-12. Due to the non-availability of consumption data by NSSO, this study relies on the private final consumption expenditure (PFCE) approach. The PFCE is defined as the expenditure incurred by the resident households and non-profit institutions serving households (NPISH) on the final consumption of goods and services, whether made within or outside the economic territory.[58] The estimates of PFCE are compiled annually as a part of the National Account Statistics (NAS) by CSO using the commodity flow approach. Estimates of the consumption side for key industries for this study are based on the PFCE data provided by CSO in the NAS.

Private Final Consumer Expenditure (PFCE) in India (Current Prices)



Source: Central Statistical Office (CSO), Ministry of Statistics & Program Implementation (MoSPI)

[57] *Refer Annexure-I for more details*

[58] *Private Final Consumer Expenditure (PFCE), Ministry of Statistical and Programme Implementation (MoSPI)*

2.4 Estimates of Illicit Market Size and Percentage

Using the data obtained from both supply and demand sides in the previous section, for each of the five sectors covered in this study, the illicit market and illicit market percentage for each year are estimated based on calculations given below:

Illicit Market = Total Consumption - Total Supply

Illicit Market Percentage= $\frac{\text{Total Consumption - Total Supply}}{\text{Total Consumption}} \times 100$

The difference between total consumption and total supply can primarily be attributed to the following:

- Goods produced or imported and sold in the country by evading taxes
- Sale of domestically produced counterfeited (either deceptive or non-deceptive) goods

2.5 Assessment of Multiplier Effects

This stage of our research consists of analysing multiplier effects and the overall impact of output and employment loss in the economy because of the linkage of selected manufacturing industries with other sectors. A major outcome of this stage is the estimation of multiplier effects using the Input-output (I-O) matrix technique, which through the representation of interdependencies between different branches of a national economy allows studying inter-sector linkages.

Evaluating multipliers is an important tool in economic analysis, that measures how one-factor changes in response to other factors and thereby estimates a sort of ripple effect on the overall economy. An increase in demand has three effects: direct, indirect, and induced effects that add up to 'total effect. For this study, the Type I multiplier was calculated that measures direct and indirect effects.

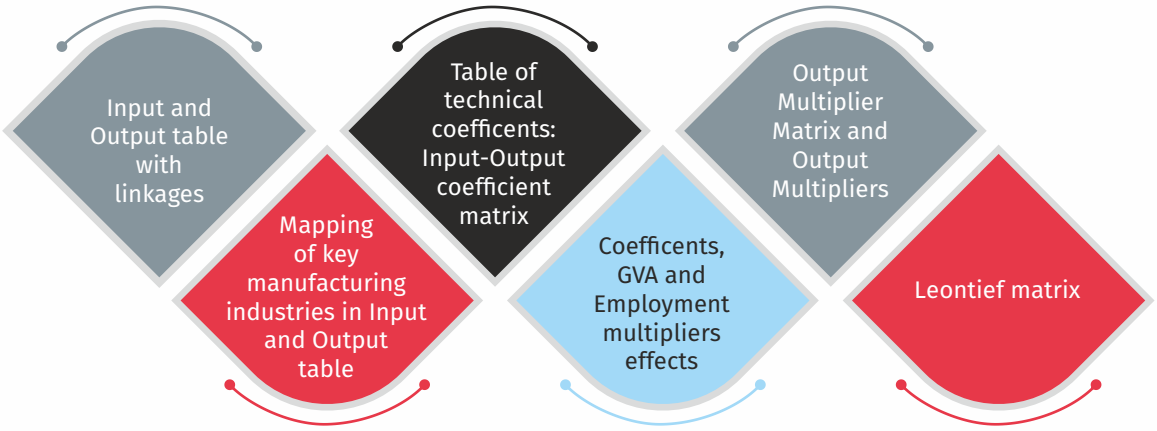
To calculate the multiplier, a scientific and widely used method involving the "Input-Output (I-O) Table", originally developed by Nobel laureate, economist Wassily Leontief (1941) has been used.[59] The I-O model is a set of national-level multipliers that may be used to estimate the economy-wide effect that an initial change in final demand has on an economy.[60] We have calculated multiplier effects, namely: Output, Value Added, and Employment Multiplier for the key industries.

We herein describe the steps[61] involved in the computation of multipliers for the output, value addition, and employment in the key manufacturing industries based on the I-O table and assessment of the total impact on the economy.

[59] *Input-Output Economics: Theory and Applications - Featuring Asian Economies (Thijs ten Raa, 2010)*

[60] *Input-Output Models for Impact Analysis: Suggestions for Practitioners Using RIMS II Multipliers (Rebecca Bess and Zoë O. Ambargi - U.S. Bureau of Economic Analysis, Washington D.C) (2011)*

[61] *Refer Annexure-I for detailed methodology*



Source: TARI Representation

2.6 Impact of Illicit Market on Industry and Economy

The impact of the illicit market of these industries on the economy is significant because of the backward linkages of these industries with other sectors of the economy resulting in a multiplier effect. Our assessment is based on the argument that any loss in the industry due to the illicit market has a significant impact on the economy in terms of output, value, and employment because of its multiplier effect.

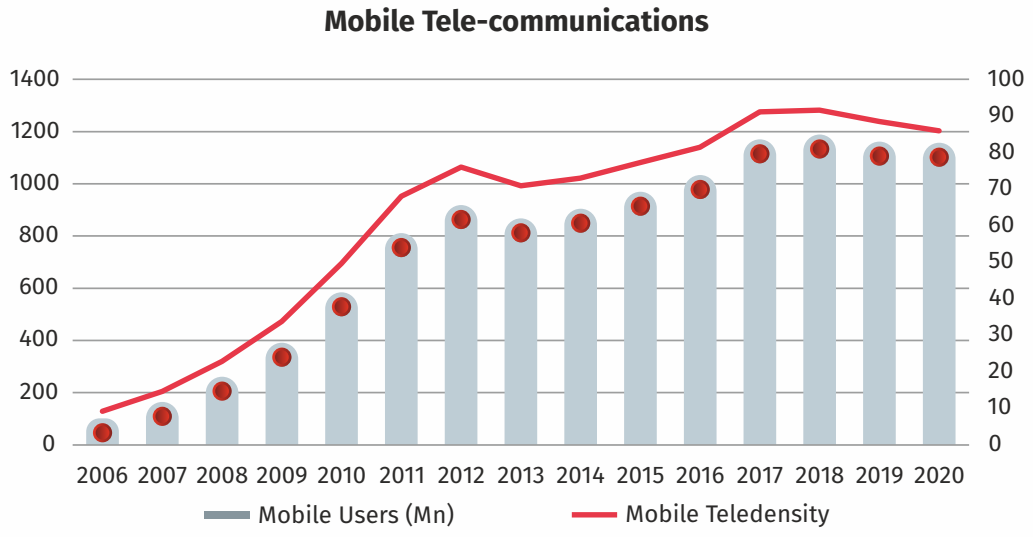
3

Mobile Phones: Estimates of Illicit Market and Impact on Economy

3. Mobile Phones: Estimates of Illicit Market and Impact on Economy

3.1 Mobile Telephony: Industry Overview

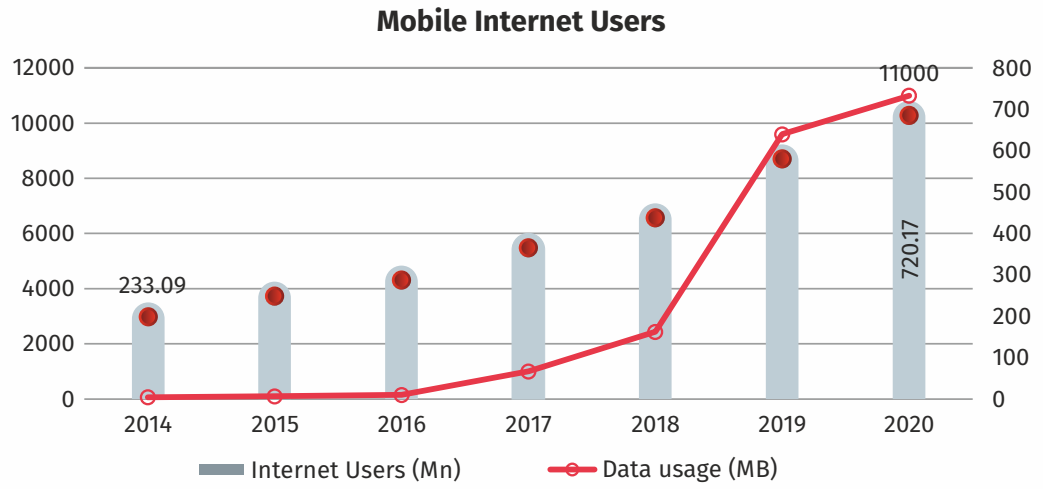
India is the second-largest telecommunications market in the world after China with mobile telephony being the core at 98.28 percent of the total user base. Mobile telephony has seen a substantial rise in the last 15 years with a slowdown observed in recent years. At the end of March 2020, India has a total of 115.7 crore mobile users (with nearly 55 percent users based at urban centres) and a tele-density of 85.87.[62]



Source: Telecom Regulatory Authority of India (TRAI)

Mobile phones, particularly smartphones, have become core to internet and information access in the contemporary digital age, and digital communication and transactions. Mobile internet users have grown significantly in the last 6 years, from 23.31 crores in 2014 to 72.02 crores in 2020. Mobile data price has reduced (in terms of ₹ per GB) from ₹ 152 in 2016 to ₹ 10 in 2019.[63] Corresponding mobile data usage increased exponentially from 1.47 GB to 9.6 GB respectively with 4G currently contributing about 96 percent of total mobile data volume.[64] Availability of cheaper smartphones, affordable mobile data prices, and the rise of mobile applications in regional languages and various government services is pushing India towards a more digitally connected economy.[65]

[62] *Telecom Regulatory Authority of India (TRAI), Annual Reports and Data*
[63] *Contribution of Smart Phones to Digital Governance in India - ICEA 2020*
[64] *Telecom Regulatory Authority of India (TRAI), Annual Reports and Data Statistics*
[65] *Contribution of Smart Phones to Digital Governance in India - ICEA 2020*



Source: Telecom Regulatory Authority of India (TRAI)

With more diverse geographic coverage and increased smartphone users in India, the number of users is expected to reach 82.9 crores in 2022. The Covid-19 pandemic has further given a push to mobile digital integration and increased contribution to the economy. Mobile telephony also has a significant efficiency and productivity impact on individuals, industry, and services sectors, and the Government. Widespread adoption of mobiles particularly through smartphones with mobile broadband in areas ranging from digital financial inclusion, e-commerce, mobile banking, e-governance, agriculture, and healthcare and educational services is bringing radical changes in outreach and improvement of services.[66]

ICEA and KPMG report highlight that digital transformation has the potential to create economic value of US$ 800 billion to 1 trillion in 2025, giving rise to 6 to 6.5 crore jobs in the country, across various sectors.[67]

3.2 Mobile Phone: Supply-Side Estimates

Domestic mobile phone manufacturing has received significant impetus and has become a flagship sector under the Government of India initiative of "Make in India". India has gradually built its mobile handsets manufacturing capability on the back of supportive policies like the Phased Manufacturing Programme (PMP), Modified Special Incentive Package Scheme (M-SIPS), and a growing domestic market. As a result of the implementation of the PMP, the sector is steadily moving from Semi Knocked Down (SKD) to the Completely Knocked Down (CKD) level of manufacturing.

'Make in India' has propelled the mobile manufacturing ecosystem in the country with over 250 manufacturing units of mobile phones and accessories creating almost 6.7 lakh direct and indirect jobs.[68] India is now home to the manufacturing ecosystems for some big players including Samsung, Apple, Oppo, Vivo, and Xiaomi. This is leading to the development of a mature supplier ecosystem in the country with large-scale

[66] *Mobile Telephony Report, 2016*

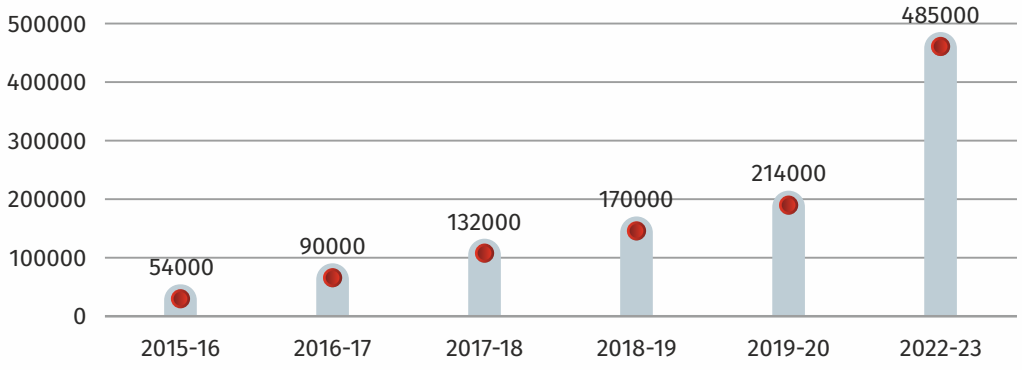
[67] *Contribution of Smart Phones to Digital Governance in India – ICEA 2020*

[68] *MEITY Annual Reports, 2018-19*

investments. These players have their manufacturing plants or have subcontracted their mobile handset manufacturing to Electronic Manufacturing Services (EMS) companies.

India has become the second-largest mobile phone manufacturing nation globally in volume terms. India has also become the second-largest market in the world for mobile phones with an average monthly sale of 10 million handsets. Due to a surge in the demand for phones, the number of mobile manufacturers has also increased; as of 2019, there were 75 brands and 3400 models of mobile phones in the market. Production of mobile phones has gone up from 6 crore units valued at ₹ 19,000 crores in 2014-15 to 33 crore units valued at ₹ 2,14,000 crore in 2019- 20.[69] According to ICEA, the estimated mobile production would reach ₹ 4.85 lakh crores in 2022-23, due to incentives and policy support.[70]

Mobile Phone Production in India (₹ Crore)



Source: MEITY Annual Reports, ICEA

The industry is shifting from import substitution to large-scale manufacturing and exports. Due to emphasis on domestic manufacturing and to curtail imports, several initiatives were taken in 2018-19 by the Government of India, effects of which are visible as India has become a net mobile exporting country in 2019-20. Some initiatives include:

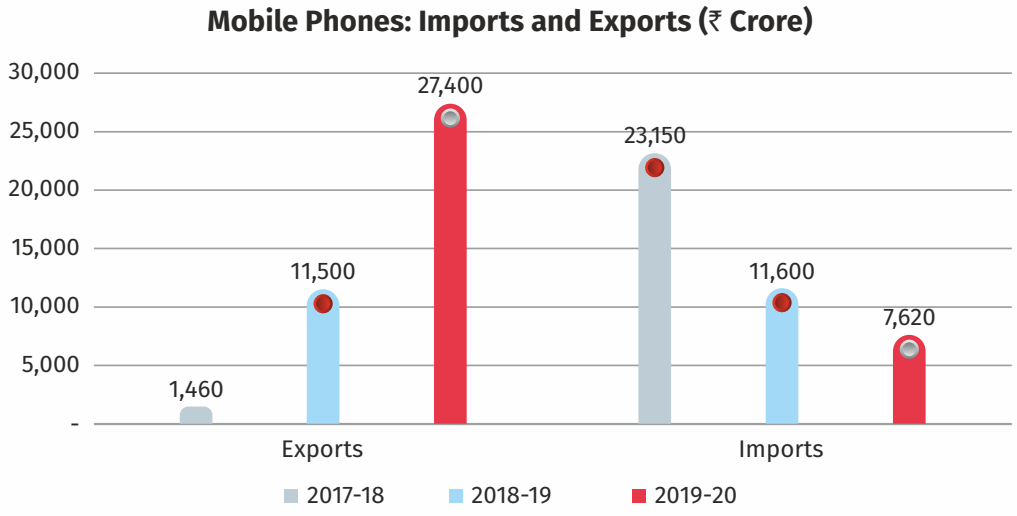
i. Imposition of 20 percent Basic Customs Duty (BCD) on mobile handsets to encourage their domestic manufacturing;

ii. Establishment and implementation of the Phased Manufacturing Programme (PMP) roadmap- the imposition of BCD in the range of 10 - 20 percent on notified subassemblies of mobile handsets.

Mobile phone supply-side estimates have been derived from domestic production (net of exports) and imports. The supply of mobile phones (in value terms) in India has increased with domestic mobile manufacturing accounting for 96 percent in 2019-20 as compared to 85 percent in 2017-18. This will further change with the National Policy of Electronics 2019 that lays further emphasis on propelling domestic manufacturing and making India a leading exporting country.

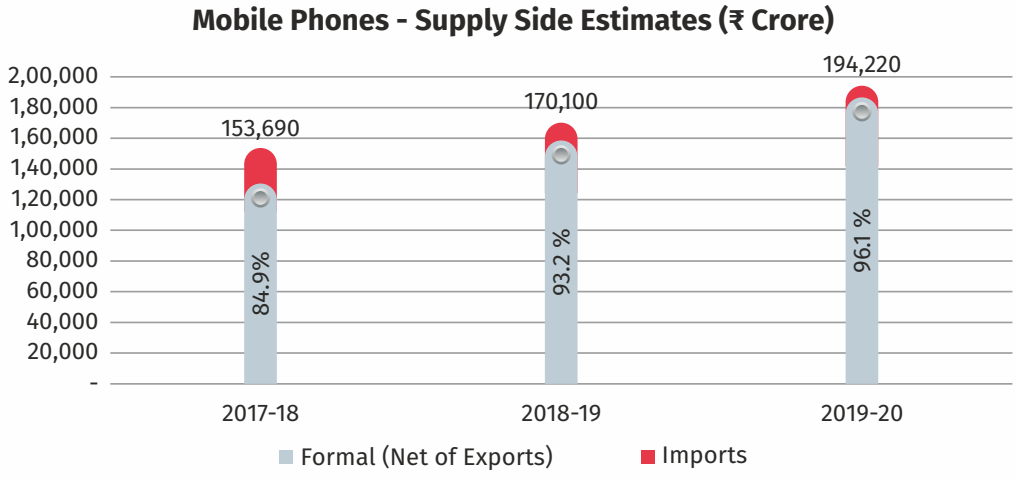
[69] *MEITY Annual Reports, 2017-18, 2018-19, 2019-20*

[70] *Mobile phone production in India to touch Rs 4.8 lakh crore in 2022, December 28, 2020 ; https://www.telecomlead.com/smart-phone/mobile-phone-production-in-india-to-touch-rs-4-8-lakh-crore-in-2022-98244*

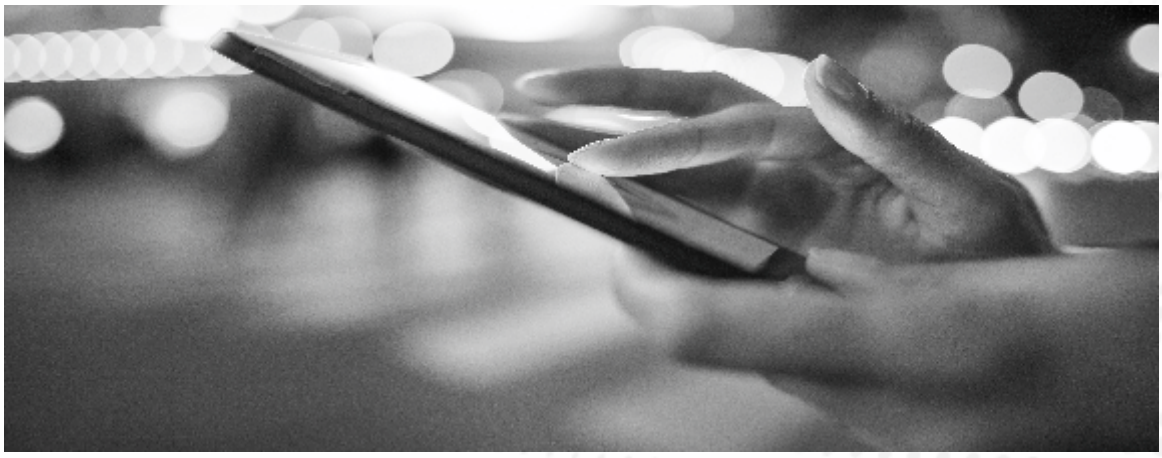


Source: DGCIS, Govt. of India

National Policy of Electronics 2019 aims to produce 1 billion mobile handsets valued at US$ 190 billion by 2025, out of which 600 million handsets valued at US$ 100 billion could be exported. To attract large-scale investments, the Government of India successfully launched its flagship Production Linked Incentive Scheme (PLI) on April 01, 2020, which would entail companies an incentive of 4 percent to 6 percent on incremental sales (over a base year) involved in mobile phone manufacturing and its components.[71]



Source: TARI Estimates

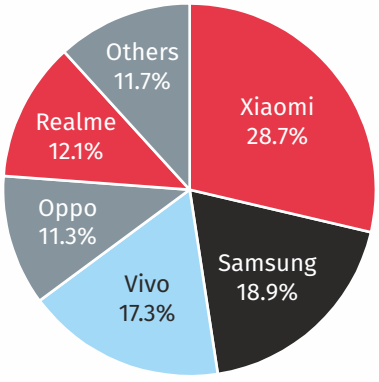


[71] *MEITY Annual report 2020-21*

3.3 Mobile Phone: Demand Side Estimates

The mobile phones demand-side estimates, in the absence of private final consumption expenditure data, are derived from mobile phones shipment data of International Data Corporation (IDC). In 2019-20, there were a total of 152.8 million smartphones sold in India with Xiaomi (28.7 percent) at lead position and other Chinese manufacturers accounting for nearly 70 percent of the market share.

Smart Phone Market Share Volume in India (2019-20)

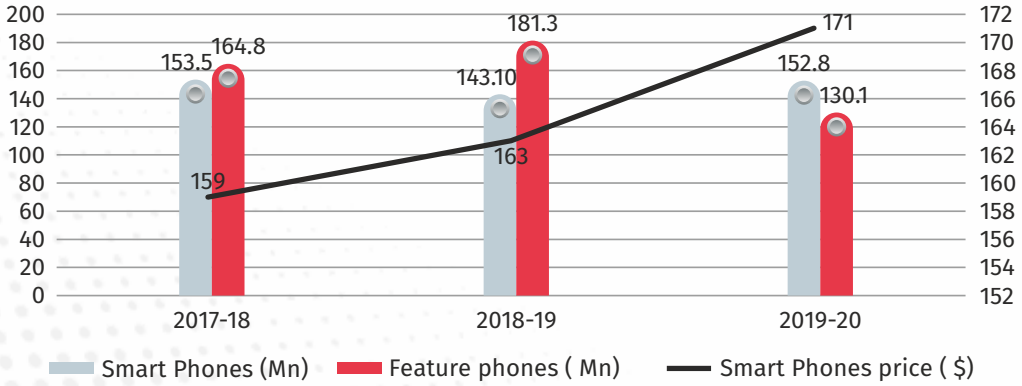


Source: TARI Estimates based on IDC Quarterly Mobile Tracker

According to IDC mobile tracker, the smartphone market is increasing in recent years while demand for features phones coming down. This can be largely attributed to smartphones with more features, greater mobile data usage, and a reduction in mobile data tariffs and demand from rural and urban areas. People are moving to smartphones and not willing to upgrade their features phones with 450 million features phones estimated to be lying idle with users.[72] IDC also shows that the average price of smartphones bought in India had gradually been on the rise with demand for better specification smartphones.

Demand-side estimates for mobile phone is derived from mobile phone prices and volume (mobiles sold). Based on this, estimates for the demand-side for mobile phones arrived for 2017-18, 2081-19 and 2019-20 are ₹ 1,74,299 cores, ₹ 1,88,920 crores, and ₹ 2,10,104 crores respectively.

Mobile Phone Shipments - India

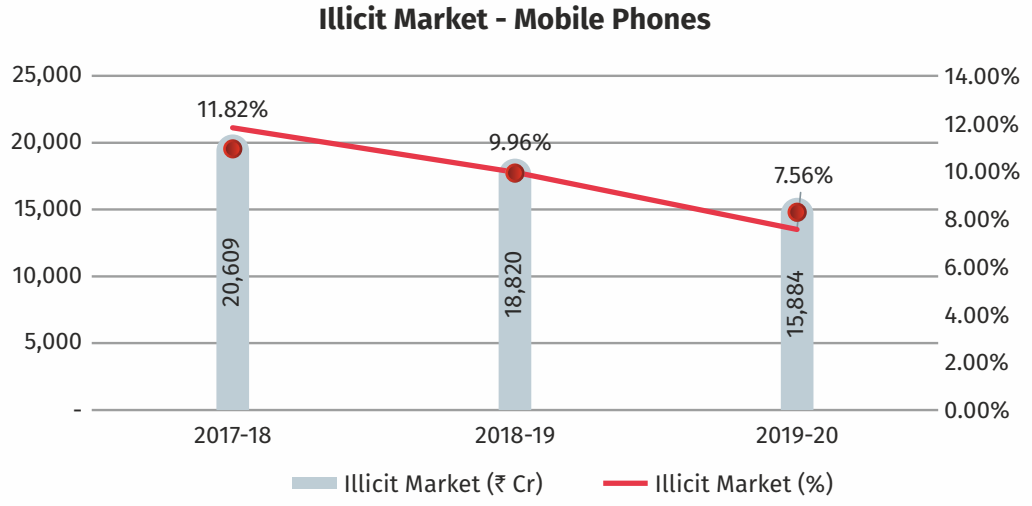


Source: Based on IDC Quarterly Mobile Tracker

[72] *https://www.hindustantimes.com/tech/smartphones-below-rs-5-000-are-not-selling-in-india-companies-can-stop-making-them/story-NLUwEqZHgbxF995lKYjcqJ.html*

3.4 Mobile Phone: Estimates of Illicit Market Size

The European Union Intellectual Property Office (EU IPO) reports that in 2015, globally 184 million counterfeit smartphones were sold resulting in a loss of 45.3 billion euros or 12.9 percent of the total sales, while for the EU the figures stand at 4.2 billion euros or 8.3 percent of sales.[73] The estimated illicit market of mobile phones in India is based on our methodology of demand and supply gap. Estimates show that the illicit market is gradually coming down in recent years, from levels of 11.62 percent in 2017-18 to 7.56 percent in 2019-20. This reduction can be attributed to policy emphasis and incentives on domestic manufacturing and reducing dependence on imports. With India aiming to become a leading exporting country with local demand fulfilled through local production, the illicit market in India is expected to further reduce.



Source: TARI Estimates

Illicit mobile phones, besides direct and indirect economic costs, also have a non-economic impact on the consumers. However, such analysis is out of scope, as this study primarily focuses on the economic impact on industry and economy.

Impact on Consumers

Impact on consumers includes health and safety, environmental damage, network quality, cyber-security, and privacy. Counterfeited mobiles may contain hazardous substances banned under the Restriction of Hazardous Substances (RoHS) or that pose risks to both the health and safety of users and the environment. Further, the users may suffer frequent call dropouts and put a strain on the mobile network by degrading coverage, call quality, and lower mobile internet speeds because of their poor assembly and use of poor-quality components.[1]

[[1]Counterfeit ICT Equipment", ITU Technical Report 2015]

[73] *EU IPO (2017), The Economic Cost of IPR Infringement in the Smartphones Sector, February 2017*

3.5 Mobile Phone: Estimation of Multiplier Effects

The multiplier effect is a scientific and widely used method involving the "Input-Output Table" established by Leontief. For this study, we have estimated multiplier effects for communication equipment to ascertain the widespread economic impact of the mobile phone's illicit market.[74]

The backward linkages and multiplier effects of communication equipment for Output, Gross Value addition (GVA), and Employment are shown in the following table. An output multiplier of 2.542 and a value-added multiplier of 3.035 of the communication equipment suggests growing economic value added in the economy from increased demand/output (per rupee) of the domestic communication manufacturing industry. An increase in the demand and output of mobile phones can significantly increase the output/value of the other manufacturing sector that has a high backward linkage of 0.881.

Backward Linkages and Multiplier Effects of Communication Equipment

Sectors	Output	GVA	Employment (Employment/ Per lakh Output)
Agriculture and Allied sector	0.110	0.084	0.094
Mining	0.163	0.093	0.007
Communication Equipment	**1.038**	**0.307**	**0.023**
Other Manufacturing	0.881	0.220	0.056
Construction	0.027	0.009	0.005
Electricity and Water Services	0.072	0.018	0.002
Trade	0.103	0.074	0.027
Services	0.149	0.092	0.017
Public administration	0.000	0.000	0.000
Total Backward Linkage	**2.542**	**0.897**	**0.231**
Coefficients	1.000	0.296	0.022
Multipliers	**2.542**	**3.035**	**10.465**

Source: TARI Research

3.6 Mobile Phones: Impact on Industry and Government

For legitimate mobile manufacturers, illicit mobile phones result in lost sales revenue and reduced return on innovation or acquisition of IP. Mobile phones have a GVA coefficient of 0.296 and an employment coefficient of 0.022 suggesting that it is a highly capital-intensive industry with the potential of economic value added to the economy. Considering this, illicit mobile phone results in GVA loss of ₹ 4,694 crore and legitimate

[74] *Refer Annexure – I for detailed methodology on multiplier estimation*

employment loss of 0.35 lakh to industry for the year 2019-20. Taking goods and service tax (GST) of 18 percent on the mobile phones, illicit mobile phones result in a tax loss of ₹ 2,859 crores to the Government in 2019-20.

Mobile Phone Illicit Market – Impact on Industry and Government				
Year	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**	**Tax Loss (₹ Cr)**
2017-18	20609	6091	0.454	3710
2018-19	18820	5562	0.415	3388
2019-20	15884	4694	0.350	2859

Source: TARI Estimates

3.7 Mobile Phones: Impact on the Economy

Multiplier effect results in a widespread impact on the economy. For an output multiplier of 2.542 and GVA multiplier of 3.035, illicit mobile phones result in an output loss of ₹ 40,374 crores and GVA loss of ₹ 14,248 crores in the economy for the year 2019-20. The largest loss can be attributed to mobile phones themselves and other manufacturing industries due to high backward linkage. Illicit mobile phones, in the same vein, for an employment multiplier effect of 10.465 results in a total legitimate employment loss of 3.66 lakh in the economy. Overall economic impact of illicit mobile phones is coming down due to policy focus to promote large-scale domestic mobile handset manufacturing in the country.

Mobile Phones Illicit Market: Impact on Economy			
Year	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**
2017-18	52387	18487	4.75
2018-19	47837	16881	4.34
2019-20	40374	14248	3.66

Source: TARI Estimates

4

FMCG- Household and Personal Goods: Estimates of Illicit Market and Impact on Economy

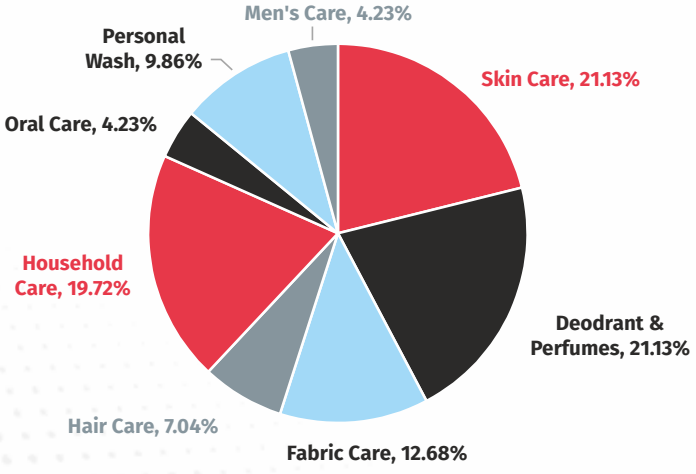
4. FMCG- Household and Personal Goods: Estimates of Illicit Market and Impact on Economy

4.1 FMCG - Household and Personal Goods: Industry Overview

FMCG (fast-moving consumer goods) sector is the fourth-largest sector of the Indian economy and is expected to touch US$ 103.7 billion by FY2021.[75] The sector employs nearly 3o lakh people in India, which accounts for nearly 5 percent of the total factory employment.[76] Increasing income and urbanization levels, growth of organized retail and modern retail, changing consumer preferences, and changing lifestyle of Indian consumers are deriving the FMCG sector in India. The sector has historically grown at 1.2 times the nominal GDP and has the potential to grow at 1.4 times.[77] The FMCG market can be broadly categorized as Personal Care, Household care, Food & Beverages, and others.

Household and personal goods are one of the key sectors of FMCG goods comprising both essential and non-essential commodities for daily use. The sector includes a broad category of products such as personal wash (soaps etc.), hair care (shampoo, hair oils, etc.), fabric care (detergents soaps, powders, etc.) oral care (toothpaste), men's care (shaving products, etc.), cosmetics (skincare products such cream and lotion), deodorants and perfumes, and household care products (such as surface and dishwashing cleaners). Three segments-skincare, deodorant & perfumes, and household care-together account for more than 60 percent of these goods by value.

FMCG- Household and Personal Goods Segmentation



Source: TARI Research based on Annual Survey of Industries, 2017-18

[75] *IBEF Report; https://www.ibef.org/download/FMCG-January-2021.pdf*
[76] *India FMCG Market 2020, TechSci Research and Assocham*
[77] *Winning With the Indian Consumer, 2017, Bain & Company and CII*

In recent years, there has been a huge increase in demand for natural and ayurvedic products in the Personal Goods segments. Products that contain the words 'natural or organic' has helped consumers to increase hair and skincare products purchase decisions. According to Euromonitor, 71 percent of consumers surveys said that they would pick up a face cream or lotion if it claimed to be 'natural', 38 percent said they would buy similarly termed shampoo or hair oil.[78]

Following the Covid-19 outbreak, a new category of hygiene products is rapidly emerging in the personal and household segment and demand for such products has jumped three times. The hygiene products range from hand sanitizers to household disinfectants. Several companies have diversified their portfolio to cater to the demand for such products.[79]

The market reach of the FMCG sector has been growing significantly both in urban and rural India. While the urban segment is the larger contributor with around 55 percent of total revenues, the rural segment is rapidly catching up and currently contributes around 45 percent of total revenues. Low-priced small quantity packets, increase in literacy levels, and rise in DTH and mobile connections also have acted as a catalyst in bolstering rural demand.[80] Rural consumption rose by 9.7 percent in the year 2017-18, faster than the 8.6 percent growth in urban spending.[81]

Online FMCG sales only accounted for 1-2 percent of the overall FMCG market in 2015, lower than global benchmark levels of 5 percent.[82] India's digital connection with the growing penetration of smartphones and mobile internet is likely to boost the online trade of FMCG. Amid the COVID-19 pandemic, consumer preference for online FMCG witnessed a large increase. Sensing opportunities, all big FMCG players are leveraging this channel by forging partnerships with e-commerce platforms such as Flipkart, Grofers, and Big Basket to deliver their brands at the consumer's doorstep.[83]

4.2. FMCG - Household and Personal Goods: Supply-Side Estimates

The Government policy has boosted the household and personal goods market. The Government has allowed 100 percent FDI in single-brand retail and 51 percent in multi-brand retail.[84] This led to an increase in FDI inflow in the FMCG-Personal Goods segment, which has increased from $95 million (2013) to $281 million (2017), which is a 195 percent increase.[85]

[78] *https://economictimes.indiatimes.com/industry/cons-products/fmcg/indians-prefer-natural-organic-in-personal-care/articleshow/54596572.cms?from=mdr*

[79] *Dabur Annual Report, 2019-20*

[80] *India FMCG Market 2020, TechSci Research and Assocham*

[81] *IBEF Report, https://www.ibef.org/download/FMCG-January-2021.pdf*

[82] *India FMCG Market 2020, TechSci Research and Assocham*

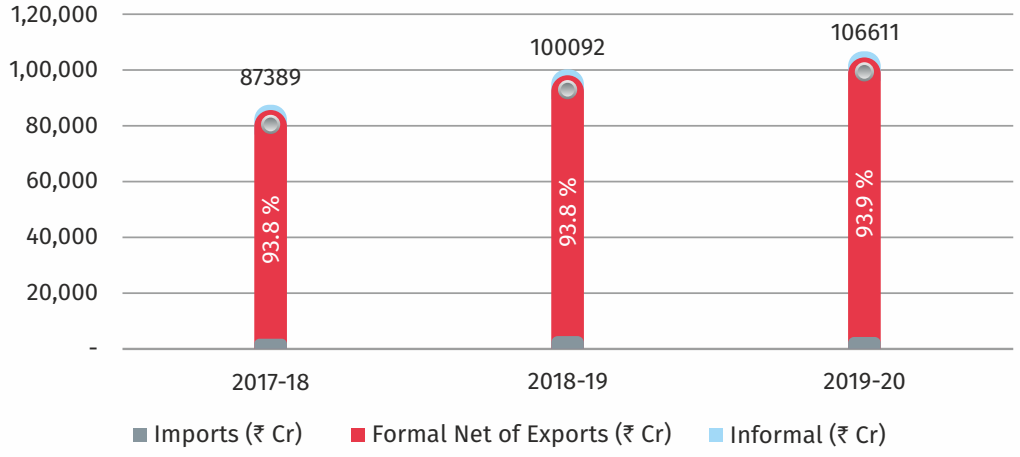
[83] *IBEF Report, https://www.ibef.org/download/FMCG-January-2021.pdf*

[84] *https://www.firstpost.com/business/fdi-in-retail-cabinet-approves-51-in-multi-brand-100-in-single-brand-139770.html*

[85] *IBEF Report, https://www.ibef.org/download/FMCG-January-2021.pdf*

The FMCG - household and personal goods segment has both organized and unorganized sectors, with multinational and national companies dominating at the top, followed by a large number of SMEs with micro-enterprises at the base of the pyramid thriving on local needs and requirements. The presence of large companies ensures innovation to provide affordable products and distribution all across the country through a well-established distribution network.[86] Leading firms spend almost 10 percent of their turnover on advertising and brand promotion to create buoyant brands providing opportunities for consumers.[87]

FMCG -Household and Personal Goods : Supply Side Estimates



Source: TARI Estimates

Based on our methodology, the supply-side of FMCG-household and personal goods is estimated to be ₹ 87,389 crores in 2017-18 and increased to levels of ₹ 1,06,611 crores in 2019-20. The formal sector is the main contributor with a 93.8 percent share, while the informal sector contributes about 2.1 percent of the total supply-side of FMCG-household and personal goods. Formal sector production is estimated at ₹ 81,951 crores in 2017-18, with growth at the rate of 14 percent and 7.2 percent in 2018-19 and 2019-20 respectively.[88] Import dependence is not significant as most large multinational companies in the segment are India-based.

4.3 FMCG - Household and Personal Goods: Demand Side Estimates

A large population base, demographic changes (median age of 28 years), rapid urbanization, growing income levels, and sociological factors are driving the growth of personal and beauty care products in an unprecedented way. The demand-side of FMCG household and personal goods has increased to the levels of ₹ 1,54,266 crores (1.36 percent of total PFCE) in 2018-19 but has witnessed a decline and is valued at ₹ 1,62,142 crores (1.31 percent of total PFCE) in 2019-20.

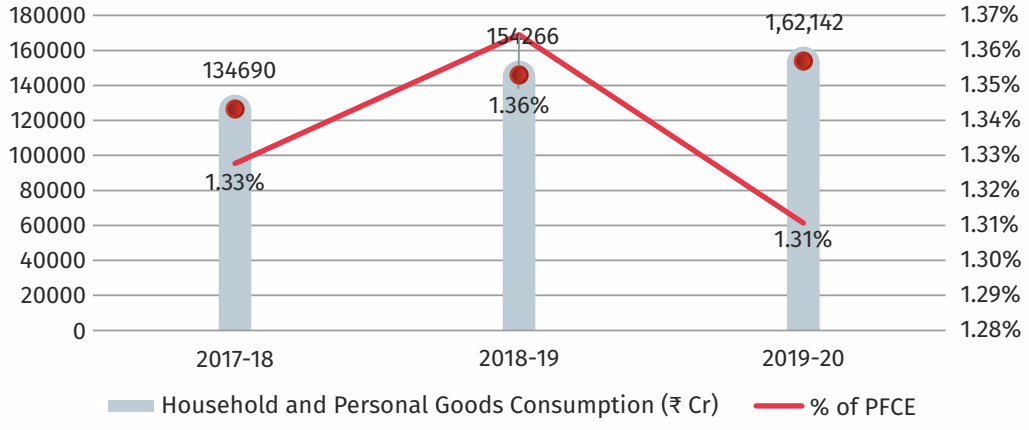
[86] *Winning With the Indian Consumer, 2017, Bain & Company and CII*

[87] *FICCI CASCADE & TARI (2015), Illicit Markets- A Threat to Our National Interests, The FMCG-Personal Goods Industry*

[88] *As per ASI data and Industry Report data*

Implementation of GST in 2017 on FMCG products like soap, toothpaste, and hair oil from 26 percent to 18 percent tax bracket, which constitutes more than 60 percent of personal goods product has helped make personal goods cheaper and its demand increased significantly.[89] Due to the Covid-19 pandemic and economic uncertainty in 2019-20, the level of discretionary spending on household and personal goods may have affected consumption.

FMCG -Household and Personal Goods Consumption

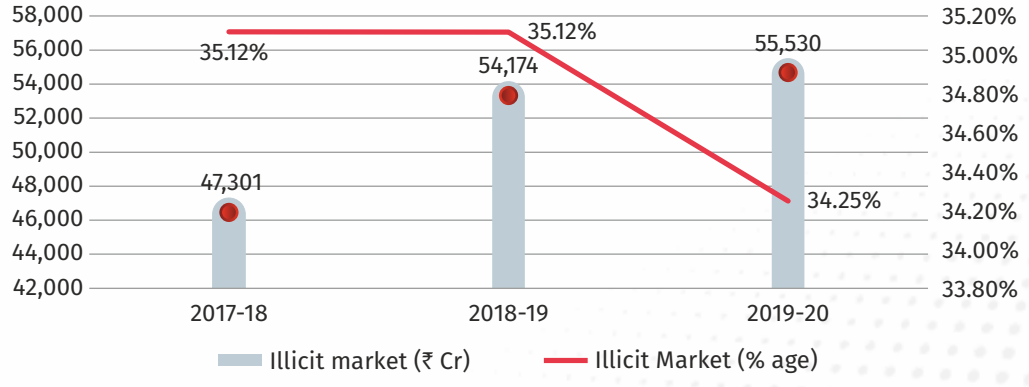


Source: Central Statistical Office (CSO), Ministry of Statistics & Program Implementation (MoSPI)

4.4 FMCG - Household and Personal Goods: Illicit Market Estimates

The estimates of illicit market of FMCG household and personal goods in India show that it has increased from ₹ 47,301 crores in 2017-18 to ₹ 55,530 crores in 2019-20. However, the illicit market percentage has declined to 34.25 percent in 2019-20 from the levels of 35.12 percent in 2017-18 and 2018-19. This may be attributed to a falling share of FMCG household and personal goods in the total PFCE basket of consumers.

Illicit Market FMCG - Household and Personal Goods



Source: TARI Estimates

[89] *https://www.attitudetallyacademy.com/Blog/understanding-gst-rates-structure/*

One of the main driving factors for illicit markets in this segment is the high price of branded and premium products[90], which creates a huge price disparity and thus creates a market for cheap alternatives to branded and premium products. Established brands and premium products are often the biggest sufferers as look-alikes are available at cheaper prices and passed off as original often by misspelling, etc of the trademark.

Counterfeiters pass brands with similar-sounding names, designs, and advanced packaging techniques, misleading and cheating consumers into buying illicit products. Low IPR requirements and inadequate enforcement mechanisms coupled with a largely unregulated market further lead to an increase in the illicit market.[91] Further, growing online sales has proven to be versatile and opportunistic, for new avenues of illicit sales and profit generation.

The illicit household and personal goods, besides direct and indirect economic costs, can also have a non-economic impact on the consumers. However, such analysis is out of scope, as this study primarily focuses on the economic impact on industry and economy.

Impact on Consumers

The hazardous health and safety consequences on consumers are significant, whether such illicit products are bought knowingly or unknowingly, which could be unsafe and adulterated. They may contain unsafe levels of dangerous lead, mercury, cyanide, and other carcinogens, which can lead to acute allergies and can be life-threatening, particularly to kids and pregnant women.[1]

[[1]TRACIT (2019), Mapping The Impact Of Illicit Trade On The Sustainable Development Goals, The Transnational Alliance to Combat Illicit Trade]

4.5 FMCG - Household and Personal Goods: Estimation of Multiplier Effects

Multiplier effect, a scientific and widely used method involving the "Input-Output Table". An output multiplier of 2.809 and a value-added multiplier of 4.553 of the household and personal goods suggest economic value added in the economy from increased demand/output (per rupee) of the legitimate manufacturing industry. An increase/decrease in the demand and output of household and personal goods can significantly increase/decrease the output and GVA of other manufacturing sectors that have a high backward linkage of 0.997.

[90] *FICCI CASCADE & TARI (2015), Illicit Markets- A Threat To Our National Interests, The FMCG-Personal Goods Industry*

[91] *FICCI CASCADE & TARI (2015), Illicit Markets- A Threat To Our National Interests, The FMCG-Personal Goods Industry*

Backward Linkages and Multiplier Effects of Household and Personal Goods			
Sectors	**Output**	**GVA**	**Employment (Emp per lakh Output)**
Agriculture & Allied Sector	0.201	0.155	0.171
Mining	0.188	0.107	0.008
Household & Personal Goods	1.011	0.212	0.054
Other Manufacturing	0.997	0.250	0.064
Construction	0.028	0.010	0.005
Electricity and Water Services	0.076	0.019	0.002
Trade	0.134	0.095	0.035
Services	0.174	0.108	0.020
Public administration	0.000	0.000	0.000
Total Backward Linkage	2.809	0.956	0.360
Coefficients	1.000	0.210	0.054
Multipliers	2.809	4.553	6.683

Source: TARI Research

4.6 FMCG - Household and Personal Goods: Impact on Industry and Government

The FMCG household and personal goods have a GVA coefficient of 0.210 and employment coefficients of 0.054 suggesting that it has a good investment opportunity with the potential of economic value addition. Illicit household and personal goods result in GVA loss of ₹ 55,530 crores and legitimate employment loss of 2.99 lakh to industry for the year 2019-20. Taking GST of 18 percent on these goods, the resulting tax loss to Government is ₹ 9,995 crores in 2019-20.

FMCG - Household and Personal Goods Illicit Market: Impact on Industry and Government				
Indicators	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**	**Tax Loss (₹ Cr)**
2017-18	47301	9928	2.546	8514
2018-19	54174	11371	2.916	9751
2019-20	55530	11655	2.989	9995

Source: TARI Estimates

4.7 FMCG - Household and Personal Goods: Impact on Economy

Multiplier effect results in a widespread impact on the economy. For an output multiplier of 2.809 and GVA multiplier of 4.533, illicit household and personal goods result in an output loss of ₹ 1,56,012 crores and GVA loss of ₹ 53,071 crores in the economy for the year 2019-20. The largest loss is to the household and personal goods industry itself and other manufacturing industries due to the high backward linkage of 1.011 and 0.997 respectively. Illicit household and personal goods, in the same vein, for an employment multiplier effect of 6.683 results in a total legitimate employment loss of 19.88 lakh in the economy. Overall, the economic impact is significant due to illicit market size and multiplier effects.

FMCG - Household and Personal Goods Illicit Market : Impact on Economy			
Indicators	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**
2017-18	132891	45206	17.02
2018-19	152200	51774	19.49
2019-20	156012	53071	19.98

Source: TARI Estimates

5

FMCG - Packaged Food: Estimates of Illicit Market and Impact on Economy

5. FMCG - Packaged Food: Estimates of Illicit Market and Impact on Economy

5.1 FMCG - Packaged Foods: Industry Overview

FMCG (fast-moving consumer goods) sector is the fourth-largest sector of the Indian economy and is expected to touch US$ 103.7 billion by FY2021.[92] The FMCG market can be broadly categorized as Household and Personal care, Food & Beverages, and others. This section focuses on packaged food and beverages segment.

The FMCG - processed packaged foods industry draws its strength from the robust agricultural base of the country. India's wide range of topography, soil quality, biodiversity, and climatic conditions make agriculture advantageous for producing a large number of food and cash crops. India is the world's second-largest producer of food, next only to China, and has the potential of being the largest player in the food and agricultural sector.

The Indian food processing industry is considered a sunrise sector because of its large potential for growth and socio-economic impact.[93] Food processing - packaged foods is one of the largest industries in India and is ranked 5th in terms of production, consumption, and export.[94] The industry contributes about 11.6 percent to agriculture GDP and 9.3 percent to manufacturing GDP. It has a significant contribution of 6.34 percent to the Index of Industrial Production (IIP) that measures the growth of the industry; while considering only the manufacturing sector, its contribution is 8.16 percent.[95] Total employment in the food processing industry is estimated to be 4.7 million in 2017-18.[96] According to an NSDC report prepared by KMPG[97], the industry growth along with demand for quality standards and technology adoption would also require a more skilled labour force, which would push employment in the industry from 4.43 million in 2017 to 5.67 million in 2022.

Processed food is one of the key segments of the FMCG sector with more than 50 percent contribution to the overall FMCG market. However, most food products in India are largely primary or secondary processed. Tertiary processed foods products such as juices, jams, packaged food, etc. have a share of only around 38 percent in overall processed foods.[98] Based on private final consumption expenditure data from NAS[99] consumption, dairy products (41 percent) are the largest segment, followed by vegetable oils and fats (28 percent) and confectionery items from packaged food consumption perspectives.

[92] *IBEF Report; https://www.ibef.org/download/FMCG-January-2021.pdf*

[93] *Rais, M., Acharya, S., & Sharma, N. (2013). Food processing industry in India: S&T capability, skills and employment opportunities. Journal of Rural Development, 32(9), 451-480. doi:10.4172/2157-7110.1000260*

[94] *Assocham and TARI (2016), Food Processing Industry : Contributing to Make in India*

[95] *Ministry of Statistics and Programme Implementation, available at http://mospi.nic.in/iip*

[96] *Periodic Labour Force Survey (PLFS), Annual Report 2017-18, MOSPI, NSO, May 2019*

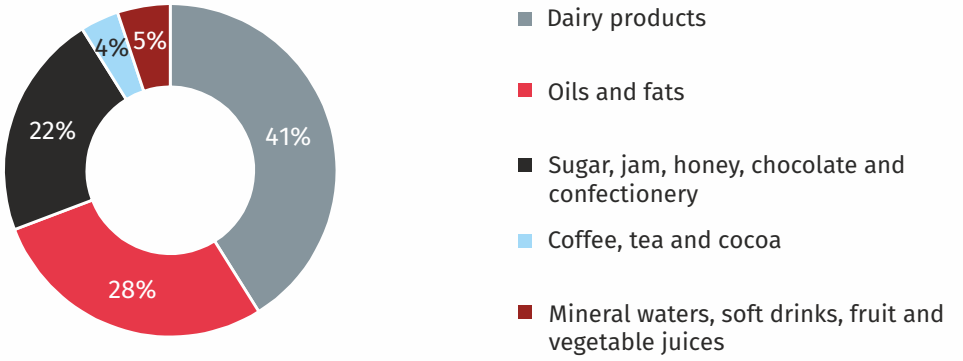
[97] *Human Resource and Skill Requirement in Food Processing Sector (2013-17, 2017-22),Volume 10, NSDC, KPMG*

[98] *Rais, M., Acharya, S., & Sharma, N. (2013). Food processing industry in India: S&T capability, skills and employment opportunities. Journal of Rural Development, 32(9), 451-480*

[99] *Excluded non-classified foods products including snacks, ready to cooks and bakery etc. for this study*

India is the largest consumer of dairy products valued at ₹ 10,257 billion in 2019 and accounting for 20 percent of the world's share. It is projected to double during 2020-25, growing at 16 percent to reach the level of ₹ 21,971 billion in 2024.[100] The demand for milk and milk products is increasing twice as fast as the production of milk. The market is also witnessing a shift toward healthier products such as ultra-high temperature processed milk, probiotic drinks, and yogurts. The Government of India has a special emphasis on this sector to meet the growing demand with a special allocation of ₹ 44.60 billion in the budget of 2020-21 to facilitate the doubling of milk processing capacity from 53.5 million MT to 108 million MT by 2025.[101]

FMCG - Packaged Foods



Source: TARI Research; NAS-2020

India was the second-largest vegetable oil market globally in 2018, with US$ 9.7 billion worth of retail value sales. Groundnut, mustard, and soya bean oilseeds form more than 90 percent of the country's total oilseed production. Even though the level of processing in oilseeds is around 14 percent, a significant quantity of oil consumed in the country is imported. Vegetable oil products are controlled by five major brands which contribute 69.2 percent of the market.[102]

The tea and coffee industry are one of the prominent industries in FMCG packaged foods because it is one of the highest exported FMCG packaged foods. Indian tea production contributes around 25 percent of the global production, whereas coffee contributes around 3.14 percent of global production.[103] Other non-alcoholic beverages such as colas, lemonades, squash, and fruit punch in India account for approximately 10 percent of the global beverage consumption and are the third-largest market in the world after the USA and China. Around 120 billion liters of beverages are consumed by Indians every year, of which only 5 percent comes from the packaged segment.[104]

India's confectionery market is valued at US$ 1643.64 million in 2020-21 and is expected to grow at 15.40 percent to reach US$ 3661.68 million by 2026-27. It is one fast-growing FMCG segment with increasing demand from Indian adults and kids, who are traditionally less calorie conscious compared to western countries, complemented by greater

[100] *EBG Report 2020*

[101] *https://pib.gov.in/newsite/PrintRelease.aspx?relid=199395*

[102] *https://www.agr.gc.ca/eng/international-trade/market-intelligence/reports/sector-trend-analysis-vegetable-oils-in-india/?id=1578331399958#e*

[103] *https://www.ngeninvest.com/tea#:~:text=India%2C%20contributing%20about%2030%25%20to, of%20coffee%20%E2%80%93%20Arabica%20and%20Robusta.*

[104] *http://www.edelresearch.com/rpt/showpdf.aspx?id=19967*

marketing and promotions, availability as festive gifts options, and increase of availability of these products in online retail stores.[105]

The market reach of the FMCG sector has been growing significantly both in urban and rural India. While the urban segment is the larger contributor with around 55 percent of total revenues, the rural segment is rapidly catching up. Rural consumption rose by 9.7 percent in the year 2017-18, faster than the 8.6 percent growth in urban spending.[106]

Online FMCG sales only accounted for 1-2 percent of the overall FMCG market in 2015, lower than global benchmark levels of 5 percent. India's digital connection with the growing penetration of smartphones and mobile internet is likely to boost the online modern trade of FMCG.[107] Amid the COVID-19 pandemic, many FMCG brands partnered with e-commerce platforms such as Dunzo, Flipkart, Grofers, and Big Basket to deliver products to the doorstep of consumers.[108]

5.2 FMCG - Packaged Foods: Supply-Side Estimates

Processed food products are one of the key industries under the government policy priorities considering its impact on large-scale employment generation and exports. The industry uses a mere 10 percent of farm produce as inputs, which is considerably low in comparison to other countries where it ranges between 30-100 percent.[109] The proposed National Policy on Food Processing aims to increase the level of food processing from 10 percent in 2010 to 25 percent in 2025.[110]

The Government has allowed 50 percent FDI in multi-brand in 2006 to boost the nascent organized retail market in the country. The Government approved 100 percent FDI in the selling of food products through e-commerce in 2016 to boost the online food market in the country. It also allowed 100 percent FDI in the cash and carry segment and in single-brand retail. This led to FDI inflow in the FMCG packaged foods segment, which has increased from $280 million (2012) to $1131 million (2017), a 303 percent increase encouraging companies for more product launches[111].

Under the regulatory landscape, the industrial license is not required for almost all food and agro-processing industries, excluding certain items such as alcoholic drinks, sugar-cane, oils, and fats. Further, there is a 100 percent tax waiver on profits for five years and 25 percent for the next five years on items related to packaged preserved fruits and vegetables to boost the food-processing sector.[112] To further promote packaged food sector of the country, the Government of India on November 11, 2020, has approved a

[105] *https://www.businesswire.com/news/home/20190225006009/en/India-Confectionery-Market-Analysis-2013-2023-Sales-Through-Online-Retail-Channels-Recorded-an-Impressive-CAGR-of-59.82-During-2010-2018-ResearchAndMarkets.com*

[106] *IBEF Report, https://www.ibef.org/download/FMCG-January-2021.pdf*

[107] *India FMCG Market 2020, TechSci Research and Assocham*

[108] *IBEF Report, https://www.ibef.org/download/FMCG-January-2021.pdf*

[109] *India as an agriculture and high value food powerhouse: A new vision for 2030, CII and McKinsey, 2013*

[110] *Focusing on Food Processing Industries Ensuring Food Security and Enhancing Value Addition to Food Produce in India, Swaniti Initiative*

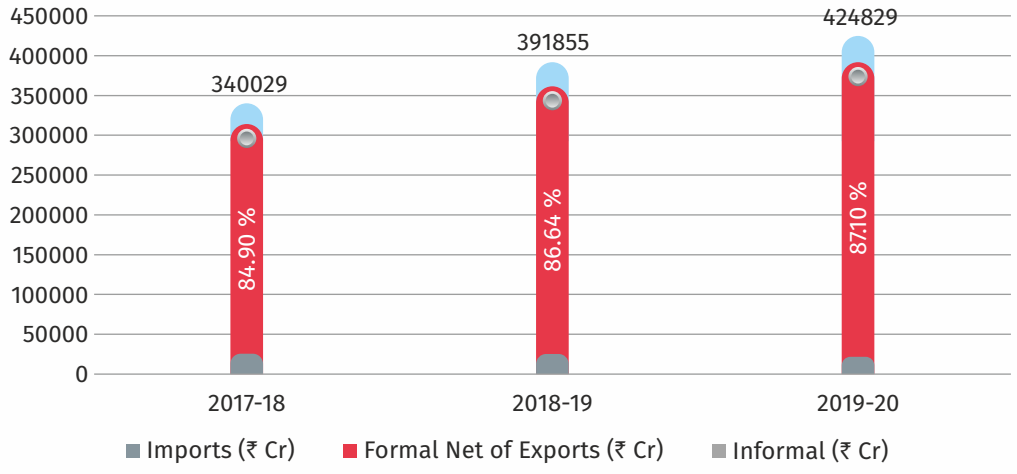
[111] *IBEF Report, https://www.ibef.org/download/FMCG-January-2021.pdf*

[112] *Food and Drug Industry Overview; https://www.sethassociates.com/food-and-drug-industry-in-india.html#:~:text=Policies%20and%20Regulations&text=At%20present%2Cno%20industrial%20license,in%20the%20small%20scale%20sector.*

Production Linked Incentive (PLI) to increase the price to farmers for their produce, increase exports, reduce wastages and generate large scale employment.

The industry has both organized and unorganized sectors, with multinational and national companies dominating at the top, followed by a large number of SMEs with micro-enterprises at the base of the pyramid thriving on local needs and requirements. With the presence of large companies, the sector is driven by innovation to provide affordable products and due to low operational cost, it can reach all across the country through its well-established distribution network.[113] Competition and growth of organized retail provide an opportunity for the industry to evolve into a value-added secondary processing dominated sector from the current primary processing dominated one.

FMCG - Packaged Foods : Supply Side Estimates (₹ Crore)



Source: TARI Estimates

Based on our methodology, FMCG - packaged foods supply side is estimated at ₹ 3,40,029 crores in 2017-18 that is estimated to increase to levels of ₹ 4,24,829 crores in 2019-20. Of this, formal sector is the main contributor with an 87.10 percent share, while the informal sector contributes about 7.81 percent. Formal sector production is estimated at ₹ 2,88,684 crores in 2017-18 with growth at a rate of 17.6 percent and 9 percent in 2018-19 and 2019-20 respectively.[114] Unorganized segment varies across categories and approximately 75 percent of the market in India is still unorganized.[115] With a large agriculture base and large multinational being locally based, imports dependence on food products is relatively low and largely in edible vegetable oils.

5.3 FMCG - Packaged Foods: Demand Side Estimates

Consumption of food and food products in India constitutes the largest chunk of household budgets. PFCE data over the years indicates that total expenditure of food and food products is about 30 percent of total consumer expenditure.

[113] *Winning With the Indian Consumer, 2017, Bain & Company and CII*

[114] *As per ASI data and Industry Reports*

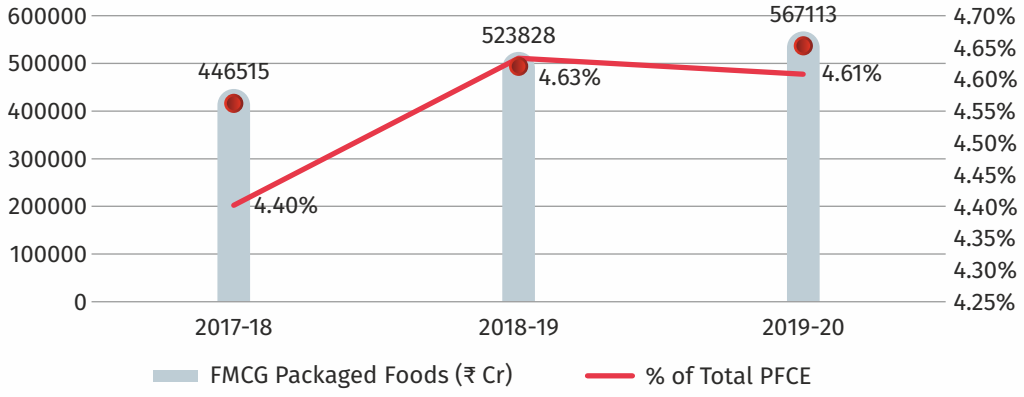
[115] *Vandana Tyagi, 2014. Agro food-processing: A sunrise sector of the Indian economy. International Journal in Management and Social Science, Vol.2 Issue-12, page 393*

A large population base, demographic changes (median age of 28 years), rapid urbanization, growing income levels, and changing lifestyle have led to a perceptible shift towards ready-to-eat and packaged foods for time-starved consumers. Research shows that with rising incomes, dietary habits diversify, leading to demand for high-value and specialty food products.[116]

Competition and growth of organized and modern online retail have helped packaged foods industry to evolve into a value-added secondary-processing-dominated sector from the current primary-processing-dominated one. Retailers are focusing on processed foods with quality checks and operating standards rather than fresh food, which has brought structural transformation in the overall agro-supply chain with better efficiency. Additionally, hygiene factors, use of private labels, value addition, and innovation have driven a shift towards packaged products in areas such as paneer, cheese, and processed meats.

Consumption of packaged foods in the PFCE data was matched with supply-side items and only relevant data items were considered for arriving at final consumption. The demand-side of FMCG - packaged foods has increased in 2018-19 to levels of ₹ 5,23,828 crores (4.63 percent of total PFCE) but has shown a declining trend in 2019-20 and estimated at ₹ 5,67,113crores (4.61 percent of total PFCE).

FMCG- Packaged Foods: Demand Side Estimates



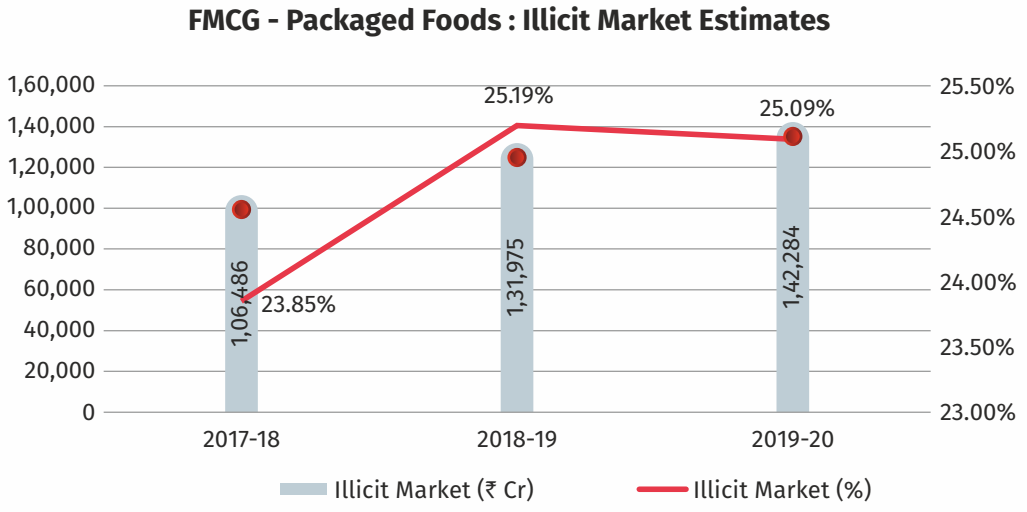
Source: Central Statistical Office (CSO), Ministry of Statistics & Program Implementation (MoSPI)

5.4 FMCG - Packaged Foods: Illicit Market Estimates

Globally it is estimated that the illicit food markets including sub-standard, fake, smuggled, and illegal agri-foods cost about US$ 30-40 billion each year to the worldwide food industry.[117] The estimates of illicit market of FMCG packaged foods in India show it has increased from ₹ 1,06,486 crores in 2017-18 to ₹ 1,42,284 crores in 2019-20. However, the illicit market percentage has come down from 25.19 percent in 2018-19 to 25.09 percent in 2019-20, and this may be attributed to a reduction in consumption levels of packaged foods.

[116] *Hsin-Hui Hsu, Wen S. Chern, and Fred Gale. How Will Rising Income Affect the Structure of Food Demand?, China's Food and Agriculture: Issues for the 21st Century / AIB-775, page 10-13.*

[117] *TRACIT (2019). Mapping the Impact of Illicit Trade on the Sustainable Development Goals, Chapter 1 SDG and Illicit Trade in the Agri-Food Industry*



Source: TARI Estimates

One of the main driving factors for illicit markets in this segment is the presence of a large number of small and micro enterprises as industrial license is not required for almost all food and agro-processing industries. Counterfeit products are mostly produced in unregulated markets and by low-paid workers; low IPR requirements and inadequate enforcement mechanisms coupled with large informal markets further lead to an increase in the illicit market.[118] In the case of milk and milk products, 70 percent of the markets are unorganized and the demand is more than the supply, which leads to an illicit market of milk and milk products. Vegetable oils have a large share in Indian households and FMCG market, and also have a good share in imports, which creates an opportunity for illicit trade. Further, growing online sales has proven to be versatile and opportunistic, for new avenues of illicit sales and profit generation.

The illicit packaged foods, besides direct and indirect economic costs, also have a non-economic impact on the consumers. However, such analysis is out of scope, as this study primarily focuses on the economic impact on industry and economy.

Impact on Consumers

The hazardous health and safety consequences on the consumers could be significant because of quantum of illicit packaged foods. Whether such illicit products are purchased knowingly or unknowingly, they could be unsafe and adulterated. Fake infant milk powder and vegetable oils made up of recycled oils are a few examples that show how low-quality food products can affect human health.[1]

[[1]TRACIT (2019). Mapping the Impact of Illicit Trade on the Sustainable Development Goals, Chapter 1 SDG and Illicit Trade in the Agri-Food Industry]

[118] *FICCI CASCADE & TARI (2015), Illicit Markets- A Threat to Our National Interests, The FMCG- Packaged Foods Industry*

5.5 FMCG - Packaged Foods: Estimation of Multiplier Effects

Multiplier effect, a scientific and widely used method involving the "Input-Output Table". Food products are one of the most important sectors from a multiplier effect perspective as it provides a throughput between farm and industry, accelerating agricultural development through the creation of backward linkages - supply of credit, inputs, and other production enhancement services and forward linkages - processing and marketing.[119] For this study, we have estimated multiplier effects for food products to ascertain the widespread economic impact of illicit packaged foods.[120]

An output multiplier of 2.424 and a value-added multiplier of 5.416 of the food products suggest economic value added in the economy from increased demand/output (per rupee) of the legitimate manufacturing industry. The results show that an increase/decrease in the demand and output of food products can significantly increase/decrease the output and GVA of the agriculture and allied sectors with a corresponding high backward linkage of 0.734 and 0.565.

Backward Linkages and Multiplier Effects of Food Products

Sectors	Output	GVA	Employment (Emp per lakh Output)
Agriculture and Allied Sector	0.734	0.565	0.626
Mining	0.050	0.028	0.002
Food products	**1.066**	**0.211**	**0.060**
Other Manufacturing	0.222	0.057	0.014
Construction	0.021	0.007	0.004
Electricity and Water Services	0.048	0.012	0.001
Trade	0.170	0.121	0.044
Services	0.113	0.070	0.013
Public administration	0.000	0.000	0.000
Total Backward Linkage	**2.424**	**1.071**	**0.764**
Coefficients	1.000	0.198	0.056
Multiplier Effect	**2.424**	**5.416**	**13.686**

Source: TARI Research

5.6 FMCG- Packaged Foods: Impact on Industry and Government

Food products have a GVA coefficient of 0.198 and employment coefficients of 0.056 suggesting that it has a good investment opportunity with the potential of economic value added to the economy. The food processing industry constitutes more than 10 percent of the employment generated in the manufacturing sector and therefore is acknowledged as highly labour-absorptive but less capital intensive as compared to

[116] *Hsin-Hui Hsu, Wen S. Chern, and Fred Gale. How Will Rising Income Affect the Structure of Food Demand?, China's Food and Agriculture: Issues for the 21st Century / AIB-775, page 10-13.*

[117] *TRACIT (2019). Mapping the Impact of Illicit Trade on the Sustainable Development Goals, Chapter 1 SDG and Illicit Trade in the Agri-Food Industry*

other industries. Legitimate output loss of ₹ 1.422 lakh crores due to illicit packaged food for the year 2019-20 resulted in GVA loss of ₹ 28,147 crores and legitimate employment loss of 7.94 lakh to industry.

The goods and service tax (GST) of food products come across three different slabs of 5 percent, 12 percent, and 18 percent. However, as it is impractical to segregate the illicit market of food products across GST slabs, we have taken a simplified approach to taking a median value of 12 percent for assessment of tax loss to the Government. Taking 12 percent GST loss on the illicit food products, resulting in a tax loss to the Government is ₹ 17,074 crores for the year 2019-20.

FMCG - Packaged Foods Illicit Market : Impact on Industry and Government				
Indicator	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**	**Tax Loss (₹ Cr)**
2017-18	106486	21065	5.94	12778
2018-19	131975	26107	7.37	15837
2019-20	142284	28147	7.94	17074

Source: TARI Estimates

5.7 FMCG - Packaged Foods: Impact on Economy

Processed or packaged foods is one of the standout sectors within the manufacturing sector in the Indian economy due to their tactical backward integration with agriculture and importance in the agro-food supply chain. It offers a vital linkage and synergy and offers a win-win situation for all the stakeholders involved - consumers (in terms of a better quality of food), producers (in terms of profit generation), and society (in terms of generating employment and providing adequate and nutritional food).[122] The industry is, therefore, critical from the economic point of view, and has aptly been a focus area under the "Make in India" program.

FMCG- Packaged Foods Illicit Market : Impact on Economy			
Indicator	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**
2017-18	258167	114081	81
2018-19	319964	141389	101
2019-20	344956	152432	109

Source: TARI Estimates

Multiplier effect results in a widespread impact on the economy. For an output multiplier of 2.424 and GVA multiplier of 5.416, the total output loss and GVA loss in the economy due to illicit packaged foods is ₹ 3.45 lakh crores and ₹ 1.52 lakh crores respectively in 2019-20. Due to the employment multiplier effect, for every legitimate job lost in the industry, 13.686 jobs are lost in the economy. Illicit packaged foods result in a total legitimate job loss of 109 lakh in the economy in 2019-20. The most significant impact is on the agriculture sector from which industry derives its input and has a significant backward linkage. Overall, the economic impact of illicit packaged foods on the economy is quite significant because of the large illicit market size and significant multiplier effects.

[122] *Food Processing Industry in India Adding Value By Creating Synergy Between Agriculture and Industry. 2015. Onicra*

6

Tobacco Products: Estimates of Illicit Market and Impact on Economy

6. Tobacco Products: Estimates of Illicit Market and Impact on Economy

6.1 Tobacco Products: Industry Overview

Tobacco is an important high-value commercial crop. India tobacco has an edge in terms of low production costs, higher average farm produces, and export prices and is thus considered as 'value for money.[123] Tobacco bestows significant socio-economic benefits in terms of agricultural employment and farm incomes.

India is the third-largest producer of tobacco after China and Brazil. Grown in an area of 4.5 lakh hectares under widely differing agro-ecological conditions in as many as 15 states, a total of 800 million kg of tobacco leaf is produced in the country. In the global scenario, Indian tobacco accounts for 10 percent of the area and 9 percent of the total production.[124] The economic activities related to tobacco and tobacco products are estimated to generate livelihood for over 4.57 crore people viz farmers, farm labour, traders, manufacturers, distributors, retailers, and tendu leaf workers. Bidi rolling alone employs 44 lakh people and 22 lakh tribals are involved in tendu leaf collection.[125]

India is the second-largest exporter of tobacco after Brazil, contributing nearly ₹ 6,000 crores to the country's foreign exchange earnings. The country accounts for 6 percent by volume and 0.7 percent by value of the world tobacco trade and 80-85 percent of our exports continue to be FCV tobacco alone. The Tobacco Board, established under the regulatory framework of the Tobacco Board Act of 1975, under the aegis of the Ministry of Commerce and Industry of India has the primary responsibility of export promotion of all varieties of tobacco and its allied products. As per the data from the Tobacco Board exports[126] of tobacco have fallen 14% from 250 million kgs in 2014-15 to 217 million kgs in 2019-20 after the withdrawal of export incentives under the Foreign Trade Policy in 2015.

The economic value chain of tobacco comprising of smokeless and smoking tobacco whether from the factory, home, or from unorganized units is approximately ₹ 1,42,731 crores in the fiscal year 2016-17. The entire tobacco industry contributes a significant 2.7 percent of the total gross tax revenue to the Government. The estimated tax revenue from the tobacco industry is ₹ 46,154 crores in 2016-17.[127]

[123] *https://ctri.icar.gov.in/for_tobaccoEconomy.php*

[124] *ICAR- Central Tobacco Research Institute; Tobacco in Indian Economy;https://ctri.icar.gov.in/for_tobaccoEconomy.php*

[125] *ICAR- Central Tobacco Research Institute; Tobacco in Indian Economy;https://ctri.icar.gov.in/for_tobaccoEconomy.php*

[126] *Tobacco Board Exports Data*

[127] *TARI and ASSOCHAM (2019). Report -Economic Value of the Tobacco Sector in India, 2019.*

6.2 Tobacco Products: Supply-Side Estimates

The Indian tobacco industry is divided into three distinct sectors: bidis (smoking products hand-rolled in tendu leaves), smokeless tobacco (mainly chewing tobacco), and cigarettes.[128] Cigarettes are a preferred choice of urbane society and are available in various types including filtered/unfiltered and length-based. Beedi is an indigenous form of tobacco product largely preferred by lower socio-economic strata of society and is easily available at lower price points. Studies highlight that beedis have higher nicotine (3 times) and tar (5 times) in comparison to cigarettes.[129] Smokeless tobacco (SLT) is generally consumed orally, and its type depends upon region orientation.[130]

The industry has both organized and unorganized sectors. A few firms in the organized sector, in all form of tobacco products, dominate at the top while the unorganized sector has a large number of small and micro-enterprises at the base of the pyramid thriving on local needs and requirements. Beedi production and various other forms of tobacco SLT (smokeless tobacco) production largely takes place under an unorganized sector.[131] While the legal cigarette industry in India is in the organized sector, has statutory oversight and regulatory compliance.

Tobacco products as per ASI data have 12 NPCMS codes representing various kinds of tobacco including graded tobacco, chewing tobacco, smoking tobacco, hookah tobacco, Bidi, tendu leaves, cigarettes, cheroots, cigars, cigarillos, etc. However, for illicit market estimation, we have considered only manufactured tobacco such as cigarettes, cigars, chewing tobacco, and other tobacco products.[132] Bidi and other products are excluded from this study as they are consumed mainly in indigenous form and incentives/ drivers that influence illicit trade in these tobacco products are perceived to be low.

The supply-side estimates of tobacco products is estimated to be ₹ 87,916 crores in 2018-19 and increased to levels of ₹ 91,513 crores in 2019-20. The study does not consider 2017-18 for tobacco products, due to significant data discrepancy and gaps in the gross sales value of the Annual Survey of Industries (ASI) on the account change in indirect tax-regime with the implementation of GST in 2017-18. Data gaps continued to exist in 2018-19 when checked with sales data of cigarettes companies extracted from prowess database of Centre for Monitoring Indian Economy (CMIE). To fulfil the gap, we have accounted for net sales of cigarettes from the CMIE prowess data while for the rest of the products from ASI data.

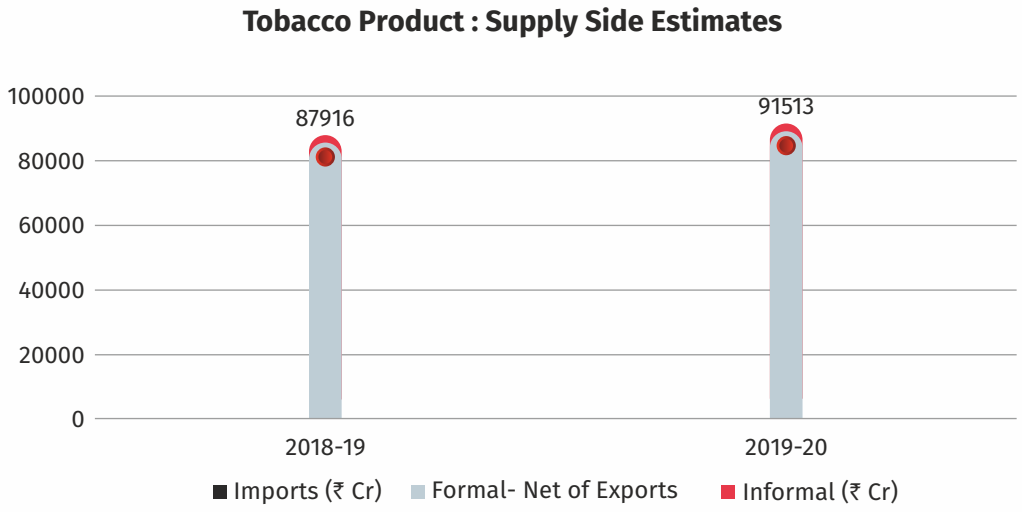
[128] *Tobacco Industry Profile - India, available at,http://global.tobaccofreekids.org/files/pdfs/en/TI_Profile_%20India_Final.pdf*

[129] *Joshi, SR. (2006). Tobacco free India: save our children. JAPI, 54:605–607*

[130] *Mohan, P, Lando, HA. (2016). Oral tobacco and mortality in India. Ind J Clin Med, 7:5–12. doi:10.4137/IJCM.S25889*

[131] *Mohan, P., Lando, H. A., & Panneer, S. (2018). Assessment of Tobacco Consumption and Control in India. Indian Journal of Clinical Medicine. https://doi.org/10.1177/1179916118759289*

[132] *Please refer to Annexure -1 for NPCMS codes of tobacco products considered for this study*



Source: TARI Estimates

Tobacco products excluding bidis attributed to 85.44 percent of formal supply-side and estimated at ₹ 89,427 crores in 2019-20. As India is a leading producer of tobacco, import dependency on tobacco products is very low and imports on average, contribute only 0.3 percent of tobacco products supply side.

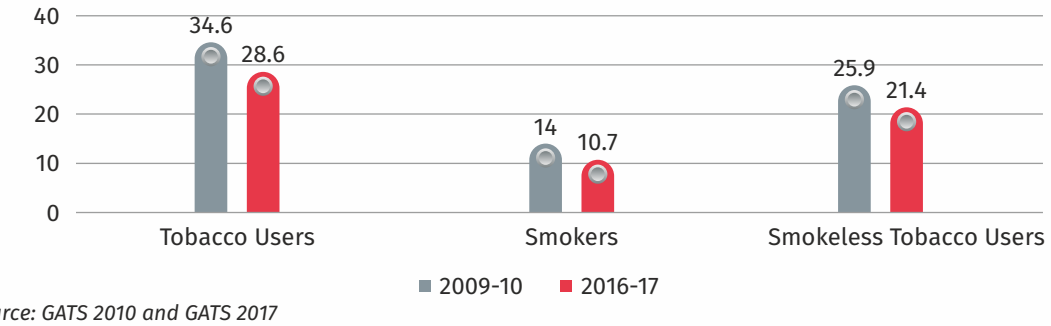
6.3 Tobacco Products: Consumption Side Estimates

Tobacco consumption in India is regulated under a comprehensive regulatory landscape of the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Act, 2003 (COTPA 2003) that discourages consumption of tobacco products to protect public from the health hazards attributable to tobacco use. The provisions under COTPA, 2003 and the rules made thereunder mandate prohibition of smoking in public places; ban on the sale of tobacco products to and by minors and within 100 yards of educational institutions; prohibition on direct and indirect advertising of tobacco products and mandatory display of specified health warnings.

India is the second-largest consumer of tobacco with 266.8 million of all adults, i.e., 28.6 percent of the total population that uses tobacco in any form in 2016-17. 10.7 percent of adults smoke tobacco (includes dual users), while 21.4 percent of adults consume tobacco in smokeless tobacco (SLT) form in India. Khaini (a form of SLT) and beedis are the dominant forms of tobacco consumed in India, at 11 percent and 8 percent respectively.[133] There has been a steady decline in tobacco consumption due to growing health consciousness among the public on one hand and the national and international tobacco control policies such as WHO-FCTC (2005), COTPA (2003), etc. on the other. Compared with GATS 2010, there has been a 6 percent decrease in tobacco consumption recorded in GATS 2017.[134] In addition, the NFHS-4 also shows a decline in the prevalence rate compared with NFHS-3. However, PFCE data is showing absolute increase in the overall tobacco consumption.

[133] *GATS India, GATS 1- 2009-10 Survey and GATS 2- 2016-17 Survey*

Prevalence of Tobacco Use - GATS 1 vs GATS 2 (in Percentage)

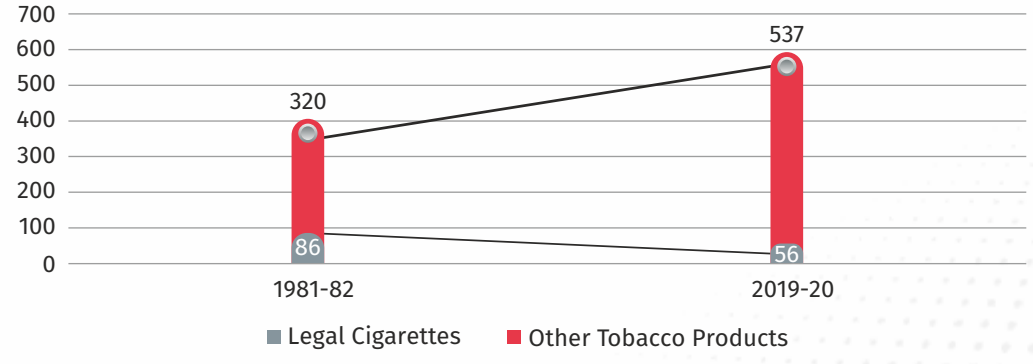


Source: GATS 2010 and GATS 2017

Tobacco in smoked form is consumed by 10.7 percent of the population. On average, Indians smoked about 6.8 cigarettes per day, which is one of the lowest among all countries.[135] Beedis accounted for the largest proportion of smoked tobacco consumed in India especially among the lower socio-economic group. Beedis are consumed 8 times more than the cigarettes as the unit price of beedi is low (₹ 0.4) compared with cigarettes (₹ 3.1); although SLT is consumed in the highest amount, such a correlation has not been possible and studies are typically on cigarettes and beedis.[136] Industry estimates that smokeless tobacco accounts for over 57% of the total tobacco consumption in the country.

Unlike the rest of the world where cigarettes represent 90 percent of tobacco consumption, legal cigarettes account for only 10 percent of overall tobacco consumed in India. The balance consumption is represented by products like chewing tobacco, bidis, gutkha, etc., and illegal cigarettes.[137] Since 1981-82 there has been a steady decline in the consumption of tobacco in the form of legal cigarettes, however the overall tobacco consumption in India has steadily increased. Over time the share of cigarettes in total tobacco consumption in the country has shrunk to a mere 10 percent at present from 21 percent in 1981-82. During the same period consumption of other forms of tobacco products, including illegal cigarettes grew by 70 percent.[138]

Tobacco Consumption in India (Million Kgs)



Source: USDA, Tobacco Board; Parliament Committee Report, August 2020

[135] *WHO. Tobacco Free Initiative (TFI), Global Adult Tobacco Survey; 2016. http://www.who.int/tobacco/surveillance/survey/gats/in*

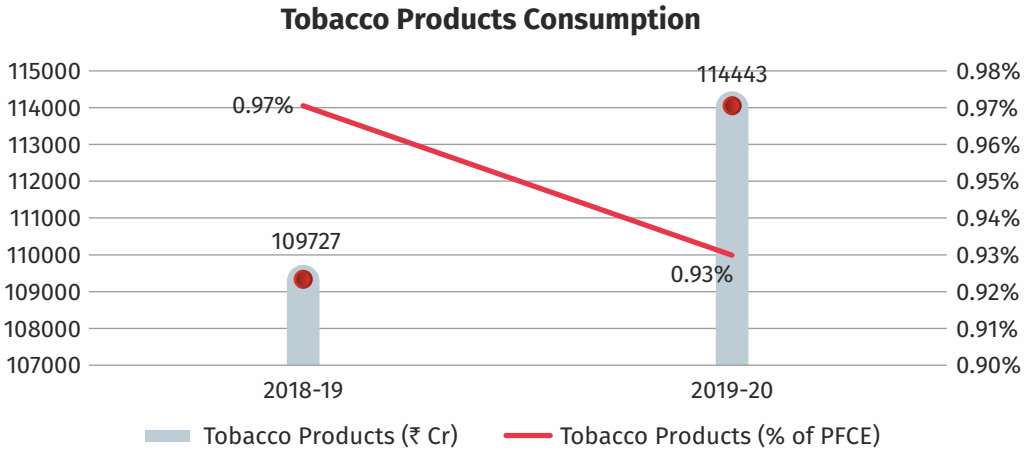
[136] *Mohan, P., Lando, H. A., & Panneer, S. (2018). Assessment of Tobacco Consumption and Control in India. Indian Journal of Clinical Medicine. https://doi.org/10.1177/1179916118759289*

[137] *Tobacco in India- Importance & Policy Challenges, Tobacco Institute of India*

[138] *USDA, Tobacco Board; Parliament Committee Report, August 2020*

High Taxation and stringent regulations on tobacco have produced counter-productive results, resulting in shifting consumption from the legal segment to cheaper, non-compliant illegal options, thereby undermining public health objectives.

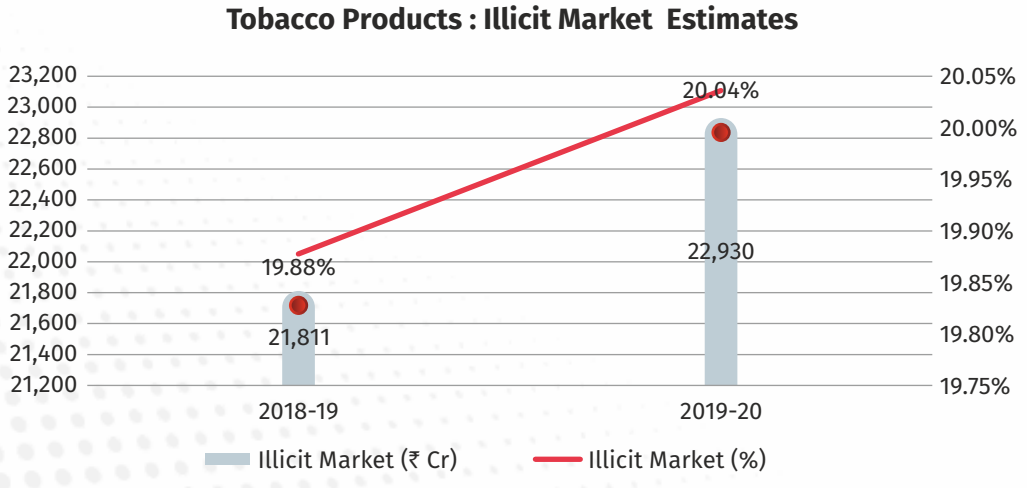
Consumption of tobacco products in the Private Final Consumption Expenditure data (PFCE) has not been given at a disaggregate level. We have applied the supply-side percentage, i.e., 85.44 percent (the balance being bidis) to the figure of tobacco consumption as per PFCE to arrive at tobacco products consumption excluding bidis. Based on this PFCE data, it is apparent that although the absolute consumption value of tobacco products has increased overall, the relative share of tobacco products excluding bidis in the PFCE basket has come down in 2019-20.



Source: Central Statistical Office (CSO), Ministry of Statistics & Program Implementation (MoSPI)

6.4 Tobacco Products: Illicit Market Estimates

The estimate of illicit tobacco products in India is based on our methodology of demand and supply gap. While both supply and consumption of tobacco products are increasing, the gap between legitimate production and the share of illicit markets is also increasing. Estimates show that the illicit market of tobacco products has increased from ₹ 21,811 crores in 2018-19 to ₹ 22,930 crores in 2019-20 and the illicit market percentage has also increased from 19.88 percent in 2018-19 to 20.04 percent in 2019-20.



Source: TARI Estimates

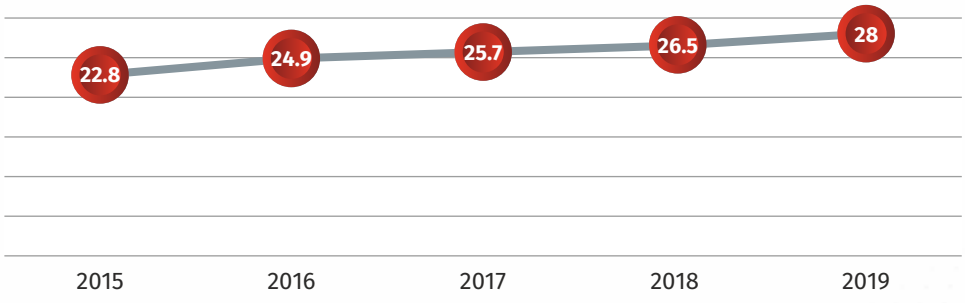
This may be attributed to various factors. According to a 2008 OECD survey[139], trademark infringement was found to be the most common form of counterfeiting in the tobacco industry. A KPMG and ASSOCHAM 2013-14 report states that "In India, a portion extent (viz. 68 per cent approximately) of the total tobacco consumed is not subject to tax either by tax exemption (i.e. which is below the threshold or is not subject to tax) or due to illicit trade."[140]

Global consensus and estimates suggest that illicit cigarette consumption is 600 billion sticks or 10 percent of the total cigarette consumption.[141] Globally, illicit cigarette trade is considered a low-risk, high-reward criminal activity as it is a high-value product that can be hidden in small containers. The traffickers can make millions with little risk of detection or harsh punishments. Smuggling also leads to significant loss of customs revenue to national Governments. According to estimates, the illegal trade of cigarettes results in a worldwide annual tax loss of US$ 40-50 billion.[142]

A 2010 study estimated illicit cigarettes as accounting for 11.6 percent of the global - 16.8 percent of low-income and 9.8 percent of high-income countries' - cigarette consumption.[143] A recent study of 2017 done under urban retail settings of 14 low - and middle-income countries (LMICs) finds that 23.8 percent of cigarette packs purchased out of a total of 3240 cigarette packs were illicit. For India, the percentage of illicit cigarette packs is 30.4 percent, higher than the average of surveyed countries.[144]

According to Euromonitor International, India is now the 4th largest illegal cigarette market in the world and constitutes more than 1/4th of the total market.[145] The legal cigarettes industry in India has been bearing the brunt of the flourishing illicit market, with consumption of legal cigarettes witnessing a drop in volumes. The illicit market on the other hand has been increasing constantly and reached levels of 28 billion sticks in 2019-20.

Illegal Cigarette Volumes in India (Billion Sticks)



Source: Euromonitor International, 2020

[139] *Economic Impact of Counterfeiting and Piracy - OECD 2008*

[140] *KPMG and ASSOCHAM 2013-14 report on the Impact of current tax framework on tobacco sector in India and suggestions for its improvements*

[141] *S Dutta (2019), Confronting Illicit Tobacco Trade: A Global Review of Country Experiences, Technical Report of the World Bank Group Global Tobacco Control Program*

[142] *Patrick Petit and Janos Nagy. How to design and enforce tobacco excises? International Monetary Fund 2016.*

[143] *Joossens L., Merriman D., Ross H., Raw M. (2010). The impact of eliminating the global illicit cigarette trade on health and revenue. Addiction, 105:,1640-9.*

[144] *Cherukupalli, R., Washington, C., Ferguson, J., & Clegg Smith, K. (2017). An analysis of purchase price of legal and illicit cigarettes in urban retail environments in 14 low- and middle-income countries. Addiction (Abingdon, England), 112(10), 1854-1860. https://doi.org/10.1111/add.13881*

[145] *Refer to Tobacco Institute of India, Tobacco Fact Sheet India: January 2109*

The consumption of illegal cigarettes in India has increased over this period, signalling a shift from legal products to cheaper substitutes or illicit products, which have no or little tax element in them. When taxes are raised beyond a certain optimum level, consumers gravitate towards cheaper alternatives or illicit supplies, which are normally smuggled or tax evaded goods.

Studies[146] show that high taxation is not the only driver of illicit trade in cigarettes. It also results from stringent regulations and a lack of control on cigarette manufacturing and the movement of cigarettes and other tobacco products across international borders to facilitate illicit trade. Also, it is run by criminal organizations with sophisticated systems for distributing smuggled tobacco products and is more common in low-income countries than in high ones.

The illicit market of tobacco products apart from the direct and indirect effects on industry and the economy also has a significant non-economic impact on the consumers. However, such analysis is out of scope for this study, as it focuses on the economic impact on industry and economy.

Impact on Consumers

The hazardous health effect of illicit tobacco products could be much more than legitimate tobacco products due to lack of safety and hygiene standards. Counterfeit tobacco products are usually made in violation of government standards, under unhygienic conditions using sub-standard raw materials that contain higher levels of tar, nicotine, carbon monoxide, lead, cadmium, and arsenic.[1]

[[1]FICCI CASCADE & TARI (2015), Illicit Markets- A Threat to Our National Interests, Tobacco Industry]

[146] *Joossens L, Merriman D, Ross H, & M. Raw (2010). The impact of eliminating the global illicit cigarette trade on health revenue. Addiction, 105, 1640–95*

6.5 Tobacco Products: Estimation of Multiplier Effects

Multiplier effect, a scientific and widely used method involving the "Input-Output Table".[147] Tobacco products are one important sector influenced by the multiplier effect as it provides a strong linkage between agriculture, manufacturing industry, and product delivery for the consumption market.

Backward Linkages and Multiplier Effects of Tobacco Products			
Sectors	**Output**	**GVA**	**Employment (Emp per lakh Output)**
Agriculture and Allied Sector	0.230	0.177	0.196
Mining	0.042	0.024	0.002
Tobacco Products	**1.095**	**0.540**	**0.177**
Other Manufacturing	0.214	0.053	0.013
Construction	0.014	0.005	0.003
Electricity and Water Services	0.032	0.008	0.001
Trade	0.108	0.077	0.028
Services	0.109	0.068	0.013
Public administration	0.000	0.000	0.000
Total Backward Linkage	**1.844**	**0.952**	**0.431**
Coefficients	1.000	0.493	0.161
Multipliers	**1.844**	**1.929**	**2.672**

Source: TARI Research

An output multiplier of 1.844 and a value-added multiplier of 1.93 of the tobacco products suggest economic value added in the economy from increased demand/output (per rupee) of the legitimate tobacco products manufacturing industry. Analysis of the output backward linkage shows that an increase/decrease in the demand and output of tobacco products can increase/decrease the output/value of agriculture (0.23), i.e., tobacco and other manufacturing industries (0.214).

6.6 Tobacco Products: Impact on Industry and Government

Tobacco products have a GVA coefficient of 0.493 and an employment coefficient of 0.161 suggesting that it has a good investment opportunity with potential for economic value-added and employment generation. Considering total legitimate output loss of ₹ 22,930 crores in the tobacco products industry on account of the illicit market in 2019-20, total

[147] *Refer Annexure – I for detailed methodology on multiplier estimation*

GVA and legitimate employment loss to the industry are ₹ 11,314 crores and 3.70 lakh respectively.

Tobacco Products Illicit Market : Impact on Industry and Government				
Indicator	**Output Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**	**Tax Loss (₹ Cr)**
2018-19	21811	10762	3.52	12681
2019-20	22930	11314	3.70	13331

Source: TARI Estimates

The GST implemented by India in July 2017 fundamentally reformed the indirect tax system by subsuming national excise duties, state-level VAT, and several other duties into a single system. The GST council fixed a statutory (exclusive) ad-valorem GST rate of 28 percent on all tobacco products with an additional compensation cess (ad valorem plus specific) on cigarettes and SLT. This cess is also applied to value added at every stage of the supply chain, along with the GST. The compensation cess was introduced with the special purpose of compensating states for potential revenue losses under the GST, if any, only for 5 years. While the GST subsumes the excise, VAT, and other cesses, the National Calamity Contingent Duty (NCCD) continues to apply on tobacco products under the GST.[148] Based on data and calculations, the total tax applicable on tobacco products excluding bidis is estimated to be 58.14 percent. Considering illicit tobacco products of ₹ 22,930 crores in 2019-20, the estimated tax revenue loss to the Government due to illicit tobacco products is ₹ 13,331 crores.[149]

Euromonitor (based on surveys and their own methodology) estimate that nearly one fourth of the cigarettes sold in India are illicit, which happen mostly on the higher end of the value chain. The size of illicit markets for cigarettes as determined by Euromonitor is valued based on consumption patterns and is added to the size of illicit markets for other tobacco products (as determined by this report), the estimated tax losses are assessed at ₹ 15,500 crores, which is higher than our estimates.

Hence, the estimated tax losses using our methodology and that as estimated using data of Euromonitor (as explained above) can be between ₹ 13,331 to ₹ 15,500 crores.

6.7 Tobacco Products: Impact on Economy

Multiplier effect results in a widespread impact on the economy. For an output multiplier of 1.844 and GVA multiplier of 1.929, the total output loss in the economy and GVA loss in

[148] *NCCD means "National Calamity Contingent Duty" levied under Finance Act, 2001, as a duty of Excise on specified goods at rates specified in the seventh schedule to Finance Act, 2001*

[149] *John RM, Dauchy E, Goodchild M. (2019). Estimated impact of the GST on tobacco products in India Tobacco Control,28:506-512.*

the economy due to illicit tobacco products is nearly ₹ 42,293 crores and ₹ 21,824 crores respectively in 2019-20. Tobacco products have a strong backward linkage with the agriculture and processing industry. Due to the employment multiplier effect, for every legitimate job lost in the industry, 2.672 jobs are lost in the economy. Illicit tobacco products result in a total legitimate job loss of 9.89 lakh in the economy in 2019-20.

Tobacco Products Illicit Market: Impact on Economy			
Indicator	**Output (₹ Cr)**	**GVA (₹ Cr)**	**Employment (Lakh)**
2018-19	40230	20759	9.41
2019-20	42293	21824	9.89

Source: TARI Estimates

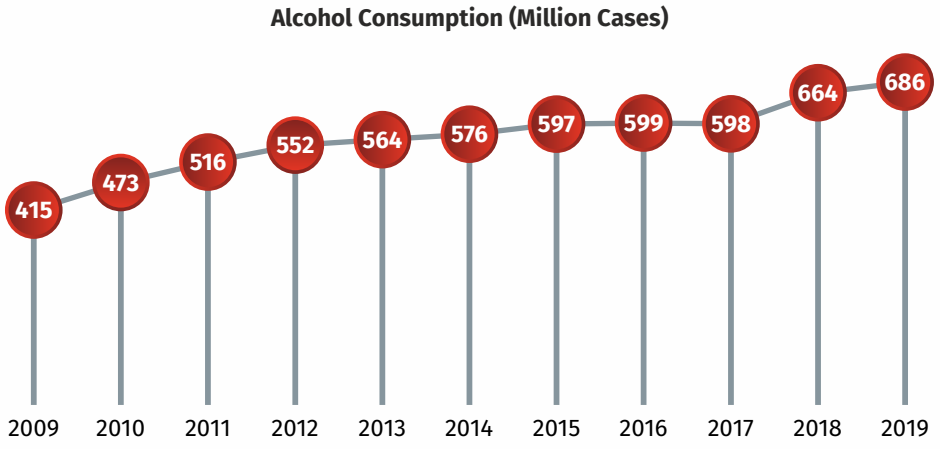
7

Alcoholic Beverages: Estimates of Illicit Market and Impact on Economy

7. Alcoholic Beverages: Estimates of Illicit Market and Impact on Economy

7.1 Alcoholic Beverages Industry: Overview

Indian alcoholic beverages market is among the fastest-growing and third-largest markets in the world, valued at US$ 35 billion in 2017 and estimated to increase to the level of US$ 52 billion by 2020.[150] Alcohol consumption in India as per IWSR data equalled 5.376 billion litres in 2017 and sharply increased in the last three years to reach levels of 6.177 billion litres in 2020.[151] It is estimated that the alcoholic beverage industry employs more than 2.5 million people directly and indirectly.[152]



Source: IWSR Data, IARD

A steady consumption of alcoholic beverages can be attributed to several factors including rising disposable income with sizable middle-class population, growing urban population, increasing rural consumption, global integration of Indian population, changing lifestyle, and greater societal acceptance of alcohol.[153] According to WHO data of 2016, per capita, pure alcohol consumption (15 + years) in India is low (5.7) as compared to other countries China (7.2) and European countries (9.8).[154]

The alcoholic beverages can be segmented into IMFL (Indian Made Foreign Liquor), Country Liquor (Indian Made Indian Liquor), Wine and Beer. India is the 9th largest market of alcohol and 2nd largest in the case of spirits by volume consideration. IMFL accounts for only 35 percent by volume but in terms of value captures 65 percent of market share. In 2019, about 345 million cases (9 litres each) of IMFL were sold with whiskey nearly

[150] *https://www.ambrosiaindia.com/2020/11/alcohol-consumption-in-india-to-touch-6-5-billion-litres-by-2020/*

[151] *IWSR Report*

[152] *EBG Position Paper 2020*

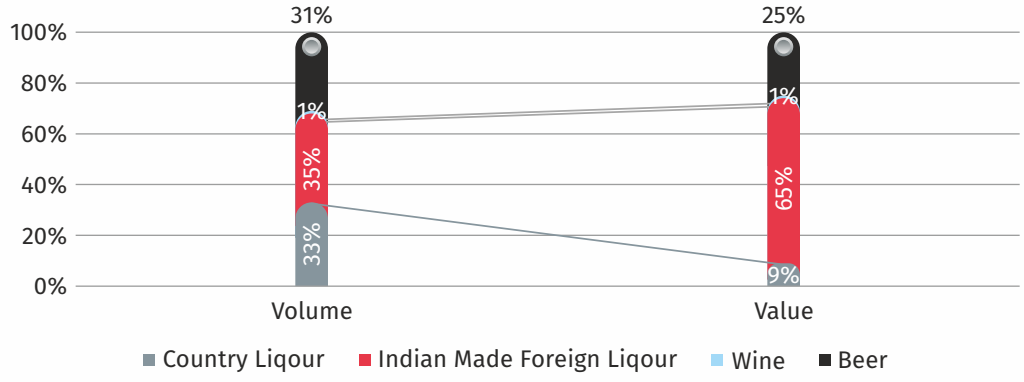
[153] *The Whiskey Market 2023; Indian Alcohol Consumption - The Changing Behavior*
https://www.researchandmarkets.com/reports/4424894/indian-alcohol-consumption-the-changing-behavior

[154] *WHO (2018). Global Status Report on Alcohol and Health*

accounting for 64 percent sales by volume and 75 percent sales by value. India is among the biggest whiskey markets in the world and is estimated to grow at 4 percent to reach 265-270 million cases in the next five years.[155]

India consumes more whiskey than any other country in the world - about three times more than the US, which is the next biggest consumer. Nearly one in every two bottles of whiskey bought around the world is now sold in India. Annual whiskey sales in India in 2019 were 220 million cases (9 liters each) out of 345 million cases for the entire spirit alcohol industry. It is estimated that the long-term growth will hold around 4 percent, taking the whisky market to 265-270 million cases in five years.[156] Brown spirits (namely whiskey and rum with high alcoholic content- over 40 percent v/v) are the preferred drinks and account for 96.4 percent of the share. White spirits such as Vodka and Gin are gaining popularity through increased demand from millennials.[157]

Alcoholic Beverages Market Segmentation - 2017



Source: UK India Business Council Report, 2017

Country liquor - localized liquor generally produced in the local distilleries - accounts for 33 percent sales by volume but only around 9 percent by value. It has different names in various parts of India and evolving from a restricted quota-based commodity to a consumer-based industry. Country liquor is an attractive market for local producers with a sizeable stratum of consumers belonging to a low-income class that comprises 40 percent of the population (excluding below poverty line).[158] However, it is also the segment where the largest unrecorded alcohol is sold as most of the liquor is produced without a license.

Beer has a market share of 31 percent by volume and about 25 percent by value with strong beer (6 to 8 percent of alcohol content) dominating at 85 percent market share. The beer market is growing in the country with increasing popularity among the millennial population. Wine has a very low share of 1 percent both by volume and value and grows annually at a rate of 20-25 percent.[159]

[155] *https://www.ambrosiaindia.com/2020/11/alcohol-consumption-in-india-to-touch-6-5-billion-litres-by-2020/*

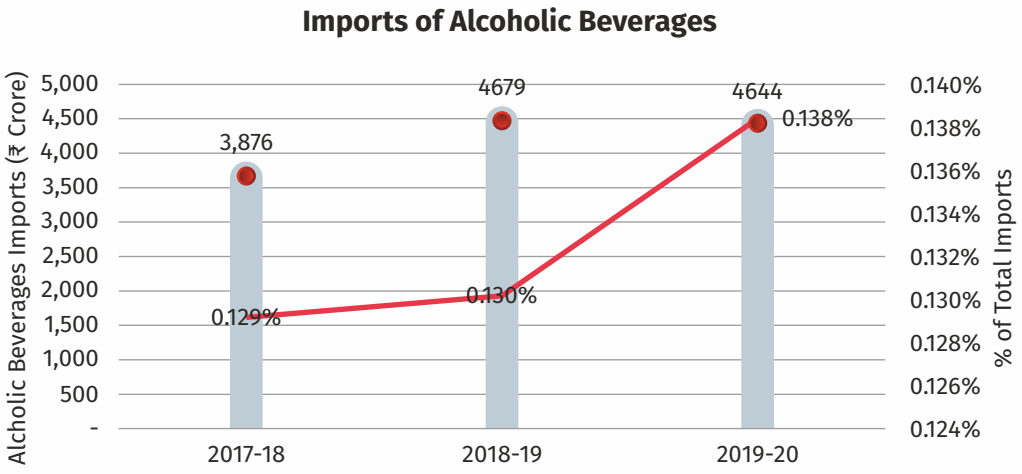
[156] *Financial Express, Delhi; http://ciabc.org/fe-indian-whiskys-make-a-mark-on-global-map/*

[157] *Annual report, Radico Khaitan*

[158] *Global Spirits, Annual Report 2019-20*

[159] *ILO consulting article; https://www.iloconsulting.in/knowledge-center/indian-wine-industry-licenses-and-registrations-and-application#:~:text=The%20Indian%20wine%20market%20is, of%2020%2D25%20per%20cent.&text=Market%20Overview-,The%20Indian%20wine%20market%20is%20 estimated%20to%20US%24%20150%20million,and%2030%20per%20cent%2C%20respectively.*

Imported alcohol has only a fraction of the share at around 1 percent in the Indian market as substantial imports duty and other levied taxes exceeding 150 percent make them three to five times pricier than elsewhere in the world.[160] Alcoholic beverages imported in the country are nearly ₹ 4,600 crores, accounting for only 0.138 percent of the country's total imports.



Source: DGCIS

Indian states including Karnataka, Kerala, Andhra Pradesh, Telangana, Sikkim, Haryana, and Himachal Pradesh are among the states that are the largest consumers of alcohol in the country. Alcohol is largely sold through licensed/authorized liquor stores permitted by State Governments with the sales through supermarkets and malls kick-starting in tier I and tier-II cities.[161] Some states like West Bengal, Jharkhand, and Chhattisgarh have also permitted online delivery of liquor. However, it has failed to attract interest due to proper policy guidelines and costing issues with delivery partners.[162]

7.2 Alcoholic Beverages: Supply-Side Estimates

Alcoholic beverages, one of the most regulated industries in India, has a regulatory landscape encompassing all aspects including production, imports, distribution, and consumption, and is largely driven by State Government's laws since alcohol is a state subject. Directives of the Food Safety and Standards Authority of India (FSSAI) also guide alcoholic beverages in the country. In addition, direct advertising of alcohol is not permitted. The government of India allowed 100 percent FDI through automatic route in the "Distillation and Brewing" sector in 2006.[163]

The alcohol industry is significantly different from markets in other large countries. The market architecture varies from one state to another in terms of taxation, regulation, legalization, production, and promotion. The government through a licensing system regulates alcohol production. However, its entire distillation and production process is

[160] *Indian Alcohol Consumption - The Changing Behavior https://www.researchandmarkets.com/reports/4424894/indian-alcohol-consumption-the-changing-behavior*

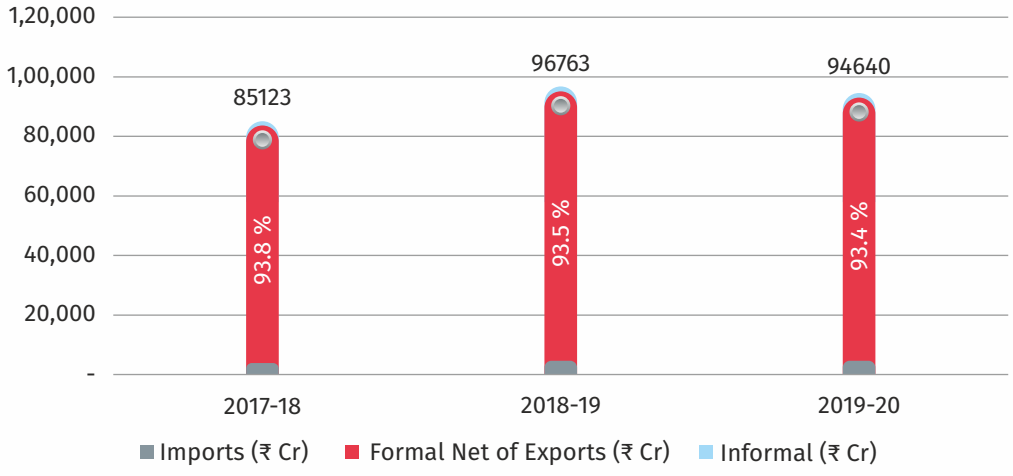
[161] *Indian Alcohol Consumption - The Changing Behavior https://www.researchandmarkets.com/reports/ 4424894/indian-alcohol-consumption-the-changing-behavior*

[162] *What Factors Are Responsible for The Growth of The Liquor Industry in India? Nibedita Mohanta*

[163] *http://www.pib.nic.in/newsite/erelease.aspx?relid=15119*

owned and controlled by the private sector. Generally, in the wholesale distribution, both state government and private sector are involved except for states Andhra Pradesh, Chhattisgarh, Orissa, and Delhi, where it is managed through Government corporations; recently, Delhi has permitted sales of alcohol by the private sector. Similarly, in states such as Kerala, Tamil Nadu, and Rajasthan, a state government agency manages both wholesale and retail distribution. According to estimates, there are 10 million retail outlets and around 500,000 bars and pubs (licensed and regulated by a state excise department) that facilitate the sale and purchase of alcohol. In addition, because of restrictions on inter-state transport and prohibitively high inter-state duties, alcoholic beverage manufacturers are compelled to either set up owned or contract manufacturing units in every state. Recently, there have been some policy changes concerning the selling of alcoholic beverages, such as banning the sale of liquors on National Highways, allowing certain alcoholic beverages like wine and beer to be sold in supermarkets in some states, allowing malls and pubs to be open for 24 hours a day and alcohol e-commerce with permission for online sales.[164]

Alcoholic Beverages - Supply Side Estimates (₹ Crore)



Source: TARI Estimates

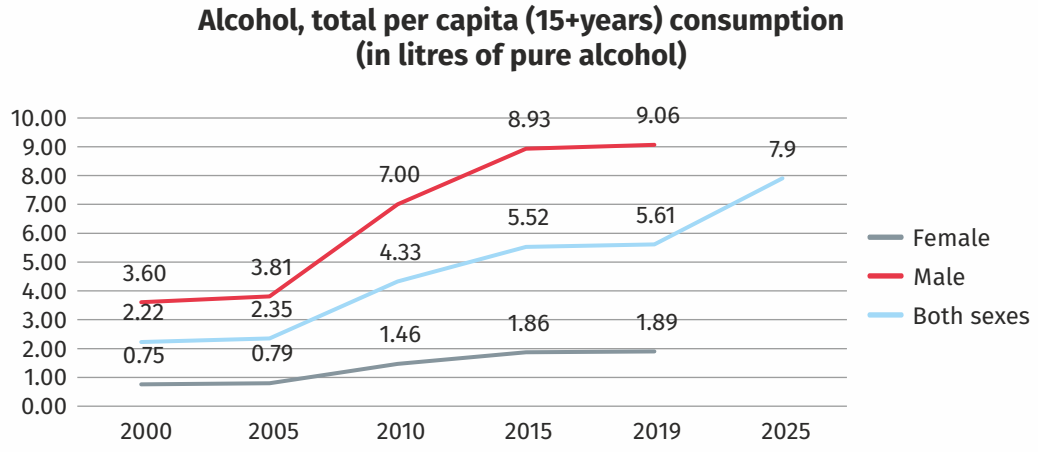
The alcoholic beverages industry has a very large, organized sector with a few big companies dominating the sector at the top. The alcoholic beverages supply-side is expected to be ₹ 85,123 crores in 2017-18 and is estimated to increase to levels of ₹ 94,640 crores in 2019-20. The formal sector is estimated at ₹ 81,935 crores in 2017-18 and the industry has grown at 13 percent in 2018-19 percent and declined at 2.7 percent in 2019-20.[165] Of this, the formal sector is the main contributor with 93.8 percent while imports have a 4.6 percent share in the supply side. The informal sector, which predominately supplies country liquor, contributes only about 1.7 percent.

[164] *Gururaj, G., Gautham, M.S. and Arvind, B.A. (2021), Alcohol consumption in India: A rising burden and a fractured response. Drug Alcohol Rev., 40: 368-384. https://doi.org/10.1111/dar.13179*

[165] *As ASI data and NAS output production data*

7.3 Alcoholic Beverages: Consumption Side Estimates

Alcoholic beverages, like production and distribution restrictions, has also restrictions on consumption. Alcoholic beverages prohibition under Article 47 of Part IV Directive Principles of State Policy of the Constitution of India directs the States to undertake duties for improving the public health of citizens. Under this directive, the State Governments have promulgated laws that govern the sale, possession, and consumption of alcohol and made amendments to these laws from time to time. Various states have different laws for the consumption of alcohol, with some states such as Andaman Nicobar Islands; Himachal Pradesh; Kerala; Mizoram; Pondicherry; Rajasthan, and Sikkim being completely dry states, strictly prohibiting sale and purchase of alcohol. Other states allow alcohol consumption, however, with age restrictions (either 18 years or 21 years) for the consumption and purchasing of alcohol.[166]



Source: WHO

The estimated per-capita consumption of alcohol among individuals (aged 15 years and above) in India is gradually increasing over the years since 2000. As per WHO data, alcohol consumption (per capita) has increased from levels of 2.2 liters in 2000 to 5.61 liters in 2019 and is expected to increase rapidly to levels of 7.9 liters by 2025. The prevalence of current alcohol consumption (for individuals consuming alcohol in the past 12 months) for males (27.3 percent) is much higher than females (1.6 percent) with the national average being 14.6 percent.[167] 60 percent of the Indian consumers prefer country liquor or IMFL with relatively higher alcohol content as compared to alcoholic beverages such as beer (21 percent) and wine (4 percent) with low alcohol content.[168]

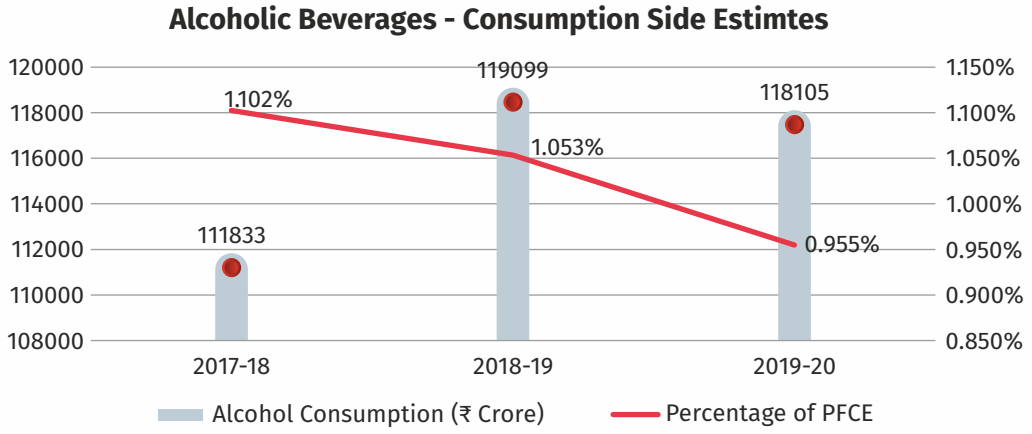
Based on our methodology, the consumption of alcoholic beverages is derived from private final consumption expenditure (PFCE) from National Accounts Statistics provided by CSO, MOSPI. However, owing to a significant difference in consumption data of

[166] *Alcohol Laws in India, Available at : https://www.saathee.org/docs/laws.pdf*

[167] *WHO Database*

[168] *Ambekar A, Agrawal A, Rao R, Mishra AK, Khandelwal SK, Chadda RK (2019), Magnitude of substance use in India; Ministry of Social Justice and Empowerment, Government of India.*

alcoholic beverages between NSSO 68th round survey and NAS 2011-12 data, we have mapped PFCE alcohol consumption data for our period of study with NSSO alcoholic beverages consumption for 2011-12.[169]



Source: Central Statistical Office (CSO), Ministry of Statistics & Program Implementation (MoSPI)

According to WHO[170] "unrecorded alcohol refers to alcohol that is not taxed and is outside the usual system of governmental control because it is produced, distributed and sold outside formal channels." As per WHO data, unrecorded alcohol consumption in India (per capita pure alcohol consumption by 15 years and above) is about 2.6 litres and constitutes about 45 to 46 percent of total alcohol consumption by volume for the period between 2015 and 2019. For making an equivalent increase in value adjustment unrecorded alcohol, we have considered only one-fourth of volume terms of unrecorded alcohol. Based on this, consumption of alcoholic beverages (as a percentage of total PFCE) is showing a declining trend from 1.102 percent in 2017-18 to 0.955 percent in 2019-20 and estimated to be ₹ 1,18,105 crores in 2019-20.

7.4 Alcoholic Beverages: Illicit Market Estimates

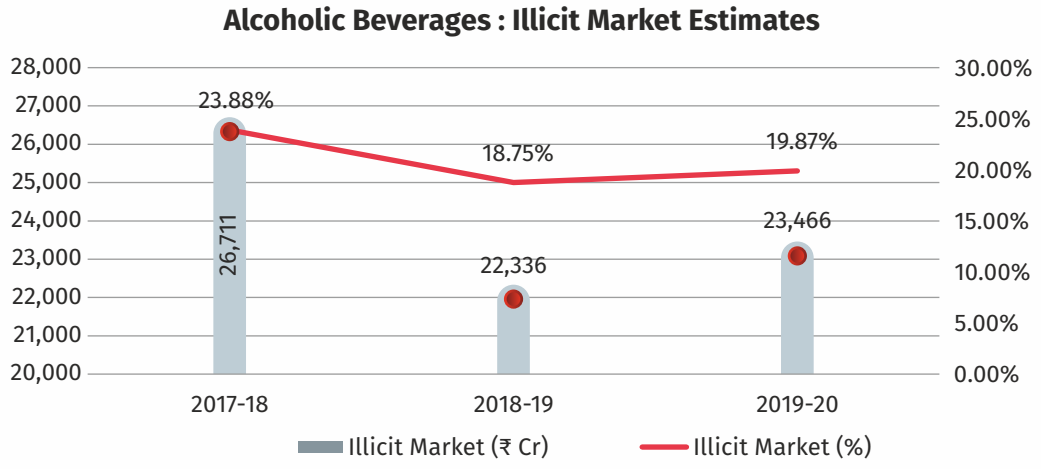
The estimates of illicit market of alcoholic beverages in India based on our methodology show that it is gradually coming down from 23.88 percent in 2017-18 to 19.87 percent in 2019-20. Even in the value terms, it is coming down and estimated to be ₹ 23,466 crores in 2019-20. Overall, this reduction may be attributed to a reduction in consumption levels of alcoholic beverages. Covid-19 pandemic resulting in lockdown and travel restrictions seems to affect overall consumption and illicit alcohol in 2019-20.

Illicit alcohol is driven by both supply-side (business practices) and demand-side (consumers) factors with the interplay of the regulatory landscape. Strong regulatory control on production and distribution with relatively poor enforcement mechanisms drive illicit alcohol production to gain high price arbitrage. Availability and affordability

[169] *FICCI- CASCADE and TARI (2015), Illicit Markets- A Threat to Our National Interests the Alcoholic Beverages Industry*

[170] *WHO - Global status report on alcohol and health, 2011*

of illicit alcohol along with consumers' awareness and perception are the main driving factors from the consumption side.[171] Further, prohibition by states and restrictions on age and storage also add to illicit alcohol consumption. The tax structure in two neighbouring states is typically different, resulting in a strong incentive for unauthorized interstate movement of alcoholic beverages.



Source: TARI Estimates

The illicit alcohol trade is a worldwide phenomenon. According to a 2018 Euromonitor study, illicit alcohol represents 25.8 percent of global consumption, i.e., 1 out of 4 alcohol bottles are illicit. Illicit alcohol taxonomy is complex and includes varied products such as contraband/ legitimate alcohol illegally smuggled into the country, counterfeit alcohol (fraudulent imitation of a legitimate brand) produced in illicit factories, homemade artisanal alcoholic beverages produced commercially without having a commercial license, legally produced alcohol however sold outside tax channels and non-conforming alcohol that are not produced as per regulatory norms.[173]

Illicit alcohol is under the large umbrella of unrecorded alcohol and is quite difficult to estimate. According to WHO[174] "unrecorded alcohol consumption in a country includes consumption of homemade or informally produced alcohol (legal or illegal), smuggled alcohol, alcohol intended for industrial or medical uses, alcohol obtained through cross-border shopping (which is recorded in a different jurisdiction), as well as consumption of alcohol by tourists. Homemade or informally produced alcoholic beverages are mostly fermented beverages made from sorghum, millet, maize, rice, wheat or fruits." Globally, one quarter (25.5 percent) of all alcohol consumed worldwide is in the form of unrecorded alcohol.[175] Unrecorded alcohol, therefore, includes illicit alcohol and licit homemade or informally produced alcohol.

[171] *TRACIT. (2019). Illicit Trade in alcohol in India: Challenges and Solutions. A briefing by the Transnational Alliance to Combat Illicit Trade, September 2019*

[172] *Euromonitor International. (2018). Size and Shape of the Global Illicit Alcohol Market. London: Euromonitor*

[173] *TRACIT (2019). Mapping the Impact of Illicit Trade on the Sustainable Development Goals, Chapter 3- SDG and Illicit Trade in Alcohol*

[174] *WHO - Global status report on alcohol and health (2011), available at: http://www.who.int/substance_abuse/publications/global_alcohol_report/msbgsruprofiles.pdf*

[175] *WHO. (2018). Global status report on alcohol and health 2018*

Alcohol per Capita (15+ years) consumption (in liters, pure Alcohol)			
Year	**Avg: 2009-11**	**Avg: 2015-17**	**2019**
Recorded	2.7	3	3.09
Unrecorded	1.5	2.6	2.6
Total	4.2	5.6	5.69

Source: WHO database

As per WHO data, unrecorded alcohol in India (per capita consumption of pure alcohol by 15 years and above) has increased from 1.5 litres in 2010 to 2.6 litres in 2015 and has remained the same in 2019. It constitutes a significant part of total alcohol consumption, has increased from 35.7 percent in 2010 to nearly 46 percent in 2019.[176] According to a study by International Alliance for Responsible Drinking, estimated unrecorded alcohol varies between 40 percent to 77 percent in five surveyed states.[177] A study on unrecorded alcohol published in the Journal of Global Health highlights that homemade alcohol and illegal production are the main drivers of unrecorded alcohol in India whereas smuggling and surrogate alcohol are only a very small pie of this big problem.[178]

The non-economic impact on consumers due to counterfeit or poor quality of alcohol could also be significant. However, such detailed analysis is out of scope as the current study focuses on the economic impact on industry and economy.

Impact on Consumers

The health risk could be serious for consumers of illicit alcohol. It arises mainly because the production of illicit alcohol doesn't follow stringent norms, quality standards are often not matched, and may contain toxic elements leading to serious health issues, even deaths.[1]

[1]TRACIT. (2019). Illicit Trade in alcohol in India: Challenges and Solutions. A briefing by the Transnational Alliance to Combat Illicit Trade, September 2019

7.5 Alcoholic Beverages: Estimation of Multiplier Effects

Multiplier effect, a scientific and widely used method that involves the "Input-Output Table". For this study, we have estimated multiplier effects for beverages.[179] An output multiplier of 2.035 and a value-added multiplier of 1.971 suggest economic value added

[176] *WHO database*

[177] *IARD. (2018). Unrecorded Alcohol in India - Results of a Population Survey in Five States. International Alliance for Responsible Drinking (IARD) Report*

[178] *Probst, C. et. Al. (2019). The global proportion and volume of unrecorded alcohol in 2015. Journal of global health, 9(1), 010421. https://doi.org/10.7189/jogh.09.010421*

[179] *Refer Annexure - I for detailed methodology on multiplier estimation*

in the economy from the increased output (per rupee) from the domestic beverages industry. An increase/ decrease in the demand and output of beverages can increase/decrease the output/value of the other manufacturing industries as it has output backward linkage (0.430) and value addition linkage of (0.106).

Backward Linkages and Multiplier Effects of Beverages			
Sectors	**Output**	**GVA**	**Employment (Emp per lakh Output)**
Agriculture & Allied Sector	0.156	0.120	0.133
Mining	0.083	0.047	0.004
Beverages	**1.102**	**0.540**	**0.046**
Other Manufacturing	0.430	0.106	0.028
Construction	0.016	0.005	0.003
Electricity & Water Services	0.046	0.011	0.001
Trade	0.109	0.078	0.028
Services	0.094	0.058	0.011
Public administration	0.000	0.000	0.000
Total Backward Linkage	**2.035**	**0.966**	**0.253**
Coefficients	1.000	0.490	0.042
Multipliers	**2.035**	**1.971**	**6.067**

Source: TARI Research

7.6 Alcoholic Beverages: Impact on Industry and Government

The economic impact on the industry (legitimate manufacturers) and the government is significant because of lost sales revenue & brand degradation and tax revenue respectively. Beverages have a GVA coefficient of 0.49 and a low employment coefficient of 0.042. Legitimate output loss of ₹ 23,466 crores due to alcoholic beverages for the year 2019-20 results in a GVA loss of ₹ 11,503 crores and legitimate employment loss of 0.98 lakh to industry.

Alcoholic Beverages Illicit Market: Impact on Industry and Government					
Indicators	**Industry Loss (₹ Cr)**	**GVA Loss (₹ Cr)**	**Employment Loss (Lakh)**	**Excise Duty and VAT Rate**	**Tax Loss (₹ Cr)**
2017-18	26711	13094	1.114	63.86%	17057
2018-19	22336	10949	0.932	64.25%	14351
2019-20	23466	11503	0.979	65.04%	15262

Source: TARI Estimates

Even though Goods and Service Tax (GST) has been implemented all over the country since 2017, alcoholic beverages have been kept out of its purview. It falls under the jurisdiction of States and is a major source of tax revenues for states through excise duty and value-added tax (VAT). Five southern states - Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, and Kerala - account for more than 45 percent of all liquor sold in India.[180] According to a Reserve Bank of India's report[181] state Governments earned around ₹ 1.75 lakh crores, that is 12.5 percent of revenue in 2019-20, from sales of alcoholic beverages. In 2018-19, on average, monthly collection duty by the states through excise duty on alcoholic beverages was ₹ 12,500 crore which increased to ₹ 15,000 crore per month in 2019-20.[182]

The 28 states along with eight union territories in India have adopted different approaches when it comes to taxing and regulating alcoholic beverages. Therefore, it is quite difficult to estimate tax revenue loss to the Government on account of illicit alcohol. We adopted a different approach and estimated excise duty paid by liquor companies by extracting financial data of these companies from the Prowess database. We considered 14 liquor companies (companies producing on IMFL or country liquor as we believe that illicit alcohol largely falls in this category). Analysis of these companies shows that excise duty paid by them ranges between 64 percent to 65 percent. Accordingly, the estimated tax loss of the exchequer due to illicit alcohol ranges between ₹ 15,000 crores and ₹ 17,000 crores.

7.7 Alcoholic Beverages: Impact on Economy

Multiplier effect results in a widespread impact on the economy. For an output multiplier of 2.035 and GVA multiplier of 1.971, illicit alcoholic beverages result in an output loss of ₹ 47,755 crores and GVA loss of ₹ 22,678 crores in the economy for the year 2019-20. Illicit alcoholic beverages, in the same vein, for an employment multiplier effect of 6.067 results in a total legitimate employment loss of 5.94 lakh in the economy.

Alcoholic Beverages Illicit Market: Impact on Economy

Multipliers	Output Loss Loss (₹ Cr)	GVA Loss (₹ Cr)	Employment Loss (Lakh)
2017-18	54359	25814	6.76
2018-19	45455	21586	5.65
2019-20	47755	22678	5.94

Source: TARI Estimates

[180] *EBG Position Paper 2020*

[181] *RBI (2019). State Finances A Study of Budgets of 2019-2, Reserve Bank of India, September 2019*

[182] *Explained: Why liquor sales matter to states (2021). https://indianexpress.com/article/explained/ explained -why-states-are-so-keen-about-excise-duty-on-liquor-6393643/*

8

Conclusions and Way Forward

8. Conclusions and Way Forward

Illicit trade and markets are a global phenomenon affecting nearly all countries in the world. It is among the main factors that hold up the growth of legitimate manufacturing sectors and harm the economy of a country in multidimensional ways. It undermines the local industry, suppresses innovation and investment, discourages legal imports, reduces the volume of revenues collected from duties and levies by the government, fuels transnational crimes, and hampers the health of citizens. The ongoing COVID-19 pandemic has resulted in new opportunities for criminals to further boost their illicit activities.[183] Estimates of the illicit market in the five industries and its direct and indirect impact on the economy, industry, and Government signal the criticality of the problem faced by the country.

The Global Illicit Trade Environment of 2018 highlights that India lies in the 3rd quartile with a ranking of 49 among 84 countries ranked on the parameters of government policy; supply and demand; transparency and trade; and customs environment.[184] OCED has highlighted that[185] "Combating illicit trade at the national level is a shared responsibility which requires a whole-of-society approach involving relevant government agencies, the manufacturers and distributors of impacted industries, consumers and the general public."

This section highlights gaps and discusses the possible way forward for the country to tackle the problem of illicit market and trade and the recommendations for consideration. These are:

[183] *OECD (2020). Illicit Trade in Context of COVID-19 and Future Pandemics. Business at OECD, 22 April 2020*

[184] *The Economist Intelligence Unit Limited (2018), The Global Illicit Trade Environment of 2018. Available at: https://www.tracit.org/global-illicit-trade-index.html*

[185] *OECD (2016), Illicit Trade: Converging Criminal Networks, OECD Reviews of Risk Management Policies, OECD Publishing, Paris. Available at: http://dx.doi.org/10.1787/9789264251847-en*

8.1 Addressing Demand and Supply Gap of Illicit Goods

The domestic environment of the country affects the demand or supply and the final consumption of illicit goods or smuggled goods. India ranks poorly at 60th place among 84 countries on the demand and supply parameter of the global illicit trade environment index.[186] The supply side of the illicit market is primarily driven by price disparity between genuine and illicit products. This is generally true for high-value products that are generally protected by IPR. The demand side is pushed by factors such as the inclination to use foreign brands at relatively lower prices.

Interventions Addressing Demand- Supply Gap

- Focus on curtailing the financial incentives of illicit products through disrupting its supply chain framework
- Interventions that have influence beyond the borders to restrict the supply of illicit goods to global consumers
- Ease of doing business and incentives to bring the unregulated sector to legalize their production will improve supply side gap of legitimate products
- Availability of legal products at reasonable prices and informed consumers will help to reduce the demand for illicit products
- Increased surveillance by police on the consumption of smuggled and contraband goods at the final sale point

8.2 Strengthening Domestic Manufacturing Sector

To control the spread of illicit markets, the most important and effective measure is to increase the country's domestic production and reduce the demand and supply gap that is currently fulfilled through imports. The government's flagship program of "Make in India", which aims to boost manufacturing in India and strengthen domestic manufacturing through increasing their competitiveness and supporting them with appropriate policies to create new capacities or enhance capacity utilization has strengthened and benefitted many manufacturing industries.

The Case of Mobile Phone Industry

The supply or production, for example in mobile phones a few years back, was out of sync with demand resulting in increased dependence on imports to fulfil this gap. Taking advantage of the situation, illicit trade in this product was high.

Mobile phone and the overall electronics sector under National Policy on Electronics 2019 (NPE 2019) have attained significant focus to transform it from a predominantly consumption-driven market to one with the manufacturing capacity to cater to local and overseas demand. 'Make in India' has propelled the mobile manufacturing

[186] *The Economist Intelligence Unit Limited (2018), The Global Illicit Trade Environment of 2018. Available at: https://www.tracit.org/global-illicit-trade-index.html*

ecosystem in the country. India has now become the second-largest mobile phone manufacturing nation globally in volume terms.

According to ICEA, estimated mobile production would increase from 33 crore units valued at ₹ 2,14,000 crore in 2019- 20 to reach ₹ 4.85 lakh crores in 2022-23. The impact of domestic manufacturing due to incentives and policy support can be seen in illicit mobile phones, where it has come down from 11.82 percent in 2017-18 to 7.56 percent in 2019-20.

8.3 Rationalisation of Tariffs to Reduce Tax Arbitrage

A major reason for flourishing of illicit markets is the opportunity and arbitrage that it provides to the market players to make unconscionable money by evading taxes and duties. High taxes exacerbate the threat of illicit markets and its effect across the economy especially for commodities that have high demand such as cigarettes, alcohol etc.

Tariffs need to be rationalised so that it creates low arbitrage for illegal markets and that coupled with higher enforcement oversight would increase the transaction costs for the illicit players and make it unviable for them. India in turn will be able to get its just dividend from its legal manufacturing industries.

8.4 Increasing Awareness among Consumers

Increasing awareness among consumers about illicit products and their possible impact on their health and safety as well as on overall society and economy is an important tool to help curb illicit markets. Health and safety awareness on the use and consumption of counterfeited and low-quality illicit products can safeguard consumers from undue healthcare expenditure or possible life-threatening risks while encouraging the development of responsible citizenship. An important way of tackling illicit markets is to empower consumers to make more informed decisions.

Consumer Awareness

The United Nations Office on Drugs and Crime (UNODC) campaign **'Counterfeit: Don't Buy into Organized Crime'** is one example of the type of awareness initiatives that should be pursued with added vigour. At the national level, coordinated efforts should take place at different forums by industry and industry bodies, consumer bodies, enforcement agencies, and Governments to make consumers aware and differentiate between licit and illicit products and their detrimental impacts.

8.5 Conducive Environment for Innovation and Strengthening IPR Regime

A conducive environment for innovation and strengthening of intellectual property rights (IPR) is important to effectively deal with nuances of counterfeiting. The protection

and enforcement of strong IP rights are imperative for creating incentives for innovation and safeguarding it from counterfeiting, piracy, and other forms of IP theft.[187]

The industry needs to be provided with specific incentives to encourage the filing of patent applications. The procedures for registering and protecting IP rights may be streamlined with less expensive solutions for obtaining legal remedies when these rights are infringed. The cost of IP protection and IPR enforcement particularly for micro and small enterprises must be reduced to encourage their growth.

Research Collaboration and Technology Transfer

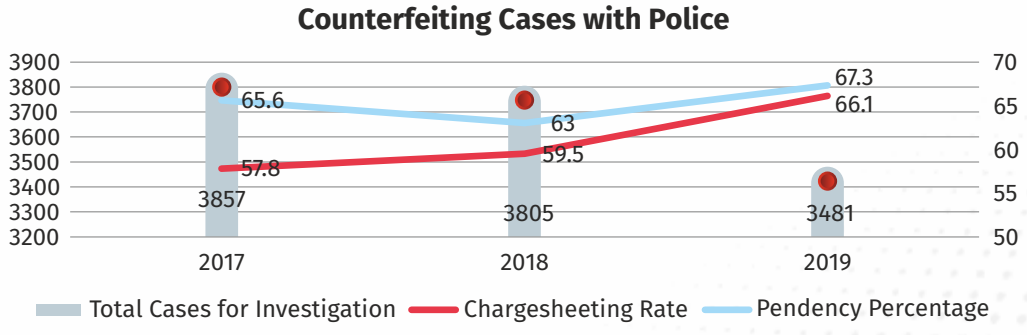
For innovative ideas to thrive and assume firm shape, especially for a developing economy like India, it is important to allow greater interaction between Indian and global research institutions that can have important ramifications at different levels.

Technology transfer from international companies to local companies or innovators will have a spill-over effect. This is especially important for certain high-tech industries like aviation, nuclear power generation, or even oil companies, who could commercially share their technical know-how related to various stages in oil production with Indian companies.

8.6 Monitoring by Police

The expected costs of illicit trade depend on the probability of being caught and punished by law-enforcing authorities, i.e., on the efficiency of the monitoring system and efforts of the police. India is ranked low at 51st on the Government policy parameter of the Global Illicit Trade Environment index that measures the availability of policing and monitoring and prevention of the illicit trade.[188]

A measure of effective monitoring in a country is the ratio of the number of policemen to the population. However, considering that number of policemen per lakh of population in India is 76 as compared to 298 in Germany, 256 in the US, and 307 in the UK (with the median being 300),[189] the level of monitoring by such measure is very low in India.



Source: National Crimes Record Bureau (NCRB) Data

[187] *Nam D. Pham. (2010).The Impact of Innovation and the Role of Intellectual Property Rights on U.S. Productivity, Competitiveness, Jobs, Wages, and Exports*

[188] *The Economist Intelligence Unit Limited (2018), The Global Illicit Trade Environment of 2018. Available at: https://www.tracit.org/global-illicit-trade-index.html*

[189] *http://www.gutenberg.us/articles/list_of_countries_by_number_of_police_officers*

Counterfeiting Cases

- According to the National Crimes Record Bureau (NCRB) data, number of counterfeiting cases registered with police is in the range of 3480 to 3857 between 2017 and 2019, which is low in comparison to size and losses due to illicit market (only considering five industries under this study)
- Monitoring ratio (number of policemen to population) and level of electronic surveillance available at the disposal of the enforcement agencies can provide a benchmark for better enforcement
- Decline in counterfeiting cases data in 2019 could be on account of greater disposal and issuing charge-sheets in counterfeiting cases
- Pendency in counterfeiting cases is still a concern which is nearly 66 percent

8.7 Punishment and Law Enforcement

Stronger punishment and rule of law acts as a deterrent to illicit trade as it reduces the net financial gains and enables authorities to reduce such illegitimate sales. In India, smuggling is higher as compared to developed countries in large part due to low penalties and enforcement. Increasing the rule of law and enhancing the effectiveness of penalties and sanctions is important to curb smuggling.[190] To instil a fear of the law in the minds of criminals, it is essential to not only pursue them doggedly but to ensure that the system does not allow them to go free without adequate punishment.

Penalties

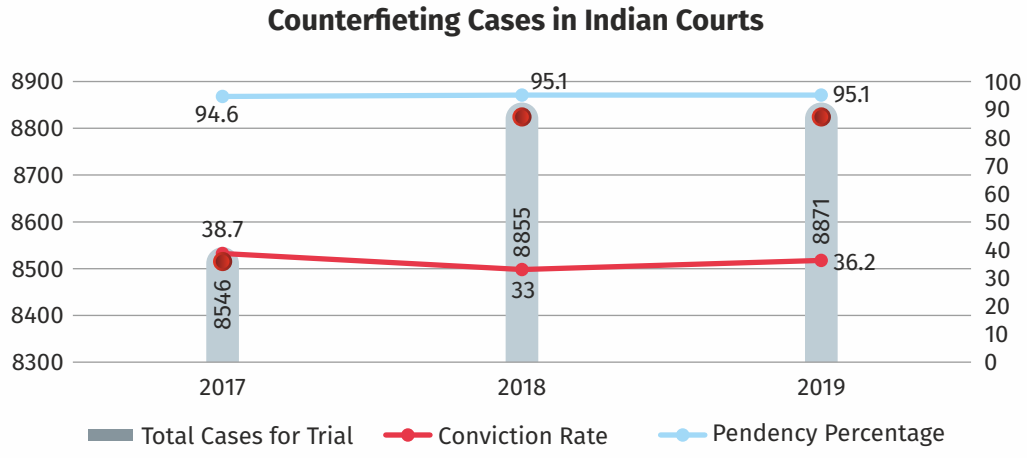
The Customs Act 1962, mandates penalties to be levied on those violating the law. Apart from the goods being liable for confiscation, the law provides for a penalty:

- Prohibited goods : not exceeding the value of the goods or five thousand rupees, whichever is the greater.
- Dutiable goods : not exceeding ten percent of the duty sought to be evaded or five thousand rupees, whichever is higher.

Trademark Act 1999, also have provisions for imprisonment and fine for false application of trademark or selling of the goods with a false trademark. The act provides:

- Imprisonment which is not less than 6 months that may extend up to 3 years, and.
- A fine of not less than ₹ 50,000 which is extended to ₹ 2 lakh for violations of trademark infringement.

[190] *Governance Framework to Counter Illicit Trade (2018), Organisation for Economic Co-operation and Development (OECD)*



Source: National Crimes Record Bureau (NCRB) Data

The conviction rate in India is alarmingly low, especially for crimes like counterfeiting. According to National Crimes Record Bureau (NCRB) data, the conviction rate of counterfeiting cases on average is 35 percent. However, a greater area of concern is the large number of cases pending at various courts with a pendency rate of 95 percent. For curbing the widespread menace of illicit trade and markets and sending out a message to those involved in the crime, it is important to expedite judgments in such cases so that there is enough deterrence for criminals to curb their activities due to fear of law.

8.8 Leveraging Technology

The widespread use of information and communication technology has given the government the required tools to devise strategies to prevent, detect and deter counterfeiting, piracy, and smuggling. Technological know-how and its continuous up-gradation are steps that are necessary to tackle the challenges posed by counterfeiters.

Technology Use

- An effective track-and-trace system should be in place from origin/imports to sale to consumers. This includes increased surveillance by the police on the consumption of smuggled and contraband goods at the final sale points to reduce their consumption.
- Advances in technology and the advent of new technologies available in the market have made it possible to segregate genuine products from fake ones. These technologies can segregate products based on packaging, holograms, or security seals used by genuine companies. Such devices must be made cost-effective and can be used by both retailers as well as government organizations to limit the use and availability of fake products in the markets.

By leveraging technology, customs authorities can use advanced technologies, such as unmanned aerial vehicles (UAV), embedded sensor and actuator solutions in transport assets, cargo shipment data mining with risk analytics, next-generation surveillance cameras, x-ray technologies, and robotics in deterring the flow of illicit trade and

smuggling operations.[191] Further, the process of induction of non-intrusive inspection technologies such as container scanners, X-Ray scanners, etc., needs to be expedited. A strong capacity for innovative adoption of the latest technologies through experimentation and pilots needs to be created.[192] The Directorate of Logistics needs to be strengthened and the required expertise in technology, procurement, and contract management needs to be created and sustained in the directorate.

8.9 Better Coordination Among Enforcement Agencies

The Government needs to be more proactive in the implementation phase and track down culprits to bring them to book. Greater coordination between and among customs, police, and rights-holders is also necessary to bring in stricter enforcement of anti-counterfeiting laws and protection of business interests from illegitimate manufacturers.

Capacity Building and Coordination

- To tackle the common menace of illicit trade, greater capacity needs to be built in the police and customs department by greater use of analytics and strong coordination among the DRI, RMD, FIU, and Directorate of Enforcement.
- Better coordination and sharing of information among industry, public organizations, law enforcement agencies including state police, and other government departments is required to deal with this growing menace.

8.10 International Coordination and Cooperation

Illicit trade is organized transnational crime that involves people across international boundaries and countries. To effectively deal with this global menace, coordination and cooperation are required among governments of various countries. The Central Board of Indirect Taxes and Customs (CBIC) has cooperation and sharing of information arrangements with more than 25 customs administrations of various countries apart from following the letter rogatory route in serious cases. An International Framework for cooperation among countries needs to be established with sharing of information about the quantity, quality, and value of exports between a country and their respective trading partners to effectively counter the organized transnational crime of smuggling.

OECD Taskforce on Countering Illicit Trade (TF-CIT)

The OECD Taskforce has suggested the measures essential to address illicit trade/markets in due consideration with the COVID-19 pandemic:

[191] *Basu, G. (2014). Combating illicit trade and transnational smuggling: key challenges for customs and border control agencies. World Customs Journal, 8(2), 16–25*

[192] *Tax Administration Reform in India Spirit, Purpose and Empowerment Second Report of the Tax Administration Reform Commission Ministry of Finance, Government of India New Delhi September 2014*

- Promote an international policy framework to effectively combat the illicit trade, particularly fake, falsified and substandard medical products, and medicines.
- Greater use of transformative technologies including blockchain and artificial intelligence etc. to deal with illicit trade more effectively and efficiently.
- Highlight illicit trade challenges related to e-Commerce and online marketplaces and develop solutions to tackle their sale.
- Greater data sharing and market intelligence across sectors, including with law enforcement.
- Extrapolation of the lessons learned from increased law enforcement presence at borders and private sector responses in disrupting illicit trade.

[[1]OECD (2020). Illicit Trade in Context of COVID-19 and Future Pandemics. Business at OECD, 22 April 2020]

Illicit trade is all-pervasive with industry, government, and society directly bearing its brunt. Naturally, concerted efforts of the government, industry, consumers and international bodies are needed to achieve the challenging and mammoth task of reducing illicit markets. The cooperation of all stakeholders to tackle this scourge is the only way forward.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10 GLORIOUS YEARS
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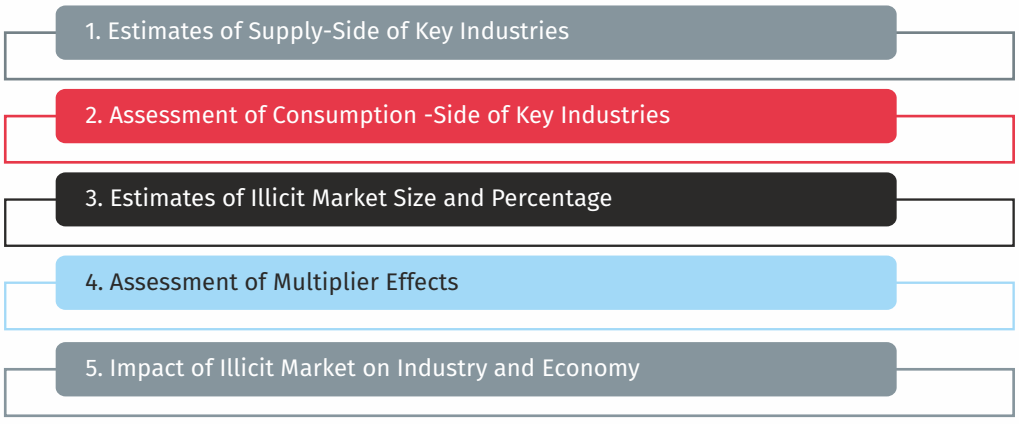
Great Tibet
Little Tibet
Sandy Desert
Kara Koram
Irkutsk
Yakou
Sagkalien
Peking
Yellow Sea
Tsi-nan
Kay
Kay-fong
Kiusal
Chusan
Hang chen
Nan-chang
Kilon
Taynvi
Formosa
South Pt.
Bashi Is.
Zinkyang
Fuchen
Panking
Quey-yang
Quey-ting
Canton
Yun-nan
Kyang
Kauchen
Makau
Asem
Ava
Arracan
Tonkin Gulf
Hainan I.
The Lunets
Philippin
Cochinchina
Cambo-dia
Siam
Pegu
Laos
Andaman Isles
Nicobar Isles
Ceylon I.
Gulf of Siam
Natuna
Parago I.
Bay of Bengal
Malacca
Sumatra
Java
Timor
Celebes
Molucco Is.
Banda Is.
Amboyna
Gilolo
Ternate
Mindanao
Luconia
Manilla
Loio
Jolo
Borneo
Pulo Condore
Conder Is.
St. Mary's Is.
Galera Pt.
Mindoro
Taiwan
Formosa

Annexure I: Research Methodology

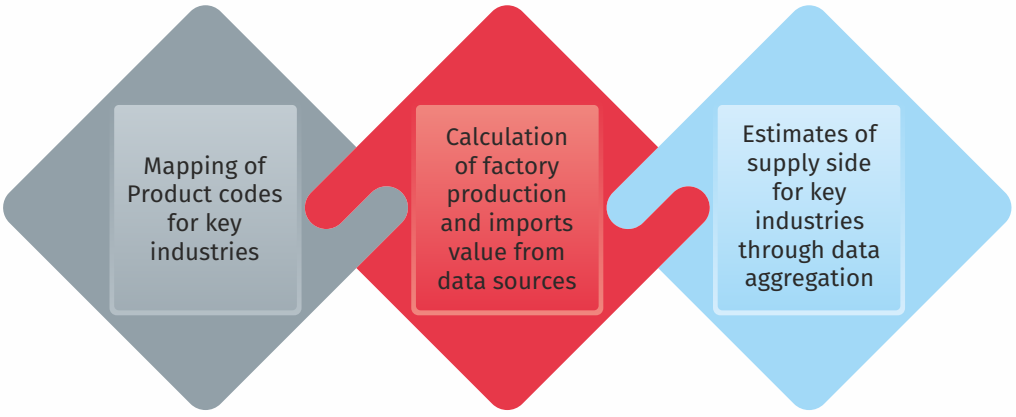
Annexure I: Research Methodology

Key steps involved in the assessment of the illicit market and its impact on the economy include:



1. Estimates of Supply-Side of Key Industries

There are three critical steps in this research stage to estimate the supply side of key industries:



Source: TARI Representation

Mapping of Product Codes of Key Industries

The first step for analysis of the supply side of products is mapping product codes for each of the key manufacturing industries as production data is sourced from three different data sources: Annual Survey of Industries - Incorporated Enterprises, NSSO - 73rd Round for incorporated enterprises, and DGCIS for Imports data.

Formal Sector (Incorporated Enterprises) Production: ASI 2017-2018 has changed its coding structure and now uses the NPCMS code structure for product classification and industry grouping which is a 7-digit classification. The previous FICCI-TARI study used ASICC code classification (5 digits). To maintain consistency and comparability, NPCMS

codes were mapped with ASICC codes and then allocated to 5 industry sectors. Additional NPCMS codes identified post mapping with ASICC codes further deciphered to allocate to concerned industry sectors.

Industry	4 Digit NPCMS Code (2011)	5 Digit NPCMS Code (2011)	Business Activity
Mobile phones	4722	472219	4722199 only included
		472220	4722200 only included
FMCG – Household & Personal Goods	3532	All 5 Digit NPCMS code	All items under 5 Digit NPCMS code
	3533	35331	
	3541	35410	
	3694	36940	3694009 only included
	3899	38993	3899306,10 only included
			3423134, 3511060, 3529046 included
FMCG -Packaged Foods	2152	21525	All items under 5 Digit NPCMS code
		21531-39	
	2153	All 5 Digit NPCMS code	
	2154,55,59	All 5 Digit NPCMS code	
	2171	21710	2171099 only included
	2211-13	All 5 Digit NPCMS code	All items under 5 Digit NPCMS code
	2221-26,2229	All 5 Digit NPCMS code	
	2230	22300	2230000 only included
	2341-43, 2349	All 5 Digit NPCMS code	All items under 5 Digit NPCMS code
	2353	All 5 Digit NPCMS code	
	2361-67, 71-72,91,99	All 5 Digit NPCMS code	
	2441,49	All 5 Digit NPCMS code	
			3440099, 3455099, 3527022, 161001
Tobacco Products	2501	All 5 Digit NPCMS code	Only 2501005 included
	2502	All 5 Digit NPCMS code	All items under 5 Digit NPCMS code
	2509	All 5 Digit NPCMS code	Only 2509099 included

Industry	4 Digit NPCMS Code (2011)	5 Digit NPCMS Code (2011)	Business Activity
Alcoholic Beverages	2411	24110	2411001,99 only included
	2413	24131	All items under 5 Digit NPCMS code
		24139	2413900 only included
	2421	24211	All items under 5 Digit NPCMS code
		24212	
	2422	24220	

Source: Annual Survey of Industries, MOSPI

Unincorporated Enterprise (MSME): There are also a large number of micro, small and medium enterprises (MSME) in the sectors covered in this study. Structure of the unincorporated Enterprise: Out of the total 24.01 lakh units surveyed in 2015-2016 (data released in 2017-18) as a part of the MSME Census, only 22.48 lakhs were found relevant to MSME of which 15.64 lakh units were found working, 4.96 lakh units were closed and 1.88 lakh units were not traceable. Unincorporated enterprises are based on the 3-digit classification system, details are given below:

Industry	Structured Three-digit Product Codes
Mobile Phones	827
FMCG - Household and Personal Goods	624
	625
FMCG -Packaged Goods	221-223
	241
	261-263
Tobacco Products	23
	263
	264
Alcoholic Beverages	251

Source: NSSO – 73rd Round for incorporated enterprises

Imports: The value of goods imported into the country has been taken from the data published by the Directorate General of Commercial Intelligence and Statistics (DGCIS) under the Ministry of Commerce and Industry. ASI 2017-18 uses NPCMS code classification whereas import data uses ITC Harmonic System (HS) codes. It is not possible to accurately map NPCMS and ITC HS codes.

Industry	4 Digit HS Code (2017)	6 /8 Digit HS Code 2017
Mobile phones	8517	851711, 851712, 851718
FMCG – Household & Personal Good	3303, 3304, 3305, 3306,3307	All 6 Digit HS code
	3401	All 6 Digit HS code
FMCG -Packaged Foods	0901, 0902	All 6 Digit HS code
	1507, 1508, 1509, 1510, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518	15079010, 15089091, 15099010, 15099090, 15100091, 15119010, 15119020, 15119090, 15121910, 15121930, 15122910, 15131900, 15132910, 15132920, 15132990, 15141910, 15141920, 15149920, 15149930, 15149990, 15151910, 15152910, 15155091, 15159010, 15159020, 15159030, 15159040, 15159091, 15159099, 15162011, 15162021, 15162031, 15162039, 15162091, 15171021, 15179010, 15179020, 15179040, 15179090, 15180029, 15180031
	1701, 1702, 1704	All 6 Digit HS code
	1803, 1804, 1805, 1806	All 6 Digit HS code
	0901, 0902	All 6 Digit HS code
	2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009	All 6 Digit HS code
	2101, 2102, 2103, 2104, 2105, 2106	All 6 Digit HS code
	2201, 2202	
Tobacco Products	2401, 2402	All 6 Digit HS code
Alcoholic Beverages	2203, 2204, 2205, 2206, 2207, 2208	All 6 Digit HS code

Source: DGCIS, Ministry of Commerce and Trade

Calculation of Factory Production and Imports Value

Formal Sector Factory Production: The data covered the ASI survey for the financial year 2017-18 and extracted from Block A and Block J. Gross Sales Value (GSV) data of selected products calculated after taking the multiplier effect as suggested by CSO. As ASI data for 2018-19 and 2019-20 is not available, we used growth estimates from industry data and reports to arrive at the gross sales value for these years.

Particulars	Description of Data Series	Data Points Evaluated
Annual Survey of Industries 2017-2018	Factory-wise details of manufacturing activities pan India for the period April 2017 to March 2018.	Block A and Block J, gross sales value, multiplier, NPCMS Code, etc.

Informal Sector (Unincorporated Enterprises) Production: NSS 73rd round enterprise survey covers all unincorporated enterprises involved in non-agricultural activities. Schedule 2.34 contains different blocks out of which Blocks 3 and 5 records the principal expenses and receipts and subtracting receipts with expenditure gives the value of amounts sold by the enterprise. However, as data is only available for 2015-16, we have assumed that the trend of formal and informal sector will continue in the following years also and have therefore made proportional estimates to arrive at numbers of the informal sector.

Particulars	Description of Data Series	Data Points Evaluated
National Sample Survey (Round 73)	Unincorporated Non-agricultural Enterprises in Manufacturing, Trade & Other Services (excl. Construction) July 2015 to June 2016	Block 3,5; Item code, subsample code, consumption value, multiplier, weight to be applied, NSS/NSC code.

Imports: Imports data for the years of our analysis is taken from data published by the Directorate General of Commercial Intelligence and Statistics (DGCIS) at the 6-digit / 8-digit code classification for identified industries.

Estimate of Supply-Side of Key Industries through Data Aggregation

The total supply side of a key industry is estimated by aggregation of production data of Incorporated Enterprises (Annual Survey of Industries) and unincorporated enterprises (NSSO - 73rd Round) and Imports data from DGCIS.

2. Assessment of Consumption-Side of Key Industries

The estimates of Private Final Consumption Expenditure (PFCE) are compiled annually as a part of the National Account Statistics (NAS) by CSO using the commodity flow approach. This approach makes use of the estimates of quantum and value of different commodities produced and available, flowing finally into the consumption process of houses and the private Non-Profit Institution Serving Household (NPISH) during the accounting year, which is generally the financial year. The sum of the commodity-wise estimates gives the aggregate estimates of the PFCE. On the other hand, NSSO estimates are based on Household Consumption Expenditure Surveys (HCES), which are conducted every five years with a much larger sample and annually with a relatively thin sample. In this sample survey, the consumption expenditure of a random sample of households is ascertained directly by canvassing a well-designed schedule of inquiry.

In our study, we also compared NSSO 2011-12 data with CSO 2011-12 PFCE data to compare consumption expenditure data for two sources. Data for all sectors are comparable except for alcohol where NSSO consumption data is almost double as compared to PFCE data. PFCE data of mobile phones are not available for comparison and for the current study it is estimated using other secondary sources.

For this study, PFCE data were analyzed for 2017-18, 2018-19, and 2019-20 provided by CSO of Ministry of Statistical and Programme Implementation (MoSPI). The report provides private final consumption expenditure (PFCE) data at current prices levels of expenditure items of the products. As data is not available at disaggregate level, certain approximations are done.

3. Estimates of illicit Market Size and Percentage

The estimate of the Illicit market for key sectors is based on the gap between demand and legitimate supply of products. Illicit market percentage is the estimated demand-supply gap as a percentage of total consumption. The illicit market percentage for key sectors for the years 2011-12 and 2017-18 (and following years) may not directly be comparable due to the following reasons:

- CSO estimates in National Account Statistics (NAS) are obtained using the commodity flow approach, while NSSO estimates are based on Household Consumption Expenditure Surveys (HCES). Factors attributed to the differences include coverage, reference time frames and concepts, and methods of estimation in the very approaches employed by the two agencies.
- Changing international trade dynamics, where import and exports of commodities have changed significantly.
- National policies such as Make in India and Ease of doing business in recent years have promoted greater local manufacturing.
- Implementation of GST and demonetization may have a certain impact on illicit financial flow and consumption expenses.

4. Assessment of Multiplier Effects of Key Industries

Input and Output Table with Linkages

The Input-Output (I-O) table helps to analyze the demand of any product for intermediate consumption & final use, thus, allowing for the study of inter-sector linkages. As the I-O table is in matrix form, the entries in the rows and columns of the matrix have different interpretations. These are:

1) The sum of the entries in a particular column shows inputs purchased by the industries/sectors representing that column.
2) The sum of each row indicates the sales made by the sector to other sectors for immediate consumption and final use.

We have used the Input-Output table for years 2013-14 prepared by National Council for Applied Economic Research (NCAER) that is publicly available for usage from 2015-16.[193] NCAER has made other adjustments to have an Input-Output table with 130* 130 commodity matrix, similar to that prepared by CSO.[194]

Mapping of Key Manufacturing Industries in Input and Output Table

One of the important aspects for analyzing the multiplier effect for any industry is mapping of that industry (as given in NIC codes 2008) with the "commodity X commodity" matrix for 130 commodities given in the Input-Output table. We have mapped key industries with the commodities in the 130*130 matrix and aggregated them for estimation of multiplier effects for these industries as given below:

S. No.	Industry	Input-Output Table		NIC Code 2008 for Employment - NSSO 67th Round	
		I-O Row No.	Economic Activity	NIC Code 2008	Business Activity
1	**Packaged Foods**	38	Sugar	1010 & 1020	Processing of meat and fish
		39	Khandsari, bora	1030	Processing and preserving of fruit and vegetables
		40	Hydrogenated oil (vanaspati)	1040	Manufacture of vegetable and animal oils and fats
		41	Edible oils other than vanaspati	1050	Manufacture of dairy products
		42	Tea and coffee processing	1060	Manufacture of grain mill products, starches and starch products
		43	Miscellaneous food products	1070	Manufacture of other food products
2	**Alcoholic Beverages**	44	Beverages	110	Beverages (Both Alcoholic and Non-Alcoholic)
3	**Tobacco Products**	45	Tobacco products	1200	Tobacco Products
4	**Household & Personal Goods**	71	Soaps, cosmetics & glycerine	2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes, and toilet preparations
5	**Mobile Phones**	10	Communication Equipment's	2630	Manufacture of communication equipment

Source: Worked by TARI, Input-Output table[195]

[193] *http://www.ncaer.org/publication_details.php?pID=274*

[194] *Kanhaiya Singh & M R Saluja, 2016, Input-Output Table for India: 2013-14, NCEAR Working Paper No: WP 111, Dec 2016, Available at : http://www.ncaer.org/publication_details.php?pID=274*

[195] *From Input-Output table (130* 130 matrix) prepared Kanhaiya Singh & M R Saluja, Input-Output Table for India: 2013-14, NCEAR Working Paper No: WP 111, Dec 2016,*

Technical Coefficients: Input-Output Coefficient Matrix

Multiplier estimation is based on the estimation of the inverted Leontief Matrix, which is derived using the I-O coefficient matrix. An I-O coefficient matrix is estimated using the I-O table, which summarizes the demand and the supply side transactions that are taking place in the economy. Such a matrix can be obtained by dividing column entries by the total output of the sector, where column entries show the input requirement of a sector. Total output is the total of the total input, gross value added, and net indirect taxes.

The entries in the I-O table were then aggregated based on the economic activities so identified under NIC-2008 codes to convert the 130 X 130 commodity matrix, into a 9X9 sector matrix.[196]

Aggregation of 130 Commodities into Nine Sectors	
Sectors	Commodities in I-O Table 2013-14 matrix
Agriculture & Allied Activities	1-26
Mining	27-35
Key Manufacturing Industry	**As mentioned in Table 3**
Other Manufacturing	The aggregate of (36-105) except above rows for key industry mentioned above
Construction	106
Electricity, Water Supply	107-108
Trade	116
Services	109 to 115 & 117-129
Public Administration	130

Source- TARI Research based on Input-Output table[197]

Leontief Matrix

Once, the I-O coefficient matrix is obtained, the Leontief Matrix is obtained by subtracting the I-O coefficient matrix from an identity matrix of the same order. The diagonal of the Leontief Matrix (I-A) gives the net output for each sector with positive coefficients while the rest of the matrix gives the input requirements with a negative coefficient.

Output Multiplier Matrix and Output Multipliers

To compute the matrix of Output multipliers, inverse matrix calculation needs to be performed to have an inverted Leontief matrix (I-A)-1. This matrix shows how direct and

[196] *From Input-Output table (130* 130 matrix) prepared Kanhaiya Singh & M R Saluja, Input-Output Table for India: 2013-14, NCEAR Working Paper No: WP 111, Dec 2016, Available at : http://www.ncaer.org/publication_details.php?pID=274*

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indirect requirements change with a change in final demand by one unit. Summing across rows of the matrix of output multipliers, the total ₹ 1 increase in final demand for each column industry can be obtained. For estimating the total output multiplier for each of the sectors/industries of the 9*9 matrix, one has to sum up output multipliers for each industry/sector. This gives us the direct and indirect impact of that industry on the economy for the output of the industry. We have also estimated the value-added multiplier for each of the industry/ sectors of the 9*9 matrix using value addition data given in the Input-Output tables.[198]

Employment, GVA and Output Coefficients and Multipliers

The next step is the determination of the employment-output coefficients and calculation of employment effects for each industry/ sector of the economy. We have the total output of each industry/ sector by summing up the rows of the input-output, which is in Rupees lakhs. We have used the NSSO's report on Employment and Unemployment Situation in India for the year 2011-12 for determining employment multipliers.[199] We have to use this employment data as it directly maps with the level of output at the economic level and fulfils the purpose. We can obtain employment- output coefficients if we divide the employment by total output for each industry/ sector. The employment multiplier for each industry is determined by multiplying these coefficients matrix with our computed output multiplier matrix.

5. Impact of Illicit Market on Industry and Economy

- Total output, Gross Value Addition (GVA), and employment loss in the industry for a given year can be estimated by multiplying calculated illicit market value for a year with the output, GVA, and employment coefficients of the mapped industry of Input-Output table.
- Tax-loss to the Government assessed based on applicable GST rate and CMIE data for the industry.
- Multiplier effect estimates show the loss to the economy for per unit loss in the industry. Total output, GVA, and employment loss in the economy for a given year can be estimated by multiplying calculated output, GVA, and employment loss in the industry in earlier stage with multiplier effects of the mapped industry of Input-Output table.

[198] *From Input-Output table (130* 130 matrix) prepared Kanhaiya Singh & M R Saluja, given in their Working paper, Input-Output Table for India: 2013-14, NCEAR Working Paper No: WP 111*

[199] *Employment and Unemployment Situation in India, 2011-12, Available at : mospi.nic.in/sites/default/files/publication_reports/nss_report_554_31jan14.pdf*

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Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.

FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

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In the recent past India's economic growth story has attracted world's attention bringing new challenges for the domestic economy. One of the challenges currently faced is the growing illicit trade in counterfeits, pass offs and smuggled goods. These activities are also threatening brands not only in every region of the country but across the globe.

Contraband and counterfeit products hurt the integrity of the brand, further diluting the brand owner's reputation. This not only results in erosion of sales of the legitimate product but further [CASCADE]s onto affect the consumers in the form of health and safety hazards.

With the above insight the Federation of Indian Chambers of Commerce and Industry (FICCI) took the initiative to dedicate a forum by establishing the Committee Against Smuggling and Counterfeiting Activities Destroying the Economy - CASCADE on 18th January, 2011 at FICCI Federation House, New Delhi.

FICCI Committee Against Smuggling and Counterfeiting Activities Destroying the Economy (CASCADE)

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