FICCI CASCADE

ILLICIT MARKETS- A THREAT TO OUR NATIONAL INTERESTS

THE AUTO COMPONENTS INDUSTRY

About this report:

This report has been prepared by Thought Arbitrage Research Institute (TARI) for FICCI Committee Against Smuggling and Counterfeiting Activities Destroying the Economy (CASCADE).

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- *Corporate Governance*
- *Whistleblowing / Vigil Mechanism*
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- *Economics & Public Policy*

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Foreword

Product counterfeiting puts consumer safety at a great risk. Counterfeit, fake and smuggled goods are no longer just about luxury items. Today, almost all sorts of products are being copied and smuggled, which lead to fatal consequences for the consumers.

FICCI has been at the forefront of advocating policy framework on various aspects affecting the industry. In 2012, a FICCI CASCADE study titled "Socio-Economic Impact of Counterfeiting, Smuggling and Tax Evasion in Seven Key Indian Industry Sectors" was released which was the first ever compilation of facts and figures on counterfeiting, smuggling and tax evasion in seven key industry sectors in India. After the earlier comprehensive study, which not only estimated the size of the grey market in the select industry sectors, but also highlighted the losses to the industry in sales and Government in revenue, we have now gone a step further and developed 10 sector specific reports on 'Illicit Markets – A Threat to Our National interests'. This report is specific to the auto components industry and aims at updating the estimates of grey markets in this sector, projecting the resultant losses to the industry and assessing its impact on innovation and investment.

I would like to thank and congratulate all the committee members and stakeholders who have contributed towards this project, particularly Thought Arbitrage Research Institute (TARI). It is hoped that this study would provoke further debate on the extent of this problem and ways and means to mitigate the challenge.

I wish FICCI-CASCADE success in its future initiatives.

Dr. A. Didar Singh
Secretary General
FICCI

Chair's Message

I am pleased to present the report on 'Illicit Market: A Threat to Our National Interest' which is specific to the auto component industry.

Illicit markets have broad economy-wide effects on trade, foreign investment, employment, innovation, criminality, environment, and most importantly, on the safety of the consumers. Over and above, it also has a negative impact on the brand image and loss of revenue for industry and governments.

The Indian auto components sector is one of the growing industries in India with higher growth prospects. The rising middle class population in the country will continue to have high demand for automobiles, further adding an impetus to the growth of the industry. However, this sector has many unorganized players who indulge in counterfeiting of auto parts. The spurious parts problem not only compromises with the safety in vehicles and the consumers, but also results in revenue loss for the government and legal industry.

Given the thrust on "Make in India"; technology, invention, and innovation will play a key role in India's current economic development. However, counterfeits and fakes will threaten growth of legal industry and seriously jeopardize the revenue potential from the sector. Hence, a proactive strategy should be in place to fight this serious menace to the safety of consumer and exchequer of the country.

This report has estimated the size of the illicit market; its adverse impact on innovation and investment in the auto components industry. I am certain that the findings from this report would increase consumer awareness, drive support from policy makers in tax related reforms and step up the industry for greater investment in R&D and encourage innovation.

I hope that this research will be useful for all stakeholders including consumers, industry, policy makers and researchers on the issues in the auto components industry, and the challenges ahead if concerted efforts are not taken to curb this twin menace of smuggling and counterfeiting.

Mr. Anil Rajput
Chairman
FICCI CASCADE

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Executive Summary

The growth of the illicit markets is evident in India as in the rest of the world. The 2012 FICCI CASCADE study titled "Socio-Economic Impact of Counterfeiting, Smuggling and Tax Evasion in Seven Key Indian Industry Sectors" (FICCI CASCADE Study) established this by estimating the size of the grey market and related loss to the industries covered in the study. FICCI's Committee Against Smuggling and Counterfeiting Activities Destroying the Economy (CASCADE) has commissioned the present study to update the estimates of the size of grey market/counterfeit products for selected industry sectors in India, to project the resultant economic loss to industry and government, and to assess the impact of grey markets/counterfeit products on investments, innovation and tax arbitrage. This report is specifically for the auto components industry, while other industries are covered in separate industry specific reports similar to this one.

AUTO COMPONENTS

GREY MARKET ESTIMATES INDUSTRY & GOVERNMENT LOSS

IMPACT ON:
- Innovation
- Investment
- inter-state Tax Arbitrage
-Terrorism

Size of the Illicit Market in the Auto Components Industry

From a low-key supplier providing components exclusively to the domestic market, the Indian auto components industry has emerged as one of the key centres in Asia. It is today seen as a

significant player in the global automotive supply chain supplying a range of high-value and critical automobile components to global auto makers.

The industry currently accounts for almost 7% of India's GDP and employs about 19 million people, both directly and indirectly.[1] It is expected to register a turnover of $ 66 billion by FY15-16 and possibly touch $ 115 billion by FY20-21 at a CAGR of 14%, as per estimates of the Automotive Components Manufacturers Association of India.

Our study shows, that in comparison with the results of the FICCI CASCADE study of 2012 the grey market in the auto components industry has increased.

Industry	Grey Market %age		Loss to Industry (₹ crores)	
	2012	2010	2014	2012
Auto Components	33.7%	29.6%	10,501	9,198

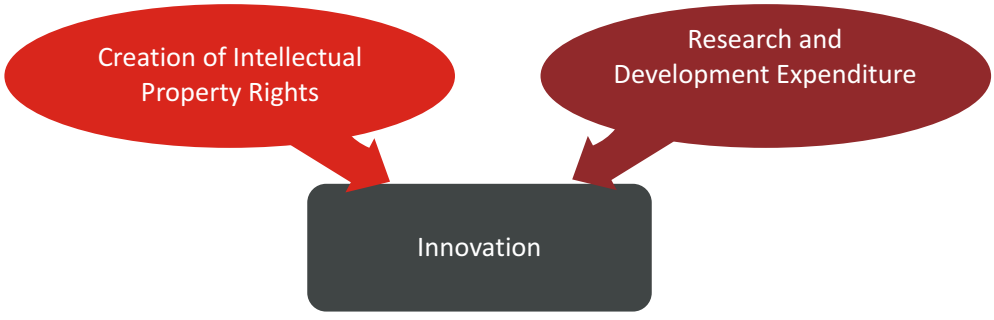
This sector continues to maintain its position as the industry with the highest percentage of grey market among the industries under FICCI-CASCADE review -significantly, more than one-third. The loss to the industry on account of this grey market is estimated to be ₹ 10,501 crores in 2014, up from ₹ 9,198 crores in 2012.

The total loss to the government estimated for 2014, on account of the illicit markets in the auto components industry is ₹ 3,113 crores, up from ₹ 2,726 crores in 2012. This loss is only on account of tax revenues. Incremental costs incurred by government on account of welfare measures, enforcement and legislation and interest costs have not been estimated in this study.

The growth of the illicit markets suggests that the steps being taken and the processes in place to combat this threat to the legitimate market are insufficient. Considering the severe consequences, including accidents and deaths that counterfeit motor parts cause, the union and state governments, non-government agencies and manufacturers need to work in tandem to strengthen the regulatory mechanism in place and create awareness about the negative impacts of purchasing counterfeit products including the legal consequences thereof.

Impact of Illicit Markets on Innovation

Two proxies were used in this study to measure innovation:



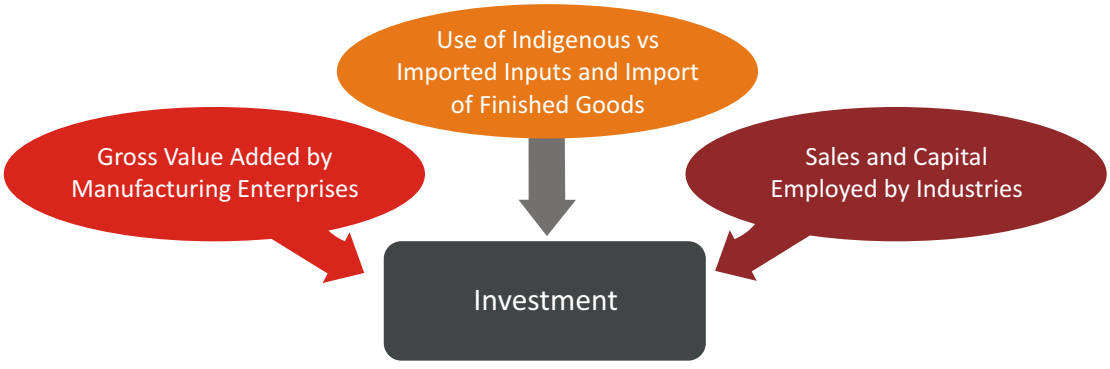
Our analysis of intellectual property rights and patent applications filed in India indicates that while there is scope for innovation in the auto components industry there is no data in India which suggests that any innovation is taking place domestically. This is possibly, among other reasons, due to the high propensity for counterfeiting in this industry, as has been established earlier. Patent applications granted in India have been falling over the past five years. CSIR has filed the largest number of patents in India and abroad and the top ten industries in which patents are in force constitute almost 81% of their patents. The auto components industry does not figure among these.

The ratio of R&D expenditure to total operating expenses of Indian companies in the auto components sector was analysed to ascertain the significance of R&D for these companies. The auto components industry has one of the lowest ratios amongst all the industries under review of FICCI-CASCADE, with an average R&D expenditure of 0.49% over total operating expenditure during six year period from 2008 to 2013.

The grey market has a substantial presence in this sector and has also shown a big increase, from 29.6% in 2010 to 33.7% in 2012. Our study shows that this sector is spending very little on innovation. The lack of new copyrights, trademarks or patents in this industry, could be attributed to the fear of lower returns on investments by legitimate manufacturers due to counterfeiting and the growing illicit markets.

Impact of Illicit Markets on Investments

Three ratios have been used to establish a link and assess the impact of illicit markets on investments in India.



All the ratios reveal that both the quantity and quality of investments made in Indian production processes are inadequate to boost the contribution of these sectors to India's manufacturing revenue.

In the auto components industry, our study shows that GVA as a percentage of total output has, on an average, remained at 22% in each of the three years under review-2007-08, 2009 and 2011-12. In the same years, the total output has increased by 55% and total input has increased by 50%. However, indigenous inputs, which though above 80% of total inputs in all three years, have only increased by 41% during the five year period under review whereas imported inputs have substantially increased by 122%. This is resulting in not only higher forex outflow but also increased costs/lower value addition.

The sector is displaying an inclination towards imported raw materials rather than domestic sourcing. Perhaps a shift towards indigenisation of the manufacturing process and local raw materials will help in increasing the value addition in the manufacturing process. The scenario is not too alarming in the case of the percentage of imported finished goods over total production - the percentage is very low (1.18 % in 2012) and is in fact decreasing.

Our analysis of the ratio of sales to average capital employed in the auto components industry reveals that, like most other industries under FICCI CASCADE review the ratio has remained low and fairly steady. The steady ratio indicates that there has been no dramatic increase in investments in the years under review against which higher sales can be expected in the coming years. At the same time, there has been an increase in the level of illicit markets. This increase implies that companies are reluctant to make long term investments to generate revenue from the capital base for fear of loss of investment on account of a strong presence of the illicit markets.

Counterfeiting and smuggling at significantly lower prices than legitimate products, deprives legitimate businesses of profits, employment and contribution to the overall economy. It acts as a disincentive for companies to invest resources for R&D, a critical element for innovation and growth.

The increasing dependence on imported inputs shows that businesses are yet to fully develop their own technology which would enhance business efficiency and reduce production costs. Decreasing ratio of imported goods is a good sign for the industry.

Industry fears loss of investment due to increasing grey markets. The sector is clearly shying away from making patient long term investments to generate revenue from the capital base.

Given rising disposable incomes, which will drive consumption,and a young demographic profile, a lack of continued investments by legitimate businesses in India will keep fanning the illicit markets.

Illicit Markets, Terror Organisations and Criminal Networks

While statistical data is available for the number of terrorist attacks that have taken place in India, it is difficult to directly correlate it to grey markets in the absence of sufficient information and research, which are lacking at present, especially in the Indian context.

Further, despite the existence of requisite laws in India and arrests of suspected criminals by the police, the scale of illicit markets is huge and the criminal networks and illicit markets organisations continue to thrive. Clearly, the existing laws and police operations are not producing the desired outcomes and do not act as a deterrent. This could be due to the low conviction rates in India.

The lack of adequate data based on search and seizure in India makes it difficult to link the increase in illicit markets to terror funding. Establishment and determination of the extent of such a link calls for strategic intelligence gathering and preparation of robust databases, which are clearly missing at present. Given the security implications, if not outright financial considerations, there is little to argue against carrying out such exercises. This would be the first step to contain counterfeiting and its corollary, terror and ensure that genuine business interests do not suffer.

Conclusion & Way Forward

The illicit markets, based on our analysis, therefore presents a major threat to the auto components industry, impacting both innovation and investment adversely. It has the highest grey market percentage among all industries under review. The link with innovation and investments seems quite apparent, with this industry having one of the lowest ratios of R&D expenditure over total operating expenditure and increasing dependence on imported raw materials over indigenous raw materials. The analysis of GVA as a percentage of total output, further proves this considering it is quite low and stagnant, implying that value (and jobs) is being added overseas, rather than domestically. The steady ratio of sales to average capital employed also reflects the lack of investments against which higher sales can be expected.

Higher spending on research and development and constant innovation and investment are needed not only to check the rise of the illicit markets but also to promote growth of the sector. However, a large presence of grey markets appears to be preventing both. The demand for illicit products is also encouraging its growth. The situation therefore calls for both tightening of the regulatory mechanism and improving the business environment to boost innovation and investment in the auto components sector, as well as building awareness on the negative impacts including legal implications of using products purchased from the illicit markets.

The aspirational and growing middle class population in the country will doubtless create a high demand for automobiles, which will translate into high growth for automotive components industry as well. The huge potential that this industry presents to the overall growth of the economy, considering India is emerging as a global hub for auto components sourcing, should be seen as an opportunity to strengthen weak mechanisms and encourage innovation and investment.

According to a recent Dun & Bradstreet report,[2] rising income levels coupled with increase in the young working-age population will lead private final consumption expenditure to grow

steadily over the years. This will average around 7.0% during FY15-FY20. The growing illicit markets however undermine the business environment and restrain such growth. This leads to reduced business efficiency, profitability and overall development. To curb this growth collaborative efforts are required from all the stakeholders

SUMMARY OF CONCLUSIONS

- The grey market percentage in the auto components industry has increased from 25.9% 29.60% in 2010 to 33.70% in 2012 - more than one-third the market size.
- Loss to the industry has increased from ₹ 9,198crores in 2012 to ₹ 10,501 crores. An increase of 14.17% attributable to the increase in the industry size as well as grey market percentage.
- Loss to the government in 2014, on account of the illicit markets is ₹ 3,113 crores, up from ₹ 2,726 crores in 2012.
- There is no significant innovation activity in this industry as is evident from:
  - ❖ Non-existent patent applications; and
  - ❖ A very low ratio of R&D expenditure to total operating expenditure. The average during the period 2008-2013 was 0.49% - the lowest amongst all the industries under FICCI-CASCADE review.

  Lack of innovation in the form of trademarks or patents and low R&D expenditure could be attributed to the fear of lower returns on investments by legitimate manufacturers due to the growing illicit markets.
- Analysis of impact of illicit markets on investments in this industry shows some interesting results.
  - ❖ GVA has remained fairly stagnant over the period from 2008 to 2012.
  - ❖ The proportion of indigenous inputs/raw materials to total inputs is consistently more than 80%, which is good as it saves cost and adds value in the manufacturing process. However imported inputs have increased quite considerably.
  - ❖ Another positive sign is, that imported finished goods have fallen during the period 2008 to 2012.
  - ❖ The ratio of sales to average capital employed has remained low and fairly steady. The steady ratio indicates that there has been no dramatic increase in investments in the years under review against which higher sales can be expected in the coming years.

- Regarding terror organisations and criminal networks, the lack of adequate data based on search and seizure in India makes it difficult to link the increase in illicit markets to terror funding. Establishment and determination of the extent of such a link calls for strategic intelligence gathering and preparation of robust databases, which are clearly missing at present.

The large and growing illicit markets in the auto components industry are restraining growth through innovation and investment. Both are pre-requisites for sustainable economic growth. Low innovation and investment reduce business efficiency, profitability and overall development. Mutli-stakeholder collaborative efforts are therefore required to curb this growing menace.

Objective of the Study

The growth of the illicit markets is evident in India as in the rest of the world. The 2012 FICCI CASCADE study titled "Socio-Economic Impact of Counterfeiting, Smuggling and Tax Evasion in Seven Key Indian Industry Sectors" (FICCI CASCADE Study) established this by estimating the size of the grey market and related loss to the industries covered in the study. FICCI's Committee Against Smuggling and Counterfeiting Activities Destroying the Economy (CASCADE) has commissioned the present study to update the estimates of the size of grey market/counterfeit products for selected industry sectors in India, to project the resultant economic loss to industry and government, and to assess the impact of grey markets/counterfeit products on investments, innovation and tax arbitrage. This report is specifically for the auto components industry. Other industries are covered in separate industry specific reports similar to this one.

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Grey market percentages are currently ascertainable for 2012, as reliable government data from the Ministry of Statistics and Planning Implementation (MoSPI) of the Government of India is available for 2012. This data includes the Annual Survey of Industries for 2012 which provides data on factory production across the country and National Sample Survey Organisation's National Sample Survey 68th round, which provides household consumption data across the country for the year 2012.

Loss to the industries concerned in 2013-14 has then been ascertained by extrapolating the industry size determined for 2011-12 based on assumptions about the growth of the industry over the two year period 2012-13 and 2013-14. These assumptions are obtained from industry reports and discussions with industry experts. Assuming that the grey market percentage remains constant over this two year period, it is applied to the market size so estimated to arrive at the loss to the industry for 2013-14.

As indicated in several studies including the 2012 FICCI CASCADE study, by their very nature, since counterfeiters operate outside the law, estimating the extent of counterfeiting and piracy and the harm these activities cause is extremely challenging. Illegal businesses do not report information on their activities to any government agency therefore measuring their size must be done using indirect methods.[3]

Industry Coverage

Taking off from the 2012 FICCI CASCADE study this sector study quantifies estimates of losses due to illicit markets in the auto components industry, as well as various aspects of the illicit markets and their impact on factors like investment, innovation, tax arbitrage, consumers, etc.

This study is perhaps the first quantitative study in India on the impact of illicit markets on the various economic aspects listed above. Depending on the quality and credibility of data available, the study has quantified different types of impacts on various sectors. The study uses latest Government of India data on consumption and production, namely NSSO and ASI, which is available for 2012 (released in 2014).

Literature Review

We have reviewed past studies and published research on the subject of grey markets including counterfeiting, smuggling and tax evaded goods and their impact on innovation, investment, tax arbitrage and funding terrorist activity.

This review included global studies commissioned by public institutions and agencies of repute, industry associations working on anti-counterfeiting endeavours, academia and major corporates. Such works were reviewed to analyse the scope of research, methodology adopted, analysis techniques and results.

Extracts from some of the significant reports are reproduced in Annexure I to give a broad understanding of global thinking on the subject.

Auto Components: Industry Profile in India

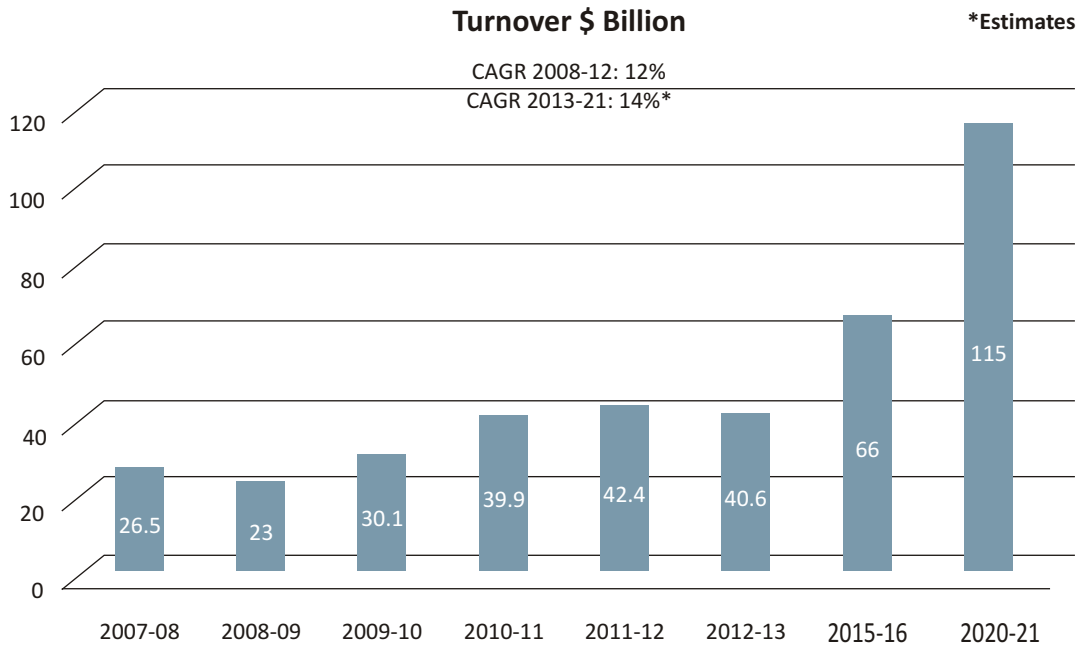
Background of the Auto Components Industry in India

The Indian auto components industry is one of the rising industries of India with tremendous growth prospects. From a low-key supplier providing components exclusively to the domestic market, the industry has emerged as one of the key auto components centres in Asia and is today seen as a significant player in the global automotive supply chain. India is now a supplier of a range of high-value and critical automobile components to global auto makers such as General Motors, Toyota, Ford and Volkswagen, amongst others.[4]

The industry currently accounts for almost 7% of India's GDP and employs about 19 million people, both directly and indirectly.[5]

It is one of the few sectors in the economy that has a distinct global competitive advantage in terms of cost and quality. The value in sourcing auto components from India includes low labour cost, raw material availability, technically skilled manpower and quality assurance. India is emerging as a global hub for auto components sourcing due to its close proximity to key automotive markets such as the Middle East and Europe.

The auto components industry is expected to register a turnover of $ 66 billion by FY15-16 and possibly touch $ 115 billion by FY20-21 if the CAGR continues to be 14%, as per the estimates of Automotive Components Manufacturers Association of India (ACMA). The industry grew at a CAGR of 12% during the period 2008 to 2012.[6]



According to an industry association report, the auto components industry is expected to become the third largest in the world by 2025. Also, by that time, newer verticals and opportunities for components manufacturers will open up as the automobile market will shift towards electric, electronic and hybrid cars, and newer technologies will have to be adopted via systematic research and development. By 2020, it has been estimated that nearly 90% of vehicles on the road will be wired. While the connected car market is expected to touch $ 600 billion, the automotive components industry is predicted to reach $ 113 billion.[7]

Compared with the 1990s, when 65% of India's component exports catered to the aftermarket (with only 35% being catered to the OEMs/Tier I suppliers), today this composition has changed favourably, with exports to OEMs/Tier I suppliers contributing to 80% of India's exports, indicating growing significance of the Indian industry in the global automotive value chain.[8]

Exports of auto components increased at a compounded annual growth rate (CAGR) of 19.6% during period 2008 to 2013 to touch $ 9.3 billion. Europe is the largest export auto components market for India (35%) followed by North America (26%) and Asia (25%). Exports in 2013 grew by 4.4% to touch $ 9.69 billion. They are projected to reach $ 12 billion by FY 15-16 and add up to $ 30 billion by FY 20-21 at a CAGR of 16%.[9]

The growth of global original equipment manufacturer (OEM) sourcing from India and the increased indigenisation of global OEMs is turning the country into a preferred designing and manufacturing base. Several global Tier-I suppliers have also announced plans to increase procurement from their Indian subsidiaries.[10]

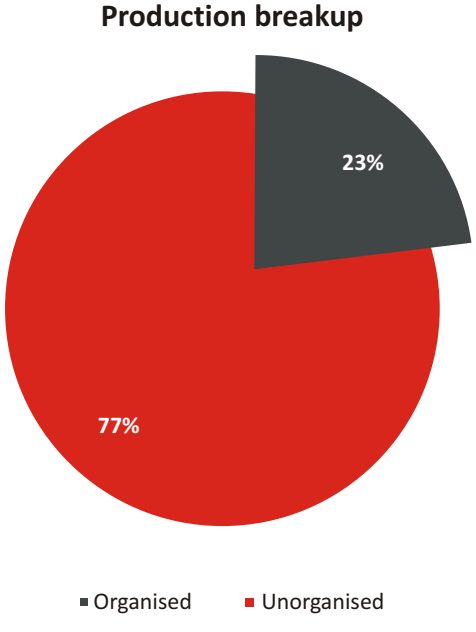
Structure of Auto Components Industry:

The Indian auto components industry covers a wide spectrum that includes rubber, iron and alloy steel, plastic, oils and grease, fabrication tools, safety gadgets, air conditioning, radiators, mould making, battery industry, electrical fittings, interior furnishings, music system, sheet metal fabrication, lamps and bulbs, spring manufacturers etc. covering basic industry and white goods.[11] These industries can be grouped into the following categories:

- Engine and engine parts
- Engine and engine parts
- Drive transmission and steering parts
- Body & chassis
- Suspension and braking parts
- Equipment
- Electric parts
- Others

Engine parts is the largest production component among above categories with 31% share in total production.

The sector has a large proportion of unorganised players as compared to organised players. They contribute about 77%of total production (FY 2010). These unorganised players work with both original equipment manufacturers (OEM) and aftermarkets and have developed into clusters across the country.



Source: Indian Brand Equity Foundation

Some of these clusters are summarised below:

Cluster	Cities
Western Cluster	Pune, Aurangabad, Nasik (Maharashtra)
Southern Cluster	Chennai, Coimbatore (Tamil Nadu), Bangalore (Karnataka)
Central Cluster	Pithampur, Dewas, Indore (Madhya Pradesh)
NCR Cluster	Faridabad, Gurgaon, Manesar (Haryana) Alwar, Bhiwadi, Khuskhera and Chopanki (Rajasthan)
Eastern Cluster	Jamshedpur, Guptamani (Kharakpur) and Singur (West Bengal)

Source: D&B Research[12]

Based on their size and location, the auto componentsindustry can be classified as Tier I, Tier II and Tier III firms.

Tier I	Tier II	Tier III
• Comprises large firms • Almost all are capable of manufacturing multiple auto components, equipped with high-end technology and large number of OEMs. • Most companies have high end research and development centres to carry out new innovation. • High IT penetration in these areas which can reduce their operational expense as most of the machines are automatic.	• Comprises medium sized firms • Comparatively less access to latest technology • Mostly multiple components manufacturers and have comparatively better operational efficiency • Medium penetration of IT which are mostly fragmented.	• Comprises of smaller, single-auto components manufacturing firms, largely unorganised players • Comparatively less access to latest technology and generally use traditional technology • Mostly single components manufacturers and no operational efficiency • Low level of IT penetration and hence use traditional method of manufacturing.

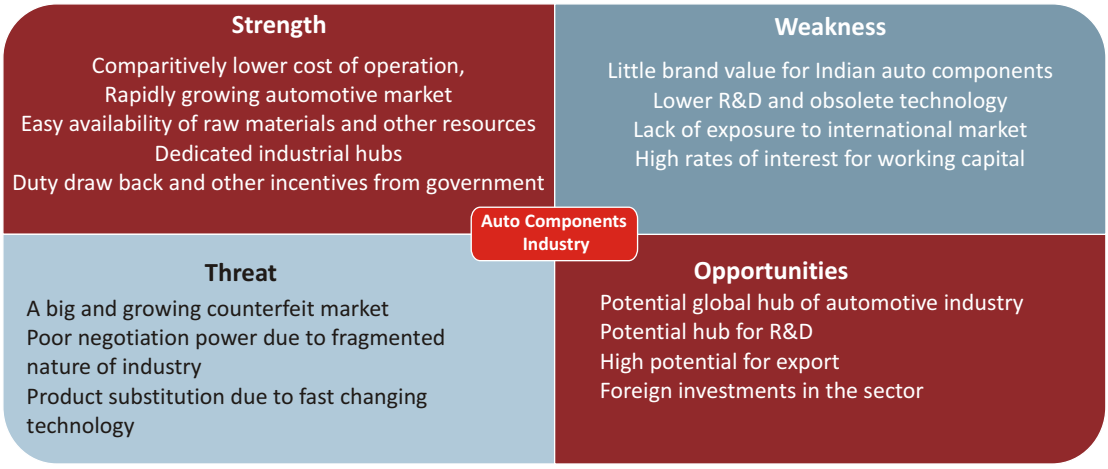
Source: D&B Analysis

Market Capitalisation and leading player

Total market capitalisation of the auto components industry on the Bombay Stock Exchange (BSE) is about ₹ 148,000 crores (as on 29 September 2014).[13] Three of the leading suppliers of auto components in India and contribute around 30% of the total turnover of the industry.

SWOT Analysis - Indian Auto Components Industry

A brief description of the strengths, weaknesses, opportunities and threats of the industry are presented in the chart below.



Investments

The cumulative foreign direct investment (FDI) inflows into the automobile industry during April 2000 - July 2014 was recorded at $ 10,059.57 million, i.e. 4.41% of the total FDI inflow into India, as per data published by the Department of Industrial Policy and Promotion (DIPP).[14] Separate information related to the auto components industry is not available.

The Department of Heavy Industries and Public Enterprises has created a $ 200 million fund to modernise the auto components industry by providing an interest subsidy on loans and investment in new plants and equipment. It has also provided export benefits to intermediate suppliers of auto components against the Duty Free Replenishment Certificate (DFRC). In the Union Budget FY13-14, concessional excise duty of 6% has been extended up to March 31, 2015, for manufacturers of batteries supplying to producers of electrically operated vehicles.[15]

Government Initiatives

The Indian government has played a major role in the development of the auto components industry through its policy support in the form of the Auto Policy 2002 and National Automotive Mission Plan 2016. It has also set up the National Automotive Testing and R&D Infrastructure Project (NATRiP) with an investment of $ 388.5 million to enable the industry to adopt and implement global performance standards.[16]

India has allowed 100% FDI in the automotive industry through automatic route. With a special focus on exports of small cars, multi-utility vehicles (MUVs), two and three-wheelers and auto components. The automotive sector's contribution to the GDP is expected to double, reaching a turnover of $ 145 billion in 2016, according to the AMP 2006-2016.[17]

The interim budget 2014-15 has added some incentives to the auto industry that will also be helpful in promoting the auto components industry. To give relief to the automobile industry, excise duty has been reduced till June 30, 2014 for the following segments:[18]

- Small cars, motorcycle, scooters -duty has been reduced from 12% to 8%.
- Commercial vehicles and SUVs -duty has been reduced from 30% to 24%.
- Duty has also been reduced from 27% to 24 for large-segment cars, and from 24% to 20% formid-segment cars.

Factors Driving Illicit Trade in Auto Components

As per a UNODC study, counterfeiting is a hugely lucrative business, with criminals relying on the continued high demand for cheap goods coupled with low production and distribution costs. The illegal activities related to counterfeiting take advantage of unwitting consumers and bargain-hunters, exploiting people's appetites for cut-price brands or simply their financial position.[19]

There are many factors that encourage counterfeiting of auto parts. Some of these are:

- Ease of manufacturing, packaging and import of the products
- Higher margins earned by retailers and mechanics for the sale of counterfeits
- Uninformed customers buying counterfeit parts
- Short replacement cycle of some parts
- Supply constraints faced by components manufacturers
- Shortcomings of existing legislation
- Availability of technology to copy products
- Lower cost of duplicate product
- Lack of awareness of potential loss of counterfeit product
- Supply constraints in smaller towns and rural areas

Size of the Illicit Market in the Auto Components Industry

Data Sources

In order to calculate the grey market percentage for 2011-12, the gap between supply and demand will be derived. Listed below are the various sources of information that have been used to arrive at these numbers.

For ascertaining supply and demand we have to determine the different kinds of products that have to be considered under the industry. They remain the same as in the earlier study, which were identified separately for each sector through literature reviews, consultation with FICCI-CASCADE members and industry representatives.

This study has used a combination of data analytics on Government of India statistics, corporate information from data aggregators and industry validations to estimate the extent and level of grey market operations. The key data sources are the Annual Survey of Industries (ASI) and National Sample Survey (NSS) published by the Ministry of Statistics and Programme Implementation (MoSPI) of the Government of India. This has been supplemented with data from the Directorate General of Commercial Intelligence (DGCIS) under the Ministry of Commerce and Industries and Ministry of Micro, Small and Medium Enterprises (MSME) and information extracted from PROWESS database for companies.

Supply Side Estimation

***ASI - Gross Sales Value*:** The Central Statistical Organisation (CSO) of the 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 and other distribution expenses.

GSV data of selected products identified for domestic sales was for 2012 as well. The data (after taking the multiplier effect as suggested by CSO) covered the ASI survey for the financial year 2011-12. 13.33 lakh data points were analysed. Data was extracted from Block A and Block J. Details are provided in the following table.

Table: ASI Data Points Analysed

Particulars	Description of data series	Data Points evaluated
Annual Survey of Industries 2011-2012	Factory wise details of manufacturing activities pan India for the period April, 2011 to March 2012.	Block A and Block J, gross sales value, multiplier, NPCMS Code etc.

ASI 2011-2012 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 CASCADE study used ASICC code classification (5 digits) to determine the product classification under various industry heads.

In order to maintain consistency and comparability with the previous FICCI CASCADE study results, a similar product classification has to be followed to under the NPCMS code structure. Hence NPCMS codes have been mapped with ASICC codes and then allocated to the industry sector concerned. Additional NPCMS codes identified post mapping with ASICC codes have been further deciphered to allocate to the industry sectors concerned.

Annual Production Amounts of MSME: ASI data captures production of units registered under the Factories Act. Broadly according to the Factories Act, 1949, a factory means any premises where ten or more people are working where manufacturing process is carried on with the aid of power or otherwise where twenty or more workers are working.

There are also a large number of micro, small and medium enterprises (MSME) in the sectors covered in this study. As per the MSME Development Act, a micro enterprise is one where investment in plant and machinery does not exceed ₹ 25 lakh, while in a small enterprise the limit is between ₹ 25 lakh to ₹ 5 crore and medium enterprises are those which have investment values between ₹ 5 crore to ₹ 10 crore.

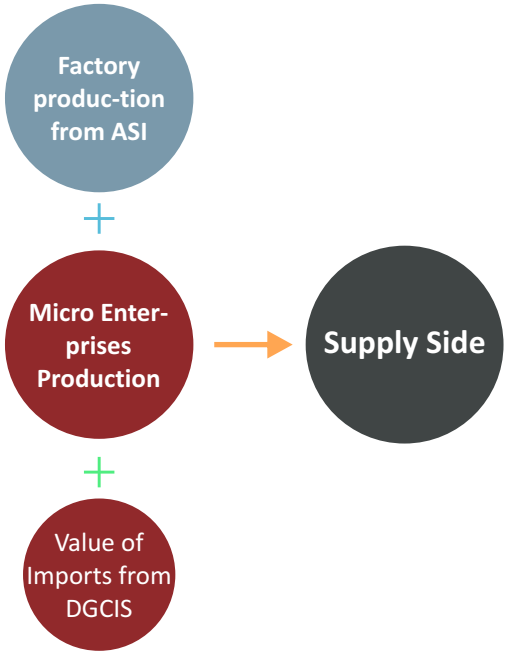
Comparing these definitions it can be assumed that small and medium enterprises would have been covered by ASI. Accordingly annual production of only micro enterprises that are engaged in manufacturing activities has been extracted from the MSME annual production.

Out of the total 24.01 lakh units surveyed in 2006-2007 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. The survey results give details of the registered units, segregate such units into micro, small and medium enterprises and map their products into National Industry Code (NIC) classification.

In this study, the value of the goods manufactured from registered micro enterprises and supplied to the selected industry sectors has been estimated by taking inputs from MSME Census of 2006-2007 and the Annual Report of the Ministry of MSME for the year 2011-2012. These estimates supplemented the GSV obtained from ASI data.

Value of Goods Imported: 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. For this study, we have used the eight digit code classification import data for the year 2011-2012. Import value data was extracted to supplement the production figures obtained from factories and micro-enterprises to arrive at the total of the supply side for domestic consumption.

ASI 2012 uses NPCMS code classification whereas import data uses ITC HS codes. It is not possible to map NPCMS and ITC HS codes. Import data follows the harmonic system code for classification and for 2010-2011 a total of 10,032 codes were scrutinised up to an 8 digit level. MSME data is based on the 2 digit classification of NIC 2004.



Consumption/Demand Estimation

The National Sample Survey Organisation (NSSO) of MoSPI conducts a survey on household consumer expenditure and employment and unemployment covering the entire country. This National Sample Survey (NSS) is one of the largest sample surveys of its kind and collects data on household characteristics such as household size, principal and secondary occupation, household type, land ownership/ possessed/ leased, land cultivated, land irrigated, primary source of energy, household ownership, etc.

For this study, data was analysed from NSS's 68th round survey, covering the period July 2011 to June 2012. Consumption expenditure data for the last 30 days/365 days (as the case may be) for the country, was arrived at after giving effect to the multiplier suggested by NSSO. Approximately 123.35 lakh data points were analysed for NSS 68th round where the codes were assigned to the respective industry sectors and then mapped to find the related consumption values. The blocks and codes of NSS 68 from which data was extracted for this study are given in the table below.

Table: NSS Data Points Analysed

Particulars	Description of data series	Data Points evaluated
National Sample Survey (Round 68)	Household consumer expenditure for the period July 2011 to June 2012.	Block 5, 9, 10, 11 and 12; Item code, subsample code, consumption value, multiplier, weight to be applied, NSS/NSC code.

Estimating the Illicit Markets-Methodology

Using the data obtained from the sources listed in the previous section, we have ascertained the grey market percentage in 2012 using the following formula:

$$\textbf{Grey Market \%age} = \frac{\text{Total Consumption - Total Supply}}{\text{Total Consumption}} \times 100$$

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.

Auto Components: Data analytics

According to a 2013 ICRA study on the industry, titled 'Indian Auto Components Industry - Weak demand a bigger concern then rising costs", the Indian automobile and auto components industry is currently facing its most formidable challenge of slowing demand. Over the short term, it expects the auto components industry's revenue growth to remain weak in the absence of immediate demand triggers for end-users across domestic automotive segments, besides an uncertain global economic environment resulting in slow auto components demand recovery and hence faltering export volumes.

Despite this slow down the auto components industry is in jeopardy of losing a significant amount of revenue to the counterfeit market. A Wipro-D&B study states that the counterfeit market thrives mainly due to the large base of unorganised distribution channels, trading centres and roadside workshops. The higher margins enjoyed on fake parts and the stiff market

competition at the dealer level are important factors responsible for driving sales of fake parts. It is also due to shortage of OE components in the aftermarket within physical reach.[20]

For ascertaining the supply side of the auto components industry, ASI data was extracted for relevant NPCMS classification under the codes for auto components – to ascertain domestic production in the auto components industry - there were 60 relevant codes.

Total domestic production includes components manufactured for after-market and for original manufacturers. An ACMA white paper states that 25% of the components manufactured are for after-market and the balance is used by original manufacturers.[21] An ICRA report (March 2012) on the auto components industry shows 25% as the after-market size.[22] Based on these reports 25% of the total factory production extracted from ASI data has been attributed to supplies to the after-sales market.

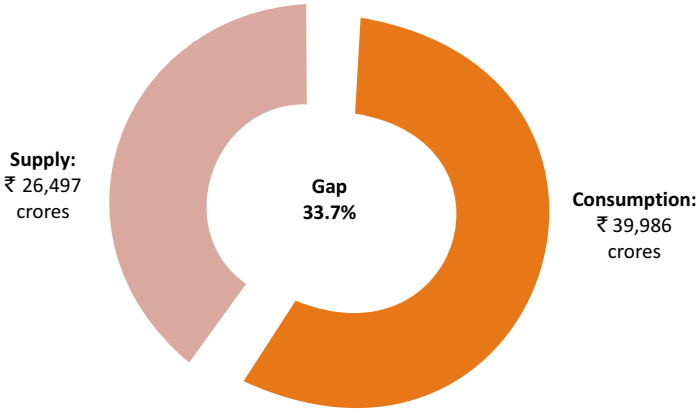
Accordingly domestic production is estimated at ₹ 25,266 crores.

The value of imports under this sector has been ascertained from DGCIS data, which is again 75% for original manufacturers and 25% for after sales markets, **which amounts to ₹ 313 crores.**

Domestic production and imports has been supplemented by production of micro industries in the auto components sector. Annual production of registered micro enterprises in the manufacturing segment under the production codes relevant to rubber and plastic components and electrical machinery and apparatus have been determined. As the contribution of the auto components sector to GDP is estimated to be 7%, we have considered 7% of the total production of micro enterprises to be towards the auto components industry, **which amounts to ₹ 919 crores.**

Therefore, adding the three supply streams the total production in the auto components sectors is estimated at ₹ 26,497 crores

Auto Components Supply vs Consumption Gap 2012



Consumption in the auto components after-market sector includes cost of maintenance of both personal and commercial vehicles. Repair and maintenance includes cost of components and services charges paid. The cost of repair and maintenance of personal vehicles such as motor cycle, car, scooter, jeep and other personal transport equipment under codes 601, 602, 603 and 604 (i.e. motor cycle, scooter, motor car, jeep, tyres & tubes and other transport equipment)have been extracted for the last 365 days from the NSS 68 survey.

Consumption expenditure for determining the illicit markets percentage in the auto components sector has been arrived at after adjusting (i.e. reducing) consumption as per NSS for cost of services charges which are assumed to be approximately 30% of the total in order to arrive at only the cost of components.

Based on these inclusions and assumptions, the consumption expenditure in the auto components after-market segment has been estimated at ₹ 39,986 crores.

The grey market percentage for the auto components industry has thus been determined to be 33.7% for 2011-12, with consumption of ₹ 39,986 crores and supply of ₹ 26, 497 crores resulting in a gap of ₹ 13,488 crores.

Summary

To conclude, based on analysis of reliable data published by government sources for the year 2011-12, it has been established that the size of illicit markets in the auto components sector has increased in from 29.6% in 2010 to 33.7% in 2012.

₹crores

Industry	2012		Grey Market		
	Total Supply*	Total Consumption*	2012		2010
			Total Loss	%age	%age
Auto Components	26,497	39,986	13,488	33.7%	29.6%

Impact of Illicit Market-Estimating Loss to the Auto Components Industry

Grey market percentages have been established in the preceding section, for the year 2011-12. For the purpose of arriving at the loss to the industry in 2013-14, we have assumed that the grey market percentage will remain constant over 2012-13 and 2013-14. Industry size for 2013-14 has been arrived at with reference to expected and actual growth rates for the past two years provided by industry reports or analysts. These growth rates have been used to extrapolate the industry size established for 2011-12 to 2013-14. Industry size for 2011-12 is taken as the domestic factory production of the industry, ascertained from ASI 2012 data.

Thus loss to the industry (purely in terms of sales) has been established as follows:

Estimated Loss of Sales to Industry = Size of Industry in 2013-14 X Grey Market Percentage (2011-12)

In the following pages of this study we determine the loss on account of the grey market for the year 2013-14 along with a brief discussion on the basis and assumptions for arriving at these numbers.

Estimating the Loss for 2013-14

The size of the auto components industry in 2011-12 was established at ₹ 25,266 crore.

According to a Wipro-Dun & Bradstreet India Report, the auto components industry's turnover has grown at a CAGR of 14.6% during the period 2007 to 11. The report quotes an ACMA (Automotive Components Manufacturers Association of India) estimate according to which the industry is expected to grow at a CAGR of 11% during the period 2011 to 2021.[23]

According to an industry organisation brochure[24] the Indian automotive aftermarket has grown strongly over the last five years and is expected to grow steadily over the next few years. It states

that the parts market is expected to grow at 9 per cent to 11 per cent till FY#2015, to reach approximately ₹ 37,000 crores.

IBEF quotes ACMA to say that the Indian auto components industry is expected to grow at a 14% CAGR by 2013–2021.[25]

Based on these estimates, we have assumed, on a conservative basis that the auto components industry has grown by approximately 11% from 2011-12 to 2012-13 to 2013-14. Accordingly, the market has been estimated at ₹ 31,130 crore for 2013-14. Applying the grey market percentage calculated for the auto components industry (i.e. 33.7%) to this market size, the loss of sales to legitimate industry for 2013-14 is estimated to be approximately ₹ 10,501 crore.

Fig: Estimated Loss to Auto Components Industry in 2013-14

Estimated Size of Industry in 2013-14 X Grey Market Percentage (2011-12) = Estimated Loss of Sales to Industry
₹ 31,130 crores X 33.7% = ₹ 10, 501 crores

Fig: Loss of Sales to Industry 2013-14 (in ₹ crores)

Industry Sector	2014	2012
Auto Components	10,501	9,198

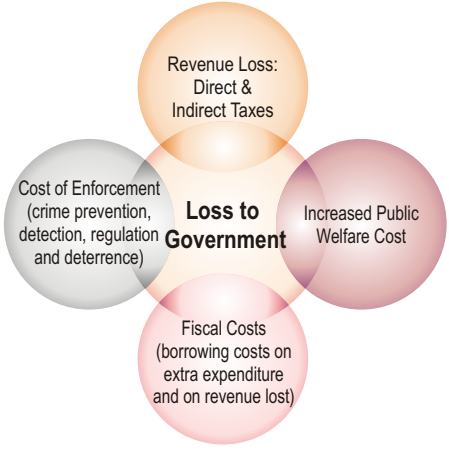
The loss to the industry due to the illicit markets, as displayed in the table shows an increase of approximately 14% from 2012 to 2014.While completely eliminating the existence of illicit markets may not be feasible, more rigorous efforts need to be established to limit their further growth. This would include, among other things, cooperation amongst these stakeholders, streamlining of complex tax structures, introduction and/or enforcement of standard quality parameters for various products of the industry, stringent governance practices and enforcement of existing laws.

Estimating Illicit Markets - Loss to Government

Apart for resulting in loss to the industry concerned, the operation of the illicit markets results in losses to the government in the form indirect taxes and direct taxes. Illicit markets cause losses to the original right holders in the form of reduced sales, lower profits, brand value, reputation, consumer distrust, etc. Governments lose tax, incur higher expenditure on public welfare, insurance and health services. Ultimately corporates shy away from making investments (as established in an earlier section) due to limited/no protection of rights, resulting in loss of employment opportunities.

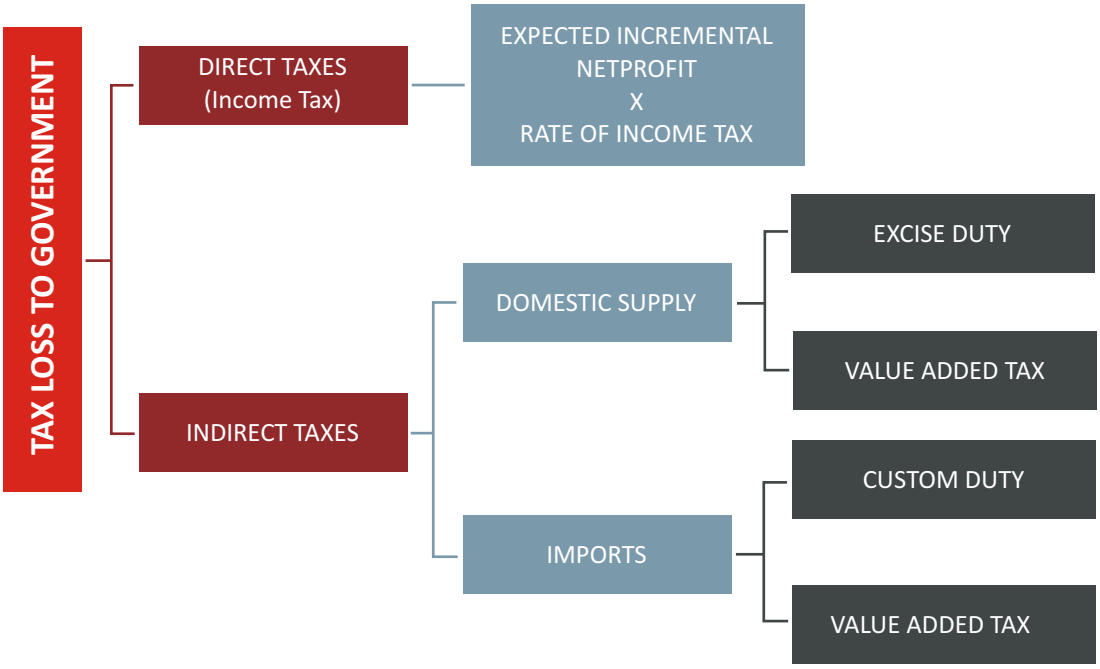
Governments that lose taxes will find it difficult to function and will be unable to provide quality and timely public services. They will be unable to deliver their legislative programmes, provide public goods or redistribute wealth.

This section aims to estimate the loss to the government of India on account of the illicit markets in the auto components industry. It is imperative to develop an estimate of the challenge to the National and State exchequers with the objective of introducing strong regulatory measures.



Methodology

There is very little data on the global economic impact of counterfeiting and the losses to public revenues, employment, investmentand innovation.[26] This study aims to project only the consequential tax loss to government on account of counterfeiting and the presence of grey markets in India. As in the 2012 FICCI CASCADE study, the methodology used in this report is derived from the economic model used in the BASCAP report that analyses the negative impact of counterfeiting and piracy on government receipts and expenditures.



The Tax loss to government has been estimated as loss of direct taxes (income tax) and indirect taxes (value added tax, import duty and excise duty).

Revenue Loss to Government = Loss on account of Direct and Indirect taxes in case entire gap is met by the legitimate manufacturers or importers

For calculating the loss in income tax and indirect taxes (excise/customs/VAT), the following approach was followed:

Direct Taxes (Income Tax):

To determine the loss attributable to income taxes, this study analysed annual reports of a sample/representative companies in the industry concerned to determine the weighted average net profit before taxes over sales. This percentage was applied to the sales loss to the industry determined in the previous section ("Size of the Illicit Market in the Auto Components Industry"). The resultant figure is the incremental net profit that would have accrued to the

industry had legitimate industry been able to fulfil sales lost to the grey market. The number so determined is multiplied by the income tax rate to arrive at the income tax forgone by the government. Additional profit will be taxed at the highest income tax slab rate, hence the tax rate considered is 33%.

Income tax lost by the government due to the operation of the illicit markets in the auto components industry is tabulated below:

Loss of Direct Tax Revenue to Government (₹ Crores)

Industry Sector	Net Profitability Percentage	Direct Taxes Loss		Change	
		2014	2012	₹ crores	%age
Auto Components	13.9	482	421	61	14%

Indirect Taxes (On Domestic Manufacture and Imports):

Loss of indirect taxes to the government on account of illicit markets has already been ascertained. This loss comprises loss on domestic production and loss on imports. The gap in consumption and supply is assumed to be met through legitimate domestic factory and registered MSME production, as well as imports, in the same ratio using 2012 ASI, MSME and DGCIS data.

Indirect tax loss in case of domestic production (ASI & MSME) arises on account of loss of excise duty and VAT. In case of imports the loss arises on import duty (basic and countervailing duty) and VAT.

Based on the principle of conservatism we have considered the following rates of indirect taxes for the auto components industry. The table also shows the proportion of sales loss met by domestic production and imports:

Industry Sector	Loss to Industry met by .. (₹ crores)			Duty Rates (percentage)	
	Total	Domestic Production (ASI + MSME)	Imports	Excise Duty + VAT	Import Duty + VAT
Auto Components	10,501	10,377	124	25	30

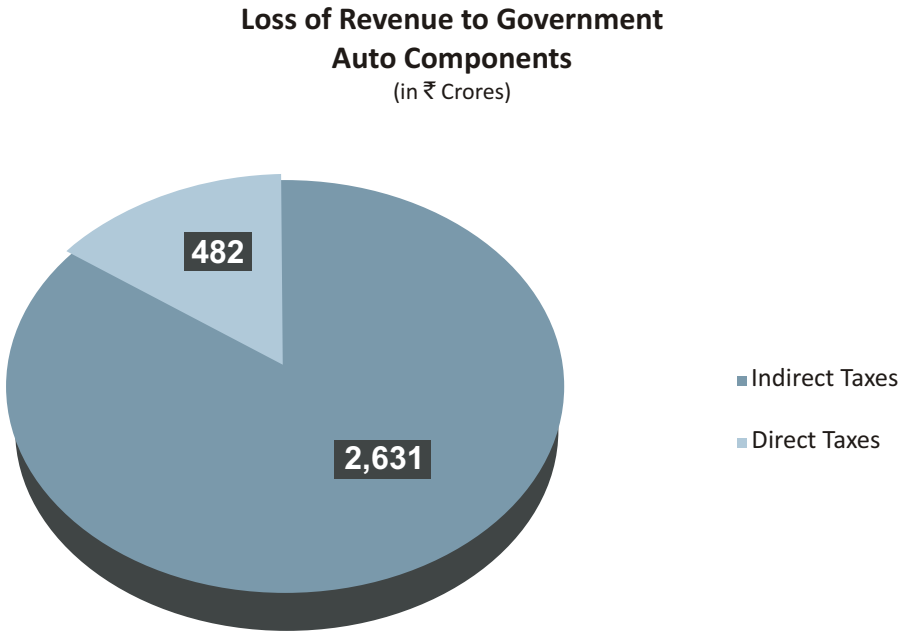
These rates of tax were applied to the sales loss to the industry ascertained earlier, to arrive at the loss to the government on account of indirect taxes.

Loss of Indirect Tax Revenue to Government (₹ Crores)

Industry Sector	Excise Duty + VAT	Import Duty + VAT	Total Indirect Taxes Loss - 2014	Total Indirect Taxes Loss - 2012	Change	
					₹ crores	%age
Auto Components	2,594	37	2,631	2,305	326	14%

Conclusion:

Thus, the total loss to the government estimated for 2014, on account of the illicit markets in the auto components industry is ₹ 3,113 crores, up from ₹ 2,726 crores in 2012. As stated earlier, it needs to be highlighted, that this loss is only on account of tax revenues. We have not estimated the incremental costs incurred by government



Types of Counterfeiting in the Industry

Auto parts can be counterfeited in the following manner:

- Fake pitman arms come with misspelt name and do not meet the minimum requirement of OEM fatigue tests
- Brake pads made of poor quality steel backing plates, weak or no shim bonding to the back plate. Brake pads made of inferior products like compressed wood chips and sawdust
- Counterfeit windshields fit poorly causing wind noise, leakage, and appearance problems. They are often made without safety shatterproof glass
- Unsuccessful testing fuel filters can be sold in good packing

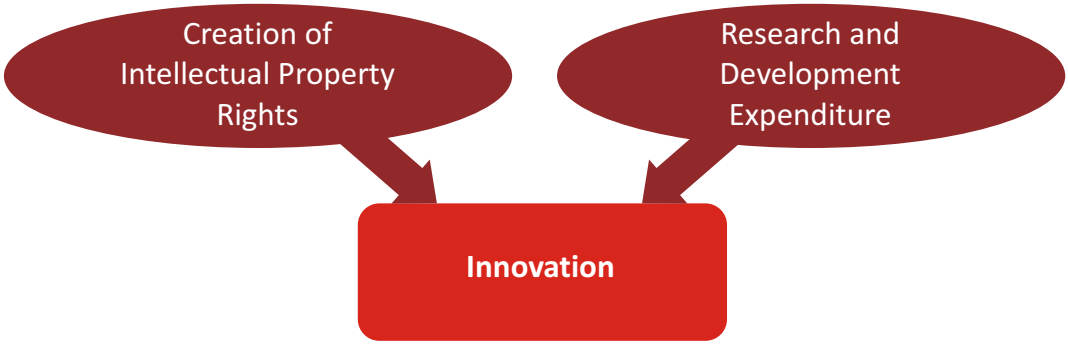
Impact of Illicit Markets on Innovation

Innovation entails the process of design, invention, development and/or implementation of new or altered products, services, processes, systems, organisational structures, or business models for the purpose of creating new value for customers and financial returns for the firm.[27]

In this section of the report we aim to look at the plausible relationship between illicit markets and innovation using qualitative and quantitative tools. Our study establishes a link between industries characterised by high levels of illicit markets and lower expenditure on innovation. Among the sectors under FICCI-CASCADE review auto components have the largest grey market percentage (33.7%) followed by FMCG-Personal Goods (31.6%) and computer hardware (27.9%).

For companies, the risks related to innovation activities are grossly accentuated in case these products can be easily copied to produce imitations whereby the profits of the original innovator get transferred to the counterfeiter.

To establish the link between illicit markets and innovation this study used the following proxies to measure innovation:



On the basis of the literature reviewed, and our discussions with subject matter and industry experts, these proxies have been studied in the manner explained below:

Creation of Intellectual Property Rights
• Types of IPR's in India - patents, copyrights and trademarks • Analysis of trends in the number of patents filed/examined/granted over the financial years 2007 to 2012 • Analysis of fields, sectors and institutions with higher concentration of patents over the financial years 2007 to 2012 • Data related to patents was collected from the Office of the Controller General of Patents, Designs, Trademarks and Geographical Indication; data pertaining to copyrights, trademarks was not available

Research and Development Expenditure
• Analysis of R&D and operating expenditure for a sample of companies over a period of 6 financial years • Analysis of ratio of R&D and operating expenditure over a period of 6 financial years for each sector • Data was extracted from the Prowess database for a sample of public and private companies in India over the sample period

Intellectual Property Rights Created

Innovation results in the creation of intellectual property rights (IPR) in the form of patents, trademarks, copyrights, etc. The number of patents owned by a company has often been used as one of the main indicators for determining its innovation intensity. In addition, patents are also used as a measure of output of innovation.[28] A patent is an IPR for inventions and is the grant of exclusive right, for a limited period, provided by the Government to the patentee, in exchange of full disclosure of the invention, for excluding others, from making, using, selling, importing the patented product or process producing that product for those purposes.

The Patent Office under the Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, performs the statutory duties in India related to the grant of patents for new inventions and registration of industrial designs.

For this study we have reviewed the Annual Report of the office of the Controller General of Patents, Designs, Trademarks and Geographical Indication to understand the type and number of patents filed in India.

Patent applications of the last 5 years (filed, examined and granted) show a declining trend in the number of patents granted by the Patent Office. The number of patents granted between 2008 and 2012 has fallen by almost 70%, though the number of patent applications filed have increased by a modest 22.65% during the same period.

CSIR or the Council of Scientific & Industrial Research (CSIR) has filed the largest number of patents in India and abroad. However based on our review of the patents filed, none related to the auto components industry.

Research and Development Expenditure

Research and Development (R&D) expenditure data is often used by researchers as one of the most significant inputs in estimating the level of innovation.

Christopher M. Kalanje, WIPO, has demonstrated the use of expenditure on research, development and information on innovation as indicators of innovation measurement to understand the role of intellectual property in innovation and new product generation. [29]

Methodology

Based on various research reports, this study has developed the following approach with the objective of understanding the relationship between the presence of illicit markets and organisations' decisions to undertake expenditure on activities such as research and development.

R&D expenditure is one of the main inputs towards a series of activities resulting in an innovation and has been taken as a proxyfor innovation. Our sample size comprises the public and private limited companies operating in India and belonging to the auto componentsindustry. Financial details of these companies have been extracted from the annual reports compiled by the CMIE, Prowess database.

There are a total of 27,650 companies whose information is available in the public domain. These details were examined to ascertain the nature of products/ services produced/ rendered by them. The companies were classified into relevant industry sectors on the basis of the major kind of products being produced. Information relating to the following parameters was extracted for the year period 2007-08 to 2012-13:

- Research and development expenditure (both on capital and current account)
- Operating expenditure

Data was collected for this six year period to ensure that a complete economic cycle of low, medium and high level of business activity is captured. Based on the literature review and discussions with subject matter experts, a comparison was made of the percentage of R&D expenditure over operating expenditure, across the industry sectors under consideration, for the stated period of six years.

$$\frac{\text{Research and Development Expenditure*}}{\text{Operating Expenditure**}} \times 100$$

* R&D expenditure includes both capital and revenue expenditure as it appears in the financial statements of the company

** Operating expenditure includes all types of expenditure on raw materials, labour, selling and distribution etc

Data Analytics Results

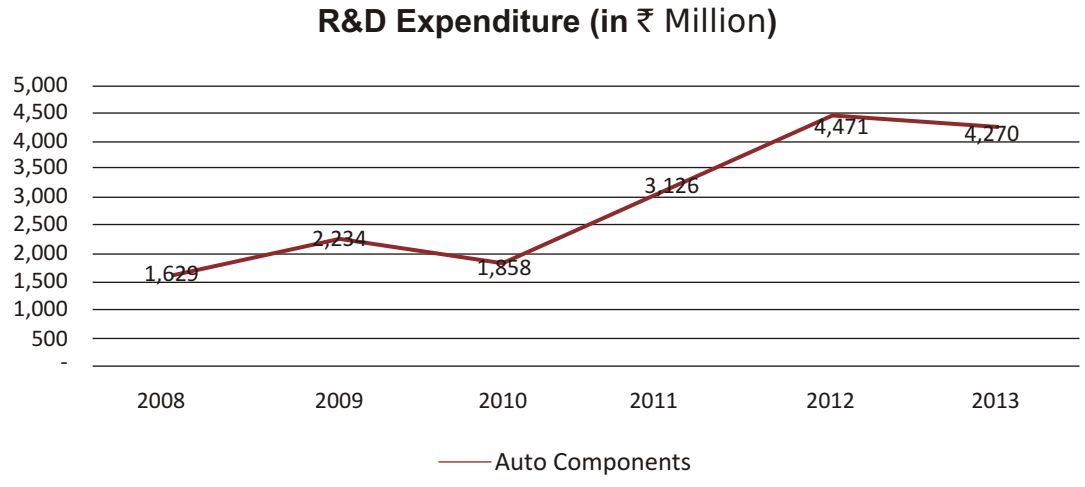
The auto components industry is expected to have a higher R&D expenditure over operating expenditure ratio. Data however indicates that the industry spends an average only 0.49% of its operating expenditure on R&D.The table below presents the data for the years of analysis – 2008 to 2013.

Table: R&D Expenditure as a %age of Operating Expenditure

Industry	2008	2009	2010	2011	2012	2013	Average %age
Auto Components	0.47	0.58	0.40	0.48	0.54	0.45	0.49

The ratio peaked in 2009, fluctuated slightly in the next couple of years and then settled at 0.45% in 2013, lower than 2008 when it was 0.47%.

R&D expenditure in absolute terms, incurred by companies has also shown a similar fluctuating pattern over the same period. The graph below presents a clear picture.



As the data suggests, the ratio of R&D expenditure over operating expenditure is very low. There seems to be no incentive for the companies to spend money on research and development. This could be due to lack of patent protection and/or the uncertainty of return due to higher risk of counterfeiting, smuggling and piracy.

Conclusion

The large grey market size, its increase and the low and falling expenditure on R&D clearly establish a link between illicit markets and innovation in the industry. In order to encourage innovation and indigenous manufacturing therefore, a lot needs to be done towards patent protection, as well as to counter the growth of the illicit markets. As statistics in an earlier section of this report shows, the industry has great potential for growth in India. If investments in R&D are expected to generate high returns, for an industry faced with the challenges of a large and increasing grey market, the returns will end up being significantly lower on account of the risks associated with illicit markets.

Impact of Illicit Markets on Investments

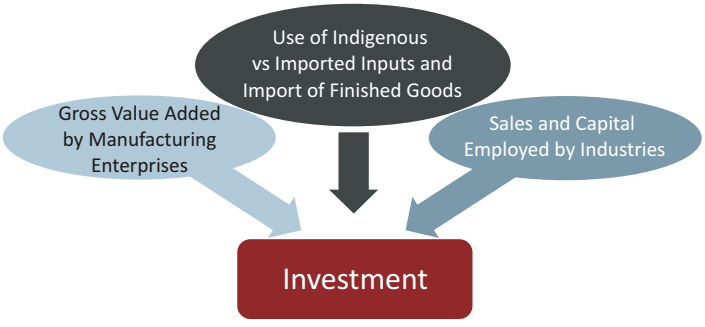
This section will analyse the level of investments, particularly the level of domestic investment by Indian companies in the country, and whether the presence of illicit markets has any bearing on investments.

The level of domestic investment in the country will be measured through three proxies –

- Gross value added by Indian companies.
- Percentage of imported and indigenous inputs and imports of goods over total production.
- Sales over capital employed.

Since domestic investments are made by a wide range of business entities including corporates, non- corporates, large or mid-sized organisations, the study searched for an alternate proxy which could assess the impact of these investments on business. The level of domestic investment by Indian companies is therefore measured through these proxies.

These proxies will help to understand whether Indian companies are investing in capacity enhancements or process improvements as warranted by increasing consumer demand rather than simply relying on imports of goods. They will also reflect the efficiencies achieved in manufacturing capacity over the period of the investment cycle.



Gross Value Added by Indian Companies

Gross value added (GVA) is the value of output minus the value of intermediate consumption; it is a measure of the contribution to GDP made by an individual producer, industry or sector. GVA measures the contribution to the economy of each individual producer, industry or sector in an economy. It is also referred to as the productivity metric that measures the difference between output and intermediate consumption. Gross value added provides value for the amount of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production.

Thus, the GVA by the manufacturing sector will measure the extent to which the output sold represents production in the country. It will quantitatively measure how much value addition actually takes place within the country or whether the value addition is taking place abroad. This will help establish whether the manufacturing sector is making enough long term investments for the sector to grow sustainably. It will be an important indicator against which the presence of illicit markets can be measured to understand whether this could be a contributing factor for the sector to be shying away from making enough investments for charting the course for long-term and sustainable growth.

Creation of Intellectual Property Rights

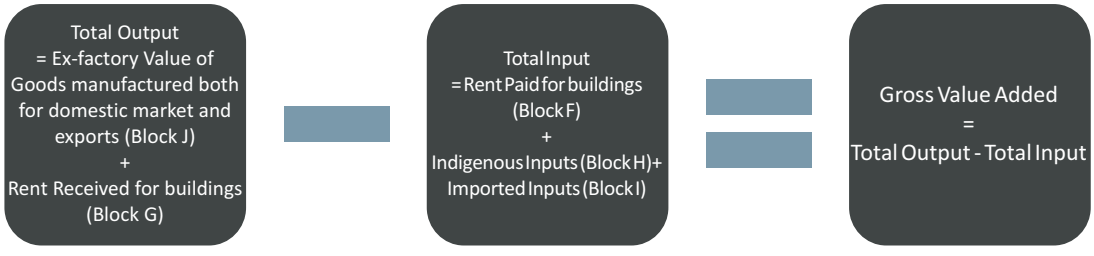
- Analysis of the Gross Value Added, extracted from the ASI data, for the seven key sectors over a period of five financial years, between 2007-2012.
- To measure this, the proxy used is the gross value added as a percentage of total output.
- The movement of the percentage of GVA over total output is shown over the five year period.

Methodology

The GVA by companies has been calculated by using ASI data for the years 2007-08, 2009-10 and 2011-12. For the purpose of the present study a total of 13.32 lac data points have been analysed (covering all the sectors under FICCI CASCADE review).

These sample manufacturing units have been further examined in detail to understand the value of GVA during the manufacturing process. A time series analysis for the three years 2008, 2010 and 2012 has been done to ascertain whether there is an increasing or decreasing trend towards value addition in the manufacturing process.

The formula for calculating the Gross Value Added[30] is as follows –



Data Analytics Results

GVA is expected to show an increase when there is optimum capacity utilisation or lower input costs. The factors relating to increase in consumer demand or higher rate of profitability may also contribute to increase in GVA.

Although there is no internationally accepted benchmark for gross value addition by different sectors against which a comparison could be made, the value added by a sector as a percentage of GDP for each country gives a reasonable estimate. The manufacturing value added as a percentage of GDP in India clearly shows a declining trend over the years. Even during India's high-growth phase in 2004-05, manufacturing value added as a percentage of GDP was still low and hovering around 15%. Since 2007-08, this has been falling steadily and was only 13% in 2013.

This give us an indication of the degree to which the manufacturing sector in India contributes to the growth of the economy. However, the manufacturing sector includes a wide range of industries involved in the manufacturing process, and the sectors covered under FICCI CASCADE review comprise a relatively small portion of the entire sector. Thus, for these sectors the percentage of manufacturing value addition over the GDP will not be a fair representation.

Percentage of Gross Value Added over Total Output

For the present study, the proxy used to measure the value addition made by companies in the production cycle is the ratio or percentage of the gross value added over total output. GVA in absolute rupee terms is not a comparable indicator, and hence cannot be used as a stand-alone indicator. The total output principally measures an industry's sales or receipts and is dependent on the demand and other pertinent characteristics of the industry. To make a like-to-like comparison, it is important to take into account how the industry dynamics plays out. Hence, the ratio of the gross value added as a percentage of total output is a far more representative figure. This provides a good economic statistic and a benchmark to compare and analyse the value addition made by the industry.

A low percentage of gross value addition to the total output raises questions regarding the degree to which the output sold by the manufacturers represents the actual production within the country. In the present age of globalisation, countries attracting substantial amounts of foreign direct investment often have to grapple with concerns regarding the manufacturers depending on foreign sources for inputs in the manufacturing process which results in increase in imports. This also impedes the development of the indigenous suppliers through backward linkages. Hence, the value addition may actually be taking place abroad from where the inputs are imported. In such a scenario, the domestic manufacturing segment would function merely for final assembly operations.[31] That is clearly not a desirable situation.

The following table shows gross value added as a percentage of total output for the years 2007-08, 2009-10 and 2011-12 in the auto components industry:

Sector	2008	2010	2012	Average
Auto Components	19.68	24.22	21.91	21.94

Gross value added as percentage of total output for the auto componentssector has, on an average, remained at 22% over each of the years under review. Over the same time, the total output has increased by 55% and total input has increased by 50%. However, the indigenous inputs have only increased by 41% whereas imported inputs have substantially increased by 122%. This is resulting in not only higher forex outflow but also increased costs and lower value addition. The low GVA therefore appears to indicate that output sold by the auto components industry represents a low level of production within the country. This is further substantiated by the ratio of imported raw materials to indigenous raw materials used in manufacture.

There has been no significant increase in productivity over the period under review, perhaps on account of higher input costs of imported raw materials or lower level of investments made by the industry. The sector is displaying an inclination towards use of imported raw materials rather than domestic raw materials.

The industry is slowly moving towards better capacity utilisation and lower input costs. In consideration of a substantial increase in imported inputs, perhaps a shift towards indigenisation of the manufacturing process and procurement of local raw materials will help in increasing the value added in the manufacturing process.

Use of Indigenous and Imported Inputs and Imports of Goods into the Country

The key elements being examined here are the impact of illicit markets on investment and innovation, both of which are very closely linked. For analysing both, studying imports of inputs and goods into the country is critical. This section presents the results of the data analysis exercise to show how import of inputs and finished goods plays out with respect to investment and innovation in the country. Imports of goods can be broadly classified into the following -

- Inputs to be used in the manufacturing process by Indian companies.
- Finished goods to be sold directly in the domestic market.

As businesses develop technology through new methods, new production techniques and introduce new inventions to the production process, there is a replacement of imported technology with indigenous technology. The level of sophistication in domestic production processes can be estimated by the increased use of domestic/ indigenous raw materials as compared to imported raw materials. Businesses that develop their own technology tend to be less dependent on imported raw materials or inputs. The underlying objective of most R&D projects is to enhance business efficiency thereby reducing production costs. By substituting

imported raw materials with indigenous raw materials, businesses can hope to reduce their costs in the medium to long term as well as encourage growth of indigenous suppliers.

Methodology

The World Economic Forum in their Global Competitiveness Report 2013,[32] points out that import as a percentage of Indian GDP is 33.7%, which is fairly high in comparison with other countries. India ranks at 107th position among 148 countries on imports as a percentage of GDP. Of the same 148 countries, India stands at 52nd position in the production process sophistication ranking with a score of only 4.1 out of 7. Considering these results, this study looked at the following proxies:

- Ascertaining the percentage of indigenous raw materials and imported raw materials used in production by Indian manufacturing units
- Comparing the above ratio over a period of five financial years to examine whether there has been any import substitution with indigenous raw materials
- Analysing import of finished products as a percentage of total production over a period of five financial years

The proxy used for examining the above hypothesis is the following:-

$$\frac{\text{Imported raw materials consumed}}{\text{Total raw materials consumed*}} \times 100$$

*Total raw materials consumed is the sum of imported and indigenous raw materials

This section uses production data from ASI and data on imports from DGCI&S to assess the level of dependence on imports against the total production. To quantify the level of reliance on imports and for a relative comparison, a proxy which serves this purpose and seems to capture the trend over years is imports as a percentage of total production

Use of Indigenous and Imported Inputs and Imports of Goods into the Country

- Analysis of indigenous and imported inputs used by sample manufacturing units
- Distribution of indigenous and imported inputs as a percentage of total inputs used over a period of five financial years, 2007-2012, and percentage change in use over the sample period
- ASI data for 2007-08, 2009-10 and 2011-12 was extracted for the relevant blocks, for the sample factories covered in the survey, on imports and indigenous materials used in production
- Analysis of import of finished goods is done using data extracted from DGCIS over a period of five financial years.
- To estimate the dependence of the sectors on import of finished goods, the percentage of imports over total production is analysed over a five-year period between 2007-2012.

Use of Indigenous and Imported Inputs

Total raw materials consumed in the manufacturing process comprise both indigenous and imported raw materials. A trend has been observed in the sectors under review, that over a span of five financial years, the use of imported raw materials has increased in comparison with indigenous raw materials.

In case of the auto components industry indigenous raw materials comprise 86.4% of the total raw materials used in 2008. This has decreased to 80% in 2012. The use of imported raw materials has increased by almost 122% between 2008 and 2012 while use of indigenous raw materials increased by a meagre 40% during the same period.

Table: Inputs consumed by Sample factories (DSL) – Auto Components

Source	Type	2007-08		2009-10		2011-12		%age increase in the sample period
		Amount in ₹ Mn	%age	Amount in ₹ Mn	%age	Amount in ₹ Mn	%age	
Block H	Indigenous	5,37,065	86.4	5,82,405	81.8	7,48,752	80.0	39.4
Block I	Imported	84,537	13.6	1,29,192	18.2	1,87,474	20.0	121.8
	Total	**6,21,602**	**100**	**7,11,597**	**100**	**9,36,225**	**100**	

The above table shows the increasing dependence on imported raw materials in the auto components sector, which may be due to lower level of indigenous technology sophistication and innovation activities. This trend is particularly disappointing considering R&D expenditure incurred by this sector (as seen in the previous section –Impact on Innovation) was the second highest, next only to the software industry. Clearly despite efforts put into research and development by this sector, R&D activities do not appear to have produced the desired results. Lack of innovation is further killing the incentive for companies to invest in development of technology. Instead they source their input requirements from abroad thereby increasing imports.

Imports of Finished Goods over Total Production

We now examine the extent of imports of finished goods over total production to estimate the level of production capacity within the country. An increasing trend would show that value (and jobs) is being created outside the country while a lower trend would show greater value being retained/generated within the country.

The following table shows the trend in the percentage of imports of finished goods over the total production.

Industry Sector	2008	2010	2012	Trend
Auto Components	1.3	1.22	1.18	Decreasing

The auto components sector, shows a marginally declining trend in the import of goods over total production over the five year period even though it showed a high increase in consumption of imported inputs between 2008 and 2012.

Higher imports increase foreign exchange outflows putting unwarranted stress on foreign currency reserves and the exchange rate. Further, researchers have proved that higher imports of raw materials eat into the profit and growth of indigenous raw material manufacturers. This argument becomes more relevant in a developing economy like India where micro, small and medium enterprises contribute more than 45%[33] of the total manufacturing output, supplying raw materials to the larger sectors and being entirely dependent on them for market potential. Higher import content in the value of inputs therefore is clearly not encouraging growth of intermediate manufacturers in India. It has also proven to be a disincentive towards undertaking quality innovation initiatives.

Capital Employed over Sales

This section will analyse the relationship between capital employed and the sales. Businesses invest in capital with a view to generate increased sales revenue. The ratio between sales and capital employed indicates that sales or revenues are 'x' times the money used in the business. This ratio helps to understand what level of sales are being generated by each rupee worth of assets invested in the business. The objective of this section is to address the following questions –

- Is the pace at which sales are generated higher than the amount of capital employed in business?
- If so, are such increased sales attributable to investments or to imports?
- Are Indian companies shying away from making an investment?

For this purpose a comparison between the year on year percentage change in sales and capital employed is analysed over a period of six financial years. The ratio of sales to average capital employed of six years has also been calculated. The ratio of sales by the average capital employed reflects a company's ability to generate sales revenue from efficient utilisation of assets.

Methodology

To analyse the relationship between sales and capital employed, the following approach has been adopted –

- Comparison between the year on year percentage change in sales and capital employed over a period of six financial years
- Ratio of sales over average capital employed is used as a proxy for capturing the relationship between the two

Sales and Capital Employed
• Analysis of percentage change in capital employed and sales over a six year period, between 2008-2013. • Analysis of ratio of sales over average capital employed • To determine the relationship between percentage change in capital employed and sales data extracted from CMIE's Prowess database has been used.

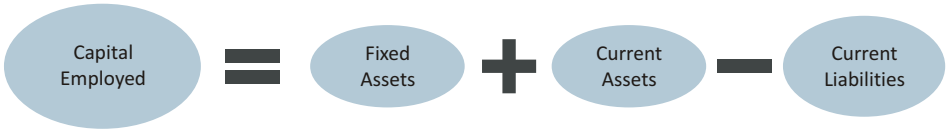
Using the CMIE Prowess database, data pertaining to financial details of companies like assets, liabilities, etc., has been extracted for a period of six years, 2008-2013. Our sample size comprises public and private limited companies operating in India. There are a total of 27,650 companies whose information is available in the public domain; this was examined in detail to ascertain the nature of products/ services produced/ rendered by them. Companies were classified into the relevant industry sectors on the basis of the major kinds of products and the industry group they belong to.

A total of 2,706 companies were selected pertaining to the industry sectors under review and information relating to following parameters was extracted for a period of sixyears from financial year 2007-08 to 2012-13:

- Fixed Assets
- Current Assets
- Current Liabilities
- Sales

More than seven lac data points were analysed to understand the trend in sales and capital employed over the last six years across the selected sectors. Data was collected for a period of six years to ensure that a complete economic cycle of low, medium and high level of business activity is captured.

The formula for calculating the capital employed is as follows -



$$\text{Average Capital Employed} = \frac{(\text{Opening Capital Employed} + \text{Closing Capital Employed})}{2}$$

The percentage change in the average capital is then calculated and compared with the percentage change in sales for a period of six financial years.

The other metric used is the ratio of sales over average capital employed. This captures the ability of a company to efficiently use its assets to generate sales revenue. This ratio of sales over average capital employed is calculated for a period of six financial years.

Comparison of Percentage Change in Sales and Capital Employed

The link between percentage change in sales and capital employed is explained here. Though a higher year on year percentage change in sales than capital employed implies utilisation of the assets to generate sales, a huge difference will imply either over-utilisation of assets or generating the sales revenue by sourcing through import of products instead of domestic production and is characterised by a low level of investment. However, if the year on year percentage change in capital employed is much greater than that of sales, then this means that the quality of investment is low and use of assets is inefficient. In such a scenario, the investments made by the companies are not generating the desired level of sales.

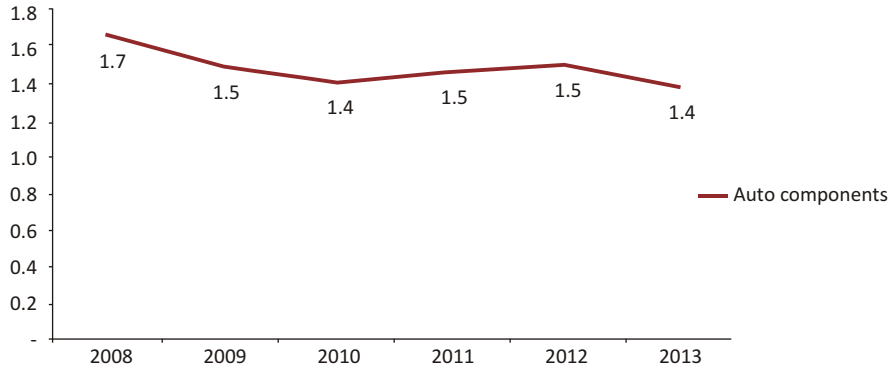
For the auto components sector, the percentage change in sales and capital employed was almost equal in the year 2008-09. It suggests that the capital employed by the sector has translated into sales revenue. The percentage change in sales has been consistently higher than that of capital employed for all the years except 2012-13, when the percentage change in capital employed is in fact twice that of the sales. This means that either the capital employed is over-utilised or the sales revenue generated is through value additions made through imports instead of through domestic investments.

Ratio of Sales by Average Capital Employed

The ratio of sales over average capital employed measures the management's efficiency in generating revenue from the net assets at its disposal. It depicts the amount of sales revenue generated for every rupee of capital invested in the business. The higher the ratio, the more efficient the business is in utilising the net assets and generating sales revenues.

The auto components sector shows a low (the second lowest amongst all sectors under review) but fairly steady ratio of sales to average capital employed, remaining at 1.5 over the six year period, indicating that there has been no dramatic increase in investments in the years under review against which higher sales can be expected in the coming years. This sector has also shown a significant increase in imported raw materials used in production. At the same time, there has been an increase in the level of illicit markets. This increase implies that companies are reluctant to make long term investments to generate revenue from the capital base for fear of loss of investment on account of a strong presence of the illicit markets.

Ratio of Sales by Average Capital Employed



Summary

The auto components industry shows an average percentage of GVA over total output of only approximately 22%. This sector is also among the most affected by the presence of illicit markets in India. The grey market percentage for the auto components sector has been the highest among the sectors under FICCI CASCADE review, standing at 33.7% and 29.6% in 2012 and 2010 respectively. Also, as analysed earlier, the auto components sectoris showing an increased dependence on imported inputs rather than producing indigenous inputs. Clearly this shows a pattern, where the technology in India is not in line with international standards and hence, the sector depends on imports of inputs to meet the domestic demand.

Thus, for the auto components sector, the following seem to work in tandem –

- a relatively low percentage of gross value added over total output,
- high grey market percentage
- increasing dependence on imported inputs rather than indigenous inputs
- coupled with a low level of innovation and technology use

The high dependence on imports and the consequent high grey market presence result in low gross value added as a percentage of total output. This hints at the possibility of the use of counterfeited products, particularly in the auto components as it requires high degree of innovation and technology use which is inaccessible in India, being smuggled into India through various channels.

Impact of Inter-state Tax Arbitrage within India

Illicit markets are all pervasive, impacting all countries, industries and products. Most recognisable brands be it of mobile phones, computers, fashion accessories, pharmaceuticals, auto components, etc. can be counterfeited, or are easily available in the grey markets in the form of smuggled or tax evaded goods. In respect of certain products, consumers are also often aware that their purchases are imitations as such acquisitions are driven primarily by a necessity to display a certain social background and to feel admired, recognised and accepted by other people. Whether the seller or the buyer is complicit, the illicit markets clearly have an impact on all stakeholders, be it the manufacturer, consumer, or government in the form of loss of revenue and profits, brand dilution, health and safety concerns. It also has a bearing on the level of investments, and innovation in a country, as well as on tax revenues.

It is often claimed, that higher tax rates tend to exacerbate the illicit markets of a country. A significant reason being, that high tariffs and taxes create opportunities for those involved in illicit markets to step in and supply 'reduced' versions of the original product at lower prices.

The purpose of this section of the report is to attempt to establish a relationship between high taxes and availability of illicit products. It was decided with members of FICCI-CASCADE that this part of the study will cover sectors with higher incidence of tax which is set at 20%-25%.

However, we observed that in case of auto components, tax rates for excise and custom were lower than 20-25%. VAT rates, though they vary from state to state, range from 5% to 15%. Hence, an analysis of tax arbitrage for this industry was not considered relevant and is not included as a part of this sector study.

Anti-Counterfeiting Measures

Government Actions:

Many existing rules and regulations are inforce to combat counterfeiting and illicit markets, these include:

- Indian Panel Code 1860 which provides for imprisonment up to 7 years for counterfeiting of device or mark. (Sec. 476)
- Section 29 of the Trademarks Act of 1999 which provides for protection in cases of infringement of registered trademarks.
- The Trademarks Act of 1999 which provides for imprisonment of 6 months to 3 years of imprisonment in addition to a fine of minimum ₹ 50,000 for selling or applying false trademarks, trade descriptions, etc. (Sec. 103)
- Intellectual Property Right (Imported Goods) Enforcement Rules, 2007 [Custom notification no. 47/2007 Customs (N.T.) dated 08.05.2007] read with Instructions for implementation of Intellectual Property Rights (Imported Goods) Enforcement Rules, 2007 [Circular No. 41/2007 Custom Circular dated 29.10.2007] issued by Central Board of Excise and Customs empower the Customs authorities to seize counterfeit goods.

There are several national and international organisations that set standards and monitor the quality of products. India has its own statutory body called Bureau of Indian Standards (BIS) for the purpose while the International Organisation for Standardization (ISO) does so globally. ISO has issued more than 19,500 standards for various industries.[34] For auto components industry it has also issued a standard namely "ISO-12931:2012- A framework for fight counterfeiting, tempering and diversion" to prevent and combat counterfeiting. India is one of the members of ISO.

The Indian government, through its ministry of consumer affairs, runs a programme "Jaago Grahak Jago" to create awareness to educatepeople about ways to identify fake products.

Society and Industry Initiatives

Various industry bodies and social organisations in collaboration with government also work to combat counterfeiting and piracy. Some of these organisations are as follows:

- Hologram Manufacturers Association of India
- Automotive Components Manufacturers Association of India (ACMA)
- Federation of Indian Chambers of Commerce and Industry (FICCI)
- Confederation of Indian Industry (CII)
- Society of Indian Automobile Manufacturers (SIAM)

Society of Indian Automobile Manufactures (SIAM) organises campaigns for creating awareness about the use of original products. It has launched several programmes like "REAL and FAKE" and "Be Genuine Buy Genuine".[35]

EIPR (India) Pvt Ltd, an investigation agency specialising in anti-counterfeiting solutions, carries out raids with the help of local policeto stop sale of counterfeit products.

Many companies do their own bit as well, by providing guidelines on how to identify genuine parts, providing support to customs agents, providing reporting mechanisms on their websites, etc.

Impact on Consumers

Counterfeiting poses a big threat to economic development and safety. Counterfeiters' methods are sophisticated, their reach is far and their crimes claim victims every day. Counterfeiting and piracy have gone from being a business infraction at the local level to a global problem touching all industry sectors and consumers.[36]

Some impacts of counterfeited auto components are mentioned below:

- Excessive fuel consumption by duplicate engine
- Counterfeit oil filter causes sudden engine failure
- Counterfeit brake pads, made of grass clippings and saw dust, have been reported to cause fatal accidents
- Counterfeit windshields without safety shatter proof glass, can cause injury or death
- Counterfeit and piracy undermine consumer confidence in these brands
- Counterfeit components may be harmful for original equipment and it depreciates the life cycle of machinery

Illicit Markets, Terror Organisations and Criminal Networks

Terrorism in India

Terrorism, in all its forms, constitutes a grave threat to peace and security of a nation. Those indulging in it use disruption and violence as the weapons of intimidation against the civilian population, the government to influence public policies or even effect a regime change. By its very nature, terrorism is against the established order of the day. There is, however, no universally accepted definition of the word. Different countries fighting the menace define it differently. In India, the Unlawful Activities (Prevention) Act of 1967, amended in 2004 to fight terrorism, uses the word "unlawful activity" instead of terrorism and defines it as "any action...intended, or supports any claim, to bring about, on any ground whatsoever, the cession of a part of the territory of India or the secession of a part of the territory of India from the Union, or which incites any individual or group of individuals to bring about such cession or secession; and which disclaims, questions, disrupts or is intended to disrupt the sovereignty and territorial integrity of India.[37]

Terrorist Attacks and its Financing: Need for Funding& Costs Incurred

Running a terrorist organisation requires substantial financial resources which are transferred to the groups through clandestine and often illegal channels. Terror expert Jean-Charles Brisard argues that 90 per cent of terror financing goes toward general maintenance of cells and equipment. Less than 10 per cent actually finances the execution of operations.[38] Costs incurred by terrorist organisations include materials such as bombs, vehicles, weapons and communication equipment and those related to planning and execution of attacks and expenses for running terrorist outfits.

While it is relatively easy to provide historical data citing an observational link between counterfeiting and terrorism, it is much less so to analyse the aggregate effects of the illicit markets industry on terror crimes in general. ***Moreover, lack of reliable data on terrorist financing leads to an enormous mismatch between the costs of a single attack and the supposed costs of running and maintaining a terror organisation***. At the same time, estimates of actual financial flows among the parties involved in terrorist activities appear rather preliminary. However this information is essential in order to develop a sound cost-benefit analysis of anti-terrorist measures associated with terror funding.

It is important to note that while statistical data is available for the number of attacks that have taken place in India, it is difficult to directly correlate it to the grey market data in absence of sufficient information and research, which are lacking at present, especially in the Indian context.

Furthermore, despite the existence of requisite laws in India and arrests of suspected criminals by the police, the scale of illicit markets is huge and the criminal networks and illicit markets organisations continue to thrive. Clearly, this means that the existing laws and police operations are not resulting in the desired outcome and are unable to act as a deterrent. This could be due to the low conviction rates in India.

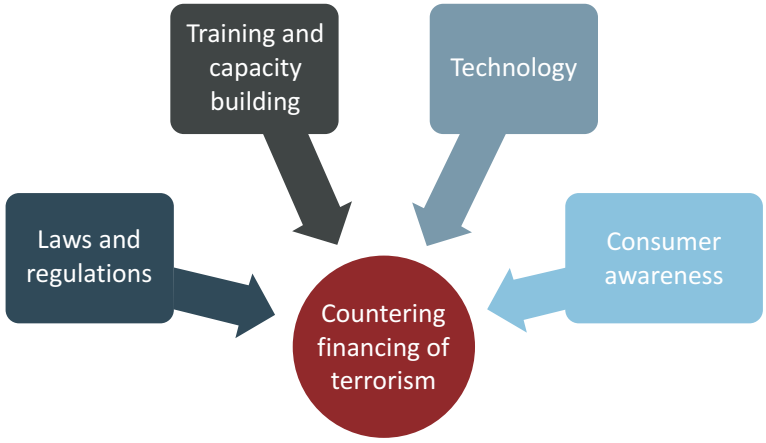
The scenario in other jurisdictions is not very different, although, credible data on seizures may be more easily available. The UK government in their Report of October 2014, has estimated that they lose about 1.3 % of their total tax collection due to criminal networks, mainly from smuggling.

A number of international studies have been conducted in the past which highlight the involvement of counterfeiting and piracy in financing of terrorist activities, for example, Al Qaeda[39] has been linked to the counterfeit industry through the sales of fake perfumes and shampoos. Also, Al Qaeda training modules recovered in 2002 reveal recommendation of sale of fake goods as a means to raise funds for cells.

The illicit markets have grown exponentially across the world, not only costing the industry and governments dear but also promoting criminal enterprises and generating funds for terror activities. Inadequate laws, poor governance and information gaps have aggravated the problem. It is, therefore, crucial to tackle the menace on a global footing in which all countries share information and join forces in creating a legal and regulatory framework, backed by effective enforcement.

So far as India is concerned, lack of adequate data based on search and seizure makes it difficult to link or correlate the increase in illicit markets to terror funding. Establishment and determination of the extent of such a link calls for strategic intelligence gathering and preparation of robust databases, which are clearly missing at present. Given the security

implications, if not outright financial considerations, there is little to argue against carrying out such exercises. This would be the first step to contain counterfeiting and its corollary, terror and ensure that genuine business interests do not suffer. It is therefore imperative to build a framework for prevention of terrorist financing which not only tracks down their financing hubs but also acts as a deterrent for them to ultimately bring down the threat of terrorism. The framework must deal with financing of terrorism from the following perspectives:



Conclusion & Way Forward

The growth of the auto components sector is driven by an increasing demand for vehicles, lower cost of manufacturing and availability of low-cost skilled manpower. The Indian auto components industry as a whole contributes 7% tothe GDP. According to a report by CII, the auto components industry will become the third largest in the world by 2025. Currently the industry is growing at a CAGR of 12% and is expected to grow faster in the period of 2014-2021. Market size is expected to reach at $ 116 million in 2020-21.[40]

A rapidly globalising world is opening up new avenues for the transportation industry, generating need for more efficient, safe and reliable modes of transportation which is adding to the auto components industry's growing opportunities.

This growth presents anopportunity to the illicit markets to grow as well. Strict measures are required to curb the growth of this menace, to avoid losses, to industry in terms of sales and profits, to government in terms of tax revenues and civil society in terms of high fuel costs, injury and potential loss of life.

Data Collection and Analytics

As a significant and first step stakeholders must work in tandem to improve information sharing which will enable collation of credible statistics. Credible statistics will help to draw up and implement action plans that could undermine the activities of the perpetrators of this crime. Improving information sharing would entail:

- Systematic data collection;
- Comparability across sectors and across borders; and
- Comprehensive-drawing from multiple sources.

Quality information would provide a solid basis for establishing the scope of illicit markets and form a key input in assessing the magnitude and effect of illicit markets

There are several initiatives that industries may also undertake which may include:

- Supporting research and analysis of issues related to illicit markets;
- Conducting awareness programmes for retailers and consumers; and
- Innovations in products or packaging to combat illicit markets.

Encouraging Innovation & Investments and Enhancing Regulations

Innovation and investment in research and development are important for growth of any industry. The Indian auto components industry not only has very little innovation, its research and development expenditure is also low. Patent applications have been found to be nil over the period under review, and on an average the industry spends only 0.49% of operating expenses in research and development work. ***Research is a risky activity and returns on successful R&D leading to practical innovations must be large enough to compensate for the high proportion of R&D that is unsuccessful, generating in this way a normal return on R&D as a whole. However, for an industry sector faced with a growing grey market, the returns would be much lower on account of the greater risk of illicit markets.***

Gross value added as percentage of total output has, on an average, remained at 22% during the study period of 2008 to 2013, reflecting poor value additions. However, it is largely dependent on indigenous raw material, comprising about 80% of the total raw materials consumed every year, which is a positive factor. The use of imported raw material though has shown an increasing trend, growing by almost 122% between 2008 and 2012.***This analysis quite clearly therefore demonstrates how a combination of factors establishes a link between value addition and the illicit markets.***

Counterfeiting of auto parts is a major threat for the industry. It happens in the form of duplicate engine parts, oil filters and other components. Lower cost of counterfeiting, lack of awareness and poor regulatory mechanism are the main factors encouraging the growth of illicit market which comprises 33.7% of the market in 2012, an increase since the previous FICCI CASCADE study. The consequent loss of sales to the industry in 2014 is estimated to be ₹ 10,501 crore as against a loss of ₹ 9,198 crore in 2012. Loss to the government in 2014, on account of the illicit markets is ₹ 3,113 crores, up from ₹ 2,726 crores in 2012

Fake and inferior auto parts are believed to be contributing to road accidents, in addition to creating other problems. It is estimated that around 20% of road accidents in India can be either directly or indirectly attributed to the use of counterfeit automotive parts, according to a 2012 study by the International Chamber of Commerce. The use of counterfeits resulted in 25,400 deaths and more than 93,000 injuries during 2009, the study says.[41] According to another study, the end-users are paying for an additional 109 million litres of petrol and 8 million litres of diesel per annum in India which can be attributed to use of counterfeit parts.[42] These fake components also reduce life cycle and efficiency of the automobiles.

There are many laws and regulations in place to check counterfeiting. Many government and private organisations in India are also making valiant efforts to stop and reduce the production and supply of fake auto components. SIAM holds regular campaigns to create awareness about fake products. But as the growth of the illicit markets suggests these efforts have not produced the sufficient results and much more needs to be done.

The major thrust though has to come from constant innovation and investment in research and development. Thus efforts towards curbing illicit markets will provide a fillip to industries to innovate and invest, in a conducive economic environment, which protects patents, reduces costs and helps to tap the growing potential of the industry. The growing global significance of the Indian auto components industry should be therefore seen as an opportunity for tapping the potential effect it will have on overall economic growth.

According to a recent Dun & Bradstreet report titled "India 2020 Economic Outlook",[43] rising income levels coupled with increase in the young working-age population will lead private final consumption expenditure to grow steadily over the years. As per D&B's projections, growth in private final consumption expenditure is expected to average at around 7.0% during FY15-FY20. ***The growing illicit markets however undermine the business environment and restrain such growth. This leads to reduced business efficiency, profitability and overall development. To curb this growth collaborative efforts are required from all the stakeholders.***

Countering Financing of Terrorism

With regard to funding terror organisations, owing to the extensive research carried out globally on terrorism and its links to proceeds from illicit markets, it is possible to state with certainty that illicit markets are instrumental in providing the much required funding to such organisations. In addition to the FBI, the former US Customs Service also brought attention to the link between the sale of fake goods and terrorism and has noted that the events of September 11, 2001 "changed the way American law enforcement looks at intellectual property crimes."[44]

Terrorist groups need financial resources to train and support members, maintain and sustain logistics, and meet operational costs. Therefore, if the threat of terrorism is to be nipped, the access to funding has to be choked. The truth is that many countries do not possess the legal and operational wherewithal and technical expertise needed to zero in on terrorist financing sources and initiate prosecution.

It is imperative therefore to build a framework for prevention of terrorist financing which not only tracks down their financing hubs but also acts as a deterrent for them to ultimately bring down the threat of terrorism. Such a framework will include training and capacity building among enforcement agencies, use of technology to detect and track sources of finance and increasing consumer awareness to empower consumers to take more informed decisions.

Annexures

Annexure I: Academic Literature Review

- **OECD** estimates international trade in counterfeit and pirated products could have been up to USD 200 billion in 2005 excluding domestically produced and consumed counterfeit and pirated products and the pirated digital products being distributed via the internet. The magnitude and effect of counterfeiting are of extreme significance and warrants strong, sustained and coordinated action from government, industry and consumers. Counterfeit and pirated products are infiltrating legitimate supply chains other than informal markets. The Internet has provided counterfeiters/pirates with a new and powerful means to sell their products via auction sites, stand-alone e-commerce sites and email solicitations.[45]
- **OECD** further states that the effects of counterfeiting and piracy on government come in the form of (i) lower tax revenues, (ii) the cost of anti-counterfeiting activities, including responding to public health and safety consequences and (iii) corruption. …Tax revenues. Tax collection is presumed to be far more effective from rights holders and their licensees than from counterfeiters and pirates. Potential losses include corporate income taxes, sales or value added taxes, excise taxes, import tariffs and social insurance charges. The revenue losses are particularly high in sectors such as tobacco and alcohol, where excise taxes are high and smuggling of counterfeit products to avoid those taxes is widespread.[46]
- **BASCAP** estimates that the total value of pirated and counterfeited products impacting G20 economies for 2008 is $455 to $650 billion and has been projected between $1,220 to $1,770 billion for 2015 including international trade, domestically produced goods and pirated digital products distributed via internet. The impact of counterfeiting and piracy on government tax revenues, legitimate employment, increased costs of crime, economic costs on consumer health and safety and downward pressures on FDI flows has been estimated at $125 billion per annum for G20 countries. Employment loss has been estimated at 2.5 million jobs for G20 countries excluding secondary impact on employment in the supply chain.[47]
- **International Anti-Counterfeiting Coalition, Inc.** (IACC) professes that low risk of prosecution and enormous profit potential has made criminal counterfeiting an attractive enterprise for organized crime groups. There are connections between intellectual property theft and terrorist groups and terrorists can use intellectual property crimes not only as a source of funding but also as a means of attack.[48]
- GAO states that it is difficult to quantify the economy wide impacts of counterfeiting because of varying assumptions on substitution of legitimate products with the pirated goods across industries. Hence each method of costs estimation has limitations on account of data availability and underlying assumptions and no single method can be used across industry sectors.[49]

- UNODC says, "The ramifications of counterfeiting affect everyone, with Governments, businesses and society being robbed of tax revenue, business income and jobs. The flood of counterfeit and pirated products creates an enormous drain on the global economy by creating an underground trade that deprives Governments of revenue for vital public services and imposes greater burdens on taxpayers. It also leads to more public resources being spent on fraud-detection methods by public sector authorities and larger intelligence and policing budgets being needed to counter sophisticated schemes and networks. Counterfeit goods also undermine employment, as products are copied and produced illegally, thereby displacing sales of original merchandise and reducing the turnover of legitimate companies. Fraudulent medicines also have a direct impact on increased medical costs due to prolonged treatment periods and medical complications in the spread of treatment-intensive diseases. The prices of products also go up because companies increase security systems to counter organised criminal activities and have to invest more in research and development."[50]

- A WIPO study talks about the how intellectual property rights or their protection plays a role in the innovation process, emphasising that technological innovation is a principal determinant of successful firm performance. The study also indicates that small and medium sized enterprises (SMEs) prefer to use trade secrets rather than patents as a form of protecting their inventions to stay competitive. The main reasons given by SMEs for shying away from patenting their inventions include high costs and complexity of the patent system.[51]

- Nam D. Pham lays emphasis on the impact of innovation and the role of IP rights in his study. The study brings to the fore, the critical importance of allocating resources to innovation in sustaining long-run economic growth in both developed and developing countries. The author argues that countries with the highest technological capacity are better able to enhance the efficiency of their production methods and exploit new market opportunities. The study states that the protection and enforcement of IP rights are imperative for creating strong incentives for innovation and safeguarding it from counterfeiting, piracy, and other forms of IP theft. It concludes that with the growing importance of knowledge as a driving force for innovation and economic expansion worldwide, the protection of property rights has attracted greater attention and concern. The counterfeiting and piracy of products are rising exponentially and are costing the global economy hundreds of billions of dollars a year in lost revenues and thousands of jobs. The challenge for policymakers is therefore to continue encouraging investment in R&D and human capital in order to promote innovation while at the same time developing the policy instruments and frameworks to better protect intellectual property rights.[52]

- A Harvard University study delves into the relationship between counterfeit sales and financing of activities of terrorist organisations using a number of economic controls to analyse the effect of two proxies of annual counterfeit sales on two measures of international terrorism namely RAND database and DOS database. It states that while the societal and economic costs of counterfeit products are largely incontrovertible, one final

effect of this crime industry is less definite: its support of international terrorism. Anti-counterfeiting organizations and luxury goods manufacturers are quick to suggest that counterfeit product revenues are directly funding terrorism. There is, however, only a small amount of hard data in support of this claim. The study conducts an inquiry into the purported causal link between measure of counterfeiting and terrorist incidents in a given year through a regression model but suggests that the empirical analysis fails to provide a conclusive relationship between the two.

- A University of Wellington study on cross border tax arbitrage states that in most cases, cross-border tax arbitrage increases the tax payable in one jurisdiction and decreases the tax payable in the other jurisdiction. 13 The decrease must be larger than the increase for the arbitrage to be worthwhile for the taxpayer. Tax arbitrage, therefore, redistributes resources not only from government treasuries to taxpayers, but often from one government treasury to another. The study says the direct consequence of cross-border tax arbitrage is to distort individuals' and corporations' investment decisions, and to reduce the revenue raised by governments. Although cross-border tax arbitrage may augment the coffers of one government's treasury, this augmentation is likely to be more than offset by a reduction in the revenue raised by the other government's treasury (otherwise the arbitrage is unlikely to be advantageous from a tax perspective).[53]

A significant anti-counterfeiting measure undertaken in recent times is the Anti-Counterfeiting Trade Agreement (ACTA). It builds on the Trade-Related Aspects of Intellectual Property Rights (TRIPS), but has been negotiated outside WTO (World Trade Organization) framework. The draft ACTA calls for increased use of criminal and civil penalties against people using copyright circumvention technologies and those accused of copyright infringements, and also for ISPs to have more responsibilities with regards to removing infringing material. **ACTA has been rejected by the European Union in July 2012.**

ACTA binds negotiating states and creates a new international standard which is likely to be imposed on third countries in future trade agreements. The current draft threatens fundamental rights in countries such as the right to freedom of expression and information, right to protection of personal data and fair trial/due process issues related to other fundamental rights. It was negotiated in unwarranted secrecy, without adequate input from civil society or parliamentarians, but in close cooperation with major IP right holders. It has resulted in disproportionate protection to big business.[54]

Annexure II: Items considered as part of operating expenditure

S. No.	Components of Operating Expenditure
1	Raw material expenses
2	Power & fuel
3	Water charges
4	Salaries & wages
5	Repairs & maintenance of buildings
6	Repairs & maintenance of plant & machinery
7	Repairs & maintenance of vehicles & others
8	Communications expenses
9	Travel expenses
10	Selling & distribution expenses
11	Printing & stationery expenses
12	Donations
13	Social and community expenses
14	Environment and pollution control related expenses
15	Subscriptions and membership fees
16	Research & development expenses
17	Other miscellaneous expenses
18	Miscellaneous expenditure

Abbreviations

ASI	Annual Survey of Industries
ACMA	Automotive Components Manufacturers Association of India
CASCADE	FICCI's Committee Against Smuggling and Counterfeiting Activities Destroying the Economy
CAGR	Compounded Annual Growth Rate
CII	Confederation of India Industry
CSIR	Council of Scientific & Industrial Research
CSO	Central Statistical Organisation
DGCIS	Directorate General of Commercial Intelligence and Statistics
FICCI	Federation of Indian Chambers of Commerce & Industry
FMCG	Fast Moving Consumer Goods
GDP	Gross Domestic Product
GSV	Gross Sales Value
GST	Goods & Services Tax
GVA	Gross Value Added
IPR	Intellectual Property Rights
MoSPI	Ministry of Statistics and Planning Implementation
MSME	Micro Small and Medium Industries
NIC	National Industry Code
NSS	National Sample Survey
NSSO	National Sample Survey Organisation
R&D Expenditure	Research and Development Expenditure
SIAM	Society of Indian Automobile Manufacturers
TARI	Thought Arbitrage Research Institute
UNODC	United Nations Office on Drugs and Crime
VAT	Value Added Tax
WIPO	World Intellectual Property Organisation

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About FICCI

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. FICCI has contributed to this historical process by encouraging debate, articulating the private sector's views and influencing policy.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry.

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About FICCI CASCADE

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 18thJanuary, 2011 at FICCI Federation House, New Delhi.

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

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