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Global Arms Industry and India: An Overview

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"Developed defence industrial base with integral S&T capability are essential components of Comprehensive National Power (CNP) of a nation especially when the next war would be a war of CNP particularly when both countries are nuclear."

– *Grand Strategy* by Wu Chunqiu

INTRODUCTION

Arms industry is one of the most profitable and powerful industries in the world and the weapons are amongst the most lucrative products known to mankind. Further, a few developed countries in the world such as the United States of America, the United Kingdom, Russia, France, Israel, and so on, have achieved self-sufficiency in defence production. It is a well-known fact that the production of arms and weapon systems is a big business. The United States and Russia are the world's two largest arms producers, selling over $56 billion worth of weapons to the other countries of the world. This is not something new as the countries have been making a fortune from supplying the world with military weapons and hardware since the Second World War.

Since its independence, India had the desire to achieve self-sufficiency and believed in achieving it through state controlled mechanisms. Accordingly, the first Industries (Development and Regulation) Act 1951 was formulated, which kept the defence industry under governmental control with a tight licensing policy. As a consequence to this policy, a large infrastructure for defence production

Key Points

1. Arms industry, one of the most profitable and powerful industries in the world, is worth about $400 billion as estimated by Stockholm International Peace Research Institute (SIPRI).
2. Total world military expenditure was $1686 billion (2016), about 2.2 percent of global gross domestic product (GDP) and five biggest spenders were—the USA, China, Russia, Saudi Arabia, and India.
3. In 2012-12016, the five largest arms exporters are - the USA, Russia, China, France and Germany, with the USA being the top arms exporter having 33 percent of the global export.
4. In 2012–2016, the five largest arms importers are—India, Saudi Arabia, UAE, China, and Algeria with India being the largest arms importer having 14 percent share of the global imports.
5. India, the largest importer of major arms, imports almost three times of China and four times of Pakistan.
6. Its arms import has increased by 43 percent between periods 2007–2011 and 2012–2016.
7. In 2012–2016, Russia (the main supplier for India) accounted for 68 percent of India's import while the USA accounted for 14 percent.
8. As per SIPRI, *the major reason for the high levels of imports is that India's arms industry has largely failed to produce competitive indigenously designed weapons.*

The Centre for Land Warfare Studies (CLAWS), New Delhi, is an autonomous think-tank dealing with national security and conceptual aspects of land warfare, including conventional and sub-conventional conflict and terrorism. CLAWS conducts research that is futuristic in outlook and policy-oriented in approach.

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has been created consisting of a number of Ordnance Factories, defence public sector undertakings (PSUs) and Defence research and development laboratories. In spite of creating such a huge defence industrial base, India still imports more than 60 percent of its defence equipment and weapon systems from foreign countries. However, if this money is invested within the country, it will lead to the growth of an indigenous defence industry and achievement of self-sufficiency in the matters of defence. It will also result in the development of associated civil industry and employment generation, which will lead to the overall economic growth of our country.

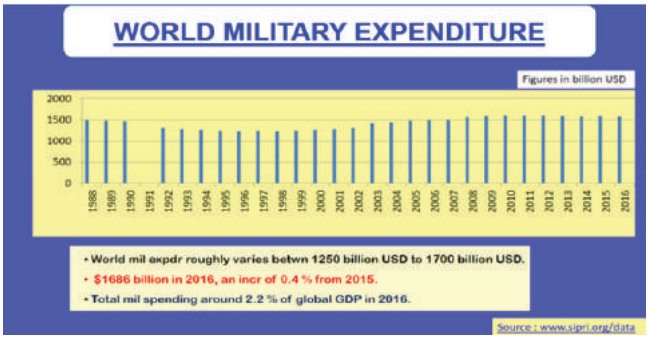
Global Arms Industry

The arms industry, also known as the defence industry or arms trade, is a global industry responsible for the manufacturing and sales of weapons and military technology.[1] It consists of a commercial industry which is involved in the research and development, engineering, production and servicing of military material, equipment and facilities. The products of this industry include military aircrafts, military vehicles, naval ships, guns, artillery guns, tanks, armoured fighting vehicles, missiles, ammunition, electronic systems, radars, night vision devices, laser sights, hand grenades, landmines and many more. The arms industry also provides other logistical and operational support.

WORLD MILITARY SPENDING

Stockholm International Peace Research Institute (SIPRI) estimated that in the year 2016, the global military expenditures were roughly $1,686 billion, which accounted for 2.2 percent of the global gross domestic product (GDP).[2] It is an increase of about 0.4 percent in real terms from 2015. A part of the military expenditure goes towards the procurement of military hardware and services from the arms industry.[3] Many industrialized countries have a well-developed domestic arms industry, which is able to meet the major requirements of their armed forces. Some countries also have a substantial domestic trade in weapons for use by its citizens, primarily for self-defence, hunting or sporting purposes. As per the Small Arms Survey, it is estimated that there are about 875 million small arms in circulation worldwide, which are produced by more than 1,000 companies from nearly 100 countries.[4] The comprehensive world military expenditure for the period 1988–2016 is shown[5] in the figure below (Figure 1).

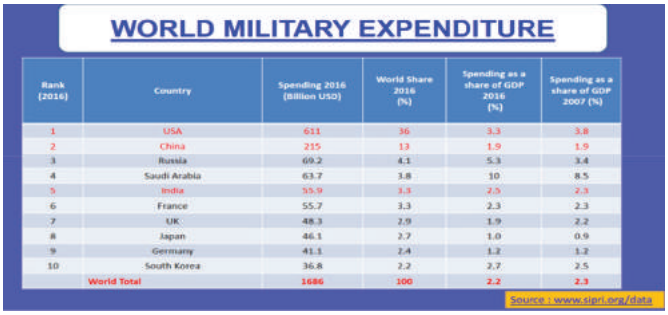
Figure 1



Trends in Military Expenditure

Trends and patterns in military expenditure vary considerably in different regions. It has emerged that spending continued to grow in Asia and Oceania, Central and Eastern Europe and North Africa. On the other hand, spending fell in Central America and the Caribbean, the Middle East, South America and sub-Saharan Africa.

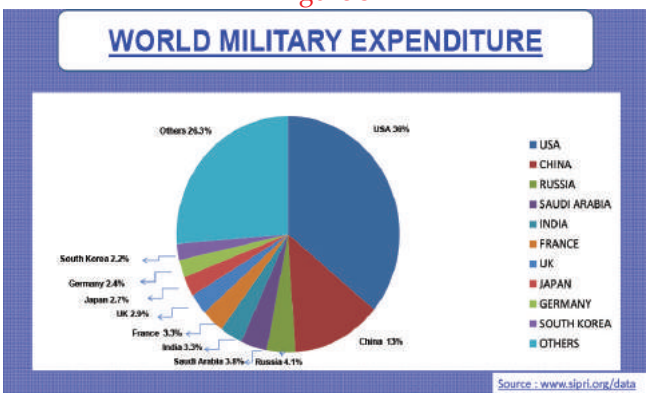
Figure 2



Rank (2016)	Country	Spending 2016 (Billion USD)	World Share 2016 (%)	Spending as a share of GDP 2016 (%)	Spending as a share of GDP 2007 (%)
1	USA	611	36	3.3	3.8
2	China	215	13	1.9	1.9
3	Russia	69.2	4.1	5.3	3.4
4	Saudi Arabia	63.7	3.8	10	8.5
5	India	55.9	3.3	2.5	2.3
6	France	55.7	3.3	2.3	2.3
7	UK	48.3	2.9	1.9	2.2
8	Japan	46.1	2.7	1.0	0.9
9	Germany	41.1	2.4	1.2	1.2
10	South Korea	36.8	2.2	2.7	2.5
	World Total	1686	100	2.2	2.3

- The USA has remained to be the highest annual military spender in the world. The US military spending grew by 1.7 percent between 2015 and 2016 to $611 billion (Figure 2). The growth in the US military expenditure (in 2016) may signal the end of a trend of decrease in spending, which had resulted from the economic crisis and the withdrawal of troops from Afghanistan and Iraq.
- China was the second largest military spender in 2016 with an expenditure of $215 billion (Figure 3). Though its military expenditure increased by 5.4 percent in 2016, the rate of growth was much lower than the previous years.
- Russia increased its spending by 5.9 percent in 2016 to $69.2 billion, which makes it the third largest military spender.
- Saudi Arabia was the third largest spender in 2015 but dropped to the fourth position in 2016. Spending by Saudi Arabia fell by 30 percent in 2016 to $63.7 billion, despite its continued involvement in regional wars.

Figure 3



- As far as India is concerned, its military expenditure grew by 8.5 percent in 2016 to $55.9 billion, which makes it the fifth largest spender.
- The expenditure in Central Europe grew by 2.4 percent in 2016. As highlighted by SIPRI, the growth in spending by many countries in Central Europe can be partly attributed to the perception of Russia posing a greater threat.
- Spending in Africa fell by 1.3 percent in 2016, a second year of decrease. In Asia and Oceania, military expenditure rose by 4.6 percent in 2016, which may be related to many tensions in the region such as those over territorial rights in the South China Sea.
- It has also been noticed that there has been a large fall in the military expenditure in many oil-exporting countries, mainly due to falling oil revenues and associated economic problems with the fall in oil price. For example, fall in the absolute military expenditure of Saudi Arabia, Venezuela, South Sudan and Iraq.
- Military spending as a share of GDP[6] was highest in the Middle East, with an average of 6.0 percent of GDP in 2016, while it was lowest in the Americas, with an average of 1.3 percent of GDP. As regards to India, it spent 2.5 percent of its GDP in 2016 and the share of India in the global military expenditure was 3.3 percent.

INTERNATIONAL ARMS TRANSFERS

According to SIPRI Fact Sheet,[7] the volume of international transfers of major weapons in 2012–2016 was 8.4 percent higher than that in 2007–2011. The flow of arms to Asia, Oceania and the Middle East increased between 2007–2011 and 2012–2016, while there was a decrease in the flow to Europe, the Americas and Africa. The world's largest arms exporting as well as importing countries have been discussed in the succeeding paragraphs.

The Exporters, 2012–2016

SIPRI has identified 57 countries as exporters of major weapons in 2012–2016. The five largest suppliers of arms during that period—the United States, Russia, China, France and Germany—were responsible for 74 percent of all arms exports (see Figure 4). The top five in 2012–2016 exported 8.5 percent more arms than the top five countries in 2007–2011.

Figure 4

World's largest arms exporters

Units are in Trend Indicator Values expressed as millions of represent real financial flows as prices for the underlying arms following are estimates from Stockholm International Peace Rese

2012–2016 Rank	Supplier	Arms Exp
1	United States	47,169
2	Russia	33,186
3	China	9,132
4	France	8,564
5	Germany	7,946
6	United Kingdom	6,586
7	Spain	3,958
8	Italy	3,823
9	Ukraine	3,677
10	Israel	3,233

- The USA was the top arms exporter in 2012–2016, with 33 percent share of the global arms export, compared with 30 percent in 2007–2011. Its exports of major weapons increased by 21 percent compared with 2007–2011. The Middle East was the largest recipient of US weapons, accounting for 47 percent of the US arms exports. The US has exported its weapons systems to more than 100 countries in 2012–2016.
- Russia was the second largest arms exporter in 2012–2016 and its export of major weapons increased by 4.7 percent between 2007–2011 and 2012–2016. Russia exported its weapon systems to 50 states and to rebel forces in Ukraine. India accounted for 38 percent of the total Russian exports and Vietnam and China, each for 11 percent.
- China was the third largest weapons exporter in 2012–2016 and its exports of major arms increased by 74 percent between 2007–2011 and 2012–2016. China's share of global arms exports rose from 3.8 percent to 6.2 percent in 2012–2016. The majority of Chinese exports went to Asia and Oceania (71 percent), followed by Africa (22 percent) and the Middle East (1.7 percent). Chinese arms exports to states in Africa grew the most (122 percent) in 2012–2016 and overall, its geographic spread and the number of recipients increased. In 2007–2011, China exported major arms to 38 countries, while in 2012–2016 it exported to 44 countries.
- The top five West European suppliers—France, Germany, the UK, Spain and Italy—together accounted for 21.7 percent of the global arms transfers in 2012–2016.

The Importers, 2012–2016

According to SIPRI, in 2012–2016, about 155 countries imported major weapons. The top five recipients—India, Saudi Arabia, the United Arab Emirates (UAE), China and Algeria—accounted for 34 percent of the total arms imports during this period. Of these, India, China and Algeria were

among the top five importers in both 2007–2011 and 2012–2016. At the regional level, Asia and Oceania accounted for 43 percent of imports in 2012–2016, followed by the Middle East (29 percent), Europe (11 percent), the Americas (8.6 percent) and Africa (8.1 percent). The global share of major arms imports by the 10 largest importers in 2012–2016 is shown below (Figure 5).

Figure 5

World's largest arms importers

https://en.wikipedia.org/wiki/Arms_industry#Small_arms

1/16/2016 Arms industry

Units are in Trend Indicator Values expressed as millions of U represent real financial flows as prices for the underlying arms can

2012–2016 rank	Recipient	Arms imp
1	India	18,239
2	Saudi Arabia	11,689
3	United Arab Emirates	6,593
4	China	6,381
5	Algeria	5,312
6	Turkey	4,721
7	Australia	4,636
8	Iraq	4,596
9	Pakistan	4,494
10	Vietnam	4,273

- As the largest importer of major arms in 2012–2016, India accounted for 14 percent of the global imports. Its imports increased by 43 percent between 2007–2011 and 2012–2016. India's imports in the most recent period were far greater than those of its rivals, China and Pakistan. As per the SIPRI database[8], *the major reason for the high level of imports is that India's arms industry has largely failed to produce competitive indigenously designed weapons.* In 2012–2016, Russia supplied 68 percent of India's arms imports, the USA 14 percent and Israel 7.2 percent. Based on the existing orders and weapons profile of the Indian armed forces, it is estimated that Russia will remain the largest supplier to India for the foreseeable future.
- Arms imports by the states in the Middle East increased by 86 percent between 2007–2011 and 2012–2016. During 2012–2016, Saudi Arabia accounted for 8.2 percent share of the global arms imports and was the second largest arms importer in the world. There was a rise of 212 percent in the arms import of Saudi Arabia between 2007–2011 and 2012–2016.
- Being the third largest arms importer in the world, the UAE accounted for 4.6 percent of the global arms import and saw a rise of 63 percent from 2007–2011.
- As regards to China, it has emerged that China's imports decreased by 11 percent between 2007–2011 and 2012–2016 and China was the fourth largest importer of arms in 2012–2016. While China was the largest importer globally by a wide margin in the early 2000, it dropped to the fourth place in 2012–2016. This has been possible due to the ever-increasing manufacturing capabilities of China for producing its own advanced weapons systems. Consequently, China has become less dependent on arms imports and its imports primarily include some key weapons and components, large transport aircraft and helicopters and engines for aircrafts, vehicles and ships. Engines accounted for 30 percent of China's total imports in 2012–2016. Russia was the largest supplier of China and accounted for 57 percent of Chinese imports, followed by Ukraine (16 percent) and France (15 percent).
- Between 2007–2011 and 2012–2016, arms imports by states in Europe fell by 36 percent, the Americas by 18 percent and Africa by 6.6 percent.

TOP WEAPON-MANUFACTURING COMPANIES OF THE WORLD

As per SIPRI estimates, the top 100 arms-producing companies in the world sold over $400 billion worth of arms and weapons in 2014. The largest arms-producing companies in the world along with their country of origin are listed below (Figure 6). This information is based on a list published by the SIPRI for 2016.[9] (The names of state-owned Chinese arms-producing companies have not been included because of the lack of comparable and sufficiently accurate data).

Figure 6

TOP ARMS PRODUCING COMPANIES IN WORLD

Rank (2016)	Company	Country	2016 Arms Sales USD Billion	2015 Rank	2015 Arms sales USD Billion	Remarks
1	Lockheed Martin Corp	USA	40.830	1	36.900	
2	Boeing	USA	29.510	2	28.313	
3	Raytheon	USA	22.910	4	22.055	↑
4	BAE Systems*	UK	22.790	3	22.689	↓
5	Northrop Grumman Corp	USA	21.400	5	20.313	
6	General Dynamics Corp	USA	19.230	6	19.483	
7	Airbus Group	Trans European	12.520	7	12.869	
*5	BAE Systems inc (BAE Systems UK)	USA	9.300	5	9.417	subsidiary
8	L-3 Communications	USA	8.890	10	8.881	↑
9	Leonardo (previously Finmeccanica)	Italy	8.500	9	9.264	
10	Thales Corp	France	8.170	11	8.094	↑
11	United Technologies Corp	USA	6.870	8	9.620	↓

* Excludes data of China's state-owned companies

Source : SIPRI Arms Industries Database

We shall see the significant aspects of each of these top weapon-manufacturing companies[10] briefly in the succeeding paragraphs.

Lockheed Martin Corp (Rank 1)

- Lockheed Martin (LM) is the largest weapon manufacturer in the world and is miles ahead of others in terms of sales.
- Arms sales revenue (2016): 40.830 billion USD.
- Country of origin: USA.
- Total employment: 97,000.
- LM is the largest supplier to the US government and receives nearly 10 percent of the Pentagon's funds.
- **Products:** In addition to the missiles, computer systems and sensors, Lockheed Martin builds some of

the most notable products for the US military and its allies.

- In the air, it manufactures the C-130 Hercules, C-5 Galaxy, F-16 Fighting Falcon, F-22 Raptor fighter jet and F-35 Lightening II stealth fighter.
- On the ground, it makes the M270 rocket launcher and light armoured vehicles.
- At sea, LM provides specialized naval vessels.
- It produces the advanced Aegis system (used onboard naval vessels) as well as an array of missile systems, including the Trident submarine-launched ballistic missile (SLBM).
- The company has also heavily invested in developing the missile defence systems, which includes the famous PAC-3 and THAAD systems.
- With so many products developed and many on the way, it is not surprising that LM comes out as the biggest arms-producing company in the world.

Boeing (Rank 2)


Boeing AH-64 Apache attack helicopter.

- American giant Boeing is the second largest arms-manufacturing company in the world.
- Arms sales revenue (2016): 29.510 billion USD.
- Country: USA.
- Total employment: 150,500.
- Boeing has established itself as a major player in the civilian market with its commercial jetliners such as the 747, 777 and 787.
- However, it is also a major player in the military market. It supplies the military with everything from refuelling and antisubmarine aircrafts to fighter jets and electronic warfare planes.
- It gets 45 percent of its income from producing military jets and weapon systems.[11]
- **Products:**
  - Its notable products include AH-64 Apache attack helicopter; F-15 Strike Eagle and F-18 Super Hornet fighter aircrafts.
  - It also develops guided bombs, Patriot surface-to-air missile and Harpoon antiship missile.

Raytheon (Rank 3)

- Arms sales revenue (2016): 22.910 billion USD.
- Country: USA.
- Total employment: 63,000.
- This defence company is a giant, which is best known for being the largest manufacturer of guided missiles in the world.
- **Products:** From the HARM antiradar missile to the TOW antitank missile to the Sparrow and Sidewinder air-to-air missiles, Raytheon owns the missile market.
  - Two of the most famous missile systems produced by this company are—the Patriot surface-to-air missile and the Javelin antitank missile.
  - The Patriot became famous for its use during the Gulf War. The Javelin, in addition to being used in second Gulf War, is also well known for being able to strike tanks from above, where the armour is thinnest.
  - Raytheon is also heavily involved in developing missile defence systems for the USA and its allies.

BAE Systems (Rank 4)

- Arms sales revenue (2016): 22.790 billion USD.
- Country: UK.
- Total employment: 83,000.
- BAE Systems was created in 1999 through the megamerger of two British defence companies—Marconi Electronic Systems and British Aerospace.
- It is one of the largest suppliers to the US Department of Defense. In addition, it supplies products to Australia, India, Saudi Arabia and the UK.
- **Products:**
  - It manufactures CV 90, M2/M3 Infantry Fighting Vehicles and artillery pieces such as M777 Howitzer, an ultralight Howitzer.
  - For the air, the company has been involved with the development of the Eurofighter Typhoon and the F-35 Lightning II stealth fighter.
  - For the navy, the company builds an assortment of submarines, frigates and destroyers. It is also building the new British aircraft carriers of the Queen Elizabeth class.

Northrop Grumman Corp (Rank 5)


B-2 Spirit strategic bomber by Northrop Grumman. Source: Military Today

- It is another massive American arms manufacturer, which is famous for aircrafts production.
- It was formed in 1994 after the merging of Northrop and Grumman corporations.
- Arms sales revenue (2016): 21.400 billion USD.
- Country: USA.
- Total employment: 67,000.
- **Products:**
  - The company develops, manufactures and sells a range of military hardware, which includes sonar and radar equipment, naval propulsion systems and missile defence components.

... the Indian Army

- In addition to the A-10 Thunderbolt II ground attack aircraft, perhaps the most famous Northrop Grumman product is the B-2 stealth bomber the 'Spirit'. The B-2 has taken part in numerous combat missions since its first usage in 1999. It can deploy both conventional as well as thermonuclear weapons in stealth configurations.

General Dynamics Corp (Rank 6)

- With its ancestry dating back to 1899 and the construction of submarines, General Dynamics has been in the military business for a long time.
- Today the company's military sales come from all areas including air, land, sea and space.
- Arms sales revenue (2016): 19.230 billion USD.
- Country: USA.
- Total employment: 98,800.
- **Products:**
  - From computer systems and displays to Stinger missiles and Tomahawk cruise missiles, General Dynamics provides a lot of the world's weaponry.
  - One of the company's best known products is the M1 Abrams tank, the poster child of tank warfare since first Gulf War in 1991. It is currently used by Egypt, Australia, Saudi Arabia and the US militaries.
  - The company provides regular upgrades of the tank's armour, firepower and active protection system, which only suggest that this General Dynamics product will be around for a while longer.
  - It produces western world's most popular jet fighter, F-16 Fighting Falcon.

Airbus Group (Rank 7)

Airbus Military's A400M airlifter demonstates its release of decoy flares.
Source: Airbus

- The European Aeronautic Defence and Space Company, a trans-European company, was reorganized as Airbus Group in 2014.
- Arms sales revenue (2016): 12.520 billion USD.
- Country: Trans-European.
- Total employment: 133,780.
- Airbus is best known for making various passenger planes including massive double-deck A-380.
- **Products:**
  - In addition to producing a variety of transport and logistics aircrafts, the company also helps to produce the Eurofighter Typhoon, which has been adopted into the air forces of several European nations. This aircraft is also being purchased or considered for purchase by several countries outside Europe.
  - Bolstering sales of aircraft are the helicopters from the Airbus' helicopter branch. It produces the famous Eurocopter Tiger, which is an attack helicopter and incorporates some of the most modern technologies.

L3 Communications (Rank 8)

- Arms sales revenue (2016): 8.890 billion USD.
- Country: USA.
- Total employment: 38,000.
- As the name suggests, L3 Communications is heavily involved in all things related to communications.
- Besides this, the company has also branched out in the military market and is best known for its role in the military avionics.
- **Products:**
  - L3 manufactures displays and software (for aircraft and missiles), flight and engine instrument systems, cockpit displays, mobile video and data systems.
  - The company also developed IR vision technology, laser systems and a range of weapon sights for the soldier's personal weapon.
  - The company may not build aircraft carriers or tanks but it provides numerous products and support for many other major American arms producers.

Leonardo (Previously known as Finmeccanica) (Rank 9)

- The only Italian company in the list of top 10 arms-producing companies.
- Arms sales revenue (2016): 8.500 billion USD.
- Country: Italy.
- Total employment: 45,630.
- Leonardo is one of the giants of the world armament sales.
- It is a conglomerate of companies, which produces an array of military hardware for armies, navies and air forces.
- **Products:**
  - The company manufactures various radars, avionics and radios, which are used in a range of aircrafts and UAVs.
  - It also builds helicopters including the famous AugustaWestland helicopters; Mangusta and Apache helicopters.

- The company supplies the Italian army with the modern Ariete battle tanks.
- It has developed numerous antiship and antiair missile systems as well as a range of naval artillery pieces, which are used by many countries around the world.

Thales (Rank 10)

- Arms sales revenue (2016): 8.170 billion USD.
- Country: France.
- Total employment: 45,630.
- Thales is a French company and is best known in the civilian market for providing aircraft avionics and radios.
- More than half of the company's sales, however, come from military contracts.
- **Products:**
  - It supplies various types of defence equipment ranging from radar and fire-control systems for ships to armoured vehicles and UAVs.
  - In addition to upgrading their own French ships, Thales has been contracted to supply the British Royal Navy with advanced radar and fire-control systems for its new aircraft carriers.
  - The company has developed famous Starstreak missile, which at Mach 3.5, is reported to be the fastest short-range antiair missile in use.
  - On land, the company continues to develop SWARM—a small, remote-controlled armoured vehicle, which can operate a range of small weapons.

United Technologies Corporation (Rank 11)

- Arms sales revenue (2016): 6.870 billion USD (Year—2015, Sales—$9.620 billion, Rank—8).
- Country: USA.
- United Technologies Corporation is another conglomerate, which provides a large range of products for civilian and military use.
- **Products:**
  - From building aircrafts and helicopters, UTC also makes elevators and escalators.
  - It is one of the leaders in helicopter development and manufacturing. One of the best known helicopters made by the company is the UH-60 Black Hawk.
  - The other driving force behind UTC's military sales is aircraft engines, which are currently used in the fighters, bombers and trainers of 27 militaries around the world. These are also used in some of the newest aircrafts, including F-22 Raptor and F-35 Lightning II stealth fighters.

INDIAN DEFENCE SECTOR

- As regards to India, it has the third largest armed forces in the world. India is one of the fastest growing economies of the world, with its current GDP growth rate (2017–2018) being about 6.75 percent. With the rise in economy and being the largest democracy in the world, India is truly exerting its rightful place in the world order as well as in the regional arena. However, to achieve its ambition of being a power to reckon with, it is important that India must have requisite composite national power and substantial military power. Although India boasts of having one of the finest militaries in the world, it is yet to become self-sufficient in terms of advanced hi-tech weapon systems, platforms, aircrafts, battleships, carriers, submarines, AFVs, and so on. We, at present, are dependent heavily on imports for procurement of these weapon systems and equipment.[12]
- According to SIPRI data, India had a share of 14 percent in the global arms import during 2012–2016, and was the largest arms importer in the world. It is however surprising to see the growth of China during the same period, which has emerged as the world's third-largest exporter of arms, and is now ahead of even developed industrial countries of Europe such as Germany, France and the United Kingdom.
- India is one of the few countries to have designed and produced a fourth-plus-generation fighter aircraft, nuclear submarine, main battle tank and intercontinental ballistic missile with a range of more than 5000 km. However, despite these achievements, India continues to be overwhelmingly dependent on imports of arms and equipment—to meet the present as well as futuristic requirements of its armed forces. As per a report published on defence manufacturing, India's 60 percent of defence requirements are presently met by imports.[13]
- India has one of the largest defence industrial bases among the developing countries with a number of Defence Public Sector Units (DPSUs), Ordnance Factories (Ord Fys), Defence Research and Development Organization (DRDO), Defence Acquisition Wing, and so on (all under the MoD control). The primary objective of creation of these organizations was to ensure self-reliance and self-sufficiency in all matters of country's defence. However, the target of achieving 70 percent self-reliance in defence procurement by 2005 is still a distant dream. The DPSUs and Ord Fys are primarily involved in the manufacturing of equipment based on transfer of technology (ToT) or licensed production. Currently, India's self-reliance is hovering at around 35–40 percent.
- The prime reason for India's huge military imports is—its underdeveloped defence industrial base and inadequate capabilities. The products manufactured by the DPSUs/Ord Fys

are mostly outdated, technologically poor and metallurgically[14] weak. The problem is further compounded due to lack of indigenous high-end technologies and R&D, coupled with increased production timelines for most of the indigenously built weapon systems. This issue has also been highlighted in a report recently published by Parliament Standing Committee on Defence. Also, the Indian defence sector has so far not been able to replicate the success, which has been evident in other Indian sectors such as telecom, information technology (IT) and automobile.[15]

CONCLUSION

The close analysis of the global arms industry can be a good source of learning for India. Being the seventh largest economy of the world and aspiring to be part of the top five, it is absolutely necessary for India to develop its own defence industrial base to a great extent. This will not only help in meeting most of the requirements of its armed forces indigenously but will also lead to a reduction in the country's huge import bills and achieving strategic autonomy. Further, it will help in the growth of many other ancillary industries and employment generation within the country.

Notes

1. Wikipedia, (https://en.wikipedia.org/wiki/Arms_industry).
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