

Electronic Manufacturing Services

Still tariff-free, but not yet risk-free



While uncertainty looms over the US tariff situation globally, we have attempted to summarise the current scenario and the ramp-up in India's smartphone exports. We focus on: (1) The current tariff structure, levy on electronics and why it may not hurt India's interests, (2) A deep-dive into the Section 232 investigation, which considers electronics as products of strategic importance, (3) India's progress in smartphone exports over the years, as it surpasses China to become the largest smartphone exporter to the US, and (4) Potential scenarios and why high chances of a longer exemption cannot be ruled out.

- **What is the tariff situation currently?** (1) India is currently subject to a cumulative 50% tariff on exports to the US. (2) However, as the Section 232 investigation is underway, electronic goods from all countries remain exempt until further notice, making it a level playing field for all. (3) At the same time, it is pertinent to note that, in Aug'25, the US President announced the possibility of a 100% tariff on imported semiconductors and computer chips, in an effort to incentivise domestic chip production, with companies having a manufacturing presence in the US likely to be exempted from the tariff. With Apple announcing investment commitments, it is likely to be exempted from these duties, which, safeguards the interests of the Indian electronics manufacturing ecosystem.
- **What is the Section 232 investigation all about?** Section 232 of the Trade Expansion Act of 1962 allows the US President to impose trade restrictions, including tariffs, on imports of items of strategic importance and those that may threaten national security. The idea is to get clarity on (1) the US' dependence on semiconductor facilities outside the US, (2) the role of foreign governments in driving semiconductor manufacturing in specific nations; and (3) lacunae in the ecosystem and feasibility of manufacturing semiconductors in the US.
- **How have India's smartphone exports scaled up?** India's smartphone exports have scaled up meaningfully since FY23, from USD 11bn to USD 24bn in FY25, and USD 8bn in 1QFY26. Over the years, US dependence on India has seen a huge surge with Apple taking the lead. Our calculations suggest that India's value share in US mobile imports has moved up from 3% in FY23, to 18% in FY25, and hovered around 60% in 1QFY26, with Apple sourcing most of its US requirements from India. This also made India the largest exporter of smartphones to the US, surpassing China.
- **Potential scenarios:** We see one of the four situations playing out here: **(1) Exempt from tariffs:** If the Section 232 investigation concludes that electronics hold strategic value, the sector may remain exempt from tariffs, marking the most favourable scenario for Indian and Asian electronics exports; **(2) Variable tariff rates:** Levy of different tariff rates for electronics, for different countries; **(3) Flat global rate:** Levy of a uniform tariff on all electronics imports, regardless of origin, to prevent supply chain disruptions; **(4) In line with country specific tariffs:** This, in India's case, means 50%, given current circumstances; if this plays out, it will put India in a disadvantageous position vs. peers.
- **Chances of the exemption continuing cannot be ruled out:** The US President has constantly pushed Apple to build a manufacturing ecosystem within the US. On the back of this, Apple, along with its 10 partner companies, announced a commitment of USD 600bn to produce components including semiconductors, glass, rare-earth magnets, and advanced wireless charging technology that are used in Apple's products sold all over the world. This appears to have been much to the US President's liking, and in line with his agenda to manufacture locally in the US. However, to the benefit of India and other Asian peers, this keeps assembly activities concentrated outside the US. This is visible from the fact that the recent official notification from the US, which puts into effect the additional 25% tariff from 27th Aug'25 on India, has continued with the exemption on electronics.

Shalin Choksy

shalin.choksy@jmfl.com | Tel: (91 22) 66303380

Jignesh Thakur

jignesh.thakur@jmfl.com | Tel: (91 22) 6630 3514

JM Financial Research is also available on: Bloomberg - JMFR <GO>, Thomson Publisher & Reuters, S&P Capital IQ, FactSet and Visible Alpha

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

Impact on listed players

Exhibit 1. A summary on export exposure of our EMS coverage

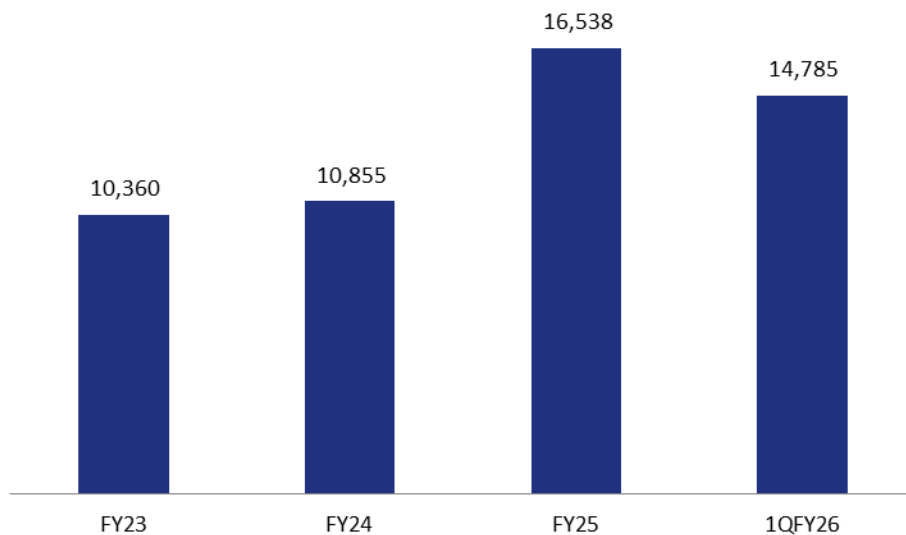
Company	Exports as a % of total in FY25	Exports to the US as a % of total
Dixon	4-5%	Major portion to US
Amber Enterprises	Not relevant	Not relevant
PG Electroplast	Not relevant	Not relevant
EPACK Durable	Not relevant	Not relevant
Kaynes	~9%	5-6%
Syrma SGS	~25%	6-7%
Cyient DLM	~60% (1Q higher since BEL gone)	16-20% (1Q higher since BEL gone)
Avalon Technologies	~45%	Most exports to US

Source: Company, JM Financial

B2C EMS players

- This includes Dixon, Amber Enterprises, PG Electroplast, and EPACK Durable. Of these, the group of companies manufacturing ACs have limited export exposure, and is a play on domestic AC penetration and their diversification strategies.
- Dixon however, saw a considerable surge in exports in 1QFY26. Our data suggests that, smartphone exports of Padget Electronics, Dixon's subsidiary hovered around INR 14.8bn in 1QFY26, which was ~12% of 1Q revenue. For the year, management has guided for total exports of ~INR 80bn, majorly from their anchor customer Motorola and the recent acquisition of Ismartu. This seems fairly achievable given the progress seen in 1Q. However, given tariffs kick in, and Dixon is able to achieve only half of the guided number, an 8-9% cut in FY26E EBITDA is likely.

Exhibit 2. Padget Electronics export revenue (INR mn)



Source: Industry, JM Financial

B2B EMS players

- This includes Kaynes Technology, Cyient DLM, and Avalon. Here, Kaynes is placed favourably given it has limited exposure to the US. However, for Cyient DLM, this exposure has been scaling up with orders from its large Indian customer completed in 4Q.
- Avalon derives ~45% of its revenue from the US. While it does have a US manufacturing presence and can shift production there to mitigate the impact of these duties, it risks its entire narrative of shifting American customers to India and making superior margins. Besides this, one also needs to keep in mind the risk of an elevated cost structure.

A brief on the current situation

The US began officially levying higher taxes on imports from dozens of countries from 7th Aug'25. Products from the European Union, Japan and South Korea are likely to be taxed at 15%, while imports from Taiwan, Vietnam and Bangladesh will be taxed at 20%. Further, while Indian imports will be taxed at 25%, Indian goods could also be subject to an additional 25% tariff, taking the total tariff to 50%, as the US President looks to penalise India for purchasing oil from Russia. That second tariff is slated to take effect on **27th Aug'25**.

Exhibit 3. Proposed tariffs on different countries by US

Country	Tariff
India	50%
Japan	15%
Taiwan	20%
EU	15%
South Korea	15%
Vietnam	20%
Thailand	19%
Cambodia	19%
China	30%
Pakistan	19%

Source: Industry, JM Financial

Tariff Breakdown

- **Baseline tariff:** A 10% universal tariff on all US imports, plus a 15% reciprocal tariff for India, totalling 25%.
- **Additional tariff:** A 25% tariff for Russian oil trade, making the total tariff 50% for non-exempt goods. Shipments loaded before 6th Aug and cleared by 17th Sep'25 are exempt.
- **Transshipment:** Products that have been transhipped to evade the applicable reciprocal tariff will be subject to a stricter 40% tariff.
- **Exemptions:** Pharmaceuticals, semiconductors, electronics (e.g., smartphones), and critical minerals are tariff-free. Steel and aluminium face separate duties (e.g., 50% on steel).

Decoding India's scale-up in mobile exports

- While the electronics segment is currently exempted from tariffs given that investigation under Section 232 is underway, the threat of tariffs certainly exists and can potentially impact India's exports to the US.
- Over the years, US mobile imports, especially from India, have not only increased significantly, but its dependence on India has seen a huge surge with Apple taking the lead. US mobile imports from India contributed 3% of its total mobile imports in FY23; as of FY25, it stands at 18%. In 1QFY26, this incrementally inched up to 60%, with India surpassing China and becoming the largest exporter of smartphones to the US. This is in terms of value.
- Some press articles also indicate India had 44% market share out of the total ~27mn market in 1QFY26, which is ~12mn units. But that, we understand, is volume market share. We note that imports of USD 5.9bn from India into US, for 12mn units, equals a per unit landed cost of USD 495, i.e., ~INR 42,000.
- The average ticket size in the US for a smartphone sold is ~USD 350, while iPhones exported from India generally have an ASP of USD 800-1,000.
- For India as well, the US has become a top destination for its smartphone exports. The US' share in India's smartphone exports has inched up to 75% as of 1QFY26 vs. 20% in FY23. This again has mainly been led by the development of the Apple supply chain here, the major contributors being Foxconn India and Tata Electronics (Wistron and Pegatron).

Exhibit 4. US mobile imports from India (USD mn)

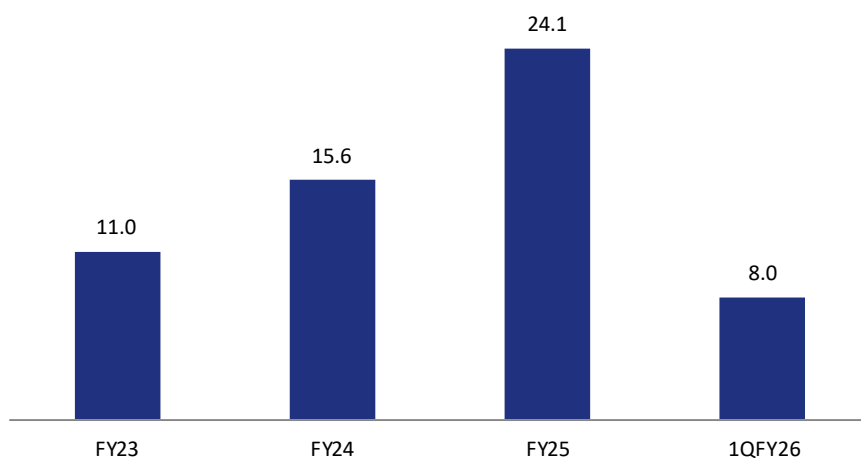
Year	US Total Smartphone Imports	India Smartphone Exports to US	India as a % of US imports
FY23	63,455	2,158	3.4%
FY24	56,083	5,568	9.9%
FY25	57,269	10,560	18.4%
1QFY26	9,921	5,942	59.9%

Source: Industry, Ministry of Commerce, JM Financial

Exhibit 5. India mobile exports to the US (USD mn)

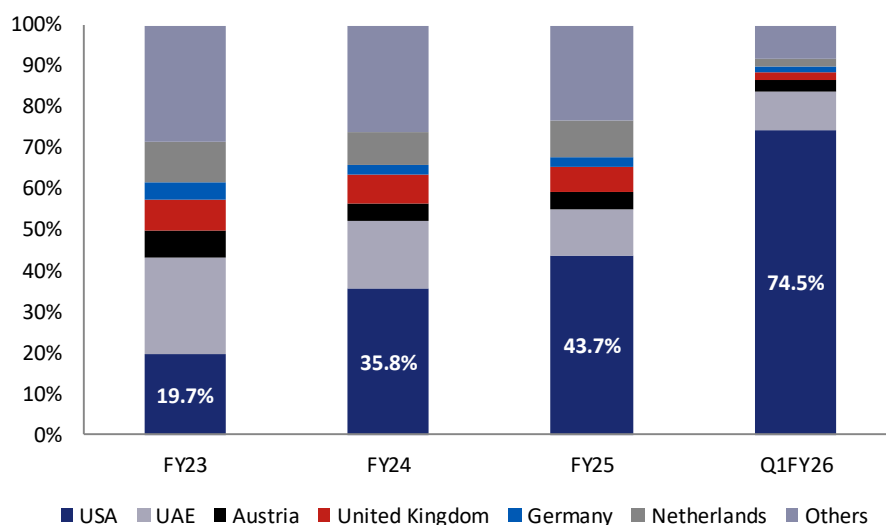
Year	India Total Smartphone Exports	India Smartphone Exports to US	India as a % of US imports
FY23	10,955	2,158	19.7%
FY24	15,573	5,568	35.8%
FY25	24,138	10,560	43.7%
1QFY26	7,972	5,942	74.5%

Source: Industry, Ministry of Commerce, JM Financial

Exhibit 6. Ramp-up in India's smartphone exports

Source: Industry, Ministry of Commerce, JM Financial

India's smartphone exports have ramped up significantly over FY23 to FY25, growing ~2.2x

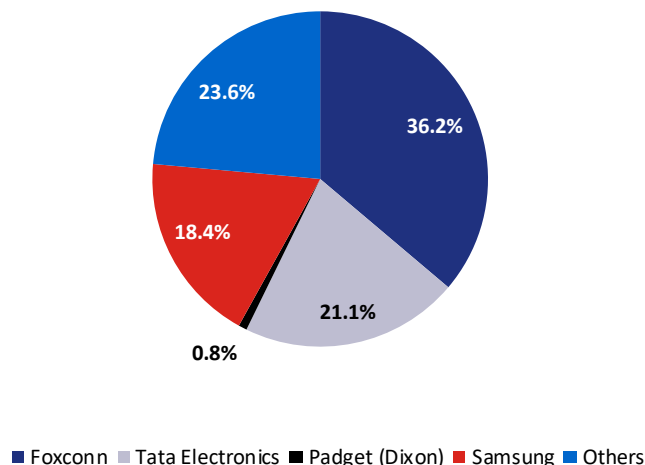
Exhibit 7. India's smartphone exports split by key nations

Source: Industry, Ministry of Commerce, JM Financial

Talking about India's smartphone exports, key export markets in 1QFY26 were – (1) USA – 74.5%, followed by (2) UAE – 9.2%.

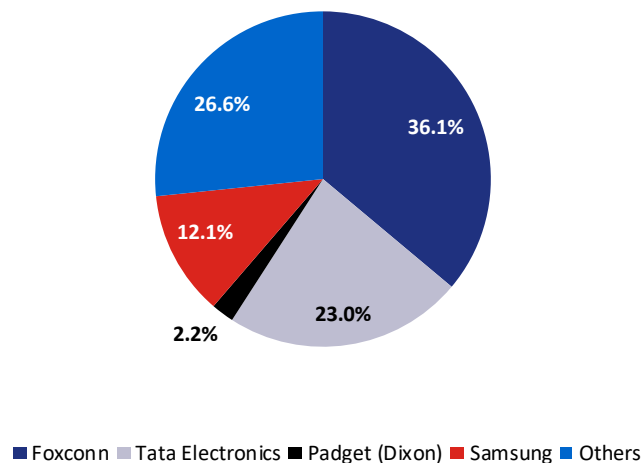
Other nations to which India exports smartphones include Austria, UK, Germany, Netherlands, amongst others

Exhibit 8. Key exporters from India (FY25)



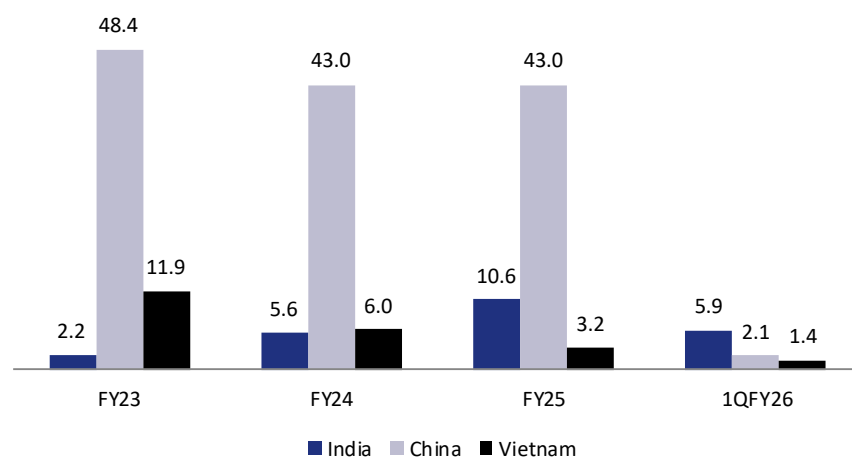
Source: Industry, JM Financial

Exhibit 9. Key exporters from India (1QFY26)



Source: Industry, JM Financial

Exhibit 10. Key nations exporting smartphones to the US (USD bn)



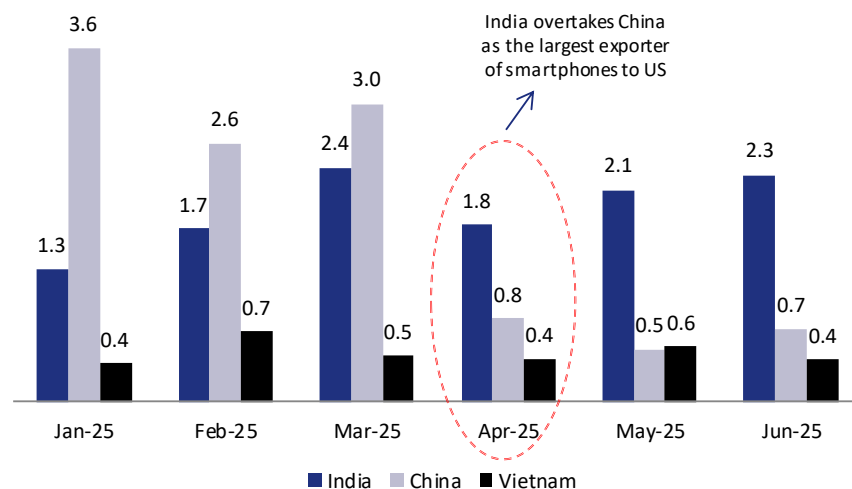
Source: Industry, Ministry of Commerce, JM Financial

Key nations exporting smartphones to the US include India, China and Vietnam. As of FY25, China was the biggest exporter, accounting for 75% of US smartphone imports, value at USD 43bn, flat vs. FY24

At the same time, India's exports nearly doubled in FY25 over FY24

However, in 1QFY26, India took the lead and became the largest exporter of smartphones to the US. This shift was seen starting Apr'25

Exhibit 11. Key nations exporting smartphones to the US (YTD CY25, USD bn)



Source: Industry, Ministry of Commerce, JM Financial

The “Apple” Effect

- Apple has significantly ramped up its iPhone production and exports from India, signalling a major shift away from China. In Apr’25, iPhone shipments from India to the US surged by 76% YoY to 2.9mn-3mn units. This strategic pivot is driven by geopolitical tensions, US-China trade uncertainties, and the current tariff scenario, which suggests that India may be in an advantageous position as compared to China.
- This move allowed Apple to ship iPhones assembled in India to the US without additional duties. As indicated by Apple, a major portion of its US requirements for the quarter ending Jun’25 (~71%) were met by manufacturing carried out in India. The electronics exemption extends to products like laptops and servers, offering temporary but significant relief to both Apple and the broader Indian electronics sector.
- Apple’s production expansion in India is bolstered by these exemptions, making Indian-assembled iPhones more price-competitive in the US compared to those from China, where electronics now face higher effective duties.

Apple’s US manufacturing plans: Apple & partner companies to invest USD 600bn

- While electronics has been exempt from tariffs since Apr’25, Tim Cook’s meeting with the US President on 6th Aug’25, is expected to have played a role in keeping electronics away from the August levies as well.
- During this meeting at the White House, Apple committed to an additional USD 100bn investment over the next 4 years in US manufacturing, over and above the USD 500bn announced earlier, taking the total committed investment of USD 600bn.
- This includes new and expanded work with 10 of Apple’s partner companies across US. These companies produce components that are used in Apple’s products sold all over the world.
- It also highlighted ongoing projects to boost domestic production. However, these moves, besides an actual effort to manufacture in the US, are widely interpreted as strategic appeasement to secure continued tariff exemptions for key Apple products, which, currently are imported from Asian nations including India.

Apple has committed to invest USD 600bn over the next 4 years in developing a US manufacturing footprint

It is pertinent to note that this includes new and expanded work with 10 of Apple’s partner companies across the US

These companies produce components including semiconductors, glass, rare-earth magnets, and advanced wireless charging technology that are used in Apple’s products sold all over the world

Exhibit 12. Summarising Apple’s investments to manufacture in the US	
Category	Details
Total Investment	USD 600bn over 4 years (expanded from USD 500bn in Feb 2025).
Manufacturing Initiatives	- USD 2.5bn with Corning for iPhone/Apple Watch cover glass in Kentucky - Partnerships with Global Foundries (NY) and Amkor (AZ) for semiconductors and chip packaging - TSMC Arizona facility for advanced silicon production
AI & Server Infrastructure	- 250,000 sq. ft. server manufacturing facility in Houston (opening 2026) - Data centre expansions in NC, IA, OR
Job Creation	- 20,000 direct jobs (R&D, silicon engineering, AI, manufacturing) - Supports 450,000+ jobs across 50 states via suppliers
Advanced Manufacturing Fund	Increased from USD 5bn to USD 10bn, focused on U.S. silicon production

Source: Apple, JM Financial

Exhibit 13. Summarising Apple's investments to manufacture in the US

\$600 Billion U.S. Investment

Source: Apple, JM Financial

These commitments seem to have led to a pause in the push for local manufacturing

- The US President has constantly pushed Apple to build a manufacturing ecosystem within the US. On the back of this, Apple, along with its 10 partner companies announced a commitment of USD 600bn.
- This appears to have been much to his liking, and in line with his agenda to manufacture locally in the US. However, to the benefit of India and other Asian peers, this keeps assembly activities concentrated outside the US.
- This is visible from the fact that the recent official notification from the US, which puts into effect the additional 25% tariff from 27th Aug'25, has continued with the exemption on electronics.

While uncertainty looms, India investments continue

- Interestingly, Apple has begun production of all four iPhone 17 models in India ahead of the series' official launch next month. This marks the first time Apple is manufacturing its entire new iPhone line up including both standard and Pro versions in India.
- In Jan'25, Tata Electronics announced the acquisition of a controlling 60% stake in Pegatron Technology India Private Limited, a subsidiary of Taiwanese electronics manufacturing giant Pegatron Corporation. Additionally, Tata Electronics has already invested INR 60bn in the iPhone plant in Hosur, Tamil Nadu, and has begun initial production of older iPhone models in Apr'25, further enhancing its capacity.
- In May'25, Foxconn made an investment of USD 1.5 bn to expand its focus on India as Apple looks to mitigate geopolitical and tariff risks by shifting production away from China.
- Interestingly, Foxconn's move comes just weeks after Apple CEO Tim Cook said he expected most iPhones sold in the United State would have "India as their country of origin".

Semiconductor tariff situation

- In early Aug'25, despite leaving electronics and semiconductors out of the ambit of the final levies, the US President announced that he is looking to put a 100% tariff on imported semiconductors and computer chips, intended to incentivise domestic chip production.
- However, he placed a key exemption on any company that commits to manufacturing chips in the United States. However, he further substantiated his stance by quoting, "If, for some reason, you say you're building, and you don't build, then we go back, and we add it up, it accumulates, and we charge you at a later date, you have to pay, and that's a guarantee."
- Some global giants that have already invested in the US, including the Taiwan Semiconductor Manufacturing Company (TSMC) and South Korea's Samsung. Hence, it would be fair to assume that these companies may not be affected by the tariff. At the same time, Chinese chipmaker SMIC and a few South East Asian companies in the Philippines, Malaysia and other countries are likely to face a 100% tariff.

In the below tables, we have illustrated, through data, how global giants in the semiconductor business may or may not be affected by the levy of 100% tariffs. Several large suppliers like TSMC, Samsung, Micron, Global Foundries, amongst others have taken the necessary steps to build/expand manufacturing presence in the US, which can essentially safeguard them from the 100% tariffs being spoken about.

Exhibit 14. Companies likely impacted by 100% tariff

Company	Country of Origin	Impact Details
SMIC (Semiconductor Manufacturing International Corporation)	China	SMIC, a major Chinese chipmaker, lacks US manufacturing plans. Its chips, used in automotive and consumer electronics, are likely to face the 100% tariff, potentially raising costs for US clients. SMIC supplies chips to Huawei, Qualcomm, and Broadcom
Philippine Semiconductor Firms (e.g., members of SEIPI – Semiconductor & Electronics Industries in the Philippines)	Philippines	Members of the SEIPI export 70% of their production to the US, and currently have no US manufacturing presence. Hence, quite likely that these firms face the brunt of the 100% tariff that can be levied.
Malaysian Semiconductor Firms	Malaysia	Malaysia is a key supplier of chips to the US, exporting semiconductors to the tune of USD 2bn (as of 2024). These firms lack US manufacturing presence, and the levy of tariffs on them is likely.
Smaller Asian Chipmakers (e.g., Thailand, Vietnam)	Various	These countries are large suppliers to the US. Smaller firms without US facilities face the 100% tariff, potentially increasing costs for automotive and consumer electronics.

Source: Industry, JM Financial

Exhibit 15. Companies likely to be exempted from 100% tariff

Company	Country of Origin	Exemption Details
Taiwan Semiconductor Manufacturing Company (TSMC)	Taiwan	TSMC pledged USD 165bn for a major Arizona manufacturing cluster, with USD 100bn announced in Mar'25. These US investments ensure exemptions, protecting clients like Apple and Nvidia.
Samsung Electronics	South Korea	Samsung, exempt due to its chip making facilities in Texas and additional US investment commitments of ~USD17bn.
SK Hynix	South Korea	SK Hynix, with investments of ~USD 4bn in Indiana and Texas, is likely to be exempt. Its focus lies predominantly on memory chips and aligns with US' production goals.
Intel	USA	Intel's has manufacturing presence in countries across Asia, Europe and the US (Arizona and Ohio), and hence qualifies for exemptions. Intel is currently undertaking expansion of its domestic chip-making capacity, investing > USD 100bn to expand its US sites.
Micron Technology	USA	Micron has manufacturing presence across Asia and US. Its USD 200bn investment, including a new Boise, Idaho, facility ensures exemptions.
Global Foundries	USA	Global Foundries committed USD 16bn in Jun'25 to expand its New York and Vermont facilities, ensuring exemptions.
Texas Instruments	USA	Texas Instruments' USD 60bn investment in seven US chip fabs, announced in Jun'25, ensures exemptions. It will produce 19 bn chips for Apple in 2025, reinforcing its tariff-free status.
Nvidia	USA	Nvidia is a fab-less chip designer and manufactures through several global giants like TSMC, Global Foundries and Samsung. Hence, their exemptions are a sigh of relief for Nvidia as well. Further, Nvidia has also pledged up to USD 500bn for developing US AI infrastructure.

Source: JM Financial, Industry

More on the Section 232 investigation

Why the investigation under Section 232?

- The US relies heavily on foreign suppliers for electronic goods. While the US government is working to ramp up domestic semiconductor production through subsidies provided in the 2022 CHIPS and Science Act due to national security concerns, it still relies on imported chips, as well as imported material and chemical inputs. It also depends heavily on testing and packaging abroad, often importing or reimporting its final chips.
- This investigation refers to Section 232 of the Trade Expansion Act of 1962, which allows the US President to impose trade restrictions, including tariffs, on imports that are determined to threaten national security. This section has been used to investigate and impose tariffs on various products, which may fall under this category.
- On 14th Apr'25, the US Department of Commerce Bureau of Industry and Security (BIS) announced the initiation of investigations into the effects on US national security of imports of (1) pharmaceuticals and pharmaceutical ingredients and (2) imports of semiconductors and semiconductor manufacturing equipment.
- Section 232 investigations can take ~270 days to complete, but the US administration signalled that it plans to move faster, and intends to complete investigations over the next few months so as to enable the imposition of tariffs.

The levy of tariffs upon completion of the investigation

- The US administration's tariffs have included baseline and reciprocal tariffs on most products from most countries, including penalties, similar to those levied on India for importing Russian crude.
- Further, the structure also includes Section 232 tariffs on imports associated with industries the US views as strategically important. However, it is pertinent to note that baseline/reciprocal tariffs levied and Section 232 tariffs, which may be levied (upon completion of the investigation), do not stack on top of each other.
- Rather, products affected by Section 232 tariffs are exempt from the initial set of reciprocal tariffs, and the final rate levied on these products may be different, in all hopes lower than the rate levied on the specific country at large.

What does this investigation include and what areas does it seek clarity on?

- Insofar as electronics are concerned, this investigation was on "semiconductors, semiconductor manufacturing equipment (SME)," and their derivative products. This includes, among other things, semiconductor substrates and bare wafers, legacy chips, leading-edge chips, microelectronics, and SME components. Derivative products include downstream products that contain semiconductors, such as those that make up the electronics supply chain."
- This investigation looks to get incremental clarity, broadly on (1) the US dependence on semiconductor facilities outside the US, (2) the role of foreign governments in driving semiconductor manufacturing in specific nations; and (3) the lacunae in the American ecosystem and the feasibility of manufacturing semiconductors in the US.
 - The current and projected demand for semiconductors and SME in the US, differentiated by product type and node size.
 - The ability and feasibility of domestic production of semiconductors and SME to meet domestic demand at each node size for each product type
 - The role of foreign fabrication and assembly, test and packaging facilities and foreign supply in meeting US semiconductor demand.
 - The concentration of US semiconductors and SME imports from a small number of fabrication facilities and associated risks.
 - The impact of foreign government subsidies and predatory trade practices on US semiconductor and SME industry competitiveness, and its financial impact.

- The potential for export restrictions by foreign nations, including ability of foreign nations to weaponise control over semiconductors and SME supply chains.
- Impact of current policies on semiconductor and SME manufacturing, and need of additional measures, including tariffs, to protect national security interests.
- Areas where the US workforce faces a talent gap in production of semiconductors, SME or SME components.

Exhibit 16. HS codes of electronic products exempted as the Section 232 investigation is underway

HS Codes	Description
8471	Computing devices and their components, such as computers, storage devices, and input/output units
84733	Parts and accessories of the machines mentioned above
8486	Machines used manufacturing semiconductor boules or wafers, semiconductor devices, electronic integrated circuits or flat panel displays
85171300	Smartphones
85176200	Routers and switching devices, data transmission equipment, and signal converters or regenerators
85235100	Solid-state non-volatile storage devices including flash drives and solid-state drives
8524	Flat panel display modules, whether or not incorporating touch-sensitive screens
85285200	Monitors capable of directly connecting to and designed for use with an computers
85411000	Diodes, excluding photosensitive or LEDs
85412100	Transistors, other than photosensitive transistors, with a dissipation rate of <1W
85412900	Transistors, other than photosensitive transistors and transistors with a dissipation rate of <1W
85413000	Led chips and diodes in any form, but excluding finished LED bulbs, LED display panels and backlighting
85414910	Certain diodes under photovoltaic cells assembled in modules or made up into panels
85414970	Transistors under photovoltaic cells assembled in modules or made up into panels
85414980	Other photosensitive semiconductor devices and LEDs, not elsewhere specified
85414995	Other types photovoltaic cells assembled in modules or made up into panels
85415100	Semiconductor-based transducers
85415900	Other semiconductor devices
85419000	Parts of diodes, transistors, and semiconductor devices, and parts of photosensitive and LEDs
8542	Electronic integrated circuits and parts

Source: Industry, JM Financial

Our take on the potential tariff structure upon completion of the investigation

Once the investigation under Section 232 is complete, the US government's assessment will determine how electronics imports are treated going forward. The decision will hinge on whether electronics are considered strategically important and how that classification aligns with its broader trade and national security objectives. Based on current possibilities, we foresee several potential scenarios:

- **Not stacked:** If Section 232 determines that electronics hold strategic value, the sector may remain exempt from tariffs, which would be the most favourable scenario for Indian and Asian electronics exports.
- **Variable tariff rates:** Section 232 could assign specific tariff rates for electronics, different from the general 50% rate applied to other Indian exports or the respective rates levied on other competing nations.
- **Flat global rate:** If classified as strategically important, the US might impose a uniform tariff on all electronics imports, regardless of origin, to prevent supply chain disruptions. This may be lower than the rate applied on the specific nation.
- **50% tariff** – Electronics exports from India could face the same 50% tariff applied to other exports, which would be the worst case scenario for Indian electronics exports. If this situation plays out, India will be placed disadvantageously vs. peers.

The worst case: How feasible is it to set up manufacturing facilities in the US?

Setting up manufacturing facilities in the US is feasible but presents significant challenges that could deter some investors and companies. While the US market and infrastructure offer advantages, the realities of high costs, regulatory complexities, and extended setup times weigh heavily as disadvantages.

- **High costs:** Labour and operational expenses in the US are substantially higher than in countries like India and China. For example, assembly labour costs are roughly 13 times higher in the US than in India. Compliance with strict environmental, safety, and labour regulations further raises costs.
- **Longer setup time:** Establishing a new manufacturing facility in the US can take 12 to 18 months or more, excluding the time needed to develop a supporting supply chain ecosystem. This is slower compared to China, where streamlined processes and government support enable faster setups. To put this into perspective, Apple began manufacturing products in China around 2001, but building a robust, comprehensive manufacturing ecosystem that included suppliers, logistics, and assembly facilities took over a decade of deep, long-term investment and expansion through its key partners.
- **Regulatory complexity:** Navigating federal, state, and local regulations can be time-consuming and costly. Permits, inspections, and labour laws create barriers that can delay operational start and increase overhead.
- **Workforce issues:** Skilled labour shortages in manufacturing exist in some US regions. High wages necessitate more investment in training and automation to offset expenses, complicating initial setup.
- **Ecosystem development:** While the US has mature industrial ecosystems, creating tailored supply chains for new sectors can be prolonged and expensive. This limits flexibility for companies seeking rapid scale-up.

APPENDIX I

JM Financial Institutional Securities Limited

Corporate Identity Number: U67100MH2017PLC296081

Member of BSE Ltd. and National Stock Exchange of India Ltd.

SEBI Registration Nos.: Stock Broker - INZ000163434, Research Analyst - INH000000610

Registered Office: 7th Floor, Cnergy, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India.

Board: +91 22 6630 3030 | Fax: +91 22 6630 3488 | Email: jmfinancial.research@jmfl.com | www.jmfl.comCompliance Officer: Mr. Sahil Salastekar | Tel: +91 22 6224 1743 | Email: sahil.salastekar@jmfl.comGrievance officer: Mr. Sahil Salastekar | Tel: +91 22 6224 1743 | Email: instcompliance@jmfl.com

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Definition of ratings	
Rating	Meaning
Buy	Total expected returns of more than 10% for stocks with market capitalisation in excess of INR 200 billion and REITs and more than 15% for all other stocks, over the next twelve months. Total expected return includes dividend yields.
Hold	Price expected to move in the range of 10% downside to 10% upside from the current market price for stocks with market capitalisation in excess of INR 200 billion and REITs and in the range of 10% downside to 15% upside from the current market price for all other stocks, over the next twelve months.
Sell	Price expected to move downwards by more than 10% from the current market price over the next twelve months.

REITs refers to Real Estate Investment Trusts.

Research Analyst(s) Certification

The Research Analyst(s), with respect to each issuer and its securities covered by them in this research report, certify that:

All of the views expressed in this research report accurately reflect his or her or their personal views about all of the issuers and their securities; and

No part of his or her or their compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

Important Disclosures

This research report has been prepared by JM Financial Institutional Securities Limited (JM Financial Institutional Securities) to provide information about the company(ies) and sector(s), if any, covered in the report and may be distributed by it and/or its associates solely for the purpose of information of the select recipient of this report. This report and/or any part thereof, may not be duplicated in any form and/or reproduced or redistributed without the prior written consent of JM Financial Institutional Securities. This report has been prepared independent of the companies covered herein.

JM Financial Institutional Securities is registered with the Securities and Exchange Board of India (SEBI) as a Research Analyst and a Stock Broker having trading memberships of the BSE Ltd. (BSE) and National Stock Exchange of India Ltd. (NSE). No material disciplinary action has been taken by SEBI against JM Financial Institutional Securities in the past two financial years which may impact the investment decision making of the investor. Registration granted by SEBI and certification from the National Institute of Securities Market (NISM) in no way guarantee performance of JM Financial Institutional Securities or provide any assurance of returns to investors.

JM Financial Institutional Securities renders stock broking services primarily to institutional investors and provides the research services to its institutional clients/investors. JM Financial Institutional Securities and its associates are part of a multi-service, integrated investment banking, investment management, brokerage and financing group. JM Financial Institutional Securities and/or its associates might have provided or may provide services in respect of managing offerings of securities, corporate finance, investment banking, mergers & acquisitions, broking, financing or any other advisory services to the company(ies) covered herein. JM Financial Institutional Securities and/or its associates might have received during the past twelve months or may receive compensation from the company(ies) mentioned in this report for rendering any of the above services.

JM Financial Institutional Securities and/or its associates, their directors and employees may; (a) from time to time, have a long or short position in, and buy or sell the securities of the company(ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) covered under this report or (c) act as an advisor or lender/borrower to, or may have any financial interest in, such company(ies) or (d) considering the nature of business/activities that JM Financial Institutional Securities is engaged in, it may have potential conflict of interest at the time of publication of this report on the subject company(ies).

Neither JM Financial Institutional Securities nor its associates or the Research Analyst(s) named in this report or his/her relatives individually own one per cent or more securities of the company(ies) covered under this report, at the relevant date as specified in the SEBI (Research Analysts) Regulations, 2014.

The Research Analyst(s) principally responsible for the preparation of this research report and their immediate relatives are prohibited from buying or selling debt or equity securities, including but not limited to any option, right, warrant, future, long or short position issued by company(ies) covered under this report. The Research Analyst(s) principally responsible for the preparation of this research report or their immediate relatives (as defined under SEBI (Research Analysts) Regulations, 2014); (a) do not have any financial interest in the company(ies) covered under this report or (b) did not receive any compensation from the company(ies) covered under this report, or from any third party, in connection with this report or (c) do not have any other material conflict of interest at the time of publication of this report. Research Analyst(s) are not serving as an officer, director or employee of the company(ies) covered under this report.

While reasonable care has been taken in the preparation of this report, it does not purport to be a complete description of the securities, markets or developments referred to herein, and JM Financial Institutional Securities does not warrant its accuracy or completeness. JM Financial Institutional Securities may not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. This report is provided for information only and is not an investment advice and must not alone be taken as the basis for an investment decision.

This research report is based on the fundamental research/analysis conducted by the Research Analyst(s) named herein. Accordingly, this report has been prepared by studying/focusing on the fundamentals of the company(ies) covered in this report and other macro-economic factors. JM Financial Institutional Securities may have also issued or may issue, research reports and/or recommendations based on the technical/quantitative analysis of the company(ies) covered in this report by studying and using charts of the stock's price movement, trading volume and/or other volatility parameters. As a result, the views/recommendations expressed in such technical research reports could be inconsistent or even contrary to the views contained in this report.

The investment discussed or views expressed or recommendations/opinions given herein may not be suitable for all investors. The user assumes the entire risk of any use made of this information. The information contained herein may be changed without notice and JM Financial Institutional Securities reserves the right to make modifications and alterations to this statement as they may deem fit from time to time.

This report is neither an offer nor solicitation of an offer to buy and/or sell any securities mentioned herein and/or not an official confirmation of any transaction.

This report is not directed or intended for distribution to, or use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject JM Financial Institutional Securities and/or its affiliated company(ies) to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to a certain category of investors. Persons in whose possession this report may come, are required to inform themselves of and to observe such restrictions.

Additional disclosure only for U.S. persons: JM Financial Institutional Securities has entered into an agreement with JM Financial Securities, Inc. ("JM Financial Securities"), a U.S. registered broker-dealer and member of the Financial Industry Regulatory Authority ("FINRA") in order to conduct certain business in the United States in reliance on the exemption from U.S. broker-dealer registration provided by Rule 15a-6, promulgated under the U.S. Securities Exchange Act of 1934 (the "Exchange Act"), as amended, and as interpreted by the staff of the U.S. Securities and Exchange Commission ("SEC") (together "Rule 15a-6").

This research report is distributed in the United States by JM Financial Securities in compliance with Rule 15a-6, and as a "third party research report" for purposes of FINRA Rule 2241. In compliance with Rule 15a-6(a)(3) this research report is distributed only to "major U.S. institutional investors" as defined in Rule 15a-6 and is not intended for use by any person or entity that is not a major U.S. institutional investor. If you have received a copy of this research report and are not a major U.S. institutional investor, you are instructed not to read, rely on, or reproduce the contents hereof, and to destroy this research or return it to JM Financial Institutional Securities or to JM Financial Securities.

This research report is a product of JM Financial Institutional Securities, which is the employer of the research analyst(s) solely responsible for its content. The research analyst(s) preparing this research report is/are resident outside the United States and are not associated persons or employees of any U.S. registered broker-dealer. Therefore, the analyst(s) are not subject to supervision by a U.S. broker-dealer, or otherwise required to satisfy the regulatory licensing requirements of FINRA and may not be subject to the Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Any U.S. person who is recipient of this report that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, must contact, and deal directly through a U.S. registered representative affiliated with a broker-dealer registered with the SEC and a member of FINRA. In the U.S., JM Financial Institutional Securities has an affiliate, JM Financial Securities, Inc. located at 1325 Avenue of the Americas, 27th Floor, Office No. 2715, New York, New York 10019. Telephone +1 (332) 900 4958 which is registered with the SEC and is a member of FINRA and SIPC.

Additional disclosure only for U.K. persons: Neither JM Financial Institutional Securities nor any of its affiliates is authorised in the United Kingdom (U.K.) by the Financial Conduct Authority. As a result, this report is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the matters to which this report relates may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This report is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons.

Additional disclosure only for Canadian persons: This report is not, and under no circumstances is to be construed as, an advertisement or a public offering of the securities described herein in Canada or any province or territory thereof. Under no circumstances is this report to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the registration requirement in the relevant province or territory of Canada in which such offer or sale is made. This report is not, and under no circumstances is it to be construed as, a prospectus or an offering memorandum. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. If you are located in Canada, this report has been made available to you based on your representation that you are an "accredited investor" as such term is defined in National Instrument 45-106 Prospectus Exemptions and a "permitted client" as such term is defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada nor should it be construed as being tailored to the needs of the recipient. Canadian recipients are advised that JM Financial Securities, Inc., JM Financial Institutional Securities Limited, their affiliates and authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential loss arising from any use of this research report or the information contained herein.