

## E&E – A gateway to Malaysia’s trade

April 17, 2016, Sunday Yvonne Tuah [bizhive@theborneopost.com](mailto:bizhive@theborneopost.com)

Technology is growing rapidly across the world. Countries are revolutionalising by implementing technology in every aspect of the economy and livelihood of the people.

As a major part of the supply chain in the technology sector, the importance of the electrical and electronics (E&E) sector has grown significantly while its contribution to the economy has grown more pronounce, especially through the trade industry.

For Malaysia, the E&E industry remains a major growth node the country’s economy as it has been the country’s top imported and exported product for the past few years.

Our E&E industry has also been highlighted as one of the 12 National Key Economic Areas (NKEA) under the government’s Economic Transformation Programme (ETP) to propel Malaysia into its 2020 vision of being a developed nation.



“For the E&E sector, keeping pace with fast evolving technologies is crucial to the industry’s overall competitiveness vis-a-vis other regional markets.

“Increasingly, global demand for E&E through its Internet of Things (IoT) and nanotechnology morphs the industry into a game-changer foreseen, catalysing growth in other sectors,” said

Datuk Seri Mustapa Mohamed, Malaysia's Minister of International Trade and Industry, in the ETP Annual Report 2014.

He further pointed out, "Massive opportunities loom for other sectors to adopt cutting-edge technologies as a result of E&E technological enhancement inherently increasing productivity.

"These global trends are set to create new growth opportunities in the upstream and downstream segments of the industry.

"This must be the way forward for Malaysian players to remain competitive globally."

Malaysia's Department of Statistics in Malaysia's External Trade Statistics report, highlighted that in 2015 Malaysia's total trade grew by 1.2 per cent to reach RM1.466 trillion, compared to RM1.448 trillion in the previous year. This was supported by stronger growth of 5.1 per cent in the second half (2H) of 2015.

Exports grew by 1.9 per cent despite the challenging economic environment, to reach a value of RM779.95 billion and one of the major contributors to better export performance in 2015 were continued growth for E&E exports driven by demand for new applications of internet of things (IoT) for wireless communications and wearable devices;

Malaysia's Department of Statistics reported that E&E products accounted 35.6 and 29.4 per cent of total exports and imports for 2015 compared with 33.5 and 27.9 per cent of total exports and imports reported for 2014.

A breakdown on exports of E&E products from Malaysia shows that some of the main contributors to the increase in exports to Asean were higher exports of electronic integrated circuits and other E&E products.

Malaysia's Department of Statistics also reported that there has been an increase of exports to the US and this was driven mainly by manufactured goods which accounted for 94.8 per cent of Malaysia's total exports to the country.

"Exports of this sector rose 16.7 per cent to RM69.81 billion owing mainly to E&E products which increased by 15.8 per cent or RM5.74 billion.

"Higher exports of E&E products were seen for photosensitive semi-conductor devices, parts and accessories for office machines, computers and data processing equipment, apparatus for transmission, domestic vacuum cleaners, parts for electronic integrated circuits as well as, apparatus for transmission or reception of voice, images and other data; for the consumer electronics industry including smart phones, computer tablets, televisions, audio and visual equipment," it said.

Growth in Malaysia's manufactured exports to Japan was also attributed mainly to E&E products, in particular, electronic integrated circuits, optical and scientific equipment and others.

“E&E export markets with significant increases which exceeded RM1 billion were recorded for Singapore, the USA, Thailand, the Republic of Korea, Germany, Japan and India.

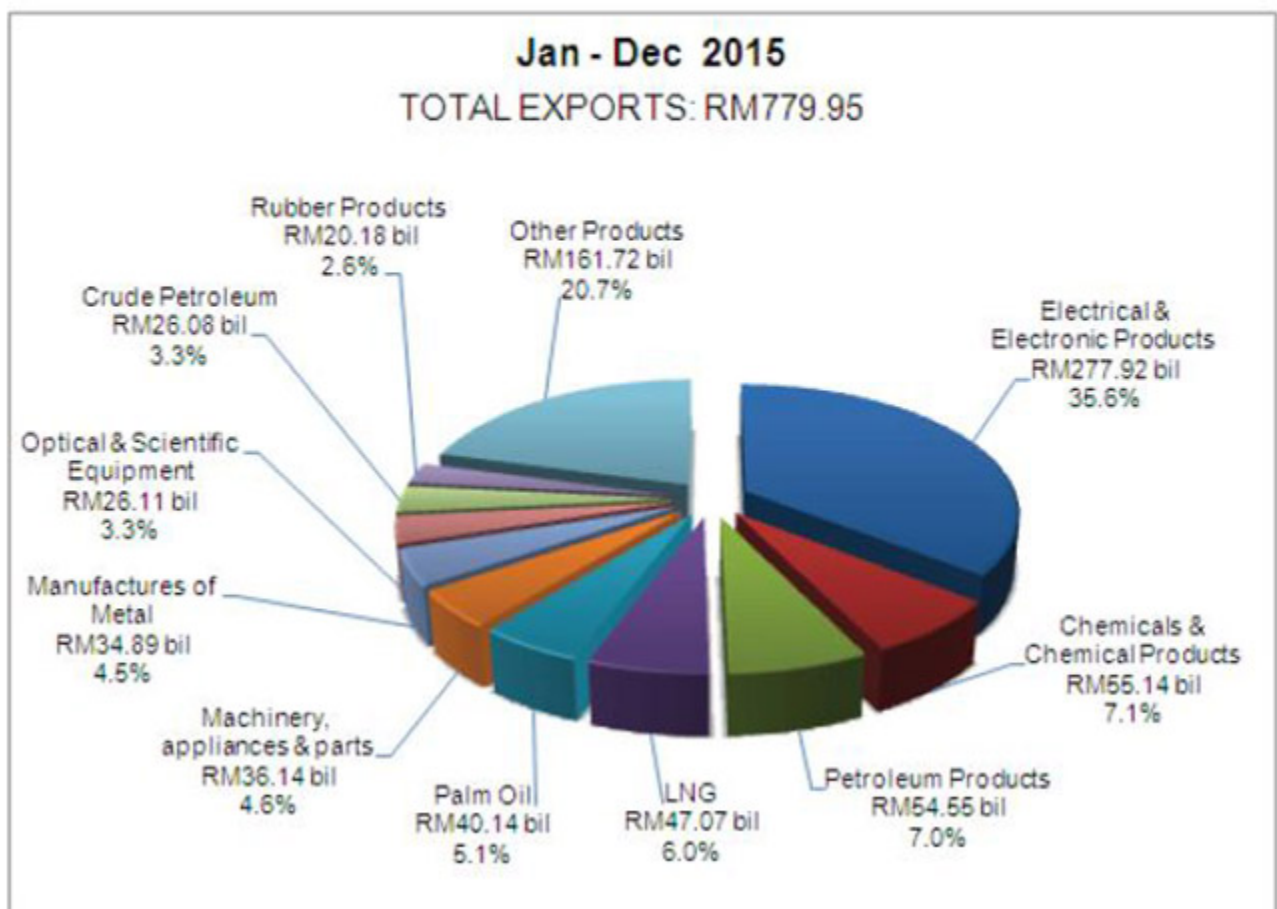
“Increased demand from the European Union (EU) and greater manufacturing activities in Asean saw higher exports of E&E products to these markets, by 10.4 and 15.5 per cent, respectively,” it said.

As the demand for E&E products are increasing worldwide, the implementation of free trade agreements such as the Trans-Pacific Partnership Agreement (TPPA) has been viewed as beneficial to sector as it could expose Malaysia’s E&E sector to a wider market.

For the E&E sector, the TPPA will not only offer huge market potentials for Malaysian suppliers or investors, it will also encourage innovation and productivity in the sector.

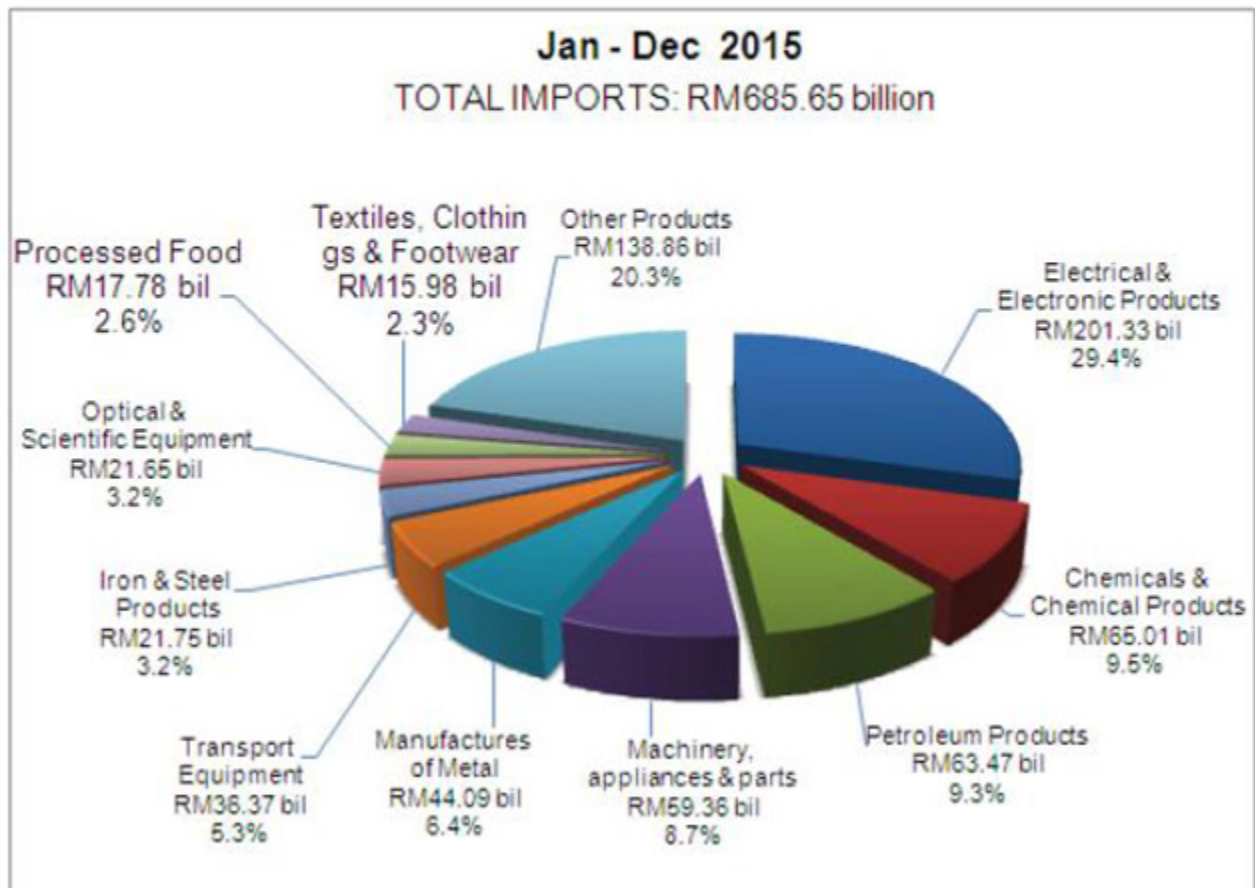
BizHive Weekly takes a closer look at the pros and cons of FTAs on the E&E sector.

## Top 10 Major Export Products, 2015



SOURCE: Department of Statistics Malaysia, Malaysia External Trade Development Corporation

## Top 10 Major Import Products, 2015



SOURCE: Department of Statistics Malaysia, Malaysia External Trade Development Corporation

### TPPA to benefit E&E sector's trade

Malaysia has been pegged as among the top E&E manufacturer worldwide, with the E&E industry accounting for almost six per cent of the Malaysian economy.

The E&E manufacturers in the country have continued to move-up the value chain to produce higher value-added products which include intensification of research and development efforts and outsource non-core activities domestically.

According to Pricewatercoopers (PwC) in its report 'Study on potential economic impact of TPPA on the Malaysian economy and selected key economic sectors' dated December 2015, Malaysia accounted for 2.8 per cent of the world's E&E exports in 2014, positioning Malaysia as the 11th largest E&E exporter globally.

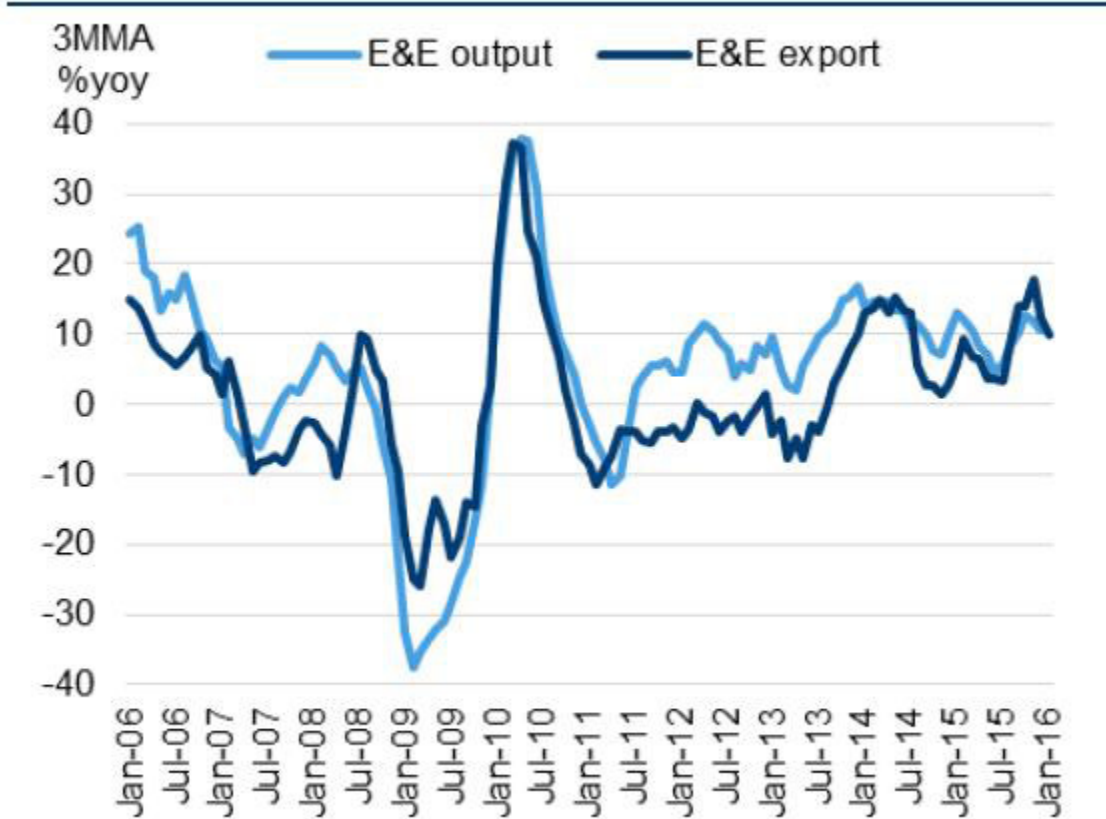
**World rank and share of E&E exports by TPPA country in 2014**

<i>World Rank</i>	<i>Country</i>	<i>World Share (%)</i>
3	United States	7.22
6	Singapore	5.24
8	Japan	4.37
9	Mexico	3.36
11	Malaysia	2.76
12	Vietnam	1.94
26	Canada	0.57
45	Australia	0.11
58	New Zealand	0.03
62	Chile	0.03

*Source: Department of Statistics Malaysia, International Trade Centre, PwC analysis*

SOURCE: Department of Statistics Malaysia, International Trade Centre, PwC Analysis

## E&E output and export



Source: All data for charts sourced from DoS, BIS, Affin Hwang

SOURCE: Department of Statistics Malaysia, BIS, Affin Hwang Capital

“Among the TPPA countries, Malaysia is the fifth largest E&E exporter, after the US, Singapore, Japan and Mexico. Vietnam is positioned closely behind Malaysia, with its global ranking improving from 34th position in 2010 to 12th position in 2014,” it noted.

The report also highlighted that TPPA countries account for about 40.9 per cent of Malaysia’s E&E exports in 2014, making the agreement essential to the development of the industry.

The Malaysian American Electronics Industry (MAEI), a subcommittee of the American Malaysian Chamber of Commerce (AMCHAM), had also pointed out that the TPPA is important for Malaysia’s E&E industry to elevate its competitiveness, increase export market share, and create a more vibrant ecosystem.

“Malaysia’s participation in TPPA are expected to increase E&E exports from US government procurement market and reduction or removal of tariff lines in seven TPPA member countries, namely Australia, Canada, Mexico, New Zealand, Peru, the US and Vietnam.



“TPPA will allow Malaysian E&E and other companies in the supply chain in Malaysia to enjoy lower tariffs and have better access to US government procurement.

“With TPPA, stronger trade secret protection will be strengthened and higher standards of labour practices will be implemented by companies in Malaysia, it will enhance Malaysia as a choice location for investment.

“Thus, it will attract high value high technology manufacturing and Design and Development (D&D) investments and expansion,” said Datuk Wong Siew Hai, chairman of MAEI, in a statement.

### **TPPA to improve trade access**

According to the PwC’s analysis, the TPPA agreement is expected to benefit E&E exports’ tariff rate and trade access particularly to the US.

“While average tariffs are low, at a country-specific level, Malaysia’s participation in the TPPA is expected to result in lower E&E tariff lines in seven TPPA member countries, namely Australia, Canada, Mexico, New Zealand, Peru, the US and Vietnam,” it reported.

It also noted that Malaysia’s E&E exports to the US is expected to be the largest beneficiary of lower tariff lines in the TPPA countries as US has been reported to be Malaysia’s third largest E&E export destination.

Aside from that, PwC observed that the TPPA would provide access to US government procurement and increase the growth potential of E&E exports to the US.

Of note, Malaysia is currently restricted from supplying goods and services, including E&E, to the US under the US Federal Acquisition Regulation.

“The provision for the US government to acquire goods and services from only the US or designated countries has placed Malaysia’s key E&E companies at a competitive disadvantage relative to E&E companies in the WTO GPA member countries and the US FTA partners,” PwC said.

It added, “TPPA participation would qualify Malaysia to be a designated country under the TAA (1979), and allow Malaysia’s key E&E players to compete for US government procurement on a level-playing field.”

PwC’s report also pointed out that several key E&E companies has estimated revenue could increase to about US\$50 million to US\$200 million through the increase in demand from the US.

It noted that given that about 20 per cent of a country’s government procurement market is generally open to foreign competition, the TPPA countries are estimated to cumulatively present

about RM700 billion of opportunities to foreign businesses with US is estimated to comprise about RM650 billion of these potential opportunities.

### **Cross-border benefits**

The TPPA is also expected to provide a number of cross-border benefits in the E&E sector for Malaysia and other participating countries.

In particular, PwC noted that the TPPA would provide stronger trade secret protection and a more liberalised cross-border data flows which is expected to boost investors' confidence to expand their high-technology manufacturing operations and research and development (R&D) investments in Malaysia.

This, in turn, is expected to translate into higher paying jobs and increase demand for knowledgedriven workforce.

“Several key E&E companies expressed that the relaxation of data localisation policies would enable them to consolidate their local data centres with their mega data centres.

“Although the local data centres that were established due to data localisation requirements tend to be smaller in scale, they generally operate with significant excess capacity and thus are more inefficient.

“The key E&E companies indicated that lower investment spending on physical facilities and the optimisation of resource utilisation across data centres would improve cost efficiency.

“In addition, savings from putting in place adequate security measures in multiple data centres would enable the key E&E companies to invest in more sophisticated security features in their mega data centres at lower cost,” PwC reported.

It added, “With the flexibility to choose the location of their mega data centres, the key E&E companies considered Malaysia to be well-positioned to become a world class data centre hub. Malaysia offers a strategic location to the high growth markets in Asia, strong infrastructure and institutional foundations at affordable cost, a vibrant E&E manufacturing hub, established business process outsourcing capabilities, and positive government support to grow the data centre industry.”

It also pointed out that the world's leading wholesale and retail data centre service providers have already established their presence in Malaysia.

The research house further noted that more liberalised data flows would also enable greater operational efficiency in the E&E sector.



By providing the freedom to move data across borders, the TPPA is expected to provide E&E companies a platform to share research and development (R&D) findings across operational sites in various participating countries.

“This could increase the likelihood of E&E multinational countries (MNCs) expanding their R&D facilities and higher value-added manufacturing activities beyond their headquarters to leverage on global talents and be located closer to the growth markets.

“Several key E&E MNCs view Malaysia to have a strong competitive advantage given Malaysia’s established E&E manufacturing base and the positive government support to attract higher value-added activities,” PwC observed.

With greater high value-added activities and improved cross-border data, innovation can also thrive in the sector in terms of production.

“With the liberalisation of cross-border data flows, E&E companies would be able to consolidate all data gathered from their global operations and conduct big data analytics. The more detailed insights on process efficiency, supply chain management and consumer trends would support more targeted innovation to further improve productivity and meet consumer demands,” PwC said.

Besides that, through FTAs such as TPPA, Malaysia could tap into technology that are not readily available in the country and hence, improve the productivity level in the industry.

### **Improving the perception of Malaysia’s trade**

The TPPA would also provide a window into Malaysia’s economy and operations which would improve investors’ as well as the public’s perception of the country.

PwC in its report, observed that several key E&E companies in Malaysia view the TPPA would provide stronger legislative protection and more effective enforcement of trade secrets which would in turn, increase Malaysia’s attractiveness as a high-technology production and research base.

“This could increase the likelihood that their management at headquarters would allow more higher value-added manufacturing and research activities to be conducted in Malaysia.

“This, together with more new investments by high-technology companies, is expected to gradually develop a vibrant high-technology E&E manufacturing ecosystem in Malaysia,” it added.

Of note, in Malaysia, there is no statutory protection for trade secrets and theft of trade secrets are generally not considered as a criminal act.

Beyond E&E products, TPPA could also improve the public's perception on Malaysia's labour rights and law.

MAEI member companies strongly believe that adoption of the International Labour Organisation (ILO) rights following Malaysia's participation in the TPPA would improve the public perception of labour rights in Malaysia's E&E industry.

"Most key E&E companies expect Malaysia's adoption of the ILO rights following Malaysia's participation in the TPPA to improve the public perception of labour rights in Malaysia's E&E industry.

"This could in turn attract greater business and investment opportunities for Malaysia's E&E industry," PwC said.

The research house also noted that while labour cost would likely increase through this FTA, the rise would likely be minimal.

"Should the effective enforcement of labour rights standards be more stringent than current practices, most key E&E companies expect labour costs to increase only marginally in the short term.

"Labour costs generally account for less than 30 per cent of operating costs in these companies, while foreign workers generally comprise less than 50 per cent of their low-skilled workforce," it noted.

Overall, MAEI said, Malaysia E&E industry has been competitive than other lower cost regional peers in higher value-added E&E manufacturing due to Malaysia's higher skilled labour force, more developed infrastructures and stronger intellectual property rights.

"It is important for Malaysia to maintain its competitiveness in the region, particularly against Vietnam by reaffirming its commitment to sign on the TPPA," it commented.

### **Outlook for semiconductor sector remains bright**

According to Malaysian Investment Development Authority (MIDA), the E&E industry in Malaysia is focused on deepening and strengthening the three major ecosystems of semiconductors, solar and LED technologies.

"The growth of semiconductor will continue to spearhead the growth of the E&E industry in Malaysia and has benefited from the global demand in the usage of mobile devices (smartphones, tablets), storage devices (cloud computing, data centres), optoelectronics (photonics, fibre optics, LEDs) and embedded technology (integrated circuits, PCBs, LEDs)," it said.

It also noted that the presence of major MNCs such as Intel, AMD, Freescale as well as major Malaysian-owned companies such as Globetronics Technology Bhd, Unisem (M) Bhd, and Inari Amertron Bhd have contributed to the steady growth of the semiconductor sector in Malaysia.

The research arm of MIDF Amanah Investment Bank Bhd (MIDF Research) in a report last month, pegged a positive view on the outlook of the semiconductor albeit its slow start to 2016.

It opined, “Demand for communication devices will continue to be supported by the low-to-middle class consumers seeking to stay connected and to be at the forefront of the latest cutting edge technological product offering.

“This will be in favour of electronic companies which are able to offer end-products at competitive prices, thus, advocating a high volume business strategy.

“Similarly, there are stable and growing demands stemming from the automotive industry as more vehicles are required to be embedded with more sensors and high-tech gadgets.”

Aside from that, it pointed out that that local semiconductor test equipment manufacturers are expected to post strong sales this quarter, attributable to strong sales to customers in the automotive and smart devices industries.

The sales of wearable devices have also been very encouraging as according to International Data Corporation (IDC), a global market intelligence firm, 78.1 million units of wearable devices have been shipped in 2015.

“This translates to a significant increase of 171.1 per cent year-on-year (y-o-y) as compared to the 2014 figures.

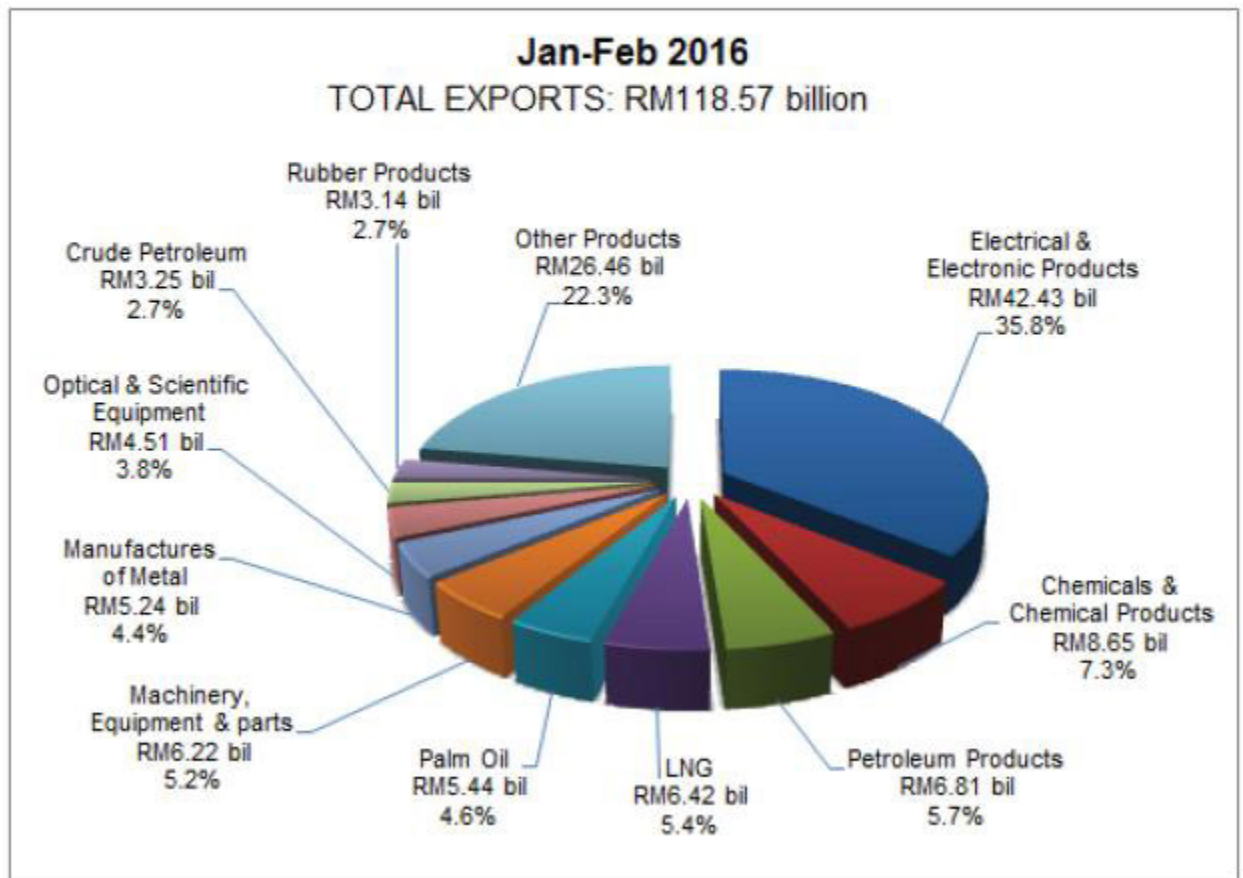
“This was mainly premised on growing popularity of fitness trackers and the introduction of the Apple Watch.

“We believe local semiconductors players will benefit from this as some of their products can be embedded into these devices. All factors considered, we reiterate our ‘positive’ stance on the semiconductor sector,” the research house observed.

Meanwhile, it said global semiconductor sales for the month of January 2016 amounted to US\$26.9 billion, a decrease of 5.8 per cent y-o-y, mainly due to the softening demand and lingering macroeconomic headwinds.

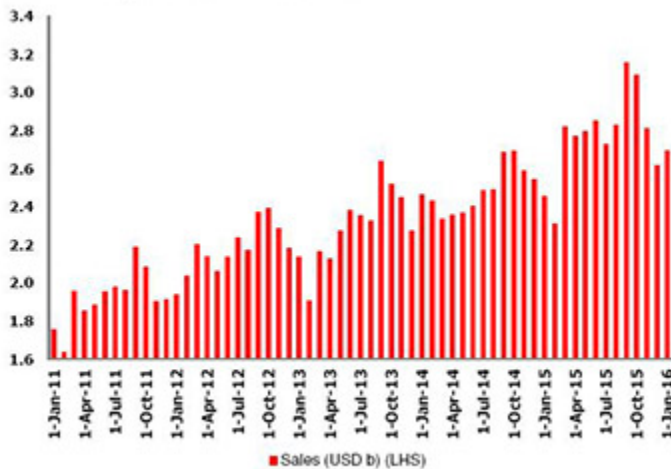
Sales decreased across most major semiconductor product categories, with the notable exception of microprocessors, which increased by 2.1 per cent y-o-y.

## Top 10 Major Export Products, 2016



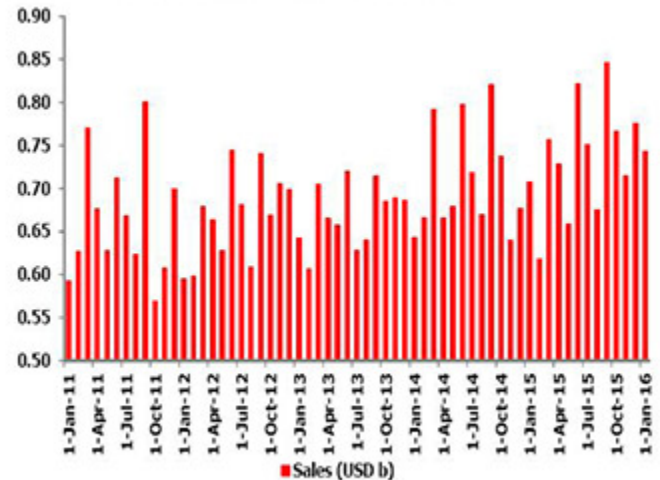
SOURCE: Department of Statistics Malaysia, Malaysia External Trade Development Corporation

**Chart 5: Optoelectronics sales**



Sources: SIA, CEIC, MIDFR

**Chart 6: Sensors & Actuators sales**



Sources: SIA, CEIC, MIDFR

“Apart from this, the optoelectronics and sensors segments, which are serving the automotive and wireless communications segments, continue to chart positive sales growths. Nonetheless, the Semiconductor Industry Association (SIA) is still expecting a modest market growth for 2016, following essentially flat sales last year,” it said in a note.

MIDF Research pointed out that for the month of January 2016, growth continues to be seen in optoelectronics products.

“Optoelectronics segment, which accounts for approximately 10 per cent of total semiconductor sales, is expect to gain substantial popularity with surging application of optoelectronic equipment in consumer electronic goods segment as well as the automotive segment.

“Optoelectronics are increasingly being used in vehicles to automate the vehicle functions such as head lights and brake lights,” it observed.

Besides that, it projected that the growth momentum of sensors and actuators sales would continue to remain commendable in 2016.

“We expect growth momentum to remain commendable in 2016 as it rides on the internet of things (IoT) ecosystem. Global 3D imaging sensor market, in particular, is expected to record a strong compounded annual growth rate (CAGR) of 28 per cent from 2015 to 2020,” it opined.

Exports of semiconductor products are also expected to remain positive despite the seasonally weak first quarter (1Q) performance.

“We continue to remain positive on the outlook of local semiconductor despite GSS recording weaker number. We continue to believe that the growth in export of local semiconductor products will outperform that of global growth.

“This is mainly attributable to focus on niche growing segments such as automotive and wireless communications and favourable foreign currency exchange,” it said.

Meanwhile, the research arm of Affin Hwang Investment Bank Bhd (Affin Hwang Capital) in a separate report, believed that in 2016, with the expectation of healthy global environment and continued steady demand for Malaysia’s E&E products supporting growth for exports, the country’s trade surplus would likely remain substantial at around RM80 billion to RM85 billion.

In its December report, it believed that for 2016, Malaysia’s real exports would remain supported by export price competitiveness from the ringgit depreciation, on the back of healthy demand for E&E products.

Read more: <http://www.theborneopost.com/2016/04/17/ee-a-gateway-to-malaysias-trade/#ixzz468O4A0PV>