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THEMATIC REPORT | Malaysia's Structural Economic Analysis

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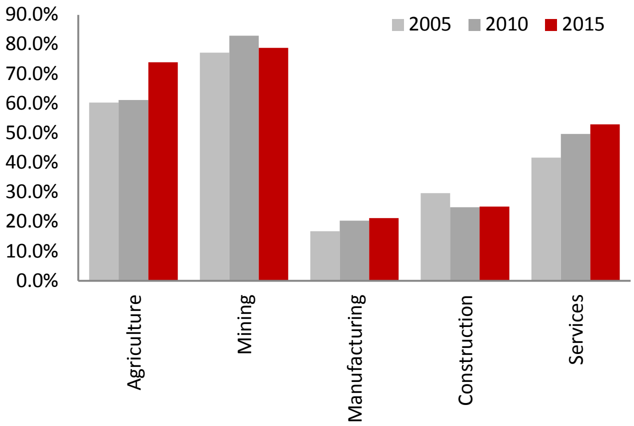
KEY HIGHLIGHTS

- **Mining and Agriculture have highest economic value added content**
- **Distributive trade and petroleum-related sectors dominating economic value-added multipliers**
- **Malaysia's output expands by 1.7% as exports grow 3.6%.**
- **E-commerce and distribution hubs to drive growth of logistics sector.**
- **Stable E&E sector growth with automotive LED as its new catalyst**
- **Mixed outcome for commodities related sectors with Oil & Gas and Plantations having net impact 0.5% and -0.02%of country's output, driven by USD75/bbl and RM2,280 price assumptions for 2019**

IO Table 2000-2015. An IO Table generally details the relationship & interaction between production sectors & consumers. Here we study the Malaysia IO Table to identify and study the structure of the Malaysia economy and consequently infer the structural changes in the economy over the years. Careful analysis has enabled us to infer how one sector affects the other, numerically detailing the inter-industry transactions, the strengths & weaknesses level of the specific sectors or the Malaysia economy. We have categorized the categories into 5 major sectors – Agriculture, Mining, Manufacturing, Construction & Services via using IO tables of 2005, 2010 & 2015.

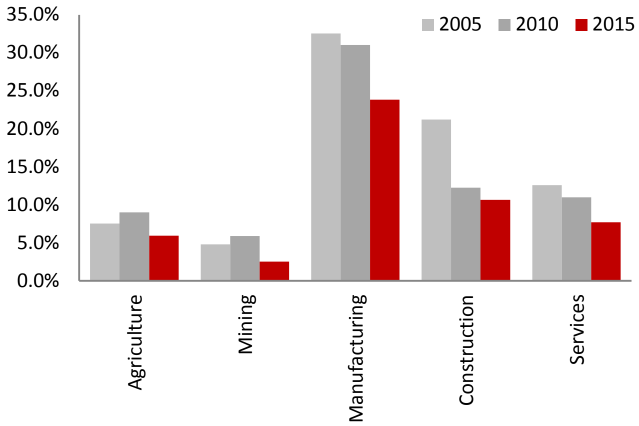
Mining remains having strong value added share. Commodity-based sectors still hold the larger share of value-added. Agriculture and mining sectors have value-added shares of 73.9% and 78.8% respectively in 2015. The two sectors remain significant and impactful to Malaysia's economy. Services and manufacturing sectors are on improving trends. Nevertheless, manufacturing still holds the lowest value-added share as 23.8% of its input is imported materials. As compared to commodity-based sectors, the imported content share is less than 10%. On a different note, Malaysia's domestic economy is on healthy trajectory given that imported content share for every sector is on declining pattern since 2005. Greater allocation of resources, better technological enhancement and accommodative economic policies among others are constructive measures in the Malaysia's economic development.

Chart 1: Value-Added Share (%) by Major Sector



Source: DOSM, MIDFR

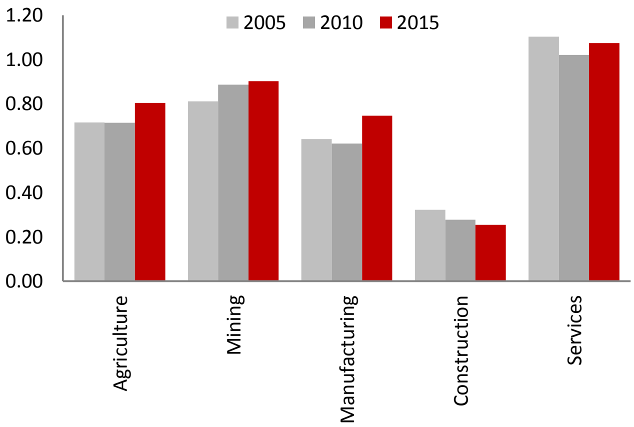
Chart 2: Imported-Content Share (%) by Major Sector



Source: DOSM, MIDFR

Increasing value-added multiplier. Multiplier variable numerically describes both the direct & indirect impacts one sector stimulates into the economy. There is a common uptrend observed among the main sectors with services showing the most significant multiplier. For every RM1 of extra final demand of the services sector generated RM1.07 added value into the economy. As a result of lower imported content share, value-added multiplier of manufacturing sector rose to RM0.75 in 2015 from RM0.62 in 2010. Value-added multipliers for commodity-based sectors stay on uptrend despite volatility in global commodity prices. Referring to the multipliers, we can expect solid economic growth for Malaysia if there is a pick-up in commodity prices, upbeat global trade growth and solid domestic demand.

Chart 3: Value-Added Multiplier by Major Sector



Source: DOSM, MIDFR

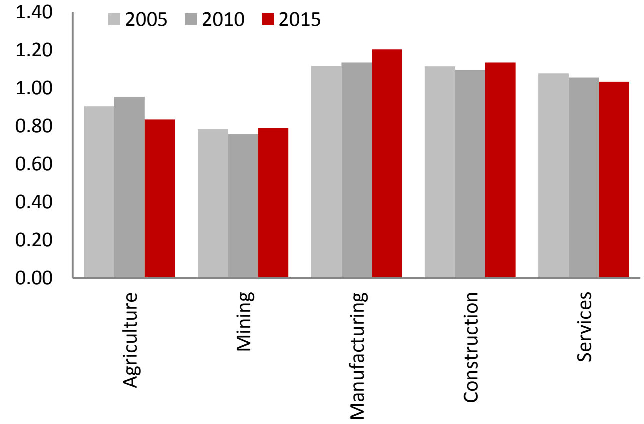
Chart 4: Output Multiplier by Major Sector

Source: DOSM, MIDFR

Manufacturing has strong backward linkage. Backward linkage describes the level of integration of a specified sector in consuming output from other sectors. Linkages with less than 1 are considered weak and vice versa. Manufacturing sector, carrying the highest 1.95 figure, has a sufficiently significant level of integration in consuming output from the other sectors. Construction & Services sectors were also fairly significant with values above the upper average. Meanwhile, mining sector lagged the furthest, with a fairly weak 0.80 integration level in consuming output from other sectors, a standard well below average.

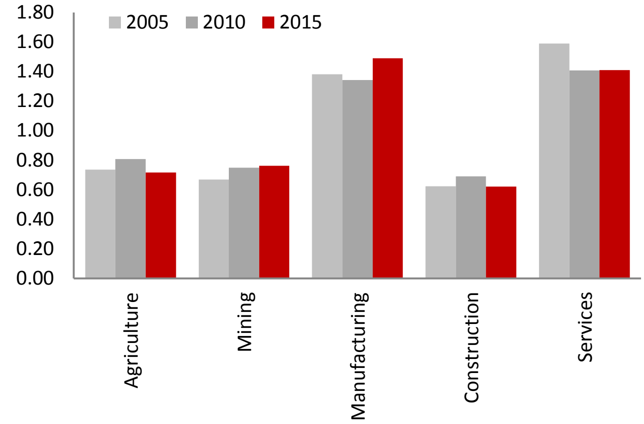
Manufacturing & services maintain above 1.0 forward linkage. Forward linkage measures the level of integration of other sectors in consuming output of a specified sector. Linkages with less than 1 are considered weak and vice versa. Manufacturing sector, the most outperforming sector, improved to 1.49 in 2015. Meanwhile, the lowest performing sector at the weakest level of integration of other sectors in consuming output was the construction sector, which saw a decline from 0.69 in 2010 to 0.62 in 2015.

Chart 5: Backward Linkages by Major Sector



Source: DOSM, MIDFR

Chart 6: Forward Linkages by Major Sector

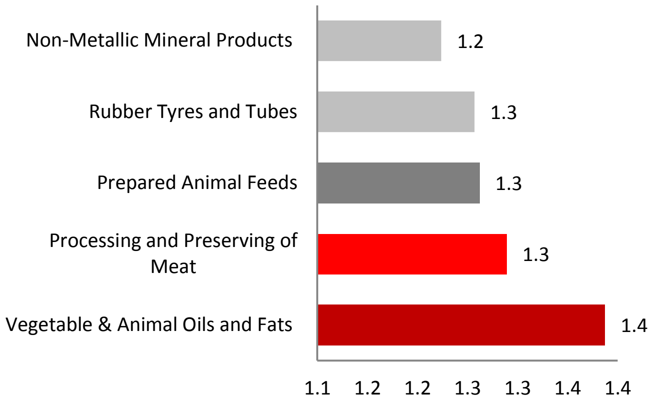


Source: DOSM, MIDFR

Vegetable & Animal Oils & Fats topped the backward linkage. Based on the latest IO table, the top three sectors which have the strongest backward linkage are vegetable & animal oils & fats (1.4), processing & preserving of meat (1.3) and prepared animal feeds (1.3). Hence, the trio also has the highest output multiplier. For instance, every RM1 increase in final demand on vegetable & animal oils & fats will generate RM2.5 of output to the total economic activity. On a flip side, the sector's contribution to value-added activities is low as for every RM1 increase in final demand on the sector, it will only reward the Malaysian economy in terms of value-added by approximately RM0.40.

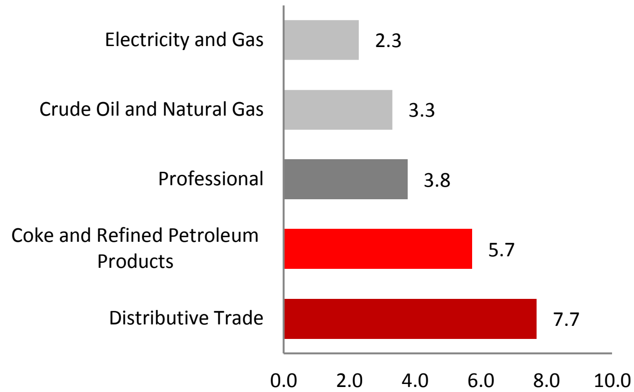
Distributive trade and petroleum-related sectors dominate value-added multipliers. Distributive trade (7.7), coke & refined petroleum products (5.7) and professional (3.8) scored the highest in forward linkages. Distributive trade which has high direct impact towards local economy and high technological enhancement in both upstream and downstream of petroleum-related sectors are among contributing factors for the high value-added multipliers. For every RM1 increase in final demand on coke & refined petroleum products will generate direct and indirect impacts by RM5.70 to total economic output in Malaysia.

Chart 7: Backward Linkages by Sector



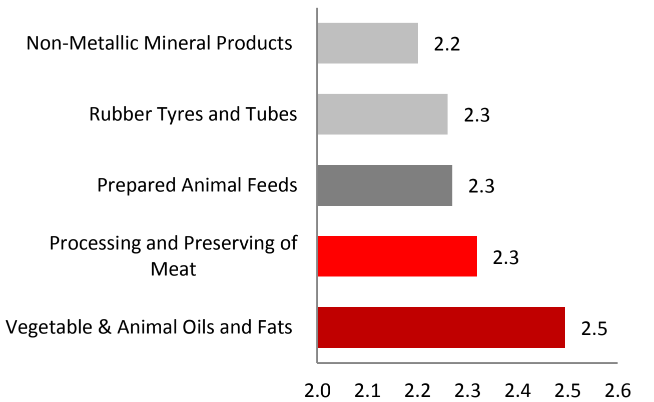
Source: DOSM, MIDFR

Chart 8: Forward Linkages by Sector



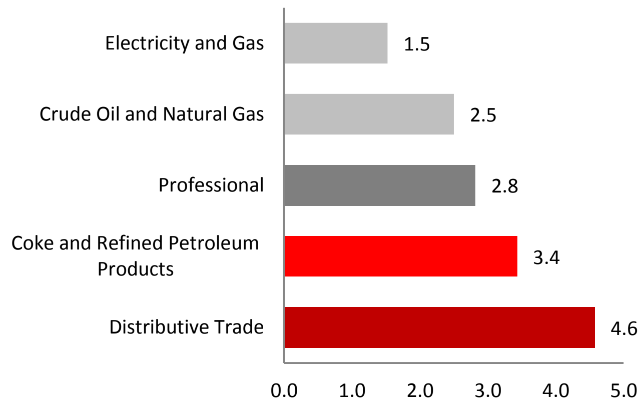
Source: DOSM, MIDFR

Chart 9: Output Multiplier (Per RM1 Increase in Final Demand)



Source: DOSM, MIDFR

Chart 10: Value-Added Multiplier (Per RM1 Increase in Final Demand)



Source: DOSM, MIDFR

Malaysia's output expands by 1.7% as exports grow 3.6%. We foresee exports to continue expanding in 2019 albeit at a moderating pace. Malaysia's external front market is expected to remain solid amid escalating Sino-US trade conflict. Nevertheless, weakening domestic exports could drag Malaysia's overall external trade performance. Amid higher base effects and continuous signs of easing key global indicators, we forecast Malaysia's exports to increase by 3.6% in 2019 (2018: 6.7%). The moderating pace is consistent with global commodity prices, expectation of a slight slowdown in overall business performance on top of the uncertainty over Sino-US trade conflict. Strong performances of Malaysia's external trade would contribute to the economic growth in the medium term. Based on our estimate, the Malaysian economy could be up to 1.7% larger if the country's exports grow by 3.6%. Sector-wise, domestic appliances will expand the fastest at 4.2%. This will be followed by electricity distribution & control apparatus, batteries & accumulators (3.6%), electronic components & boards (3.3%), and electric motors, generators & transformers (3.2%).

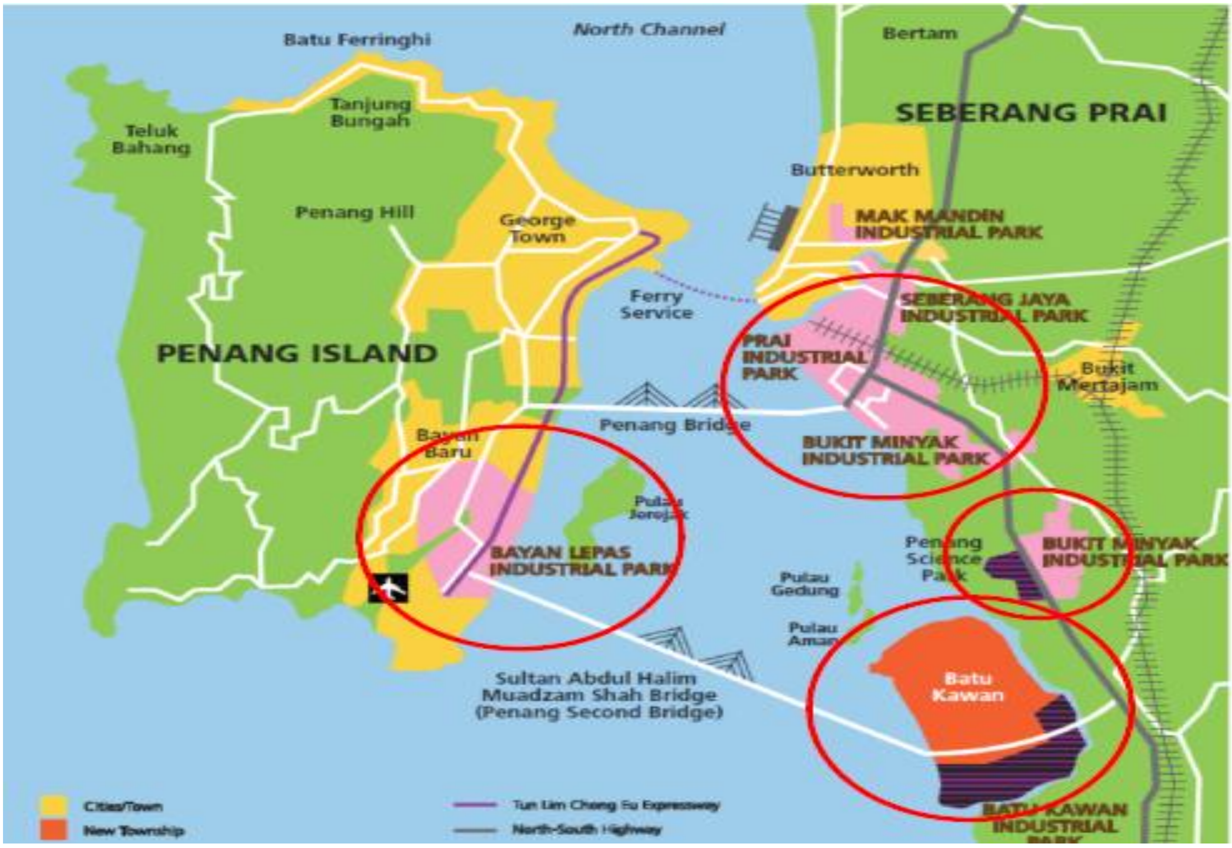
BRINGING IT DOWN TO SECTOR LEVELS – ISSUES AND OPPORTUNITIES

LOGISTICS

MNCs view Malaysia as a strategic hub for distribution. MNCs have seen Malaysia as a strategic location to place their distribution hubs especially in Selangor, Penang and Johor Bahru due to infrastructure which are conducive combined with connectivity to ports and airports. For instance in Penang, global technology Broadcom aims to leverage on Penang's solid contribution of global back-end semiconductor output at 8% by opening its 150,000 sqft global distribution warehouse on a 2ha land at Batu Kawan Industrial Park, Penang. Due to its strategic location not too far away from the Penang International Airport (Bayan Lepas) and Penang Port (Butterworth), the facility serves as a central storage place for Broadcom's global inventory for products manufactured in the U.S, Taiwan, South Korea, Thailand and Malaysia before being distributed worldwide.

Pulau Indah to be the gem for Port Klang. As for Selangor, distribution hubs tend to focus more on sea freight given the significance of Port Klang. Ikea's Regional Distribution Centre in Pulau Indah. IKEA will be investing around RM900m in setting up its regional distribution centre in Pulau Indah Industrial Park which is expected to be completed by September 2020. This is Ikea's third largest distribution hub after Chicago and Dusseldorf, with a size of 95,000m^2 and estimated storage capacity of 192,800m^{3}is expected to cater not just IKEA stores in ASEAN, but also in India. Moreover, Ikea's plan accelerates momentum towards making Malaysia a regional distribution hub and preferred logistics gateway to Asia as outlined in the National Logistics and Trade Facilitation Masterplan and National E-Commerce Strategic Roadmap.

Figure 1: Proximity of Batu Kawan Industrial Park with Penang Airport and Penang Port



Source: Invest Penang

The emergence of such distribution hubs will benefit local logistics companies which have plans to develop facilities within Pulau Indah. In mid-2018, **Tasco Berhad (Trading BUY; RM1.82)** completed its acquisition of MILS Cold Chain Logistics Sdn Bhd (MILS) together with six parcels of land near Westports for a total of RM144m. Based on our analysis, Tasco's revenue for the ocean freight forwarding division moves in tandem with the container volumes of the main ports in Malaysia, i.e. Port of Tanjung Pelepas, Port Klang and Penang Port. Amongst the total container volume of these three ports, more than half is contributed by Port Klang. Therefore, Tasco's move to have a landbank in Pulau Indah would enable it to setup warehousing facilities when demand arises from the increase is re-export activities

Warehouses in urban areas to grow with the advent of e-commerce growth. From an urban perspective**,** last mile delivery companies' strategy of tying up with well-known e-commerce marketplaces has translated into higher demand of their delivery services. This is apparent during events such as the 2018 Singles Day sale where the gross merchandise value (GMV) of Alibaba rose by +26.9% to reach a record of RMB213.5m or USD30.8b. Meanwhile, 11street recorded a six fold rise in its GMV compared to average sales on a regular business day while Lazada Malaysia surpassed its 2017 Singles' Day performance within the first nine hours. According to Statista, the amount spent on consumer e-commerce categories continues to grow with food and personal care experiencing the largest annual change in 2018 in Malaysia. As such, the number of parcels handled domestically is still on the rise (refer to the table below).

Table 1: Annual Change in Total Amount Spent on Consumer E-Commerce Categories in Malaysia

Category	Annual Change (%)
Food and personal care	39
Toys, DIY and hobbies	33
Furniture and appliances	30
Electronics and physical media	29
Fashion and beauty	26
Travel (including accommodation)	18
Video Games	16
Digital Music	10

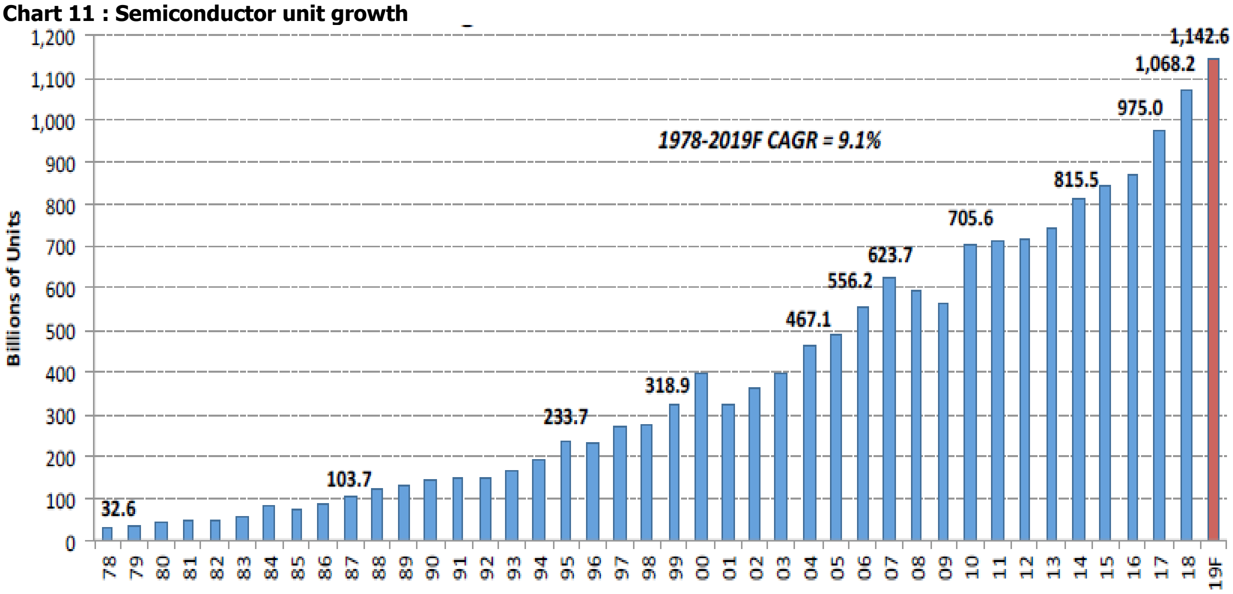
Source: Statista Digital Market Outlook for E-commerce, E-Travel and digital media industries

*Note-figures are based on estimates of full year consumer spend for 2018

TECHNOLOGY

Continuous growth in semiconductor unit. According to IC Insights, the annual shipment of semiconductor unit in 2018 grew by +9.6%yoy to 1068.2b from 975.0b in 2017. This also marked the first year that the shipment exceeded the one trillion marks. For 2019, shipment of semiconductor unit is expected to growth further by +7.0%yoy to 1,142.6b units. The growth in shipment will be supported by the higher semiconductor components for smartphone, automotive electronics systems and devices which are employ in the field of artificial intelligence, big data and deep learning applications.

Chart 11 : Semiconductor unit growth



Source: IC Insights

Continuous new smartphone models rollout. The shipment of smartphone in 2018 declined -4.1%yoy to 1.4b units. Lower shipment was seen primarily from Samsung and Apple while the Chinese phone manufacturers such as Huawei, Xiaomi and OPPO gained market share as their respective shipment improved further. Due to the competitive landscape, the line-up of new smartphone model for 2019 remains encouraging. Notable top-tier smartphone manufacturers such as Apple, Samsung, Xiaomi and Huawei continue to roll out newer version of their respective smartphone range in a bid to at least maintain their respective market share. Some also expand their offerings such as the introduction of foldable devices to further excite the market. These will help to sustain the demand of semiconductor components. Semiconductor companies would also be in a better to command a better average selling price due to requirement of new components.

Table 2 : Smartphone Shipment Volume (m units)

Company	2018	2017	Change (%yoy)
Samsung	292.3	317.7	-8.0
Apple	208.8	215.8	-3.2
Huawei	206	154.2	33.6
Xiaomi	122.6	92.7	32.3
OPPO	113.1	111.7	1.3
Others	462	573.4	-19.4
Total	**1,404.9**	**1,465.5**	**-4.1**

Source: LEDinside, Company, MIDFR

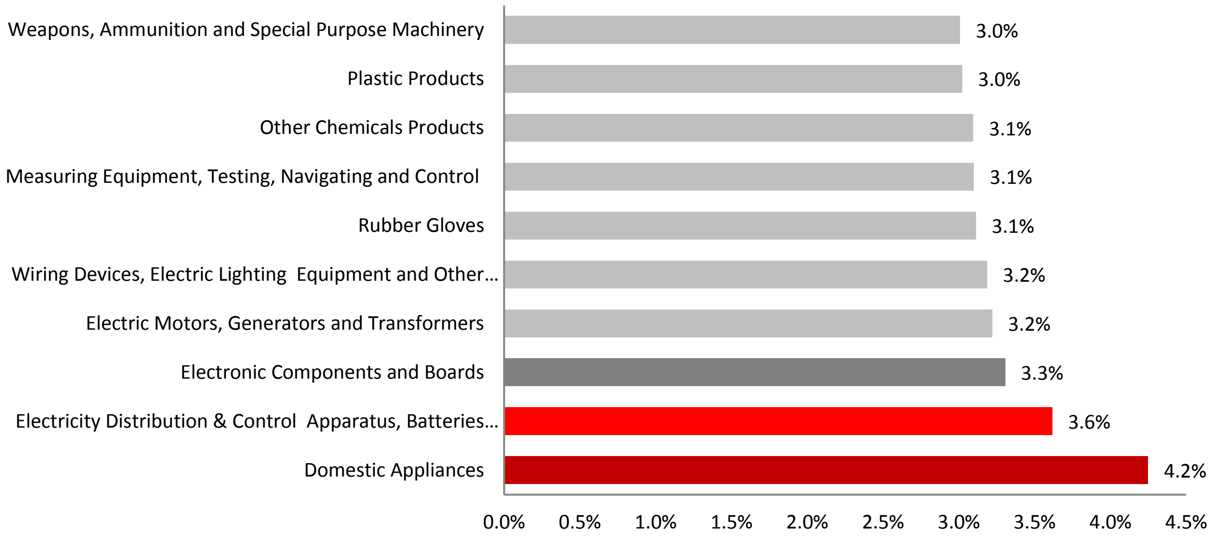
Table 3: Automotive LED Revenue Share (%)

Ranking	Brand	2015	2016	2017
1	Osram	52	55	52
2	Nichia	18	23	24
3	Lumileds	23	28	29
4	Seoul Semi	22	25	25
5	Dominant	100	100	100

Source: IDC, MIDFR

Demand for automotive LED will continue to rise. Automotive LEDs can be found in different parts of the car which largely fall under interior or exterior lightings. Introduction of new LED light application and increase LED adoption as the preferred mode of lighting has led to promising outlook of the automotive LED market. In this regard, Bursa-listed **D&O Green Technologies Bhd (Buy,TP:RM0.96)** introduced new LED offerings during the Electronica 2018 exposition. This includes the seddLED (Smart Embedded Digital Driver), the NagaJo series and the PrimaxPlus Bi-Color series. The outlook concurs with the World Semiconductors Trade Statistics's expectation that the optoelectronics segment is expected to show stable growth in 2019 despite the overall semiconductor market is expected to contract by -3.0%yoy. Note that the contraction in 2019 sales forecast was mainly due contraction in the memory market (-14.2%yoy).

Chart 12: Impacts of 3.6% Exports Growth on Sector



Source: DOSM, MIDFR

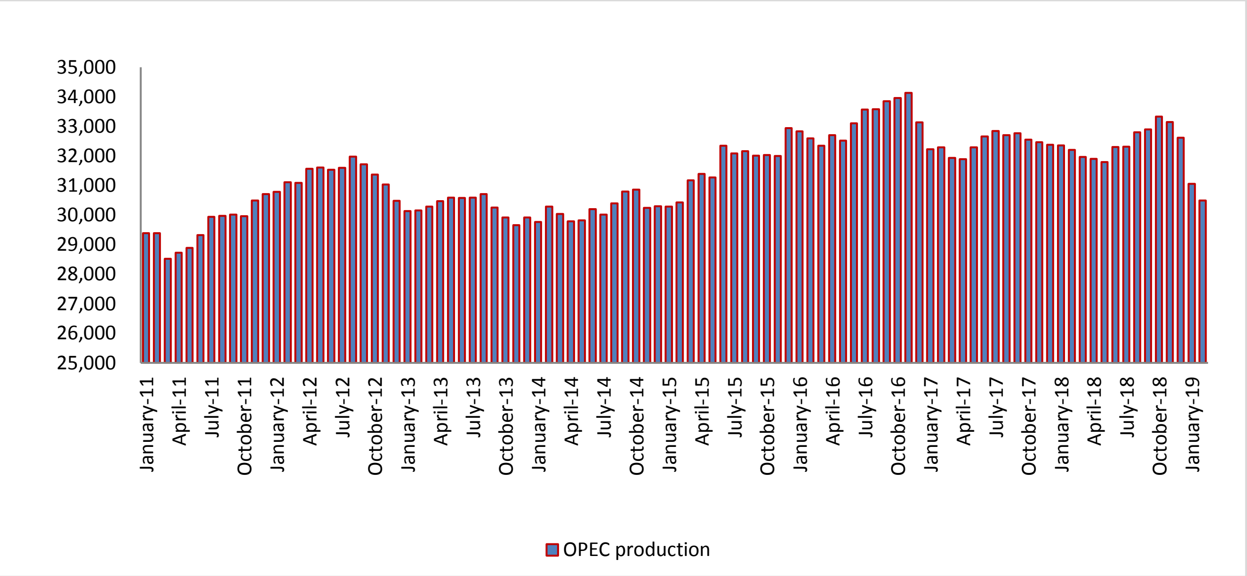
OIL & GAS

Brent at USD75/pb increases Malaysia's output by 0.5%. We anticipate Brent Crude oil prices to average higher at USD75/pb for year 2019 (2018: USD71.6/pb) as there will be instances of supply deficit due to expected strong global demand and/or deliberate decrease in supply. With the oil price growth of 4.7% forecasted in 2019, Malaysia's GDP will grow by 0.5%. Among the expenditure component, net exports are expected to jump high at 13.8%. By sector, output of crude oil & natural gas will expand by 4.3%, followed by coke & refined petroleum products (1.8%) and basic chemicals (0.7%). Besides that, transport-related sectors such as land transport and warehousing & support activities for transportation are expected to be benefited as well, growing at circa 0.5%.

At this point in time, **global crude oil demand remains largely intact** – reflected by steady price movements. This is despite the recent steep decline in Brent crude oil price where it dropped below USD50pb. Supply remains a concern in the market due to production of shale exceeding 12.0mbpd back in December 2018 exceeding that of Russia and Saudi Arabia. However, crude oil price has retraced albeit in a gradual manner from January 2019 onwards recording an average of USD62.67pb fueled by the favourable development from the US-China trade war.

That said, we do opine **the current condition of an oversupply in the market will not persist throughout 2019** given that: (i) OPEC will likely announce another round of production cut in June during its meeting with member countries; (ii) positive resolution to US-China trade war which will boost demand for crude oil and; (iii) full-sanction on Iran goes full-force expected to be from May 2019 onwards. There could also potentially be a supply deficit moving forward due to higher-than-expected strong global demand and/or deliberate decrease in supply. Currently, we observed that the monthly crude oil production from the OPEC members have been on a declining trend since January this year in its effort to curb oversupply of the commodity.

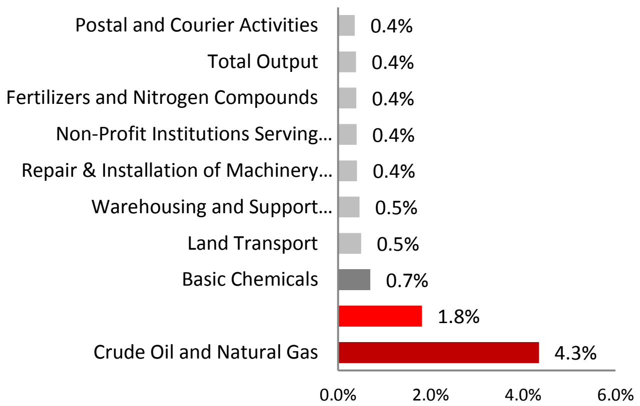
Chart 13 – Monthly OPEC production



Up to November 2018, **Malaysia's crude oil production averaged 654 thousand barrels of oil per day (kbpd)**, up from 650kbpd the same period of 2017 – in line with the higher global demand for crude oil. We opine that this trend will persist going forward as we expect higher demand for crude oil price at 100.8mbpd in 2019. In addition, as the Malaysian crude oil (ie. Tapis, Labuan, Miri, Kikeh, Dulang, Bintulu) predominantly trades at the premium compared with global benchmark Brent, the selling prices since October 2018 has averaged above USD60pb despite the decline in global crude oil price to below USD60pb recently. Hence, we expect that this will continue to act as a buffer for Malaysia's petroleum-based industries and the price is expected to strengthen further especially now that the price of global brent crude oil has remained stable at above USD65/pb since end-February 2019.

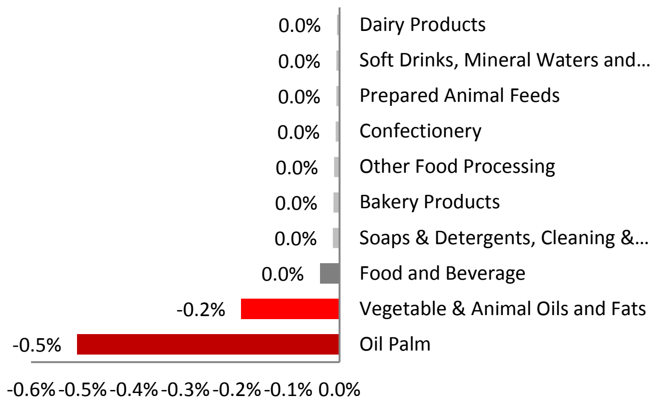
In addition, we also remain sanguine on the downstream segment of the oil and gas industry such as the petrochemicals as well as; the gas providers given that the demand from these crude derivatives remains robust. This is evident by the recent earnings announcement which saw **Petronas Chemicals (PCHEM MK, BUY, TP: RM10.23)** and **Gas Malaysia (GMB MK, BUY, TP: RM3.50)** registering strong earnings growth year-over-year despite the steep decline the global crude oil price in the 4QFY18.

Chart 14: Sectoral Impact of Brent at USD75/pb



Source: DOSM, MIDFR

Chart 15: Sectoral Impact of CPO Price at RM2,280/MT



Source: DOSM, MIDFR

PLANTATION

CPO at RM2,280/MT drags Malaysia's output by -0.02%. In contrast, we foresee average crude palm oil prices to decline marginally by -0.6% to RM2280/MT in 2019 (2018: RM2293/MT). The slight contraction in CPO price has little effect on Malaysia's overall GDP by -0.02%. Net exports to shrink by -0.5%. Sector-wise, output of oil palm will decrease slightly by -0.5% with the -0.6% drop anticipated in prices. This will be followed by vegetable & animal oils & fats (-0.2%).

Prospects of CPO price performance remain subdued. We observe that the downward pressure from both domestic and external developments on crude palm oil (CPO) price will continue to persist. On the local front, Malaysian palm oil stockpiles remain elevated at above 3.0m tonnes due to the relatively high production and lacklustre export demand. Moving forward, we view that the upcoming low production season would not lend much support in reducing the record high inventory level. Moreover, we anticipate the export demand outlook to remain bleak amid continuing geopolitical uncertainties and moderating growth of key trading partners. As such, we do not foresee notable recovery of CPO price in the near term.

Export demand continues to face headwinds. Two of the top three importing countries, i.e. China and EU, of Malaysian palm oil have shown gradual declining trend in recent months. The prolonged US-China trade truce has created uncertainties. This continues to dampen the export demand from China as Chinese buyers are holding back purchases of palm oil. Meanwhile, the proposed EU's ban on palm oil-based biofuels and continued negative sentiments are taking a toll on demand from the region. The EU's export share has since reduced from about 14.0% in 2014 to 11.6% in 2018. Recently, the Philippines have also recommended a ban on palm oil imports to assuage the woes of its local coconut farmers. This is in view of the increased local usage of palm oil has caused the copra price to plunge significantly, causing the farmers' livelihood to be threatened.

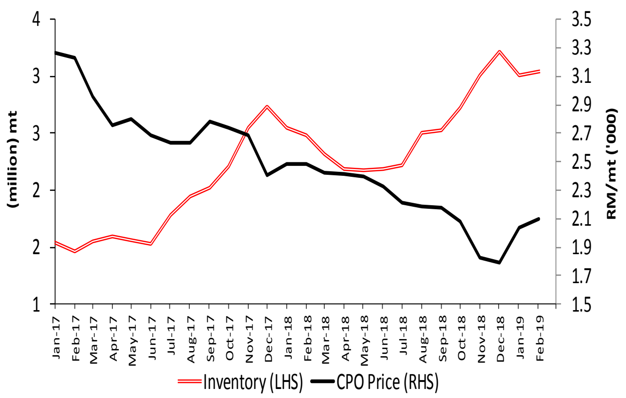
Record supplies of substitute oils. The expected 2018/19 high production of competing oilseeds in India, which is Malaysia's biggest palm oil buyer, and in South America will continue to be a bane to the CPO price. According to Solvent Extractors Association of India, the domestic supply of rapeseed is projected to reach record high of 8.5m tonnes, thus potentially limiting its overseas purchases. However, this is partially buffered by its preferential trade agreement with Malaysia on refined palm oil products. In addition, the global production of soybean is also expected to reach new high in two years to 370.0m tonnes, primarily from Argentina and the US. Potentially, this could cause the soybean oil price to remain depressed. Given the fact that soybean oil and palm oil are used interchangeably in the food industry, this is likely to suppress the CPO price increase going forward.

CPO price disparity remains wide. The current Indonesia CPO price discount of between USD12-USD17/mt in comparison to Malaysia has been putting the latter in a less competitive position. This is mainly due to the Indonesia's abolishment of the export levy on CPO and its derivatives products as well as the larger volume capacity to cushion the lower pricing of its palm oil. Hence, Malaysian palm oil continues to be pressured to lower its pricing in order to remain competitive. We also noted that the price discount remains unchanged in spite of the zero export levy in Malaysia. Going forward, we opine that the sustained high production in Indonesia, coupled with zero export levies will allow its domestic CPO to continue trading at a discount.

Aggressive biodiesel mandate to combat elevated inventory level. The Malaysian government has begun to increase the palm oil-based biodiesel usage via the B7 and B10 programmes for the transportation and industrial sectors respectively in an effort to boost the domestic consumption. The B10 programme has started in February 2019 while the B7 programme is scheduled to be implemented from July 2019 onwards. These programme are expected to ramp up the usage of palm oil to 761k tonnes annually. Moreover, the Government also further plans to double the biodiesel mandate to B20 by 2020 in part to cushion the potential loss from export demand. However, we view that Malaysia's biodiesel mandate implementation could be more aggressive, taking cur from Indonesia which plans to bring forward B30 to 2019 from 2020.

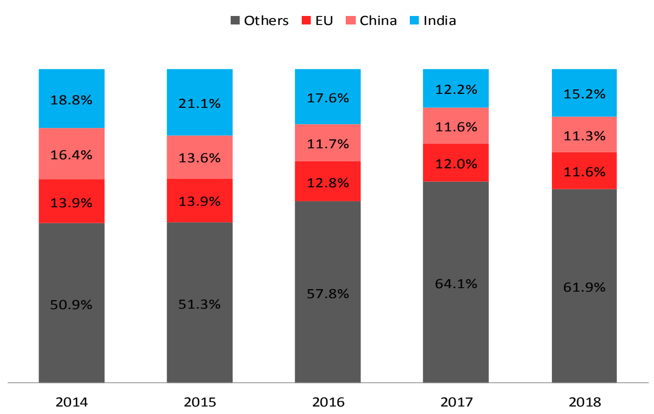
Maintain NEUTRAL. In view of the negative developments, the current landscape of the palm oil industry in Malaysia seems to be challenging. Despite the seasonally low production cycle where price should be relatively high, we continue to observe that there is still no sight of sustained CPO price recovery as stockpiles remain elevated. Meanwhile, the strong backlash from EU towards palm oil via the ban on palm oil-based biofuels and record high competing oilseeds would serve as dampeners to the demand of CPO. The less competitive pricing of Malaysian CPO as compared to that of Indonesia will potentially add downward pressure on the domestic palm oil movement. On a positive note, we view the ramp-up in biodiesel mandate locally, strengthening trade ties with China and preferential trade agreement with India to lend support to the Malaysian CPO price. All factors considered, we reiterated our **NEUTRAL** stance with a target CPO price of **RM2,280/mt** in 2019.

Chart 16:Malaysia Palm Oil Industry Key Data



Source: MPOB, MIDFR

Chart 17: Export Share of Malaysian Palm Oil



Source: MPOB, MIDFR

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MIDF AMANAH INVESTMENT BANK : GUIDE TO RECOMMENDATIONS	
STOCK RECOMMENDATIONS	
BUY	Total return is expected to be >10% over the next 12 months.
TRADING BUY	Stock price is expected to *rise* by >10% within 3-months after a Trading Buy rating has been assigned due to positive newsflow.
NEUTRAL	Total return is expected to be between -10% and +15% over the next 12 months.
SELL	Total return is expected to be <-10% over the next 12 months.
TRADING SELL	Stock price is expected to *fall* by >10% within 3-months after a Trading Sell rating has been assigned due to negative newsflow.
SECTOR RECOMMENDATIONS	
POSITIVE	The sector is expected to outperform the overall market over the next 12 months.
NEUTRAL	The sector is to perform in line with the overall market over the next 12 months.
NEGATIVE	The sector is expected to underperform the overall market over the next 12 months.