

**THEMATIC REPORT | East Coast Rail Line (ECRL)****KEY HIGHLIGHTS**

- **ECRL to boost economic growth by 2.7%**
- **ECRL is likely to reduce government dependency. Generate more economic activities in other sectors hence shifting to a less government-reliant economy**
- **Restored at lower cost, will proceed at a lower cost of RM44 billion compared with its original cost of RM65.5 billion**
- **Possible spillover effects on ports particularly Kuantan Port & Port Klang**
- **ECRL has the potential to further spur Malaysia's oil and gas industry as it links Malaysia's financial hub in the west with the country's oil and gas hub in the east**

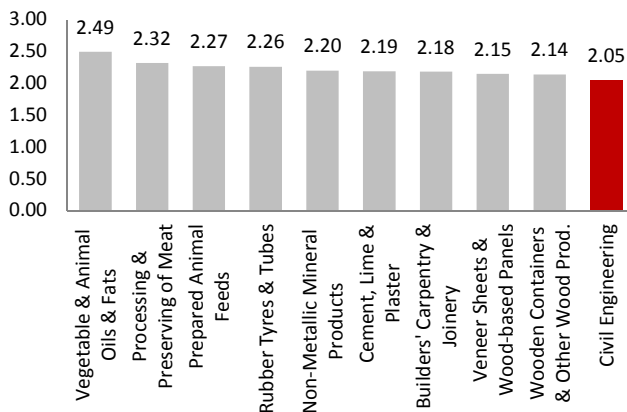
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**Railways would act as a catalyst for growth.** The rail transport is a common medium of transportation across the world. It will open more economic opportunities to explore in multiple sectors, including tourism as it will be easier and more convenient to visit some states or nations with the railways. Back then, railways would act as a catalyst for more aggressive economic growth as it helped to transport the produces from small towns and rural areas to major cities and hubs, including ports, and from then on for exports. To note, the rail sector facilitates increased output in the rest of the economy as well as the productivity in other sectors.

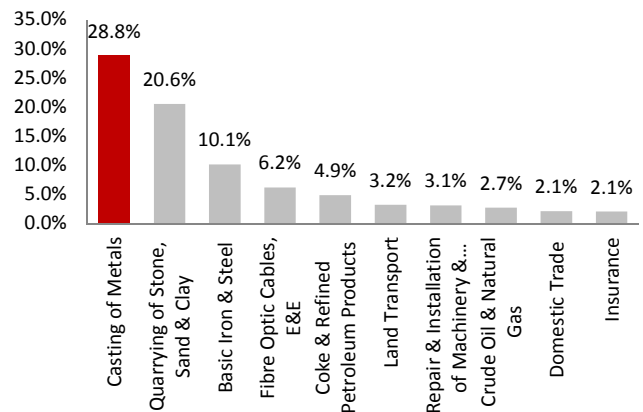
**High output multiplier for railway investment.** Based on MSIC Code, construction of railways falls under civil engineering division. Civil engineering involves designing, constructing and maintaining physical and naturally built environment, including public infrastructure such as railways. Output multiplier for railway (Civil Engineering) is relatively high, and among the 124 sectors, the railway's multiplier is ranked the 16<sup>th</sup> highest. In a simple word, a RM1 investment in railway will generate RM2.05 of output to the total economic activity. On a flip side, the sector has a low value-added multiplier of only RM0.33. For every RM1 spent on the sector, it will only reward the Malaysian economy in terms of value-added by less than 0.50. Nevertheless, we opine the investment in railway (ECRL) will spur economic growth and development in Malaysia amid of the strong output multiplier effects.

**Chart 1: Output Multiplier (Per RM1 Investment)**



Source: DOSM, MIDFR

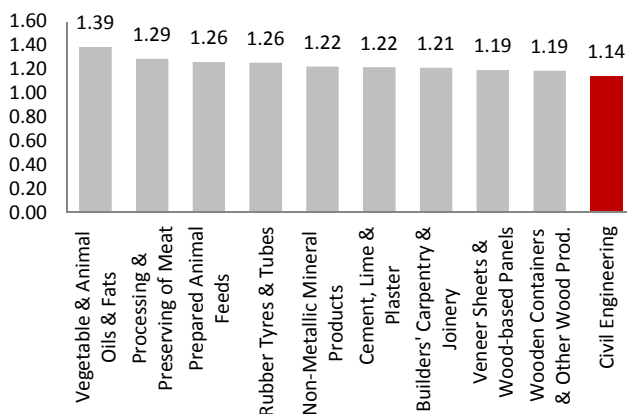
**Chart 2: Value-Added Multiplier (Per RM1 Investment)**



Source: DOSM, MIDFR

**Improving economic interdependence and connectivity.** Investing in railway project will have long-term positive spill-over effects in Malaysia's economy. Particularly, backward and forward linkage of the sector is 1.14 and 0.61 respectively. Backward linkages refer to the ability of a sector in creating demand for inputs from other sectors whereas forward linkages explain the level of a sector in supplying input to other sectors. Henceforth, having high backward linkages level, the ECRL project would boost economic growth and development especially in eastern coast states like Kelantan, Terengganu and Pahang.

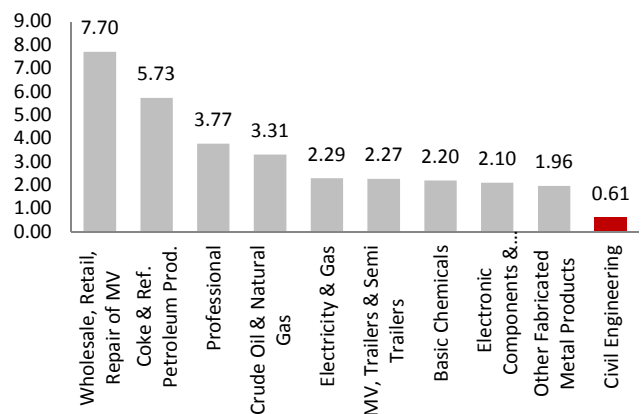
**Chart 3: Backward Linkages by Sector**



Source: DOSM, MIDFR

\*Less than 1 is weak, More than 1 is strong

**Chart 4: Forward Linkages by Sector**



Source: DOSM, MIDFR

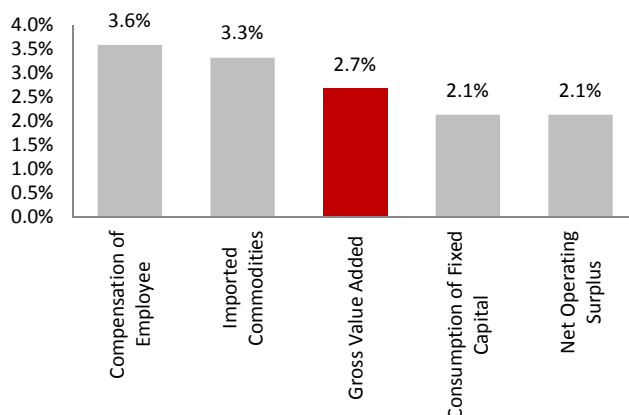
\*Less than 1 is weak, More than 1 is strong

**ECRL to boost economic growth by 2.7%.** Based on our estimate, we forecast the RM44 billion railway project to contribute 2.7% to Malaysia's economic growth. The boost for the growth is expected to kick-in from the project inception until completion. However, the full estimated GDP contribution will depend on the pace of spillover effects to other economic sectors. In addition, compensation of employees and net operating surplus are projected to rise by 3.6% and 2.1% respectively. As the project requires machinery and transport equipment, our estimate shows imported commodities and consumption of fixed capital to increase by 3.3% and 2.1% respectively. Moving forward, the railway project would affect economic expansion through both direct and indirect medium in the long run, partly by jobs creation, opening-up new areas, foreign direct investment, increase external trade activities and strengthening domestic demand.

**Various sectors benefited from ECRL.** The transportation ratio of ECRL is 70% freight and 30% passengers. Hence, industrial and tourism as well as external activities are predicted to benefit from the ECRL project. For instance, casting of metals (28.8%), fibre optic cables, electronic & other electric (6.2%) and coke & refined petroleum products (4.9%) are among the top industries to be benefit from the RM44 billion railway project. Meanwhile, wholesale & retail trade sector up by 2.1%. In addition, the railway project is also expected to contribute to circa 0.6% expansion in the real estate sector as we anticipate an increase in new township areas and better town-development in existing areas along the railway.

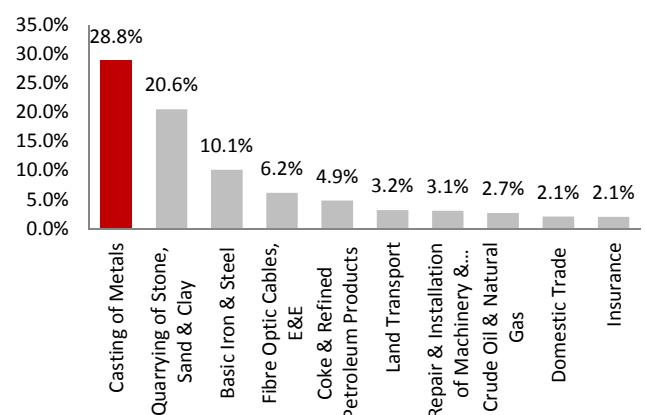
**Strategic locations near to China.** As 70% of the transportation is for freight purposes, we view the railway project will be a catalyst for industries and exporters in Malaysia. Plus, it gives Malaysia an advantage in international trade due to the project's strategic locations to China and ASEAN nations. On the other hand, improvement in transportation and connectivity will assist Malaysia in terms of better resources allocations, upgrade in productivity, increase in mobility and improving socio-economic developments economies which partly facilitate China's Belt and Road initiative.

**Chart 5: GDP by Income Performance (% Change)**



Source: DOSM, MIDFR

**Chart 6: GDP by Sector Performance (% Change)**



Source: DOSM, MIDFR

**The three states are highly government dependent.** Kelantan, Terengganu and Pahang which are located in the east coast of peninsular Malaysia are distinct in physiognomies, each with a large rural hinterland. By economic activities, the trio has a common top sector which is services. Further breakdown showed that share for public sector services in the three states exceeded national level of 8.7% with Kelantan has the largest share of 24.1%. In addition, public sector services also accounted the biggest portion for overall services sector in Kelantan. Meanwhile, for comparison purpose, only 5.4% of total economic activities in Selangor are of public services and that is below national level.

**ECRL is likely to reduce their government dependency.** These three states are likely to reap most of the economic benefits of ECRL. With ECRL, we believe it will generate more economic activities in other sectors hence shifting to a less government-reliant economy, in line with Tun Mahathir's idea to downsize the public sector over a period of time through industrialisation amid increasing burden towards the nation's financial health. This will reduce government operating expenditure especially on the emoluments which accounted for the largest share of total expenditure at circa 30%.

**Positive supply and demand effects on output.** The new railway technology will reduce the cost of doing business at the three states as it provides better transport quality which can stimulate increases in output. There will be both supply side and demand side effect on output. For example, considering an agricultural economy such as Kelantan, ECRL is likely to lower the cost and time of bringing fertiliser or tools from Kuala Lumpur to the state. In return, it will also lower the distribution cost of getting the end product from Kelantan to new markets in Kuala Lumpur, eliminating market arbitrage. On top of that, the carrying capacity of railways is large and elastic as it can be increased by adding more wagons. Additionally, it also offers greater choice of goods and services such as fresh food particularly from east coast to Selangor and Kuala Lumpur.

**Open up to competitive forces.** Some sectors are subject to economies of scale however cannot be fully exploited due to transport costs which lead to imperfect competition. Railway in that sense helps to balance between production costs and distribution costs largely on transport intensive products. This is applicable to services sector as well, particularly of office employment as it encourages centralisation in order to exploit economies of scale in office functions.

**A new latent passenger demand.** ECRL with its 30% allocation for passengers could form a new latent passenger plea by creating demands that were not there before, beyond merely moving them from one place to another. As travelling hours are reduced on top of declining cost, individuals could afford to take train for a shopping trip that they never would have considered, just like the impact seen from the introduction of the Electric Train Service (ETS) from Gemas to Padang Besar. This will increase demand for authentic products produced by these each coast state. Besides that, railway also caters the new trends in tourism such as "slow travellers", who look for unique and quality products to maximize their utilities. This will also promote and reinforce east coast tourism industry both domestically and internationally.

**Table 1: Sectoral Share in each State GDP (%)**

	Malaysia	Selangor	Kelantan	Terengganu	Pahang
<b>Agriculture</b>	<b>8.2</b>	<b>1.5</b>	<b>24.5</b>	<b>8.7</b>	<b>24.4</b>
<b>Mining</b>	<b>8.4</b>	<b>0.3</b>	<b>1.3</b>	<b>0.2</b>	<b>1.2</b>
<b>Manufacturing</b>	<b>23.0</b>	<b>29.4</b>	<b>5.6</b>	<b>37.6</b>	<b>21.8</b>
<b>Construction</b>	<b>4.6</b>	<b>5.8</b>	<b>2.0</b>	<b>3.6</b>	<b>4.1</b>
<b>Services;</b>	<b>54.5</b>	<b>60.0</b>	<b>66.5</b>	<b>49.6</b>	<b>48.3</b>
<i>Utility, Transport, Storage &amp; ICT</i>	12.1	18.2	9.4	16.4	5.5
<i>Domestic Trade</i>	18.0	20.7	19.5	11.1	16.1
<i>Finance, Insurance &amp; Real Estate</i>	8.1	11.2	5.8	3.9	5.3
<i>Other Services</i>	7.5	4.5	7.7	3.9	10.4
<b>Govt. Services</b>	<b>8.7</b>	<b>5.4</b>	<b>24.1</b>	<b>14.3</b>	<b>11.0</b>

Source: DOSM, MIDFR

**Development policies at utmost importance.** For all the changes to have effect including the occurrence of regeneration or economic growth in the east coast areas, government and policymakers need to construct strong supporting planning and development policies. While a new rail service would benefit in numerous ways, it might also carry undesirable side effects such as land exploitation, over production and existing boom towns which could bust. Hence, proper guidelines and policies need to be in place to ensure its stability and sustainability.

**IMPACT ON CONSTRUCTION SECTOR**

**Both sides made concessions after nine months of negotiations.** We note that Malaysia Rail Link Sdn Bhd (MRL) and China Communications Construction Co Ltd (CCCC) have signed a supplementary agreement pursuant to the East Coast Rail Link (ECRL) project. Accordingly, it was confirmed that ECRL will proceed at a lower cost of RM44 billion compared with its original cost of RM65.5b. ECRL's revival is a positive progress for the sector, which was recently plagued with a series of cost revision and possible cancellations news. A press conference was held on 15<sup>th</sup> April 2019, by the Prime Minister to provide further updates on the project.

**Table 2: Key Touchpoints on ECRL 2.0, as Announced by the Prime Minister**

Key Touchpoints	Details/Comments
CCCC agrees to refund part of the RM3.1b in advance payment	The RM1.0b refund forms a portion of the RM3.1b advance payment for Phase 2 of the proposed ECRL project, Double Tracking and the Northern Extension under the original contract. The first RM500m will be refunded within a week from April 12, 2019 and the remaining RM500m within 30-day from the aforementioned date.
Local role will be raised to 40% from 30%, under the original deal	Under the new supplementary agreement, CCCC will offer local contractors 40% of the ECRL civil works. We note that the percentage would amount to approximately RM17.6b worth of construction jobs. In respect of the previous arrangement (of 20%-30% local content), we had expected a range of RM13.1b to RM19.7b to be awarded. In absolute term, the amount is respectable, as it fell within the originally proposed range.
CCC agreed to form 50:50 JV with MRL to operate and maintain the ECRL	CCCC has agreed to form a JV with MRL, with each to have equal stake. Under this arrangement, CCCC will provide technical support and share the operational risk after the project's completion. This will also allow Malaysia to leverage on CCCC's expertise in the operation and maintenance of ECRL, and hence improving the long-term viability of the project. Consequent to this, MRL's role in this project is further extended to a joint operator.
85% of the project cost will be funded by China-EXIM Bank loan	The loan amount from China-EXIM Bank is expected to be reduced substantially. Details on the loan are still scarce as the final amount is still being negotiated. According to MRL CEO, the current funding structure will be based on the original 85:15 mix. Recall that the loan amount at 85% of the project original cost would be equivalent to RM56.7b. Hence should the amount be reduced accordingly, a revised loan amount could amount to RM37.4b. We learned that the balance 15% (of RM6.6b) will be financed through a sukuk program by local banks.

Source: MIDFR, Prime Minister's Office

## Exhibit 1: Project Timeline of ECRL 1.0



Source: Ministry of Finance, Bernama

**What we know.** Major revision was made on the original alignment, which will see part of the southern portion rerouted to Negeri Sembilan. Further into that, the current track is aligned to by-pass the Titiwangsa Range (whereby two tunnels of 16.3km each were supposed to be built) as part of the cost cutting exercise. Based on the new alignment, the journey from Port Klang will have to go south to Jelebu, Negeri Sembilan first before reaching up to Mentakab, Pahang. A news source specified that avoiding the Titiwangsa Range will provide gross savings of approximately RM8b-RM10b to the government.

**ECRL restored at lower cost.** Malaysia Rail Link Sdn Bhd (MRL) and China Communications Construction Co Ltd (CCCC) have signed a supplementary agreement pursuant to the East Coast Rail Link (ECRL) project. Accordingly, it was confirmed that ECRL will proceed at a lower cost of RM44 billion compared with its original cost of RM65.5 billion. We note that the stated cost of approximately RM65b only comprised of the construction cost. Given the latest revision, its entire cost for the government could be referred as below:

**Table 3: ECRL Project Details (Original)**

Component	Cost (RM'm)	Total Cost (RM'm)
<b>Development Cost</b>		<b>69,830.00</b>
Construction Cost	66,780.00	
Land Acquisition Cost	2,500.00	
Working capital	50.00	
Other operational cost	500.00	
<b>Financing cost</b>		<b>11,090.00</b>
Interest	7,444.00	
Sukuk coupon	3,192.00	
Commitment fee	238.00	
Management fee	216.00	
<b>Total</b>		<b>80,920.00</b>

Source: MIDFR, MoF

**Table 4: ECRL Project Details (Revised\*)**

Component	Cost (RM'm)	Total Cost (RM'm)
<b>Development Cost</b>		<b>47,050.00</b>
Construction Cost	44,000.00	
Land Acquisition Cost	2,500.00	
Working capital	50.00	
Other operational cost	500.00	
<b>Financing cost</b>		<b>11,090.00</b>
Interest	7,444.00	
Sukuk coupon	3,192.00	
Commitment fee	238.00	
Management fee	216.00	
<b>Total</b>		<b>58,140.00</b>

Source: MIDFR, MoF \*Subject to announcement by Prime Minister



**Exhibit 2: Snapshot of Revised ECRL**

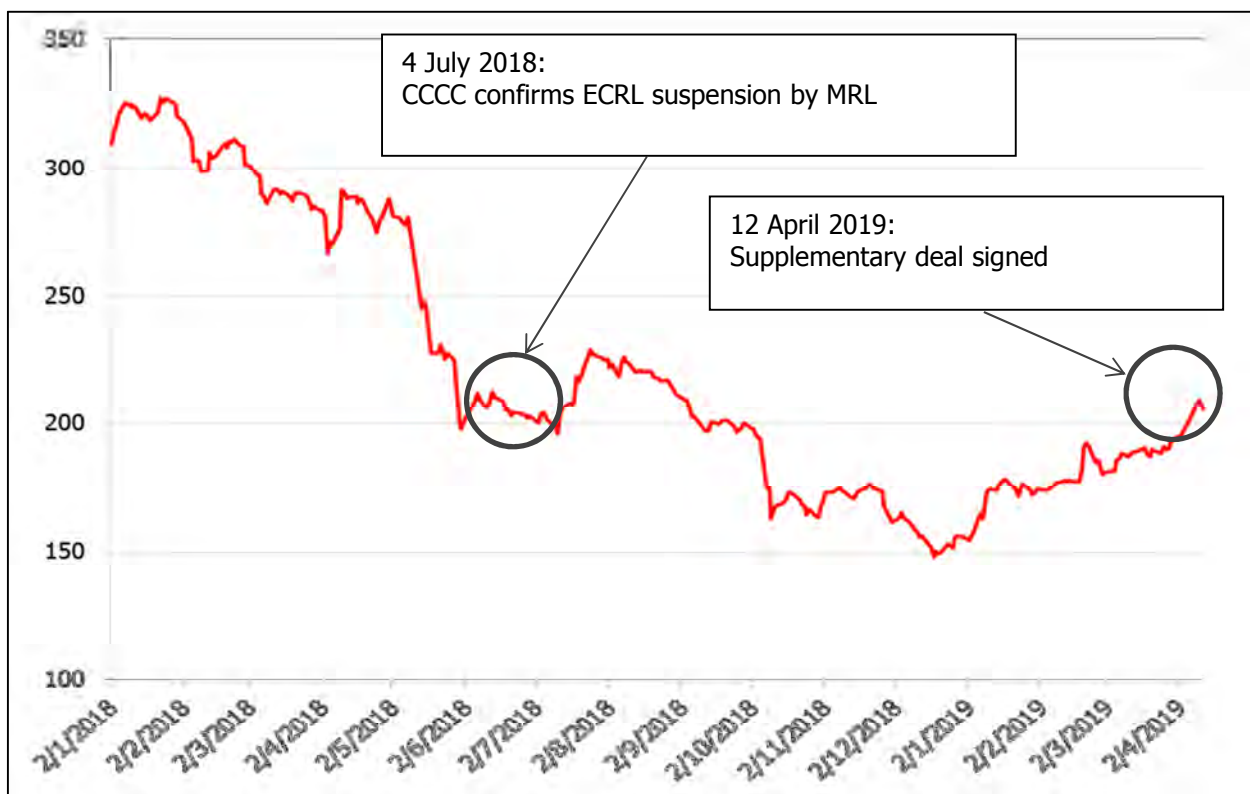


Source: MRL

**Stocks which had existing exposure on ECRL are Lafarge (ACCEPT OFFER, TP: RM3.75) and HSS Engineers (NR).** Lafarge has previously secured RM270mil contract to supply cement to China Communications Construction (ECRL) Sdn Bhd (CCC). Meanwhile, HSS Engineering was awarded a package worth RM82.5m to provide supervising consultancy services for infrastructure works from Km 0 to Km 231.5 of the ECRL Package 1. The contract was supposed to commence in 1Q18 as the ECRL project moves to the construction stage. In a turn of event, both contracts were later suspended, following the action by government to review the project. In the light of ECRL continuation, reinstating both contracts will allow both Lafarge and HSS Engineers to see earnings contribution as the work resume. We recall that the contract awarded to Lafarge was for the supply of cement to all eight packages of work of the ECRL project, with a potential of renewable for a further two years. We estimated a possible offtake of approximately 1m tonnes, spread out over three years. Accordingly, the amount is unlikely to be adequate to meaningfully improve the group domestic sales, we believe.

**Maintain NEUTRAL on the sector.** While the news on ECRL is positive, we have to recognize that expectation on its revival have already been priced in. This was reflective on the KLCON performance, which was seen moving faster than its fundamentals, ahead of the announcements. In our coverage, **Gabungan AQRS (BUY, TP:RM1.87)**, **Muhibbah Engineering (BUY, TP:RM3.73)**, **IJM Corp (NEUTRAL, TP:RM1.85)**, **MRCB (BUY, TP:RM1.05)** and **WCT (NEUTRAL, TP:RM0.88)** are touted as potential beneficiaries. These counters are among the active players for local railway jobs. Gabungan AQRS is our favorite to clinch a sizeable above ground job leading to Kota SAS station, due to its proximity and involvement for the development of Kota SAS. Meanwhile, IJM Corp stands a good chance of winning the spur line scope into the Kuantan Port. It would possibly clinch packages of design and build for stations Kuantan Port City 1 and 2 as well as site clearing or civil works. It is possible due to the proximity of the station sites and Kuantan Port which is a subsidiary of IJM and Malaysia-China Kuantan Industrial Park - its joint venture project with Guanxi Beibu Gulf ASEAN Investment.

**Chart 7: KL Construction Index Performance**



Source: MIDFR, Bloomberg

## IMPACT ON TRANSPORT SECTOR

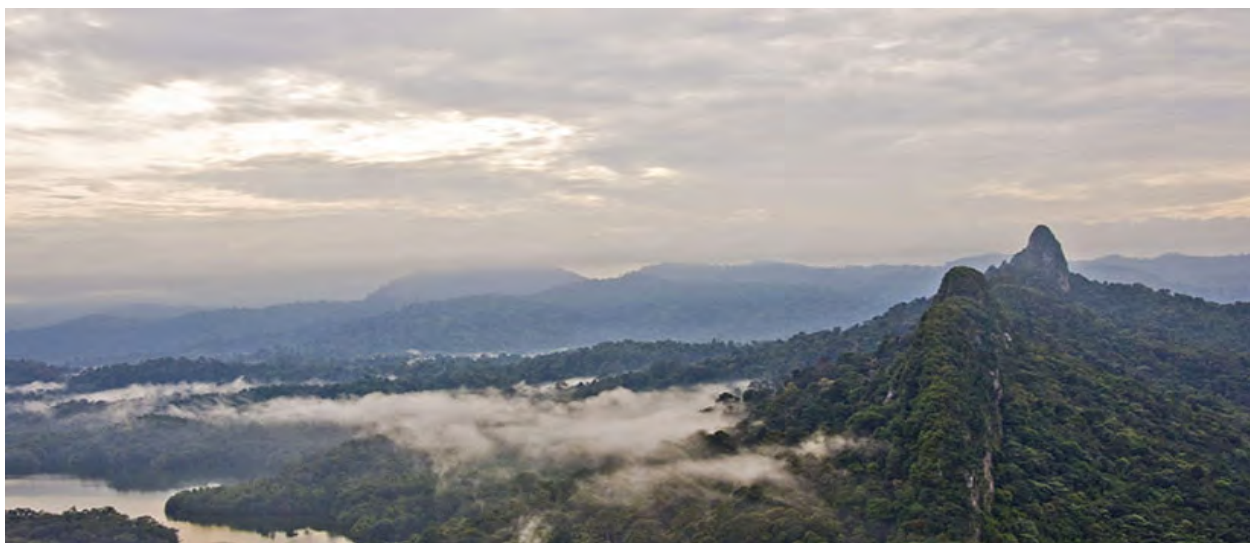
**Possible spillover effects on ports.** Aside from construction companies, ports in Malaysia such as Kuantan Port and Port Klang are expected to benefit from the resumption of the ECRL project. The only main change from the previous plan connecting to ports was the removal of Integrated Transport Terminal (ITT) in Gombak under the Mentakab-Port Klang route. In lieu of this, Port Klang will be connected to Mentakab via Putrajaya, Bangi Kajang, Kuala Kelawang and Jelevu. The reason for change is to avoid the ECRL from passing across the 16km-long Klang Gates Quartz Ridge, trimming the chance for Selangor's bid to list the Quartz Ridge as a UNESCO heritage site.

**Exhibit 3: Location of Gombak Utara and the Klang Gates Quartz Ridge**



Source: Google Map

**Exhibit 4: Klang Gates Quartz Ridge**



Source: Embark.org



**Freight traffic to remain resilient despite rerouting to Negeri Sembilan.** Despite the rerouting of the ECRL from Gombak to Negeri Sembilan, we opine that this should not heavily impact the flow of freight traffic. We still believe that travel time taken from Shenzhen, China via Kuantan Port and ECRL to Port Klang could be reduced by slightly more than a day instead of passing by the Straits of Malacca. Although cost estimates of using Kuantan Port and ECRL are slightly higher with railway accommodating around 100 TEUs of containers per service compared 20,000 TEUs that can be carried by mega vessels. Nonetheless, we reckon that this could be partially mitigated by demand to transport time sensitive goods especially during peak festive seasons.

**Table 5: Cost and travel time comparison**

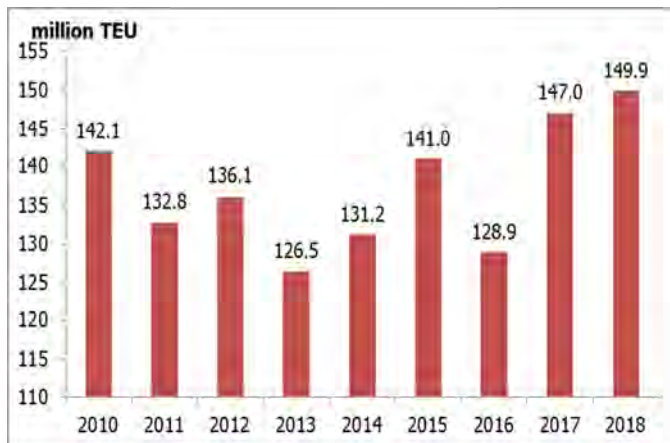
Route from Shenzhen	Travel Time	Cost Estimates for Bulk Cargo per Tonne
Via Kuantan Port and ECRL	~135 hours	~USD56
Via Singapore and Straits of Malacca	~165 hours	~USD60

Source: Malaysian Logistics Executives

**Demand at Kuantan Port remained strong during ECRL suspension.** During the period of suspension of the ECRL project, demand at Kuantan Port remained robust as container and cargo throughput grew by +2.0%yoy and 2.9%yoy respectively in 2018. The factor for Kuantan Port growth lies in the Malaysia-China Kuantan Industrial Park (MCKIP) which has reignited interest from Chinese industry players following the inception of the trade war between the U.S and China in 2018. The Sino-U.S trade war has prompted industrial players from China to relocate their hubs in regions such as ASEAN to avoid the imposition of high tariffs by the U.S. To date, both the MCKIP and Kuantan Port have attracted a total investment value of above RM40b.

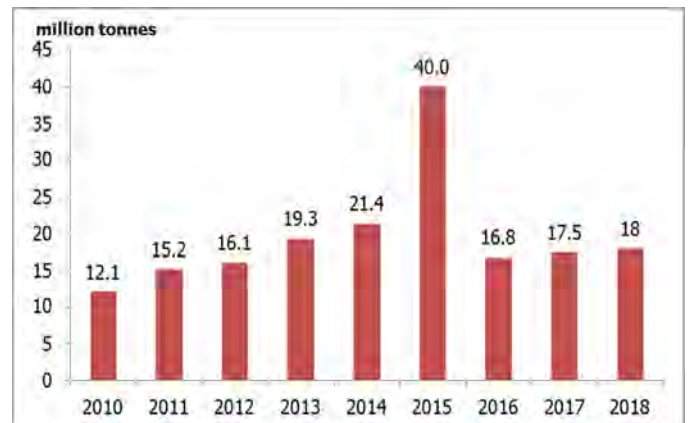
**Kuantan Port capacity to grow in tandem with MCKIP.** As interest from Chinese industrial players pick up, throughput in the form of products of companies such as Alliance Steel is expected to increase. Therefore, the capacity of Kuantan Port would need to cater for this type of throughput through the construction of a New Deep Water Terminal (NDWT) with that will double the capacity to 52 million freight weight tonnes (FWT) from 26 million FWT to cater for larger container ships of up to 18,000 TEUs. Thus far Terminal Phase 1A has commenced operations in 3Q18 with three vessels carrying iron ore for Alliance Steel docking at the new berths while Terminal Phase 1B is expected to commence operations in 3Q19.

**Chart 8: Kuantan Port Container Throughput**



Source: Kuantan Port Authority

**Chart 9: Kuantan Port Conventional Cargo Throughput**



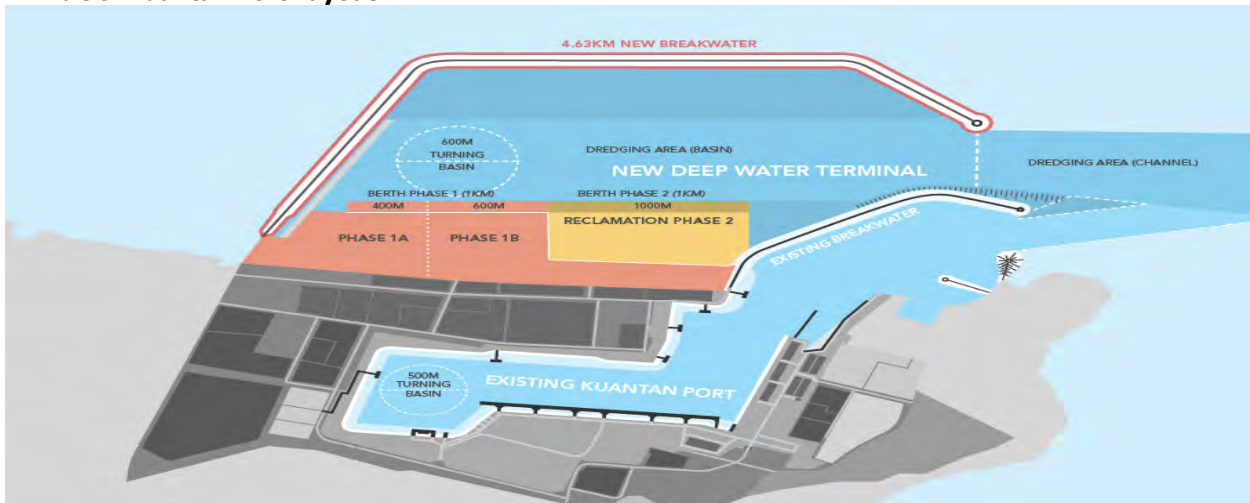
Source: Kuantan Port Authority

**Exhibit 5: MCKIP Layout**



Source: MCKIP

**Exhibit 6: Kuantan Port Layout**



Source: Kuantan Port website

**Port Klang to indirectly benefit from the increase in throughput at Kuantan Port.** The combined world market share of major Chinese container lines such as COSCO Shipping Co Ltd and Evergreen Line stood at 17.7% as of 14 April 2019. Notwithstanding this, we believe that Kuantan Port could still absorb the share of volumes from Chinese container lines which will increase its conventional and gateway container volume. Meanwhile, this may also serve as a buffer for gateway volumes in Port Klang (i.e. Northport and Westports) especially following the recalibration of shipping alliances in April 2017 which saw container volumes being relocated to Singapore. Moreover, COSCO and Evergreen are part of the OCEAN alliance, an alliance which contributes a significant volume to **Westports (BUY; TP: RM4.09)**. Therefore, with Port Klang being a part of ECRL, we do not discount the possibility that more Chinese vessels will be used to retrieve the cargo transported via the land bridge.

**Utilisation rates of ports in Malaysia to improve.** With more throughputs expected to be handled with the resumption of ECRL, especially at Kuantan Port and Port Klang, utilization rates will increase. In the case of Westports, the increase of utilization rates to a level of around 75% would serve as a trigger point to start expanding new container terminals. Overall we opine that both of these ports are set to benefit from the ECRL and help promote the economic growth especially in east coast states as they play a role in facilitating Malaysia-China trade.

**Table 6: Overview of Utilisation Rates of Malaysian Ports**

Port	Capacity ('m TEUs)	Throughput ('m TEUs)	Utilisation rate (%)	Listed holding company
Westports	14.0	9.5	68.0	Westports Holdings Bhd
Northport	5.6	2.8	50.0	MMC Corp Bhd
Port of Tanjung Pelepas	12.5	9.0	72.0	MMC Corp Bhd
Johor Port	1.2	0.9	75.0	MMC Corp Bhd
Penang Port	2.0	1.5	75.0	MMC Corp Bhd
Kuantan Port	0.4	0.1	25.0	IJM Corp Bhd

Source: Respective companies

**Positive on ports but neutral on transportation sector as a whole.** We remain optimistic on Malaysian ports given their strategic location along major trade lanes and the economic prospects of the ASEAN region. We believe one of the major beneficiary will be **Westports (BUY; TP: RM4.09)** and **MMC Corp (BUY, TP: RM1.37)** due to its ownership of Northport. Conversely, for the logistics industry, the anticipated higher demand of e-commerce activities will attract more new entrants grabbing market share of current logistic companies through competitive pricing. As such, we reiterate our **NEUTRAL** stance on the transportation sector as a whole.

**IMPACT ON OIL AND GAS SECTOR**

**ECRL – Linking west to east.** ECRL has the potential to further spur Malaysia's oil and gas industry as it links Malaysia's financial hub in the west with the country's oil and gas hub in the east. The ECRL will allow for human capital and goods to be easily transported from west to east, thus allowing for greater connectivity of goods from Port Klang to Kertih and Kemaman. Currently, the only mode of transportation from west to east is via road.

**Kertih – Petrochemical town.** Kertih has long been an oil and gas town in the eastern coast of Peninsula Malaysia. The town is a hub for both upstream and downstream oil and gas activities. Kertih is famous for its petrochemical refineries, predominantly the PETRONAS Kertih Refinery – Petronas' first oil refinery in Malaysia. It is owned and operated by PETRONAS Penapisan (Terengganu) Sdn Bhd. The refinery processes 49,000 barrels of Malaysian light, sweet crude oil per day. Throughout the years, the refinery has undergone expansion to include a Condensate Splitter Unit (KR-2A) with a rated capacity of 74,300 barrels per day of naphtha condensates. The heavy naphtha produced in KR-2A is used as feedstock in the aromatics plant located adjacent to the refinery.

**Kemaman – Hub for offshore supplies.** Kemaman is famous as a supply base hub with the Terengganu state-owned and managed Kemaman Supply Base (KSB). KSB is the hub of South China Sea's oil & gas exploration and production activities, while at the same time serves as the gateway for oil & gas and heavy industrial complexes of global stature in the East Coast of Peninsula Malaysia. The supply base is a one-stop center for oil and gas activities, providing services such as cargo handling, berthing, repair maintenance and warehousing.

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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 <i>rise</i> 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 +10% 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 <i>fall</i> 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.