

# INSTATING A FREE COMMERCIAL ZONE AT PENANG'S NORTH BUTTERWORTH CONTAINER TERMINAL

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## Executive Summary

- The idea of instating a free commercial zone (FCZ) status at the North Butterworth Container Terminal (NBCT) has been floated by many since the abolishment of the state's original free-port status in 1967, owing to the belief that such an allowance would have profoundly beneficial economic impacts for the state.
- While it is almost a theoretical economic truth that the lowering of taxes and duties, and the simplification of bureaucratic processes induce increases in economic activity<sup>1</sup>, localised conditions and factors may impinge upon the full realisation of these hypothesised gains.
- This report aims to assess the rationality and efficacy of awarding the NBCT FCZ status, through an analysis of the context of Penang in relation to the factors that determine the success of free zones generally.
- We place a particular emphasis on the localised conditions that would influence the magnitude of any potential economic benefits.

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<sup>1</sup> Amongst the many features of free zones, these are some of the most significant. Others are discussed in Chapter 1.

# Chapter 1: Special Economic Zones (SEZs)

## 1.1 Introducing the Concept of SEZs

The concept of a ‘free commercial zone’ falls under the broad category of regulatory environments known as special economic zones (SEZs). These additionally comprise of free trade zones; export processing zones; enterprise zones; specialised industry zones; and free ports, amongst others, and there exist particular variations and restrictions which differ across each type of zone. Between 2008 and 2015, the number of SEZs in effect across the world rose from 3,000 to approximately 4,300, taking many of the various aforementioned forms. This equates to an annualised growth rate in the number of zones of roughly 6.2% across this brief time period.

**Free ports themselves are wide in their scope and often encompass features of other forms of SEZs.** Free ports can cover entire cities, such as Shenzhen (China) and Kaliningrad (Russia); islands, such as Labuan (Malaysia) and Batam (Indonesia); or entire city-states, such as Singapore and Hong Kong.

**Typical free ports permit enterprises to engage in a broad variety of activities.** These include but are not limited to manufacturing, tourism, warehousing, transshipment, and repackaging. Imports are duty-exempt and not restricted to supply-chain inputs, and can be sold at retail or wholesale levels, or be consumed on-site (i.e. within the free port zone). Free ports generally allow for zone products to be sold to domestic markets, upon full payment of necessary duties and/or taxes<sup>2</sup>.

**Broadly speaking, there are 13 free port models that can be split into five ‘model groups’<sup>3</sup>.** Port Klang and Tanjung Pelepas, both of which are amongst the 20 busiest ports in the world<sup>4</sup>, follow a free port model of ‘supply chain arbitrage’, where entering goods are of either domestic or international origin, and are stored and transformed before being imported or re-exported. More complex models of free ports contain one or more specialised industry zones offering supply chain services. An example is Tanger-Med in Morocco, a free port which encapsulates an industrial hub involved in automotive production, industrial processing, textile production, and information technology<sup>5</sup>.

**SEZs offer business environments which are more liberal from a policy perspective, and more effective from a regulatory and administrative standpoint.** The features which contribute to this include the provisions of fiscal incentives, infrastructural requirements, streamlined business registration and customs procedures, facilitated processing of labour, and immigration permits, amongst others. It should be noted that many of these features are easily replicable by potentially competing SEZs in existence, and competition across and even within nations solely on the basis of such ‘incentives’ has proven to be ineffective, inefficient and even harmful.

Amongst their many *theoretical* implications, **the creation of SEZs may, under the appropriate conditions, positively influence many variables of economic interest.** These include employment; government revenue; import and export growth, in terms of volume and value, and diversification; foreign exchange earnings; foreign direct investment; skills upgrading and technology transfers; and regional development. SEZs can also act as ‘incubators’ for new policy designs, to test their efficacy in localised conditions before undergoing wider implementation.

**Still, it is common for these potential benefits not to be realised;** for instance, evidence suggests that the direct employment effects of SEZs are almost negligible in regions exhibiting already-high levels of employment, while **the magnitude of any positive indirect employment effect is dependent on the extent of backward supply-chain linkages developed between the companies and industries situated within these zones, and the local economy.**

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<sup>2</sup> Export processing zones (EPZs), by contrast, only allow for the import of materials used in a free zone enterprise’s production chain, and are typically required to export the vast majority of their production.

<sup>3</sup> Lavissière and Rodrigue (2017)

<sup>4</sup> As ranked by port traffic as of 2012.

<sup>5</sup> This framework has repercussions for Penang and its thriving E&E industry, which is discussed in Chapter X.

Further, SEZs can be used to act as ‘pressure valves’ rather than ‘incubators’ if they are used to circumvent more complex trade and industry reform at the state- or national-level. Such a situation should be avoided at all costs.

**Two major drawbacks associated with SEZs involve the costs accruing during zone development and operation.** These can both be mitigated, however. Zone location should be selected to ensure proximity to existing infrastructural facilities such as roads, electricity, and water. In this manner, development expenditures would be required only for zone-specific features, such as warehouses, storage facilities and security features. From an operational perspective, foregone revenue from taxes and duties can be reduced through the use of measured and moderated incentivisation structures, while a streamlining of administrative processes would ensure public sector involvement in zone operation is least costly. Evidence suggests that public-private SEZ partnerships where physical zone development functions are left to private sector and public sector involvement is limited to zone regulation, planning, and promotion, go a long way in ensuring the financial sustainability of these ventures.

**The historical experience of SEZs across the world serves to highlight the fact that the creation of these zones is not a guarantee of any form of success.** Broadly speaking, it is difficult to circumvent the laws of absolute and comparative advantage, which form the basis of international trade, even in the presence of strong incentives for target industries or sectors.

**Policy design is the most critical factor determining the success of a free port zone,** and needs to be mindful both of local economic conditions and external factors, such as trends in international trade, regional conditions and, in the case of industry-specific zones, issues related to comparative advantage and economic efficiency.

## 1.2 SEZs in Malaysia

**Numerous free zones already exist in Malaysia.** These can be split into two categories – free industrial zones and free commercial zones – and include those situated at the ports of Klang (Selangor), Tanjung Pelepas, and Pasir Gudang (both Johor), as well as in Bayan Lepas (Penang) and Kulim (Kedah).

### Box 1: Free Zones in Malaysia

A free zone is a designated, secured area in which commercial and industrial activities are carried out and gazetted by the Minister of Finance, as stated under Section 3(1) of the Free Zone Act 1990. Two forms of free zones exist in Malaysia - free industrial zones (FIZs) and free commercial zones (FCZs). Prior to the Free Zone Act 1990, Malaysia’s FIZs began as free trade zones (FTZs), with the gazetting of the Free Trade Zone Act 1971.

A FIZ is a zone where most of the manufacturing activities performed are for the purpose of exporting. It is consequently a facility catered towards export-oriented companies. Companies located within the confines of the FIZ are additionally permitted to carry out activities such as research, design and testing. To qualify for location within a FIZ, companies are stipulated to export at least 80% of their output.

A FCZ, on the other hand, is an area designated only for commercial activities. These include but are not necessarily limited to break-bulking, grading, relabeling, re-packaging, and the transit of cargo (except retail trades). The rationale for the creation of FCZs was the promotion of commercial and trading activities in Malaysia, including entrepot trade, in line with the promotion of the services sector. FCZs are typically located close to the country’s ports, due to the nature of the activities conducted in these zones (Yeow and Ooi, 2009).

For premises not located in the free zones specifically, manufacturing companies which export at least 80% of their production qualify to apply for licensed manufacturing warehouse (LMW) status. LMWs are premises

licensed under Section 65/65A of the Customs Act 1967, and are directly controlled by Royal Malaysian Customs as a facility provided to export-oriented firms. In addition to manufacturing, activities that can be undertaken in LMWs include the following: value-added activities; re-manufacturing, repairing and servicing, international procurement centres (IPCs); and regional distribution centres (RDCs).

*Sources:*

*Ministry of International Trade and industry. (n.d.). Licensed Manufacturing Warehouse. Retrieved April 16, 2019, from <https://www.miti.gov.my/index.php/glossary/term/117>*

*Royal Malaysian Customs Department. (n.d.). Layanan Cukai Perkhidmatan di Zon Bebas (Zon Perindustrian Bebas & Perdagangan Bebas). Retrieved April 16, 2019, from [http://www.customs.gov.my/en/ip/Pages/ip\\_lcp.aspx](http://www.customs.gov.my/en/ip/Pages/ip_lcp.aspx)*

*Yeow, T. C., & Ooi, C. I. (2009). The Development of Free Industrial Zones–The Malaysian Experience. World Bank, 229.*

**At the same time, five SEZs exist in the form of regional development corridors, which may not necessarily fall under the bracket of free zones but in certain cases do include features pertinent to typical free zones.** These include the Northern Corridor Economic Region (Penang, Kedah, Perak and Perlis); the East Coast Economic Region (Kelantan, Terengganu, Pahang, and Mersing, Johor); Iskandar Malaysia (Southern Johor); the Sabah Development Corridor; and the Sarawak Corridor of Renewable Energy.

**The sea-ports of Klang and Tanjung Pelepas are the busiest in Malaysia, and are ranked amongst the top 20 globally in terms of traffic.** In 2017, total cargo throughput at Port Klang was 212.3 million freightweight tonnes (FWT), almost 6.5 times as much as was handled at the North Butterworth Cargo Terminal in Penang. Throughput at Tanjung Pelepas over the same year was around 130.5 million FWT, around four times as much as Penang's seaport.

**As far as airports are concerned, the Kuala Lumpur International Airport (KLIA) is the busiest,** handling 563,054 metric tonnes of cargo in 2017. KLIA2 and Bayan Lepas International Airport (BLIA) are ranked second and third in the country, handling 147,132 and 119,272 metric tonnes respectively.

**However, when ranked in terms of trade value, BLIA is the domestic leader.** Between January and August of 2018, BLIA handled exports worth RM151bil and imports worth RM89bil, compared with RM49.4bil in exports and RM74.2bil in imports through KLIA.

**This is due in large part to the airport's strategic location adjacent to the Bayan Lepas Free Industrial Zone (FIZ), the stronghold of Penang's electrical and electronics (E&E) industry.** The creation of this free zone in 1972 has been a significant factor behind Penang's growth into the 'Silicon Valley of the East'. The total value of Penang's trade is influenced strongly by this high-tech industry.

**For the past 40 years, the E&E industry has been a critical component of Penang's economy, accounting for 40% of state-wide employment.** In 2016, the industry exhibited the highest productivity growth rate (9.6%), contributions of added value (23%), and contributions to manufacturing exports (44.6%), while in 2017, it attracted RM6.7bil in total investment, 88% of which was FDI.

**At the same time, evidence suggests that, from a public infrastructure perspective, the Bayan Lepas FIZ is approaching capacity limitations.** Problems include a scarcity of land for further development, insufficient public transportation networks and worsening traffic conditions, as well as high real-estate prices and the need to meet demand for increasingly higher-skilled labour. Solutions must be found to these concurrent issues, or the E&E industry in Penang may not be assured of its current growth trajectory persisting into the longer-term. It is unlikely that the enactment of a FCZ at NBCT would have much of an effect addressing this particular issue.

## Chapter 2: Contextualising Penang's Economic Landscape

### 2.1 Penang's Economic Environment

Penang has shown favourable economic performance over the past years, driven largely by a dominant manufacturing and services sector. Over recent years, Penang has consistently contributed an average of 6.5% to Malaysia's GDP with an average annual growth rate of 5.4%<sup>6</sup>. Looking at Penang's GDP by sector, the manufacturing sector contributes an average of 45% while the services sector contributes an average of 49%.

Penang plays an important role in Malaysia's external trade, responsible for an average of approximately 24% of Malaysia's trade value, and the state has developed as an export-oriented economy, particularly so in the electronics and electrical (E&E) and related industries. This prominence of the E&E sector in its contribution to trade is commonly acknowledged<sup>7</sup>. From 2015 to 2017, the exports of machinery and transport equipment are observed to have offset the aggregate trade deficit recorded by other industries (see Table 1 below), and the effect of this can be seen in Penang's positive trade balance throughout the same time period. The contribution of the E&E industry is made even more apparent when analysing foreign direct investment (FDI) data; the industry contributed 40% (RM1.6bn) of total capital investment in Penang's manufacturing sector in 2016, a figure which rose to 62% (RM5.9bn) in 2017. This evidence fortifies the notion that Penang's major economic industries are heavily reliant on global trading patterns.

**Table 1: Balance of trade by SITC category in Penang, 2015-2017**

Categories	RM billion		
	2015	2016	2017
Food	-4.36	-4.52	-4.75
Beverages and Tobacco	-0.39	-0.33	-0.29
Crude Materials (Inedible)	-1.44	-1.41	-2.41
Mineral fuels, Lubricants, etc.	-5.19	-4.07	-4.99
Animal and Vegetable Oils and Fats	0.65	0.85	0.85
Chemicals	-2.44	-2.35	-2.49
Manufactured Goods	-3.66	-4.15	-4.62
Machinery & Transport Equipment	35.95	28.15	32.98
Miscellaneous Manufactured Articles	20.17	20.91	29.18
Miscellaneous Transactions and Commodities	-6.24	-5.88	-6.39
<b>Total</b>	<b>33.06</b>	<b>27.19</b>	<b>37.07</b>

Source: Department of Statistics, Malaysia.

The success of the E&E manufacturing industry relies on peripheral industries that form crucial supply chain nodes to the manufacturing of E&E products. This, in turn, reinforces Penang's participation in global supply chains. E&E manufacturing is not a standalone industry, but one which relies on a variety of inputs that may not be E&E-specific in themselves. These inputs range from raw-materials such as metal parts and silicon to production-assets like precision machining and tooling. While some of these are both sourced and produced domestically within the E&E ecosystem, participation in global supply chains are inevitable and this occurs in terms of either sourcing

<sup>6</sup> Penang Institute, Penang Economic Development Report 2017/2018, 2018.

<sup>7</sup> Up to 2017, Western Digital is the largest exporter of E&E products at RM20 billion; a major portion of which is attributable to their manufacturing operations in Penang.

inputs from nations or regions with better comparative advantages, or by their equal involvement in exporting their manufactured goods.

**In addition, Penang is also seeing the increasing maturity and growth of other crucial manufacturing industries which contribute to external trade in the same manner.** Especially notable is the growing medical device manufacturing industry, as represented by the various multinational companies (MNCs) that have recently invested in new facilities in Penang<sup>8</sup>. Additionally, investment data also indicate a healthy flow of continuous investments in other manufacturing industries such as *basic metal products*; *plastic products*; and *food manufacturing*. This, in turn, has contributed to the export-import activity as reflected in Penang's balance of trade.

## 2.2 The Logistics Industry<sup>9</sup>

**The logistics industry in Penang is in itself an important contributor to the state's economic output and further, a crucial enabler for other industries that make up the backbone of Penang's economic activity.** Although given less mention than Penang's manufacturing sector, the logistics industry contributes considerably to Penang's economy; especially so within the services sector. In 2017, the logistics industry contributed RM5.3 billion, accounting for 13.8% of Penang's services sector; a continuation of positive growth rates since 2015. It is also observed that the logistics industry, particularly the availability of an airport and seaport, serves as a critical enabler to support the existence and growth of other industries in Penang – including the manufacturing industry as a whole.

**Trade in Penang is significantly dominated by air channels relative to sea channels.** Evaluated by value of trade, external trade in Penang is primarily conducted through Penang International Airport (PIA) at Bayan Lepas. This on average is at least three times the value of trade done through Penang Port at the North Butterworth Cargo Terminal. The same results hold true for both exports and imports.

**Indeed, PIA accounts for a significant share of external trade conducted through air channels in Malaysia as a whole.** PIA is responsible for approximately 62% (RM316bn) of air channel trade value in Malaysia, but the share of total external trade value by sea accruing to Penang Port is merely 8.9% (RM90bn), on average. This strongly suggests that Penang Airport is the main gateway for external trade by air in Malaysia, and in turn, this is heavily influenced by Penang's status as an E&E hub in the region.

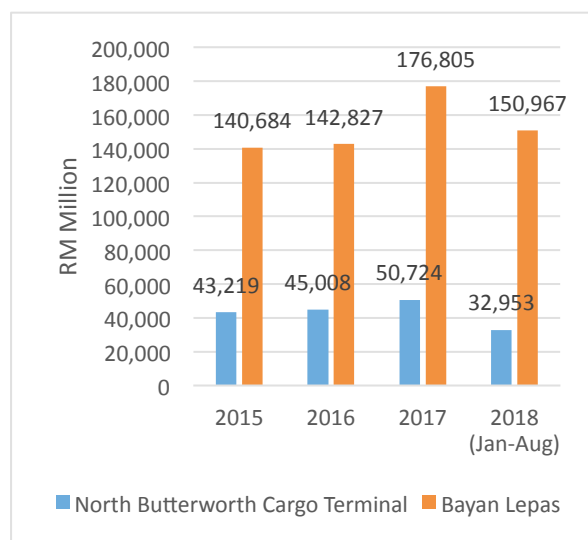
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<sup>8</sup> Japan Lifeline invested its first factory outside of Japan in Penang at the cost of RM70 million. In another, PENTAX Medical setup a new endoscope manufacturing and repair centre in Penang.

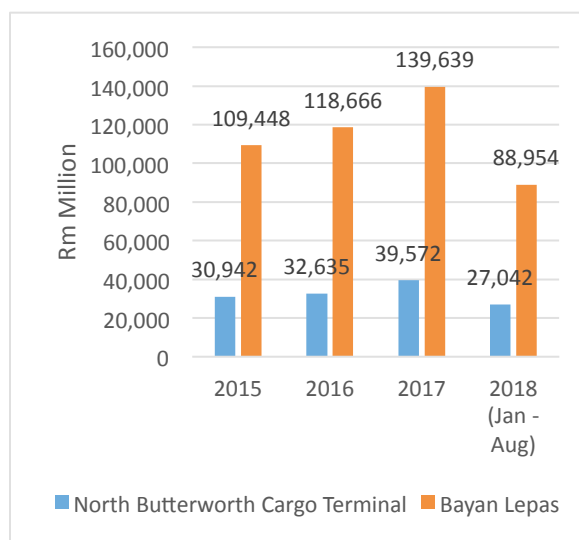
<sup>9</sup> In official published statistics, this is referred to as *Transportation and Storage Services*.

**Figure 1: Value of external trade in Penang by sea and air channel.**

a) Exports

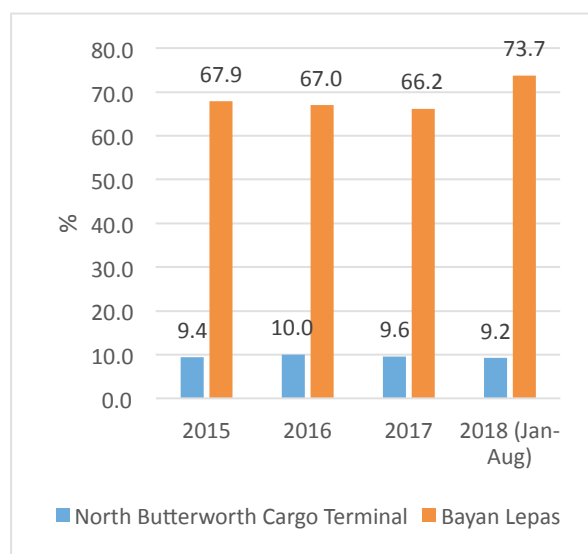


b) Imports

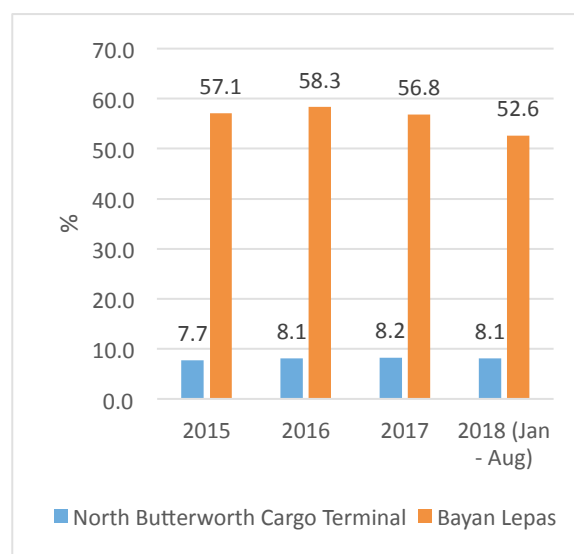


**Figure 2: Share of Penang's contribution to external trade by channel to Malaysia.**

a) Exports



b) Imports



Source: Monthly External Trade Statistics, Department of Statistics, Malaysia.

**Penang's dominance in air trade is owed to the nature of the E&E industry.** Final manufactured products of the E&E industry are characterised by being time-sensitive to the supply chain, light-weight, and possess a high value-to-weight ratio. These characteristics make air transportation an ideal logistical choice for the E&E industry. In



addition, such products are primarily manufactured for exports rather than domestic consumption. Brought together, these features provide a credible explanation to Penang's dominance in *air* trade, outperforming even the larger Kuala Lumpur International Airport in terms of trade value.

**Penang's robust logistics industry and infrastructure has strongly supported the comparative advantage positioning of other industries in Penang.** While the E&E sector heavily utilises *air* transportation, the majority of industries rely on both *sea* freight and road transport. This is primarily due to the nature of products and inputs that have a lower value-to-weight ratio, as well as a less aggressive production cycle. The availability of these two keys connecting nodes have contributed to Penang as a preferred choice for manufacturing industries that are more actively engaged in international trade, particularly those whose business model is sensitive to logistical costs.

**There seems to be a lacklustre presence of warehousing activity within the logistics industry in Penang.** While transportation and their associated support services have come to play a necessary and vital role in the general development of the manufacturing sector, the same cannot be said of warehousing activities. Anecdotal evidence suggests that warehousing and storage activities in Penang are limited to private warehouses. That is, warehousing is managed as an extension of on-site process requirements – in this case, the on-site processing of finished own-goods to be transported directly to their intended consumer. This is in contrast with warehousing activities that principally function as distribution hubs – the activity of gathering own-products from various locations for the sole purpose of storage and redistribution. Limited examples of this include Broadcom's global distribution warehouse in Batu Kawan Industrial Park and BBraun's regional distribution centre<sup>10</sup>. Alternatively, specialised warehousing exists that is provided as a service for other companies, with PKT Logistics' '12 Waves' being a prominent example of this.

## 2.3 Developments in Malaysia's Northern Region

**Penang, as an economic engine, exists within a wider regional sphere that greatly influences the state's logistics industry.** Given that the logistics industry is a catalyst for connectivity, economic developments in areas of geographical closeness to Penang have direct effect on its logistics industry. By way of geographical endowment and historical legacy, Penang has become the natural point for access to global supply chains by neighbouring states in the region, such as Kedah, Perlis, and to a limited extent, Perak, as well as regions in southern Thailand for whom the closest seaport of note is in Penang.

**Penang has etched itself as a transportation node connecting the northern region to global trade routes and vice versa.** Of notable importance is Penang's availability of intermodal connectivity that conveniently connects rail, ship and truck. Over the years, Penang has cemented itself as a satellite transportation hub connecting Southern Thailand, and the northern states (Perlis, Kedah, Penang and Perak) to international trade routes directly or via other major ports in the region, such as Port Klang.

**Penang's logistics industry is by extension therefore also affected by economic developments in the regions it connects to.** Infrastructure development plans, for example, have the potential to alter the comparative advantage of transportation options for industries. On the other hand, the development and growth of the manufacturing industry in the northern states of Malaysia will increase the demand for transportation of goods and by extension the business possibilities of Penang's transportation industry.

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<sup>10</sup> <https://www.malaymail.com/news/money/2017/09/19/broadcom-launches-rm59m-global-distribution-warehouse-in-penang/1468319>  
<http://www.mida.gov.my/home/b.braun-medical-industries/posts/>

## 2.4 Manufacturing Investments in Northern Malaysia

**Origin cargo, excluding both goods from southern Thailand as well as transshipment cargo, is a major contributor to the export volumes at Penang Port.** This is especially true for goods such as wood and furniture, rubber and rubber products, building materials, food products, paper products and plastic products. This section looks into the Malaysian Investment Development Authority (MIDA) approved manufacturing investments in the four states in northern Malaysia: Kedah, Penang, Perak, and Perlis. It is hypothesised that with sustained investment in sectors that largely use sea freight, export trade volumes will increase.

**Investment in industries other than those listed above account for approximately half of the total manufacturing investments in the northern states over the past five years. Assuming that all E&E and machinery and equipment (M&E) exports are transported by airfreight, robust investment within other industries is likely to spur steady and significant demand for the use of Penang Port.** Table 2 highlights the MIDA-approved manufacturing investments for the four northern states, by industry, between 2014 and 2018.

**The six industries with the highest cumulative investment across the four states over this five-year period, excluding E&E and M&E, are scientific and measuring equipment; transport equipment; non-metallic mineral products; rubber products; basic metal products; and chemical and chemical products.** Penang Port serves as a feeder port for bulk cargo from Southern Thailand, largely for rubber and rubber products. Other goods of note include solar panels, rubber gloves, condoms and tyres. There exists the potential of higher volumes from new businesses located within the Batu Kawan Industrial Park and potential product imports for completely knocked-down auto parts (Athurokala and Narayanan, 2017). It is understood that at present, a solar panel manufacturer and a building materials company are amongst the most significant users of Penang Port.

**The Kedah Rubber City, which will focus on innovative, high value-added and specialised latex and rubber products, precision-engineered rubber products, and 'green' rubber products is likely to also add to the demand for use of Penang Port as a channel for external trade.** Its first phase consists of 500 acres, and is developed jointly by Northern Corridor Implementation Authority, the Kedah state government and the Malaysian Rubber Board. Athurokala and Narayanan (2017) reported that the full scale of the project will extend to 1,500 acres of landmass. Coupled with Malaysia's comparative advantage in rubber-based industries, and emerging investments in these four states, origin cargo volumes at Penang Port are postulated to continue to be sustainable.

**Table 2: MIDA Approved Manufacturing for Kedah, Penang, Perak and Perlis, 2014-2018**

Kedah	2014			2015			2016			2017			2018		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
Food Manufacturing	49	1	50	19	0	19	75	6	81	0	0	0	56	1	56
Beverages & Tobacco	16	0	16	0	0	0	0	0	0	17	0	17	0	0	0
Textiles & Textile Products	18	3	21	0	0	0	0	0	0	0	0	0	0	0	0
Leather & Leather Products	0	0	0	0	0	0	0	19	19	0	0	0	0	0	0
Wood & Wood Products	12	3	15	48	0	48	5	40	45	232	0	232	10	0	10
Paper, Printing & Publishing	0	0	0	0	0	0	0	0	0	0	0	0	70	0	70
Chemical & Chemical Products	35	51	86	20	14	34	12	30	43	0	3	3	48	275	323
Petroleum Products (Inc. Petrochemicals)	0	0	0	0	0	0	0	0	0	0	0	0	181	18	199
Rubber Products	3	1	5	5	2	7	0	0	0	83	0	83	0	0	0
Plastic Products	28	9	37	93	6	100	0	0	0	0	0	0	44	171	215
Non-Metallic Mineral Products	0	0	0	87	0	87	0	12	12	434	260	694	0	1,000	1,000
Basic Metal Products	6	0	6	0	0	0	0	0	0	0	0	0	29	70	99
Fabricated Metal Products	163	100	263	11	0	11	2	0	2	86	6	91	17	3	21
Machinery & Equipment	0	0	0	28	16	43	3	0	3	99	0	99	84	31	115
Electronics & Electrical Products	17	3,978	3,995	42	803	844	68	1,445	1,513	99	188	287	54	0	54
Transport Equipment	116	0	116	89	41	131	271	10	280	326	674	1,000	159	13	171
Scientific & Measuring Equipment	304	370	675	32	1	33	94	6	100	0	0	0	7	47	55
Miscellaneous	0	0	0	0	0	0	85	0	85	0	29	29	0	0	0
<b>Total</b>	<b>768</b>	<b>4,517</b>	<b>5,285</b>	<b>474</b>	<b>883</b>	<b>1,357</b>	<b>615</b>	<b>1,568</b>	<b>2,183</b>	<b>1,375</b>	<b>1,160</b>	<b>2,535</b>	<b>759</b>	<b>1,627</b>	<b>2,386</b>

Penang	2014			2015			2016			2017			2018		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
Food Manufacturing	124	49	173	54	4	58	33	6	39	50	23	73	15	7	22
Beverages & Tobacco	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0
Textiles & Textile Products	0	0	0	0	0	0	2	28	30	16	317	332	0	0	0
Leather & Leather Products	0	0	0	10	0	10	0	0	0	0	0	0	0	0	0
Wood & Wood Products	16	9	25	28	3	31	85	0	85	2	1	3	1	0	1
Furniture & Fixtures	5	0	5	8	12	19	2	0	2	3	0	3	0	240	240
Paper, Printing & Publishing	9	1	10	48	3	51	55	2	57	80	0	81	109	0	109
Chemical & Chemical Products	48	103	151	40	102	142	45	8	53	319	477	796	53	6	59
Petroleum Products (Inc. Petrochemicals)	90	97	188	0	0	0	0	0	0	0	0	0	0	1,063	1,063
Rubber Products	2	0	2	30	0	30	0	0	0	0	0	0	0	0	0
Plastic Products	164	0	164	64	20	84	98	25	122	112	13	125	34	374	408
Non-Metallic Mineral Products	0	29	29	970	0	970	17	100	117	0	0	0	78	4	82
Basic Metal Products	288	23	312	154	5	158	66	1	67	55	8	63	2	0	2
Fabricated Metal Products	251	14	265	65	22	87	66	95	161	216	10	226	254	63	317
Machinery & Equipment	1,302	64	1,366	176	54	230	177	18	194	220	204	424	1,055	222	1,278
Electronics & Electrical Products	337	4,471	4,808	425	4,032	4,457	93	1,643	1,736	800	5,912	6,712	4	1,479	1,483
Transport Equipment	125	18	144	82	120	202	463	183	646	105	68	173	434	24	458
Scientific & Measuring Equipment	273	235	508	68	123	191	35	948	983	294	1,475	1,769	3	211	215
Miscellaneous	8	0	8	5	0	5	0	0	0	0	34	34	45	0	45
<b>Total</b>	<b>3,049</b>	<b>5,114</b>	<b>8,162</b>	<b>2,226</b>	<b>4,499</b>	<b>6,724</b>	<b>1,237</b>	<b>3,057</b>	<b>4,294</b>	<b>2,272</b>	<b>8,542</b>	<b>10,814</b>	<b>2,088</b>	<b>3,693</b>	<b>5,781</b>

Perak	2014			2015			2016			2017			2018		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
Food Manufacturing	78	0	78	44	33	77	93	92	185	322	111	433	7	0	7
Beverages & Tobacco	0	0	0	0	0	0	0	0	0	0	0	0	43	10	53
Textiles & Textile Products	11	2	13	0	0	0	18	0	18	0	0	0	23	1	24
Leather & Leather Products	0	0	0	0	0	0	16	10	26	0	0	0	0	0	0
Wood & Wood Products	1	0	1	7	25	32	6	0	6	83	0	83	74	1	75
Furniture & Fixtures	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0
Paper, Printing & Publishing	0	0	0	0	0	0	68	0	68	31	56	87	45	0	45
Chemical & Chemical Products	5	200	205	39	0	39	60	3	63	58	12	70	90	42	132
Petroleum Products (Inc. Petrochemicals)	0	0	0	0	0	0	0	0	0	0	0	0	181	18	199
Rubber Products	442	155	597	16	0	17	1,049	422	1,471	33	10	43	239	733	972
Plastic Products	28	1	29	90	0	90	47	252	299	40	0	40	1	0	1
Non-Metallic Mineral Products	587	16	603	14	0	14	183	29	212	74	0	74	51	129	180
Basic Metal Products	7	11	19	151	2,547	2,698	0	0	0	0	0	0	0	0	0
Fabricated Metal Products	94	0	94	60	13	73	16	35	51	39	8	47	77	0	77
Machinery & Equipment	0	0	0	5	2	6	0	71	71	11	0	11	0	0	0
Electronics & Electrical Products	57	0	57	10	716	726	854	96	950	403	131	534	97	4	101
Transport Equipment	10	3	12	40	24	65	433	10	443	566	6	572	21	0	21
Scientific & Measuring Equipment	0	0	0	51	0	51	0	82	82	8	0	8	0	0	0
<b>Total</b>	<b>1,321</b>	<b>387</b>	<b>1,708</b>	<b>527</b>	<b>3,360</b>	<b>3,887</b>	<b>2,844</b>	<b>1,102</b>	<b>3,946</b>	<b>1,673</b>	<b>334</b>	<b>2,007</b>	<b>949</b>	<b>938</b>	<b>1,887</b>

Perlis	2014			2015			2016			2017			2018		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
Food Manufacturing	3	0	3	3	0	3	-	-	-	25	0	25	0	0	0
Rubber Products	0	0	0	0	0	0	-	-	-	500	0	500	0	0	0
Fabricated Metal Products	210	0	210	0	0	0	-	-	-	0	0	0	0	0	0
Transport Equipment	0	0	0	0	0	0	-	-	-	0	0	0	8	0	8
<b>Total</b>	<b>213</b>	<b>0</b>	<b>213</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>525</b>	<b>0</b>	<b>525</b>	<b>8</b>	<b>0</b>	<b>8</b>

Source: Unpublished data from MIDA

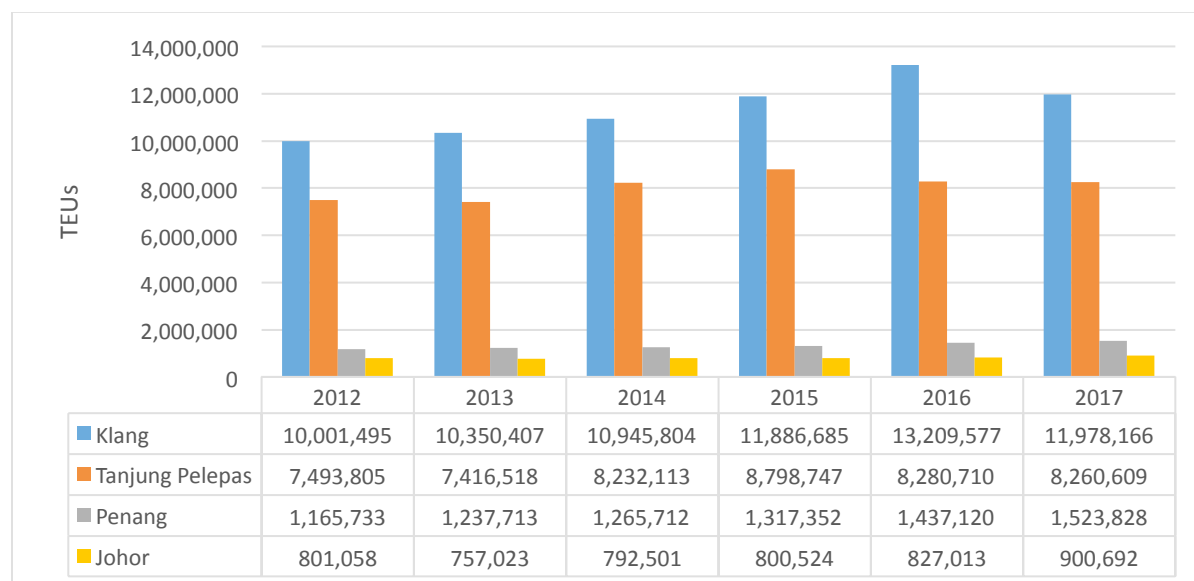
## Chapter 3: Evaluating Penang's Sea Port

### 3.1 The National Giants: Port Klang and Port of Tanjung Pelepas

**Relative to Malaysia's largest sea ports, arranged by total container throughput, Penang Port lags significantly.** Port Klang, the top performer in Malaysia, recorded between 2012 and 2017 annual throughput that is, on average, eight times that of Penang. Port of Tanjung Pelepas (PTP), meanwhile, is the nation's second largest in terms of volume, averaging six times that of Penang over the same six-year period. It is more pragmatic to discuss Penang Port in the context of potential synergy with Port Klang and PTP in their respective domains, rather than in a competitive sense; this, realistically, is not feasible.

In 2017, the volume handled at Port Klang was approximately 7.9 times that of Penang Port while the volume of container in PTP was roughly 5.4 larger than Penang Port. Figure 3 highlights total container throughput at Malaysia's four major seaports: Klang, Tanjung Pelepas, Penang and Johor.

**Figure 3: Top-four performing ports in Malaysia by total container throughput**



*Source: Transport Statistics Malaysia, Ministry of Transport, Malaysia*

**Both Port Klang and PTP have carved out niche positions for themselves within Malaysia's logistics landscape, benefiting from active policy intervention to cement their positions as Malaysia's main gateways for sea-trade and transshipment, respectively.**

**As Malaysia's largest sea port, and therefore its most pivotal node in the context of Malaysia's external trade, Port Klang has consistently been the beneficiary of dynamic policy intervention.** From 2010 through 2014, for instance, a total of RM1.9 billion of the national federal budget was earmarked for dredging activities at Port Klang. Additionally, the port is commonly singled out in important transport-related policy documents, such as the Logistics and Trade Facilitation Master Plan (2015-2020) and the Port Klang Development Master Plan 2010-2030. On the federal level, Port Klang is the single-largest beneficiary of accommodating policymaking.

**Similarly, Tanjung Pelepas has long been considered Malaysia's international transshipment hub, partly to capture overspill from the Port of Singapore.**<sup>11</sup> In line with this vision, PTP is gazetted as a free commercial zone (FCZ), with such a status encompassing a land area of 1,583 acres – larger than that of Port Klang's free zone – that is pivotal for the development of supporting infrastructure in order for PTP to succeed as an effective and efficient transshipment hub. PTP's successes are highlighted in MMC Corporation's 2017 financial report; it is the single largest contributor to the group's revenue, raking in RM1.19 billion that year. This, in turn, has augmented PTP's position as the favoured business unit within the MMC's portfolio, earning it a RM1.2 billion comprehensive upgrading programme<sup>12</sup> and additional organisational capital to ensure it persists at its current growth trajectory.

**In contrast, Penang Port has only been on the periphery of national agendas.** Ports have always represented a crucial component of national trade policies and, although they may be confined to a particular geographical state/provincial authority, the strategic use of ports is decided at the federal level. The political divide between the then opposition-led Penang government and the previous BN-led federal government has, over the years, left Penang Port without much of a strategic direction. Despite being a private business entity under the MMC umbrella (just as PTP is), Penang Port<sup>13</sup> is a far less significant source of its revenue, relative to other business units, while it at the same time has presented non-negligible, if implicit, political risks to the company.

**Over time, Port Klang and PTP have grown to increasingly exert their dominance in their respective niches and ink themselves as formidable shipping ports – on a global scale.** In 2018, Port Klang ranked 12<sup>th</sup> in Lloyd's List of 'One Hundred Container Ports' while Tanjung Pelepas placed 19<sup>th</sup> in the same report<sup>14</sup>.

**This renders them susceptible to shifts in global shipping alliances and trading patterns, while Penang Port is beholden to these external risks.** It is estimated that 80% of global container trade and 90% of container capacity on major trade routes are represented by only three shipping alliance: 2M, Ocean Alliance and THE Alliance. Coupled with how ports are commonly in some form of joint-venture (JV) with these alliances, ports are extremely exposed to decisions made by such alliances. The establishment of the CMA CGM-PSA Lion Terminal in Singapore, for example, caused a handful of services to be transferred from Westport, in Klang, to Singapore. The formation of COSCO Shipping Group, on the other hand, caused many of China Shipping Container Lines' services to move to Singapore – where COSCO has its primary transshipment hub. PTP, meanwhile, has retained its partnership with 2M Alliance which utilises PTP as its premier hub for transshipment.

### 3.2 On Penang Port

**Penang Port is commonly categorised within the industry as a feeder port.** This understanding is built on Penang Port's primary use as a port that serves its regional market, i.e. the northern states in Malaysia. This conventional understanding, however, does not paint a wholly accurate picture. In practice, Penang Port also functions as a main port because it has liners that operate direct calls. This scenario, however, is only reserved to one select company.

**Even then, Penang Port does not only function as a port that caters to Malaysia's northern states; it also has a role as feeder port for the southern Thailand region.** The export volume originating from Thailand addresses the empty containers from imports. According to PPSB, Penang Port currently handles about 70% of the total product market share from southern Thailand, an area which covers 14 Thai provinces.

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<sup>11</sup> National Physical Plan-2, Ministry of Housing and Local Government (13 August, 2010)

<sup>12</sup> Annual Report, MMC Corporation Berhad (2017)

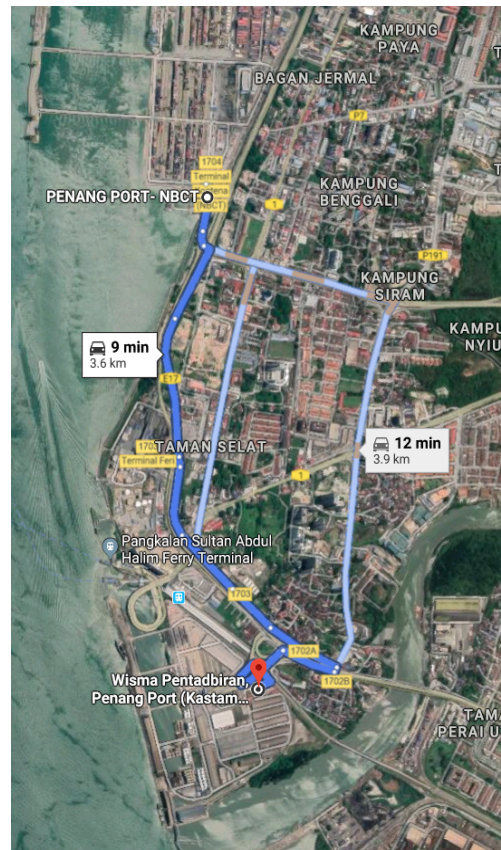
<sup>13</sup> Penang Port contributes about 30% to MMC Ports total revenue and employs about 1,500 employees.

<https://www.nst.com.my/business/2018/02/339049/penang-port-allocates-rm180-capex-container-business>

<sup>14</sup> Penang Port did not appear in the 2018's list but was in 99<sup>th</sup> ranking in 2017's list. <https://sdwrecruit.co.uk/wp-content/uploads/2017/10/Lloyds-List-Top-100-Ports-2017-Report.pdf>

It is emerging that Penang Port's functions as a port vary according to who uses the port and by extension, the purpose for which they use it. With a current depth of 11-12m, the port may not be able to accommodate larger ships with higher TEU capacity, which typically require a draft depth of 12-15m, or deeper.

**Figure 4: Google Map image showing distance from NBCT to BWCT**



*Source: Author's compilation based on Google Maps screen capture*

Penang Port currently has a FCZ, at the Butterworth Deep Water Wharves (BWCT) but it is observed that the port is not reaping the full benefits that can potentially arise from an FCZ. The most significant reason for this is that the FCZ in BWCT is separated from NBCT. With this, the benefits of an FCZ cannot be accrued. As NBCT does not have warehouse facilities, NBCT is suited only for Full Container Load (FCL). Currently, traders still need to use the K1-K8 Customs form. The distance from BWCT to NBCT is about 3.5km (refer Figure 4). This distance increases the time and cost for industry stakeholders who wish to utilize an FCZ within the context of Penang's seaport infrastructure.

Notwithstanding the issue of distance between NBCT and BWCT, stakeholders also confirm that businesses use BWCT not with the main objective of benefitting from the FCZ specifically, but simply due to a dearth of suitable locations for the consolidation of goods. Additionally, stakeholders opine that the costs of warehousing within the confines of NBCT is high. It is interesting to note that, for example and in contrast to the situation at Penang Port, Klang's port authority regulates the cost of warehousing.



**Furthermore, transshipment activities cannot take place in NBCT for companies that do not have a local entity in Malaysia.** This is because Customs documentation, import and export activities require foreign companies to have a domestic presence through a local entity in Malaysia, and the movement from NBCT to BWCT requires the fulfilment of Customs documentation. In contrast, if warehouse and container terminal are within the same FCZ area (such as in Port Klang), there is no need for Customs documentation, and transshipment can be conducted as long as there is registration with port authority.

### **3.3 Developments in Southern Thailand and the East Coast Rail Link**

**When analysing the competitive shipping landscape faced by Penang Port, one important factor stands out in addition to developments involving other Malaysian ports: sea and land infrastructure developments in Southern Thailand and Northern Malaysia.** These are areas from which a significant proportion of activity at the NBCT originates. Given this landscape, the intention of the Thai government to develop a second deep-sea port in the Chana district of Songkhla province, situated just 227km northeast of Penang Port, and 85km from the Thai border with Malaysia at Padang Besar, Perlis is especially relevant today.

**It is estimated that up to 30% of the cargo traffic volume at NBCT would be under competitive threat once a new port in Songkhla is operational.** As a result, it is imperative that any forthcoming investment plans held by PPSB and PPC are mindful of the fact that a significant proportion of existing cargo volumes may be subject to downward pressures as we move into the next decade, unless mutually-beneficial arrangements can be agreed upon amongst both parties.

**Tied into this picture are issues related to existing shipping chokepoints in the Straits of Malacca, at present the most efficient gateway for ships from Africa, the Middle East, and the Indian subcontinent bound for East Asia, and vice versa.** There is great use to, and persistent demand for, measures which allow for a circumventing of these Straits, especially for cargo moving between the aforementioned regions.

**There is consequently potential for collaboration between the ports of Penang and Songkhla, which would be mutually beneficial for both parties – and for shippers.** The development of ‘land-bridge’ infrastructure between the two ports is an effective manner through which to achieve this. Thailand is unable to follow through with plans to build a port in Pak Bara on Thailand’s south easternmost edge (complete with a west-east land-bridge to Songkhla), due largely to environmental and ecological concerns, and Penang can step in to take over the mooted role of Pak Bara.

Penang Port stands to benefit from such an arrangement on both micro- and macro-levels: first, **while it loses out on a share of eastbound Southern Thai business (which instead exports through Songkhla), it can still provide the facilities, within the mooted FCZ, through which northern Malaysian products may be exported east, by acting as the first transit point en route to sea export via Songkhla.**

Secondly, **Penang would become an important pit-stop for cargo aiming to circumvent the Straits of Malacca, akin to what Port Saïd is to the Suez Canal.** Eastbound cargo from Africa, the Gulf, and the Indian subcontinent would, under this scenario, unload in Penang’s FCZs and LMWs, before traversing Siam via rail and continuing the onward journey to East Asia from Songkhla, and vice versa for westbound cargo. This completely eliminates the need for circumnavigation of the Malay peninsula, and is estimated to shorten transit shipment times from nine days to just nine hours.

**A complicating competitive factor is the development of the East Coast Rail Link, particularly where a land-bridge will be established between the ports of Klang on the west coast, and Kuantan on the east.** This passage would also allow for circumvention of the Straits, albeit to a lesser degree than would be the case between Penang and Songkhla. Nonetheless, the relatively shorter journey between the latter two ports would render this passage an attractive option for cargo, particularly from smaller vessels.

Without such an arrangement between these two parties, the risk is strong that Penang Port would not only lose out on Southern Thai business to Songkhla, but potentially even East Asia-bound business in northern Malaysia. Rather than compete directly with Songkhla, which would in any case be logistically inefficient, there is value to collaboration between the two.

## Chapter 4: Penang Port Free Commercial Zone Plan

### 4.1 Penang Port Business Plans

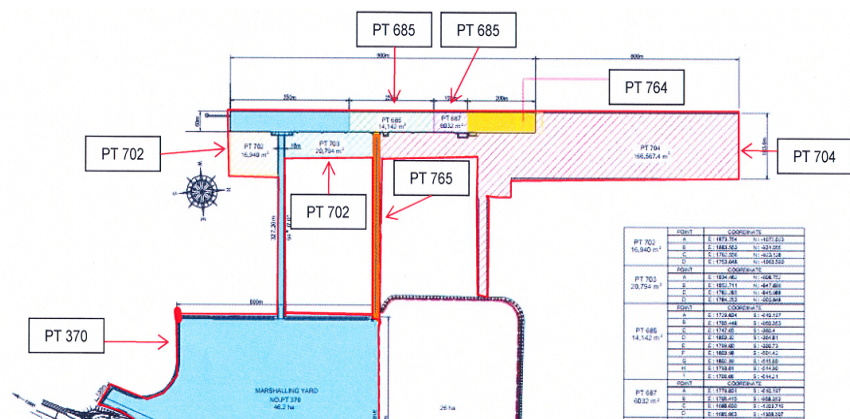
The current FCZ at Penang Port, located at the Butterworth Deep Water Wharves (BWCT), covers an area of 56.6 hectares and was gazetted on 20<sup>th</sup> June 1996. The wharves encompass six berths, each with a depth of between 11m and 12m, with its current land area approximately 67 hectares and storage capacity of 2,270,084 TEUs. Meanwhile, yard stacking comprises of 6,669 ground slots and the export deck of 2,178 ground slots.

At the NBCT, meanwhile, upgrades are ongoing and these will culminate in an increased capacity at Terminal 1:

- **Expansion Plan A:** Berth capacity is projected to increase by 194,366 TEUs (from 2.13 million TEUs to 2.32 million TEUs) after completion of the upgrade. The scope of this upgrade involves extending rear deck and rail gauge from 17m at present, to 30.5m.
- **Expansion Plan B:** An additional increase of 412,530 TEUs (from 2.32 million TEUs to 2.74 million TEUs) is projected following the acquisition of two new units of Quay cranes (Post Panamax cranes).

The planned new FCZ in NBCT is estimated to have a landmass of 83.61 hectares. This is shown in Figure 5.

**Figure 5: Estimated area of the FCZ.**



Source: Penang Port Commission and Penang Port Sdn Bhd, based on presentation at Mesyuarat Jawatankuasa MMK Perdagangan Dalam Negeri & Antarabangsa Pulau Pinang Bil. 2/2019

There are multiple requirements for obtaining approval for the instatement of an FCZ at NCT, and those which have been fulfilled thus far include the following:

- (a) Submission to MOF to gazette the NBCT, comprising a total of 83.57 hectares, as an FCZ;
- (b) Approval from Penang State Government on the appointment of PPC as the zone authority;
- (c) Submission of layout plans to the Department of Survey and Mapping Malaysia (JUPEM) for the gazettement of the FCZ area and a 'legal landing place';
- (d) Support from the Marine Department to gazette the whole NBCT as a legal landing place.

Other facilities required in the FCZ at NBCT are closed circuit television (CCTV), street lighting and fencing around the FCZ perimeter.

For the FCZ to realise its full potential and achieve benefits not solely limited to an increase in transshipment activities, land reclamation and dredging are required. This is because the existing area is sufficient only to support an increase in ship traffic and transshipment, but not additional value-added activities, such as repackaging, which require warehouses and distribution centres. Further, in order to cater for the needs of large, modern ships, landing berths at NBCT must be deepened. It is expected that 217 hectares of land will be reclaimed, consisting of:

- i. A 65-hectare container yard. This is estimated to increase yard capacity by 2.38 million TEUs from the current 2.13 million TEUs.
- ii. A 22-hectare halal hub. An estimated gross development area of 250,000m<sup>2</sup> will be available for warehousing.
- iii. A 130-hectare distribution park. An estimated gross development area of 1,320,000m<sup>2</sup> will be available for warehousing. For this particular segment, Penang Port aims for both the area to be gazetted as Free Trade Zone<sup>15</sup> and to act as its administrator.

**Figure 6: Existing and proposed reclamation**



Source: Penang Port Commission and Penang Port Sdn Bhd, based on presentation at Mesyuarat Jawatankuasa MMK Perdagangan Dalam Negeri & Antarabangsa Pulau Pinang Bil. 2/2019

Two additional entry/exit points to the NBCT will be constructed<sup>16</sup>, with the aim of easing congestion, as well as to cater for future growth in container volumes. These additional entrances are important; numerous stakeholders have highlighted the existing issues caused by congestion and have expressed a need for the process of entering and leaving the NBCT to be made more efficient. Spreading traffic across more entry- and exit-points will be a helpful

<sup>15</sup> The term Free Trade Zone was presented by PPC/PPSB at one of the meetings. However, authors note that currently there is not FTZ zone and manufacturing is in FIZ (refer Box 1).

<sup>16</sup> Based on presentation PPC/PPSB, the estimated timeline to complete the two entrances are in 2024.

measure in this regard, particularly if container volumes increase. There is no definitive timeline for these new entry- and exit-points, but it is understood that it might take place in 2024. Meanwhile, the current berth length (for six berths) at NBCT is 1.5km; and Penang Port plans to double this length to 3km. It is projected that with this future design in place, the container terminal will have the capacity to handle a total of 7.5 million TEUs.

**Expected short-term effects are limited to an increase in transshipment activities, and even this is dependent on efforts by the port operators and large customers to attract a greater magnitude of shipment traffic towards Penang Port.** The primary target is an increase in transshipment from the Bay of Bengal, but some stakeholders have also opined that there may be some diversion from Port Klang, Port of Tanjung Pelepas, and Singapore, towards the new FCZ at the NBCT. More robust transshipment activities are expected to increase both related on-site job creation, and the economies of scale for activities at the port, such as freight forwarding. There is also an expected indirect increase in exports and imports, supported by demand from local industries and those from south Thailand. However, due to a lack of data provided by stakeholders, the authors are unable to empirically estimate the potential increase in transshipment volume. In any case, there are many contingencies which must be realised in order for the stakeholders' expectations to be met – none of which can be guaranteed.

## **4.2 NBCT: Moving Beyond Transshipment**

**With the significant assumption that stakeholders are able to tap into the Bay of Bengal market and attract traffic from other regional ports, the main short-term result for Penang Port would then be limited to an increase in transshipment activities and some marginal benefits to related stakeholders.** Local industries can benefit insofar as a portion of transshipment volume is destined for use within industries in Northern Malaysia and Southern Thailand. Under this condition, there would be positive impacts on the local logistics industry.

**There is a need to discuss other, more value-added activities which can take place in the proposed FCZ at NBCT.** This includes break-bulking, re-packaging and re-labelling, but the authors argue that the activities should be observed beyond that, and this section discusses the activities in terms of (1) import and export dynamics, (2) shipping lines, and (3) warehousing and distribution park.

**Crucially, most of these value-adding activities will not be able to take place until the next phase of development at FCZ at NBCT is completed.** This refers to the 217 hectares of land reclamation (see *Section 4.1*). Only once this process is complete will the provision of warehouses and other facilities be possible. Further, in order for Penang Port to cater towards new shipping lines and consequentially larger ships, dredging is imperative in order for the facilities at NBCT to be competitive with other ports in the region and attract traffic otherwise bound for these locations. **The processes of land reclamation and dredging cannot be approved unless environmental impact assessments are conducted and the social costs of this proposal, including any environmental costs, weighed against its benefits.**

**In terms of import and export dynamics in Penang Port driven by changes at the NBCT, increases in traffic through growth in transshipment volumes would allow for potential increases in imports and exports via the sea channel (whether cargo or containerized).** This would also likely translate into lower costs for trade which utilizes Penang Port as an entry and exit channel. As the volume of trade increases, it is required that measures are put in place to allow faster clearance times with higher efficiency. As a trade-off, the burden placed on Customs would be reduced as transshipment goods would not need to undergo customs checks within the boundaries of the FCZ. The authors are cognisant that in general the assumption behind this scenario being realised is a sustained rise in global trade and products being traded at Penang Port.

**It is also hypothesised that an increase in the number of shipping lines utilising Penang Port would strengthen the case for importers and exporters in northern Malaysia and Southern Thailand to utilise the NBCT ahead of alternatives in Songkhla, Port Klang and Kuantan.** It is plausible, however, that this scenario will be affected by the East Coast Rail Link (ECRL), which would enhance connectivity between the northern states of Kelantan and Terengganu and the ports of Kuantan and Klang. Consideration must be given to the possibility of this having a

dampening effect on aggregate demand for the use of the NBCT, especially as Penang is currently utilised as the port-of-choice for both Kelantan and Terengganu.

**Land reclamation is especially necessary to allow for the provision of the warehousing facilities and distribution centres necessary to spur the creation of value-added activities and higher-skilled employment within the new FCZ.** PPSB has plans for a 65-hectare container yard, a 22-hectare halal hub, and a 130-hectare distribution park. Without such facilities, there would remain a need for stakeholders to utilise the FCZ at BWCT, or others outside the free zone entirely. This would create the same problems that afflict stakeholders today, such as not being able to circumvent the need to obtain customs clearances and time and financial costs associated with transporting products from the NBCT to BWCT. At the same time, stakeholders with existing investments in warehousing facilities, or those which have comfortable long-term relationships with warehouses outside the BWCT, note that they may continue to run warehousing and distribution activities at their status-quo locations, but attempt to take advantage of other benefits provided by the mooted FCZ.

**In the long-run, stakeholders anticipate the development of advanced-tech warehouses which can augment the long-run economic benefits of FCZ.** Stakeholders also hope for a shift from the current low-technology activities at the FCZ at BWCT. As such, there is a need to plan for the establishment of competitive, regionally-benchmarked warehousing facilities in NBCT, particularly if it wishes to compete more robustly with other regional ports. There are also hopes of high-value, large customers establishing their regional distribution hub(s) in Penang once the FCZ is able to gain traction in terms of establishing robust transshipment networks, shipping lines and supporting regional demand.

## **Box 2: Regional Distribution Centre, International Procurement Centre and Principal Hub**

Regional Distribution Centre (RDC) is a collection and consolidation centre for finished goods, components and spare parts produced by its own group of companies for its own brand to be distributed to dealers, importers or its subsidiaries or other unrelated companies within or outside the country.

Meanwhile, International Procurement Centre (IPC) is a locally incorporated company which undertakes procurement and sale of components, raw materials, and finished products to its group of related and unrelated companies in Malaysia and abroad.

Amongst the criteria to be fulfilled to be eligible for RDC/IPC status are:

1. Local incorporation under the Companies Act 1965;
2. A minimum total business spending (operating expenditure) of RM 1.5 million per year;
3. A minimum annual sales turnover of RM50 million by the third year of operation; and
4. Location in free zones (free commercial zones) or licensed warehouses (public and private) or licensed manufacturing warehouse [for RDC].

Companies with RDC/IPC status which have been approved will be accorded the following facilities and incentives:

1. 100% foreign equity;
2. Expatriate posts based on the requirements of the RDC/IPC;
3. Tax exemption for the dividends paid from the exempt income to the shareholders;
4. Full tax exemption on its statutory income for 10 years;
5. Foreign Exchange Administration flexibilities [for RDC];
6. Retain any amount of export proceeds in foreign currency accounts maintained with onshore licensed bank for the approved IPC activities only; and
7. Enter into forward foreign exchange contracts with onshore licensed banks to hedge exchange risks based on the projected volume of export [for IPC only].

It is important to note that MIDA has stopped offering RDC and IPC incentives since 2015. Currently these are grouped under the Principal Hub incentives.

Principal Hub (PH) is defined as a locally incorporated company which uses Malaysia as a base to conduct its regional or global businesses and operations. PH incentives includes full tax exemption only to companies whose International Procurement Centre (IPC), Regional Distribution Centre (RDC), and Operational Headquarters (OHQ) status has been approved. The tax exemption is awarded base on a number of criteria as follows: -

1. The creation of high value jobs with a minimum monthly salary of RM5,000,
2. At least 50% of the high value jobs created must be Malaysians by the end of the third year,
3. High value jobs should include five key positions with a monthly salary of RM25,000.

A five-year full tax exemption will be awarded to these companies when the necessary criteria are fulfilled with the option of an additional five years if additional criteria are met. In addition to the creation of high value jobs, businesses must spend a minimum of RM10 million (IPC, RDC, OHQ without incentives) and RM 13 million (IPC, RDC, OHQ with incentives) respectively, be serving a minimum of three different countries, have an annual sales turnover of RM300 million per annum, and the usage of local ancillary services such as local financial institutional services, logistic, legal, and arbitration services.

Companies which enjoy IPC, RDC and OHQ incentives are limited to enjoy a maximum of five years of PH incentives. Furthermore, these companies will not be provided the flexibility to achieve the high value jobs requirement within three years.

Important note: PH is not created to replace existing IPC and RDC incentives. Instead IPC and RDC incentives were merged with PH. Refer to MIDA's Guideline for Principle Hub Incentives for further clarification on PH.

Sources:

MIDA (2012), *Guidelines for Application for Status and/or Incentive for Setting Up a Regional Distribution Centre*. Accessed on 27<sup>th</sup> May 2019 Retrieved from: <http://www.mida.gov.my/env3/uploads/Forms/Services/03072012/GD-RDC.pdf>

MIDA (2018), *Guideline for Principle Hub Incentives*. Malaysian Investment Development Authority. Accessed on 27<sup>th</sup> May 2019. Retrieved from: [http://www.mida.gov.my/home/administrator/system\\_files/modules/photo/uploads/20190108095206\\_Principal%20Hub%20Guidelines%20-%20MOF%20reviewed%20-%20as%20at%207%20Jan%202019.pdf](http://www.mida.gov.my/home/administrator/system_files/modules/photo/uploads/20190108095206_Principal%20Hub%20Guidelines%20-%20MOF%20reviewed%20-%20as%20at%207%20Jan%202019.pdf)

**On the other side of this particular equation is the need to ensure there is sufficient demand for warehousing and distribution centres at the NBCT.** In this regard, the onus is on Penang Port to entice prospective businesses to set up in the FCZ. Overall benefits are maximised when occupancy rates are high.

It is pertinent to highlight that **distribution centres may be located outside free zones, although the authors believe that high-value distribution centres requiring higher-skilled jobs, higher-technology investments should be given priority to locate within the FCZ.** There is already precedent of distribution centres located outside FCZ. In the event that there is lack of available space to establish regional distribution centres within the reclaimed land area at NBCT, the nearest existing industrial zone is Mak Mandin Industrial Estate (MMIE), located approximately 4km east of NBCT. In this case, there would be a need for more synergistic collaboration between different stakeholders in the event that distribution centres are located in MMIE. This is because while the FCZ is slated to be operated by PPSB, MMIE is operated by Penang Development Corporation (PDC).

**A good example that can be highlighted from PKFZ Sdn Bhd's case are the organisations' one-stop services that increase the ease of doing business in Port Klang.** PKFZ Sdn Bhd highlighted that it is a comprehensive one-stop centre that is equipped with a customs centre, trade offices, forwarding agents and other government agencies to



provide easier co-ordination for products and services to be exported and imported. Based on the agencies listed by PKFZ, there are more than 20 state and federal agencies coordinated by this one-stop centre.

### **4.3 BWCT: Penang Port's Cargo Terminal**

**With the proposed FCZ at NBCT, the question of what the plan is for the 56-hectare FCZ at BWCT becomes increasingly important.** At present, BWCT has a warehouse space of approximately 38,000m<sup>2</sup>, with cargo capacity of 50,000m<sup>3</sup>, at any one time. Total non-containerised cargo handled at Penang Port (as a whole, not limited to BWCT) increased very marginally from 10.2 million FWT in 2010 to 10.4 million FWT in 2018.

**The major break-bulk commodities handled at BWCT include iron and steel packages, wood mouldings, rice, iron and steel billets, machineries and components.** Major players in the break-bulk market include steel, fibreboard and rice companies such as Ann Joo Steel, Southern Steel, Siam FibreBoard, Dongwha Global Sales and Bernas.

Discussions with both the port authority and operator did not particularly highlight this issue but several other stakeholders offer their views on the future of the FCZ at BWCT once the FCZ at NBCT is gazetted. It is anticipated that upon the latter's gazettement, the costs associated with moving containers to BWCT would be higher relative to performing activities at NBCT, and operators will be more keen to operate at NBCT instead.

**One particularly compelling idea suggested by stakeholders is to focus on establishing the FCZ at BWCT as Penang Port's conventional cargo hub, while the FCZ at NBCT focuses more exclusively on container services.** The final expected outcome of this plan would be for both container and cargo volumes to increase, with both FCZs at Penang Port having different, specialised services for container and cargo, respectively.

**The application of an FCZ within the NBCT allows the existing zone at the BWCT to focus specifically on cargo, rather than address containers calling at NBCT for transporting to warehouses at BWCT.** This, ultimately, is dependent on completion of the second phase of development at NBCT, which includes reclamation and the development of warehousing facilities within the new FCZ.

**Benefits arise from this arrangement if Penang Port is able to stimulate demand from cargo ships towards BWCT; at present, warehouses at BWCT suffer from low rates of occupancy, and facilities are lacklustre.** Investment, possibly in partnership with private entities intent on using BWCT, must be made in upgrades to maximise the possibility of enticing traffic towards the terminal, possibly from new markets such as countries along the Bay of Bengal.

A final option for the BWCT is the provision of cargo ship servicing and repairs, but there is a need to ensure that there is a demand for these services and that the local labour force is able to supply the requisite expertise.



## **Chapter 5: Conclusion**

### **5.1 Concluding Remarks**

The economic benefits expected from the designation of NBCT as a FCZ are heavily contingent on numerous factors, ranging from some which are beyond the control of any locally-based stakeholders, such as international trade patterns and the entrenchment of existing shipping networks, to the possibility and feasibility of land reclamation and dredging activities which would allow NBCT to be competitive with the larger and more established ports it seeks to compete with in the region.

The most immediate potential benefits of the FCZ – namely an increase in transshipment traffic – are dependent on the ability of Penang Port and its stakeholders to either attract traffic originating from new and yet-untapped markets, such as the Bay of Bengal, or traffic otherwise bound for other, significant regional transshipment hubs such as Tanjung Pelepas and Singapore. While it is highly questionable whether this can be guaranteed, this would come at limited fiscal cost to the state.

An increase in transshipment volumes, however, is posited to only create basic on-site employment to allow NBCT to cope with such increases in volume. Direct external benefits are expected to be limited *unless* higher transshipment volumes aid existing, locally-based industries such as terrestrial logistics companies. This is unlikely to prove a significant gamechanger for Penang Port and its stature on national and regional levels, and is consequently unlikely to create significant external economic benefits.

The creation of higher-skilled jobs through the creation of value-added activities would have a more profound macroeconomic impact but is at the same time entirely dependent on NBCT's expansion. This, in turn, requires land reclamation and the subsequent provision of warehousing facilities (in order to cater to the value-added activities that it is hoped would come with it), and the deepening of landing berths to allow Penang to cater to the larger ships prevalent today. These two activities come with significant environmental costs, and, as a result, detailed and thorough environmental impact assessments need to be conducted.

There is consequently a need to ensure that should costly land reclamation and dredging activities be completed, there is sufficient demand from both companies and shippers for operating in Penang. It would be a significant negative if a lack of demand renders these burdensome investments white elephants. It should also be noted that in the current climate, successfully navigating any environmental concerns may come at the cost of valuable political capital which may be better spent addressing other problems faced by the state.

Throughout the course of this study, we are also cognisant of the large number of stakeholders of Penang Port, which range from the port authority and port operators (Penang Port Commission and Penang Port Sdn Bhd), to the shippers, freight forwarders, and firms of the industries using Penang Port for export and import purposes (including those from southern Thailand) and other related logistics firms (land, rail).

The onus thus lies on PPSB to prove its long-run business case to the state, particularly given that significant investment would be required in order to fully realise and maximise the benefits that would arise from NBCT being provided with an FCZ status. As far as the short-run is concerned, while any increase in transshipment volumes are contingent on the factors described earlier, the costs associated with obtaining approval for an FCZ at NBCT are minimal and could even aid the efficiency of existing operations.

### **5.2 Limitations of this Study**

A major limitation of this study is the reliance of significant data and information on the port authority (Penang Port Commission) and the port operator (Penang Port Sdn Bhd) (which the authors are grateful for the guidance

and assistance rendered). While most data requests were duly obtained, the authors would like to point out that some issues had had to be deduced from expert interviews and other indirect sources of information due to limitation of data availability. Data on exports, imports, and transshipment of goods was also not available in detail.

As this report provides a look into the future of Penang Port, especially as it pertains to the NBCT, the authors are aware that these are based upon the currently prevailing development plans and may change over time. As such, some assumptions made therein are heavily dependent on the actions undertaken by various stakeholders of Penang Port and other relevant parties (e.g. port authorities in other countries, changes in national logistics planning), as well as the global economic scenario (e.g. changes in prices of commodities).

The logistics sector is interconnected (i.e. land, sea, rail, and air), and whilst this report attempts to cover the relationship of Penang Port with other major transportation links (KTM, trucks from Thailand and northern states of Malaysia), a significant portion of this study is centred on Penang Port itself. The authors note that a broader scope of the relationship may not be fully covered in this report, but nonetheless believe that the content covered in this report has been adequate to answer the relevant policy questions.

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