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# Infrastructure Financing in Malaysia

## Infrastructure Development and National Transformation Programme in Malaysia

Malaysia has one of the highest quality of infrastructure amongst the ASEAN countries. In a study by Goldman Sachs Global Economics,\*<sup>1</sup> Malaysia ranked one of the highest in 'quality score' at 5.1 compared to South Korea (5.9), Thailand (4.6), Indonesia (3.8) and Philippines (3.2). In the latest report by Asian Development Bank (ADB), Malaysia has one of the highest road densities (km per 1000sqkm of land area)\*<sup>2</sup> in the region. Income growth and urbanisation in the country will continue to drive infrastructure demand particularly in power, roads, airports and water.

Malaysia's high quality infrastructure has mainly been due to the government's unwavering commitment to its five-year economic plans (known as Malaysia Plans) to implement the many infrastructure projects. A key factor for the successful implementation of the country's infrastructure projects is the adoption of public-private partnership (PPP) in the early 1980's. PPP allowed the government to launch more infrastructure projects by

sharing the burden of funding these projects with the private sector. This, in turn, has made the private sector an important engine of national growth.

Infrastructure development is one of the main drivers in the National Transformation Programme (NTP) of Malaysia. The government saw the need to transform both the economy and how the government was to deliver public services. In 2010, the government unveiled the New Economic Model (NEM) which aimed to transform Malaysia into a high-income nation by 2020.

In 2010, the NTP was launched to implement the NEM. The NTP comprises two components: the Economic Transformation Programme (ETP) which was to transform the economy, and the Government Transformation Programme (GTP) which was to transform the ways the government delivers its mandate to the people in terms of public service deliveries. The initiatives under the ETP collectively were aimed at propelling Malaysia to a high-income nation with Gross National Income (GNI) of up to USD 15,000 by attracting investments exceeding USD 444 billion by 2020 and the creation of 3.3 million new jobs. The thrust of the ETP was to transform the economy to a private sector-led economy. Of the USD 444 billion investment required, 92% was targeted to come from the private sector (while Government-Linked Companies (GLCs) are expected to contribute 60% of the total investment).\*<sup>3</sup>

## Infrastructure Achievements under the Tenth Malaysia Plan (2011-2015)

The Tenth Malaysia Plan (10MP) was the first 5-Year Plan following the adoption of NEM. In terms of infrastructure development, the 10MP focused on upgrading physical infrastructure to enhance access and connectivity; developing a people-centric public transport system; growing logistics and trade facilitation; continuing efforts to restructure the water services industry; and ensuring effective sourcing and delivery of energy.

During the 10MP, the government made large investments in transport, digital and energy infrastructure in line with rising demands for these assets. In the 5-year period, the road network grew by 68%, connecting more rural areas to national economic growth.\*<sup>4</sup> In the same period, cargo and container volume increased by 23%, supported by the two major ports of Port of Tanjung Pelepas and Port Klang, which were amongst the world's Top 20 container ports. The number of air passengers grew by 46% in the period, supported by a new runway and terminal (KLIA2). Under the National Broadband Initiative,

**Table 1: The Tenth Malaysia Plan (2011-2015) Resulted in the Following Enviably Achievements\*<sup>5</sup>**

Infrastructure	Achievements
New roads added in the 5 years	93,100 km
National Road Development Global Index	From 1.42 in 2010 to 2.29 in 2014
Increase in air passengers handled	39%
Increase in urban rail ridership in the 5 years	32%
World Bank Logistics Index ranking	29 in 2013 to 25 in 2014
Household broadband penetration	70% in 2014
Population served with clean and treated water	95% by 2013
Sewerage coverage in population	41 million
Generation capacity added	5,458 MW
Electricity coverage of population	98%

Source: The Tenth Malaysia Plan (2011-2015)

almost 56,000 km of fibre was rolled out, increasing the penetration to more than 70% of Malaysia's households. Under this 5-year Plan, the Pengerang Integrated Petroleum Complex (PIPC) was started in 2012, on 9,100 hectares of land, helping to improve energy security for Malaysia.

## Infrastructure Development under the Eleventh Malaysia Plan (2016-2020)

The Eleventh Malaysia Plan (11MP) will build on the achievements of the 10MP. The five focus areas are:

- A. Building an integrated need-based transport system
- B. Unleashing growth of logistics and enhancing trade facilitation
- C. Improving coverage, quality, and affordability of digital infrastructure
- D. Continuing the transition to a new water services industry framework
- E. Encouraging sustainable energy use to support growth

11MP listed many infrastructure projects under each of the focus areas. The government intends to achieve balanced economic development for the whole country and has stated its intention to focus highway developments outside the Klang Valley. The 11MP will thus focus on rural and rural-urban connectivity. Several projects were mentioned in the 11MP: The Pan Bor-

neo Highway, the Central Spine Road, Kota Bharu-Kuala Krai Highway, and the Lebuhraya Pantai Timur. The completion of the West Coast Expressway in 2019 will also provide better access to the West Coast of Perak and Selangor.

The government has placed emphasis on increasing the usage of public transport in urban areas. To this end, continual emphasis is placed on completing the Klang Valley Mass Rapid Transit (KVMRT) system. The KVMRT system will become operational during the 11MP. The KVMRT Line 1 traverses 51 km between Sungai Buloh and Kajang, through 31 stations serving about 1.2 million people with a daily expected ridership of 400,000. Construction on KVMRT Line 2 started in 2016 and is expected to become operational by 2022. Additionally, construction on a Light Rail Transit (LRT) Line 3 connecting Bandar Utama to Klang, running over 36 km and serving 25 stations will start in 2017 with expected completion in 2020.

Several of these projects in the 11MP have already commenced construction. Infrastructure job awards in the first half of 2016 (1H16) came to MYR 30 billion, per statistics by the Construction Industry Development Board. This has exceeded the MYR 26 billion awarded for the whole of 2015. The MYR 30 billion should include MYR 23 billion worth of Klang Valley Mass Rapid Transit 2 (KVMRT 2) jobs. It is estimated that the total infrastructure award value for 2016 exceeded MYR 40 billion including the Sungai Besi-Ulu Kelang Elevated Expressway (Suke) and Damansara-Shah Alam Elevated Expressway (DASH). There are still the remaining packages of the KVMRT 2 (estimate over MYR 5 billion), Pan Borneo Sarawak Highway

(MYR 11 billion) and West Coast Expressway (MYR 2 billion), besides the KVLRT 3 (MYR 9 billion), to be awarded in 2017.

Beyond 2017, the Kuala Lumpur to Singapore High Speed Rail (HSR), estimated at more than MYR 50 billion, will be the single largest infrastructure project. A study on the KVMRT 3 (Circle Line) has also started positively. Other rail related commitments are the Gemas-Johor Baru double track rail (MYR 7 billion) and East Coast Rail (estimated at MYR 55 billion), the latter will help support the development of Kuantan Port.

In addition to these are many projects that have been announced as part of Chinese investments into Malaysia. Many of these projects are claimed to be part of China's 'Maritime Silk Road Initiative' (MSRI) even though they may not be. Some of these projects are described further below.

## Financing Infrastructure Development in Malaysia

Prior to the adoption of the Malaysia Privatisation Masterplan (MPM) in 1983, most infrastructure development was financed through the Government Development Budget (DE) as capital items of public goods. With the introduction of PPP in Malaysia through the MPM, the funding of many infrastructure projects was shifted to the

private sector. This has helped to alleviate the financial burden on the government. Another recent development in Malaysia is investment in infrastructure projects by Chinese companies under the MSRI. Some of these projects will be financed through soft loans by Chinese government agencies and contractor-financing.

#### Public sector debt and budget deficit constraints

The NTP has also resulted in the decrease in budget deficits over the years. The government has worked hard to rein in public spending to reduce budget deficits, from 6.7% in 2009 to 3.2% in 2016. However, this has constrained the government's ability to allocate more funds for development expenditure. Some of the recent large infrastructure projects have been funded through Non-Financial Public Corporations (NFPCs) which raised debt financing for these projects through the local capital market. An example is DanaInfra which was established pursuant to the Malaysian Economic Council's decision on 14 June 2010 after in-depth consideration for the need to have an Infrastructure Financing Entity (IFE) to advise and undertake funding for the proposed Mass Rapid Transit Project (MRT Project). The main objectives of the IFE are to set up a separate fund-raising activity from infrastructure construction, to develop the most cost com-

petitive, efficient and sustainable financing models, and to maintain the government's fiscal position through most competitive financing and timely disbursement of fund. To date, MYR 46 billion has been raised for the MRT projects.\*<sup>6</sup> DanaInfra will also be raising funds for the first phase of the Pan Borneo Highway project (MYR 13 billion). The debt will be repaid through annual allocation by the government. Most of the debt raised by NFPCs is guaranteed by the government even though it is not reflected in the official public sector debt.

Despite the various measures to reduce budget deficits whilst transforming the economy, Malaysia has found the options to raise more debt to fund development projects to be decreasing. The debt service ratio has been increasing annually, rising to 12% in 2016. This has constricted the wiggle room for the government to be able to raise more debt for both operating and development expenditure.

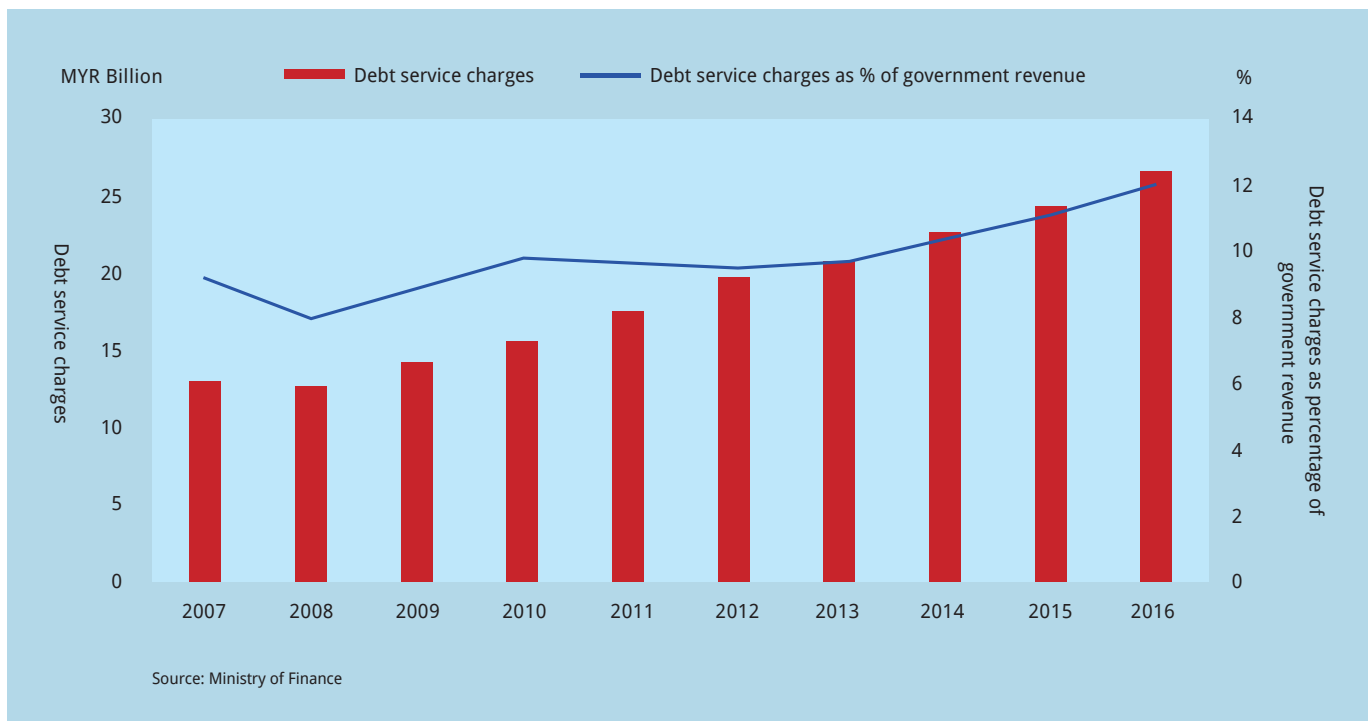
At the same time, the public debt-to-GDP ratio has almost breached the 55% mark. This ratio is lower than in most developed countries and breaching it would not normally have any immediate significant impact on the economy. However, to change the ratio limit would require the support of opposition lawmakers in parliament and this is unlikely to happen at present. The government has transferred some public-sector debt to special

purpose vehicles and NFPCs and hence taken it partially 'off balance sheet'. The public-sector funding options available to the government have been limited by this 55% ratio.

#### Financing Infrastructure Development through PPP

Malaysia launched the MPM in 1983 which introduced private sector investments in public infrastructure. It was commonly known as Privatisation until 2009 when a dedicated agency, Unit Kerjasama Awam Swasta (UKAS, formerly also known as 3PU), was set up. UKAS is responsible for monitoring and implementing PPP projects and acts as secretariat for the government's projects in the five dedicated economic corridors. It also oversees the Facilitation Fund from the national budget which is used to help bridge the viability gaps of PPP projects. Since 1983, many infrastructure projects have also been carried out using the PPP mechanism where some of the project risks are transferred to the private sector. Because of PPP, many of the multi-lane highways in Malaysia are tolled, and today, Independent Private Producers (IPPs) constitute more than 50% of the total power generating capacity of the country. Most of the major ports are privately owned. The major international airports, KLIA1 and KLIA2, are also privately owned, albeit by a GLC. Some of the

Figure 1: Increase in Debt Service Charges



past failed PPP projects have cost the government when they had to be bailed out or nationalised. These included the Kuala Lumpur public transport system. Moving forward, there are not many projects left that can be carried out via the PPP mechanism where the users pay for the services or use of the facilities. The government has also used the Private Finance Initiative (PFI) mechanism, a funding model similar to that used in the United Kingdom where the government is contracted to pay private developers and investors for services provided over a long period. Some hospitals and universities have used the PFI mechanism. The PFI mechanism is generally not suited for developing countries\*<sup>7</sup> as it will result in the government carrying a contingent liability on its books. This is in line with the International Public Sector Accounting Standards 32 (IPSAS32). The UK Parliamentary Select Committee on PFI published a scathing report on the UK PFI Programme in 2011, in which it questioned the rationale of using PFI for many public-sector services.\*<sup>8</sup> Malaysia has since scaled back the use of the PFI mechanism and other similar mechanisms to deliver public services to avoid these contingent liabilities.

PPP projects in Malaysia are typically funded using non-recourse project-financing methods. These projects have, in the past, helped Malaysia to establish itself as a world leading issuer of sukuk or Islamic bonds.

### **Financing Infrastructure Development the Chinese Way**

Though Chinese investments in Malaysia have gained more prominence over the last two years with many of the proposed projects being declared part of the MSRI, the Chinese invested in Malaysia even before the One Belt, One Road Initiative was announced by Xi Jinping in 2013. Most of these projects are either Foreign Direct Investments (FDIs) or PPP with no obligations from, or liabilities to, the government. Some of these projects are deemed to be publicly-funded projects, financed through soft loans to Malaysia, for example, the East Coast Rail project (ECRL).

One of the earliest high profile investments was the property play in Iskandar Malaysia where Chinese developers partnered with local developers to launch massive property developments. These include Country Garden, R&F Properties and Greenland Group which bought large strategic land banks. Chinese funding and investments into Malaysia are likely to continue especially given the deepening of ties

between the two countries. Recent Chinese investments into Malaysia include:

- The setting up of the Malaysian campus of Xiamen University
- The MYR 7 billion Gemas-Johor Baru electrified double tracking rail project
- The Malaysia-China Kuantan Industrial park, owned jointly by Chinese investors and Malaysian companies, and which saw investments of more than MYR 6 billion to build a steel mill, upgrading of the port and other facilities
- The USD 10 billion deep sea port in the Melaka Gateway Project
- The MYR 18 billion acquisition of 1MDB's power assets
- The Bandar Malaysia property development and HSR terminal at Bandar Malaysia

There are also several proposed mega projects that have been attributed to MSRI. Though some projects do not seem to relate to maritime projects, they have been promoted as part of MSRI, for example the Bandar Malaysia project. Each of them will have a significant impact on the Malaysian economy and will help the country to maintain or increase the NTP momentum. However, like most of the signed MSRI-related projects, each of them will have political-economic impact on Malaysia.

### **The MYR 55 billion East Coast Rail Line (ECRL) Project**

In the 2017 Budget, the Malaysian Prime Minister announced the intention of the government to build the ECRL.\*<sup>9</sup> This mega project would help Malaysia maintain its NTP momentum. The proposed 600 km, MYR 55 billion project will cut through four states, linking Klang Valley, Pahang, Terengganu and Kelantan. It will also link Kuantan Port and the Malaysia-China Kuantan Industrial Park to the West Coast. Both projects are deemed to be part of MSRI, and hence the ECRL project is also, by association, deemed to be part of MSRI. ECRL will connect many rural townships such as Port Klang, ITT Gombak, Bentong, Mentakab, Kuantan, Kemaman, Kerteh, Kuala Terengganu, Kota Bharu and Tumpat, and is part of the larger plan to connect rural areas. The government has said that the railway link will lower transportation costs between the West and East coasts of Peninsular Malaysia, bring down prices of goods, and reduce travelling time. The project, which is part of the East Coast Economic Region will be developed in several phases over a five-year period. The govern-

ment sees this project as crucial to Malaysia and have said that this project should not be delayed as it would not only spur the country's transportation industry development, but also help to speed up growth of small towns along the way. The project would also assist in the transfer of technology in the railway industry, he said.

Malaysia is currently in negotiation with China to sign the Framework Financing Agreement and Engineering, Procurement, Construction (EPC) Contract for the ECRL project.\*<sup>10</sup> The Prime Minister paid a 6-day visit to China last year during which sixteen bilateral MOUs were signed. This was the third visit by the Malaysian Prime Minister to China and underscored the economic and financing importance of China to Malaysia. It was reported that China was set to build and finance the ECRL project with the signing of the Framework Financing Agreement and EPC Contract for the project. China is expected to provide soft loans with very favourable terms, a 20-year repayment period with 7-year no-repayment period. The project is expected to be fast-tracked and is expected to commence construction in 2017.

### **Kuala Lumpur – Singapore High Speed Rail (HSR)**

On 15 December, 2016, Malaysia and Singapore signed a bilateral agreement to jointly develop the 350km HSR. This project will reduce the travelling time between the two cities by two hours, to approximately 90 minutes. The HSR serves as an alternative mode of public transport travel between Kuala Lumpur and Singapore. It is seen to be in line with the transformation of Malaysia by linking the two capital cities to meet growing demand, catalysing economic growth and enhancing long term economic competitiveness while improving the quality of life of its people. It will also help to open and rejuvenate smaller cities in Peninsular Malaysia.

The project is expected to cost more than MYR 50 billion.\*<sup>11</sup> The mode of financing is still uncertain. There are already many companies which have expressed an interest in bidding for some of the works on this project. Like the ECRL project, Chinese companies and agencies may offer soft loans as part of their bidding strategies.

### **Bandar Malaysia and HSR Terminal**

The Bandar Malaysia project is a property development project that sits on 500 acres of prime land just 10 minutes from the capital city's centre. This used to be the Malaysian Air Force airfield. Its



link to MSRI is that it will also be the Kuala Lumpur Terminal for the proposed HSR project that will link Kuala Lumpur to Singapore, connecting ports in Malaysia and Singapore. This project has been attributed to be part of MSRI. The government has recently divested 60% of the shares of the state-owned company that holds the development rights to the land to a consortium comprising China Railway Engineering Corp (CREC) and Iskandar Waterfront Holdings, the master developer of Danga Bay in the southern state of Johor (CREC Consortium). CREC is a listed company on the Hong Kong Stock Exchange. The company has built a large proportion of the HSR projects in China. To date, China has more than 20,000 km of HSR tracks.

Bandar Malaysia's expected gross development value is MYR 160 billion. It is a huge development and will feature the world's largest underground city, shopping malls, indoor theme parks, a financial centre as well as the MYR 8.3 billion regional headquarters of CREC. When completed, it will turn the Malaysian capital into a most impressive railway terminal along the so-called Iron Silk Route linking Beijing with Singapore via Thailand.

The CREC Consortium is likely to use this development to support its bid to secure the construction work of the HSR project. The funding for this project is not clear at this stage, but it is likely that China would offer an attractive financing package as part of its bid. China has already won the bid for the Medium Speed Rail (MSR) link between Jakarta and Bandung, and is likely to provide loans for the Thailand section linking China to the Malaysian border.

### Chinese Investments in Malaysian Ports

There are already significant Chinese investments or joint ventures in Malaysian ports. For example, Gaungxi Beibu Gulf International Port Group has a 40% stake in Kuantan Port Consortium and a 49% stake in Malaysia-China Kuantan Industrial Park. SM International Wholesale (China) is operating the Port Klang International Trade and Halal Industry Centre, and Guangdong province announced that it will invest USD 10 billion in a deep-sea port in the Malacca Gateway project. Discussions are also ongoing with the Chinese to build another port in Port Klang.

Malaysia and China have also signed a Port Alliance agreement in 2016 which laid down the foundation for cooperation between ten Chinese ports (Dalian, Shanghai, Ningbo, Qinzhou, Guangzhou, Fuzhou, Xiamen, Shenzhen, Hainan and Taicang)

and six Malaysian ports (Port Klang, Malacca, Penang, Johor, Kuantan and Bintulu). This alliance is part of the MSRI.

## Maintaining the Infrastructure Development Momentum

Infrastructure plays a pivotal role in the National Transformation Programme of Malaysia and the development of the country. It has a tremendous impact on benefiting the population and on bridging the economic gap between the rural and urban population. The country will continue to urbanize with the many new land and air transport infrastructure projects. The decision on infrastructure development, including the types and the mode of financing, will have significant implications on their sustainability. The government's ability to fund future projects has been constrained by the current large public-sector debt and high debt-service ratio, exacerbated by declining oil prices which has reduced the contributions from the National Oil Company, Petronas. Malaysia has used PPP to finance many of its infrastructure projects since 1983 and will continue to adopt new PPP funding models. The major constraint posed to new PPP projects is the ability of users to pay for them. Chinese investments in Malaysia's infrastructure projects, whether in the form of FDIs, PPP or contractor-financing, will continue to be an alternative to the government.



### Notes

- \*1 Goldman Sachs Economics Research Issue No:13/18, May 2013
- \*2 ADB, "Meeting Asia's Infrastructure Needs," 2017
- \*3 [http://etp.pemandu.gov.my/About\\_ETP@-Overview\\_of\\_ETP.aspx](http://etp.pemandu.gov.my/About_ETP@-Overview_of_ETP.aspx)
- \*4 Economic Planning Unit, Prime Minister's Department, *Eleventh Malaysia Plan* (2016-2020)
- \*5 Economic Planning Unit, Prime Minister's Department, *Tenth Malaysia Plan* (2011-2015)
- \*6 [http://www.danainfra.com.my/index.php?option=com\\_content&view=article&id=154&Itemid=303](http://www.danainfra.com.my/index.php?option=com_content&view=article&id=154&Itemid=303)
- \*7 HK Yong, "Making PPPs work in developing countries," *Commonwealth Trade and Investment Report 2013*
- \*8 <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmtreasy/1146/114602.htm>
- \*9 <http://www.nst.com.my/news/2016/10/18/2241/2017-budget-ecrl-cost-rm55bil>
- \*10 <http://www.bernama.com/bernama/v8/newsindex.php?id=1297622>
- \*11 <http://www.thestar.com.my/news/nation/2017/01/24/mahathir-opposes-hsr-project-malaysiasingapore-contract-not-a-done-deal-if-opposition-comes-to-power/>

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