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SC CORPORATE CASE STUDY SERIES

INFRASTRUCTURE BONDS:
A HIGHWAY AS SMOOTH AS SILK

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Infrastructure bonds are debt papers issued specifically to finance infrastructure projects, which have been privatised or are under public-private partnership projects. Traditionally, the provision of infrastructure falls under the domain of governments. However, as infrastructure construction costs balloon upwards over the decades and government financing faces increasing budgetary constraints, infrastructure bonds have come into their own as a viable financing vehicle with the ancillary effects of boosting economic activities in a country. This type of bonds has grown over time into a particularly important financing vehicle in countries with a well-developed capital market which is able to sustain the issuance and demand for such bonds. In Asia, the use of local currency bond markets to meet the region's infrastructure needs is particularly appealing if the region is to avoid dangerous currency mismatches and a slowdown in the loans market, as witnessed during the 1997 Asian financial crisis.

Appetite for infrastructure on an upwards trajectory path in Asia

It has been reported that infrastructure investment needs in the Association of Southeast Asian Nations ("ASEAN")[1] countries through 2020 could exceed USD$550 billion[2], far exceeding the financing capability of government budgets in many of its member countries. Meanwhile, the Asian Development Bank ("ADB") has estimated that capital requirements in the ASEAN region could amount to US$60 billion per year until 2020. Infrastructure financing is a specialised form of project financing in which the project alone provides the cash-flows with limited or no recourse to the project sponsors. This situation is unlike a general obligation corporate bond, where repayment is dependent on the overall creditworthiness of the issuer.

Bonds issued to finance infrastructure projects, such as highways and utilities, are seen as particularly important in the case of development in the ASEAN region. With a high economic growth rate, a continuing high pace of infrastructure development is a requisite in

[1] The Association of Southeast Asian Nations is a political and economic organisation of ten Southeast Asian countries. Formed on 8 August 1967, ASEAN originally comprised of 5 members, namely, Indonesia, Malaysia, the Philippines, Singapore and Thailand. Since then, its membership has expanded to include Brunei, Cambodia, Laos, Myanmar and Vietnam. Its aims include accelerating economic growth, social progress, and socio-cultural evolution among its members alongside protection of regional stability as well as providing a mechanism for member countries to resolve differences peacefully.

[2] Goldman Sachs. 2013. ASEAN's Half a Trillion Dollar Infrastructure Opportunity. Asian Economics Analyst. No. 13/18. 20 May

many of the developing countries within ASEAN. Reflecting its importance, the ADB, together with ASEAN, had set up an ASEAN Infrastructure Fund ("AIF") which is a dedicated fund to address the ASEAN region's infrastructure investment needs. The AIF was incorporated as a limited liability company in Malaysia in April 2012, and became fully operational in 2013. The AIF aims to provide loans of around USD300 million a year to finance infrastructure investment projects in the transport, energy, water and sanitation, environment and rural development, and social infrastructure sectors. Examples include renewable energy plants, roads or highways, and transmission and power grid development.

Taking one major step forward in financing infrastructure in the Asia-Pacific region, a newly established Asian Infrastructure Investment Bank ("AIIB") was recently set-up and officially opened for business on 16 January 2016. This is a further reflection of the massive infrastructure financing needs in the region. The AIIB is an international financial institution that aims to support the building of infrastructure in the Asia-Pacific region. The bank has 34 member states. Its target is to lend between $10 billion to $15 billion a year for the initial five or six years of its operation. Its promoter and largest shareholder, China, has an initial subscription of $29.78 billion in authorised capital stock out of a total of $100 billion. AIIB will complement and cooperate with the existing multilateral development banks to jointly address the infrastructure needs in Asia.

Indeed, infrastructure bonds issued to-date in the respective ASEAN countries show a marked increase, as shown in the table below:

Table of Infrastructure Bonds issued in ASEAN

Country	**$billion (USD)**	**% of total corporate bond market**
Indonesia	1.3	7.3
Malaysia	29.6	22.8
Philippines	2.6	19.8
Singapore	23.0	25.0
Thailand	1.5	2.5
Vietnam	0.7	18.0

Source: Asian Development Bank

In Malaysia, infrastructure investments continue to be one of the main focuses under the 10th Malaysia Plan (2011–2015). The new initiatives under this Plan included a facilitation fund intended to act as a catalyst for private investment in strategic areas, and a greater shift of risks from public-private partnership projects to the private sector through competitive bidding on toll highway and independent power production projects. The building of physical infrastructure was specifically targeted in Chapter 3 of the Plan, which included a focus on transportation, rail development, maritime infrastructure, and airport development, while broadband communication, water, sewerage, electricity, and solid waste management projects were the focus in Chapter 6. Reflecting the continuing need for infrastructure developments in the country, commitments in the 2013–2014 Budget included a RM41.4 billion allocation to upgrade basic infrastructure such as roads, water supply, and sewerage and electricity supply. Large infrastructure investments continued to be financed off-budget through various government-related entities, and through private participation.

A brief understanding of risks in infrastructure bonds

As with all debt financing, infrastructure bonds carry their own set of specialised risks and it is critically important to understand the nature of infrastructure bonds. Infrastructure financing has more similarities with project financing than debt financing for other activities. Having a long gestation period, infrastructure projects are usually long drawn covering the construction period to income generating period which typically starts long after the inception of the project and continues long into the lifetime cycle of the project. It is therefore important that this nature of income generating capability and tenure of project is appropriately factored into the bond issue.

A Malaysian case study - SILK's BaIDS

In Malaysia, various infrastructure bonds have been issued over the years. In fact, Malaysia has one of the most developed bond markets in the region which is a necessary precondition for the flourishing of infrastructure bonds. Among the bonds issued, the infrastructure bonds issued by Sistem Lingkaran-Lebuhraya Kajang Sdn Bhd ("SILK") to finance the construction of the SILK Highway presents an interesting and pertinent case study on this particular type of specialised bonds.

SILK[3] was incorporated in Malaysia on 20 December 1995 with an authorised share capital of RM300,000,000 comprising 300,000,000 ordinary shares of RM1 each, of which 220,000,000 ordinary shares have been issued and fully paid-up.

On 8 October 1997, SILK was awarded a highway concession from the Government of Malaysia ("GOM") to finance, design, construct, operate and maintain the 37-km (216 lane km) Kajang Traffic Dispersal Ring Road ("Kajang Ring Road" or "SILK Highway" as variously commonly referred to) for a period of 33 years ("Initial Concession Period"). The Initial Concession Period was further extended via a supplemental agreement dated 1 August 2001 for a total concession period of 36 years ending 31 July 2037 ("Concession Period"). At the end of the Concession Period, SILK will hand over all rights and responsibilities in respect of the SILK Highway to the GOM. During the Concession Period, SILK is entitled to collect and retain tolls from motorists.

The concession was undertaken on a "build, operate and transfer" ("BOT") basis. Broadly, the responsibilities of SILK under the BOT arrangement for the SILK Highway are as follows:-

(i) to provide financing and to undertake the design, upgrading of existing roads and construction of new sections of the SILK Highway;

(ii) to operate (collect and retain toll), manage and maintain the completed SILK Highway until the expiry of the Concession Period; and

(iii) to hand over the SILK Highway to the GOM upon expiry of the Concession Period.

[3] SILK was owned by SILK Holdings Bhd, initially known as SILK Concessionaire Holdings Sdn Bhd and renamed Sunway Infrastructure Bhd ("SunInfra") on 14 February 2002. The company was listed on Bursa Malaysia on 17 December 2003 and assumed its present name on 31 October 2008.

Among the conditions attached to the concession is that the Concession Agreement (“CA”) may be terminated by either the GOM or SILK if either party fails to remedy its default within the period specified in the CA. The GOM may further terminate the CA by expropriation of the concession or by giving notice not less than three months to that effect to SILK if it considers that such expropriation is in the national interest.

To finance the construction of the SILK Highway, SILK had issued a RM2.01 billion Al-Bai Bithaman Ajil Islamic Debt Securities ("BaIDS") on 22 August 2001. Please refer to **Appendix 1** for the Information Memorandum on of SILK’s BaIDS. The BaIDS had been assigned an initial long term rating of AA3 by Rating Agency Malaysia (“RAM”).

However, the highway is anything but smooth as silk …

Since it opened for traffic in June of 2004, the SILK Highway or Kajang Ring Road did not do well. Traffic volume plunged dramatically below forecasts, resulting in low toll revenue and tight cash flows for SILK. For the first 10 months of its tolling operations, the Highway recorded a cumulative average daily traffic ("ADT") of only about 51,000 vehicles. Based the Highway’s cumulative ADT of 56,000 vehicles for the first 5 months of 2005 alone, it was then predicted that its traffic volume would not be able to reach the traffic consultants’ ADT forecasts of 234,000 vehicles (by MAG Technical & Development Consultants or "MAG") and 207,000 vehicles (by Halcrow Consultants Sdn Bhd or "Halcrow") for its financial year ending 31 December 2005. This is in stark contrast with the rosy picture painted by the credit rating agency, Malaysian Rating Corporation (“MARC”), in its press release on the BaIDS on 2 November 2004 as in **Appendix 2**.

The grossly over-estimation of traffic volumes by MAG and Halcrow had been primarily based on assumptions of aggressive development activities along the Highway’s corridor which did not materialise, coupled with an under-estimation of the extent of traffic leakage from the Highway. In fact, the Highway had experienced substantial traffic leakage due to its less favourable alignment and the availability of many competing routes. This was made worse by the existence of low toll-rate acceptance within the Highway’s catchment areas that was compounded by the unfavourable location of toll plazas as well as the lacklustre development activities along the Highway. Whilst the Highway had been designed to capture spill-over traffic from the highly congested Kajang town, the opening of the Kajang Bypass (a toll-free stretch that connects the Cheras-Kajang Highway from Saujana Impian to Semenyih) since March 2004 had provided a costless alternative that allowed travellers to circumvent this town. Although this had been factored into the traffic models of both MAG and Halcrow, the threat of the Kajang Bypass had been largely under-estimated. Taking all this into account, it was predicted that the Highway's traffic volume would only record single-digit compounded annual growth rates over the period 2006-2011 compared to the 10% - 11% projected by MAG and Halcrow[4].

Question: Should there be complete reliance on forecasts by consultants, in this case, in the projected ADT by (a) the issuer, (b) investors, and (c) rating agencies? If not, how should this risk of over reliance on forecasts be mitigated?

Should the consultants[5] bear any responsibility and be held accountable for its estimations?

Consequently, SILK's BaIDS were downgraded by RAM from AA3 to B on 29 August 2005. Meanwhile, MARC too followed suit and downgraded the long term ratings of SILK's BaIDS to BB-ID[6] with negative outlook on 9 September 2005.

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[4] Infrastructure financing involves a number of risks. The risks inherent in any debt securities issued for such purposes include those commonly found in the toll industry, such as regulatory risk in relation to implementation of the CA. Whilst toll rates may be increased in accordance with the CA, the Government may impose lower toll rates or defer the increase of toll rates due to economic circumstances and public sentiments.

In addition, as shown above, traffic volume is a primary determinant of toll revenue. However, the number of vehicles using a highway is dependent on the level of commercial, industrial and residential development areas served by the highway, toll rates, alternative toll-free routes, price of fuels, affordability of automobiles and availability of alternative transportation modes such as public transport and rail. This is a typical risk in toll roads or any other project where revenues are based on projected traffic or demand, where actual revenues may fall short of projections.

Whilst there is generally no recourse to the sponsors, assessing the quality of project sponsors is another important aspect, in particular, their track record in similar projects and having sufficient financial and operational resources, including reserves for contingencies, to meet their commitments to the project.

Another risk is project completion risk. During the construction phase, a number of factors can lead to delays, higher-than-budgeted costs, or even abandonment of the project. Factors such as increased prices for materials and higher wage rates can increase this risk. Delays in completion create financial risk since it delays the start date of operations which is crucial to generating income for the project.

Early-termination risk arises if the CA or other revenue arrangements end prematurely, thereby affecting the expected revenue stream.

Then, there are broader risks which may affect projects. These include country and political risks, as well as the threat from macroeconomic instability. There may be industry-specific risks and social and environmental factors, for example, pressure to close coal-fired generating plants because of emissions concerns.

[5] It is to be noted that MARC had appointed another traffic consultant, Perunding Trafik Klasik, to conduct a study on the traffic forecasts in 2005.

A year later, on 23 August 2006, RAM withdrew the B3 rating that it had assigned to SILK. It explained that this was based on its understanding that refinancing plans for the BaIDS were ongoing, with no concrete decision at that juncture. As the rating exercise of SILK's BaIDS was undertaken as a one-off assessment at the request of the company, it did not require ongoing surveillance and hence RAM had discontinued its surveillance and rating on the BaIDS.

In May 2007, MARC had placed SILK's rating on MARCWatch negative list and subsequently downgraded to 'D'[7]. The lowered rating reflects SILK's inability to meet the August 2007 scheduled redemption of RM150 million due on the facility. Following the downgrade, MARC has withdrawn the rating and no longer has any rating obligations to the issue.

Question: Based on the series of events, was the credit rating agencies found wanting in its analysis of the debt issue? If so, what improvements (e.g. more alert and forward looking in their analysis) do you wish to see in credit rating agencies' assessments as investors place reliance on their ratings in deciding on their investment decisions?

As a result of its lower-than-expected traffic volumes, SILK's projected toll revenue, had been severely undermined, resulting in a mismatch in its debt obligations vis-à-vis its cash flow-generating capability. Its debt servicing ability was further exacerbated by the weak structure of the BaIDS, which did not allow sufficient time for traffic volume to build up before SILK began servicing its chunky first redemption amounting to RM150 million in August 2007, a mere 3 years after the commencement of its tolling operations.

Although the first redemption would be in August 2007, SILK was required to deposit the first 50 percent of the projected debt service amounting to RM75 million into the Debt Service Reserve Account ("DSRA") in August 2006. Notwithstanding the fact that SILK's cash flow position then enabled it to fulfil this initial requirement, however, additional equity/loan financing or refinancing/restructuring of the BaIDS was necessary for SILK to fulfil its remaining debt obligations. Compounding this issue, the enforceability of the

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[6] The suffix "ID" attached to a rating indicates that it is an Islamic debt, to distinguish it from a conventional debt issue.

[7] The rating 'D' indicates an entity has defaulted on its rated financial obligations.

undertaking provided by Sunway Holdings Incorporated Bhd ("SunInc") to ensure that SILK maintains a Debt Service Cover Ratio of 1.25 times and that the required balances are in the DSRA were in doubt. This was because SILK is a related party of SunInc and the latter might have to first seek its shareholders' approval before any financial assistance pursuant to the undertaking can be provided to SILK.

Consequently, SILK indeed was unable to pay its first redemption amount given that its projected free cash flow of only RM5.5 million then and inadequate cash reserves of RM88 million estimated for its financial year ending December 2007. The BaIDS's lumpy debt-redemption schedule further highlighted its inadequate structure. [8]

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[8] **For comparison 9/2006**

For purposes of comparison with another highway infrastructure debt issue which in this case was a success, please take a look at another highway infrastructure bonds - Lingkaran Trans Kota Sdn Bhd's ("Litrak") RM275 million Guaranteed Serial Bonds ("Senior Serial Bonds") and RM395 million Al-Bai Bithaman Ajil Islamic Debt Securities ("Senior BaIDS") in 1996. Litrak had also issued RM148

million Al-Bai Bithaman Ajil Islamic Debt Securities ("Junior BaIDS") and RM150 million Redeemable Junior Bonds ("Interchange Bonds"), as well as a RM255 million Murabahah Commercial Papers/Medium-Term Notes ("Junior ICP/IMTN").

Litrak is the toll concessionaire for the 40-km intra-urban Lebuhraya Damansara-Puchong, or better known as the LDP.

Since the commencement of its tolling operations, the LDP's traffic volume had continued to chart impressive growth, underpinned by its favourable alignment that spans through the densely populated areas of Puchong, Bandar Sunway, Petaling Jaya, Damansara and Kepong. The highway's traffic growth worked out to 7.98% for its financial year ended 31 March 2006, exceeding expectations for the fourth consecutive year. Meanwhile, its average daily traffic stood at 417,581 vehicles - reflecting a 14.5% compounded annual growth rate for the past 7 years. The LDP's excellent operating track record had translated into robust cash flow generation for Litrak, as reflected by its average annual free cash flow (operating cash flow less net investing cash flow) of approximately RM120 million over the past 5 years. Litrak was expected to generate at least RM159 million of free cash flow per year throughout the remaining tenures of its debt issues, translating into an average debt service coverage ratio of 1.90 times (without cash balances) for the next 10 years. Moreover, the Company's margin on operating profit before depreciation interest and tax of at least 87% further testified to its steady financial profile. Litrak's transaction structure also included predefined covenants and a cash-trap mechanism to ensure sufficient cash retention in the company after distributions to shareholders.

The credit rating agency, RAM, had rated Litrak's Senior Serial Bonds and Senior BaIDS at AA2, Junior BaIDS and Interchange Bonds at AA3, and Junior ICP/IMTN at the AA3/P1.

Question: How best in your opinion should this project financing be structured, in particular, its repayment schedule, taking into consideration the uncertainty of forecasts and the income generating period of the project?

A one way highway to restructuring …

As early as 2006, a debt restructuring plan had been proposed for the SILK BaIDS that would see the entry of a new investor into the company and pay bondholders RM740 million to redeem its bonds. However, when this restructuring proposal was first mooted, it met with resistance from a group of BaIDS bondholders who had voiced their displeasure over the planned haircut of RM210 million that they may have to take. On the other hand, there were rumblings that bondholders should approve the company's debt resolution plan as traffic volume along the SILK Highway remain poor and the deal's white knight could exit if they shot down the plan.

At its Extraordinary General Meeting held on September 2006, a proposal was formally tabled to the BaIDS bondholders for a new investor to pay them RM740 million to redeem the bonds. This would be funded by a share subscription of RM160 million, shareholders' loan of RM420 million, a rights issue of RM45 million and an additional issue of RM70 million at an estimated issue price of 30 sen a share. However, the proposal failed to obtain the 75% approval required from bondholders in order to pass the proposal. Instead, it received 56% votes in favour of the plan, while 36% voted against it and 8% abstained. As expected, BaIDS holders were naturally unhappy about a possible "haircut" of RM210 million over an accrued value of the debt of RM950 million. Bondholders had, instead, been calling for the "terming out" of the tenure of the existing debt, pointing out that the company's concession would expire only in 2037.

Litrak's above mentioned debt securities were all fully redeemed on 15 April 2008.

Question: Given the financial circumstances of surrounding the issue, would you, as an investor, accept the haircut? If not, what would be an appropriate haircut amount?

The EGM was adjourned to 12 October, a move seen as a positive step for bondholders to agree to the debt settlement plan. "This is seen as a positive move given that if bondholders intended to vote against the settlement plan, they would have done so," a close source disclosed. Helping the company was also the agreement by the white knight of the debt settlement plan to extend its deadline past 30 September to obtain the "yes" vote to 12 October. "The adjournment was only for a couple of weeks and the investor was agreeable to extend its deadline," said the source.

Disposal of SILK to IJM

However, despite all the expectations and whispers of restructuring deals, no concrete restructuring plan materialised until mid-2014. On 20 July 2014, Road Builder (M) Holdings Bhd[9] ("RBH"), a wholly-owned subsidiary of the IJM Construction Sdn.Bhd. ('IJM"), and SILK Holdings Berhad ("SILK Holdings") entered into a conditional Share Sale Agreement ("SSA") for the proposed acquisition of 220 million ordinary shares of RM1 each in SILK, representing 100% equity interest in SILK ("the Acquisition").

SILK has a wholly-owned subsidiary, namely, Manfaat Tetap Sdn Bhd[10] ("MTSB") which would act as a special purpose vehicle to facilitate the issuance of Sukuk Mudharabah for the purpose of refinancing the outstanding BaIDS issued by SILK.

RBH and SILK Holdings had mutually agreed that the proposed purchase consideration be revised from RM398 million to RM395 million ("Purchase Consideration") after taking into

[9] Road Builder (M) Sdn. Bhd. is engaged in the construction of highways, dams, water treatment plants, and airports. The company was founded in 1985 and is based in Kuala Lumpur, Malaysia. Road Builder (M) Sdn. Bhd. operates as a subsidiary of IJM Construction Sdn. Bhd.

[10] MTSB was incorporated in Malaysia on 21 September 2007 with an authorized share capital of RM100,000 comprising 100,000 ordinary shares of RM1 each, of which 2 ordinary shares have been issued and fully paid-up.

consideration the actual traffic, financial performance, discounted future cash-flow projections of SILK and the outstanding Sukuk Mudharabah together with Ijarah rental payable totalling RM863.6 million as at 31 July 2013 issued by MTSB. The Purchase Consideration of RM395 million, will be satisfied entirely in cash, and will be financed via the company's internally generated funds and/or bank borrowings.

The acquisition is in line with IJM's strategy to increase recurring income stream by expanding its concession assets portfolio as the SILK Highway links the toll roads of IJM, thereby improving connectivity and complimenting the Besraya Highway, the New Pantai Expressway and the Kajang Seremban Highway that it already operates. With the acquisition, the total road length of IJM's toll roads in Malaysia, including the upcoming West Coast Expressway of 233km, will increase from 325.8km to 362.8km. Furthermore, the acquisition is expected to contribute positively to the future earnings and cash flows of IJM as the SILK Highway is a growing highway with increasing traffic growth. Additionally, SILK Highway is in the growth corridor with increased property developments around Kajang and nearby areas spurred by the Mass Rapid Transit project, and had been registering traffic growth of about 16% on a Compounded Annual Growth Rate basis.

As for SILK Holdings, the sale was positive as it released it of its obligation under the corporate guarantee for the BaIDS. Furthermore, it served to unlock the value of SILK Holdings' investment in SILK and enable SILK Holdings to concentrate on growing its oil and gas support-services business which accounted for 70% of its total revenue.

The Acquisition was expected to be completed by the fourth quarter of the calendar year 2014.

A road that leads to nowhere … except back to the beginning …

However, in November 2014, it was announced that the sale of SILK had been aborted on the mutual consent of both parties due to the non-fulfilment of certain conditions precedent within the agreed timeline.

“This is a mutual agreement as certain conditions precedent could not be fulfilled, thus both parties are not proceeding,” IJM Corp chief executive officer and managing director Datuk Teh Kian Ming said. “This is part and parcel of running a business and to say that I am not disappointed is not true. We are constantly looking to expand our business and we will continue to look for other opportunities to expand in the highway (business segment),” added Datuk Teh. SILK Holdings in its announcement said that all conditions precedent were not fulfilled within the agreed timeline.

Prior to this development, there were earlier reports that the bondholders of SILK Highway were objecting to the sale and wanted a portion of the profits to be accrued by SILK Holdings from the sale of the highway.

Since then, another potential suitor has appeared on the horizon. In 2015, Taliworks Corp Bhd (“Taliworks”) confirmed that it was eyeing SILK, but stressed that it was still in the exploratory stage. Its Executive Director, Lim Yew Boon, verified a recent report that claimed both companies were in exploratory talks on the proposed highway concession transaction. "It is still at the exploring stage. If there is anything solid or finalised we will make proper announcement," Lim said. "Any highway or project that is in line with our investment strategy, we will explore," he added. The Silk Highway serves townships connected to a number of other highways, including Taliworks' Cheras Kajang Highway. Taliworks had expanded into the highway business in 2007 with the acquisition of a 55% stake in Cerah Sama Sdn Bhd, with concessions for both Cheras-Kajang Highway and the New North Klang Straits Bypass Expressway.

But as things turn out, no further developments have materialised too on this restructuring road which appears to lead to nowhere. For the moment, SILK has not strayed from its road since its beginnings.