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The Malaysian Public-Private Partnership (PPP): Financing the Tolled Highway Projects

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Abstract
The Public-Private Partnership (PPP) concept was introduced and hailed as an effective mechanism to increase the efficiency of the public infrastructure provision as well as to achieve cost-effectiveness. However, the growing literature on PPP finds that the implementation of the PPP approach in infrastructure provision is costly and needs a high amount of state financial support. This study examines the cost of financing of the Malaysian PPP tolled highways, and the existence of government financial support to the concession companies. The results of this study show that private financing in the provision of infrastructure projects is more costly as opposed to public financing and a substantial amount of financial support from the government is required in implementing the PPP projects.

Keywords: Cost of Financing, Government-Linked Companies, Political Economy, Public-Private Partnerships (PPP), State Financial Support, Tolled Highways

GEL Classification: M4

1. Introduction

Public infrastructure and amenities like roads, water and electricity have traditionally been provided and financed by the public sector. However, this traditional arrangement has been gradually revised following the structural reforms in the public sector that occurred as a result of the pursuits of liberalisation agenda. The neo-liberal agenda, which began in the developed countries like the UK and U.S. in the late 1970's, was proposed

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to reduce the massive expenditure of the public sector (Humphrey & Olson, 1995; Parker & Gould, 1999; Saint-Martin, 2001). In the 1980's, there was a similar move to reform the public sector in developing countries. The rationale for such move was pinned down to the pressures from international lending agencies when these countries sought financial assistance for their poorly performed State Owned Enterprises (SOEs) (Miller, 1997; Asaolu, Oyesanmi, Oladele, & Oladoyin, 2005; Parker & Kirkpatrick, 2005).

Despite the differences in the rationales for the reform of the public sector, it remains nevertheless clear that the reform took place and continues to do so around the globe. With the liberalisation agenda in place, reform in the public sector occurs in many ways; amongst others are the 'marketisation' strategies which put forth various arrangements that could be undertaken to restructure the provision of public services (Pollit & Summa, 1997). These strategies also include a Public-Private Partnership (PPP) approach (Hood, 1995; Olson, Guthrie, & Humphrey, 1998). In a PPP approach, the public and private sectors collaborate in providing public infrastructure and related services to the public. Further explanation on the PPP arrangement is provided in section 2.1 of this paper.

A survey of PPP projects worldwide revealed that an amount of US$1,197,279.000 of capital expenditure was spent on 2,564 PPP projects since 1985, of which US$573,205 million was channelled to the road sector for a total of 1,023 projects (Public Works Financing, 2007). This is higher than other sectors like the rail sector that comprises 289 projects with capital expenditure at US$383,754 million; the water sector with a total number of 741 projects involving capital costs of US$135,635 million; and the buildings sector with 511 projects that involve capital expenditure of US$104,685 million (Public Works Financing, 2007).

The statistics obtained by the Public Works Financing 2007 survey also show that in the regions of Asia and the Far East, the road sector has the highest number of projects since 1985 at 286 with US$85,565 million of capital expenditure in comparison to the rail, water and buildings sectors with 83, 172 and 250 projects respectively, and capital expenditures of US$121,249 million, US$35,476 million and US$76,531 million respectively (Public Works Financing, 2007). The results from this survey reveal that the PPP approach is extensively implemented in the road sector internationally and more specifically in Asia and the Far East regions.

It is important to note that the public sector is no longer the sole provider of the public infrastructure and related services. Instead, most of these services are provided by the private sector in collaboration with the public sector. As compared to the traditional way of public infrastructure

provision, the implementation of the PPP approach is promoted by governments world-wide due to its cost-effectiveness and 'value for money' attributes (Edwards, Shaoul, Stafford, & Arblaster, 2004). However, despite these apparent benefits, international evidence shows that the PPP approach has resulted in higher financing in comparison to public financing (Edwards et al., 2004; Shaoul, Stafford, & Stapleton, 2006). In addition, the PPP projects need substantial support from the government (Baietti, 2001; Guasch, 2004; Guasch, Laffont, & Straub, 2007). Evidently, although the PPP projects are financed by the private sector, such projects pose financial consequences to the public and the taxpayers indirectly. Thus far, the studies that analysed the cost of financing the PPP projects did not relate the adoption of the PPP approach to the country's inherent socio-economic factors.

Consequently, it is important to examine the financing and state support in PPP projects from the context of a developing country since there are relatively few studies that specifically analyse these aspects in accordance with the country's inherent socio-economic factors.

The Malaysian scenario of tolled highways is chosen for its unique features. In Malaysia, most tolled highways are privatised under the Malaysian Privatisation policy,[1] among others, to improve the economic performance of *Bumiputeras*.[2] No known academic studies on the implementation and analysis of the financial consequences of these projects have been conducted. Thus, this paper attempts to address the current gap, by ascertaining the cost of financing and the extent of government financial support in the Malaysian tolled highways, and whether the implementation of the PPP approach in Malaysia has lightened or increased the burden of the public sector in providing public infrastructure. It is hoped that this study will shed light on the issues of the cost of financing in PPP projects, the existence of financial support from the government, and whether the inherent socio-economic factors give rise to these two (2) important issues.

The rest of the paper is organised as follows. Section 2 discusses the general attributes of a PPP arrangement, followed by a discussion on the theoretical framework. Section 3 discusses the research methodology, followed by the presentation of the results in section 4. The discussion on

[1] The Malaysian Privatisation policy will be discussed in section 2.4 of this paper.

[2] The term *"Bumiputera"* refers to the natives in both West and East Malaysia. Although the term is used for aborigines like Jakun, Senoi and Temuan and ethic clans in East Malaysia ,for example, Ibans, Bidayuh, Kadazan and Murud; in general, the term is used to refer to the pre-dominant ethnic Malays.

the results is found in section 5, and section 6 presents the concluding remarks.

2. Literature review

This section provides a discussion on the essential criteria of a PPP arrangement followed by a discussion on its related issues. This will lead to an examination of whether the Malaysian tolled highway sector has adopted the PPP scheme of arrangement.

2.1 PPP criteria

The first important criterion of a PPP arrangement is that the provision of public infrastructure and related services is undertaken by the private sector, with the public sector as a 'partner' in the 'partnership'. The 'partnership' in the PPP scheme refers to a long-term contractual relationship between the public and private sectors which normally lasts for a period of thirty (30) years (Blöndal, 2005). In this business relationship, both the public and private sectors are expected to agree on the degree of project risks that each party needs to bear. These are usually specified in the contract (Van Ham & Koppenjan, 2001; Broadbent, Gill, & Laughlin, 2003). Another feature of the PPP approach relates to the source of financing; whereby the private sector finances PPP projects using private funding (Annez, 2006). Since the provision of public infrastructure is undertaken by the private sector, the payment for such services is either made by the public sector, or in some cases, the public sector grants the right to the private sector to collect payments from the users (Grimsey & Lewis, 2002). In summary, the PPP arrangement comprises the following features: (1) the private sector provides the public infrastructure; (2) the 'partnership' involves a long-term contractual relationship between the public and the private sectors; (3) both sectors need to agree on the degree of risks-sharing; (4) the private sector is responsible for the financing of the projects which are obtained from private sources; and (5) the public sector pays the private sector for the services it provides or allows the private sector to collect payments from the users.

2.2 PPP issues

2.2.1 PPP – a costly approach?

As discussed above, PPP projects are financed by the private sector. Financing is a very important aspect in the provision of public

infrastructure due to its capital intensive nature. The PPP is an attractive option because it allows the provision of public infrastructure that the government could not otherwise afford (Broadbent & Laughlin, 2005). Privately financed projects would incur higher cost of capital than the traditional public financing due to the incorporation of equity risks and these risks are usually borne by the private sector (Lowe, 2008). The case of UK provides a good example (Edwards et al., 2004; Shaoul et al., 2006). Although the system used in the UK is based on the concept of 'shadow tolls' where the government makes payment to the private concessionaires for the provision of roads, these studies find that the cost of financing under the PPP approach is higher. This affects the public and the taxpayers, because the public purse is dipped into to make these payments. Similarly, the high cost of capital of the tolled roads is found to exist in the Latin American region (Estache & Serebrisky, 2004), whilst in Spain the cost of private financing of tolled roads is almost twice the cost of public finance (Acerete, Shaoul, & Stafford, 2009).

These studies demonstrate that although the PPP approach is gradually gaining acceptance worldwide as an alternative to public financing in the form of public infrastructure provision, this arrangement may not have the intended effect to reduce public expenditure, for they generally result in higher costs of financing borne by the public.

2.2.2 PPP needs government support?

According to the UK government, the PPP is a suitable approach for public infrastructure provision because this method ensures public infrastructure is provided in an economical and efficient way. It is touted to be a "Value for Money" method (HM Treasury, 2003; HM Treasury, 2006). However, despite being privately financed, the PPP arrangement continues to receive support from the government. Evidence from the UK suggests that the Highway Agency pays the private concessionaires an amount that is in excess of the cost of constructing the highways (Shaoul et al., 2006). In other countries, like Spain for example, financial support from the government is evident from the existence of guarantees issued by the government as collaterals for the foreign loans obtained by the private concession companies. The government also issued guarantees to protect the private companies from any foreseeable losses arising from the fluctuations in exchange rates (Bel & Fageda, 2005). Further, the Spanish government makes concession payments to the private sector to compensate them against foreseeable future losses (Acerete et al., 2009). In the Latin American region, financial support from the government is evident in cases

where the PPP projects are renegotiated (Guasch, 2004) and bailed out (Guasch et al., 2007).

2.3 Theoretical framework

The international evidence mentioned in the previous section indicates that the PPP arrangement is still financially supported by the government, although the public infrastructure and related services are provided for and financed by the private sector. Hence, this implies that firstly, the PPP arrangement has financial implications for the users and taxpayers; and secondly, the private sector appears to profit from the PPP projects at the expense of the public. Previous studies suggest that there is a conflict between two (2) parties, i.e. the private companies as the providers of infrastructure and the public as the users of the services and taxpayers. As such, the political economy theory comes to fore and it will be used in this study to explore this phenomenon further.

The political economy theory is based on the underpinning presumptions that firstly, social conflicts persist in any society; and secondly, the state acts in the interests of capital providers (Lehman, 1992). Adopting the political economy approach in this study implies that corporations are perceived as using the PPP projects as an avenue to further their self interests. Crucial in the political economy theory is the role of the state. The political economy approach posits that state intervention will not result in equitable distribution of wealth (Tinker, 1980). Instead, the role of the state in managing the economy is biased towards gratifying the interests of the dominant group in society that has profound access to capital. In this regard, Cooper and Sherer (1984) suggest that accounting researchers who intend to incorporate a political economy perspective in their studies, should also note how big corporations function in oligopolistic and monopolistic markets and how the state manages the economy.

In this study, the researcher attempts to analyse the underlying issues in PPP which have been identified above, i.e. the higher cost of private financing in comparison to public financing and substantial financial support from the government using the theoretical presumptions in political economy, as a basis in the Malaysian tolled highways sector. In undertaking this analysis, it will be helpful to discuss the background of the Malaysian tolled highway sector.

2.4 An overview of Malaysian tolled highway sector

Unlike in the UK where the use of the PPP approach is clearly communicated in government policies and documents, the existence of PPP projects in

Malaysia is less visible. In view of this, the present study addresses this matter by first discussing the privatisation mechanism in Malaysia. The Malaysian Privatisation policy was announced in 1983, at a time when the government was concerned with the agenda of downsizing its public sector due to its financial and administrative constraints (Economic Planning Unit, 1991).

In contrast to the usual connotation of privatisation that centres on the concept of an outright equity sale of publicly-owned entities, privatisation in Malaysia covers a broad spectrum that includes wide-ranging mechanisms like lease of assets, management contract and 'Build-Operate-Transfer' (BOT) or 'Build-Operate' (BO) (Economic Planning Unit, 1991). Whilst the construction of roads is under the responsibility of the Ministry of Works and therefore remains in the public sector domain, tolled highways in Malaysia are mostly privatised using the BOT method (Malaysian Highway Authority, 1991). In this method, the private sector is responsible for the construction, operation and maintenance of the respective highways using funds obtained from private sources (Economic Planning Unit, 2005). The private concession companies are then granted the right to collect tolls from the users throughout the concession period which normally lasts for about thirty years (30) years (ascertained from the various private concession companies' annual reports), and are to hand over the highway to the government once the concession period ends (Economic Planning Unit, 2005).

The explanation provided from the public documents shows that the characteristics of the BOT approach to build highways correspond with the features of a PPP arrangement discussed earlier. The resemblance of the essential features in the BOT method with that of the PPP implies that the BOT scheme is indeed a PPP; indicating that the PPP approach is adopted in the Malaysian tolled highway sector, although the term PPP is not specifically used and referred to in the government publications.

It is also important to highlight that the privatisation policy implemented by Malaysia is mainly with the aim of achieving the socio-economic objectives which are directed towards increasing the economic performance of the *Bumiputeras*. Hence, although the privatisation policy is set to encourage the participation of the private sector in the economy, it also seeks to improve the economic performance of the *Bumiputeras* by requiring "the concessionaires to allocate at least 30 per cent of contractual works to *Bumiputera* contractors" (Economic Planning Unit, 2003, p.151). In an attempt to increase the economic participation of the *Bumiputeras*, the government set up state-owned enterprises (SOEs). Following the recession in the mid 1980's, the Malaysian government was faced with financial

and administrative constraints in managing the SOEs and thus the government privatised the SOEs. However, despite the privatisation, the government still remains influential in these entities, which are now more commonly referred to as government-linked companies (GLCs).

With regards to the operations and implementation of the PPP approach in the highway sector, unlike in countries like Spain or the UK where the concession companies operate more than one highway, in Malaysia, a different private company operates each highway. This is shown in Table 1.

3. Research method

This study uses a case study method with the tolled highway sector in Malaysia as the case setting. Most studies on PPPs in other specific sectors such as health care industry, transportation and housing (Froud & Shaoul,

Table 1: Tolled highways in Malaysia

Project	Year Completed	Concession Company	Length (in km)
1) Penang Bridge	1985	PBSB	13.5
2) North-South Highway	1994	PLUS	848.0
3) Shah Alam Expressway	1997	KESAS	35.0
4) Seremban-Port Dickson Highway	1997	PLUS	23.0
5) North-South Expressway Central Link	1997	ELITE	56.8
6) Malaysia – Singapore Second Link	1998	Linkedua	45.7
7) KL-Karak Expressway	1998	MTD	60.0
8) Butterworth-Kulim Expressway	1998	KLBK	16.8
9) Damansara-Puchong Expressway	1999	LITRAK	40.0
10) Sungai Besi Expressway	1999	Besraya	16.0
11) Cheras – Kajang Expressway	2000	Grand Saga	11.7
12) Western KL Traffic Dispersal Scheme	2001	SPRINT	26.0
13) Ampang-KL Elevated Highway	2001	PROLINTAS	7.4
14) Northern Klang Straits Bypass	2002	Shapadu	15.3
15) Kajang Dispersal Link Expressway	2004	SILK	37.0
16) New Pantai Expressway	2004	NPE	19.6
17) Guthrie Corridor Expressway	2005	GCE	25.0
18) Butterworth Outer Ring Road	2005	LLB	12.0

Sources: Ministry of Works (MOW)'s and Malaysian Highway Authority (MHA)'s websites and MHA's annual reports from various years

2001; Shaoul, 2002; 2003; Broadbent et al., 2003; Shaoul et al., 2006) use a similar approach. The benefit of using such approach lies in its ability to enhance understanding by focusing on context-specific, in-depth knowledge (Cooper & Morgan, 2008). Considering the prior literature, it is, therefore, contemplated that a case study method would be the most suitable method to achieve the objectives of this research.

The data for this study is mainly obtained from the financial statements of seventeen (17) private concession companies for the years 1996-2006. There are one hundred and twenty six (126) financial statements of concession companies available for this study.[3] The financial analysis is supported by additional information[4] obtained from the web-sites of the Malaysian Highway Authority (MHA) and its annual reports as well as the Ministry of Work (MOW). This additional information is required because it helps the researcher to put the financial analysis in the context of Malaysian overall tolled highway sector. In relation to this point, it is useful to note that although the privatisation policy was announced in 1983, privatisation in the Malaysian tolled highway sector only began more than ten (10) years later, i.e. in 1994 (Malaysian Highway Authority, 1996). The earliest financial statements, however, were only available starting from 1996 (which explains why this year is selected for the analysis). Financial analysis is conducted by ascertaining the cost of financing the highways and financial support granted by the government to the private concession companies within a period of ten (10) years, from 1996 to 2006. To calculate the cost of financing and financial support, a number of accounting items in the financial statements of the private concession companies were extracted and put in the spreadsheet. Table 2 shows the accounting items and the financial analysis carried out in this study.

[3]The total number of expected financial statements for the whole period of analysis, i.e. 1996 to 2006, is one hundred and thirty (130). However, only one hundred and twenty six (126) financial statements are available from the Companies Commission of Malaysia (CCM).

[4]In compiling the financial statements of the concession companies, it is very helpful to know the background of the highways concerned as this will help to justify the earliest year of financial statements that are available. For example, the privatisation of the North-South Highway (NSH) occurred in 1988, but the project was only completed in 1994. However, only financial statements for 1996 are available for the concession company that operates the NSH; i.e. PLUS. Hence, year 1996 is taken as the earliest year of the analysis. This information is only contained in the annual report of the Malaysian Highway Authority (MHA). The additional information is analysed using the 'pragmatic' approach which means that it will only be examined if it is determined to be useful in obtaining an understanding of the tolled highway industry.

Table 2: Items selected from the financial statements of the private concession companies

Accounting Items	Reasons for Selection
Interest Payable (including capitalised interest)	To calculate total returns to the providers of finance; which then could be used to calculate the cost of financing.
Profit After Tax	To calculate total returns to the providers of finance; which then could be used to calculate the cost of financing.
Long-term Debt	To calculate total capital employed; which then could be used to calculate the cost of financing.
Shareholders' Funds	To calculate total capital employed; which then could be used to calculate the cost of financing.
Financial support provided by the government	To ascertain whether any financial support is provided by the government to the concession companies

Notes: 1. Cost of Financing = Total return to the providers of finance/Total capital employed
2. Total return to the providers of finance = Profit after tax + Interest payable (including capitalised interest)
3. Total capital employed = Shareholders' funds + Long-term debt
4. There are no specific accounting items that indicate government financial support. These can only be identified by examining the financial statements of the private concession companies.

4. Results: PPP in Malaysian tolled highway sector

This section begins with an overview of the Malaysian tolled highway sector. This is followed by a discussion on the concession companies' cost of financing and government support.

4.1 Overview

Over the ten-year period from 1996 to 2006, the number of highways opened and fully operated increased by six-fold, i.e. from just three (3) in 1996 to eighteen (18) in 2006. This is shown in Table 3 below. The large increase implies that much effort and financial resources are directed by the private sector in the construction of tolled highways. The private sector's effort is supported by the government, which is evident from the Ninth Malaysia Plan (9MP).[5] In the 9MP, the construction of tolled highways received much

[5]This plan refers to the short-term development plan devised by the Malaysian government to cover a five-year period from 2005 until 2010.

focus, with projects being undertaken to construct an additional 604.5 kilometres of road networks, and involving capital expenditure totalling RM18.0 billion (Economic Planning Unit, 2005).

The large increase in the number of opened highways suggests that the tolled highway sector is developing. This is further demonstrated by the increase in revenue and profit after tax (PAT) payments as shown in Table 3. The revenue and PAT increased from RM918.02 million and RM528.47 million, respectively, in 1996 to RM3,518.16 million and RM1,412.57 million, respectively, in 2006. The increases in both revenue and PAT indicate that the tolled highways in Malaysia are generally well-used, suggesting that there are demands for highways and its related services.

Table 3: An overview of Malaysian tolled highways

	1996	2006
Number of highways opened	3	18
Length of highways (in km)	884.5	1,308.8
Total Revenue for all concession companies (in million RM)	918.02	3,518.16
Profit After Tax (PAT) for all concession companies (in million RM)	528.47	1,412.57

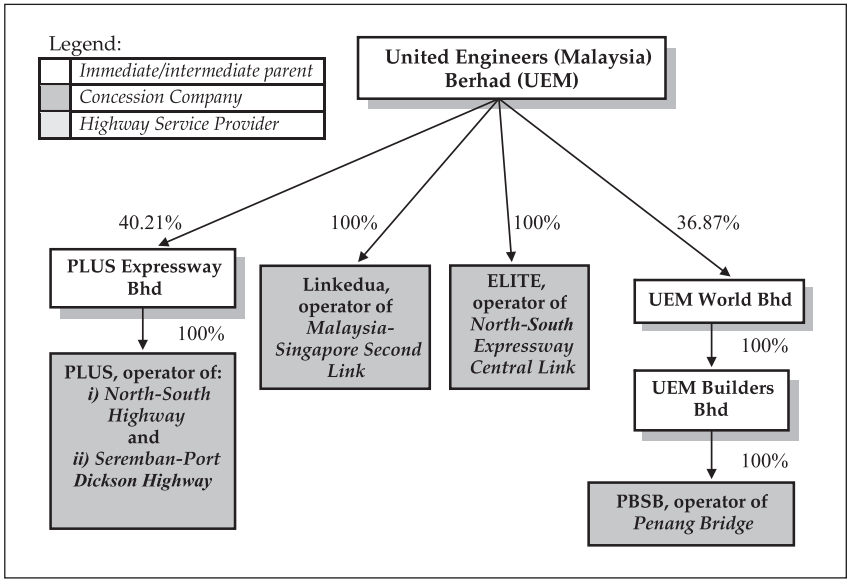
Following the suggestions by Cooper and Sherer (1984), the study traces the ownership of the concession companies, in an attempt to discover whether the concession companies belong to a large group of companies that control the operations of highways. This study finds that five (5) highways are operated by concession companies that belong to the UEM Group. Figure 1 shows the ownership structure of the concession companies in the UEM Group.

In section 2.4 of this study, there was a brief explanation on how the socio-economic context is incorporated in the privatisation policy of Malaysia and how GLCs emerge as a result of the implementation of the privatisation policy. In this respect, it is useful to note that the UEM Group is a GLC.[6] Although the UEM Group controls the operations of only five (5) out of eighteen (18) highways in 2006, its presence in the tolled highway

[6]Please refer to the web-site of Putrajaya Committee on GLC High Performance, http://www.pcg.gov.my/trans_manual.asp, for the latest list of GLCs.

sector is significant due to the total length of highways that it operates as well as its share in the revenue generated by the industry. This is shown in Tables 4(i) and 4(ii).

Figure 1: The group structure for the UEM Group[7] at 2006



Source: The annual reports and financial statements (year 2006) of the various private concession companies.

Table 4(i): Total length of highways operated by UEM Group (GLC) and other concession companies in 2006

Concesssion Companies	Length of Highways (in km)	%
UEM Group (GLC)	987	75.4
Others	321.8	24.6
Total	1,308.8	100.0

[7]The UEM Group is a wholly owned subsidiary of Khazanah Nasional Berhad, an investment arm of the Malaysian government; source: UEM Group Berhad web-site: http://www.uem.com.my/about/companyProfile.asp (accessed on 24/11/2010)

Table 4(ii): Revenues generated by UEM Group and other concession companies from 1996 to 2006

Item	Years										
Revenue (in Millions RM)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
UEM Group (GLC)	914	1,218	1,185	1,349	1,412	1,542	1,963	1,878	1,977	2,074	2,536
Others	4	16	102	164	314	408	492	695	771	854	982
Total	918	1,234	1,287	1,513	1,726	1,950	2,455	2,572	2,747	2,929	3,518
Revenue (in %)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
UEM Group	99.5%	98.7%	92.1%	89.2%	81.8%	79.1%	80.0%	73.0%	72.0%	70.8%	72.1%
Others	0.5%	1.3%	7.9%	10.8%	18.2%	20.9%	20.0%	27.0%	28.0%	29.2%	27.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Financial statements of private concession companies (1996-2006)
Note: Figures are subjected to rounding errors.

4.2 Cost of financing

The cost of financing the tolled highways and the return to the providers of finance, i.e. the shareholders and debt providers, are calculated and tabulated in Table 5.

Table 5 separates the analysis into two (2) components, the monetary value (rows 1-6) and the key ratios (rows 8-10). The total returns to the providers of finance is separated into interest payable and profit after tax (PAT), whilst the total capital employed is the aggregate of the amount of long term debt and shareholders' funds. Row #8 measures the Cost of Debt, i.e. the rate of return to the debt providers, obtained by dividing total interest payable with the amount of long term debt. On the other hand, Row #9, i.e. Cost of Capital measures the rate of return of the shareholders, whilst Row #10, i.e. Cost of Finance measures the overall return to both debt providers and shareholders.

The Cost of Debt shows that the debt providers of the concession companies received a rate of return at a range of between 5.4 per cent and 11.3 per cent. In contrast, the return to the shareholders appears to be unstable, with the lowest return received in 2002 at a negative 39.5 per

cent[8] and the highest immediately in the following year, 2003, at 22.2 per cent. This ratio is examined in the Cost of Capital, as shown in Row #9 of Table 5. The sharp decline in the rate of return to the shareholders affected the overall cost of financing in 2002 (shown in Row #10 of Table 5), which resulted in a negative 4.3 per cent. However, the cost of finance in other years was quite stable at a range of between 8.9 per cent and 10.5 per cent.

Table 5 also shows that the shareholders of the UEM Group enjoyed higher returns in comparison to the shareholders in other concession companies with exceptions in the years 2001 and 2002. However, the cost of financing the concession projects shows that the results were mixed. In the earlier years, 1996-1997, the UEM Group gave more returns to the providers of finance, compared to that of other companies. Yet, during the period 1998-2002, other companies seemed to incur higher cost of financing than the UEM Group. The results were subsequently reversed in the years from 2003 to 2006, implying that there was inconsistency with respect to the distribution of returns by the UEM Group and other concession companies to their respective providers of finance. Despite the mixed results, Table 5 shows that the returns to the finance providers exceeded the cost of public debt at 4 per cent, meaning that the cost of providing infrastructure using private source of financing was higher than public financing. This is consistent with the evidence found in studies conducted in other countries, for example the UK, Spain and Latin America as discussed in section 2 of this study.

4.3 Government financial support

Generally, in Malaysia, there are four (4) types of financial support provided to the concession companies, namely, (1) the long term loans which interests are fixed at 8 per cent (this is the largest form of financial support); (2) interest free loans; (3) compensation payments; and (4) subsidies. This is analysed and shown in Table 6.

The first type of financial support, i.e. the 8 per cent interest long-term loans, are offered to provide interest rates certainty to the concession companies against commercial interest rates in the private sector which fluctuate according to the general economic conditions and competitions in the banking sector (Dhesi, 2009; Yap, 2009). The second type of financial support, the interest free loans, on the other hand, are loans that do not

[8]Further analysis shows that the main reason for a decrease in profit is because the concession companies decided to write-off the post construction interests before the accounting standard MASB 27 (Borrowing Costs) became effective in 2002. However, this issue is not the main focus in this paper.

Table 5: Cost of financing tolled highways (1996 – 2006)

Row	Million RM	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	*Interest Payable (includes capitalized interest)*	*628*	*831*	*1,339*	*1,830*	*2,167*	*2,009*	*1,058*	*908*	*994*	*1,021*	*1,204*
	UEM Group (GLC)	628	720	1,057	1,390	1,606	1,109	724	527	523	606	656
	Others	0	111	281	440	561	900	335	381	471	415	548
2	*Profit After Tax (PAT)*	*528*	*498*	*492*	*670*	*703*	*88*	*-1,955*	*958*	*1,262*	*1,369*	*1,413*
	UEM Group (GLC)	528	496	449	593	568	-63	-2,063	802	878	1,294	1,496
	Others	0	2	42	77	135	151	108	156	384	75	-83
3	**Total returns to providers of finance**	**1,156**	**1,329**	**1,830**	**2,501**	**2,870**	**2,097**	**-897**	**1,865**	**2,256**	**2,390**	**2,617**
	UEM Group (GLC)	1,156	1,217	1,506	1,983	2,175	1,046	-1,339	1,329	1,401	1,900	2,152
	Others	0	113	324	517	696	1,051	443	536	856	490	465
4	*Long-term debt*	*7,849*	*10,054*	*11,878*	*23,620*	*25,382*	*25,009*	*16,009*	*16,739*	*18,514*	*17,450*	*19,244*
	UEM Group (GLC)	7,763	8,490	9,522	19,625	21,202	19,367	9,944	9,927	9,692	9,477	9,896
	Others	86	1,563	2,356	3,996	4,180	5,642	6,065	6,812	8,822	7,973	9,348
5	*Shareholders' funds*	*3,384*	*4,192*	*5,492*	*3,812*	*4,106*	*1,624*	*4,953*	*4,314*	*6,934*	*6,329*	*7,125*
	UEM Group (GLC)	3,350	4,097	4,859	2,775	2,943	226	3,320	3,557	3,966	4,750	5,360
	Others	34	94	633	1,036	1,163	1,398	1,633	757	2,968	1,579	1,766
6	**Total Capital Employed**	11,233	14,245	17,371	27,432	29,488	26,633	20,962	21,054	25,448	23,780	26,369
	UEM Group (GLC)	11,113	12,588	14,381	22,400	24,145	19,593	13,264	13,484	13,657	14,227	15,255
	Others	120	1,658	2,989	5,032	5,343	7,040	7,698	7,570	11,790	9,553	11,114
7	**Key Ratios**											
8	**Total Interest/ Long-Term Debt (Cost of Debt)**	8.0%	8.3%	11.3%	7.7%	8.5%	8.0%	6.6%	5.4%	5.4%	5.9%	6.3%
	UEM Group (GLC)	8.1%	8.5%	11.1%	7.1%	7.6%	5.7%	7.3%	5.3%	5.4%	6.4%	6.6%
	Others	0.0%	7.1%	11.9%	11.0%	13.4%	16.0%	5.5%	5.6%	5.3%	5.2%	5.9%
9	**PAT/Shareholders' funds (Cost of Capital)**	15.6%	11.9%	8.9%	17.6%	17.1%	5.4%	-39.5%	22.2%	18.2%	21.6%	19.8%
	UEM Group (GLC)	15.8%	12.1%	9.2%	21.4%	19.3%	-27.8%	-62.1%	22.6%	22.1%	27.2%	27.9%
	Others	0.6%	2.1%	6.7%	7.4%	11.6%	10.8%	6.6%	20.5%	12.9%	4.8%	-4.7%
10	**Total returns to providers of finance/ Total Capital Employed (i.e., Cost of Financing)**	10.3%	9.3%	10.5%	9.1%	9.7%	7.9%	-4.3%	8.9%	8.9%	10.0%	9.9%
	UEM Group (GLC)	10.4%	9.7%	10.5%	8.9%	9.0%	5.3%	-10.1%	9.9%	10.3%	13.4%	14.1%
	Others	0.2%	6.8%	10.8%	10.3%	13.0%	14.9%	5.7%	7.1%	7.3%	5.1%	4.2%

Source: Financial statements of private concession companies (1996-2006)
Note: Figures are subjected to rounding errors.

Table 6: State financial support to private concession companies (1996-2006)

Million RM	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	TOTAL
Long-Term Loan (8% interest)	2,226	2,548	2,899	3,251	3,572	4,381	1,434	1,967	1,818	1,914	2,050	
UEM Group (GLC)	2,226	2,548	2,752	2,982	3,284	3,805	814	1,173	1,238	1,307	1,308	
Others	0	0	147	269	288	576	619	794	580	607	742	
Long-Term Loan (interest free)	0	45	115	230	232	307	1,271	1,455	1,582	622	624	
UEM Group (GLC)	0	0	35	37	37	37	999	1,000	1,000	38	38	
Others	0	45	80	192	195	270	271	455	582	584	586	
Compensation Payment	0	51	122	9	53	61	381	280	315	142	130	1,544*
UEM Group (GLC)	0	51	122	7	10	4	308	139	149	0	10	
Others	0	0	0	3	44	58	73	141	166	142	120	
Subsidy	0	0	0	0	0	0	2	2	2	2	2	
UEM Group (GLC)	0	0	0	0	0	0	0	0	0	0	0	
Others	0	0	0	0	0	0	2	2	2	2	2	
Government Long Term Loan over Total Long Term Debt (%)	28%	26%	25%	15%	15%	19%	17%	21%	19%	15%	14%	
UEM Group (GLC)	28%	25%	23%	13%	13%	15%	12%	13%	12%	8%	7%	
Others	0%	0%	2%	2%	2%	3%	6%	7%	6%	7%	7%	

Sources: Financial statements of private concession companies (1996-2006)

Notes: (1) Figures are subjected to rounding errors.

(2) Only the total for compensation payment is computed because the compensation payment reflects cash inflow to the concession companies. The total shows the amount of compensation payment paid to the private concession companies from the years 1996 to 2006. On the other hand, the long-term loans (8% interest and interest-free) as well as subsidies are disclosed as balance sheet items and therefore represent outstanding amounts in the respective years. Therefore, the total is not computed for these types of financial support.

incur interest charges and are provided in relation to land acquisitions. Land acquisitions are required in order to make the concession area available for development into tolled highway. The provision of these interest free loans implies an indirect financial support because the cost of debt will be much higher if the loans are obtained from private sources and charged at commercial rates. Meanwhile, the third type of financial support, i.e. the compensation payments, are the payments made by the government to the concession companies to compensate them against any foreseeable losses due to the inability to increase toll rates. The compensation payments are recorded in the companies' revenue and shown separately in the notes to the financial statements. However, although the amount of compensation is separately identified and shown in the notes to the financial statement, no further information is provided on how the amount is derived. Table 6 shows that the amount of compensation paid to the concession companies during the ten-year period from 1996 to 2006, amounted to RM1,544 million. The last form of financial support is subsidies, which refer to financial assistance that is paid directly by the government to the concession companies. This type of financial support, however, is provided to only private concession companies in the UEM Group.

In addition to the types of financial support, Table 6 also identifies the financial support provided to the UEM Group and the other concession companies. For long term loans with 8 per cent interest rate, it can be seen from Table 6 that the UEM Group was by far the largest recipient of this type of financial support. However, in the years 1996 to 2001, other companies appeared to receive higher amount of financial assistance in the form of interest free loans from the government. The opposite happened in the subsequent years from 2002 to 2004, where the UEM Group obtained higher financial support from the government through interest free loans. In the next two (2) years, the government interest-free loans to the UEM Group were substantially reduced.

Further examination revealed that the reason behind the drastic fall in the value of long-term loans at 8 per cent interest rate in 2002 was because the debts of one concession company in the UEM Group (which included long-term interest-bearing loans from the government) were restructured. Apart from this, the reduction of interest-free loans in 2005 was caused by the effect of writing off the loans to offset the compensations arising from the closure of a toll plaza and to partly settle the costs of additional works. The findings imply that apart from the four (4) types of state financial supports expounded above, there are other forms of indirect support which may not be so obvious to the uninitiated, namely, the restructuring of loans and the writing off the loans granted by the government.

With regards to compensation payment, Table 6 shows that lesser amount of money was paid to the UEM Group in the years 2005 to 2006. This period is when the UEM Group enjoyed higher profits (shown in Profit After Tax column in Table 5), suggesting that the toll rates applicable to these two (2) years (2005 to 2006) were sufficient for the UEM Group to obtain profits, prompting it unnecessary for the company to seek the government approval for an increase in toll rates.

5. Discussions

The results of the study show that the issues surrounding the cost of financing and substantial financial support from the government experienced in other countries are also evident in the Malaysian tolled highway sector. The cost of financing which falls in the range of 7.9 per cent to 10.5 per cent (with the exception of a negative 4.3 per cent obtained in the year 2002) is nearly double the amount of the cost of public financing at 4 per cent. This is also experienced in the UK (Shaoul et al., 2006), Spain (Acerete et al., 2009), and Latin America (Guasch, 2004; Guasch et al., 2007).

Apart from the higher cost of financing in comparison to public financing, the concession companies are also financially assisted by the government. This is evident from the results shown in Table 6. The issue that arises here is that despite incurring higher cost of financing, the concession companies in the PPP arrangement still require financial support from the government, implying that the risks are not effectively transferred to the private sector as reflected in the concession payments. In discussing this issue further, it is useful to reiterate that in the PPP approach, several aspects of the risks should be shared between the public and the private sector. However, with the financial support, the evidence suggests that the private sector does not bear the risks, implying that the risks in the PPP approach is ultimately borne by the public and taxpayers. In constructing and operating the public infrastructure, the private companies will need to face a number of risks associated with the construction and operation of the infrastructure, and amongst them is the demand risks (Grimsey & Lewis, 2002). Payment of compensation to the concession companies implies that the private companies are not willing to bear the risk of low highway usage and this risk is instead reverted to the public sector. Accordingly, this gives the implication that although the initial intended PPP approach is both public and private sectors would share the risks involved in public infrastructure provision, the evidence suggest that

the risk is borne only by the public sector/government. The issue of compensation payment also exists in Spain, indicating that despite being hailed as an approach that provides public infrastructure in an economical manner, the PPP arrangement needs a lot of financial support from the government (which is obtained through the public purse) to make it work.

Although our findings are similar with those of other international studies, the socio-economic context of the Malaysian PPP arrangement in the tolled highway sector raises further queries pertaining to the presumption in the political economy theory which posits that conflict is prevalent in the society and that the state acts in the interests of the capital providers. The findings show that the UEM Group, which is a GLC, is a major player in the tolled highway industry. The Group dominates the market share, as shown by the large percentage of revenue earned from the industry in comparison to other concession companies (more than 70 per cent for all the years in the study from 1996 to 2006). Apart from having large market shares, the results indicate that the Group also receives various direct and indirect financial support from the government which includes loan restructuring and loans being written off.

In addition to the higher cost of financing which has been discussed earlier, the findings suggest that such practice gives rise to adverse financial consequences to the general public and the taxpayers since these loans need not be repaid. Furthermore, the findings indicate that the state is inclined to undertake actions that preferably support the private sector, particularly the GLCs.

Thus, though the state is inclined to provide financial support and assistance to the GLCs and the UEM Group, ultimately the funds are diverted from the public purse into the pockets of the private entities. This implies that the PPP arrangements are used as an avenue to the furtherance of private instead of public interests. Hence, it is vital for the policy makers to revisit and review the adoption of the PPP approach in the tolled highway sector in Malaysia in relation to the issues raised in this study.

6. Summary and conclusion

To conclude, this study demonstrates that the Malaysian PPP tolled highway sector faces similar issues experienced by a number of countries such as high cost of financing and huge financial support from the government to the private concessions. This highlights that the PPP arrangement is a costly method of financing, developing and maintaining

the public infrastructure, apart from requiring financial support from the government to operationalise its projects.

In view of the discussions above, this study attempts to analyse the underlying issues of PPP such as the higher cost of private financing in comparison to public financing and substantial financial support from the government, using the theoretical presumptions in political economy theory as a basis. Central to the issue of the PPP implementation in the tolled highway industry is the role of the state. The findings confirm the presumptions in the political economy theory in that the state undertakes actions that promote the interests of capital providers. Since the PPP arrangement opens up the room for business opportunities to create and fulfil private interests, it seems plausible to expect the construction of highways to flourish in Malaysia as well as globally. Nevertheless, it is hoped that studies on PPP issues will create an awareness in the public with regards to the potential financial consequences that have to be borne by them, as a result of the implementation of projects under the PPP arrangements.

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