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Are Government-Linked Corporations Crowding out Private Investment in Malaysia?

Jayant Menon

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Thiam Hee Ng

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Arndt-Corden Department of Economics
Crawford School of Public Policy
ANU College of Asia and the Pacific

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*Jayant Menon**
Office of Regional Economic Integration
Asian Development Bank
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Australian National University

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Office of Regional Economic Integration
Asian Development Bank

* *Corresponding author*

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Abstract

Private investment in Malaysia has been sluggish since the Asian financial crisis. One explanation is that the growing presence of government-linked corporations (GLCs) has been crowding out private investment. For the first time, we provide empirical evidence on the relationship between GLC presence and private investment. We find that when GLCs are dominant in an industry, investment by private firms is significantly negatively impacted. Conversely, when GLCs do not dominate an industry, the impact on private investment is not seen. Sensitivity tests associated with varying the level of the threshold used to determine dominance confirm the robustness of the results. To revive private investment in Malaysia, government must not only redress its growing fiscal deficit, but also expedite its program of divestment.

Keywords: Malaysia, private investment, government-linked corporations (GLCs), crowding-out

*JEL Codes***:** E22, F20, F21, J78, O53

Are Government-Linked Corporations Crowding out Private Investment in Malaysia?

Jayant Menon and Thiam Hee Ng[1]

1. INTRODUCTION

Private investment in Malaysia has never fully recovered from the impact of the Asian financial crisis (AFC). Both domestic and foreign investment has remained lackluster post-AFC. While foreigners continue to shun Malaysia, it seems even domestic investors are fleeing as well, with Malaysia becoming a net exporter of capital since 2005. High and persistent fiscal deficits suggest that public investment will not be able to fill in the gaps left by the slump in private investment. The Malaysian economy continues to grow but, without private investment, it is unlikely to break out of the middle-income trap.

The Malaysian government recognizes the need to revive private investment if it is to realize its vision of achieving developed country status by 2020. The Tenth Malaysia Plan (TMP) projects a sharp increase in private investment, requiring it to grow by more than 12% annually over the next 5 years, a significant increase from the 2% annual growth achieved in the Ninth Malaysia Plan. Private investment's contribution to gross domestic product is targeted to reach almost 20% by 2020, again a very sharp rise compared to recent history.

The government also appears to recognize that government-linked corporations (GLCs) could be crowding out private sector investment and standing in the way of realizing private investment targets. The Economic Transformation Program (ETP) has called for a reduced role of government in business, and a program of divestment is already in place. But the problem is an on-going one. It appears that GLCs are still investing in new sectors during the divestment

[1] Jayant Menon is Lead Economist in the Office of Regional Economic Integration, Asian Development Bank and Adjunct Fellow in the Arndt-Corden Department of Economic, Australian National University, e-mail: jmenon@adb.org; Thiam Hee Ng is Senior Economist in the Office of Regional Economic Integration, Asian Development Bank, E-mail: thiamng@adb.org. We are grateful to Prema-chandra Athukorala and to participants at the MIER Annual Outlook Conference in Kuala Lumpur from 4–5 December 2012 for useful comments and discussions. We also thank Anna Cassandra Melendez for excellent research assistance. The views expressed in this paper are those of the author and do not necessarily reflect the views and policies of the Asian Development Bank, or its Board of Governors or the governments they represent.

program. There has been a spate of acquisitions of late by GLCs in private sector finance and property developers (see Jacobs 2011), making it more of a diversification than a divestment program. The influence of GLCs, however measured, continues to be both widespread and pervasive. The GLC share is approximately one-third in the aggregate (irrespective of the measure of firm presence employed) and that they control more than half the industry share of operating revenue or income in utilities, transportation and warehousing, agriculture, banking, information communications, and retail trade (Menon 2012). Although it is often recognized that GLCs are crowding out investment in Malaysia, there has been no empirical evidence to support this assertion. This paper aims to fill this gap.

The remainder of the paper is in six parts. To set the stage, Section II measures the role and influence of GLCs in the Malaysian economy, and describes the government-sanctioned GLC Transformation Program. The theory and evidence on the relationship between GLCs and private investment is discussed in Section III. Section IV describes the database that we use, while Section V presents the model and methodology. The results are discussed in Section VI, while a final section concludes.

2. OVERVIEW OF GLC PRESENCE AND THE GLC TRANSFORMATION PROGRAM

GLCs exist in many industries in Malaysia and play a key role in the economy. As defined by the government, GLCs are companies that have a primary commercial objective, but where the Malaysian government has a controlling stake in major decisions, such as appointment of management positions, contract awards, strategy, restructuring and financing, acquisition and divestments (Khazanah 2013a, Lau and Tong 2008). They include companies that are directly controlled by the government and state-level agencies such as Khazanah Nasional, the Ministry of Finance Inc., and Bank Negara Malaysia. They also include subsidiaries and affiliates of GLCs. In practical terms, we use the Putrajaya Committee list to identify the bulk of our GLCs. Government funding for GLCs are allocated through government-linked investment companies (GLICs).[2]

[2] There are currently seven GLICs in Malaysia: The Employee Provident Fund (EPF), Khazanah Nasional Berhad, Kumpulan Wang Amanah Pencen (KWAP), Lembaga Tabung Angkatan Tentera (LTAT), Lembaga Tabung Haji (LTH), Menteri Kewangan Diperbadankan (MKD), and Permodalan Nasional Berhad (PNB).

The government estimates that GLCs employ around 5% of the national workforce and account for approximately 36% and 54%, respectively, of the market capitalization of Bursa Malaysia and the benchmark Kuala Lumpur Composite Index (Khazanah 2013a). Tables 1 and 2 contain data that illustrate the influence of GLCs. Table 1 lists the 20 biggest GLCs included in the government's transformation program together with other GLCs where government is the ultimate owner or controlling shareholder, either directly or through its funds. Data relating to market capitalization, total assets, operating revenue, net income, the global ultimate owner (GUO) as well as the GUO direct ownership share is reported. Table 2 aggregates the GLCs into industries, and reports data similar to that provided in Table 1 as shares held by GLCs.[3]

Tables 1 and 2 clearly demonstrate the pervasive influence of GLCs in the economy. Many of the GLCs in Table 1 are household names in Malaysia. Some are quite well known internationally, attesting to both their sheer size and influence. Although GLCs tend to be associated mostly with resource-based, agriculture and services sectors, there is hardly a sector from which they are absent. Table 2 confirms the dominant role of GLCs in all sectors except for some food-related, mineral, and services industries. Using either the industry share of operating revenue or income as a proxy for market share, Menon (2012) finds that GLCs are most dominant in utilities (93%) and transportation and warehousing (80%). GLCs' share is greater than 50% in agriculture, banking, information communications, and retail trade. The heavy presence of GLCs in these sectors seem odd, as most of these industries are neither natural monopolies nor strategic. In the aggregate, the GLC share in total revenue is approximately one-third, irrespective of the measure of firm presence employed.

GLCs are generally perceived to be less efficient and profitable that private firms, although studies like Lau and Tong (2008) present evidence to the contrary. In a bid to improve the performance and competitiveness of GLCs, the government launched the ten-year

[3] These data were derived from the Oriana and Bankscope databases, which provide the most comprehensive financial information on public and private financial companies in Asia. Both databases combine data from many sources and allow users to search companies based on criteria such as their location, status, and industry classification. Oriana and Bankscope also contain detailed ownership and shareholder information, including information on a company's ultimate owner and controlling shareholder. All types of ownership are covered, including ownership by government entities or funds. The data have been assembled after careful review of numerous records and entries, and aggregated into broad industry groups.

Transformation Programme in May 2004. The Putrajaya Committee on GLC High Performance (PCG) was formed in January 2005 to drive the program.[4]

The program has four phases. The first phase (2004–2005) involved the revamp of Khazanah and corporate boards, and the adoption of leadership changes and key performance indicators for GLCs. The second phase (2006) set policy guidelines and launched the GLC Transformation Manual. The reforms in the first two phases were expected to begin producing results by the third phase of the program (2007–2010). Now in its final phase, the program is expected to produce regional champions and place GLCs at par with its competitors by 2015.

Since the program was launched, progress has been reported mainly in terms of the performance of the 20 largest GLCs, otherwise known as the G-20 (now technically down to 17 GLCs in the wake of mergers, demergers, and other corporate restructuring).[5] Government assessments of the program have been rosy, but perhaps this is not surprising. Kazhanah estimates that aggregate earnings of the G-20 reached a new record high of RM23.9 billion in 2012, from only RM9 billion in 2004. The total shareholder returns of the G-20 is also estimated to have risen by a compound annual growth rate of 14.2% since May 2004, outperforming the Kuala Lumpur Composite Index (KLCI) by 0.6% per annum (Kazhanah 2013b). In addition, GLCs are reported to have contributed RM40 billion in tax revenues, created 359,187 jobs, spent RM315 million for human capital development, and trained 12,757 graduates (Borneo Post 2012).

As part of the GLC Transformation Program and the broader Government Transformation Program adopted in 2010, the government has underscored its intention to gradually divest their non-core holdings and non-competitive assets in GLCs. In July 2011, the government announced that it would speed up the reduction or disposal of its equity in 33 GLCs either through listing, paredown, or outright sale. Although government fell short of explicitly naming these 33 GLCs, it would seem that the biggest GLCs—the so-called "crown jewels"—-

[4] The PCG is chaired by the Prime Minister, and consists of officials from the Ministry of Finance and the heads of the various GLICs. Secretariat support is provided by Khazanah.

[5] The 17 firms that formed the G20 are Affin Holdings Bhd, Axiata Group Bhd, BIMB Holdings Bhd, Boustead Holdings Bhd, CIMB Group Holdings Bhd, Chemical Company of Malaysia Bhd, Malayan Banking Bhd, Malaysian Building Society Bhd, Malaysian Resources Corp Bhd, Malaysia Airlines, Malaysia Airports Holdings Bhd, Sime Darby Bhd, Telekom Malaysia Bhd, Tenaga Nasional Bhd, TH Plantations Bhd, UEM Group Bhd and UMW Holdings Bhd.

would not be affected by the divestment plan (Kok 2012, Government of the United States of America 2012).

Of the 33 GLCs that are up for divestment, 24 were supposed to have been divested in during 2011-2012. But as of February 2013, only 15 divestments have been completed (Table 3). This lackluster performance may reflect a reluctance to pursue divestment anytime soon. Deputy Prime Minister Tan Sri Muhyiddin Yassin practically admitted this at the GLC Open Day on 24 June 2011, stating that the time was not yet right: "…when the government thinks that there is a need to hand over the GLCs to other parties, in various forms or mechanism, then it might happen." He went on to add, "at this level, we still acknowledge that GLCs still have their roles to play, in terms of the relationship between the government and the economy because they explore a lot of important industries in the country, they play important roles other than generating revenues that can be used for the country's development" (quoted in Chi 2011). This startling admission is not only revealing, but runs counter to the position articulated in the GLC Transformation Program, and various official pronouncements.

Nevertheless, there has been some progress worth noting. Two of the five biggest global Initial Public Offerings (IPOs) of 2012 involved Malaysian GLCs: Asia's largest hospital operator, IHH Healthcare Bhd (IHH), and palm oil producer Felda Global Ventures Holdings Bhd (Felda). These two IPOs alone raised some $6.0 billion from the market, and reduced government's stake in IHH from 62% to less than half, and in Felda to 40% (Grant 2012).[6]

More than its divestment record, however, the success of the GLC Transformation Program is increasingly being judged in terms of performance of the GLCs. The preferential treatment accorded GLCs, and the impact that they may have in crowding out private investment, suggests that their superior performance is potentially artificially generated, and comes at a high cost. Nevertheless, if it continues to be based on performance, whether real or artificial, the divestment function of the GLC Transformation Program is likely to be sidelined.

A further disincentive for private firms is likely to arise from GLCs' continued links to government affirmative action policies. The New Economic Policy (NEP) targets of this program was based on stock rather than flow measures, namely a redistribution of wealth rather than income, with a view to reaching a Bumiputera wealth ownership share of 30%. Many GLCs

[6] It should be noted however that even after the divestment, the government still retains management control. Also, GLICs seem to have taken a large portion of the shares from the divestment, suggesting that the exercise was more of a cash raising one than privatization per se (Saad 2012).

were created in order to pursue this objective. Section II of the GLC Transformation Manual (pp. 20–21) explicitly states that:

> …the GLC Transformation Program will continue to be a significant policy instrument to execute Government's policies with regard to the development of the Bumiputera community, with the ultimate aim of preparing the Bumiputera community and the nation towards greater competitiveness.

PCG believes that the objectives of making GLCs better performing companies and the development of genuine Bumiputera suppliers and vendors as well as the development of Bumiputera human capital within GLCs are not mutually exclusive but, rather, mutually reinforcing objectives. The aim is to strive towards a mutually reinforcing relationship where stronger GLCs are able to be better developers of Bumiputera small and medium-sized enterprises and human capital that in turn contribute to the strengthening of the GLCs themselves. All of this may sound good in theory but, how does it work out in practice? The data shows that income inequality within the Bumiputera community has worsened considerably, and that of all groups, unemployment is highest amongst Bumiputera graduates (see Lee and Nagaraj 2012, Menon 2012, Zin 2012). It does raise the question as to whether the right instrument is being used to pursue a policy objective. That is, are the GLCs the right instrument for pursuing affirmative action policies? The answer is almost certainly "no," given that GLC performance is artificially generated, subject to manipulation and capture, and therefore unlikely to be sustainable in the long run (Gomez 2012). The multiple objectives assigned to GLCs may also account for the slow pace of divestment thus far.

3. HOW COULD GLCS CROWD OUT PRIVATE INVESTMENT? THEORY AND EVIDENCE

GLCs in Malaysia are seen to have preferential access to government contracts and benefit from favorable government regulations. An oft-cited concern relates to the preferential treatment that they receive with respect to government procurement. Hence, GLCs find it easier and more profitable to increase investment in sectors where they already have a significant presence- a level of involvement made possible by their special and preferred status, to begin with. In contrast, private firms may be reluctant to invest in sectors where GLCs are dominant because they perceive the playing field to be skewed against them. This suggests a negative relationship between the share of GLCs in a sector and the rate of investment by private firms. The relationship may also be nonlinear in the sense that there could be a threshold effect. That is, it is only when the share of GLCs in a sector surpasses a certain limit that it could have a deterrent effect on investment by other firms. Therefore, we would expect that the non-GLCs would tend to invest less in industries where GLC firms are dominant.

There have only been a few empirical studies on how the presence of government-owned corporations affects investment by other firms. For Malaysia, Razak *et al.* (2011) set out to examine a related issue by looking at the relative performance of 210 listed firms between 1995 and 2005 to see if ownership matters. They report mixed results, with the relative performance of GLCs and non-GLCs as a group critically dependent on the inclusion of a few, large GLCs. The small sample size and sensitivity of the results to inclusion of a handful of firms prevent any definitive conclusions to be drawn, unfortunately. Dewenter and Malatesta (2001), on the other hand, examine the differences in efficiency between the characteristics of a sample of very large global private and state-owned firms. They find that government firms are much less profitable than private firms. In addition, government-owned firms also tend to have greater leverage and a higher level of labor intensity.

Other studies have focused on the effect of investment through the availability of credit where government-owned firms are seen to have preferential and easy access to credit. Harrison and McMillan (2001) examine the response of private and state-owned firms to greater foreign direct investment in Ivory Coast. There are concerns that borrowing by foreign firms could crowd out domestic firms' access to the limited bank funding available. They find that state-

owned firms are less credit constrained than domestic firms and that only private firms are crowded out by higher borrowings by foreign firms.

Ramirez and Tan (2004) set out to examine the behavior of GLCs in Singapore, focusing on the differences in the characteristics between GLCs and non-GLCs. They find that GLCs in Singapore do not enjoy preferential access to finance. This is not that surprising given the financial market in Singapore is well developed and their sample consists of listed firms only. There should be plenty of information available on listed firms and the listing process in Singapore is quite stringent, suggesting that private firms are not expected to have problems in getting finance. Despite the relatively small size of their sample, they find that the stock market values GLCs at a premium, suggesting that there is some evidence that the market perceive some intangible benefits by purely being a GLC.

4. DATA

The purpose of our empirical analysis is to probe the impact of GLS presence on domestic private investment. Financial GLCs (banks) are excluded from the sample because the impact of their performance on domestic private investment will be quite different. The Putrajaya Committee list contains 28 non-financial GLCs operating in 16 industries. For the comparative analysis, we collected information on all listed private firms belonging to the same 16 industries . Both GLC and private firms' corporate data are obtained from the Oriana database. Our empirical analysis covers the period from 2007 to 2011. Hence, the panel dataset we are using for analysis consists of annual corporate data from 2007 to 2011 for a total of 443 firms.

Tables 4 and 5 present summary statistics of the non-GLCs and GLCs in our sample. The data shows that GLCs tend to be much larger than non-GLCs. In terms of fixed assets *(toas_m*), GLCs are on average about nine times larger than non-GLCs. The median GLC is almost seven times larger than the median non-GLC.

GLCs also tend to invest a higher proportion of their earnings than non-GLCs, where investment is measured as a share of fixed assets (*invest_fa*). GLCs are also more profitable as measured by return on assets (*rtas*) and return on equity (*rshf*). While there are substantial differences among these various indicators, the standard deviations of the indicators are also quite large. Hence, the differences between the two means for these measures are not statistically significant.

Non-GLCs have slightly higher sales as a share of fixed assets (*sales_fa*). The median of the values is also smaller than the mean implying that there are some large values in our sample. This applies to both GLCs and non-GLCs.

We also consider the value of the firm relative to its replacement cost (*qratio*), which is our proxy for Tobin's Q. We estimate *qratio* using the average market capitalization of the firm during the year divided by the book value of total assets. The Q-ratios for GLCs are found to be much higher than non-GLCs. This is true for both means and medians. This suggests that the stock market places a premium on the valuation of GLCs.

Our initial look at the data shows that investment in both GLCs and non-GLCs have moved closely together but median investment as share of fixed assets by non-GLCs have consistently been lower than that of GLCs (Figure 1). Meanwhile, the median size of GLCs as measured by total assets has been rising at a much faster rate than that of non-GLCs (Figure 2).

5. MODEL AND METHOD

In order to model the investment behavior of the GLCs and private firms, we estimate a modified version of the standard neoclassical investment model. Theory suggests that investment should depend on the expected profitability from investing an additional dollar of capital (Hubbard 1998). This expectation can be captured by the marginal value of Tobin's Q. As marginal values are not available, we use the average value of the Tobin's Q instead. Expectations of higher profitability should lead to a higher investment rate, hence we can expect the coefficient for Q-ratio to be positive. Previous empirical results also suggest that investment spending is correlated with lagged output values via the accelerator effect. As a proxy, we use previous year sales levels to proxy for the lagged output effect. Strong growth in the previous year suggests that firms are likely to invest more in the current year. Hence the coefficient for lagged sales is expected to be positive as well.

Profitability and the accelerator effect should be able to account for most of investment behavior at the firm level. However, if firms' investment behaviors are affected by the presence of GLCs, the share of GLCs in the sector could also affect investment. To capture this effect, we augment our investment equation with the share of revenue by GLCs in the particular sector. Non-GLCs operating in industry with large GLC presence are expected to have lower rates of investment.

Hence, the equation for our estimated investment equation can be written as:

$$\frac{I_{it}}{K_{it-1}} = \alpha + \beta_1 q_{it-1} + \beta_2 \left(\frac{Sales_{it-1}}{K_{it-1}} \right) + \beta_3 \left(GLC_{jt} \right) + \varepsilon_{it} \quad (1)$$

where, $\frac{I_{it}}{K_{it-1}}$ is the investment as a share of fixed assets of firm, i and time t, q_{it-1} is the Tobin's Q ratio, $\frac{Sales_{it-1}}{K_{it-1}}$ = operating revenue of the firm normalized as a share of fixed assets, and GLC_{jt} is the share of GLC firms' revenues in each industry j which proxies for the dominance of GLC firms in the industry.

In our estimation of equation (1), we have the choice of using a random effects or a fixed effects model to control for unobserved variables in the model. It is possible that there are factors that could affect investment that are not taken into account in the regression—examples include "animal spirits" or business sentiment, or firm-specific factors such as managerial talent. For a random effects model to be valid, the unobserved variables should be distributed independently of the observed variables. This is unlikely to be the case. We can imagine that firms with higher revenues could attract more aggressive risk-taking managers, for instance.

Therefore, we favor the use of a fixed effects model. In a fixed effects model, the individual firm effect is a random variable that is allowed to be correlated with the explanatory variables. We are also assuming that the unobserved variable is unchanged over time. This assumption looks plausible in our model as the time period under consideration is quite short at 4 years. The use of a fixed effects model also allows us to control for firm-level heterogeneity that is likely to be present in our large sample of firms.

6. RESULTS

The results from our fixed effects regression are presented in Table 6. We find that operating revenue and the share of GLC sales in an industry are both significant, with the expected signs. That is, the coefficient for sales is positive as higher sales in the previous period lead to higher investment in the current period. On the other hand, the coefficient for GLC share of revenues in an industry is negative, suggesting that strong GLC presence in an industry reduces the amount of investment undertaken by other firms in the same industry. We find that the Tobin's Q is not significant. It is generally the case that the effects of this variable are difficult to capture in

empirical estimations, due particularly to difficulties with measurement. Given our data, we are only able to provide a relatively poor proxy for the Q ratio, which may account for the insignificant result for this variable.

Our next step is to test whether there is some threshold effect when it comes to the share of GLC presence or influence in an industry. It is possible that firms tend to invest less when the share of GLC revenue in a particular industry is large. The fact that the revenue share attributable to GLCs is high may itself reflect privileges not available to other firms, and send a negative signal to potential private investors. To test for this, we split our sample into two. In one group, we include firms in industries where the share of GLC revenue is below 60%, and in the other group we include only industries where the share of GLC revenue exceeds 60%. We expect that in industries where GLC dominance is not that strong, it may not have a strong discouraging impact on investment.

Our results show that in industries where GLC firms are dominant, the coefficient is significant and negative. However in industries where GLC firms are not dominant, the coefficient is not significant. This suggests that there is a threshold effect in place, whereby private investment is discouraged only when the presence or influence of GLCs in a particular industry exceed a critical level—in this case 60%. To test the robustness of this result to changes in the threshold, we vary it by 10 percentage points in both directions. We find tha this change did not affect our original finding of a negative and significant relationship between GLC share and private investment.

7. CONCLUSION

Investment in Malaysia, both domestic and foreign, has remained lackluster since the AFC. One explanation put forward in accounting for the sluggish performance of domestic private investment relates to the crowding out effect as a result of the growing dominance of GLCs in many sectors. The continued pervasiveness of GLCs and their ability to exercise not only significant market power but to use their special access to government and regulatory agencies to their favor, suggests that they may present a formidable barrier to both competition and the entry of new private firms.

In this paper, and for the first time, we provide empirical evidence on the relationship between GLC presence and domestic private investment. After accounting for the other

determinants of investment, we find that GLC presence in general has a discernible negative impact on non-GLC investment in Malaysia. We also test whether there is a threshold effect when it comes to the share of GLC presence in an industry. It is possible that firms tend to invest less when the share of GLC revenue in a particular industry is large. We find that when GLCs account for a dominant share of revenues in an industry, investment by private firms in that industry is significantly negatively impacted. Conversely, when GLCs do not dominate an industry, the impact on private investment is not significant. Sensitivity tests associated with varying the level of the threshold confirm the robustness of the results.

To revive private investment in Malaysia, government must not only redress its growing fiscal deficit, but also expedite its program of divestment. While a growing fiscal deficit and rising dominance of GLCs may both be crowding out private investment, a genuine privatization program designed to reduce the role of GLCs would also address the fiscal constraint, providing a further boost to the investment climate.

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Table 1. Overview of Malaysian GLCs
(in US$ million)

Company name	Industry	Market capitalization	Total assets	Operating Revenue/ Income	P/L before tax	Net Income	GUO	Direct/Total[1] %
MALAYAN BANKING BHD - MAYBANK	Banking	21,881	136,388	4,443	2,076	1,529	Government of Malaysia	63.19 (T)
SIME DARBY BHD	Agriculture, Forestry, Fishing and Hunting	19,314	14,192	14,497	1,824	1,213	Government of Malaysia	59.31 (T)
CIMB GROUP HOLDINGS BHD	Banking	18,349	94,493	3,705	1,638	1,282	Cimb Group Holdings Bhd	100.00 (T)
PETRONAS CHEMICALS GROUP BHD	Transportation and Warehousing	16,739	8,951	3,770	1,227	825	Petronas Chemicals Group Bhd	100.00
AXIATA GROUP BHD	Information	15,056	12,764	5,198	1,126	738	Government of Malaysia	61.53 (T)
TENAGA NASIONAL BHD	Utilities	11,649	25,035	10,979	183	168	Government of Malaysia	73.19 (T)
PETRONAS GAS BHD	Utilities	11,266	3,383	914	451	340	Cartaban Nominees[2]	60.63 (D)
PETRONAS DAGANGAN BHD	Retail Trade	6,803	2,804	7,730	400	287	Cartaban Nominees[2]	69.86 (D)
TELEKOM MALAYSIA BHD	Information	6,359	6,727	3,000	315	375[3]	Government of Malaysia	61.89 (T)
MISC BHD	Transportation and Warehousing	5,665	12,663	4,686	742	618	Cartaban Nominees[2]	62.67 (D)
RHB CAPITAL BHD	Banking	5,370	47,968	1,352	630	473	RHB Capital Bhd	100.00 (T)
UMW HOLDINGS BHD	Transportation Equipment Manufacturing	3,333	3,250	4,208	426	171	Government of Malaysia	69.77 (T)

UEM LAND HOLDINGS BHD	Real Estate and Rental and Leasing	2,768	1,288	166	67	63	Government of Malaysia	n.a.
MALAYSIA AIRPORTS HOLDINGS BHD	Transportation and Warehousing	2,302	2,338	900	181	126	Government of Malaysia	67.49 (T)
BOUSTEAD HOLDINGS BHD	Agriculture, Forestry, Fishing and Hunting	1,733	4,005	2,723	262	192	Government of Malaysia	63.20 (T)
AFFIN HOLDINGS BHD	Banking	1,645	16,914	429	223	160	Affin Holdings Bhd	77.31 (T)
MALAYSIAN AIRLINE SYSTEM BHD	Transportation and Warehousing	1,260	4,031	4,406	91	76	Government of Malaysia	54.87 (T)
BIMB HOLDINGS BHD	Banking	1,037	12,040	434	179	128	Government of Malaysia	72.6 (T)
PROTON HOLDINGS BHD	Transportation Equipment Manufacturing	961	2,529	3,000	71	51	Proton Holdings Bhd	100.00 (T)
MALAYSIAN RESOURCES CORPORATION BHD	Construction	759	1,703	391	34	24	Malaysian Resources Corporation Bhd	100.00 (T)
NCB HOLDINGS BHD	Transportation and Warehousing	662	610	303	60	50	Government of Malaysia	59.18 (T)
JT INTERNATIONAL BHD	Beverage and Tobacco Product Manufacturing	572	170	379	52	39	Ministry of Finance	50.01 (D)
TIME DOTCOM BHD	Information	564	466	105	29	35	Time Dotcom Bhd	100.00 (T)
POS MALAYSIA BHD	Administrative and Support, Waste Management and Remediation Services	458	446	331	32	22	Pos Malaysia Bhd	100.00 (T)

TH PLANTATIONS BHD	Food Manufacturing	369	392	138	58	39	Government of Malaysia	67.62 (T)
PHARMANIAGA BHD	Chemical Manufacturing	251	357	479	23	16	Government of Malaysia	n.a.
BOUSTEAD HEAVY INDUSTRIES CORPORATION BHD	Management of Companies and Enterprises	230	365	172	1	4	Government of Malaysia	n.a.
CHEMICAL COMPANY OF MALAYSIA BHD	Chemical Manufacturing	195	652	532	19	5	Permodalan Nasional Bhd	69.28 (D)
UNITED MALAYAN LAND BHD	Real Estate and Rental and Leasing	194	382	109	24	17	Government of Malaysia	n.a.
FABER GROUP BHD	Accommodation and Food Services	169	321	288	42	15	Faber Group Bhd	100.00 (T)
CCM DUOPHARMA BIOTECH BHD	Chemical Manufacturing	102	64	43	11	9	Permodalan Nasional Bhd	n.a.
UAC BHD	Nonmetallic Mineral Product Manufacturing	100	112	60	5	3	Government of Malaysia	N.A.
TIME ENGINEERING BHD	Information	81	58	50	30	28	Time Engineering Bhd	100.00 (T)
THETA EDGE BHD	Professional, Scientific and Technical Services	15	27	28	0	-1	Lembaga Tabung Haji	63.76 (D)

Table 2. Industry Share of GLCs[1] (in US$ million)

Industry	Company name	Market capitalization	Total assets	Operating Revenue/ Income	P/L before tax	Net Income
Accommodation and Food Services	Total	23,295	29,432	11,204	2,258	1,157
	FABER GROUP BHD	169	321	288	42	15
	Share of GLC/s	***0.7%***	***1.1%***	***2.6%***	***1.9%***	***1.3%***
Administrative and Support, Waste Management and Remediation Services	Total	1,243	2,758	1,371	104	61
	POS MALAYSIA BHD	458	446	331	32	22
	Share of GLC/s	***36.8%***	***16.2%***	***24.2%***	***30.9%***	***35.8%***
Agriculture, Forestry, Fishing and Hunting	Total	54,676	42,413	33,739	5,127	3,690
	BOUSTEAD HOLDINGS BHD	1,733	4,005	2,723	262	192
	SIME DARBY BHD	19,314	14,192	14,497	1,824	1,213
	Share of GLC/s	***38.5%***	***42.9%***	***51.0%***	***40.7%***	***38.1%***
Banking	Total	80,973	548,314	16,753	8,090	6,127
	AFFIN HOLDINGS BHD	1,645	16,914	429	223	160
	BIMB HOLDINGS BHD	1,037	12,040	434	179	128
	CIMB GROUP HOLDINGS BHD	18,349	94,493	3,705	1,638	1,282
	MALAYAN BANKING BHD – MAYBANK	21,881	136,388	4,443	2,076	1,529
	RHB CAPITAL BHD	5,370	47,968	1,352	630	473
	Share of GLC/s	***59.6%***	***56.1%***	***61.9%***	***58.7%***	***58.3%***
Beverage and Tobacco Product Manufacturing	Total	10,192	3,312	3,870	654	491
	JT INTERNATIONAL BHD	572	170	379	52	39
	Share of GLC/s	***5.6%***	***5.1%***	***9.8%***	***7.9%***	***7.9%***
Chemical Manufacturing	Total	4,686	5,939	4,815	422	355
	CCM DUOPHARMA BIOTECH BHD	102	64	43	11	9
	CHEMICAL COMPANY OF MALAYSIA BHD	195	652	532	19	5
	PHARMANIAGA BHD	251	357	479	23	16
	Share of GLC/s	***11.7%***	***18.1%***	***21.9%***	***12.7%***	***8.6%***
Construction	Total		48,044	17,739	2,664	1,640

		29,453				
	MALAYSIAN RESOURCES CORPORATION BHD	759	1,703	391	34	24
	Share of GLC/s	***2.6%***	***3.5%***	***2.2%***	***1.3%***	***1.5%***
Food Manufacturing	Total	19,061	17,375	12,305	1,676	1,161
	TH PLANTATIONS BHD	369	392	138	58	39
	Share of GLC/s	***1.9%***	***2.3%***	***1.1%***	***3.4%***	***3.4%***
Information (Communications)	Total	50,516	29,845	14,963	3,121	2,404
	AXIATA GROUP BHD	15,056	12,764	5,198	1,126	738
	TELEKOM MALAYSIA BHD	6,359	6,727	3,000	315	375[2]
	TIME DOTCOM BHD	564	466	105	29	35
	TIME ENGINEERING BHD	81	58	50	30	28
	Share of GLC/s	***43.7%***	***67.1%***	***55.8%***	***48.1%***	***48.9%***
Management of Companies and Enterprises	Total	2,529	9,149	3,457	365	167
	BOUSTEAD HEAVY INDUSTRIES CORPORATION BHD	230	365	172	1	4
	Share of GLC/s	***9.1%***	***4.0%***	***5.0%***	***0.1%***	***2.4%***
Nonmetallic Mineral Product Manufacturing	Total	3,475	4,610	2,418	203	137
	UAC BHD	100	112	60	5	3
	Share of GLC/s	***2.9%***	***2.4%***	***2.5%***	***2.2%***	***2.3%***
Professional, Scientific and Technical Services	Total	4,878	4,787	4,083	239	198
	THETA EDGE BHD	15	27	28	0	-1
	Share of GLC/s	***0.3%***	***0.6%***	***0.7%***	***0.1%***	***-0.7%***
Real Estate and Rental and Leasing	Total	18,060	34,611	8,912	2,159	1,745
	UEM LAND HOLDINGS BHD	2,768	1,288	166	67	63
	UNITED MALAYAN LAND BHD	194	382	109	24	17
	Share of GLC/s	***16.4%***	***4.8%***	***3.1%***	***4.2%***	***4.6%***
Retail Trade	Total	9,304	5,615	11,353	668	478
	PETRONAS DAGANGAN BHD	6,803	2,804	7,730	400	287
	Share of GLC/s	***73.1%***	***49.9%***	***68.1%***	***59.8%***	***60.2%***
Transportation and Warehousing	Total	36,836	39,270	17,513	2,873	2,203

	MALAYSIA AIRPORTS HOLDINGS BHD	2,302	2,338	900	181	126
	MALAYSIAN AIRLINE SYSTEM BHD	1,260	4,031	4,406	91	76
	MISC BHD	5,665	12,663	4,686	742	618
	NCB HOLDINGS BHD	662	610	303	60	50
	PETRONAS CHEMICALS GROUP BHD	16,739	8,951	3,770	1,227	825
	Share of GLC/s	**72.3%**	**72.8%**	**80.3%**	**80.1%**	**77.0%**
Transportation Equipment Manufacturing	Total	9,415	20,651	13,752	1,192	729
	PROTON HOLDINGS BHD	961	2,529	3,000	71	51
	UMW HOLDINGS BHD	3,333	3,250	4,208	426	171
	Share of GLC/s	**45.6%**	**28.0%**	**52.4%**	**41.7%**	**30.5%**
Utilities	Total	23,342	32,143	12,830	780	582
	PETRONAS GAS BHD	11,266	3,383	914	451	340
	TENAGA NASIONAL BHD	11,649	25,035	10,979	183	168
	Share of GLC/s	**98.2%**	**88.4%**	**92.7%**	**81.4%**	**87.2%**
Total Companies in Bursa (948)		424,615	956,820	248,220	36,145	25,741
GLCs (34)		158,212	417,886	79,947	12,529	9,122
Non-GLCs (914)		266,403	538,934	168,273	23,617	16,619
Share of GLCs		***37.3%***	***43.7%***	***32.2%***	***34.7%***	***35.4%***

Note:

1. GLC = government-linked corporation, P/L = profit/loss.
2. Net income is higher than P/L before tax due to a "negative tax"

Sources: Oriana database, database updated 31/05/2012, and Bankscope database, database updated 13/06/2012

Table 3: Divestments as of February 2013

	Total	Target for 2011–2012	Completed To-Date	Balance from 2011-2012	Target 2013
Pare Down	5	5	1	4	0
List	7	5	6	0	1
Outright Sale	21	14	8	6	7
TOTAL	33	24	15	10	8

Source: Peng (2013).

Table 4: Summary Statistics for Non-GLC Firms

Variable	Mean	Median	Std. Dev	Min	Max
Investment/Fixed Assets	0.22	0.10	0.98	–0.89	30.42
Sales/Fixed Assets	2.20	1.01	6.26	0.00	188.45
Q-Ratio	1.17	0.76	2.02	–6.88	30.63
Total Assets (RM million)	397.00	100.00	1262.00	38.00	17,106.00
Return on Assets (%)	3.61	4.10	11.15	–81.84	72.69
Return on Equity (%)	3.28	7.60	44.17	–860.95	265.79

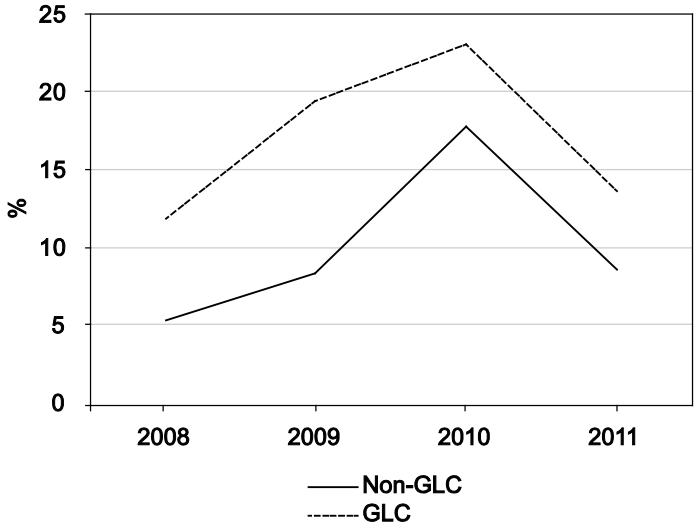
Source: Authors' computations using Oriana database.

Table 5: Summary Statistics for GLC firms

Variable	Mean	Median	Std. Dev	Min	Max
Investment/Fixed Assets	0.29	0.18	0.92	–0.93	8.76
Sales/Fixed Assets	1.96	1.12	2.25	0.17	10.39
Q-Ratio	1.81	1.71	0.99	0.34	6.91
Total Assets (RM million)	3,400.00	5,414.00	27.00	876.00	25,035.00
Return on Assets (%)	9.04	7.19	9.60	–20.10	51.65
Return on Equity (%)	14.15	14.36	30.13	–241.04	71.45

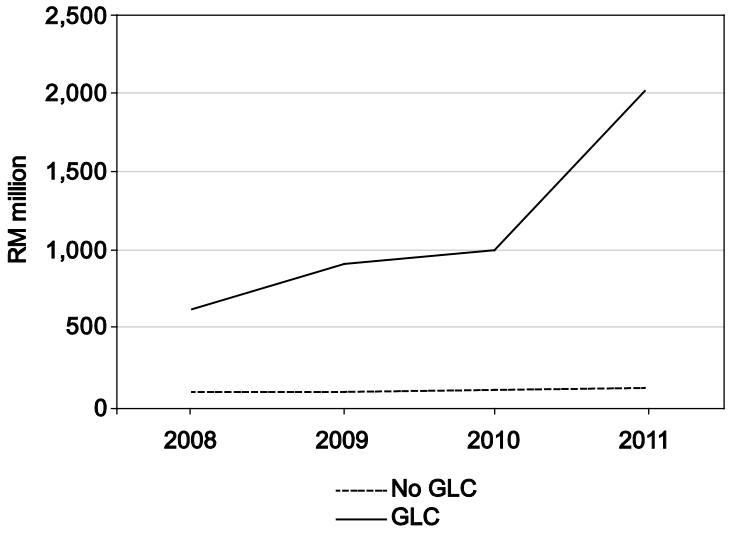
Source: Authors' computations using Oriana database

Figure 1: Investment as a share of Fixed Assets (median)



Source: Authors' computations using Oriana database.

Figure 2: Total Assets (median)



Source: Authors' computations using Oriana database.

Table 6: Panel Regressions Estimates
Dependent Variable: Investment/Fixed Assets

Explanatory Variables	**Fixed Effects**	**Fixed Effects GLC Dominant**	**Fixed Effects GLC Non-dominant**
Lagged Q-ratio	–0.003 (0.208)	0.011 (0.032)	0.004 (0.02)
Lagged Sales	0.0692** (0.031)	0.064** (0.032)	0.147 (0.115)
GLC Share	–0.011** (0.005)	–0.015* (0.008)	–0.013 (0.009)
N	1,553	1,162	391

Note:

** denotes significance at 5% level,* denotes significant at 10% level
Source: Authors' estimates.

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