

## Fiscal Capacity, Fiscal Effort and Fiscal Performance of State Governments in Peninsular Malaysia: The Case of Land Tax

*(Kapasiti Fiskal, Usaha Fiskal dan Prestasi Fiskal Kerajaan Negeri di Semenanjung Malaysia: Kes Cukai Tanah)*

**Ahmad Zafarullah Abdul Jalil**

College of Business  
Universiti Utara Malaysia

### ABSTRAK

Tujuan utama kertas ini adalah untuk member satu ukuran kapasiti fiskal dan usaha fiskal kerajaan-kerajaan negeri di Malaysia dengan menggunakan pendekatan yang asalnya diusulkan oleh asalnya dicadangkan oleh Suruhanjaya Penasihat Perhubungan Antara Kerajaan Amerika Syarikat (ACIR) – pendekatan pendapatan wakil (RRS). Walau bagaimanapun, kajian ini terhad kepada analisis cukai tanah. Keputusannya menunjukkan bahawa kerajaan negeri mempunyai berbezaan nyata dalam hal kapasiti cukai, dan juga usaha cukai. Walau bagaimanapun, negeri-negeri ini seolah-olah tidak dapat memanfaatkan keupayaan mereka seperti yang ditunjukkan oleh tahap yang dicapai berhubung dengan indeks usaha cukai. Hubungan antara usaha cukai dan kedudukan fiskal yang juga dikaji untuk menentukan sama ada defisit fiskal atau lebihan dipengaruhi oleh tahap usaha yang dikenakan cukai. Keputusan yang mencukupi menunjukkan bahawa negeri-negeri dengan usaha cukai yang lebih tinggi mempunyai defisit yang lebih rendah atau lebihan yang lebih tinggi berbanding negeri-negeri dengan usaha cukai yang lebih rendah.

*Kata kunci:* Kerajaan-kerajaan negeri; usaha fiskal; kapasiti fiskal; prestasi fiskal; cukai tanah

### ABSTRACT

The main objective of this paper is to provide a measure of fiscal capacity and fiscal effort of the state governments in Malaysia by using the approach originally proposed by the now defunct U.S. Advisory Commission on Intergovernmental Relations (ACIR) – the representative revenue approach (RRS). However, the study is limited to the analysis of land tax. The results indicate that state governments differ significantly in terms of their tax capacity, as well as their tax effort. The states of Pahang, Perak and Terengganu are found to have above average land tax capacity. However, these states do not seem to be able to leverage on their capacity as demonstrated by the level attained in relation to the tax effort index. The relationship between tax effort and fiscal position is also examined to determine whether fiscal deficit or surplus is influenced by the level of tax effort exerted. The results sufficiently demonstrate that states with higher tax effort have lower deficit or higher surplus as compared to states with lower tax effort.

*Keywords:* State governments; fiscal effort; fiscal capacity; fiscal performance; land tax

### INTRODUCTION

Malaysia has set the objective of becoming a fully developed country by the year 2020. To achieve this target, the Malaysian government has launched the New Economic Model (NEM). In this model, several strategies, known as Special Reforms Initiatives (SRIs), have been outlined to completely transform the country's economic landscape. These SRIs cover seven areas of the economy where fundamental changes and improvements are required.

One of the SRIs identified by the NEM is the strengthening of the public sector and a number of policy measures will be implemented in order to achieve this objective. The public sector SRI demonstrates that the Malaysian government recognizes that a strong public sector is a precondition for any country that aspires

to possess a fully developed economy. Nevertheless, a quick review of the measures proposed by the NEM towards attaining this goal shows that such measures are primarily focused upon the federal government, while the state governments seems to be left behind. Only one of the policy measures relates to reforms at the state government level. One agenda that should have been pursued by name is the promotion of a more sustainable fiscal position of the state governments. Measures should have been identified in order to increase the revenue collections of state governments and to reduce their dependencies on federal transfer. Such an initiative could help to strengthen the fiscal health of the country as a whole in the long term.

Nevertheless, before any measure is proposed to address issues relating to the fiscal health of state governments, particularly in regards to revenue



collection, it is important to first gauge the fiscal resources that are at the disposal of the state governments. In other words, what is the fiscal capacity of the state governments considered? Another question that ensues concerns how well the state governments exploit their fiscal resources. Are the state governments using the fiscal resources at their disposal in the most optimal manner? And if not, what are the measures that could have been adopted?

The objective of this paper to provide a measure of fiscal capacity and fiscal effort of the state governments in Malaysia by using the approach originally proposed by the now defunct U.S. Advisory Commission on Intergovernmental Relations (ACIR) – the representative revenue approach. The discussion, however, is limited to a particular source of state revenue, namely land-based revenue.

The paper is organized as follows. Section two reviews both the theoretical and empirical literature on fiscal effort and fiscal capacity. The methodology is discussed in section three. In section four, the preliminary findings of the research are presented. Finally section five concludes the study.

#### LITERATURE REVIEW

Boex & Martinez-Vazquez (2007: 313) define fiscal capacity as "...the level of revenues that a subnational government could potentially raise using its assigned taxing powers and tax bases if it were to use the average level of tax effort across all subnational governments in the country". The concept is based on potential revenue instead of actual revenues because the differences in revenues collected might be due to differences relating to fiscal effort. In such a case, actual collections are not a good reflection of fiscal capacity.

Several approaches are utilized to measure fiscal capacity. Lagged (per capita) values of revenues collections are the first measure used to quantify fiscal capacity. However, as discussed above, actual revenue is not a good measure of fiscal capacity because there are various elements that can make the actual collection of a subnational government differ from its ability to raise revenue. Two subnational governments with the same fiscal capacity may have different tax collection if they have different tax rates; different tax bases; different definitions of tax exemptions; different degrees of tax enforcement; or different levels of tax compliance.

Another method of measuring fiscal capacity is by using a proxy of a combination of proxies that captures the general ability of subnational governments to raise taxes. Variables commonly used for such proxies include per capital level of personal income; gross regional product; and total taxable resources. However, these variables are specific to certain types of taxes and may not be suitable proxies for other taxes. For example, in the case of personal income, such proxies fail to reflect

the diversity of tax and revenue sources, as well as the ability of subnational governments to export taxes.

An alternative way of measuring fiscal capacity is through the use of representative tax system (RTS), which is a multi-dimensional measure of fiscal capacity. RTS is a microeconomic approach to estimate the revenue raising ability of subnational governments. Essentially, this approach involves the calculation of the amount of revenue that a state would collect in relation to its tax bases if that state were to exert average fiscal effort. Although RTS can provide very useful information for the purpose of intergovernmental fiscal relations, the usefulness of the method depends on the quality of the data that is utilized to determine the RTS. If the quality of data is good, the RTS can provide a sensitive measure of the relative revenue-raising capacity of subnational governments.

Before 1962, the measure most commonly used in the United States to represent fiscal capacity was per capita personal income. In 1962, two economists (Selma Mushkin and Alice Rivlin) at the U.S. Advisory Commission on Intergovernmental Relations (ACIR) published a report detailing the representative tax system (RTS) as an improved measure of fiscal capacity. In 1986, the ACIR introduced an expansion of the RTS—the representative revenue system (RRS). The RRS included nontax revenues, such as rents and royalties; user charges; and lottery revenues. The terminology was changed accordingly and the fiscal capacity measure became a state's "revenue capacity" divided by its population. In 1990, the ACIR and Robert Rafuse developed the representative expenditure system (RES) to more accurately model the cost of providing public services in each state (Rafuse 1990a, 1990b.).

In total, the ACIR produced 12 reports between 1962 and 1993. After the ACIR was disbanded, Robert Tannenwald at the Boston Federal Reserve took over the project and published reports approximately every two years for the remainder of the 1990s (Tannenwald 1998, 1999, 2002, 2004). The latest report by Tannenwald was published in 2006, in which the author compares states in the United States in terms of their relative fiscal capacity; fiscal need; fiscal comfort; and tax effort during the 1999 state fiscal year (Tannenwald and Turner 2006). Compared with the fiscal year 1997, the authors find less interstate disparity in fiscal capacity, fiscal need and fiscal comfort.

Yilmaz et al. (2002) measure the fiscal disparities across the 50 states in the US in the 2002 fiscal year by looking at each state's revenue capacity, expenditure need and overall level of fiscal capacity. The authors find that Connecticut ranks first with the highest representative revenue capacity of \$6,272 per person. In comparison, Mississippi, which ranks last, would raise only \$3,352 with the same revenue system in place. Alaska displays the highest representative revenue effort of all states, collecting \$8,537 compared with its capacity of \$5,496;

and New York had the second highest, collecting \$6,376 compared with its capacity of \$5,240.

The RRS approach has also been used to measure tax capacity of local and county governments. Hy et al. (1993) examine property taxes and “combined lesser discretionary revenues” (CLDR) which include a variety of fees and other charges. The results show that Arkansas counties (and the state as a whole) generally underutilize tax capacity. Slightly more than 75 percent of the counties ranked below average in capacity, with 45 percent of the counties having low capacity and low effort. More recently, Chervin (2007) applies the RRS approach to measure the fiscal capacity of counties in Tennessee. The calculated tax effort ranged from a low of 56% in DeKalb County to a high of 133% in Morgan County. Using the same method, Sobarzo (2004) evaluates the tax effort and the tax potential of Mexican state governments. The analysis of the results reveals that both the best and the worst tax performances occur in relatively rich states, albeit with some exceptions.

Although several studies examine the fiscal situation of state governments in Malaysia (see for example Shafruddin 1987; Umi Kalsom 1990; Zulkefly et al. 2003; Ahmad Zafarullah 2008), none venture into measuring fiscal capacity and fiscal effort; and relating the measurements to the issue of fiscal performance. The relationship between the three variables are worth analyzing since it can be hypothesized that, all else being equal, state governments that manage to optimally utilize fiscal potential should be able to achieve a relatively healthy fiscal balance. Thus, it is not surprising that certain authors utilize fiscal performance as a proxy for fiscal effort (Abiad & Baig 2005).

## METHODOLOGY AND DATA DESCRIPTION

### METHODOLOGY

In order to estimate the fiscal effort, the fiscal capacity and the fiscal need of state governments in Peninsular Malaysia, the RRS methodology which was originally developed by ACIR is utilized. This approach is conceptually simple. However, the approach is very demanding in terms of data requirements.

Fiscal effort is calculated as

$$FE_{sr} = \frac{TC_{sr}}{TP_{sr}} \quad (1)$$

where

$FE_{sr}$  = fiscal effort of state  $s$  and revenue  $r$ ,  
 $TC_{sr}$  = actual collection of state  $s$  and revenue  $r$ ,  
 $TP_{sr}$  = tax capacity or tax potential of state  $s$  and revenue  $r$ ,

$TP_{sr}$  is defined as

$$TP_{sr} = t_r * B_{sr} \quad (2)$$

where

$B_{sr}$  = tax base of revenue  $r$  in state  $s$

$t_r$  = the national average tax rate for revenue  $r$

$t_r$  is estimated as

$$t_r = \sum_{sr} t_{sr}^e / s \quad (3)$$

where

$t_{sr}^e$  = the effective tax rate of revenue  $r$  in state  $s$

$s$  = state

$t_{sr}^e$  is calculated as

$$t_{sr}^e = \frac{TC_{sr}}{B_{sr}} \quad (4)$$

### DATA DESCRIPTION

In this study, the tax capacity of the land-based revenues of state governments is calculated. Land-based revenues and forest-based revenues are the two major sources of income for state governments and constitute up to 60 percent of the total net revenue of federal transfers. Non-forested land size is utilized as the tax base for the land tax. The data required for the present study is obtained from the Yearly Financial Statement published by the respective state governments.

## RESULTS

### LAND TAX CAPACITY AND LAND TAX EFFORT

The amount of land tax collected is shown in Table 1. As can be seen, there is a huge disparity in regards to the amount of land tax collected by the state governments.

In 2000, Selangor collects the highest amount of land tax with RM311.77 million, while Perlis collects only RM6.15 million. Other states that have high land tax collection are Perak (RM125.13 million), Johor (RM112.25 million) and Kedah (RM107.21 million). On the other hand, Terengganu (RM21.78 million), Kelantan (RM17.59 million) and Melaka (RM41.60 million) are among the states with the lowest collection.

In 2008, the amount of land tax collected varies from as low as RM7.18 million, collected by Perlis, to as high as RM366.53 million, collected by Selangor. Other state governments that have a relatively high tax collection are Perak, with RM187.76 million collected, and Johor, with RM176.22 collected.

It is note worthy that the amount of land tax collected is not solely determined by the size of land. The table shows that the amount of tax collected by states that are relatively big in terms of land size, such as Pahang (RM78.23 million), Terengganu (RM19.51 million) and Kelantan (RM31.67 million), are relatively low compared to the amounts collected by smaller states, such as Kedah (RM79.20) and Negeri Sembilan (RM90.64).

TABLE 1. Land Tax Collection (RM Million, Price 2000)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Johor	112.25	135.20	127.08	136.32	136.38	141.82	183.79	184.65	176.22
Kedah	107.21	47.69	42.33	44.58	40.36	45.17	78.71	119.07	79.20
Kelantan	17.59	17.78	18.85	18.17	19.55	19.31	20.72	27.06	31.67
Melaka	41.60	42.59	41.72	44.89	43.24	44.33	55.83	57.50	54.61
N.Sembilan	62.70	66.41	65.24	68.59	64.34	64.64	83.92	89.27	90.64
Pahang	63.73	64.81	65.67	67.38	70.60	76.25	67.13	70.75	78.23
Perak	125.13	129.82	127.28	148.27	158.30	146.23	154.46	153.60	187.76
Perlis	6.15	7.26	7.34	6.73	7.25	6.37	7.27	7.28	7.18
Penang	81.87	80.48	82.23	81.06	81.06	84.16	83.92	75.34	76.55
Selangor	311.77	252.58	306.83	306.69	299.14	306.54	358.60	342.92	366.53
Terengganu	21.78	22.69	25.07	26.57	27.85	19.05	18.97	20.98	19.51

The trend of land tax collection by state governments between 2000 and 2008 is shown in Figure 1. As can be seen, most state governments have seen a steady increase in the amount of land tax collections during the period.

For example, the amount of land tax collected by the state government of Johor increases from RM112.25 million in 2000 to RM176.22 million in 2008. As for Perak, it increases its land tax collection from RM125.13 million

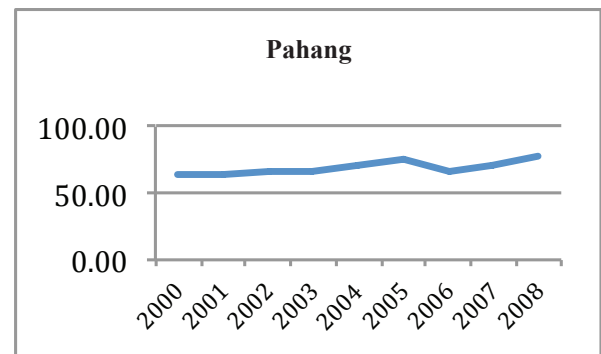
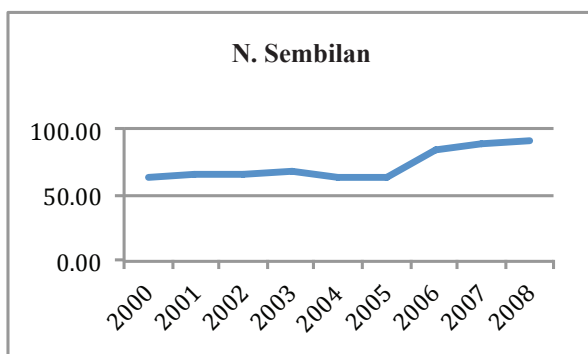
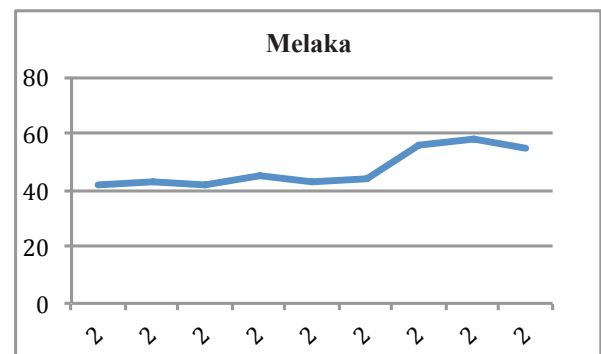
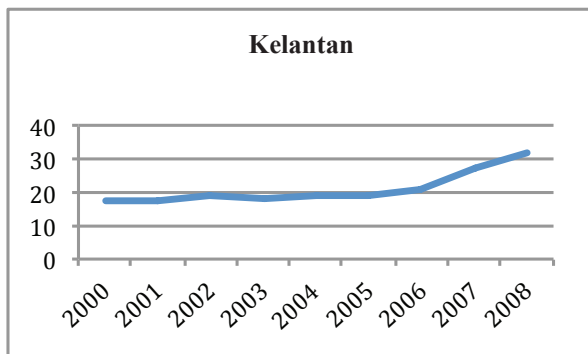
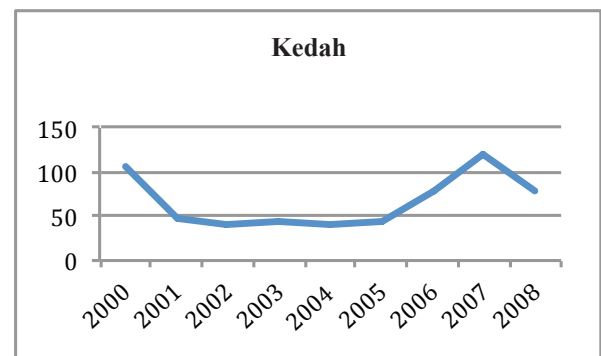
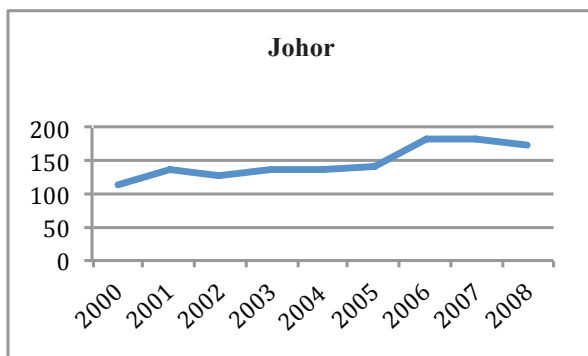




FIGURE 1. Evolution of Land Tax Collection, 2000-2008

in 2000 to RM187.86 million in 2008. Only Penang and Terengganu record a drop in their land tax collection. In the case of Terengganu, land tax collections decrease from RM21.78 million in 2000 to RM19.51 million in 2008, while tax collections in Penang drop from RM81.87 million in 2000 to RM76.55 million in 2008 after a peak of RM84.16 million in 2005.

The reliance on land tax as a source of revenue also varies according to state governments as shown by Table 2. Reliance on land tax is measured using the ratio of land tax collection to total revenue. In 2000, Penang has the highest proportion of land tax to total revenue, with a ratio of 35.45 percent. Perak has the second highest ratio (31.05 percent) and Selangor comes in third (27.88 percent), followed closely by Negeri Sembilan (27.26 percent). Terengganu, Kelantan and Perlis are the three states that depend least on land tax as their sources of income, with a ratio of 3.17 percent, 8.19 percent and 12.11 percent respectively.

The proportion of land tax to total revenue remains relatively stable for most state governments throughout the period 2000-2008. However, for some state governments, such as Penang and Terengganu, there is a decrease in the proportion of land tax collection to total revenue. For example, there is a sharp decrease in the proportion of land tax to total revenue in Penang, from as high as 37.87 percent in 2001 to only 25.07 percent in 2008. As for Terengganu, the ratio increases from 3.77 percent in 2000 to 14.53 percent in 2003. However, beginning in 2003, there is a net decrease in the ratio and it stands at less than 1.5 percent in 2008. In the case of Kelantan, the ratio increases by more than 70 percent over the 2000-2008 period, from 8.19 percent in 2000 to more than 13 percent in 2008.

In 2008, Negeri Sembilan and Perak are the two states with the highest proportion of land tax of total revenue. In 2008, more than 40 percent of the income of Negeri Sembilan comes from land tax. In the case of

TABLE 2. Land Tax Collection/ Total Revenue

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Johor	23.83	26.93	25.44	25.67	18.65	21.29	27.11	23.33	22.22
Kedah	15.99	22.62	18.69	19.06	14.83	16.39	24.09	38.01	26.89
Kelantan	8.19	7.88	7.94	12.50	8.36	6.62	9.62	7.05	13.94
Melaka	27.26	27.11	26.38	26.34	17.20	19.28	24.70	20.62	20.18
N.Sembilan	29.85	42.87	35.17	30.62	33.12	37.78	27.80	40.97	42.26
Pahang	17.76	19.23	18.88	16.73	15.38	17.13	17.42	18.50	19.73
Perak	31.05	34.65	29.70	34.05	35.89	35.93	35.74	32.88	35.70
Perlis	12.11	11.05	11.70	9.32	9.45	8.11	10.36	12.44	11.27
Penang	35.45	37.87	36.69	34.31	33.34	33.40	33.82	29.36	25.07
Selangor	27.88	21.23	28.02	25.72	23.07	26.25	27.14	24.48	22.56
Terengganu	3.77	11.45	9.75	14.53	7.22	1.66	1.37	1.92	1.44

Perak, the ratio is 35.70 percent. The state with the lowest proportion of land tax to total revenue is Terengganu with only 1.44 percent. The bulk of Terengganu's income comes from petroleum royalties received from the federal government, which explains its relatively low reliance on land tax as a source of revenue. Other states that have a relatively low proportion of land tax to total revenue are Perlis (11.27 percent), Pahang (19.73 percent) and Kelantan (13.94 percent).

The collection of land tax per capita is displayed in Table 3. The table shows that the state that collects the highest amount of land tax per capita in 2000 is Selangor with RM94.83, followed by Negeri Sembilan with RM73.48. Melaka, Kedah and Penang also collect relatively high amount of tax per capita with RM69.45, RM66.79 and RM65.01 respectively. Meanwhile, Kelantan and Terengganu have the lowest collection per capita with RM11.26 and RM20.47 collected, respectively.

In 2008, Negeri Sembilan becomes the state with the highest per capita collection, with RM91.04 collected. This is followed by Perak, with RM79.86 collected per capita. Other states that collect relatively high amounts

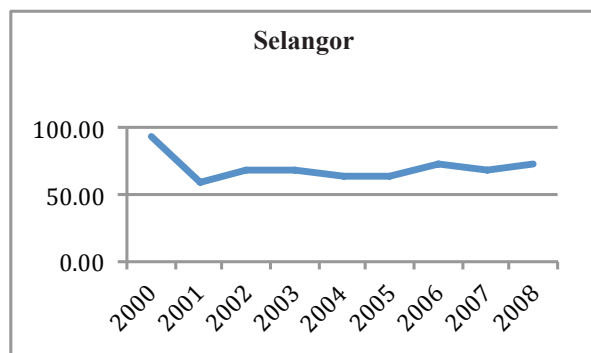
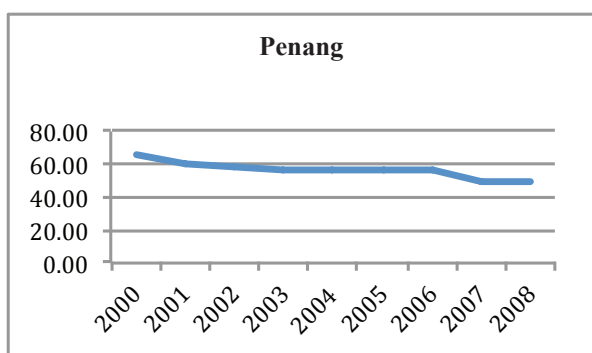
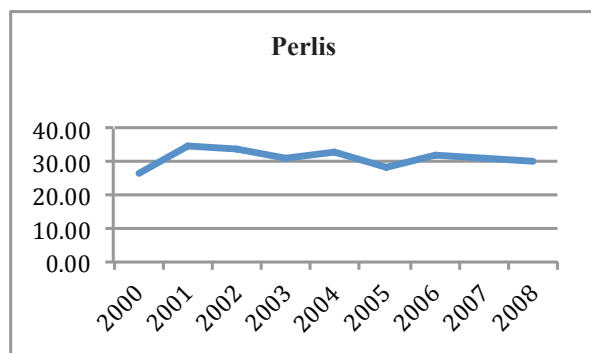
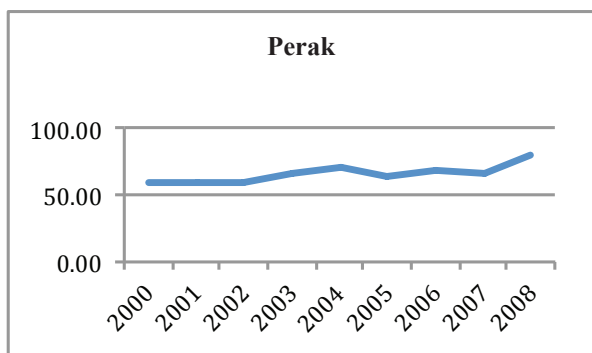
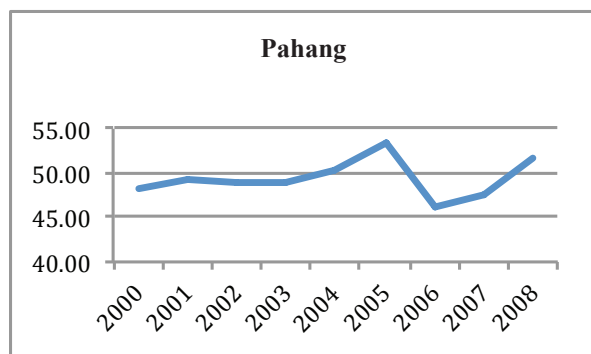
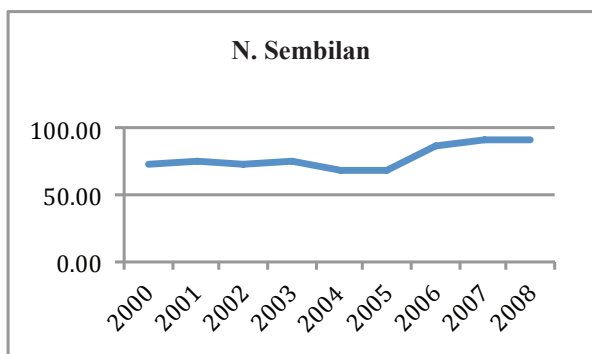
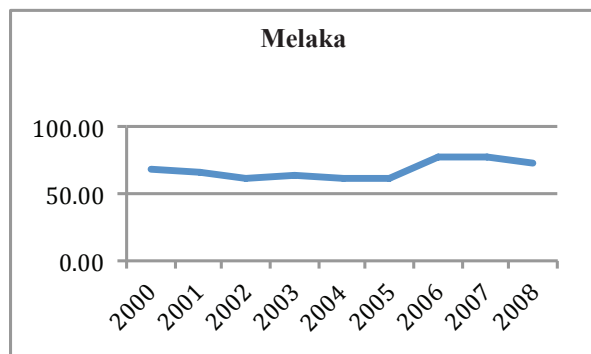
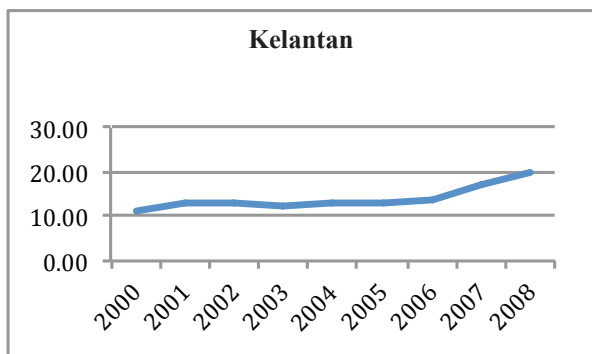
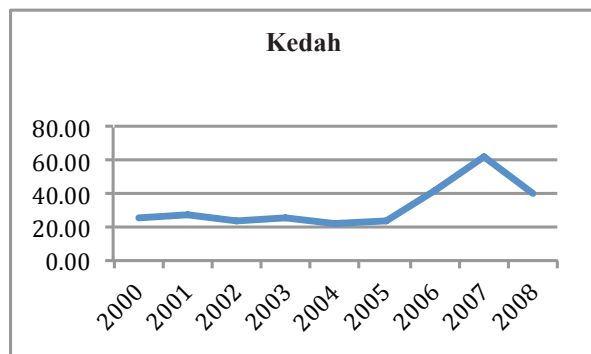
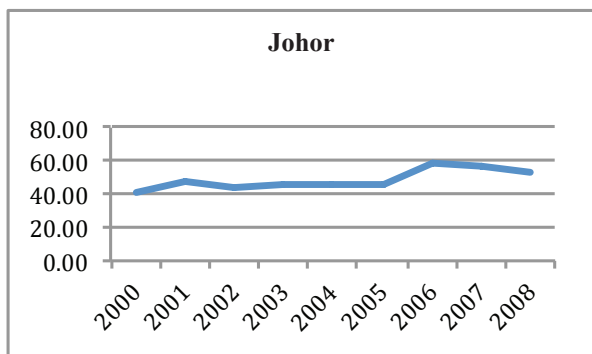
of land tax per capita are Melaka (RM72.47) and Selangor (RM72.28). On the other hand, Kelantan and Terengganu continue to be the two states with the lowest land tax collection per capita, with RM19.85 and RM17.83 collected in 2008, respectively.

The trend of land tax collection per capita over the period of 2000-2008 (as shown in Figure 2) demonstrates that some states, such as Perak, Negeri Sembilan and Kelantan, witness a net increase in their collection, while others, such as Penang, Selangor and Terengganu, see a decrease in their per capita collection. For example, Negeri Sembilan manages to increase its land tax collection from RM73.78 per capita in 2000 to RM91.04 per capita in 2008, which is equivalent to an increase of almost 24 percent. On the other hand, Selangor sees its per capita collection fall by approximately 24 percent from RM94.83 in 2000 to RM72.28 in 2008. Penang is another state whose collection drops significantly.

Using the RRS approach, the capacity per capita of land tax for each state government is calculated. The results are presented in Table 4. In 2000, the average land tax capacity for Peninsular Malaysia is RM57.20 and

TABLE 3. Land Tax Collection Per Capita (RM, Price 2000)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Johor	41.09	48.57	43.94	46.06	45.02	45.73	57.97	56.98	53.20
Kedah	66.79	28.23	24.28	25.07	22.26	24.44	41.83	62.06	40.45
Kelantan	11.26	13.22	13.23	12.50	13.21	12.83	13.53	17.34	19.85
Melaka	69.45	65.68	61.91	65.33	61.76	62.18	76.97	77.83	72.47
N.Sembilan	73.78	75.59	72.70	75.10	69.21	68.31	87.25	91.26	91.04
Pahang	48.31	49.12	48.79	49.10	50.45	53.43	46.14	47.69	51.70
Perak	58.74	60.16	58.86	67.58	71.15	64.81	67.66	66.36	79.86
Perlis	26.64	34.70	34.22	30.89	32.79	28.36	31.88	31.41	30.41
Penang	65.01	60.18	59.14	57.21	56.18	57.30	56.23	49.61	49.49
Selangor	94.83	59.15	69.91	68.18	64.84	64.72	73.94	69.12	72.28
Terengganu	20.47	24.68	26.58	27.50	28.11	18.74	18.21	19.64	17.83



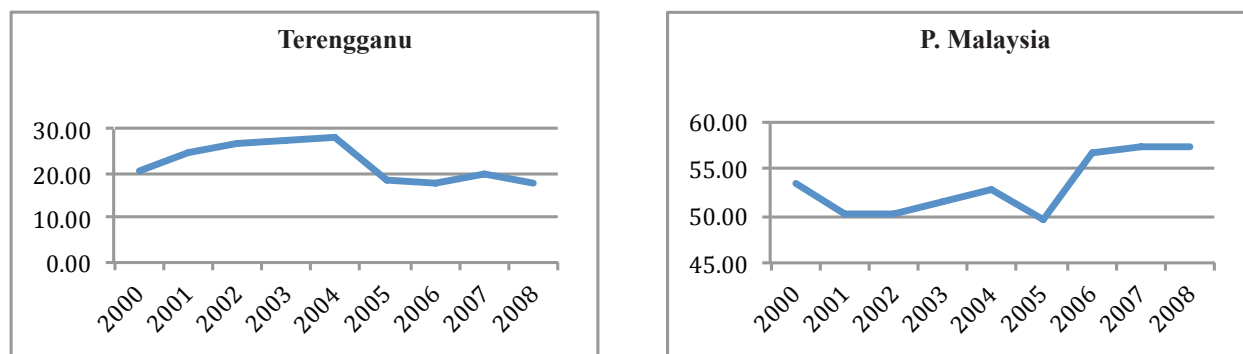


FIGURE 2. Evolution of Land Tax Collection Per Capita, 2000-2008

TABLE 4. Land Tax Capacity Per Capita

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Johor	69.31	61.54	61.87	62.97	61.41	59.63	67.37	68.44	70.36
Kedah	49.14	42.26	42.91	43.81	42.98	42.52	48.76	49.02	48.79
Kelantan	51.00	53.58	52.82	53.94	52.81	52.31	60.09	61.20	63.62
Melaka	35.20	29.40	29.53	30.18	29.58	29.29	33.63	34.07	34.02
N.Sembilan	69.62	67.48	69.01	70.94	69.98	69.59	80.29	81.55	81.12
Pahang	155.40	140.91	146.15	149.39	146.07	144.88	165.94	171.49	161.59
Perak	65.66	58.65	61.21	62.74	61.69	61.34	70.80	71.58	72.56
Perlis	39.62	39.56	40.27	41.29	40.55	40.29	46.33	46.69	46.96
Penang	10.12	8.63	8.62	8.83	8.62	8.54	9.82	9.89	9.86
Selangor	22.36	15.46	15.59	15.99	15.54	15.41	18.11	17.23	17.28
Terengganu	78.40	82.55	85.60	87.93	86.26	83.74	94.26	94.28	93.70
P.Malaysia	57.20	50.09	50.32	51.43	52.84	49.57	56.74	57.38	57.18

remains relatively stable until 2008, when it decreases to RM57.18. The highest capacity is recorded in 2007 with RM57.38, while the lowest is recorded in 2001 with RM50.09.

As expected, states endowed with larger amounts of land and relatively small populations are the states with the highest capacity per capita, such as Pahang and Terengganu. In Pahang, the tax capacity is RM155.40 in 2000, which decreases until 2005 before increasing again to reach a level of RM161.59 in 2008. The states with the lowest land tax capacity per capita are Penang and Selangor. Even though Penang is bigger in terms of land size than Perlis, Penang has a much lower land tax capacity per capita because of its bigger population size. The same explanation holds for Selangor. In 2000, the land tax capacity for Selangor is RM22.36, while the land tax capacity for Penang is only RM10.12. In 2008, the tax capacity for these two states decreases slightly and stands at RM17.28 and RM9.86, respectively.

The capacity per capita is then utilized to calculate the capacity index of each state government to see how each state fares compared to the national average. The results are presented in Table 5. As the Table demonstrates, the state governments that have an above

average land tax capacity in 2008 are Pahang, with an index of 282.58; followed by Terengganu, with an index of 163.86; and Negeri Sembilan, with an index of 141.86. As for the state governments that have a below average land tax capacity, the lowest is Penang with an index of 17.24, followed by Selangor with an index of 30.23. The rank of each state according to its capacity index is shown in Table 6. The position of each state government, in terms of its respective ranking, remains relatively stable throughout the whole period.

The amount of land tax collected is compared to the land tax capacity of each state in order to get the fiscal effort index. Tax effort is defined here as the extent to which state governments use the capacity available to them. If state A and state B have the same tax capacity, but state A is found to collect more taxes than state B, then it can be said that state A is exerting more effort compared to state B. The results are shown in Table 7.

In 2000, the highest effort is recorded by Penang, with an index of 642.11. The index demonstrates that out of a capacity of RM10.12 per capita, Penang manages to collect more than RM65 per capita or more than 600 times its capacity. However, the level of tax effort exerted by the state government of Penang decreases during the period





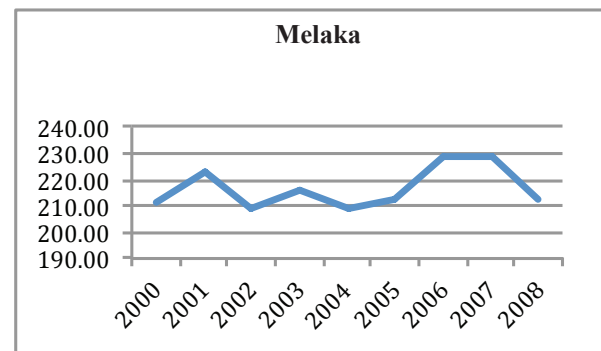
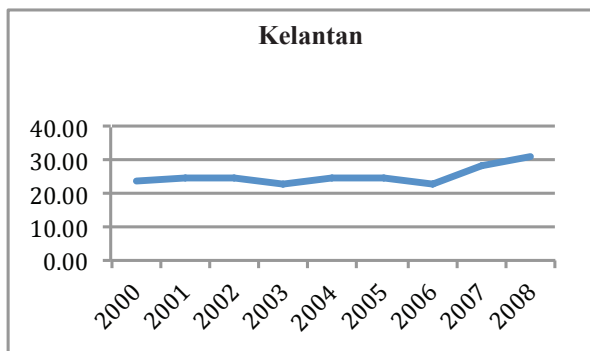
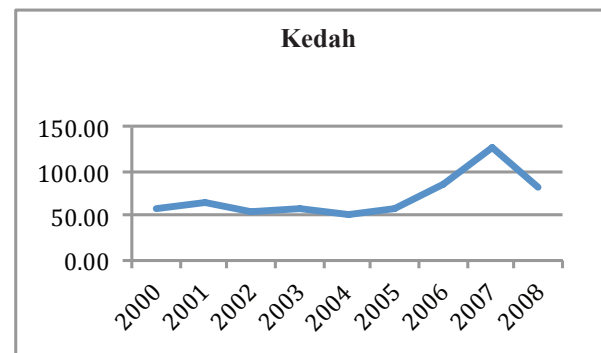
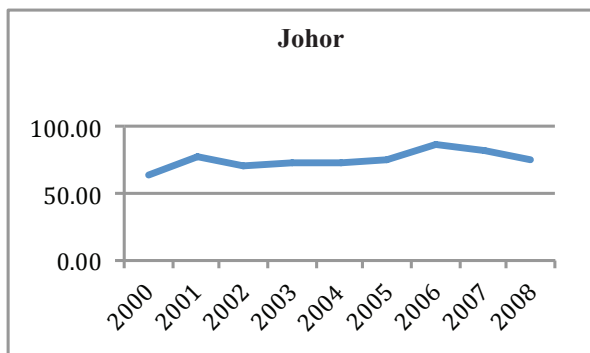
TABLE 7B. Rank of Land Tax Effort

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Johor	9	7	6	7	7	6	6	7	7
Kedah	5	8	7	8	8	8	7	4	6
Kelantan	11	11	10	11	11	10	10	9	10
Melaka	4	3	3	3	3	3	3	3	3
N.Sembilan	6	4	11	5	5	5	4	5	4
Pahang	10	9	8	9	9	9	9	10	9
Perak	7	5	4	4	4	4	5	6	5
Perlis	8	6	5	6	6	7	8	8	8
Penang	1	1	1	1	1	1	1	1	1
Selangor	3	2	2	2	2	2	2	2	2
Terengganu	2	10	9	10	10	11	11	11	11

and settles at 501.91 on the fiscal effort index in 2008. Selangor is another state that records a particularly high tax effort. In 2000, its fiscal effort index stands at 424.11. In contrast to Penang, Selangor manages to keep its tax effort relatively stable over the years. Tax effort decreases slightly in 2001, before gradually increasing during the following years. In 2008, Selangor has a level of tax effort of 418.16. Other state governments that record an above average fiscal effort are Melaka (213.03), Negeri Sembilan (112.23) and Perak (110.06). On the other hand, state governments that record a below average fiscal effort are Terengganu (19.03), Kelantan (31.21), Pahang (32.00), Perlis (64.76), Johor (75.61) and Kedah (82.90). The rank of the state governments in terms of

their fiscal effort index for the period of 2000-2008 is shown in Table 8. As can be seen, the rank of the states remains relatively stable between 2000 and 2008, with Penang, Selangor and Melaka ranked in the top three positions; and Kelantan, Terengganu and Pahang ranking in the bottom three positions.

The fiscal effort index trend for the period of 2000 to 2008 is shown in Figure 3. As can be seen, the fiscal effort exerted by the state governments tends to either decrease or remain at the same level. In 2000, the highest fiscal effort stands at 642.11. However, this figure decreases to only 501.11 in 2008. The fiscal effort index shows a decrease in the fiscal effort of Perlis, Selangor, Terengganu, Penang and Perak. For example, the fiscal



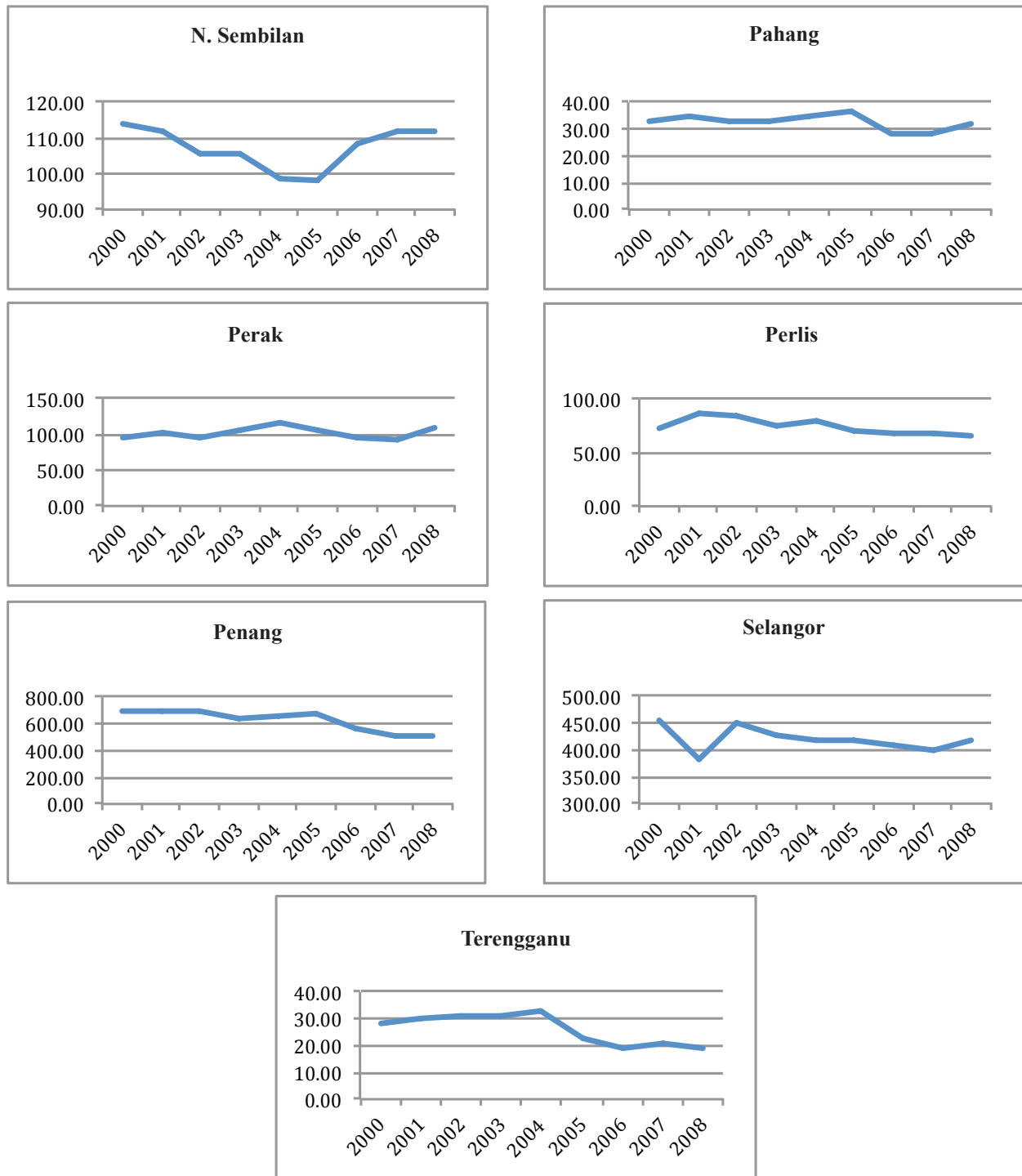


FIGURE 3. Evolution of Land Tax Effort, 2000-2008

effort index of Penang decreases from 642.11 in 2000 to 501.91 in 2008. The fiscal effort index of Terengganu increases from 26.11 in 2000 to 32.59 in 2005. However, from 2005 to 2008, the index decreases sharply to 19.03 in 2008. As for Kelantan, Johor and Pahang, their ratings on the fiscal effort index remain relatively stable throughout the period.

THE RELATIONSHIP BETWEEN FISCAL EFFORT AND FISCAL CAPACITY FOR THE FISCAL YEAR 2000, 2004 AND 2008

The relationship between fiscal capacity and fiscal effort for land tax is examined utilizing the 2000, 2004 and 2008 results. A four quadrant matrix is developed based

on high/low capacity and high/low effort. Each state government is placed into one of the four quadrants based upon whether its capacity and effort figures fall above or below the mean. Tables 8–10 display the land tax capacity/effort frequency matrices of the state governments.

Overall, state governments listed in the high capacity/high effort quadrants are considered to be making a considerable effort to produce revenues in relation to their capacity. Such state governments have little room to improve their revenue-generating capabilities. High capacity/low effort state governments, on the other hand, have opportunities to generate additional revenues. Given their economic resources, these state governments could invest additional effort in obtaining revenue.

State governments in the low capacity/high effort quadrant are making the greatest effort of all counties, given their capacities. These state governments are considered to be doing a commendable job in raising revenues given their lack of economic resources and could do little to increase revenues without overutilizing taxes. Low capacity/low effort state governments have few resources to tax, and given their capacities, probably could not be expected to raise revenues much beyond their existing levels.

LAND TAX EFFORT AND CAPACITY

In 2000, Negeri Sembilan is the only state to be located in the high capacity/high effort index, which signifies that

TABLE 8. Land Tax Capacity/Effort Matrix, 2000

	Low Capacity	High Capacity
High Effort	Melaka, Penang, Selangor	Negeri Sembilan
Low Effort	Kedah, Kelantan, Perlis	Johor, Pahang, Perak, Terengganu

TABLE 9. Land Tax Capacity/Effort Matrix 2004

	Low Capacity	High Capacity
High Effort	Melaka, Penang, Selangor	Perak
Low Effort	Kedah, Kelantan, Perlis	Johor, Negeri Sembilan, Pahang, Terengganu

TABLE 10. Land Tax Capacity/Effort Matrix, 2008

	Low Capacity	High Capacity
High Effort	Melaka, Penang, Selangor	Negeri Sembilan, Perak
Low Effort	Kedah, Perlis	Johor, Kelantan, Pahang, Terengganu

the state fully uses its high capacity in order to generate income. However, Melaka, Penang and Selangor are the states making the most out of their capacity as they are situated in the low capacity/high effort quadrant. On the other hand, the results show that Johor, Kelantan, Pahang and Terengganu should be able to generate more income from land taxes if they were to increase their efforts. Finally, Kedah and Perlis are found to have both low capacity and low effort, which implies that the increase in the income generated may not be much if they were to increase their fiscal efforts.

In 2004, there is slight change in the matrix of capacity/effort whereby Negeri Sembilan is no longer located in the high capacity/high effort quadrant. The state is now found in the high capacity/low effort quadrant, alongside Johor, Pahang and Terengganu. On the other hand, Perak now moves into the high capacity/high effort quadrant, which implies that the state government manages to reform its current tax collection system in order to make full use of its fiscal capacity. As for the other two quadrants, the same state governments are found, namely Melaka, Penang and Selangor in the low capacity/high effort quadrant; and Kedah, Kelantan and Perlis in the low capacity/low effort quadrant.

Finally, the only change that occurs regarding the position of a state between 2004 and 2008 is Negeri Sembilan's return to a high capacity/high effort quadrant in 2008 from a high capacity/low effort quadrant in 2004. The other states remain in their previous positions.

In summary, this exercise shows that most state governments in Peninsular Malaysia remain relatively stable in terms of the effort exerted in collecting their land taxes. Johor, Pahang and Terengganu fail to utilize their

high fiscal capacity in a way that could result in increase in revenue. In the case of Terengganu, this may due to the fact that it manages to obtain a substantial income from the petroleum royalties paid by the federal government. In a way, this may reduce the tax burden of its population. However, in the case of Johor and Pahang, for which land tax constitutes one of their major sources of revenues, the two states should attempt to optimize the use of their high fiscal capacity in order to generate more income.

### FISCAL EFFORT AND FISCAL POSITION

State governments differ significantly in terms of their fiscal balance. Some states, such as Selangor, Penang and Johor, manage to have relatively huge fiscal surpluses. On the other hand, some states, such as Kedah or Kelantan, have great difficulty in financing their expenditures. The present study now examines whether the fiscal situation of a state government can be explained by its level of tax effort. It can be assumed that state government with a high level of tax effort should be able to have a better fiscal situation as compared to states that exert a lower level of tax effort.

### LAND TAX EFFORT AND FISCAL POSITION

The relationships between tax effort and fiscal position are plotted for the fiscal year 2000, 2004 and 2008 in Figure 4, 5 and 6, respectively.

In 2000, there seems to be no apparent relationship between the two variables. State governments that have high tax effort, such as Penang, Selangor and Melaka,

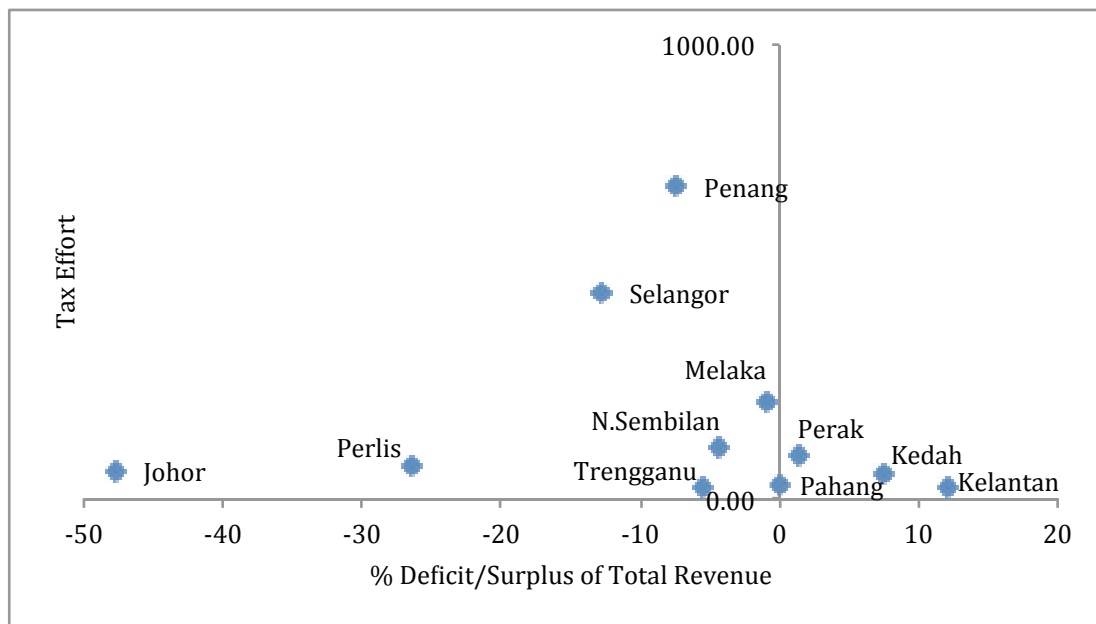


FIGURE 4. Land Tax Effort and Fiscal Position 2000

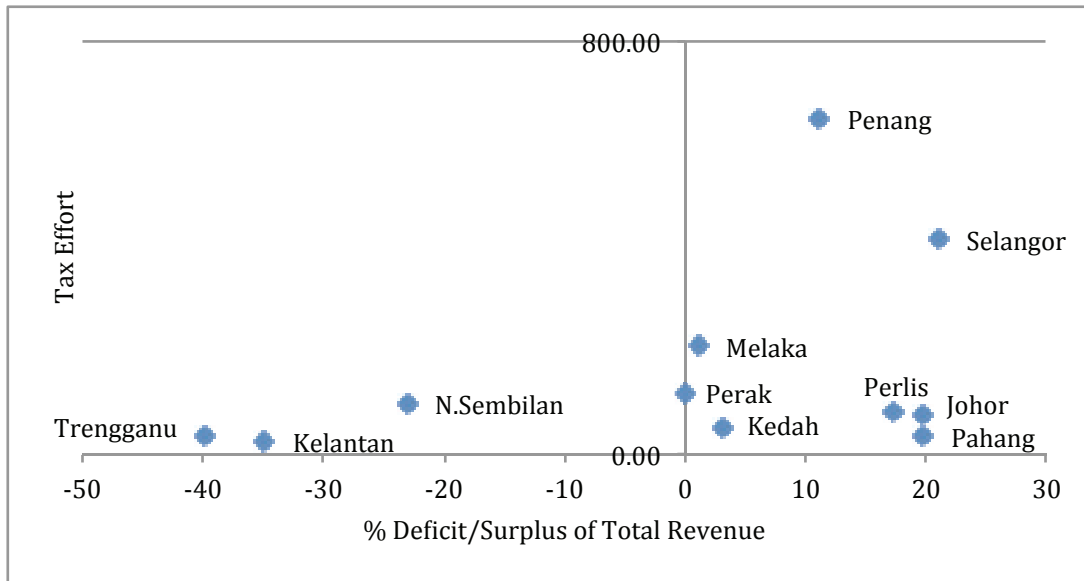


FIGURE 5. Land Tax Effort and Fiscal Position 2004

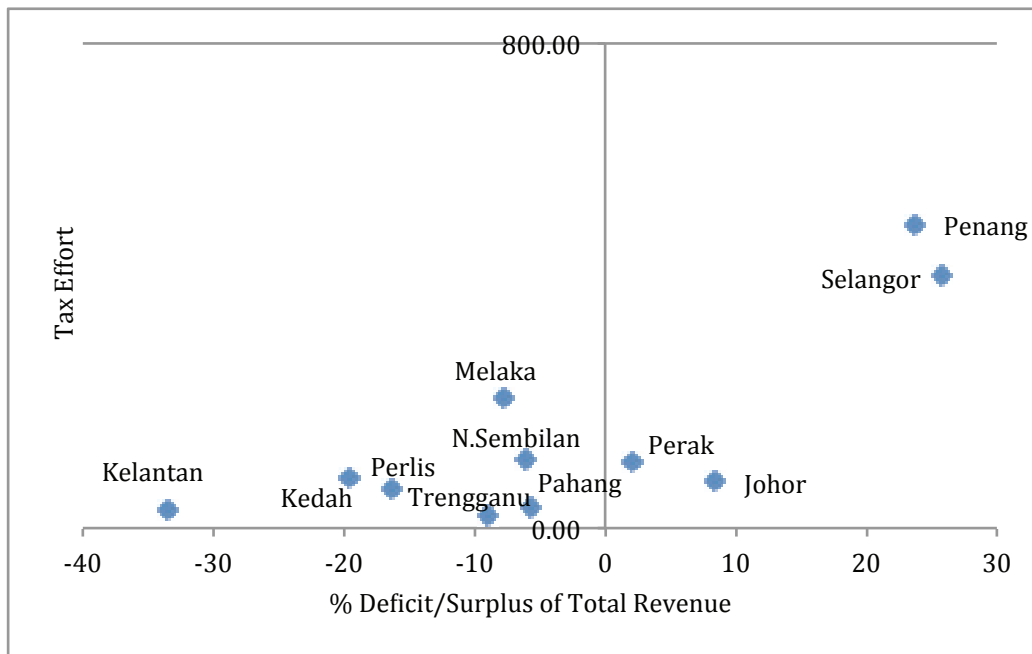


FIGURE 6. Land Tax Effort and Fiscal Position 2008

are also found to record fiscal deficits. Meanwhile, states that have low tax effort, such as Perak, Kedah and Kelantan, record a surplus in their fiscal balance. At the same time, there are also states with low tax effort that record a deficit.

However, in 2004, there seems to be a positive correlation between tax effort and fiscal balance, as shown by Figure 4. Penang, Selangor and Melaka, which all have relatively high tax effort, are also found to record a fiscal surplus. Meanwhile, low tax effort seems to result in deficits in fiscal balance in the case of Kelantan and Terengganu. Nevertheless, Pahang, Johor and Kedah

continue to have a surplus in their fiscal balance despite their relatively low level of tax effort.

The positive correlation between tax effort and fiscal balance becomes more apparent in 2008. Penang and Selangor have both higher levels of tax effort and higher percentages of surplus. Perak also has a relatively high level of tax effort and its fiscal balance is also found to be positive. Only Melaka and, to a lesser extent, Negeri Sembilan are at odds as their high level of tax effort does not result in a fiscal surplus. Kelantan, Terengganu and Pahang, which have the lowest level of tax effort, are all found to have a fiscal deficit.

## CONCLUSION

The main objective of this study is to analyze the fiscal performance of state governments in Malaysia. Using the RRS approach, fiscal performance is measured in the present study by examining the extent to which a state government is using its fiscal capacity to generate revenue.

The present study finds that state governments differ significantly in terms of their fiscal capacity for land tax. Since land tax constitutes one of the two major sources of revenues for most state governments, those who are less endowed will be seemingly discriminated against in terms of their capacity to raise taxes. Furthermore, the taxation power of the state governments are relatively limited (see Article 110 of the Constitution) and the fact that these states have different capacities will only lead to further deterioration of the fiscal balance of those which are less endowed. Therefore, a mechanism should be determined by the federal government in order to compensate those states that have low fiscal capacity. This objective can be achieved through a system of intergovernmental transfer that takes into account the difference in tax capacity between states. However, a quick review of the types of federal transfer that are currently in practice reveals that differences in tax capacity between states have not been used to determine the amount of transfers received by the state governments.

State governments also differ according to the level of tax effort exerted and this has been shown to have an effect on the state government's fiscal balance. State governments that are found to have low level of tax effort should be encouraged to increase their efforts, as this will ultimately lead to a better tax collection and, therefore, a better and healthier fiscal balance. On the other hand, states with high levels of tax effort should be rewarded accordingly, so as to encourage such states to maintain or further improve their tax efforts.

The fact that certain state governments have not fully utilized their tax capacity implies that there is still room for the state governments to improve their fiscal balance without resorting to the introduction of new taxes. Furthermore, the fact that state governments are far from achieving their full potential implies that a further devolution of tax powers to them will not necessarily solve their fiscal problems. An increase in tax responsibility to state governments may simply result in an increase of unutilized capacity resulting ultimately in an increase of tax arrears.

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- Ahmad Zafarullah Abdul Jalil  
College of Business,  
Universiti Utara Malaysia  
06010 Sintok, Kedah  
MALAYSIA  
zafar@uum.edu.my