CAUSALITY BETWEEN TAX REVENUE AND GOVERNMENT SPENDING IN MALAYSIA

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ABSTRACT

The trend of tax collection in Malaysia is inconsistent, changing upward and downward depending upon economic conditions. However, over a 30 year period, most years show an increasing increment in total collection. The exceptions are when there is an abnormal economic condition such as financial crisis, war or increase in world oil prices. Total tax revenue has always been a major contribution to Malaysia's federal government revenue. Income tax is one of the surest ways to fund the government. The main objective of this study is empirically tests the causality between tax revenues and government spending in Malaysia for the past 36 years by applying an econometrics model. The results provide evidence for the existence of a long-run relationship between tax revenues and government spending with unidirectional and bidirectional causality in VAR models for the sample period 1970-2006.

JEL: C01, H20, H59

INTRODUCTION

Taxes in Malaysia have been, and still are an important source of government revenue and the most dependable source of government funding. In many countries, tax relief has become a significant tool to boost the economic growth. In fact, taxation policy itself is a fundamental element for economic policies, ensuring that countries are able to maintain and improve its global competitiveness and to expand. This applies to developed, developing and countries in transition. The attractiveness of the tax system structure is important to ensure that it able to attract domestic and foreign investors. Hence, the decision of the Malaysia government to change its system of indirect tax from sales and service tax to Good Service Tax (GST) is an interesting economic issue.

In Malaysia the dependency on tax as a source of income is unquestioned. Taxation has been used as the main policy instrument for transferring resources to the public sector. This was demonstrated with the expanded role of the Inland Revenue Board as a tax collection agent for the government. This agency was transmitted from department to board on 1 March 1996, and was established in accordance with the Inland Revenue Board of Malaysia Act 1995. This act gives the Board more autonomy especially in financial and personnel management to improve the quality and effectiveness of tax administration.

Total government revenue in Malaysia is derived from two sources, which can be classified as tax revenue, and non-tax revenue. The responsibility for collecting tax revenue falls on IRB itself and Royal Customs and Excise Department. The responsibility for the collection of non-tax revenue, is based on the type of income. Direct tax revenue consists of income tax from individuals, companies, and other persons as well as petroleum, stamp duty, estate duty and real property gains. Indirect taxes are collected by the Royal Customs and Excise Department consists of tax revenue, and are not imposed directly on the taxpayer. Since the 1960's, indirect tax has became the major contribution to government revenue. Indirect taxes consist of import duties, export duties, excise duties, sales tax and service tax. Non-tax revenues consist of fees for issue of licenses and permits, fees for specific services, proceeds from the sale of government assets, rental of government property, bank interest, returns from government investments fines and forfeitures.

Spending increases every year in Malaysia as well as throughout most of the world. However, the question here is whether sufficient resources are available to fund these expenditures. Careful budgeting is critical and, a good fiscal policy is vital to stimulate a stable economy. Fiscal policy in Malaysia can be described as expansionary fiscal policy where there is always an increase in spending and lower taxes. The government always provides better incentives to both individual and company taxpayers. The Malaysian government spends public money to provide a wide variety of facilities and benefits to the public. From federal government reports we can classified the spending to two major categories, current expenditure and development expenditure. Current expenditure consists of emoluments, supplies and services, asset acquisition and routine expenditures. Development expenditure varied from economic services, social services, security and general administration.

Based on the neoclassical and endogenous growth model, growth or changes in government spending have driven revenue collection from both tax sources and non-tax sources. This implies that there is a unidirectional relationship between the dependent and independent variable. It suggests that every increase in revenue collection should lead to an increase in government spending especially in the short term. While during long-term frameworks, there is inconsistency in the relationship between the variables. In this case the level of dependency varies based on the situation.

TAXATION AND ECONOMIC POLICIES: THE CASE OF MALAYSIA

The Malaysian government has focused on development since the First Malaysia Plan (1966-1970). The Plan's objectives were to promote the welfare of all citizens, and improve the living conditions in rural areas, particularly among low-income groups. Currently the Ninth Malaysia Plan (2006-2010) is in place which highlights issues of current importance specifically infrastructure, health, environment, agriculture, education, culture and arts and heritage. The transition from plan to plan shows an expanded growth where every year that revenue was increased together with the raise of development boosting expenditures.

The Inland Revenue Board (IRB) carries out tax collection as well as policy implementation, monitoring and evaluation. This board plays a significant role to ensure the successfulness of any tax policy. Average percentage of increment in total collection starting from 1970 to 2006 for tax-revenue and non tax-revenue is 9.29% and 9.09% respectively (Federal Government Financial Position, 2007). The trend of collection is inconsistent with upward and downward movements depending upon the economic realities of a particular year. However over a period of 30 years most years show an increment in total collection except for where there is an abnormal economic condition. These increases are attributable primarily to strong of economic growth especially in the business sector.

During the period of the Seventh Malaysia Plan (7MP), the federal government revenue registered a moderate increase of 4.0 per cent, amounting to RM301.3 billion surpassing the revised target of 3.0 per cent (8MP). This was primarily credited to higher collection from tax and non-tax revenue, in tandem with impressive economic performance and the recovery in aggregate demand in 1999-2000 from a severe contraction that occurred in 1998. However, because of the financial crisis in 1999 there is a downward trend in tax collection from all categories of direct tax. Overall, the performance of the economy was commendable during the Plan period where total government revenue showed a moderate increase allowing the government to implement programmed projects on schedule.

In order to foster economic efficiency the Eighth Malaysia Plan (8MP) was design to focus on achieving sustainable growth with resilience. However, 8MP began with the slowdown in the global economy caused by the downturn of the US economy and collapse in world electronics demand. This was aggravated by the September 11 incident in the US in the same year. After a short breather, the events in the first half of 2002, particularly the invasion of Iraq and the outbreak of the Severe Acute Respiratory

Syndrome (SARS) again negatively affected economic recovery. Despite world economy uncertainty, revenue collection growth was projected with cumulative for five-year collection around RM470,000 million. As revenue collection increased, government spending also showed an increase. However unexpected results show the overall deficit had dropped from a high of 5.8% of GDP in 2000 to 3.8% by the end of 2005 (Economic Report, 2005/2006). Again, it is expected that in 2007 economic growth will remain strong with GDP estimated to grow again at a 5.8% rate.

Table 1 draws on public sector accounts to illustrate the financial position of the Malaysia government over a period of 2001 to 2007. Total revenue ranged from RM79.5 billion in 2003 to an expected RM134.8 in 2007. These increases are important to ensure that government is able to control the deficit. Development expenditures reported a reduction of 20.9% (Economic Report, 2004) in line with government objective to reduce the deficit. In fact, the continued weakening in the external environment and its adverse impact on domestic private demand necessitated the Government to pursue a stronger expansionary fiscal stimulus to revive domestic economic activities.

Table 1: Federal Government Finances, 2001-2007 (in billions)

	2001	2002	2003	2004	2005	2006	2007[a]
Total Revenue	79.5	83.5	92.6	99.4	106.3	123.5	134.8
Current Expenditure	63.7	68.6	75.2	91.3	97.7	107.7	113.0
Development Expenditure	34.2	35.0	93.4	28.9	30.5	35.8	44.5
Overall	-18.4	-20.2	-21.0	-19.4	-18.7	-19.1	-20.2

This table shows statistics of Malaysian Government finance from 2001-2007. Figures are in billions. [a] Forecast Source: Department of Statistics Malaysia, 2007

For detailed breakdown of government expenditure, Table 2 and Table 3 presents exact spending figures. For every year the government reported an increase in spending there was a corresponding increase in collection. In 2007 a total of RM157,496 million was budgeted for both operating and development expenditures. The increased expenditure was aimed at sustaining growth momentum given the more challenging external environment (Economic Report, 2006). Operating expenditures receive high allocation due to the compulsory nature of the expenditure. Whereby, the development expenditure is not based on necessity.

Table 2: Federal Government Development Expenditures by Sector, 2001-2007 (in millions)

	2001	2002	2003	2004	2005	2006	2007[a]
Agriculture and rural development	1,366	1,470	1,620	2,671	2,482	3,681	4,157
Trade and industry	1,870	2,084	3,456	1,629	3,221	3,791	5,102
Transport	1,671	1,887	7,354	7,014	7,660	6,198	7,298
Education and training	14,422	16,111	10,193	4,494	3,736	5,175	7,941,
Health	4,680	4,742	2,681	2,646	1,220	1,297	1,629
Housing	397	131	1,928	1,320	1,082	1,895	2,153
Security	3,531	3,587	6,029	4,338	4,803	5,781	6,817
General administration	8,635	7,021	1,824	2,670	3,324	3,556	2,648

This table shows Malaysian government expenditures. [a] Forecast Source: Department of Statistics Malaysia, 2007

LITERATURE REVIEW

Discussion and studies on the determination of growth remain one of the most significant and popular topics for economists and policy makers. Different studies indicate that different factors contribute to growth. However many believe that tax levels are one of the most significant factors that contribute to country growth. One tenet of taxation is its distorting effect on economic behavior either directly or indirectly. Moreover most developed and developing countries depend on the revenue collection for development purposes. The discussion concerning the relationship between tax and growth in either the

Table 3: Federal Government Operating Expenditures by Object, 2001-2007 (in millions)

	2001	2002	2003	2004	2005	2006	2 007[a]
Emolument	17,443	18,232	21,721	21,814	25,587	25,089	25,815
Debt service charges	9,634	9,710	10,543	11,655	11,604	12,726	13,127
Grant to state governments	2,012	2,189	2,125	2,960	2,614	2,907	3,645
Pension and gratuities	4,711	4,486	5,870	6,174	6,809	6,638	7,049
Supplies and services	10,703	11,854	13,968	18,133	17,984	21,608	23,147
Subsidies	4,552	4,646	2,679	6,250	13,387	11,251	11,908
Grant to statutory bodies	5,312	5,828	6,844	7,153	8,289	9,183	9,854
Refunds and write-off	1,776	2,376	2,657	5,113	288	357	1,815
Others	4,575	4,224	8,814	12,272	11,182	15,615	16,626

This table shows Malaysian government operating expenditures. [a] Forecast Source: Department of Statistics Malaysia, 2007

short run or long run has been widely discussed by economist with the finding that there is significant relationship between tax revenue and spending growth in the long run. Loganathan and Taha (2007) findings have demonstrated a consistent relation between revenue and spending. In fact government expenditures namely those that enter as input into the production function for final output and those that enter as inputs in investment technologies may well have large impact on long-run growth (Glomm and Ravikumar, 1997). On the other hand, they believed that changes in policy have significant implications since government expenditures in dynamic general equilibrium models may influence long run-growth rates and welfare.

Regardless of country size, tax has become a dominant factor in country endogenous growth, either from direct or indirect sources. From the revenue view, Wang (2007), Padovano and Galli (2002), and Brown (2002) argued that tax has a significant impact on economic growth. In fact Padovano and Galli verify the robustness of the correlation between tax variables and growth by progressively include additional policy and control variables in the growth regression. Supporting this contention, Erbil (2001) shows that trade tax has become a significant source of government revenue. Meanwhile, Hsing (2005) believed that economic growth is positive related with the growth in civilian employment, investment spending, technological progress, and human capital. Contrary to this finding Cantley (2004) argues that action to control spending only spurs the economy at least in the short run, but no evidence is provided for a long run relationship. The implication for changes in tax policy to either increase or decrease the taxpayer burden cannot be observed in the short run.

Researchers have conducted extensive tests on the relationship between economic growth and the structure of taxes. For instance, Koch et al. (2005) by using time series analysis for the period of 1960-2002 examined the implications of tax policy on economic growth by using a two-stage modeling technique. The authors found that decreased tax burdens are strongly associated with increased economic growth potential. In addition, contrary to most theoretical research, decreased indirect taxation relative to direct taxation is strongly correlated with increased economic growth potential. Koch et al. (2005) exploit the exogenous variation of United States enterprise zone policies to estimate the impact of geographically targeted tax incentives on a number of dimensions of local economic growth by using economic analysis. The results offer empirical evidence that incentives have a more complex dynamic in net growth performance. Similarly Yamarik (2000) includes the role of tax distortions in explaining state-level economic growth through the estimation of disaggregated personal income, general sales and property tax rates. As a result, disaggregated tax rates generate predictions more consistent with growth theory.

The determination of the causal ordering between these two macroeconomic aggregates has important implications for fiscal policy and the concomitant determination of budgetary balances. This is particularly true for countries that participate in the euro zone and thus fall under the provisions of the stability and growth pact (Kollias and Paleologou, 2006). Besides, an increase in monetary growth associated with an increase in government consumption results in crowding out both private consumption

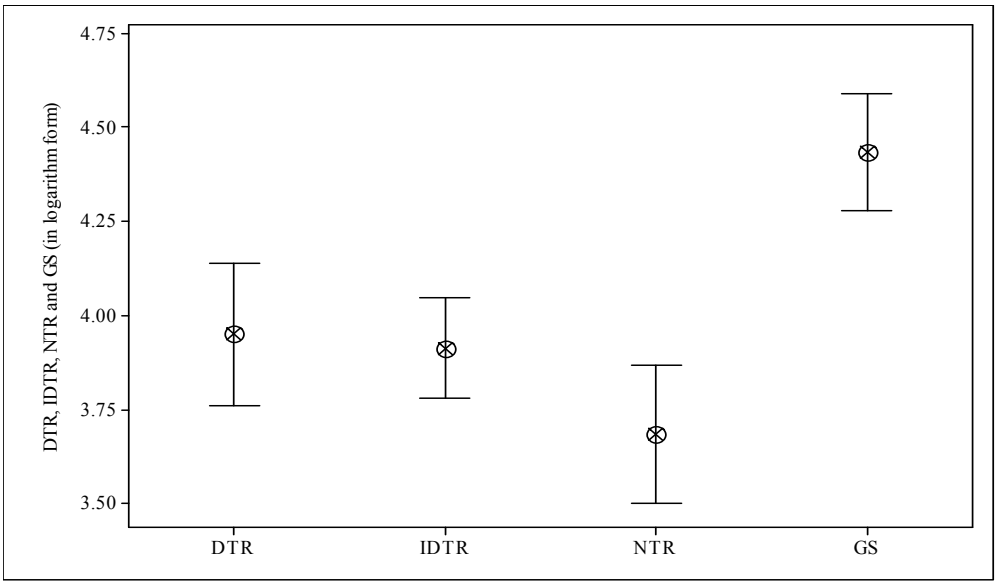
and private investment. This in turn reduces the growth rate of the economy (Ghosh and Mourmouras, 2001). Specifically the authors demonstrate that capital projects, financed through money creation namely; shortage of private savings and inadequate tax systems in many developing countries will give positive impact on economic growth. Furthermore, changes in policy will give significant impact on revenue elasticity besides changes in real income growth and inflation (Creedy and Gemmell 2004).

Various other realized and unrealized considerations mitigate growth. The standard static trade model cannot explain the large effect on growth in the long run. However this relationship could be explained by using more than one type of analysis (Cunat and Maffezzoli, 2007). Farmer and Lahiri (2006) drew attention to the fact that investment ratios are strongly correlated with growth across countries as well as saving ratios within countries. Similar with our method of study, Sinha, (1998) found the relationship between GDP and government expenditure in Malaysia by using Penn World Table annual data for 1950-1992. He uses two types of analysis with one methodology finding that there is a long run relationship between both variables namely GDP as independent and government expenditure as dependent variables. However, by using Granger-causality no evidence of a relationship is found. This is consistent with our study where taxation remains a causality effect in the long run, and therefore taxation policies always reflect on government spending.

THE DATA AND MODEL SPECIFICATIONS

This study utilizes yearly direct tax revenues, indirect tax revenues, non-tax revenues and government spending of Malaysia, covering the sample period of 1970 to 2006, with 36 observations on each of the variables. The International Monetary Funds (IMF) obtains the data from Malaysia's Department of Statistics (DOS) and World Development Indicators Database. Prior to the analysis, all variables are transformed into logarithm form. A graphical depiction of the data is provided in Figure 1:

Figure 1: Interval Plot of DTR, IDTR, NTR and GS, 1970-2006



Unit Root Tests

It is important to determine the characteristics of the individual series before conducting the cointegration analysis. Many studies have shown that majority of macroeconomics time series are not stationary, rather they are stationary with a deterministic trend. This creates a problem for econometricians as the normal

properties t-statistics and Durbin Watson statistics (DW) and measures such as R-square results are biased when data is non-stationary. To test the order of integration, we used Augmented Dickey-Fuller test (ADF), Phillip-Perron test (PP) and Kwiatkowski et al. test (KPSS). It is widely acknowledged that ADF and PP tests are not very efficient in distinguishing between a unit root and a near unit root case. To complement ADF and PP tests, we employ the KPSS test proposed by Kwiatkowski et al. (1992). The KPSS test assumes that the null is stationary against the alternative that the variable does have a unit root.

Johansen and Juselius Cointegration Test

Granger (1969) proposes the concept of cointegration and, Engel and Granger (1987) provide further in depth discussion of the technique. The components of the vector X_t are said to be cointegrated of order *d*, *b*, and denoted by $X_t \sim CI(d,b)$ if (i) X_t is $I(d)$ and (ii) there exists a non-zero vector α such that $\alpha' X_t \sim I(d-b)$, $d \geq b \geq 0$. The vector α is called the cointegrating vector. Cointegration suggests that there exists a long-run equilibrium relationship linking these variables, or they tend to move together over time. Therefore, cointegration reveals long-run effects between time series variables. In this study, we employ Johansen and Juselius (JJ) cointegration test. The JJ cointegration approach suggests an alternative method to perform the cointegration test. Basically, the JJ method is presently used and takes the form of following equation:

$$\Delta Y_t = \prod Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + BX_t + \varepsilon_t \quad (1)$$

Where, $\prod = \sum_{i=1}^{p} A_i - I$, $\Gamma_i = -\sum_{j=i+1}^{p} A_j$, Y_t is a *k*-vector of non-stationary $I(1)$ variables, X_t is a *d*-vector of deterministic variables, and ε_t is vector of white noises with zero mean and finite variance. The number of cointegrating vectors is represented by the rank of the coefficient matrix Π. Johansen's method is to estimate the Π matrix in an unrestricted form, then test whether one can reject the restrictions implied by the reduced rank of Π. The likelihood ratio (LR) test for the hypothesis that there are at most *r* cointegration vectors is called the trace test statistic. It is to be noted that the variables under consideration should have identical orders, and in particular are integrated of order one (Engle and Granger, 1987). Testing for cointegration of the type CI(*d*,*b*) for $b<d$ are not of primary interest, since for $b<d$ the cointegrating vector is not stationary and does not have a straightforward economic interpretation (Charemza and Deadman, 1997).

Granger Causality Tests (VAR Approaches)

When in a regression equation we say that the explanatory variable X_t affects the dependent variable Y_t we indirectly accept that variable X_t causes variable Y_t, in the sense that changes in variable X_t induce changes in variable Y_t. This is in simple terms the concept of causality. With respect to the direction of causality, we can distinguish the following cases:

a) Unidirectional causality: This is the case when X_t causes Y_t, but Y_t does not cause X_t.
b) Bidirectional causality: This is the case when variables X_t and Y_t, are jointly determined.

In most cases, the direction of causality is not known and various tests have been suggested to identify the directions. The most well known test is the one proposed by Granger (1969). This test being based on the premise that the future cannot cause the present or the past utilizes the concept of the Vector Autoregressive model (VAR). Let us therefore consider the two variables, X_t and Y_t VAR (k) model:

$$Y_t = \alpha_{10} + \sum_{j=1}^{k} \alpha_{1j} X_{t-j} + \sum_{j=1}^{k} \beta_{1j} Y_{t-j} + \varepsilon_{1t} \quad (2)$$

$$X_t = \alpha_{20} + \sum_{j=1}^{k} \alpha_{2j} X_{t-j} + \sum_{j=1}^{k} \beta_{2j} Y_{t-j} + \varepsilon_{2t} \quad (3)$$

With respect to this model, we can distinguish the following cases:

a) If $\{\alpha_{11}, \alpha_{12}, ...\alpha_{1k}\} \neq 0$ and $\{\beta_{21}, \beta_{22}, ...\beta_{2k}\} = 0$, there exists a unidirectional causality from X_t to Y_t, denoted as X→Y.
b) If $\{\alpha_{11}, \alpha_{12}, ...\alpha_{1k}\} = 0$ and $\{\beta_{21}, \beta_{22}, ...\beta_{2k}\} \neq 0$, there exists a unidirectional causality from Y_t to X_t, denoted as Y→X.
c) If $\{\alpha_{11}, \alpha_{12}, ...\alpha_{1k}\} \neq 0$ and $\{\beta_{21}, \beta_{22}, ...\beta_{2k}\} \neq 0$, there exists a bidirectional causality between X_t to Y_t, denoted as X ◄ ►Y

In order to test the hypotheses referring to the significance or lack thereof, the sets of the coefficients of the VAR model equations (2) and (3) the usual Wald F-statistics could be utilized. The hypotheses in this test may be formed as follows:

H_0: X does not Granger cause Y, i.e $\{\alpha_{11}, ...\alpha_{1k}\} = 0$, if F_c<critical value of F-statistics
H_1: X does Granger cause Y, i.e $\{\alpha_{11}, ...\alpha_{1k}\} \neq 0$, if F_c>critical value of F-statistics

EMPIRICAL RESULTS AND DISCUSSIONS

Table 4 summarizes the outcome of the ADF, PP and KPSS tests on all four variables in this study. The null hypothesis tested is that the variable under investigation has a unit root against the alternative that it does not. In each case, the lag-length is chosen using the Akaike Information Criteria (AIC) and Kwiatkowski et al. (1992) after testing for first and higher order serial correlation in the residuals. In the first half of Table 4, the null hypothesis that each variable has a unit root cannot be rejected by both ADF and PP tests, but the KPSS test rejected the unit root hypothesis:

Table 4: Unit Root Tests

Variables	ADF Test (τ)		PP Test (Z_τ)		KPSS Test (η)	
	Level	First Differences	Level	First Differences	Level	First Differences
GS	-1.53(2)	-3.77(1)*	-2.27[0]	-4.22[0]*	0.14[4]	0.11[1]
DTR	-1.68(0)	-4.78(0)*	-1.64[2]	-4.79[1]*	0.13[4]	0.06[1]
IDTR	-2.18(0)	-5.43(0)*	-2.34[3]	-5.43[1]*	0.15[4]**	0.05[3]
NTR	-1.38(1)	-8.50(0)*	-0.82[2]	-8.47[1]*	0.15[5]**	0.08[2]

This table shows the results of three different unit root tests. Figures in parentheses indicate the lag length. Asterisks (*) and (**) denote statistically significant at 1% and 5% significance levels, respectively.

However, after applying the first difference, both ADF and PP tests reject the null hypothesis, but the KPSS test does not. Since the data appear to be stationary by applying the ADF and PP tests in first differences, no further tests are performed. We, therefore, maintain the null hypothesis that each variable is integrated of order one *I*(1). Given the results of unit roots, we now apply the Johansen techniques to test for cointegration between the variables within a VAR model specification. The results of testing for the number of cointegrating vectors are reported in Table 5, which presents both the maximum eigenvalue $(\lambda_{Max-Eigen})$ and the trace statistics (λ_{Trace}).

The cointegration results in Table 5 are obtained using a VAR specification where the variables and the cointegration space contain linear trends and the results does not indicates any cointegrating vectors. Therefore, the results in Table 5 indicate that the results is now completely identified a long-run relation equilibrium relationship and, indicating the speed of adjustment of each variable to the long-run

equilibrium states. In order to examine the long-run causal relationship, we test for Granger-causality using block exogeneity Wald tests and report the results in Table 6.

Table 5: Johansen's Cointegration Tests

Null Hypotheses	Maximum Eigenvalue	$\lambda_{Max-Eigen}$ [k=1,r=0]	Critical Value (5%)	Critical Value (1%)
r=0	0.45	21.36	27.07	32.24
r≤1	0.29	12.35	20.97	25.52
r≤2	0.18	7.11	14.07	18.63
r≤3	0.09	3.38	3.76	6.65
Null Hypotheses	**Maximum Eigenvalue**	λ_{Trace} [k=1,r=0]	**Critical Value (5%)**	**Critical Value (1%)**
r=0	0.45	44.21	47.21	54.46
r≤1	0.29	22.84	29.68	35.65
r≤2	0.18	10.49	15.41	20.04
r≤3	0.09	3.38	3.76	6.65

This table shows the Johansen's Cointegration test results. Asterisks (*) and (**) denote statistically significant at 1% and 5% significance levels, respectively.

Table 6: VAR Granger-Causality (Block Exogeneity Wald Tests)

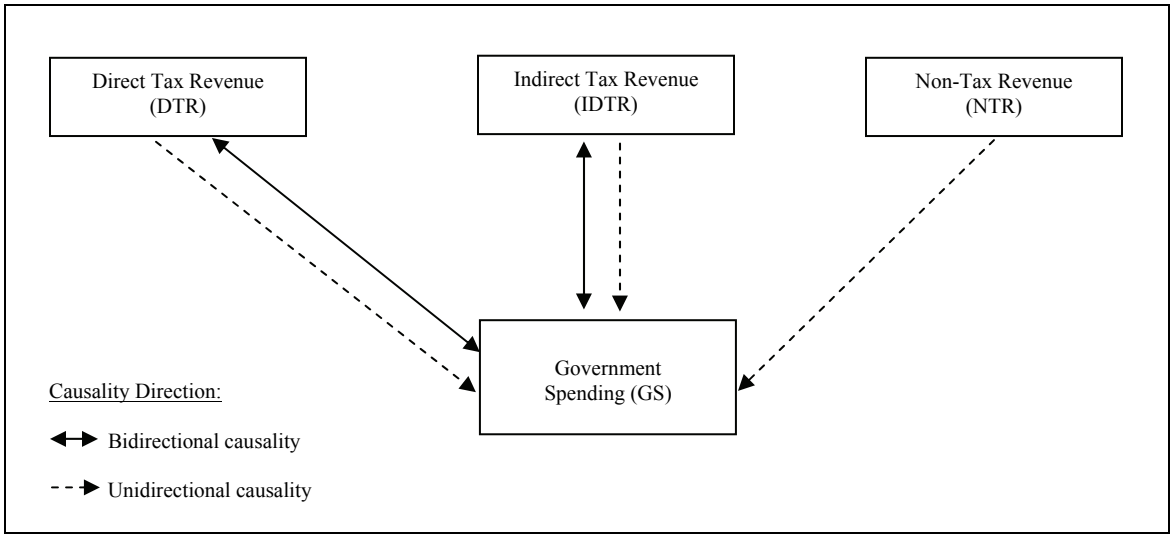
	GS	DTR	IDTR	NTR
GS	_	0.51	4.77*	1.52
		[0.47]	[0.02]	[0.21]
DTR	8.83*	_	38.53*	1.64
	[0.00]		[0.00]	[0.20]
IDTR	0.24	0.45	_	0.69
	[0.62]	[0.50]		[0.40]
NTR	1.57	0.00	0.05	_
	[0.21]	[0.98]	[0.81]	

*This table shows the VAR Granger-Causality test. *(**) indicates statistical significance at the 1% ,(5%). Figure in [ ] stands for probability value.*

The Granger-causality tests conducted above are conducted using a joint F-statistic for the exclusion of variable from one equation as illustrated above in a simple matrix form. The results of these tests indicate that Granger-causality is running in both directions between government spending and tax revenues. Thus, in contrast with the neo-classical argument that tax revenues is neutral to growth, our results for Malaysia are consistent with the view that direct and indirect tax revenues does have a causal impact on government spending. Our results are also in line with findings by Cunat and Maffezzoli (2007), Creedy and Gemmell (2004), Koch et al. (2005), and Sinha (1998) who obtained similar results on other countries. Figure 2 clearly shows the Granger-causality directions between government spending and tax revenues in Malaysia.

Therefore, any changes in government spending may lead to the changes in both tax revenue and vice versa. The reason for this is when the government is able to effectively collect tax revenue, the tendency to increase the government spending is very high. While in the case of spending, a good spending will project a good growth and influence the economy. Therefore, when the economy is in an upward trend the tendency to collect more tax is very high. When government issues any new policy that can increase or decrease direct tax collection especially in individual and companies' collection, this will also influence the indirect tax collection. For example, when the government raises public worker salaries the purchasing power of this party will also increases, indirectly affecting the sales tax or service tax collection. Therefore, there is bidirectional causality relationship between government spending, direct tax revenue and indirect tax revenues.

Figure 2: Granger-Causality Effects



CONCLUSIONS REMARKS

Since in the 1970s, the Malaysian government played a key role in the economy. The government ventured beyond its traditional functions and took on a more direct and active role in the country's overall social and economic development process. The establishment of collector body (IRB) as an agent of government collector has contributed to the successfulness of revenue collection. In addition, year-to-year the government has been able to increase the revenue collection as well as reduce the budget deficit. However, there is a need for empirical tests regarding the relationship between revenue collection and growth in order to see how both components of government finance interact. The determination of the causal ordering between these two macroeconomic aggregates is vital to ensure enactment of appropriate tax policies and the effectiveness of fund management. Most of the results show that changes in tax policy or structure has positive effect with growth and spending.

The purpose of this study was to test for Granger-causality between government spending and tax revenues for Malaysia. This study finds that there was bidirectional Granger-causality running from direct tax revenues, indirect tax revenues to government spending, but no unidirectional Granger-causality running between non-tax revenues and government spending. This supported the results of financial analysis in Malaysia where direct tax has become the major portion of government revenue followed by indirect and non-direct tax revenue. These results indicate that reducing direct and indirect tax rates may lead to a fall in government spending in the future, but these results may suffer from the omission of other relevant variables. In addition, non-tax revenues seem to be a less important contributor to the successfulness of country's growth as compared to direct and indirect tax. Therefore, future research should attempt to incorporate more variables in the analysis.

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