

Dividend Tax Cuts in the United States and Single-Tier Tax Regime in Malaysia: Share Price Reactions to Tax Policy Changes

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ABSTRACT

There is a body of received theories which suggest that tax policy changes actually influence the value of corporations, and affect capital market values. There is strong evidence of share price being changed whenever good or bad news from tax changes occur. This paper provides a very short review of well-known theories, with the aim of showing how tax changes *relating to dividends* in Malaysia and in the USA do actually affect the values of shares in one mid-income and one high-income economy. Malaysia's policy change in 2007 to streamline the dividend credit system into a single-tier tax system led to share price increases in *Bursa Malaysia*. Tax effect in the USA was tested using the good news of dividend tax cuts passed into law on three dates over 2003 and 2010. These findings are very much policy relevant for the ongoing debate, for example, in Malaysia on introducing future goods and sales tax to reduce other taxes.

Keywords: Taxation theories, share prices, disclosure effect, tax policy effect, Bursa Malaysia, goods and sales tax

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INTRODUCTION

Modern theories of how firms behave financially are widely accepted after 50 years of empirical support for most of the predictions of theories. This paper is about a subset of these theories relating to how share values of firms are affected by

government's tax policy changes in two economies changing dividend taxes, namely, United States (US) and Malaysia. A brief review of the theories relating to corporation and personal tax effects on share value is provided as the background to this paper. This review is meant to provide a sound up-to-date position of the finance discipline relating to taxation policy as a preview to the empirical results to be presented in this paper. The aim of this research is to propose and then test for statistically significant share price effects around the time of announcements of tax change policies in two capital markets. The Malaysian and US tax reforms are related to dividend taxes with US cutting dividend tax and Malaysia eliminating dividend tax credits, hence, both were studied. The proposed price effects are identified from the capital structure theories in the literature. Tax policy changes in both cases studied reduced the tax paid by shareholders. Hence, as per the capital structure theory, it is proposed that the direction of the share price changes around the time of the announcement of the tax change policies in both countries as testable propositions.

The empirical results from studying the announcement effects of tax policy changes in the US on three occasions during 2003-2010 are reported in this paper; and the share price reaction to Malaysia's decision in 2007 to introduce a single-tier tax regime to replace the dividend credit system that dated back to 1958. Just as the theories would predict, these policy changes are perceived as good news by shareholders in

both markets as these tax changes reduced the taxes in the US and formally introduced a reduced dividend tax regime in Malaysia. Therefore, the shareholding investors of the affected firms would re-price the values of their shares when these announcements were made to the markets.

If for example the package of any future tax policy on goods and sales tax is perceived as good news, a similar good news price reaction would then be predicted in the *Bursa* Malaysia. Current debate on this new tax hovers around the possibility of introducing this tax and at the same time reducing the corporate and personal tax rates. Several nations have reduced the personal and corporate tax rates since the 1980s, i.e. after the US and United Kingdom started to reduce tax rates in 1989-82. When sales taxes were introduced by several governments such as Singapore in 2003, the governments reduce personal and corporate taxes and provide cash payments to households to offset the sales tax impact of the bad news effect of introducing sales tax. This is to sweeten the debut of sales tax as being regressive. This tax often starts at 2 per cent only to be increased by politicians in later years to higher and higher rates as it happened in several EU countries, where it hovers around 10-20 per cent as at 2012.¹

The rest of the paper is organised as follows: **Tax Effect Theories** is an introduction to the relevant theories and

¹See Ariff & Aslam (2011). *Reinventing the State and Expanding Taxation, presented at the Globalisation and Reinventing the State conference*, November, 14, 2011, Bond University, Qld., Australia.

these theories are structured into a testable model for application. Also, in this section the reader will find some worldwide facts about tax revenues so as to relate our findings to the policy issues in the evolution of tax changes. The methods and tests to be done with the data set selected for Malaysia and the US are described next. The findings are summarised and discussed in **Results** before ending this paper with some comments in **Conclusion**.

TAX EFFECT THEORIES

Worldwide Taxation Facts

Modern theory of the structure of taxation as a body of positive theory was developed only during the last 53 years starting with the works of Nobel laureates Modigliani and Miller (1958; 1961). Prior to this important advance in knowledge as our very valuable positive finance theoretical framework, the debate on taxation was based on common sense – often not producing valid evidence to support such common-sense-based ideas. The enunciation of a rationally structured framework led to a new thinking about the effect of taxation that led to a body of literature supported by empirical evidence. To give context to the debate on tax policy evolution, basic facts about taxation across the world are also provided: Per capita tax revenue is US\$ 3,800 against per capita world income of US\$11,000 as at 2010 (Ariff & Aslam, 2011) based on OCED statistics. Tax does bite into the incomes of people. Given this background, some salient facts of cash flows involved in

taxation across the world are introduced in this section.

Tax has been levied as long ago as the first civilization some 4500 years ago in Sumeria by King Hammurabi (Adams, 1993; Simon & Nobes, 1992).² All settled societies had some form of taxation. For simplicity, the taxation structures are divided as practised over centuries into three epochs. The early settled societies imposed a poll (household) tax as did the Romans, along with tax on land or other assets such as produces and tax on subject nations. Added to this, a toll tax was collected at the gates of cities from merchants who would want to trade, and it is called sales tax. Of course, the confiscation of the wealth of defeated people often supplemented as extra revenue. That appears to be the totality of taxation for centuries. There were some minor extra taxes such as levy on the rich when wars broke out.

This was the simple template for taxation that lasted well into about 1500 AD. The result was that these were pre-modern societies without elaborated tax system as compared to the modern times in modern societies. China, as an exception in the early period, has records of income tax levied on households during some dynasties (for example, during the Tang Dynasty in 7-9th centuries). However, income tax did not contribute much to the total revenue as did the poll, wealth, produce, land, toll taxes.

²There are several sources for a historical review of taxation. An excellent introduction is found in Charles, A. (1993). *For Good and Evil: The Impact of Taxes on the Course of Civilization*. Madison Books.

Hence, the first period of tax experience lasted for a long period.

This appear to have changed with the birth of modernisation in the 16th century and the organisation of modern stock exchanges some decades later, along with the expansion of the European power to the New World, Africa, Asia and Australia. New forms of taxation started to take root during this second period (Brien & Hunt, 1993; Stewart, 2011). Among these were the agricultural tax (both land and produces); wealth tax that even included a tax on owners of buggies in England; and some forms of tax on ships that plied across the oceans. Nevertheless, there were no major inventions of the new tax forms. Most of the old tax forms now began to provide more tax dollars. With population increases, tax revenue from exports and imports (creating for the 20th century economists a platform to abolish the ad valorem and excise duties, which averaged about 90% of the value of goods in 1950s) increased as did poll tax when the number of households increased. There were no estimates of how much tax was collected. Some rough estimates found in the records suggest that tax farming was a lucrative trade, but there are no records of the amount of wealth a particular nation had during the period of Renaissance in Europe for example in the 12-14th centuries.

All this changed about 200 years ago mainly in Europe as new forms of taxation started to develop, especially based on the incomes of firms and of individuals. Income-based tax was introduced at the times as war expenses: large corporate tax

was introduced in United Kingdom in its modern form after World War II (Musgrave & Musgrave, 1989). An example of the early income tax is the infamous England's windows tax meant to tax richer people living in larger houses with more windows (Raithby, 1820). Personal income tax became an extra tax over and above land and produce taxes. For example, the British rulers of India introduced the land and produce taxes by taxing the owners of produces; the tax officers would stand during the harvest times at the collection points of harvesting to estimate the produce value to slap a tax on the richer segments of the empire. Of course, we have heard of the infamous tax on tea imposed on the US colonies and the subsequent tea revolt in Boston that led to the push for the fight for a republic.

The income tax and corporate taxes were perfected by the European and the US governments about 120 years ago.³ This tax form spread to all their colonies so today almost all the governments use these new devises to tax people across the world, even in tiny countries such as Singapore or Hong Kong to amass huge revenue base from taxing high-density populations on tiny lands. In the 1950s, as justified soon after the World War II to create jobs and to repair the damaged infrastructure, support

³The first attempt at income tax was shrouded as windows tax. An attempt to tax incomes in the closing decade of the nineteenth century led to a revolt in the US. The Supreme Court ruled such a tax as unconstitutional, so the imposition of this tax had to wait for the new laws in the first decade of the twentieth century.

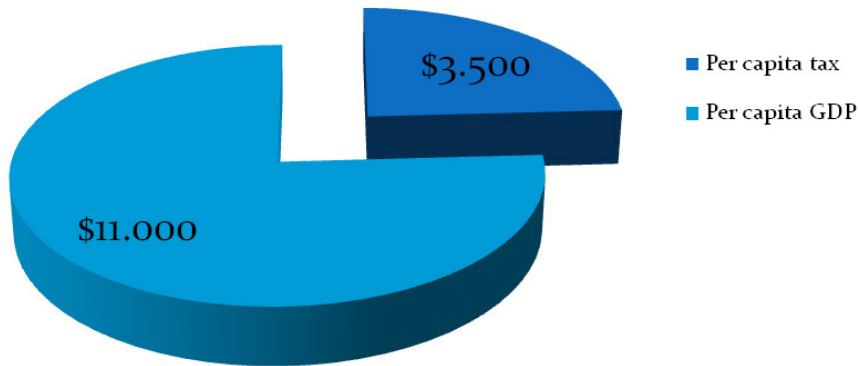


Fig.1: Per Capita US\$ Share of the Total Tax out of World's GDP
(The data for this analysis were from OECD sources and World Bank)

for a value added tax came from some economists. Thus, this new form of tax transformed into the GST of today (Tait, 1988).⁴

The total taxes collected in 2010 by governments across the world averaged to US\$ 3,800 per capita against the per capita world income of US\$ 11,000, which means tax is 32 per cent of per capita GDP (Ariff & Aslam, 2011). The total taxes in wealthier 36 OECD countries averages 32 per cent of GDP, while the total tax of the less well-off non-OECD countries is 19 per cent of their

GDP (see Fig.1). The net results of the tax policies of nations in the opening decade of the 21st century are summarised in Table 1. The amount of money in the form of taxation is 27.5 per cent of the world GDP or about \$18,000 billion.

TABLE 1
Chronology of Events on the Single-Tier Tax Policy in Malaysia

Event Dates	Description of Event
29/05/2007	Budget 2008 consultation session and Budget presentation date announced to be 7th September 2007.
05/09/2007	President of Malaysian Institute of Taxation (MIT) revealed the proposal included a plan for a single tier tax for corporate income.
07/09/2007	Budget presented at the Dewan Rakyat (Parliament).
03/12/2007	Budget endorsed by Parliament.

⁴Tait, A. A. (1988). *Value Added Tax: International Practice and Problems*. Washington: International Monetary Fund. Other classics are: Musgrave, R. A., & Musgrave, P. B. (1989). *Public Finance in Theory and Practice*. New York: McGraw Hill Higher Education; Musgrave, R. A., & Peacock, A. T. (Eds.) (1958). *Classics in the Theory of Public Finance*. London: MacMillan; Pechman, J. A. (1985). *Who Paid the Taxes 1966-85?* Washington D.C.: Brookings Inst Press.

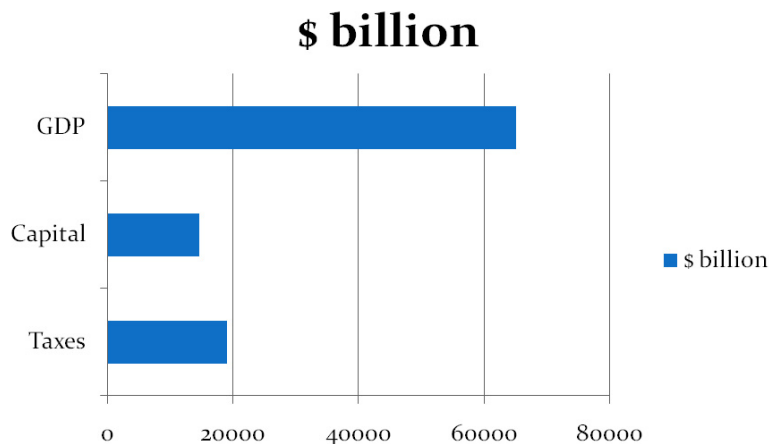


Fig.2: World Income (GDP) and Share of Taxation and Gross Investment
(The data for this analysis were from World Bank's World Development Reports)

These numbers are calculated from the data available on world taxation in several sources, including OECD publications (see also Ariff & Aslam, 2011) for details on this analysis.

Fig.2 shows the average gross capital investment to be \$14,000 billion a year: the governments' share of this gross investment from tax revenue is 2.7 per cent and the rest are just expenses of government bodies.⁵ These figures suggest that taxation is an important macroeconomic variable in all countries, aside from gross investment and employment rates, which are significant drivers of the economic affairs. Should a country's tax policy affects the share

⁵Forty-four countries hold sovereign wealth funds totalling of \$4,800 billion. Of these, 7 countries (China, UAE, Norway, Saudi Arabia, Singapore, and Hong Kong) hold 75% of the total assets. In a broader sense, these wealth funds are over-taxed income or resource-based income farmed into separate accounts and used as sovereign wealth funds for gaining control of the firms across the world.

prices of the stocks listed in an economy? Received theories of information economics and capital structure theories suggest that share prices are affected by the changes in tax policies. A brief review of these theories is provided so as to propose the testable propositions for our empirical tests in the US and Malaysian share markets.

Taxation Effect Theories: Is Tax Relevant to Value?

Modern taxation studies can be traced back to the early 1950s. Few theories remain unexamined, such as those in Modigliani and Miller (1958; 1963), which provide a framework as the modern theory of valuation of firm. The theory predicts that in a perfect market where there is no corporate tax (think of the years before the 20th century or think of countries that have no corporate tax even today, such as Qatar), any choice between debt and equity will have no relevance to the firm's value. That is, the

share value of the firm is unaffected by tax policies. If corporate tax is imposed, it is predicted that the firm value is not affected as long as the firm is not giving the right to deduct interest costs as tax deductible. If the firm is permitted to tax-deduct interest expenses and there is corporate tax, the firm would earn more net income by reducing its tax liability. This creates a *tax-shield value*, which increases the value of the firm due to the corporate tax applied. In a world without taxation (Qatar today or pre-1994 China), the absence of corporate tax would mean that there is no tax shield value for firm whereas in other taxed countries, tax shield value is relevant as tax-induced value gained by the firm. Hence, policy change to introduce corporate tax in Saudi Arabia, Oman, and China would lead to share price changes.

Miller and Modigliani (1961) also made another sound proposition on dividends (relevant for this paper's analysis of US dividend tax cuts), stating it is *irrelevant to the value* of firms by assuming there is no tax on dividend incomes. A firm could pay all the income as dividends and then turn around to raise money for new investment. In the of the expectation of profits, the new investments may make the share price go up, but not the re-assignment of income as dividends. They further state that the firm value can only be increased through other sources, such as investment, but not from repackaging earnings as dividends. In addition, they stated that the change in the value of share price could only be due to signalling value if there is a sudden

unexpected increase in future dividends (as for example, when US cut dividend taxes three times in 2003-2010; or when Malaysia chose single tax regime in 2008), signalling that value change is not dividend-repackaging value, they added. In their 1966 study, Miller and Modigliani (1966) further strengthened their claim with an empirical test, where they found that the cross-sectional regression against return showed a slightly negative and insignificant dividend payout term.

The theory on dividend irrelevancy was further extended by Elton and Gruber (1970) to capture the predicted drop in share price around the ex-rights dates based on investors selling and buying value on the after-tax value of dividends; they named this the price-drop effect:

$$\frac{P_B - P_A}{Div} = \frac{1 - \tau_p}{1 - \tau_{cg}} \quad (1)$$

where P_B is the stock price before the ex-dividend day and P_A is the stock price after the stock goes ex-dividend. Therefore, in a situation where dividend tax is higher than capital gains tax ($\tau_p > \tau_{cg}$), the dividend drop ratio on the left side of Equation (1) is expected to be less than one. They showed that the price would drop by less than 1.00 on the ex dates and that the dividend-to-share price drop ratio could be used to compute the average tax effect on investors. They developed an expression for this relationship between dividend payment and share price, before and after ex-dividend date.

The corollary of this prediction is that in the absence of tax on dividend incomes, the price drop ratio will be equal to one (for example, in Malaysia under the single tax regime introduced in 2007). The price drop ratio should be equal to 1.00 as would also be the case in the US in the period after May 2003, when the tax on dividends was reduced to 0. They examined the share price behaviour following ex-dividend day on NYSE market and found that the average price had dropped to be 0.76. This showed that the average tax rate in US was $1 - 0.76 = 0.34$ or 34 per cent in the 1960s.

Besides Elton and Gruber's study, another study that has also been receiving attention is that of Brennan (1970). He incorporates the effect of personal tax into the famous capital asset pricing model (CAPM),⁶ which could be specified as:

$$E(R_j) - r_f = b\beta_j + \tau(d_j - r_f) \quad (2)$$

where $E(R_j)$ is expected return (before tax) and r_f return on risk-free asset for security j . For the right-hand side, there are variable β_j , which is beta, the systematic risk and variable d_j , which

is the dividend payout on each security j . Tax premium, which is indicated by τ , shows the relevance of dividend payment to the value of the firm.

Although Brennan did not test his theory, this framework was replicated in some studies in different tax environments. Ariff (1985) found a significant coefficient for the dividend yield variable in the Singapore market. With an extended model, Litzenberger and Ramaswamy (1979; 1980; 1982) also found significantly positive dividend yield coefficients in the NYSE market. Similarly, Poterba and Summers (1984) detected changes in the dividend yield while examining the model across radical tax reform over 30 years of UK data.

At present, there are several studies on personal tax effects on share prices, however, with different models than of Brennan's (Chen *et al.*, 1990; Fama & French, 1998; Gentry *et al.*, 2003). Investigations through different models revealed that there is no consensus about the tax effects. The arguments over tax effect is, however, not new and it is in line with the theory of the late Miller (1977)⁷ who claimed that it is possible for everyone to avoid paying tax by designing schemes such as from investment through retirement option to offset the

⁶The after tax CAPM model (Brennan, 1970) is an extension of a pricing model framework constructed by Ferrar and Selwyn (1967). This model incorporates the CAPM that is derived by the works of Sharpe (1964), Lintner (1965), and Mossin (1966). While the previous CAPM provides specifications of risk and expected returns on all assets and securities given a corresponding portfolio with assumption of no taxes, the after tax CAPM provides similar indication with assumption of tax.

⁷Some authors claim that the tax effect is negligible because much of the cash dividends being invested in tax-exempt pension funds. See Chetty, R., Harrison, & Sharpe, S. (2007). The effects of taxes on market response to dividend announcements and payments: What can we learn from the 2003 tax cut? In A. Auerbach, J. Hines, and J. Slemrod, J. (Eds.). *Taxing Corporate Income in the 21-st century*, Cambridge, UK.

dividend tax or capital gains tax. Therefore, in a world with different types of taxes, the gain on leverage would be insignificant and could even be negative.

DATA, HYPOTHESES AND TEST MODELS

Hypotheses and Data

Hypotheses: There is one major hypothesis to be tested, which is: Did the tax policy change have a significant price effect on (i) NYSE market and (ii) *Bursa* Malaysia. A general positive return is expected following the confirmation of dividend tax abolition/reduction news events in the US; a similar effect is expected to the Malaysia's policy change to convert the dividend credit system to a single tax regime. Hence, the hypotheses are: There are no share price effects around tax change announcement dates in (i) the US and (ii) Malaysia. Rejecting the null hypothesis in our tests would confirm if there is a price effect.

The price effect from policy change is expected to occur after a surprise event is announced as happens with any completely unanticipated changes. This has been documented for many *unexpected* events in prior studies (Barrett *et al.*, 1987; Carter & Simkins, 2004). This hypothesis is the corollary of the Miller and Modigliani (1961), i.e., if there is an unexpected increase in dividend cash flows to investors, there would be a clientele effect. Nonetheless, in this case, cash flow increase is evident from the reduction in dividend tax and abolition of dividend tax. Therefore, it is expected that a positive price effect is predictable in

both countries.

Data relating to share prices and market index values were collected from DataStream. In order to analyze the effect of tax law changes on the overall market, daily market index values (NYSE S&P 500 and KLSE Composite index) were collected for days around the disclosure of the dividend-relevant disclosure dates. As is clearly known in the literature, the movement of stock index is affected by so many events such as import duty cuts in Malaysia in 2008, new spending, tax exemptions for venture capital firms, etc. We zero in on the (i) three tax cuts in the US and (ii) announcement of single tax regime in Malaysia, so we measured the effect on those unique important event dates. Additionally, the effects on individual firms in the NYSE and the *Bursa* around the tax cut dates were also examined so as to minimize the impact of other events before or later than the event of interest.

The effect on individual stocks required data on individual share prices, for which a sample of 1,665 shares in NYSE and 843 in the *Bursa* Malaysia were collected. Individual share data are needed to conduct significant tests on measured share price impacts. Thus, the hypotheses addressed are: Did the share market react to tax change disclosures? Did individual stocks react to the same tax change disclosures? The data used are adjusted for market capitalisation. Event dates were collected mainly from daily updated newspaper articles, which are the main sources in each country, supplemented by reports in the

web. Then, the dates were verified with the government's databases on how the lawmakers proceeded to take the bills to become laws over a given period of time.⁸

For each market index, index returns were calculated as natural log of the share price behaviour around the event dates, and market returns are termed as R_{mt} . Individual stock returns are termed as R_{it} , where i denotes the individual stocks in either markets. Thus, the variables computed are as in Equation (3), with m denoting market and i denoting stocks.

$$R_{it} = \ln\left(\frac{P_{it}}{P_{it-1}}\right) \quad (3)$$

where R_{it} is the rate of change in individual values at time t in a country; P is the individual share price value (or portfolio value of 1,665 US stocks and 843 Malaysian stocks after averaging across the samples) at time t and time $t-1$, which are daily returns.⁹ The ratios were changed to percentages by multiplying them by 100.

We computed the abnormal percentage returns as $AR_i = R_{it} - R_{mt}$ (based on the widely used market adjustment model) for each individual shares and the CAR_i

as the cumulative abnormal returns¹⁰ over a number of windows around the event dates chosen for the portfolios of individual stocks in Malaysia and separately for the individual shares in the US. The windows are shown in the respective tables in the results section: the longest window was over 0 to +9 days. In the measurement of the index price changes, no statistical test could be conducted. However, in the case of much more accurate individual stock's abnormal returns, relevant t-tests were used to test for significance. Some authors (e.g., Barber & Lyon, 1997) provide an alternative model for measuring price effect in windows greater than over six months.

RESULTS

Malaysia Tax Event

The change of imputation tax system to a single-tier tax system was formally announced on 7 September 2007 during the public disclosure process of presentation of the fiscal budget for the year 2008. Nonetheless, two days prior to that presentation, the chair of Malaysia Institute of Taxation made a statement to the press about the proposal for a single tier tax.

From an exhaustive search of the press releases and press reports, four dates chosen are the ones most likely to elicit a response in the market. The most important date

⁸Malaysian tax enactment date can be accessed in parliamentary records of the Parliament of Malaysia in <http://www.parliament.gov.my>. The US tax legislative history can be accessed from US Government Printing Office: <http://www.gpo.gov>.

⁹In a continuing research, the price effect of individual share prices was pursued. Initial results are similar to the results reported in this paper for both the US and Malaysia.

¹⁰The CAR data could be used to find if the price effect as CAR is driven by some identifiable firm's characteristics. This will be a good extension of the work we have done, as it is an extensive further research.

was the second date when the authoritative person announced a change of policy.

Table 2 details the index prices and the returns observed around the event dates. It is evident that in all potential event dates, the returns are positive. The exception is the reaction on the date of budget presentation; by this date, the surprise element was already not there. These reactions from the market indicated that the policy change to inaugurate a single-tier tax system did have a positive price effect. These results are very preliminary just to show how the market reacted and also because with these numbers, no statistical tests could be conducted. The results relating to individual stocks presented later were tested for significance.

TABLE 2
Malaysian Index Price and Return (in percentage)
on Event Dates

Event Date		-1	0	+1
29/05/2007	Return	0.51	-0.22	-0.28
	Price	1345.99	1343	1339.18
05/09/2007	Return	-0.03	1.10	0.07
	Price	1283.75	1297.93	1298.85
07/09/2007	Return		0.46	-1.09
	Price		1304.9	1290.7
03/12/2007	Return	1.64	1.59	-0.25
	Price	1396.98	1419.34	1415.81

This table shows the summary measures of how the market reacted to the tax reform announcements. The results are mixed. However, when the authoritative person made the announcement of tax reform and when the law was passed in Parliament,

there are very large changes in the index values: 1.1% and 1.59%. Fig.3 shows how the price reacted over time with no particular pattern indicating the uncertainty on the tax cut law being passed. We did not test the CAR over -1 and +1.

Following the press statement in May, the market index rose from 1,283.75 to 1,297.93, with a return of 1.1 per cent (see Table 2). That is an estimated market capitalization change of US\$3.578 billion.¹¹ Two days later, following the presentation of the budget by the Finance Minister, the market index rose again by 0.46 per cent to the value of 1,304.9. Over three days, the market index return increased by 1.63 per cent. The return spikes to the event dates are plotted in Fig.3.

On 3rd December 2007, the Budget was endorsed by the Parliament, and this brought the single tier tax into effect on 1st January 2008. The market index was at 1,419, with a return of 1.59 per cent. Despite the US-origin global crisis spreading to this market at the same time, the market index price showed a mild increase at the time of Budget announcement on 7th December 2007.

The law was enacted and endorsed by Royal assent. It is noted that the large index return spikes around the month of August are unrelated to the announcement of tax. These changes may well be due to a combination of news including that of tax change policy. However, as is shown for individual stocks, this is not the case as

¹¹The annual market capitalization as at year 2007 is US\$325,290.3 million: source: World Market Exchange Federation (2007).

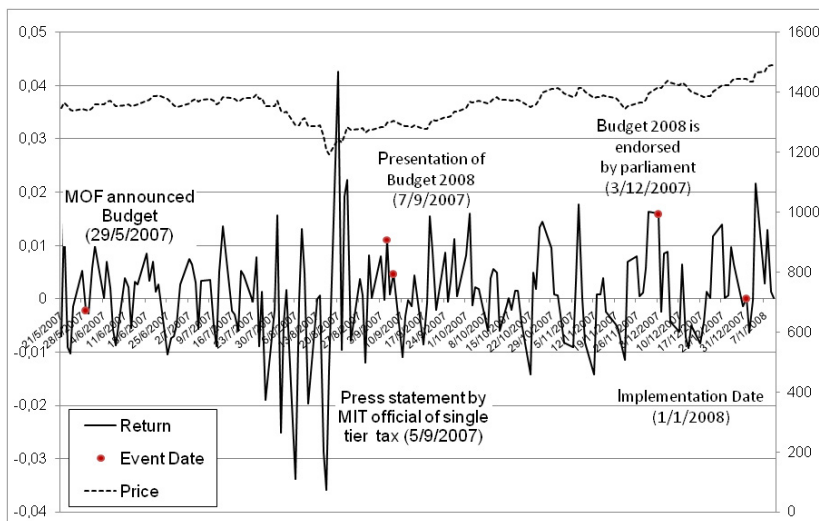


Fig.3: Malaysian Index Value and Returns around Single-Tier Tax Announcement

the market index change was subtracted to compute the abnormal return using the market adjustment model widely used in event study.

The US Tax Cut Events

The plan to cut dividend tax was brought up much earlier than the effective date of debates in the US public media and the Congress. It was first discussed broadly at the economic forum held in Texas on August 2002 (see Table 3 for the four key dates).

Later, a formal announcement was made by President George W. Bush on 7 January 2003, detailing the proposed tax relief package for four years that was to be made to the House. NYSE Index values reacted immediately to this good news as shareholders re-priced the value of the increased cash dividends over four years. The return showed a positive spike of 2.06 per cent prior to the day (see Fig.4a and

Table 4), which accounted for an estimated capitalization increase of some US\$354.32 billion.¹² Furthermore, it is evident that the price moved in an upward direction following the announcement.

TABLE 3
Important Dates on the US Dividend Tax Cut Plan

Event Dates	Description of Event
07/01/2003	President Bush made formal announcement on tax relief plan at the Economic Club of Chicago.
28/05/2003	President Bush signs proposal into law, which will expire by end of 2008.
17/05/2006	President Bush signs extension, which will expire by end of 2010.
17/12/2010	President Obama signs extension, which will expire by end of 2012.

¹²NYSE market capitalization is only available on an annual basis. Calculation is based on end-of-year 2002 market capitalization of USD17.2 trillion. The overall effect was much muted (see Footnote 6).

TABLE 4
NYSE Index Price and Return (in percentage) on Event Dates

Event Days		-1	0	1	-1 to +1
07/01/2003	Return	2.0559	-1.3114	-1.2168	-0.4723
	Price	5255.39	5186.92	5124.19	
28/05/2003	Return	1.4826	0.1915	-0.2141	1.4600
	Price	5367.44	5377.73	5366.23	
17/05/2006	Return	0.1117	-2.2692	-0.6264	-2.7839
	Price	8387.57	8199.38	8148.18	
17/12/2010	Return	0.530	-0.063	0.149	0.6160
	Price	7840.24	7835.31	7846.96	
	Market Cap (\$bil)	16083.53	16072.73	16121.78	

After an exhaustive analysis of the announcements, these 4 dates were chosen. These were the only dates around which the market appeared to respond to tax cut announcements; at the first announcement, when the bills were signed into law on three occasions.

There are four identified dates for testing the share price effect, namely, the policy announcement in 2003, followed by the enacting of the law in May 2003, and two extensions of the law in 2006 and 2010. Share prices reacted positively just prior to the policy announcement (2.06%) and ahead of the bills being signed into law on three dates. These are index changes so no tests could be done. The tests were done on 1,680 stock price changes as shown in section 4.

The legislation went through some debate and voting process in the House and the Senate. Finally, the bill was passed into law when President Bush Jr. signed the law on 28 May 2003. The NYSE Index recorded an increase from 5,367.44 to 5,377.73

points, with 0.19 per cent in market return, a value which is much smaller than the initial announcement effect.

In Fig.4b, an upward price index movement can be observed, and this signals a positive news effect for the overall share market. This effect is mixed with other events as well as tax cut event, but we needed to see how the market reacted. The new legislation was due to expire by end of year 2006.

In 2005, the dividend tax cut bill was presented to the House for extension. The legislation process, however, was quite controversial and there were prolonged delaying actions by both parties. It took about 6 months since the bill was first introduced before it became law. It was finally signed into law by the same president. There was a mixed reaction towards the whole process since the tax cut was seen as very costly, which would add up the already worsening national debt.

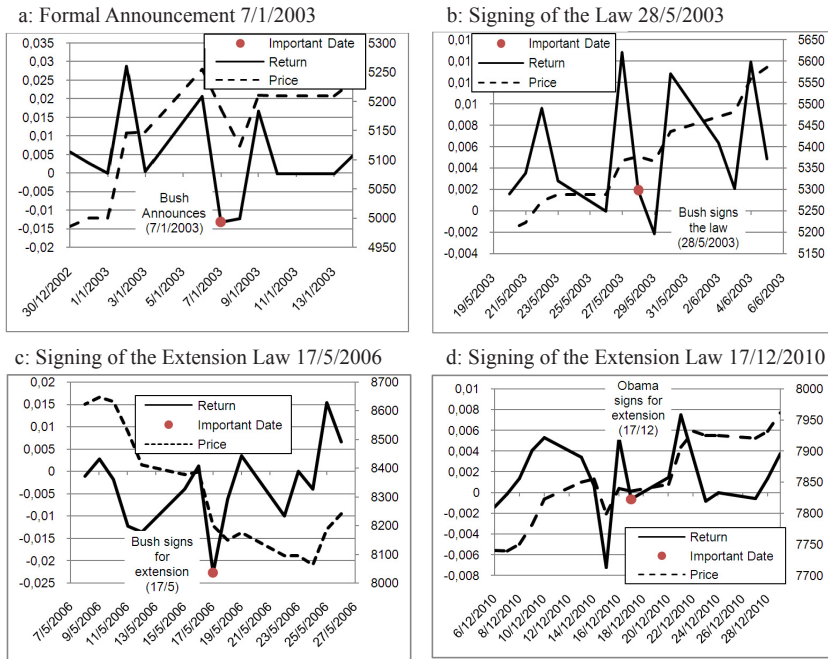


Fig.4: NYSE Price and Return Index Plot

As expected, the market index shows a negative movement preceding the signing of the extension on 17 May 2006. In fact, the index recorded a negative return of -2.27 per cent following the event. This is a decrease in the index point of 8,387.57 to 8,199.38 (see Fig.4c).

During the Obama presidency, the tax cut law was due to expire in 2010 and came up for a debate for a possible extension (see Fig.4d). The initial support of the new president was to revise the bill and extend the tax cut only for the lower to middle income investors, and not to the high income investors. On this point, the bill got stuck for a while, until a compromise was reached on the floor to extend the tax cut till end of 2010 and leave the rich vs. poor debate to be played out in 2012. This was good news for

all and the market's positive reaction could be seen even before the signing of the law on 17th December 2010. The market index jumped and a return of 0.53 per cent was seen a day prior to the signing. There was a small decrease on the day of the signing but the index regained a 0.15 per cent the day after. That is, an accumulation of 0.62 per cent change over 3 days, which accounted for US\$38.25 billion worth of market capitalization.

Individual Stock Performance and Tests of Significance

Malaysia

To provide a test of statistical significance, which could not be done with the market index analyses that are merely trends, the

TABLE 5
Individual Stock CAR in percentage in Malaysia

	-1 to +0	0 to +1	-1 to +1	0 to +9
29/5/2007	0.418 (0.759)	-0.600 (-1.283)	-0.116 (-0.132)	3.627 (1.963)**
05/09/2007	0.121 (0.307)	0.507 (70.449)***	0.371 (0.950)	
07/09/2007	-0.959 (-0.644)	-1.593 (-1.861)*	-1.328 (-1.025)	
3/12/2007	-0.106 (-0.278)	-1.387 (-1.540)	-1.249 (-1.096)	

Note: The p -value is denoted as * (0.1), ** (0.05) or *** (0.01)

individual stock performance in the two markets were examined and then the test results are presented in this sub-section.

The Malaysian stocks were found to have reacted positively to the initial release of the information that a single-tier tax regime was to be implemented. As this news was a surprise, being completely unknown in public discussion, the reaction is *after* the government officials released policy change information ahead of the budget presentation on 29th May 2007. A cumulative abnormal return (CAR) of 3.63 per cent was observed with a t -value of 1.963, which is significant at p -value of <0.05 (see Table 5). Following the confirmatory statement made by the President of the Tax Association about the single-tier tax on 5th September 2007, another significant positive CAR was evident with a 0.51 per cent jump in the stock prices of 853 shares. These were abnormal returns after adjusting for the effects of the market-wide changes in those days. Hence, several windows were tested just to be sure.

These four dates correspond to the dates identified based on the market reactions to the news. Note the significant price effect when the authoritative person for taxation revealed a change of policy on 5th May (see row 2 for CAR for 0 to +1 window). The price effect was also significant when the Parliament passed the bill into law.

Nonetheless, a negative price reaction could be seen on the days following the budget presentation on 7th September 2007, with -1.59 per cent return. Similarly, a CAR of -1.39 percent was seen following the endorsement of the law on 3rd December 2007, although this is not significant at any level.

It is highly probable that these adverse reactions could be from the news of worldwide credit crunch that was happening around these dates, and the market index (R_{mt}) was plummeting quite badly for two weeks starting from about 6th September 2007. Therefore, we believe that the small impact seen on 5th September and the negative CARs on 7th September were due

TABLE 6
US Individual Stock Performance (in percentage)

Event Date	-1 to 0	0 to +1	-1 to +1	Others	
07/01/2003	0.0780 (0.055)	1.115 (2.844)***	0.439 (0.344)		
28/05/2003	0.282 (1.960)**	1.083 (1.647)	1.152 (1.557)	2.021 (2.480)***	-3 to +2
17/05/2006	1.292 (2.078)**	1.009 (1.114)	1.344 (1.675)*	1.515 (1.764)*	-3 to +1
17/12/2010	0.310 (-0.948)	0.149 (-0.897)	0.467 (-1.651)*		

Note: The p -value is denoted as * (0.1), ** (0.05) or *** (0.01).

to the global crisis that started to take effect in the first week of September, 2008, and this got worse by the middle of the month across the world. The bad news might have cancelled the good news on dividend tax abolition.

The US Results

The 1,665 individual stocks were analysed to test for significant price impacts. It is evident that following the day of the formal announcement of the Dividend Tax Cut policy by President Bush Jr. on 7th January 2003, the market reacted quickly. There was a significant CAR of 1.11 per cent, with a t -value of 2.844 and p -value < 0.01 (see Table 6). The proposal went through some legislative processes before it was signed into law by the President on 28th May 2003. A significant on-event impact was recorded to be 0.28 per cent, while CAR over 6 days around the event (-3 and +2 days) was 2.02 per cent, with a t -value of 2.48 at p < 0.00. A similar result was seen during the next

attempt to extend the tax cut to the year 2006.

Upon the signing of the extension of the tax cut on 17th May 2006, the CAR was 1.29 per cent; in particular, the CAR over three days around the event was 1.34 per cent with a t -value of 1.675 at p < 0.10. When the tax cut bill was extended for 2 years by the Obama administration on 17 December 2010, after a period of acrimonious debate in the Senate, there was a smaller increase (CAR of 0.467) but with the t -value of 1.641, which is acceptable only at < 0.10 level. There is an upward trend in all windows, although in some of them, the t -tests are not significant despite the positive signs predicted by the theory. We believe that the signal of tax cuts appeared to be registered in significant stock price increases at least prior to the announcement in -1 to 0 windows each time the bill was signed by the President. The main factor driving the stock price increases in the four occasions is the announcement effects of tax cuts leading to investors having to pay less tax once

the law was passed in the three occasions. Uncertainty about whether the laws policy would be passed into law was removed when the price effects became significant prior to the announcements of the passing of the law.

Four dates were identified for testing the share price effects in the United States, after exhaustive analyses of all the press releases and mass media reports and debates in the Senate and the Congress. Although the results are mixed, the statistical tests show the following: a 1.14% CAR is significant across 0 and +1 test window when the policy was first announced. Second, each time the bill was signed into law by the sitting presidents, there was also a significant price effect from the tax cut laws (see the statistically significant effects indicated by one or two asterisks on the different test windows).

The final factor that gave impetus to this is the novel idea of dividend tax cut for shareholders, which was mooted by the Bush policy makers and for the first time on 7th January, 2003. Hence, the factors affecting the price changes are suggested by the information effect theory and the dividend tax theory.

CONCLUSION

The aim of this paper is to present important share price reactions to announced tax reduction policy announcements in the US and in Malaysia. The events chosen relate to the good news effects when the (i) US policy makers cut the tax on cash dividends and (ii) Malaysian policy makers decided

to introduce a full single-tier tax regime in 2008 to replace the dividend credit regime of 1958. The US provided about \$200 billion of tax away to shareholders on the hotly-debated premise that such an injection of cash as tax cut during 2003-2006 (first event) would spur the US economy to recover; again, the law was extended in 2010 to expire in 2012. Both country events were good news because the shareholders would benefit from increased cash dividends in the case of the US taxpayers and the introduction of single-tax regime that would reduce the administrative cost of filing tax returns as well as lower the cost of tax collection.

The US policy makers extended the tax reduction law to end in 2006 but later approved it again in 2010 to end it in 2012. Hence, our data set was meant to measure the taxation effects, as predicted by theories over the three occasions. As for Malaysia, this event played out during August and December 2007. The event dates were carefully selected from the announcements in the press and in the government sources. Market index was used to observe upward shifts to news, and individual stocks to conduct the statistical tests to test for any significance of the change. Prior studies only examined the 2003 tax cut in the US. As in the prior study, the share price effect was muted because of: (i) cuts being temporary and (ii) the institutional reason that most dividends are tax exempted in managed mutual and pension funds.

Our measurement of the event impacts on the share markets showed that the share

market reacted positively to the good news of reduced tax on dividends. In the US, these changes were seen over four dates, namely, at the first announcement of the policy and during each signing of the tax cut laws in 2003, 2005 and 2010. We dare to predict that a similar price effect will occur when the tax cut bill comes up for extension sometime in 2012 in the US. As for Malaysia, the official date of announcement, as well as when the bill became law with royal assent, the share market reacted positively. In the final results, using the individual shares (1,665 from NYSE and 843 from *Bursa* Malaysia) so that statistical measures could be conducted, similar positive and significant policy announcement effects could also be seen from both the policy change announcements in both countries. These results added new findings on dividend tax changes to the literature on two countries.

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