

Taxes and Economic Freedom: Moderating Effect of Government Effectiveness

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Abstract

This study aims to examine the relationship between taxes and economic freedom, considering the moderating effect of government effectiveness in the Organization for Economic Cooperation and Development (OECD) countries from 1996 to 2018. The taxes are goods and services tax (GST), personal income tax (PIT), and property tax (PT). This study also examines other economic indicators such as foreign direct investment (FDI) to measure the impact of taxes on economic freedom. In this study, fixed effect panel data are used to test the hypotheses. The least squares panel results show that there is a positive and significant relationship between property tax and economic freedom. However, GST and income tax are negatively and significantly related to economic freedom. In addition, the results also demonstrate that government effectiveness moderates the relationship between taxes and economic freedom. These results can contribute to the existing literature in this area. They also allow governments to apply better tax systems to achieve a high score of economic freedom.

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INTRODUCTION

Economic theory implies that economic freedom influences productive effort, the effectiveness of resource use and incentives (Haan & Sturm, 2000). Economic freedom plays an important role in promoting and sustaining individual and national prosperity. In economically free, individuals and firms are free to perform their economic actions which in return boost economic growth. It means that society can run their economic activity such as labour, trade, and investment without the use of force, fraud, or theft. Countries with greater economic freedom have stronger economies (Thuy, 2021; Yousefinejad et al., 2022). There are many previous studies explored about the relationship between economic freedom and economic growth (Thuy, 2021; Fuat Yildiz, 2022). These studies concluded that there is positive and significant impact of economic freedom on the rate of economic growth (Williamson & Mathers, 2011; Cebula, 2014; Ashby & Ramos, 2013; Panahi et al., 2014; Mahmood et al., 2022).

Tax is a mandatory fee levied by any government on individuals and organizations to be used for administration of a country. Tax systems that allow greater economic freedom score, tend to improve economic growth as well. The ability of societies to continue their economic activity will be affected if those countries impose higher tax rates. Few studies considered the relationship between taxation and economic freedom. As an example, Egger et al., (2005) found companies with an economically free environment, or an economically free environment will improve the country's attractiveness which then will enable countries' governments to impose higher taxes. The study concluded that the tax ratio has a positive relationship on a nation's economic freedom score. To the best of knowledge, there very limited studies that have done on relationship between taxes and economic freedom and there is no study that considered the government effectiveness on relationship between taxes and economic freedom. Therefore, the main objective of this study is to fill the gap in the tax knowledge and examine the effect of taxes on economic freedom in OECD countries with consideration of the effect of government effectiveness.

This study varies substantially from other papers in the following ways. Firstly, this study examines the relationship between different types of taxes and economic freedom in OECD countries, while previous studies did not consider selecting tax on goods and services, personal income, and property as independent variables. Secondly, this study works on economic freedom as a dependent variable, but past studies used economic growth and global competitiveness to examine its connection with taxes. Third, this study considers the effectiveness of government as a moderator, while most of previous studies focused on the simple relationship between taxation and economic freedom.

As mentioned before, there is no study in the literature that have examined the effect of government effectiveness on relationship between taxes and economic freedom. There are five indicators of government effectiveness which are voice and accountability, political stability, regulatory quality, rule of law and control of corruption. Marselina & Santi, (2019) defined that government effectiveness is a measure of the quality of public services, civil service, policy formulation and implementation and the credibility of the government's commitment to the policy. Gallego & Moreno-Enguix, (2022) found a technological gap between groups of countries defined by their goodness of governance and there is a positive relationship of economic freedom and high governance effectiveness scores of the countries. The effectiveness of government also may have influence on the relationship between taxes and economic freedom. This is because the government represents the centre of economic freedom. The effectiveness of government spending and their integrity level are key factors of an economically free society. Besides that, individuals will have a high ability to establish and operate a firm without burdensome government regulations (Economic Freedom of the World: 2021 Annual Report). There are some studies that proposed governance is an important determinant of countries' economic development and economic growth improvement (Furubotn, E., Richter, 2005; Kaufmann & Kraay, A., Mastruzzi, 2008; Al-Tal & Al-Tarawneh, 2021). However, there is no study in the literature that has examined the effect of government effectiveness on economic freedom, also moderating effect of government effectiveness on the relationship between taxes and economic freedom.

This study aims to examine the relationship between goods and services tax (GST), income tax (PIT), property tax (PT), and economic freedom with the moderating effect of government effectiveness in Organization for Economic Cooperation and Development (OECD) countries from 1996 to 2018. The results of this study would provide important information to a country's policymakers, especially OECD members. If the results of this study also confirm the positive impact of taxes on economic freedom, the government can apply a improved

tax system to achieve a high score in the economic freedom index. In addition, the results of this study on the moderating effect of government effectiveness can encourage countries to take measures to improve government activities, spending, and the level of integrity. For countries planning to tax goods and services, personal income, and property, information on the effectiveness of tax implementation in OECD countries can help them make better decisions based on the experiences of others.

LITERATURE

The role of taxes and investment in countries' economic growth has received much consideration from academics and policymakers because of their important roles. Taxes are the most important factor affecting the economic condition of a country (Nguyen & Darsono, 2022; Rexha et al., 2020). Regarding the relationship between taxes and economic freedom, there are very limited studies that have examined this relationship. For example, Egger et al., (2005) found that countries with an economically free environment have higher locational attractiveness, which leads the governments of these countries to impose higher corporate taxes. Egger et al., (2005) examined the relationship between taxes and economic freedom by estimating the impact of economic freedom on national tax policy. Tax policy was measured by the ratio of corporate tax revenues to GNP, also known as the ratio of corporate taxes to GDP. They studied 46 developed and less developed countries between 1980 and 1997 and found that the tax ratio has a positive effect on countries' economic freedom.

Alabede, (2018) meanwhile, examined economic freedom and tax revenue performance in sub-Saharan Africa. The study used data for 42 countries in the four subregions of SSA from 2005 to 2012 with 252 observations per year per country in an unbalanced panel method. The results show that all economic freedom variables have a positive and significant relationship with the determinants of tax revenue. The author believed that less regulation in the economy enables entrepreneurial growth and promotes job creation, which in turn leads to higher tax revenues for the treasury. On the contrary, numerous studies have been conducted on various dependent variables. Kenny & Winer, (2006) studied different types of tax structures in a large sample consisting of non-democratic and democratic countries. They found that stronger protection of rights and freedoms leads to more intensive personal income taxation. They also claimed that income tax is more complicated and relies on voluntary compliance. Consequently, the main source of revenue for nondemocratic countries is property and business taxes on state-owned enterprises.

Apposite to the limited literature on the relationship between taxes and economic freedom, the relationship between taxes and economic growth has been the subject of many previous studies. Cebula & Foley, (2019) examined the effects of economic freedom, regulatory quality, and taxation on the growth rate of real GDP per capita. The study used panel data in a sample of OECD countries over the period 2003-2006, and the results show that there is a positive and significant relationship between economic freedom, regulatory quality, and taxation on real GDP growth. In addition, Marselina & Santi, (2019) investigated the impact of tax ratio and good governance on economic growth using comparative quantitative research methods in 11 ASEAN countries. The author mentioned that governance was represented by government effectiveness, rule of law, quality of laws, and control of corruption. The study shows that tax ratio and government effectiveness have a positive effect on economic growth in 6 ASEAN countries, including Malaysia, Singapore, Thailand, Indonesia, the Philippines, and Cambodia. Tudose and Strapuc (2015) studied the impact of the tax system on global competitiveness through different variables including taxation on incentives to invest, taxation on incentives to work and total tax rate. The study worked on 28 European Union member states during the period 2013-2015. According to the authors, the tax system has a positive and significant relationship with the global competitiveness of European Union member states.

Rexha et al., (2020) investigated the effects of direct and indirect taxes on the economic growth of Kosovo from 2006 to 2016. The study indicated a significant relationship between direct, and indirect taxes and economic growth and found a positive and significant effect of indirect taxes on real GDP in Kosovo. Nguyen and Darsono, (2022) focused on the relationship between tax revenue, investment, and economic growth, in ASEAN from 2000 to 2020. This study found a negative effect of tax revenue on economic growth. The study showed that higher tax revenue could reduce the disadvantages of tax impacts to boost economic growth. Alinaghi & Reed, (2021) performed a meta-analysis of the effect of taxes on economic growth in OECD countries. The result of the study shows that an increase in taxes is associated with a decrease in GDP growth. Mangisi et al., (2021) examined the

impact of indirect taxes on economic growth in Zimbabwe for the period 1990- 2018. The results show direct and indirect taxes have significantly negative economic growth effects. As can be seen, the previous studies' results on relationship between taxes and economic growth show mixed results that whether taxes can affect on economic growth positively or negatively.

On the subject of the government effectiveness, also there are limited previous studies. Alam et al., (2017) examined the impact of government effectiveness on the economic growth of a panel of 81 countries and found a significant positive effect of government effectiveness on economic growth. Sacks & Levi, (2010) examined the effect of effective government on social welfare from 17 sub-Saharan countries in 2005. The study found that citizens who live in regions and in countries with a civil bureaucracy, reliable law enforcement, and good infrastructure enjoy higher levels of food security than those who live in regions with weaker institutional penetration. Brewer et al., (2008) utilized World Bank Governance indicators to investigate government effectiveness in Asia. The study found the presence of a democratic form of government does not seem to be a crucial factor. Malanski & Póvoa, (2021) analysed the behaviour of Chinese firms to find out governance factors in the innovation activities of these firms. The results suggest government effectiveness has a significantly positive effect on a firm's product innovation, technological innovation, process innovation, and management innovation. As can be seen, overall, there are inadequate studies on governance effectiveness, and to the best of knowledge, there is no study that consider the effect of government effectiveness on taxes and economic freedom.

Based on this literature review, there are many differences between this study and the previous studies in the same field. First, this study examines the relationship between different types of taxes and economic freedom in selected OECD countries, while previous studies did not consider different features of taxes such as taxes on goods and services, personal income, and property as independent variables. Second, this study considers economic freedom as a dependent variable, while previous studies have used economic growth and global competitiveness to examine the relationship with taxes. Third, this study considers government effectiveness as a moderator, while most previous studies focused on the simple relationship between taxes and economic freedom without a moderator. As highlighted in the literature review, there are very limited studies on the relationship between taxes and economic freedom and the moderating effects of government effectiveness. Thus, there is an opportunity to conduct further studies in this area.

This study has three independent variables, one dependent variable and one moderator. There are three types of taxes that have been considered as independent variables including tax on goods and services (GST), personal income (PIT) and property (PT) while economic freedom is a dependent variable. Additionally, this study considers the government effectiveness as moderator to examine how it makes the relationship between taxes and economic freedom stronger.

As mentioned in the literature review, there is no study on the mix between different types of taxes and economic freedom with moderating effects of government effectiveness. Besides that, there are no previous studies that examine this issue in OECD countries. Therefore, the relationship between taxes and economic freedom with moderating effect has not been well developed. Figure 1 shows the research framework of this study.

Based on the above discussion, there are six hypotheses to measure the relationship between goods and services tax, personal income tax and property tax and economic freedom with moderating effect of government effectiveness. Thus, this study hypothesizes that:

H₁: Goods and services tax has a significant relationship with economic freedom.

H₂: Personal income tax has a significant relationship with economic freedom.

H₃: Property tax has a significant relationship with economic freedom.

H₄: Government effectiveness moderates the relationship between goods and services tax and economic freedom.

H₅: Government effectiveness moderates the relationship between personal income tax and economic freedom.

H₆: Government effectiveness moderates the relationship between property tax with economic freedom.

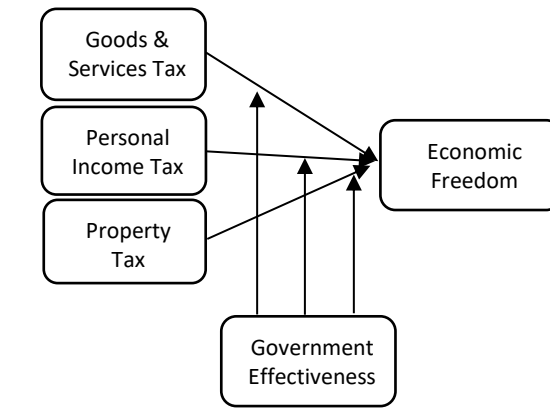


Figure 1: Research Framework

METHOD

This research uses a panel data design to examine the relationship between taxes and economic freedom, with government effectiveness as a moderator. Panel data is a combination of cross-sectional and longitudinal data, measuring the same cross-sectional unit (OECD member countries) in different time periods (1996-2018). In this study, the panel least squares method is used to test the linear relationship between the independent variables and the dependent variable with the moderator variable.

Besides that, this research paper conducts a descriptive study and is quantitative in nature. It uses deductive reasoning, where it firstly forms a hypothesis and then deals with the process of collecting and analysing numerical and statistics data including goods and services tax (GST), personal income tax (PIT), property tax (PT), economic freedom, government effectiveness and economic indicators for OECD member states.

This study considers the Organization for Economic Co-operation and Development (OECD) countries as a sample. There are 37 member states of OECD including Australia, Austria, Belgium, Canada, Chile, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

All OECD countries are potential sample of this study. However, some restrictions need to be imposed during the sample selection process. Firstly, countries which do not have needed data for taxes on goods and services, personal income and property are excluded. Secondly, countries with univariate outliers higher than 3.29 or lower than -3.29 are excluded. Thirdly, countries with multivariate outliers less than 0.001 are excluded.

Data for this study was collected from 1996 to 2018. The data was collected from external secondary data that was published through the OECD database, Heritage Foundation's Index of Economic Freedom database and World Open Bank database. This research paper considers 1996 as the starting year for data collection due to the overall score of economic freedom data becoming available in databases for all OECD member states since 1996. Furthermore, some tax data are not available in 2019 and 2020 for several OECD countries. Consequently, this study considers 2018 as the ending year for data collection period.

Measurements of the Variables

As can be seen in research framework provided in figure 1, this study has three independent variables relevant to taxes, Goods and Services Tax (GST), Personal Income Tax (PIT), Property Tax (PT). This study collect data from OECD database, and consider yearly and total perspective as a measurement for GST, PIT and PT.

According to Figure 1, the dependent variable of this study is economic freedom. This study collects relevant data for economic freedom database and consider overall score for OECD countries. The economic freedom index from database was first produced by (Block et al., 1996) and has been updated annually since. This index has found a place as one of the top resources for academics, policymakers, and journalists who are looking for indicators on national economic policies around the world (Hall & Lawson, 2014; Yousefinejad et al., 2018). The economic freedom index is designed to measure the consistency of a nation's policies and institutions with

economic freedom. Higher scores provided by this index are given to countries with more secure property, freer trade, more stable money, and prices, less government spending, and fewer regulations.

This study also has a moderator based on Figure 1, government effectiveness. The world Bank database is applied to collect data for government effectiveness, estimate using Worldwide Governance Indicators (WGI) for OECD countries. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution. Control variables of this study are measured based on the measurements provided in World Bank database using World Development Indicators (WDI).

RESULTS AND DISCUSSION

Descriptive Statistic

There are two panel data that provide the descriptive statistics for variables before and after outlier treatment. Panel A shows the descriptive statistics before outlier treatment while Panel B displays the descriptive statistics after outlier treatment. The differences between mean, maximum and minimum values of Panel A and Panel B, illustrate the effects of outlier treatments of all variables.

Based on the results, the total observations are reduced from 733 to 709. Before outlier treatment, the mean value of economic freedom is 70.167, with a maximum value of 84.200 and minimum value of 49.700. After outlier treatment, the mean value reduced to 70.039 while maintaining both maximum and minimum value. Similarly, the mean, maximum and minimum value of taxes also reduced after outlier treatment.

Aside from that, the normality of data distribution can be determined based on the value of skewness and kurtosis in the descriptive statistics. If the value of skewness is zero and the value of kurtosis is three, it indicates that the data distribution is normal (Gujarati & Porter, 2009) Based on Panel A, the values of skewness range from negative 0.532 to positive 3.857, meanwhile the values of kurtosis range from 2.427 to 28.039. It means that the data are not normally distributed. After outlier treatment, Panel B shows the values of skewness range from negative 0.534 to positive 0.678, meanwhile the values of kurtosis range from 2.109 to 3.416. It means that the data are also not normally distributed.

Other than that, both panels also show a significant value in probability for all variables. In other words, the data are not normally distributed before and after outlier treatment. Due to this reason, this study can accept the non-normal distribution of data at this level, in connection with Hayes, (2013).

Based on the descriptive statistics, this study can identify the normality of data distribution through skewness, kurtosis and Jarque-Bera values. Kolmogorov- Smirnov also helps in testing the normality of data. However, the data are still not normally distributed as it is significant in Kolmogorov-Smirnov. Hayes, (2013) mentioned that normality is one of the least essential in linear regression analysis. Therefore, this study accepts the non-normal data at this level for the purpose of analysing.

An outlier is an observation that is substantially different from other observations. Outliers should be eliminated as it has a large impact on the research results. This study uses two methods for detecting outliers which are univariate and multivariate. Univariate outliers were determined by examining the value of z-score of the variables while multivariate outliers through the value of Mahalanobis distance (Tabachnick & Fidell, 2007). In z-score, any value that higher than 3.29 or lower than -3.29 is a univariate outlier. In Mahalanobis distance, there is multivariate outlier when value of the probability is less than 0.001. Due to the large number of observations for this study, all outliers were treated by way of elimination in accordance with Tabachnick & Fidell, (2007). Table 2 illustrates the Kolmogorov Smirnov, the normality test.

Correlation Matrix/ Multicollinearity

Multicollinearity problems occur due to strong correlation between two or more variables in terms of their measurement. It can make the estimation of the regression coefficients unreliable if the correlation value between variables is equal to 1. Gujarati and Porter (2009) stated that correlation values that are less than 0.8 provides an indication of no collinearity issue among variables. Table 3 provides the correlation matrix between variables.

Based on the results, it clearly shows there are multicollinearity problems between import, export and FDI. The import and export (control variables) have strong correlation with FDI as the correlation values are more

than 0.8. Hence, this study only considers foreign direct investment (FDI) as a control variable align with previous studies.

Research Models

There are two research models to test the hypotheses of this study on relationship between taxes and economic freedom with moderating effect of government effectiveness. The first equation model tests the effect of taxes on economic freedom while the second equation model examines the moderating effect of government effectiveness. For testing the moderating effect of government effectiveness, second model runs separately for each interaction between independent variables (goods and services tax, property tax and personal income tax) and moderator (government effectiveness).

$$EF_{it} = \beta_0 + \beta_1 GST_{it} + \beta_2 PIT_{it} + \beta_3 PT_{it} + \beta_4 FDI_{it} + \varepsilon_{it}$$

$$EF_{it} = \beta_0 + \beta_1 GST_{it} + \beta_2 PIT_{it} + \beta_3 PT_{it} + \beta_4 FDI_{it} + \beta_5 GOVEFF_{it} + \beta_6 (GST * GOVEFF)_{it} + \beta_7 (PIT * GOVEFF)_{it} + \beta_8 (PT * GOVEFF)_{it} + \varepsilon_{it}$$

Where;

EF Is economic freedom
GST Is goods and services tax
PIT Is personal income tax
PT Is property tax
FDI Is foreign direct investment
GOVEFF Is government effectiveness

Model 1 is related to H₁, H₂, H₃, and second model is related to H₄, H₅, and H₆. The first model is run only one time to check the results of three first hypotheses (H₁, H₂, H₃). However, the second model runs three times, for each hypothesis separately to check the results of H₄, H₅, and H₆.

DATA ANALYSIS AND FINDINGS

Table 1 illustrates the results of the first until third hypothesis, the relationship between good and services tax, personal income tax, property tax and economic freedom. The results show goods and services tax (GST) is negatively and significantly related to economic freedom at the 10 percent level with a coefficient value of -0.095 and a statistical t-value of -1.684. When the GST increases in OECD countries, people are no longer free to control their economic actions. Firms prefer to do business domestically rather than going abroad because of the tax burden of the GST. Theoretically, this means that the GST negatively affect economic freedom. Therefore, hypothesis 1 is supported.

Table 1 also shows the result of relationship between personal income and economic freedom. The results show personal income tax (PIT) has a negative and significant relationship with economic freedom at the 1 percent level with a coefficient value of -0.306 and a t-statistic value of -5.140. Societies are not free to pursue their economic activities when income tax increases in OECD countries. Individuals prefer to engage in less entrepreneurial activity to avoid being burdened with a high-income tax. Theoretically, this means that income tax negatively affects economic freedom, so hypothesis 2 is also supported.

Table 1 shows the results of third hypothesis, the relationship between property tax and economic freedom. The results show property tax (PT) has a positive and significant relationship with economic freedom at the 1 percent level with a coefficient value of 0.421 and a t-statistic value of 2.880. Individuals and firms have more freedom in their economic activities when property tax increases in OECD countries. Most OECD countries are developing countries and have a large population, which encourages societies to sell more property even if the property tax is higher. This theoretically implies that property tax positively affects economic freedom, so hypothesis 3 is supported.

Table 1. The results of H₁, H₂ and H₃

Variables	Co-Eff	t-stat	Prob.
GST	-0.095	-1.684	0.093*
PIT	-0.306	-5.140	0.000***
PT	0.421	2.880	0.004***
FDI	1.561	5.218	0.000***
Adj R ²	0.814		
$EF_{it} = \beta_0 + \beta_1 GST_{it} + \beta_2 PIT_{it} + \beta_3 PT_{it} + \beta_4 FDI_{it} + \varepsilon_{it}$			

Table 2. Descriptive statistics

Panel A						
	EF	GST	PIT	PT	GOVEFF	FDI
Mean	70.167	33.323	23.276	5.608	1.264	3.040
Med	70.200	33.278	21.500	4.864	1.364	9.430
Max	84.200	64.859	56.028	34.178	2.354	7.340
Min	49.700	15.791	0.822	0.679	-0.459	-3.610
Skew	-0.194	0.374	0.665	1.060	-0.532	3.857
Kurt	2.447	3.690	3.367	6.994	2.427	28.039
Obs	733	733	733	733	733	733
Panel B						
	EF	GST	PIT	PT	GOVEFF	FDI
Mean	70.039	33.088	23.337	5.515	1.261	9.985
Med	70.000	33.055	21.568	4.666	1.386	10.054
Max	84.200	55.336	56.028	16.275	2.354	11.404
Min	49.700	15.791	0.822	0.679	-0.459	7.526
Skew	-0.169	0.079	0.678	0.509	-0.534	-0.359
Kurt	2.481	2.737	3.416	2.109	2.404	2.831
Obs	709	709	709	709	709	709

Table 3. Normality Test Kolmogorov-Smirnov

Statistic	Sig.
Economic Freedom	.036 .027
Goods Services Tax	.048 .001
Personal Income Tax	.085 .000
Property Tax	.120 .000
Government Effectiveness	.106 .000
LIMPORT	.042 .005
LEXPORT	.046 .001
LFDI	.052 .000

Table 4. Correlation Matrix

	EF	GST	PIT	PT	IMPORT	EXPORT	FDI
EF	1.000						
GST	-0.302	1.000					
PIT	0.534	-0.466	1.000				
PT	0.292	-0.405	0.255	1.000			
IMPORT	0.187	-0.606	0.162	0.443	1.000		
EXPORT	0.212	-0.625	0.183	0.426	0.995	1.000	
FDI	0.293	-0.478	0.197	0.410	0.805	0.804	1.000

Table 5 illustrates the results of fourth hypothesis, the moderating effect of government effectiveness on the relationship between GST and economic freedom. The results show that government effectiveness moderates the relationship between the goods and services tax (GST) and economic freedom. The results show, the government effectiveness (moderator) has a significant relationship with economic freedom. The results also show, the interaction between government effectiveness and GST (moderating effect) has positive and significant relationship with economic freedom at the 1 percent level with a coefficient value of 0.347 and a t-statistic value of 2.392. This theoretically implies that government effectiveness strengthens the relationship between GST and economic freedom in OECD countries. Therefore, hypothesis 4 is supported.

Table 5. The results of H₄

Variable	Co-Eff	t-stat	Prob.
GST	-0.427	-2.026	0.043**
GOVEFF	-8.749	-1.836	0.067*
Gov*GST	0.347	2.392	0.017***
FDI	1.817	4.448	0.000***
Adj R ²	0.818		
$EF_{it} = \beta_0 + \beta_1 GST_{it} + \beta_2 FDI_{it} + \beta_3 GOVEFF_{it} + \beta_4 (GST * GOVEFF)_{it} + \varepsilon_{it}$			

Table 6 illustrates the results of fifth hypothesis, the moderating effect of government effectiveness on the relationship between PIT and economic freedom. The results show government effectiveness moderates the relationship between personal income tax (PIT) and economic freedom. The results show government effectiveness (moderator) has a significant relationship with economic freedom. The results also show, the interaction between government effectiveness and PIT (moderating effect) has negative and significant relationship with economic freedom at the 1 percent level with a coefficient value of -0.177 and a t-statistic value of -3.145. This theoretically implies that government effectiveness weakens the relationship between personal income tax and economic freedom in OECD countries. Therefore, hypothesis 5 is also supported.

Table 6. The results of H₅

Variables	Co-Eff	t-stat	Prob.
PIT	-0.047	-0.406	0.685
GOVEFF	6.599	4.291	0.000***
Gov*PIT	-0.177	-3.145	0.002***
FDI	1.626	1.987	0.047***
Adj R ²	0.820		
$EF_{it} = \beta_0 + \beta_1 PIT_{it} + \beta_2 FDI_{it} + \beta_3 GOVEFF_{it} + \beta_4 (PIT * GOVEFF)_{it} + \varepsilon_{it}$			

Table 7 illustrates the results of sixth hypothesis, the moderating effect of government effectiveness on the relationship between PT and economic freedom. The results show government effectiveness moderates the relationship between property tax (PT) and economic freedom. The results show government effectiveness (moderator) has a significant relationship with economic freedom. The results also show the interaction between government effectiveness and PT (moderating effect) has negative and significant association with economic freedom, with a coefficient of -0.258 and a t-statistic of -1.779 at the 10 percent level. This theoretically implies that government effectiveness makes the relationship between property tax and economic freedom weaker in OECD countries. Therefore, hypothesis 6 is also supported.

Table 7. The results of H₆

Variables	Co-Eff	t-stat	Prob.
PT	0.784	3.976	0.001***
GOVEFF	4.712	4.707	0.000***
G_PT	-0.258	-1.779	0.076*
LFDI	1.651	5.584	0.000***
Adj R ²	0.814		
$EF_{it} = \beta_0 + \beta_1 PT_{it} + \beta_2 FDI_{it} + \beta_3 GOVEFF_{it} + \beta_4 (PT * GOVEFF)_{it} + \varepsilon_{it}$			

CONCLUSION

Taxes have both positive and negative effects on economic freedom in OECD member states. This study finds evidence that only higher property tax appears to increase economic freedom. However, higher tax on goods and services (GST) and personal income reduces the overall score of economic freedom in OECD countries. This means that people have more freedom in controlling their economic action when property tax is increased. Conversely, the tax burden on GST and personal income provides a high influence in reducing economic freedom. Therefore, this study concludes that OECD countries should not increase GST and personal income tax as it affects negatively on the overall score of economic freedom.

On the contrary, this study finds evidence that government effectiveness moderates the relationship between taxes and economic freedom. The findings of this study reveal that the improvement of government effectiveness in OECD countries would provide stronger support in the increasing of economic freedom.

Thus, the government should relax the tax system on personal income and wealth to achieve better results in the valuation of economic freedom. These results are valuable for policymakers in OECD member countries as they understand the impact of taxes on their economic freedom. Countries should further assess their tax systems and government effectiveness to achieve higher economic freedom scores.

This study has limitations as with all empirical studies. This study was not able to consider import and export as control variables. Therefore, it is suggested that future studies select other control variables that have been identified by the previous studies as economic indicators that may have effects on economic freedom. due to limitation of availability of data, this study closed data collection process until 2018, therefore, it is recommended that future studies consider 2019 and 2020 for their analysis. Aside from that, this study examined the relationship between taxes and economic freedom with moderating effect of government effectiveness in OECD countries. To contribute an interesting perspective, it is suggested that future studies consider a comparative study of the government effectiveness of the European vs Asian countries influence on taxes and economic freedom.

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