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**THE IMPACT OF PUBLIC
EXPENDITURE ON ECONOMIC GROWTH IN
VIETNAMESE LOCALITIES**

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THE IMPACT OF PUBLIC SPENDING ON GROWTH ECONOMY OF LOCALITY IN VIETNAM

1. Reason for choosing the topic

Public expenditure (CTC) is a main tool in the government's fiscal policy to regulate the macroeconomy, used as an effective tool to carry out the functions and tasks of the state to stimulate the economy. Like production and business activities, promoting economic growth. However, the effectiveness of financial regulations affecting economic growth at the national level in general and territories/localities in particular is still under debate. In this country, increasing the financial structure is effective in promoting economic growth, but in another country that also applies the same financial policy, it has the opposite result. Some countries have succeeded in applying policies to tighten public spending, but in other countries they have failed.

The role of financial institutions affects economic concentration also cannot be explained solely by one school of thought and is a controversial topic ([Grier & Tullock, 1989](#)). There is a view that financial institutions promote economic growth through performing two main functions: Ensuring security and providing public services, helping to stabilize the socio-economic environment, improving infrastructure,... thereby promoting economic growth (Knack & Keefer, 1995). However, other views are not unanimous that financial incentives have a negative impact on economic growth due to distortions in the division of economic resources, which are transferred from the highly productive private sector to the productive public sector. Lower means crowding out private investment and slowing down the innovation process (Mitchell, 2005). The third view is that the impact of financial incentives on economic concentration is negative or irrelevant (Akpan, 2005; Landau, 1983). However, another view is that the impact of financial

restructuring on economic growth is not simply positive or negative but can include both, depending on the scale of financial growth. (Barro, 1990) (Armey, 1995).

Based on theoretical foundations, different perspectives and approaches; the author builds an empirical research model to analyze the impact of financial growth on the economic growth of a developing country, Vietnam, with research data mainly on local financial growth and economic growth (calculated by GRDP - Gross Product products in the area) of 63 provinces/cities divided into 6 socio-economic regions.

Based on the above theories and practices, the author chose the topic: *"The impact of public spending on economic growth of localities in Vietnam"* as the research topic for my PhD thesis.

2. Research objectives

Goal of the thesis is to evaluate the effectiveness and impact of financial resources and components of public spending on economic growth in localities/socio-economic regions of Vietnam in the context of changes in state budget law with the impact of Covid-19 and local government institutions. In addition, the author also relies on experimental evidence to determine the optimal public expenditure threshold for 6 socio-economic regions of Vietnam. From there, provide recommendations and policy implications in managing and using state budget capital economically and effectively, contributing to local economic growth.

To achieve the general goal, the thesis sets out the following specific goals:

Specific objective 1: Find out the current situation and analyze the impact of public expenditure, the effectiveness of public expenditure on economic concentration in localities of Vietnam in the context of changes in the State Budget Law and the impact of Covid - 19.

Specific objective 2: Analyze the impact of institutional factors on the economic growth of Vietnamese localities in the context of changes in state budget law and the impact of the Covid - 19 Pandemic.

Specific objective 3: Analyze and determine the optimal public expenditure threshold for Vietnam's socio - economic regions.

Specific objective 4: Propose effective financial management solutions to promote economic concentration in localities of Vietnam.

3. Research gaps

Firstly, by researching financial and economic growth between two budget cycles in the context of the Covid - 19 pandemic, the author focuses on addressing the first research gap, which is *"Analyzing and evaluating the impact of public expenditure on the economic growth of localities and socio-economic regions of Vietnam before and after the introduction of the State Budget Law in 2015"*.

Second, by analyzing the results of empirical research on the optimal public expenditure threshold for 6 socio-economic regions of Vietnam, the author focuses on addressing the second research gap, which is *"Analyze and consider the threshold impact between public expenditure and economic growth on the national level and socio-economic regions of Vietnam"*.

Third, using the results of empirical research, the author focuses on solving the third research gap, which is: *"Examining the impact of the institutional quality factor of local governments on the economic concentration of localities"*.

Fourth, by studying the two variables public expenditure and economic concentration in the context of 6 socio-economic regions, it can help the author more deeply evaluate the moderating impact of regional characteristics on economic concentration. From there, the author makes recommendations related to localities and specific implications for each socio-economic region

of Vietnam to address the fourth research gap: "*Analyzing the impact of public expenditure on economic growth in 6 socio-economic regions based on research data of 63 provinces and cities in Vietnam.*"

4. Research Methodology

The thesis uses two methods: qualitative and quantitative.

Qualitative method: The thesis applies a sociological approach, absorbing practical experience and in-depth opinions from experts, analyzing typical situations to solve research objectives number (1), (2) and (4).

Quantitative research methods

The author uses different estimation methods based on tabular data (including: Pooled Regression Model - Pooled OLS, Fixed Effects Model - FEM, Random Effects Model - REM) to record the impact of public expenditure on economic growth at localities/socio-economic regions. After that, the author will analyze the results of model error tests: Test of heteroskedasticity, test of autocorrelation of residuals and test of correlation between residuals of cross-sectional units. If the results show that the selected method is RE, two tests need to be performed: the Lagrange multiplier test and the autocorrelation test of the residuals. If the selected result is Pooled OLS, necessary tests are performed such as: Multicollinearity test, normal distribution of residuals or heteroskedasticity. The author uses the Bayesian method to estimate research models when considering the impact of financial incentives on economic growth when changing the State Budget Law in 2015. The Bayesian method assumes that the parameters in the model are random (Kruschke, 2011). The Bayesian method has the advantage of handling model phenomena such as errors, heteroscedasticity and autocorrelation while also determining the probability of change of each impact factor.

To determine the optimal public expenditure threshold for socio-economic regions of Vietnam, the thesis uses the threshold effect proposed by

(Hansen, 1999). Later, (Wang, 2015) developed this test, the thesis used the Fixed Effect Panel Threshold estimation model to consider the impact of the independent variable on the dependent variable in the regions before and after the threshold value. These quantitative methods help address objectives (1), (2) and (3).

5. Research model

5.1. Research hypothesis:

To address the goals, research gaps and answer the research questions raised, the thesis proposes the following specific research hypotheses:

Hypothesis H1: The ratio of total public expenditure, development investment expenditure and regular expenditure will promote economic growth for regions/localities in Vietnam.

Hypothesis H2: There exists a threshold value between public expenditure and economic concentration for regions/localities in Vietnam

Hypothesis H3: Administrative reform has a negative impact on economic growth in provinces/regions of Vietnam.

Hypothesis H4: Provincial competitiveness has a positive impact on economic growth in provinces/regions of Vietnam.

5.2. Research models

Based on the model of previous studies by Liu (Liu et al., 2020), Devarajan (Devarajan, Swaroop, & Zou, 1996), (Quy, 2017), the author builds a research model as follows:

$$GRDP_{(it)} = f(X_{j(it)}, GRDP_{i(t-1)}, Control_{it}) \quad (13)$$

In there:

$GRDP_{(it)}$: Economic growth in province i at time t.

$GRDP_{i(t-1)}$: Economic growth lag in province i.

$X_{j(it)}$: Financial structure compared to GRDP in province i at time t .
 There are three types of financial resources mentioned in the thesis: Total public expenditure/GRDP: X_1 ($j = 1$), Regular expenditure/GRDP: X_2 ($j = 2$) and Development expenditure/GRDP :).

Control $_{it}$: Control variable. In there:

Labor: $CV_{1(it)}$,

Investment outside the agricultural sector: $CV_{2(it)}$,

Provincial competitiveness: $CV_{3(it)}$,

Administrative reform: $CV_{4(it)}$;

Impact of Covid 19: $CV_{5(it)}$;

Change in budget cycle (CKNS): $D_{6(it)}$

Calculate variables in the research model:

(i) Dependent variable:

$$GRDP_{it} = \frac{RGRDP_{it} - RGRDP_{i(t-1)}}{RGRDP_{i(t-1)}} \quad (14)$$

In there:

- $RGRDP_{it}$: Actual GRDP in province i at time t
- $RGRDP_{i(t-1)}$: Real GRDP in province i at time $(t - 1)$

(ii) Main independent variables:

$$GRDP_{i(t-1)} = \frac{RGRDP_{i(t-1)} - RGRDP_{i(t-2)}}{RGRDP_{i(t-2)}} \quad (15)$$

$$X_{1it} = \frac{GTE_{it}}{GRDP_{it}} \quad (16)$$

$$X_{2it} = \frac{GRE_{it}}{GRDP_{it}} \quad (17)$$

$$X_{3it} = \frac{GID_{it}}{GRDP_{it}} \quad (18)$$

In there:

GRDP_{i(t-1)}: GRDP growth lag of province i at time t

X_{1it}: Ratio of total public expenditure compared to GRDP of province i at time t

X_{2it}: Ratio of regular expenditure compared to GRDP of province i at time t

X_{3it}: Ratio of development investment expenditure compared to GRDP of province i at time t

GTE_{it}: Total expenditure of province i at time t

GRDP_{it}: Nominal GRDP of province i at time t

(i) **Control variables:**

$$CV_{1it} = \frac{Labours_{it}}{Population_{it}} \quad (19)$$

$$CV_{2it} = \frac{Investment_{it}}{GDP_{it}} \quad (20)$$

$$CV_{3it} = \ln(PCI_{it}) \quad (21)$$

$$CV_{4it} = \ln(PAPI_{it}) \quad (22)$$

In there:

CV1it: Ratio of labor compared to total population of province i at time t

CV2it: Ratio of non-state investment compared to GRDP of province i at time t

CV3it: Logarithm of the PCI index of province i at time t

CV4it: Logarithm of the PAPI index of province i at time t

CV5it: Covid -19 in province i at time t

D6it: Budget cycle of province i at time t

Laborsit: Total number of employees in province i at time t

Populationit: Total population of province i at time t

Investmentit: Total non-state investment of province i at time t

PCIit: Competitiveness index of province i at time t

PAPlit: Administrative reform index of province i at time t

6. Research results and regression analysis

6.1. In the case of all provinces nationwide

6.1.1. The impact of public spending on economic growth

The regression results of all three models show that variables such as total financial resources, Regular expenditure and Development investment expenditure at the present time all have a negative and statistically significant impact on economic growth. This result is consistent with the research of Landau ([Landau, 1985](#)) and Akpan ([Akpan, 2005](#)) . This implies that the government uses current resources to spend and these resources have not spread the effect immediately, so current spending activities can be considered costs and contribute to reducing economic growth. This result is contrary to previous studies on economic concentration by Dang Van Cuong and Bui Thanh Hoai (Hoai, 2014); Nguyen Thuy Duong ([Duong, 2018](#)); Le Huy Duc ([Duc, 2020](#)); Nguyen Thi Thuy Lien, ([Nguyen, 2022](#)) . This result also rejects hypothesis H1.

Notably, the lags of the three variables show a positive and statistically significant impact. This result is consistent with the research of Alexiou ([Alexiou, 2007](#)) and Corray ([Cooray, 2008](#)). The increase in public expenditure has helped stimulate the economy, but it takes time for the effectiveness of public expenditure to penetrate the economy. This implies that the government uses current resources to spend and these resources have not spread the effect immediately, so current spending activities can be considered

costs and contribute to reducing economic growth or a crowding out effect may occur. This means that financial institutions can crowd out private sector activities and thereby cause economic decline. However, after a while, the spending permeated the economy and created a positive effect on growth.

6.1.2. Administrative reform through the PAPI index on administrative procedure reform impacts economic growth :

Although the quantitative results are not statistically significant, they show that there is a negative impact of PAPI on the overall economic growth of the provinces. This result supports hypothesis H3 and agrees with previous studies by ([Kato & Sato, 201](#)) or ([Huang, 2016](#)) saying that if the quality of service from the public sector is not good, it can have a negative impact on economic growth.

6.1.3. Provincial competitiveness index through PCI affects economic growth :

Although the quantitative results are not statistically significant, they show that there is a positive impact of PCI on the overall economic growth of the provinces. This result supports hypothesis H4, and supports previous research results of ([Nguyen, 2014](#)), ([Giang, 2021](#)), ([Tuan & Chinh, 2017](#)). Accordingly, the PCI index aims to evaluate and rank the governments of Vietnam's provinces and cities on the quality of economic management and building a favorable business environment for the development of private enterprises .

6.1.4. Regarding the impact of Covid on economic growth:

The results of this study also support previous studies by Inegbedion ([Inegbedion, 2021](#)) or Alam ([Alam et al., 2021](#)) when all three models showed that the regression coefficient of the Covid-19 variable was negative and is statistically significant. This shows the impact of Covid-19 on the growth of all provinces. Specifically, economic growth during the Covid-19 pandemic

was lower than in the pre-Covid-19 period.

Impact of Covid-19 on the link between public spending and growth

From the regression results, the level of impact of each type of spending on growth before and during the Covid period through impact coefficients, the author makes the following comments: Public expenditure reduces growth in the year of assessment price. However, before the Covid-19 period, the negative impact of public expenditure was higher than during the Covid-19 period. This shows that the slope of the equations before the Covid-19 period is higher than the equations during the Covid-19 period. This implies that public expenditure during the Covid-19 period had certain effects to help improve the decline in growth.

6.2. Case of 06 socio-economic regions of Vietnam

6.2.1. Analysis of Region 1 - Red River Delta Region

The regression results according to the XTGLS model of Region 1 show that Region 1 is a vibrant key economic region, contributing greatly to the country's GDP. In general, the results on the impact of public expenditure on growth in Region 1 are almost similar to the case of all provinces. However, there are some notable differences as follows:

First, development investment spending during the Covid-19 period is not an activity to improve the growth of Region 1.

Second, the lag of TX expenditure has the greatest impact on growth when the regression coefficient is 0.316 and higher than total expenditure as well as development investment expenditure.

Third, labor factors and provincial competitiveness factors affect the growth of Region 1

6.2.2. Analysis of Region 2 - Northern Midlands and Mountains

The regression results according to the xtglS Model of Region 2 show

that: Region 2 is a relatively less dynamic economic region and often includes provinces and cities with budget overspending. Through the regression results, there are two notable differences as follows:

First, there is no statistically significant difference in economic growth before and after Covid-19.

Second, CTC during the Covid-19 period also did not improve growth.

6.2.3. Analysis of Region 3 - North Central Region and Central Coast

The regression results according to the XTGLS Model of Region 3 show that: The impact results of the variables in the model are not much different from the case of all provinces. However, there are some points to note as follows:

First, regular expenditure is not a factor affecting GRDP in the short term but still plays a positive role in the long term.

Second, regular expenditure during the Covid-19 period has contributed the most (compared to the remaining types of spending) in reducing the negative impact of Covid-19.

Third, due to complex geographical factors and a particularly important role in national security and defense, infrastructure development in this area is a very urgent need and requires a huge amount of public investment.

6.2.4. Analysis of Region 4 - Central Highlands Region

Regression results according to the xtgls Model show:

First, TX spending is not a factor affecting GRDP in the short term but still plays a positive role in the long term.

Second, the total expenditure of Region 4 has a positive impact both in the short term and in the long term.

Third, the contribution of spending to long-term growth (shown in the regression lag of the three types of spending) is lower than in the case of counting all provinces and lower than in the case of counting all provinces and

cities. Zones 1, 2, 3 and 5.

Besides public expenditure, there is an issue that needs to be clarified in further studies: the case of labor having a negative impact on growth.

6.2.5. Analysis of Region 5 - Southeast Region

Regression results according to the xtgl Model of Region 5 show:

Region 5 is the most dynamic economic region and also the region that contributes the most to economic growth as well as the state budget.

Similar to the case of all provinces, the impact of public expenditure is also negative in the short term and positive in the long term. Economic growth was also negatively affected during the covid period but public expenditure during the covid period contributed to minimizing the negative impact of covid.

Besides the factors mentioned above, there are a few points worth noting as follows:

Firstly, regular expenditure during the Covid period has played a very significant role in improving economic growth. Besides, this level of impact is considered the largest compared to the remaining regions. Similarly, with total public expenditure and the contribution of regular expenditure and development investment expenditure will contribute greatly to improving growth.

Second, Region 5 has labor resources and institutional quality that both have a positive and statistically significant impact on economic concentration.

6.2.6. Analysis of Region 6 - Mekong Delta Region

Regression results according to the xtgl Model of Region 6 show:

First, total expenditure has no impact in the short or long term.

Second, TX spending reduces economic growth in the short term but does not show a positive impact in the long term.

Third, regular expenditure and development investment spending during the Covid period did not contribute to improving the negative effects of Covid, but total spending did contribute to improvement.

6.3. Analyze the impact of changes in the budget cycle on Vietnam's economic growth

Estimated results using the Bayesian method are as follows:

- Impact of public spending, investment spending and regular spending on economic growth (Y): the results of interaction effects when changing the state budget law in 2015 show that including public expenditure, development investment expenditure and regular expenditure are all the same. has a negative impact on economic growth. This analysis result, along with the above analysis results, does not support hypothesis H1. This result is contrary to previous results of (Anh, 2008); ([Thon, Huong, & Thuy, 2010](#)); ([Quy, 2017](#)); ([Oanh, 2020](#)).

6.4. Analysis of optimal public spending thresholds in 06 socio-economic regions of Vietnam

6.4.1. Results of testing the threshold effect

- + Public expenditure threshold for Vietnam is 20.56% (model 1),
- + Public expenditure threshold is 20.96% for the Red River Delta region (Model 2 - Region 1),
- + Public expenditure threshold is 28.59% for the Northern Midlands and Mountains (Model 3 - Region 2),
- + Public expenditure threshold is 20.33% for the North Central and Central Coast regions (Model 4 - Region 3),
- + Public expenditure threshold is 31.43% for the Central Highlands region (Model 5 - Region 4),
- + Public expenditure threshold is 5.26% for the Southern Region (Model 6 – Region 5)

+ and Public expenditure 25.52% for the Mekong Delta region (Model 7 – Region 6).

6.4.2. Impact of public spending on economic growth of the nation and 6 socio-economic regions before and after the optimal public spending threshold value

Next, the author uses the GMM method to estimate the impact of financial incentives on economic growth in the regions before and after the threshold value. The estimation results show that the results of estimating the research models using the GMM method are the same. Statistical significance. At the same time, the Sargan test and Arellano-Bond test in these models are both appropriate. The specific impact of financial incentives on economic growth in the following models:

- **Model 1 (national data sample):** Public expenditure has a positive impact on economic growth when Public expenditure exceeds the threshold of 20.56%. However, when public expenditure is lower than the threshold value of 20.56%, the author has not found evidence of a statistically significant impact of public expenditure on economic concentration. Thus, public expenditure only creates a significant impact on economic growth when public expenditure exceeds the threshold value of 20.56%. In other words, with the whole country's data sample, public expenditure can stimulate economic concentration when public expenditure exceeds the threshold value of 20.56%.

- **Model 2 (Region 1):** The authors found evidence of the negative impact of financial incentives on economic growth in the regions before and after the threshold value of 20.96%. However, when public expenditure exceeds the threshold value of 20.96 % , the level of negative impact of public expenditure on economic growth tends to gradually decrease (from -1.02 2 to - 0.56 1). This shows that, with the data sample of Region 1, public

expenditure can hinder economic concentration. However, this obstacle reduces significantly when public expenditure exceeds the threshold at 20.96%.

- **Model 3 (Region 2):** The authors found evidence of the positive impact of financial incentives on economic growth in the regions before and after the threshold value of 28.59%. However, the magnitude of this positive effect decreased significantly when public expenditure exceeded the threshold value of 28.59% (from 0.379 to 0.090). Thus, with data sample of Region 2, public expenditure can create a positive impact on economic growth, especially when public expenditure is maintained below the threshold value of 28.59%.

- **Model 4 (Region 3):** Financial incentives have a positive impact on economic growth in the regions before and after the threshold value of 20.33%. However, the level of this positive impact decreases significantly when public expenditure exceeds the threshold value of 20.33% (from 3.531 to 1.612). This shows that, with the data sample of region 3, public expenditure can create a positive impact on economic growth in the regions before and after the threshold value. This positive effect appears strong when public expenditure is maintained at a low level. below the threshold value of 20.33%.

- **Model 5 (Region 4):** The authors found evidence of the positive impact of CTC on economic growth when public expenditure exceeded the threshold value of 31.43%. However, when public expenditure is lower than the threshold value of 31.43%, the author has not found evidence of a statistically significant impact of public expenditure on economic concentration. Therefore, with the data sample of Region 4, public expenditure can create a significant positive impact on economic growth when public expenditure exceeds the threshold value of 31.43%.

- **Model 6 (Region 5):** Public expenditure has a positive impact on economic growth when public expenditure exceeds the threshold of 5.26%. However, the author has not found a statistically significant impact of public expenditure on economic concentration when public expenditure is lower than this threshold value. Therefore, with the data sample of Region 5, public expenditure can promote economic growth when public expenditure exceeds the threshold value of 5.26%.

- **Model 7 (Region 6):** The authors found evidence of the negative impact of CTC on economic growth when public expenditure was maintained at a level below the threshold value of 25.52%. When CTC exceeds this threshold value, the author has not found a statistically significant impact of public expenditure on economic concentration. This shows that, with data sample of region 6, public expenditure can hinder economic growth, this impact is clearly shown when public expenditure is maintained at a level below the threshold value of 25.52%.

So, the estimation results show that public expenditure has a significant impact on economic concentration. However, the level of this impact varies between regions. Furthermore, there exists a threshold value of public expenditure in each region. In particular, the impact of public expenditure on economic concentration is different in the regions before and after the threshold value of public expenditure. These research results support hypothesis H2, which states that *there exists a threshold value between public expenditure and economic concentration for regions/localities in Vietnam*. This result supports the curvilinear theory of Richard Rahn (1986), also supported according to some previous studies (Thanh, 2013) ; (Karagianni, Pempetzoglou, & Saraidaris, 2019) .

When comparing the actual public spending rate and the optimal threshold, the author draws the conclusion: Region 1 currently has a spending

level of 21.19% exceeding the threshold, but compared to the value of the positive impact of public finances on economic growth, Region 1 should maintain this level of spending. Region 2 and Region 3 have a ratio of public expenditure/GRDP that exceeds the optimal threshold and the more expenditure increases, the more ineffective it becomes, and this is also the reason why public expenditure and public expenditure components all have a negative impact on economic growth during the analysis period. . In Regions 4 and 6, the current spending ratio is also in the region of negative impact on economic growth, the region of positive impact is exceeding the optimal spending threshold. As for Region 5, the expenditure ratio is in the region of the positive impact of financial incentives on economic growth.

In summary, through both qualitative and quantitative analysis, it is shown that the impact of public expenditure and its components has not had a positive impact on economic growth, especially the development investment expenditure. This result is quite consistent with the reality in localities of developing countries and is also consistent with previous observations (Engen & Skinner, 1992); (Landau, 1985); (Grier & Tullock, 1989); (Barro, 1990); (Hansson & Henrekson, 1994); (Guseh, 1997); (Fölster & Henrekson, 1999, 2001); (Dar & AmirKhalkhali, 2002); (Schaltegger & Torgler, 2006); (Romero-Avila & Strauch, 2008); (Afonso & Furceri, 2010); (Butkiewicz & Yanikkaya, 2011); (Hajamini & Falahi, 2018). This result is also consistent with the actual situation in Vietnamese localities. On the other hand, each locality has different geographical characteristics and some areas do not have economic development potential, so investment is not effective.

Next, the Covid - 19 pandemic has a huge impact on socio-economic activities, so the state must increase financial resources to cope with the epidemic and invest in fighting the epidemic while the global economy is paralyzed. has reduced investment efficiency.

This is also proven through the results of analyzing the impact of the change in the State Budget Law in 2015. In some regions, the change in the State Budget Law has a positive impact on economic growth for the region, but there are also some regions that have not had a good impact. to promote economic concentration for localities. Therefore, the administration and management of the state budget in general, especially the public expenditure, needs to be reviewed and evaluated to assign key tasks to each province and each region to promote strengths and use capital effectively.

On the other hand, through the regression results of the threshold with the total public expenditure, it shows that the expenditure ratios of the regions are mostly within the public expenditure threshold, which negatively impacts economic growth. This is also the cause of ineffective spending, with financial institutions crowding out private capital . This is shown through the regression results The ratio of non-state investment expenditure (including private capital and FDI capital)/GRDP has a positive impact on economic growth with a fairly large impact . This is completely consistent with Solow's theory ([Solow, 1957](#)) and consistent with previous studies of ([Landau, 1985](#)), ([Grier & Tullock, 1989](#)) , ([Barro, 1990](#)), ([Hansson & Henrekson , 1994](#)) , ([Guseh, 1997](#)), ([Fölster & Henrekson, 1999, 2001](#)); ([Dar & AmirKhalkhali, 2002](#)); ([Schaltegger & Torgler, 2006](#)); ([Romero-Avila & Strauch, 2008](#)); ([Afonso & Furceri , 2010](#)) , ([Butkiewicz & Yanikkaya, 2011](#)) , ([Hajamini & Falahi, 2018](#)) . In terms of reality, this result is completely consistent with the policies and guidelines of the Party and State of Vietnam during more than 36 years of development after 1986. In addition, considering the economic context of the research period, the results It is also quite appropriate because the change to the State Budget Law in 2015 always had a delay, meaning that Development Investment Expenditure in the first year did not have an effect, but after 3 years, Development Investment Expenditure had an impact on promoting

regional economic development. However, after 4 years of applying the new State Budget Law, a macroeconomic shock (Covid-19 Pandemic) paralyzed all economic activities while the State budget had to spend more on health care and people. to overcome the epidemic. State budget revenue decreased seriously during the epidemic period, this is also the reason leading to financial results having a negative impact on economic growth.

From a theoretical perspective, the author's research results are appropriate. Specifically:

+ According to the neoclassical theory developed by the model ([Solow, 1956](#)), it proves that economic concentration is based on supply and demand factors. If exploited well, it will contribute to promoting economic concentration and vice versa. Vietnam is falling into a situation of ineffective use of supply and demand.

+ Economist Richard Rahn ([Rahn, 1986](#)) provided a chart showing the relationship between financial size and economic concentration . If public expenditure exceeds the optimal threshold, then public expenditure will have a negative impact on economic growth. The threshold regression results show that Vietnam's economic regions have public expenditure /GRDP levels in the negative impact area of public expenditure, which has a negative impact on economic growth.

7. Policy implications

7.1. Conclude

After studying the thesis, the following conclusions are made:

First, three variables such as total financial resources, town expenditure and development investment expenditure at the present time all have a negative and statistically significant impact on economic growth. However, the lags of the three variables show a positive and statistically significant impact. This implies that the Government uses current resources to

spend and these resources have not spread the effect immediately, so current spending activities can be considered costs and contribute to reducing economic growth or other negative impacts. This spending has created a crowding out effect on the private sector. However, after a while, the spending permeated the economy and created a positive effect on economic growth .

Second, consider the Covid-19 factor. Before the Covid-19 Pandemic, the negative impact of public expenditure was higher than during the Covid-19 Pandemic. This shows that the slope of the equations before the Covid-19 period is higher than the equations during the Covid-19 period. This implies that public expenditure during the Covid-19 pandemic had certain effects to help improve the decline in growth.

Third, through the regression analysis results of 6 socio-economic regions, we can see some common points and some differences in the impact of public expenditure on the growth of each region as follows: In short For example, public expenditure has a negative impact on economic concentration. However, there are some exceptions as follows: (i) TX Expenditure does not show any influence in Region 3 or Region 4, (ii) Total Finance has a positive influence on Economic Concentration in Region 4 and (iii) Total financial expenditure does not affect economic growth in Region 6. Thus, the type of Development Investment Expenditure has the same short-term impact pattern in all socio-economic regions. In the long term, all types of financial incentives show a positive impact on economic growth except for Region 6. Considering the impact of Covid-19, a general pattern can be seen that economic growth tends to increase before the period. there was the Covid-19 Pandemic and a decline during the Covid-19 Pandemic. Besides, the level of influence of each type of financial system is not uniform in each economic region and each period.

7.2. Policy suggestions

7.2.1. Theoretical implications

Through analytical results, this study has made certain theoretical contributions as follows:

Firstly, contribute to the general understanding of the impact of financial incentives on economic growth by analyzing a typical case of Vietnam.

Second, the thesis has added analyzes according to economic geographic space, specifically analysis according to 6 regions to understand the similarities and differences in the impact of financial incentives on economic growth among regions within the same region. economy.

Third, the study learned about the impact of shocks, specifically the impact of the Covid-19 pandemic on the relationship between the financial system and the economic concentration. In a specific case, Vietnam, public expenditure during the Covi-19 period contributed to preventing the decline in economic growth.

Fourth, the study also investigated the short-term and long-term impacts of financial incentives on economic concentration. The short-term results showed that public expenditure had a negative impact due to the crowding-out effect on the private sector, but the long-term results showed a positive impact. This implies that after a while, financial growth has penetrated into the economy and created a positive effect on economic growth.

7.2.2. Proposing solutions to promote economic growth in Vietnamese localities

7.2.2.1. Propose solutions on public spending

Finance solution for Region 1: Adjust public spending in accordance with the optimal spending threshold

According to research results, public expenditure in the Red River Delta provinces does not have a positive impact on economic growth and the optimal threshold of public expenditure is 20.96%. Provinces: Hanoi, Quang Ninh, Bac Ninh, Hai Phong, Hung Yen whose spending levels have not reached the threshold can increase budget spending to serve socio-economic development in the next stage. The remaining provinces, which have spending levels greater than 20.96% of GRDP, need to control spending to increase the efficiency of the use of state budget expenditures and mobilize non-state capital for socio-economic development.

Solution for public spending for Region 2: Adjust public spending in accordance with the optimal spending threshold

According to research results, public spending in the Northern Midlands and Mountains provinces has a negative impact on economic growth and the optimal public expenditure threshold is 28.59%. Thus, most provinces have spending levels exceeding the optimal threshold, so public expenditure has a negative impact on economic growth. In the next stage, provinces including Ha Giang, Cao Bang, Bac Can, Tuyen Quang, Lao Cai, Dien Bien, Lai Chau, Son La, Lang Son need to control and not increase state budget spending to optimize economic development. for this region.

Solution for public spending for Region 3: Adjust public spending in accordance with the optimal spending threshold

According to research results, corporations in the Central Coast provinces have a short-term negative impact on economic growth and the public spending threshold is 20.33%/GRDP. For provinces with spending levels higher than the 20.33% threshold, it is necessary to reduce public expenditure and mobilize non-state capital for economic development in the next stage to ensure optimization of economic growth for Region 3.

Solution for public spending for Region 4: Adjust public spending in accordance with the optimal spending threshold

According to research results, public expenditure in the Central Highlands provinces has a short-term negative impact on economic growth and the optimal public expenditure threshold is 31.43%. Thus, in the next stage of socio-economic development, provinces such as Gia Lai, Dak Lak, Dak Nong, and Lam Dong need to increase budget expenditures to serve socio-economic development, while better controlling budget expenditures. spending to increase CTC efficiency in the coming period.

Solution for public spending for Region 5: Adjust public spending in accordance with the optimal spending threshold

According to research results, public expenditure in the Southeast provinces has a short-term negative impact on economic growth and the optimal public expenditure threshold is 5.26%. According to average data on state budget spending for the period 2013-2021, basically all provinces have an average spending level greater than 5.26%. Thus, we should not increase the proportion of state budget expenditures but must mobilize capital sources outside the state budget. At the same time, in the next stage to improve financial efficiency, the Southeast provinces need to control spending activities better to increase the efficiency of using state budget expenditures.

Finance solutions for Region 6: Adjust public spending in accordance with the optimal spending threshold

According to research results, public spending in the Mekong Delta provinces in the short term does not have a positive impact on economic growth and the optimal public expenditure level is 25.52%. Thus, most provinces in Region 6 have spending levels below the threshold, so the problem of ineffective state budget spending is due to the management and use in Region 6 provinces.

7.2.2.2. Propose solutions to attract capital sources outside the state budget

First: Adding more financial tools to mobilize capital from the private sector.

During the 4.0 Industrial Revolution, implementing pioneering projects such as energy saving, 4.0 technology, smart technology and automatic control brings many significant risks. Therefore, the Government can apply specific financial measures to encourage investment from the private sector in the country's socio-economic development.

Second: Solutions need to be implemented to attract FDI capital.

Some solutions to attract foreign direct investment (FDI) to increase public spending, and these solutions include: improving the quality of infrastructure, administrative regulations and related procedures to improve the investment environment. This includes simplifying business establishment procedures, customs procedures, taxes and social insurance. Thanks to these improvements, the country's competitiveness will be enhanced compared to regional competitors. Adjust policies to minimize risks in technology and financial investment for FDI enterprises.

7.2.2.3. Propose solutions for workforce development

According to research results, labor has a positive impact on economic growth in localities, so in the coming time, Vietnam must continue to take advantage of the remaining time of the golden population period to make a breakthrough in development. economic development, to achieve this goal, the following solutions need to be implemented: (1) Developing high-quality human resources; (2) Actively innovate and improve the system of mechanisms and policies on building and developing high-quality human resources; (3) Develop and complete the overall strategy for developing high-

quality human resources in the new era; (4) Promote fundamental, comprehensive and synchronous innovation in education and training.

7.2.2.4. Proposing solutions for institutional reform in public spending

First, institutional reform in the field of recurrent expenditure

Invest in information technology: Using information technology in TX expense management helps minimize procedures, optimize costs and improve transparency. Investing in information technology infrastructure and training human resources in information technology are necessary solutions to improve institutions in this field.

Applying project-oriented budget expenditure management: Applying project-oriented budget expenditure management method helps increase transparency and efficiency of expenditures, and helps budget management be more focused. and avoid waste.

Carry out an assessment of the effectiveness of regular expenditures: To optimize regular expenditure management, Vietnam needs to carry out an assessment of the effectiveness of expenditures, thereby making appropriate adjustments, minimizing costs and improving efficiency. budget usage.

Strengthen the responsibility of budget management agencies: Budget management agencies need to have clear responsibilities and closely monitor expenditures, ensure transparency and avoid budget waste.

Raising officials' awareness of regular expenditure management: Training and raising awareness of officials on regular expenditure management is one of the necessary solutions to improve institutions in this field.

Second, institutional reform in the field of development investment spending

Enhance transparency and financing of investment projects: The Vietnamese government can apply mechanisms and regulations to ensure transparency and financing of investment projects.

Promote competition among investors: Creating conditions for investors to compete with each other will help reduce investment costs and increase budget, and will also promote technological progress in the investment sector. private.

Promoting public-private cooperation: The Vietnamese Government needs to create favorable conditions for private enterprises and foreign investors to participate in public investment projects.

Strengthen management and supervision: The Vietnamese Government needs to strengthen management and supervision of investment projects to ensure the progress and quality of projects. This will help increase investors' confidence and ensure that investment projects will bring benefits to both society and the country's economy./.