ANALYSIS OF THE RELATIONSHIP BETWEEN FINANCIAL POLICY-COMPETITIVENESS CAPACITY – ECONOMIC GROWTH: A STUDY OF ECONOMIC TRANSFORMATION IN VIETNAM

Daniel Balsalobre-Lorente¹, Pham Minh Tien²*, Dinh Thi Thu Hien³
¹University Castilla-La Mancha, Spain
²University of Finance – Marketing, Vietnam
³Bank for Social Policies, Gia Lai province, Vietnam

ARTICLE INFO

DOI: 10.52932/jfm.vi2.495
Received: February 04, 2024
Accepted: March 16, 2024
Published: March 25, 2024

Keywords: Economic growth; Financial policy; Provincial competitiveness; Vietnam.

JEL: E5, G38, O43

This study aims to examine the relationship between fiscal policy, provincial competitiveness and Vietnam’s economic growth. The study uses the VECM model for time series data including the factors Total tax revenue of the country, Growth of the expanded money supply represents fiscal policy; Provincial competitiveness and Vietnam’s economic growth in the period 1990-2021. The study has provided additional empirical evidence on the relationship between financial policy, provincial competitiveness and economic growth in the context of selecting Vietnam. The research results show that financial policies have affected economic growth in localities in the third period with an impact of 3%. In comparison, provincial competitiveness has affected economic growth right in the 1st period with a large impact of 18%. The change of economic growth has an impact in the same direction with provincial-level financial and energy competitiveness policies. From this result, the authors propose implications to limit the lag in the implementation of financial policies.
1. Introduction

The use of financial policy has significant efficacy in exerting control over macroeconomic stability and fostering economic development and growth. The efficacy of financial policy is contingent upon the extent to which it maintains the enduring viability, stability, and equilibrium of the fiscal framework. Furthermore, financial policy needs to prevent the occurrence of financial instability in the capital circulation system, which is characterized by the interruption and instability of capital turnover as well as the failure to make complete and punctual budget payments.

To achieve uniformity in the activities of state entities and local authorities, it is essential to establish a comprehensive framework including measures, goals, principles, directives, and the financial and economic long-term objectives of the nation. This framework serves as a component of financial policy. The foundation for developing realistic and effective solutions to secure sustainable, stable, and balanced sources of financing, which in turn contribute to increasing economic development, lies in the strategic orientations of financial policy. Sustainability is defined as the capacity of state and local authorities to promptly and completely fund budget expenses, manage budget shortfalls, and maintain a fair level of public debt in relation to the gross domestic product. Budget stability refers to the degree of stability shown by the structure of budget components throughout the building and implementation phases, which is deemed suitable for the country’s level of development and socio-economic circumstances.

This study aims to promptly identify the essential techniques and instruments of financial policy required to attain the established goals. Additionally, it seeks to evaluate adverse trends and risks associated with the violation of sustainability and budget stability, with a specific emphasis on implementing preventative actions. When devising financial strategies, it is important to consider the institutional attributes, patterns, and fluctuations of economic phenomena while upholding the overarching objectives of the financial system.

Extensive economic study focuses on the capacity of a nation to foster economic development using fiscal, monetary, income policies, and several other economic indicators. Financial policy measures play a significant role in addressing economic cyclical fluctuations within a nation, which may manifest as either expansionary or recessionary in nature. The immediate advantages for certain stakeholders involved in the budget process must align with the intended long-term goals and policies outlined in the budget. This underscores the significance of budgeting methods to maximize their influence on attaining the long-term objectives of a certain nation’s financial system.

Vietnam is now undergoing a transitional phase in its economy. Consequently, the country’s socio-economic growth is anticipated to guarantee the coherence of short-term, medium-term, and long-term indicators. The primary focus of the Financial Strategy to 2030 has been to ascertain the principal trajectory and underscore the significance of financial policy in fostering economic growth and advancement. The national financial policy assumes a pivotal role in facilitating the mobilization, liberation, allocation, and optimal utilization of both domestic and foreign resources towards the primary goals of socio-economic advancement. This is achieved through the implementation of coordinated and efficient fiscal policy instruments, which are closely coordinated with monetary policy and other policies to manage inflation, stabilize macroeconomic conditions, maintain substantial economic balances, and establish a conducive environment for both rapid and sustainable development.
According to the economic model of Barro (1990), the model shows that growth of the economy depends on investment and government expenditure that to have investment and expenditure, the government must collect taxes, these indicators are all under fiscal policy, namely fiscal policy. In addition, to control the flow of money in the economy to ensure effective circulation, the State must also intervene through monetary policy.

In addition, the Solow-Swan model (1956), shows that growth is based on supply-side factors, including fixed factors: land and other natural resources (mines, forests, seas, rivers,...) and transformative factors: Capital, labor, and technology. In particular, the rate of technology development is the main factor determining productivity. According to this model, to achieve economic growth, that country or province must have and promote and effectively exploit supply factors such as land, natural resources, labor, attract investment capital, create favorable mechanisms for economic development, these indicators are reflected in the competitiveness of the provinces, of the nation. The theoretical implication shows that there is a relationship between economic growth and national competitiveness.

Thus, from theory to experiment, this topic has been researched but incomplete and has not answered the practical requirements of Vietnam today. Hence, this research offers supplementary empirical data about the correlation between financial policy, state competitiveness ability, and economic development in Vietnam. The subsequent sections of the paper are organized in the following manner. The following section delineates pertinent empirical investigations. In the third section, the model and research data are presented. The experimental findings of the investigation are presented in the fourth section. The concluding section provides a summary and suggests ways to improve policies that support the advancement of Vietnam’s economic development.

2. Empirical Studies on Financial Policy, Provincial Competitiveness Capacity, and Economic Growth

Financial policies are of the utmost importance in fostering and sustaining a favorable economic climate, thereby facilitating the economy’s pursuit of expansion that is more rapid, stable, and sustainable. Monetary policy and fiscal policy, the two preeminent instruments of financial policy, fulfill this critical function within an economy. The management of economic fluctuations is regarded as the primary objective of fiscal and monetary policy instruments. While fiscal policy is intended to resolve matters of public finance and monetary policy is primarily concerned with inflation control, both policies can be employed to manage economic operations (Şen & Kaya, 2015).

An increase in government expenditure, according to Forte and Magazzino (2016), tends to diminish growth efficiency by 0.44 percentage points. Conversely, the researchers discovered that tax reductions or capital expenditures have a propensity to stimulate the development process. Additionally, the results presented in this article underscore the criticality of bolstering financial policies to enhance growth efficiency. As a consequence, progressive income taxes and government spending generally exert an adverse influence on economic growth. The article’s primary findings underscore the imperative to decrease public debt, or more precisely, to rectify the inefficiency inherent in these expenditures.

According to Arestis (2015), fiscal policy can effectively contribute to the stabilization of macroeconomic conditions, particularly when implemented in conjunction with monetary policy and other government financial regulatory measures pertaining to financial
Bokreta and Benanaya (2016) investigated the relative effectiveness of fiscal and monetary policies in the case of Algeria. The study utilized a vector error correction model and found that government spending had a statistically significant positive impact on output growth, while the impact of taxes was found to be negative in the long run. Fiscal policy had a stronger effect than monetary policy on promoting economic growth in Algeria. Okorie et al. (2017) used an autoregressive distributed lag (ARDL) model to evaluate the relative importance of fiscal and monetary policies in Nigeria using quarterly time series data from 1981 to 2012. They affirmed that both monetary and fiscal policies had significant positive impacts on national income. However, in comparison, the impact of monetary policy was stronger and faster in promoting economic growth in the short term, but in the long term, fiscal policy took precedence in terms of its overall effect, indicating that the overall impact of fiscal policy was greater than monetary policy. They concluded by advocating for the use of both policies to achieve macroeconomic goals, primarily because economic efficiency depends on the objectives the government aims to achieve.

Özer and Karagöl (2018) analyzed the relative growth effectiveness of fiscal and monetary policies in Turkey during the period 1998–2016 using ARDL bounds testing techniques and Granger causality tests and found that fiscal policy variables significantly impact long-term growth. Fiscal policy seems to be more effective than monetary policy during the study period, implying a reconsideration of implementing both policies to achieve economic growth. William (2013) found through an experimental investigation of a United States-based dataset that large cities provide substantial business opportunities and also receive substantial payments.
According to the findings of Knutsen (2013), who applied OLS, PSCE, and FE models to panel data from 1984 to 2004 in sub-Saharan African nations, the capacity of the government determines the growth efficiency of provinces.

The purpose of Nguyen and Luu’s research (2021) was to evaluate the Provincial Competitiveness Index (PCI) in Vietnam’s Central Highlands. The findings indicate that the Central Highlands region comprises 2.2% of the nation’s total investment capital and 1.1% of the nation’s operating enterprises. There exists a strong positive correlation between PCI and enterprise capital, labor force, and enterprise count.

Majid et al. (2014) surveyed the competitiveness of two cities in Malaysia and indicated that local governments have a pivotal role to play in the implementation of national development plans and policies, therefore they play an important role, contributing to the economic growth of the region.

Nguyen (2017) examines the role of provincial competitiveness in economic growth in several localities; this study conducted a Granger causal test for table data of 60 provinces and cities in Vietnam from 2006 to 2014 and found that a two-way causal link exists between provincial competitiveness and economic growth. The study aims to: (1) investigate the relationship between governance and economic growth for the dataset of 60 provinces in Vietnam for the period 2006-2014; (2) measure the impact of management level on economic growth over the same period. Furthermore, using the generalized moment estimation method (SGMM) shows that the provincial general competitiveness index and tax revenues have a significant positive impact on economic growth at 1%. Notably, the impacts of tax collection and provincial competitiveness on growth are varied. These findings imply that policymakers should focus on the growing provincial competitiveness index as well as establish an effective tax collection system to spur growth.

3. Research Data and Model

3.1. Research Data

The study involves 4 variables: GDP (Economic growth), PCI (Provincial Competitiveness Index), TAXES (Total national tax revenue), BM (Broad Money Growth), which are specifically described in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>Unit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>Economic growth</td>
<td>%</td>
<td>IMF</td>
</tr>
<tr>
<td>PCI</td>
<td>Provincial Competitiveness Index</td>
<td>%</td>
<td>GSO VN</td>
</tr>
<tr>
<td>TAXES</td>
<td>Total national tax revenue</td>
<td>Logarit</td>
<td>IMF</td>
</tr>
<tr>
<td>BM</td>
<td>Broad Money Growth</td>
<td>%</td>
<td>IMF</td>
</tr>
</tbody>
</table>

The study examines the impact of financial policies through the total national tax revenue, the growth of the broad money supply, and the provincial competitiveness index (PCI) on the economic growth of Vietnam, using data from the period between 1990 and 2021. The national output (GDP) of Vietnam is obtained as a percentage from the financial statistics of the IMF (IFS). Components of financial policies are extracted from the financial statistics of the IMF (IFS): total national tax revenue (TAXES), growth of broad money supply (BM). The provincial competitiveness index (PCI) is obtained as a percentage of the overall statistics of Vietnam. The total national tax revenue is a non-normally distributed trend variable with
very high skewness; thus, the study transforms this variable into its natural logarithm to achieve a distribution closer to normal, meeting the input data conditions of the model.

### 3.2. The VECM model

The VECM model has the general form:

\[
C(L) \Delta Y_t = \alpha \beta' Y_{t-1} + d(L)u_t
\]

\[
C(L) = 1 - C_1 L - C_2 L^2 + \ldots - C_{p-1} L^{p-1}
\]

\[
d(L) = 1 + \theta_1 L + \theta_2 L^2 + \ldots
\]

The cointegration condition adds a constraint to the model: the rank of the matrix \( \Pi \) equals \( r \), \( r(\Pi) = r \), meaning the model has \( r \) cointegrating relationships (if \( r = 0 \)). We employ the model:

\[
Y_t = A_1 Y_{t-1} + A_2 Y_{t-2} + \ldots + A_p Y_{t-p} + u_t
\]

\[
\Delta Y = \Pi Y_{t-1} + C_1 \Delta Y_{t-1} + C_2 \Delta Y_{t-2} + \ldots + C_{p-1} \Delta Y_{t-p+1} + u_t
\]

Let \( y_t = Y_t - \mu \):

\[
y_t = A_1 y_{t-1} + A_2 y_{t-2} + A_p y_{t-p} + u_t
\]

Let \( X = (y_1, y_2, \ldots, y_n) \);

\[
A = (A_1, A_2, \ldots, A_p);
\]

\[
Z = \begin{pmatrix} y_0 & \cdots & y_{n-1} \\ \cdots & \cdots & \cdots \\ y_{t-p} & \cdots & y_{n-p} \end{pmatrix}
\]

The regression model will be considered for selection after conducting tests, especially the stationarity tests of the time series. Non-stationary time series identified during testing should be transformed into stationary ones by taking higher-order differences. Stationary time series with the same order of differences will then undergo cointegration testing. The results indicate cointegration among various combinations of the series, making the VECM model suitable for regression. The model integrates impulse response functions and appropriate variance decomposition for testing the relationship between financial policy via total national tax revenue, expansionary money growth, provincial competitiveness index, and economic growth in Vietnam.

### 4. Research Results

#### 4.1. Model tests

**4.1.1. Stationarity of the data series**

To test whether \( Y_t \) is stationary, i.e., to test whether \( Y_t \) is a random walk or not, we perform the test:

\[
H_0 : \beta_1 = 1 \\
H_1 : \beta_1 < 1
\]

With the significance level \( \alpha = 0.05 \), if \( H_0 \) is accepted, then the time series is non-stationary; if \( H_0 \) is rejected, then the time series is stationary. We apply the Dickey-Fuller unit root test to test the stationarity of the GDP (Economic Growth), PCI (Provincial Competitiveness Index), TAXES (Total tax revenue of the country), BM (Growth of broad money supply) data series respectively.

<table>
<thead>
<tr>
<th>Unit Root Tests</th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis: GDP has a unit root</td>
<td>-5,900988</td>
<td>0,0000</td>
</tr>
<tr>
<td>Hypothesis: PCI has a unit root</td>
<td>-4,475115</td>
<td>0,0015</td>
</tr>
<tr>
<td>Hypothesis: TAXES has a unit root</td>
<td>-4,541687</td>
<td>0,0011</td>
</tr>
<tr>
<td>Hypothesis: BM has a unit root</td>
<td>-4,655694</td>
<td>0,0008</td>
</tr>
</tbody>
</table>

The unit root test results indicate that at the significance level of \( \alpha = 0.05 \), the null hypothesis (\( H_0 \)) regarding the existence of a unit root is rejected for all variables, namely...
GDP, PCI, TAXES, and BM, implying that these time series are stationary at the first difference level. Thus, the data series have all stopped at the same difference level 1: d(I).

4.1.2. Cointegration test

Two simple methods are (1) Engle-Granger (EG) or Augmented Engle-Granger (AEG) tests for \( Ut \) estimated by the combined regression and (2) Durbin-Watson joint cointegration test (CRWD).

Since the GDP, PCI, TAXES, and BM series are all stationary at the first difference level \((1(I))\), the Johansen test is used to examine whether GDP, PCI, TAXES, and BM are cointegrated or not.

### Table 3. Cointegration test

<table>
<thead>
<tr>
<th>No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Statistic</th>
<th>Critical Value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.603203</td>
<td>56.03165</td>
<td>47.85613</td>
<td>0.0071</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.397255</td>
<td>28.30170</td>
<td>29.79707</td>
<td>0.0736</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.322463</td>
<td>13.11390</td>
<td>15.49471</td>
<td>0.1107</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.046713</td>
<td>1.435166</td>
<td>3.841466</td>
<td>0.2309</td>
</tr>
</tbody>
</table>

*Note: The test shows that there is cointegration at the significance level \( \alpha = 0.05 \).*

### Table 4. Testing the maximum number of cointegrations of GDP, PCI TAXES, and BM data series

<table>
<thead>
<tr>
<th>No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Statistic</th>
<th>Critical Value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.603203</td>
<td>27.72994</td>
<td>27.58434</td>
<td>0.0479</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.397255</td>
<td>15.18781</td>
<td>21.13162</td>
<td>0.2760</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.322463</td>
<td>11.67873</td>
<td>14.26460</td>
<td>0.1233</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.046713</td>
<td>1.435166</td>
<td>3.841466</td>
<td>0.2309</td>
</tr>
</tbody>
</table>

*Note: The test shows that there is cointegration at the significance level \( \alpha = 0.05 \).*

The results obtained from the cointegration tests indicate that GDP, PCI, TAXES, BM are cointegrated at the significance level of \( \alpha = 0.05 \). When \( k = 0 \), \( p = 0.0071 < \alpha \), rejecting the null hypothesis \( H_0: \ r=0 \) (no cointegration among the variables). The series exhibits cointegrating combinations.

4.1.3. Optimal lag selection test for the model

Similar results are obtained for the maximum cointegration rank test, showing that GDP, PCI, TAXES, BM are cointegrated at the significance level of \( \alpha = 0.05 \). When \( k = 0 \), \( p = 0.0479 < \alpha \), rejecting the null hypothesis \( H_0: \ r=0 \) (no cointegration among the variables). The series display cointegrating combinations.

Using LogL, AIC, SC criteria to determine the optimal lag for the model. In this case, LR, AIC, SC criteria will be used to identify the optimal lag for the model:
4.1.5. White Noise Test of Residuals

The residuals of the VECM model must exhibit white noise for the VECM model to be suitable for forecasting purposes.

Table 5. Optimal lag selection test for the model

<table>
<thead>
<tr>
<th>Lag</th>
<th>LogL</th>
<th>LR</th>
<th>FPE</th>
<th>AIC</th>
<th>SC</th>
<th>HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-205,0145</td>
<td>NA</td>
<td>21,40003</td>
<td>14,41479</td>
<td>14,60338</td>
<td>14,47386</td>
</tr>
<tr>
<td>1</td>
<td>-81,12326</td>
<td>205,0613*</td>
<td>0,012733*</td>
<td>6,974018*</td>
<td>7,916981*</td>
<td>7,269342*</td>
</tr>
<tr>
<td>2</td>
<td>-69,51565</td>
<td>16,01050</td>
<td>0,018501</td>
<td>7,276941</td>
<td>8,974274</td>
<td>7,808525</td>
</tr>
<tr>
<td>3</td>
<td>-57,67296</td>
<td>13,06780</td>
<td>0,029785</td>
<td>7,563652</td>
<td>10,01535</td>
<td>8,331495</td>
</tr>
</tbody>
</table>

Note: Symbol * The lag is chosen based on the criteria.

Based on the criteria FPE, AIC, SC, HQ, the optimal lag selection result is p=1.

4.1.4. Unit Root Test

To test the stability of the VECM model, the AR Root Test is employed to examine whether the solutions or eigenvalues are all less than 1 or lie within the unit circle, indicating the stability of the VECM model.

Figure 1. The unit root test of the model

4.1.5. White Noise Test of Residuals

The residuals of the VECM model must exhibit white noise for the VECM model to be suitable for forecasting purposes.

Table 6. White noise test of residuals

<p>| The VECM tests for the white noise of residuals through autocorrelation coefficients |
|---------------------------------|------------------|------------------|------------------|------------------|</p>
<table>
<thead>
<tr>
<th>Lag</th>
<th>Q-stat</th>
<th>P-value</th>
<th>Q-adjusted</th>
<th>P-value</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4,868562</td>
<td>---</td>
<td>5,042439</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>11,91860</td>
<td>0,9966</td>
<td>12,61470</td>
<td>0,9945</td>
<td>28</td>
</tr>
</tbody>
</table>

The results indicate that the p-value is greater than \( \alpha \) (\( \alpha = 0.05 \)), hence there is no occurrence of autocorrelation. The appropriate lag of the model is \( p = 1 \), making the VECM model suitable for regression.
4.2. The results and discussion

After conducting the VECM model tests, the regression results of the VECM model are as follows:

The GDP, CPI, TAXES, and BM series are all stationary at I(1) and are cointegrated. The cointegration equation reflects the long-term relationship between the variables as follows:

\[
\text{GDP} = -0.12 - 3.980910\text{BM} + 0.024070\text{TAXES} + 0.081532\text{PCI} + u
\]

In the long term, GDP has an inverse relationship with the BM variable. However, it has a positive relationship with TAXES and PCI.

Table 7. The VECM model

<table>
<thead>
<tr>
<th>VECM</th>
<th>Cointegrating Eq:</th>
<th>CointEq1</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(GDP(-1))</td>
<td>1,000000</td>
<td></td>
</tr>
<tr>
<td>D(BM(-1))</td>
<td>3.980591</td>
<td>(2.20698)</td>
</tr>
<tr>
<td></td>
<td>[ 1.8036]</td>
<td></td>
</tr>
<tr>
<td>D(TAXES(-1))</td>
<td>-0.02407</td>
<td>(0.1716)</td>
</tr>
<tr>
<td></td>
<td>[-0.1402]</td>
<td></td>
</tr>
<tr>
<td>D(PCI(-1))</td>
<td>-0.081532</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Error Correction:</th>
<th>GDP</th>
<th>BM</th>
<th>TAXES</th>
<th>PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CointEq1</td>
<td>-1.22328</td>
<td>-0.063913</td>
<td>-0.300388</td>
<td>0.160792</td>
</tr>
<tr>
<td></td>
<td>(0.3484)</td>
<td>(0.02448)</td>
<td>(0.27224)</td>
<td>(0.20899)</td>
</tr>
<tr>
<td></td>
<td>[-3.5105]</td>
<td>[-2.61105]</td>
<td>[-1.10339]</td>
<td>[ 0.76936]</td>
</tr>
</tbody>
</table>

4.2.2. Impulse response

Combining non-stationary series into a stationary one, ECt-1 represents the residual in this combination. ECt-1 = α indicates the disequilibrium state at period t-1, where α is the adjustment coefficient when disequilibrium occurs in the short term.

ECt-1 = -1.22, indicating that if there was disequilibrium in the previous period by one unit, in the first period, the dependent variable would adjust in the opposite direction to the equilibrium state by 1.56. Therefore, it takes more than 9 periods to restore the equilibrium state.
expansion of broad money (BM) has had a significant influence on economic growth (GDP) since the second era. The impact of the money supply on economic growth persists into the following eras without an observable decline. The economic development of Vietnam is influenced by financial policy, including fiscal and monetary policies, which have both immediate and enduring impacts. Furthermore, the impact of provincial competitiveness (PCI) on economic growth (GDP) is evident from the first period and persists throughout.

In order to deduce the causal relationship between GDP, PCI, TAXES, and BM, impulse response and functions of variance decomposition will be utilized. These functions provide an examination of both the direct and indirect effects of each perturbation variable on the others, enabling a thorough evaluation of their dynamic interrelationships.

The correlation between economic growth, as measured by GDP, and the total tax revenue of a nation, as measured by tax revenues, indicates a substantial influence of total tax revenue on economic growth over the first and third periods. This phenomenon continues to occur at the following time intervals without exhibiting any indications of decline. Conversely, the expansion of broad money (BM) has had a significant influence on economic growth (GDP) since the second era. The impact of the money supply on economic growth persists into the following eras without an observable decline. The economic development of Vietnam is influenced by financial policy, including fiscal and monetary policies, which have both immediate and enduring impacts. Furthermore, the impact of provincial competitiveness (PCI) on economic growth (GDP) is evident from the first period and persists throughout.

Additionally, the findings of the impulse response analysis suggest that alterations in economic growth, as measured by GDP, have a reciprocal impact on financial policy. The
government alters fiscal policy by manipulating tax revenue levels, while the government carries out monetary policy by enforcing suitable broad money growth rates that correspond with various economic growth stages.

4.2.3. Variance decomposition

Table 8. Variance decomposition

<table>
<thead>
<tr>
<th>Period</th>
<th>S.E.</th>
<th>D(GDP)</th>
<th>D(BM)</th>
<th>D(TAXES)</th>
<th>D(PCI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1,492047</td>
<td>100,000</td>
<td>0,00000</td>
<td>0,000000</td>
<td>0,000000</td>
</tr>
<tr>
<td>2</td>
<td>1,634955</td>
<td>83,8286</td>
<td>2,759168</td>
<td>0,320647</td>
<td>13,09158</td>
</tr>
<tr>
<td>3</td>
<td>1,731859</td>
<td>74,7266</td>
<td>6,578887</td>
<td>0,303904</td>
<td>18,39058</td>
</tr>
<tr>
<td>4</td>
<td>1,769387</td>
<td>72,3149</td>
<td>7,971271</td>
<td>0,291446</td>
<td>19,42231</td>
</tr>
<tr>
<td>5</td>
<td>1,834791</td>
<td>72,6865</td>
<td>8,680285</td>
<td>0,283254</td>
<td>18,34993</td>
</tr>
<tr>
<td>6</td>
<td>1,866299</td>
<td>70,4512</td>
<td>10,28511</td>
<td>0,283206</td>
<td>18,98050</td>
</tr>
<tr>
<td>7</td>
<td>1,899945</td>
<td>69,2120</td>
<td>11,81072</td>
<td>0,276427</td>
<td>18,70079</td>
</tr>
<tr>
<td>8</td>
<td>1,927161</td>
<td>68,0535</td>
<td>13,01760</td>
<td>0,270949</td>
<td>18,65791</td>
</tr>
<tr>
<td>9</td>
<td>1,958842</td>
<td>67,4864</td>
<td>14,15334</td>
<td>0,269833</td>
<td>18,09042</td>
</tr>
<tr>
<td>10</td>
<td>1,983370</td>
<td>66,4960</td>
<td>15,34682</td>
<td>0,266352</td>
<td>17,89078</td>
</tr>
</tbody>
</table>

The purpose of variance decomposition in the VECM model is to break out the contributions of both the primary time series and additional time series to the variance of prediction errors. The results of the variance decomposition align with the findings pertaining to impulsive responses. Fluctuations in the overall tax collection of the nation (TAXES) have a minor influence on GDP and economic growth. It’s important to note that changes in the broad money supply (BM) tend to have a bigger effect on GDP economic growth over the time periods we looked at. This effect started at 6% in the third period and went up to over 10% by the sixth period. The analysis of variance decomposition reveals that provincial competitiveness has a significant influence on economic development in both the short and long run, with an effect rate above 18% from the initial period.

In Vietnam, the study findings illustrate the correlation between financial policy, provincial competitiveness, and economic development. This research provides empirical data about the correlation between financial policy, provincial competitiveness, and economic growth within the specific context of Vietnam’s development as opposed to developed nations. In contrast to wealthy nations, financial systems in underdeveloped countries exhibit notable characteristics like reduced size, diminished complexity, and less robust legal frameworks. Nevertheless, prior research has neglected to prioritize and highlight nations characterized by underdeveloped economies and banking sectors. The implications for policy development are substantial due to the results about the link between financial policy, provincial competitiveness, and economic growth.

The findings support the idea that financial policies, which include factors like the expansion, effectiveness, and stability of financial policies as well as the improvement of financial resource accessibility to support the economy, influence the rate of economic expansion. Additionally, the level of advancement of the financial system
in various provinces throughout the nation also plays a role in determining the pace of economic growth. A robust financial market facilitates the deployment of savings within an economy towards lucrative ventures, thereby mitigating information costs and resulting in improved capital allocation and decreased company administration expenses. Furthermore, according to Levine (1997), financial systems play a crucial role in facilitating transactions, encouraging diversity, reducing risks, and improving risk management. Additionally, they provide conducive environments for the exchange of commodities and services within the economy. Additionally, according to Levine (1997), the process of capital accumulation and investment is crucial in bridging the gap between financial development and economic growth. According to Das and Guha-Khasnobis (2008), the financial system serves as a conduit for capital allocation between financial sectors and the real economy. This allocation facilitates the financing of liquidity requirements and enables investments in the economy to enhance production within the real sector. Nevertheless, it is worth noting that the impact of financial policy on Vietnam’s economic development is relatively limited, with fluctuations exceeding 3%. Some economists who have done research on the connection between financial policy and economic growth concur with this observation. Moreover, Lucas (1988) underscores the diminished significance of financial markets in the advancement of the economy. Furthermore, Shan (2005) has recently highlighted that the Asian economic crisis of 1997 has exacerbated concerns about the efficacy of financial policy in stimulating economic development. This is due to the failure of financial markets to effectively allocate substantial capital flows into lucrative commercial ventures. Furthermore, the global financial crisis that occurred in 2008 demonstrated the inadequacy of financial markets, principally attributable to

the provision of high-quality mortgage loans. Hence, the inability of economies to oversee and control changing financial policies in order to guarantee prudent and robust growth in financial markets might have substantial ramifications for the overall economy.

From a theoretical perspective, the research results of the Authors are relevant. Specifically, the neoclassical theory developed by the Solow model (1956) demonstrates that economic growth based on land, natural resources, capital, labor and technology, this means that good exploitation and deployment of land, resources, capital, labor will promote economic growth for that country and empirical results in In Vietnam, these factors are formed and developed in 10 components of provincial competitiveness, including: (1) Low cost of entering the market; (2) Easy access to land and stable land use; (3) The business environment is transparent and business-related information is made public; (4) Low time costs for carrying out administrative procedures and inspections and inspections; (5) Low informal costs; (6) Equal business environment among economic sectors; (7) The government is dynamic and creative in creating a favorable business environment; (8) High-quality business support services; (9) Good labor training policies and services; and (10) Resolve disputes for enterprises fairly, efficiently and ensure safety for enterprises in the production and business process. The regression test results show that provincial competitiveness affects in the same direction as economic growth is in line with reality and fundamental theory.

5. Conclusions and implications

Firstly, the analytical findings suggest that there is a strong association between financial policy and provincial competitiveness and their influence on economic development. Furthermore, the dynamics of economic growth
have a reciprocal effect on both financial policy and provincial competitiveness, indicating a positive correlation between these variables. Nevertheless, the influence of financial policy on economic development has a delayed effect, often occurring in the third period, with a 3% rate of impact. On the other hand, provincial competitiveness has an instant impact in the first period, with an 18% rate of impact. The first era witnessed the instantaneous occurrence of the feedback effect between economic development and both financial policy and provincial competitiveness. Vietnam should consider many policy implications based on the study results.

Secondly, based on the findings of the study, it is evident that the existing financial policy demonstrates a significant delay in its effects, which persists into the third period. In the contemporary era characterized by digitalization and the digital economy, wherein economic activities are quantified in seconds, the government must augment its policy communication across diverse economic entities through a range of channels. This necessitates the strategic utilization of technology to effectively disseminate policy information to all relevant stakeholders. Furthermore, there is a need for improvement in policy implementation to aim for a lag of 1. In addition, it is essential to augment the use of information technology and develop a digital financial infrastructure to effectively address the demands of national digital transformation. It is crucial to review, modify, and enhance legislation in the financial sector to establish, oversee, and control information systems that meet the needs of the digital government and national digital transformation.

Thirdly, persist in actively and adaptively overseeing budgetary measures. The implementation of fiscal policies should entail a logical and targeted expansion, with a primary emphasis on mitigating challenges faced by businesses and citizens. This should be done in close coordination and effectiveness with monetary policies and other relevant policies, to stabilize macroeconomic conditions and manage inflation following predetermined objectives. The goal is to maintain the fundamental equilibrium of the economy.

Fourthly, it is crucial to enhance the all-encompassing and enduring framework of state budget revenue policies, guaranteeing the logical allocation of resources for the state budget. This will aid in creating a competitive atmosphere that is conducive to the process of integration and economic growth. The objective is to improve revenue policy mechanisms that are associated with the reorganization of state budget revenues toward comprehensive revenue sources. This involves extending the revenue base, particularly by including new sources of income, following practical requirements, international integration obligations, and established international practices. Conduct thorough research and develop equitable tax rates to uphold the principles of justice and impartiality within the tax policy framework.

Fifthly, it is crucial to enhance the state budget allocation mechanism by implementing effective international principles and practices in revenue management, expenditure tasks, and the relationship between budget levels. This will effectively address the issue of overlap in state budget management and strengthen the central budget’s leadership role. Additionally, it is important to promote decentralization and encourage localities to take proactive measures to generate revenue and mobilize resources for economic and social development at the local level. This will foster initiative and accountability among local authorities in decision-making and budget utilization. Furthermore, it will enhance transparency and accountability, as well as strengthen inspection and supervision.
Lastly, it is essential to conduct a comprehensive evaluation, formulation, and enhancement of targeted financial strategies that are relevant to significant economic areas as well as select major provinces and cities. This entails fostering regional connections, bolstering global integration, and reducing disparities in regional development.

Provincial competitiveness significantly influences economic growth at the local level. To improve competitiveness, localities should implement various measures, including: (1) leveraging and developing products within their local strengths; (2) reducing informal costs for businesses; (3) ensuring fair competition for enterprises; (4) fostering dynamism and creativity in governance; (5) expediting document processing to facilitate faster market entry for businesses; (6) enhancing information transparency; and (7) strengthening business support services.

Reference


