ИНСТИТУТ ЗА ИКОНОМИЧЕСКИ ИЗСЛЕДВАНИЯ НА БЪЛГАРСКАТА АКАДЕМИЯ НА НАУКИТЕ
ИКОНОМИЧЕСКИ ИЗСЛЕДВАНИЯ
ECONOMIC STUDIES

ГОДИНА XXV, 2016, 4

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ECONOMIC GROWTH AND MACROECONOMIC STABILITY OF VIETNAM

After nearly 30 years of renovation, Vietnam has gained remarkable achievements. High growth for many years has helped Vietnam join the group of middle-income countries and its living standards has improved steadily each year. The country's integration is strong. However, besides the improved quality of growth and macroeconomic environment in the period from 1990 up to now, many problems still exist. The following will show the picture of economic growth and economic stability of Vietnam after 30 years of reform, the challenges posing to the process of development and integration in the near future, and some policy implications for Vietnam Government.
JEL: E63; 040

1. Vietnam's Economy in the 1986-2014 Period: Changes and Issues

Roadmap for economic reforms of 30 years are summarized as follows: In 1986, the Sixth Party Congress decided Reform program with a series of significant changes later. In 1987, commercial checkpoints were abolished in the whole country; Foreign Investment Law first launched, creating a legal framework for foreign investors. In 1988, the two-level banking system was initially set, and Resolution 10 / NQ-TW on agricultural land use rights for farmers were adopted. In 1989, some important policies were implemented, including: abolished dual pricing system, unified the exchange rate system, increased interest rate to ensure positive real interest rates, and significantly reduced subsidies to State-owned enterprises.

In 1992, the new Constitution was passed, in which multi-component economy was officially recognized. In 1993, the Land Law was revised, the Bankruptcy Law and Environmental Law were passed. Also this year, the US lifted embargo with Vietnam. In

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1997 the Asian financial crisis originating from Thailand had negative impacts on Vietnam's economy. In 2000, Enterprise Law took effect; Bilateral Trade Agreement with the US was signed; Stock Exchange was opened. In 2004, the Bankruptcy Law, replacing the Enterprise Bankruptcy Law in 1993, was passed by the National Assembly and took effect in the same year.

In 2005, the Competition Act was passed by Congress; Unified Enterprise Law and the Common Investment Law were given. In 2006, AFTA commitments were full implemented. In 2007, Vietnam became an official member of the World Trade Organization (WTO). In 2008, world oil price soared has resulted in high inflation rate in Vietnam, bringing negatively impacts on the domestic economy. In the late 2008 and 2009, the global financial crisis stemming from the US outbroke and spread to the entire world economy.

In 2011, inflation returned and asset bubbles forced the Government to prioritize macroeconomic stability forefront and determinate to restructure the economy with 3 focuses of restructuring public investment, State-owned enterprises, and the banking system. Simultaneously, Vietnam determined to switch from growth model that based much more on investment expansion, labor and natural resources to one that based more on productivity and competitiveness of the economy.

In 2012, the economy has shown clear signs of recovery. Resolution 19/NQ-CP of Government on March 18, 2014 on the tasks and key measures to improve the business environment, enhance national competitiveness showed the Government's determination to improve business environment, and the competitiveness of the economy.

Innovations, reforms, and shocks of the economy since the 1986 are shown briefly but it also shows that in the first stage of renovation, the economy was loosened, production resources in the economy was unbent, creating momentum to promote economic growth. At a later stage, growth model based on capital did not bring much benefit. Moreover, many important implemented laws were not effective, therefore they had no practical impact on the economy. Reform and innovation in the later stages have been and would have to be more radical, that is, it requires institutional reforms, to make the resources of the economy towards market, to change the role of the State from the player become to the designer, helping set the rules for the economy and let the players (private enterprises, FDI, ...) work together to bring about the most effective allocation of resources, the economy with the highest competitive pressures and the highest level of creativity.

2. Behind the Economic Growth in the 1986-2014 Period

In this section, we will use growth accounting approach to analyze factors of growth, showing the problems behind the impressive growth of Vietnam's economy.

2.1. Growth Accounting Approach

Cobb-Douglas production function with constant returns to scale is represented as follows:

$$Y_t = A_t K_t^{\alpha} L_t^{1-\alpha} \quad (1)$$

In which, K_t, L_t, A_t respectively are capital, labor, and total factor productivity (TFP) at time t, α is capital share in total income, and therefore (1-α) is labor share.

From production function above, TFP is calculated using the formula:

$$A_t = \frac{Y_t}{K_t^{\alpha} L_t^{1-\alpha}} \quad (2)$$

To estimate TFP, we need data series of Y_t, K_t, and L_t. Moreover, we need to know the value of the parameter α.

Y_t is measured by GDP (according to constant 1994 price) in the period 1986-2014. L_t measured by annual number of employees in the period 1986-2014. The value of capital $(K_1(t)))$ is not available, we only know the annual investment, therefore capital must be measured according to the formula:

$$K_{t+1} = (1-\delta)K_t + I_t \quad (3)$$

In particular, I_t is investment (at constant 1994 prices) in year t; δ is the depreciation rate. To build data series from 1986 to 2014, we need to know the value of initial capital at the time in 1986, and the depreciation rate.

We use the result of Tran Tho Dat and et al. (2005) for the estimated value at the time of the initial capital and the value of depreciation rates. Accordingly, the value of capital at the time in 1986 was 309.543 billion and the depreciation rate δ = 0.055. From two these, we built up the series of capital data in the 1986-2014 period. Moreover, to estimate TFP, we use α = 0.3.

To analyze the contribution of each factor of production to the value of total output of the economy, we use the methods used in the research of Edward Prescott (as Prescott, 2002; Hayashi and Prescott, 2002). Dividing 2 sides of the production function (1) to labor force (denoted N_t), we obtained the following equation:

$$\frac{Y_t}{N_t} = A_t^{\frac{1}{1-\alpha}} \left(\frac{K_t}{Y_t}\right)^{\frac{\alpha}{1-\alpha}} \frac{L_t}{N_t}, \quad (4)$$

Take the log of both sides of (4) we have:

$$log\left(\frac{Y_t}{N_t}\right) = \frac{1}{1-\alpha} log(A_t) + \frac{\alpha}{1-\alpha} log\left(\frac{K_t}{Y_t}\right) + log\left(\frac{L_t}{N_t}\right) \quad (5)$$

From equation (5), we will segregate the contribution of factors in outputs per person in the labor force.

2.2. Data[4]

There are some notes about the data. First, data on consumption used in this research will be the sum of final consumption (including the State and private final consumptions) in the statistics of the General Statistics Office, the balance of trade, and errors. Data on consumption used in accordance with the Kehoe and Prescott's research (2002) and Conesa, Kehoe and Ruhl (2007). Accordingly, the consumption of the State and the trade balance may be considered consumption or investment. However, the most often way is considering them as consumption. Secondly, the data which is calculated using the formula (3) with initial capital and depreciation rate is taken from a study by Tran Tho Dat et al. (2005).

2.3. Results and Analyses

Average growth rate of TFP in the period 1987-2014 is annually 2.73% and the average growth rate of labor force is annually 2.5%. When decomposing economic growth per worker under the growth accounting framework, the results will be shown in table 1.

Table 1

	GDP	Productivity	Capital	Labour
Period 1986-2007	3.78	3.65	0.15	-0.01
Period 2008-2014	4.05	3.86	0.20	-0.01
Period 1986-2014	3.85	3.70	0.16	-0.01
Correlation coefficients	1.00	0.98	0.45	-0.11
Mean	3.85	3.70	0.16	-0.01
Standard deviation	0.16	0.15	0.03	0.01
Ratio to GDP	1.00	0.96	0.04	0.00

The magnitude of the total output per worker is equivalent to the magnitude of total factor productivity in the period 1986-2014 and the 2 sub-period 1986-2007 and 2007-2014. It demonstrates the important role of total factor productivity growth in the economy. Although the capital factor has positive contribution to total output but quite small compared one of the total factor productivity. On the contrary, the labor factor has negative contribution to output.

The correlation coefficient between GDP and TFP is very high, approximately 1 (0.98). The volatility of TFP is the main cause of GDP volatility. The positive correlation coefficient between GDP and capital stock (0.45) reflects the fluctuation of capital stock partly puts impact on output per worker. Finally, the correlation coefficient between employment and GDP is negative.

Equal standard deviation of growths of both total output and total factor productivity confirms that growth of TFP is extremely important for economic growth in the short term or long term. The standard deviation of labor and capital is much lower than the standard

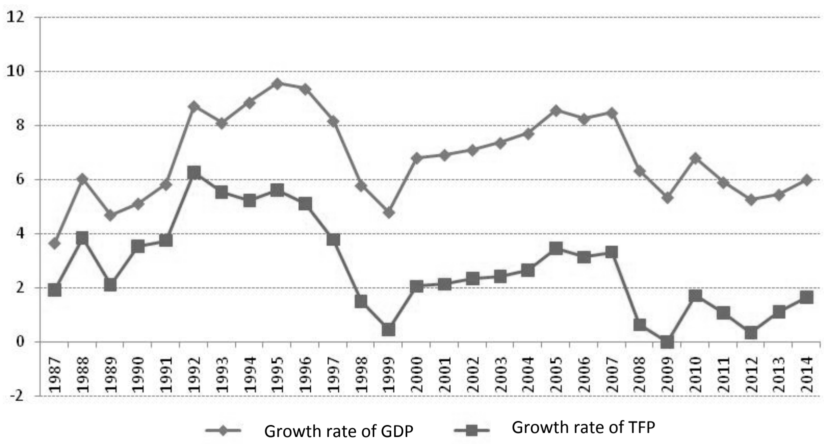
[4] The data were taken from the General Statistics Office (Yearbook of period) if there is no other citations.

deviation of GDP. So, an explanation for negative relation between growths of employment and is as follows: when the economy suffers a negative shock (for example, the global financial crisis or rising oil price...), production declines but regulations related to labor make enterprises difficult to dismiss labors, or enterprises still keep labors and reduce working hours so that the employment can remain but total output decreases. Conversely, when output in the economy increases, the number of employees may not increase as much as possible. Generally, whether labor factor has negative and little impact on the total output, it also sets the problem that the Government should have policies to make the labor market more flexible, implement policies to encourage workers, ...

The growth of TFP and GDP were fairly close to each other (see Figure 1). The difference between the growth rate of GDP and TFP would be the contribution of factors such as capital and labor. This explained that the TFP played an important role in the growth trend of Vietnam's economy and volatility of the economy. However, TFP is the sum of a lot of different factors in the economy, such as changes in policy, business environment, external shocks such as rising oil price, the world financial crisis,... Therefore, the next step will be to find out which shocks make the TFP to reduce or increase from economic, politic and social events.

Figure 1

Growth rate of GDP and TFP period 1987-2014, %



Source: General Statistics Office and calculations by the authors.

It can be seen, in the 1991-1996 period, growth rate of TFP was much higher than average level. Here were the results from a series of reforms, innovations, and international economic integration from the 6th Party Congress in 1986. However, the shock from Asian financial crisis in 1997 slowed the growth rate of GDP and TFP. The economy had touched the bottom in 1999 and later, stimulus policies helped economy recover again. Also to note, economic growth after 1999 might be due to positive impacts, which originated from world economy recovery and especially the recovery of countries in the region, on the domestic economy. Another noteworthy point was that the TFP declined sharper than GDP as well as recovered slower than GDP, showing that policies related to capital increases (i.e., increasing public investment) contributed in part to GDP increase or partly slow GDP decrease.

Oil price shock in 2008, and the global financial crisis and economic downturn in 2009 and 2010, had strong impacts on productivity and growth rate of GDP. Productivity growth strongly decreased while the growth rate of GDP declined more slightly, but the pace of recovery of GDP better than one of TFP. As such, the public investment policy could contribute to GDP.

All the above analysis shows that, with an open economy, the gains are huge, including the more efficient allocation of resources, economies of scale, and technology transfer,... and thereby also contribute to increasing the total factor productivity. However, the disadvantages due to openness brings the greater negative shocks than when the economy is closed. Whether opening up the economy including negative shocks, there is no close economy has high growth rate of GDP or high living standards. Negative shocks due to the opening can be minimized by the design of appropriate institutions or creating a healthy business environment, with low transaction costs and freely moving resources with low costs.

In the recent period, the Government has determined to restructure the economy and transform the growth model, especially focusing on improving economic institutions. However, the implementation of restructuring following 3 new pillars began just shortly so that the results achieved are not prominent. In the near future, a series of integrations launched such as TPP, AEC, RCEP, ... are expected to promote economic institution reforms in the country, increase TFP and hence the economic growth.

3. Macroeconomic stability and policies

3.1. The macroeconomic instability

In the past decade, Vietnam's inflation rate was among the highest in the region and in the world at some times (in 2011 inflation rate of 18.13% is the highest in Asia and 2nd world after Venezuela)

Vietnam's economic growth based significantly on expansion of the inputs, namely that capital and labor, rather than based primarily on improvement in technology and management capacity. Maintaining the current growth model in long time with the support of loose monetary policy and expansionary fiscal policy has led to macroeconomic instability.

3.2. Monetary Policy

In 30 years of renovation, at each stage Vietnam's monetary policy pursued different objectives and therefore had different impacts on macroeconomic stability. Monetary policy in the 1990s was done by expanding the money supply at an annual growth of 30-40%. In 1999 the the economy has low growth (at 4.8%) under the impact of the Asian financial crisis (1997-1998). In this context, monetary policy is done by expanding cautiously in order to promote economic growth, to stabilize exchange rate, and to control inflation rate at no more than 5%. As a result, Vietnam's inflation rate is at a low level.

Monetary policy is implemented by expanding in a long time has created great pressure to increase prices. Inflation recurred in 2007, to a peak of 12.6%. In 2009, the global financial crisis and economic recession had negative impact on many countries, including Vietnam. The domestic economy was in trouble, the macroeconomic balances were unsustainable, growth quality and competitiveness of the economy were at a low level, therefore, policies relating to monetary policy, credit, the exchange rate implemented were to prevent economic slowdown and macroeconomic stability. Thanks to economic stimulus measures, the economic downturn has been contained, the macroeconomy is basically stable, economic growth in 2009 is at around 5.2%, inflation is controlled below 7%, social security is guaranteed.

Monetary policy continues to be easing until the 3rd quarter of 2010 even though inflation has shown signs to escalate. In the fourth quarter of 2010, in facing with high inflation rate, the Government issued Directive No. 1875/CT-TTg of the Prime Minister dated 11/10/2010 making measures to stabilize prices and markets for the last months. In this time, monetary policy was tightened. However, with a lag of monetary policy, it was unsuccessful to prevent high inflation rate in 2011.

During the period from 2011 to the present, monetary policy designed to control inflation, stabilize the macro-economy, ensure the safety of the financial system, and at the same time, to remove difficulties for production and business activities in order to support economic growth at a reasonable level. The growth rate of money supply and credit since 2011 has fallen compared to the previous period. The tight control of the money supply and credit has contributed significantly to the success of bringing inflation from high 18.13% in 2011 to 6.81% in 2012; down to 6.04% in 2013; and only 1.84% in 2014.

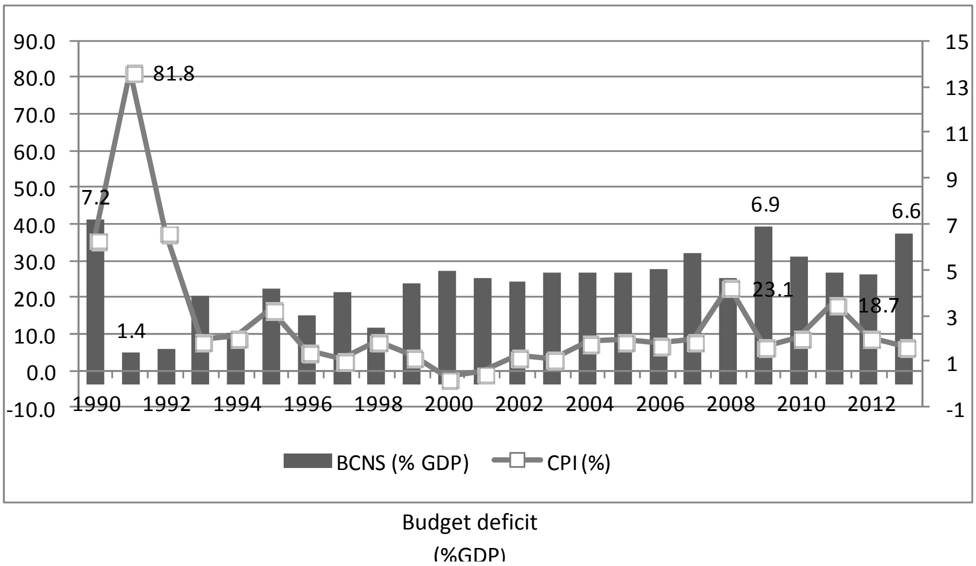
3.3. Fiscal policy

Fiscal policy is one of two important macroeconomic policies besides monetary policy. Current fiscal policy is considered as one source of macroeconomic fluctuations, reflected in high and volatile inflation, especially in the 2007-2012 period. Inflation, as Milton Friedman said "at any time, anywhere is a monetary phenomenon", i.e., has its roots in the expansion of money supply. This is not an exception in the case of Vietnam. However, the expansion of the money supply in Vietnam has been financing the budget deficit.

Looking back at the previous stage of renovation (before 1986), the State budget was in serious deficit, largely offset by aid from the Soviet bloc and Eastern Europe socialist. Aid has decreased in the second half of 1980, and the budget deficit is offset by more borrowing by the Government, even to issue money. That resulted in very high inflation in the 1986-1990 period. As shown in Figure 2, there is a close correlation between the uptrend of inflation (the left axis) and the uptrend of the budget deficit (the right axis). More specifically, after a few years of serious budget deficit then inflation surged, and inflation fell only after the years of low budget deficit. For example, the CPI growth rate has declined rapidly in the years 1993-1994 right after tightening public spending in order to achieve the lowest deficit in the last 30 years. To the period after 2000 onwards, the economy witnessed unusually high inflation rates in 2008 and 2011 after a long period of serious budget deficit. Thus, it can be predicted that the budget deficit is a cause of the instability of the economy during the past 30 years.

Figure 2

Budget deficit and inflation in Vietnam 1990-2013



Source: Calculated from database of IMF, ADB and Ministry of Finance.

4. Policy Recommendation

Given the above analyses, it could been seen that since 1986 onwards, the economy has experienced years of the up-and-down growth. There were difficult times rooted from the economy internally, and there were other times came from external environment. Despite the volatility, the country was heading for reforming and opening; targeting to become a fully market-based economy; and consolidating the roles of the State under the uncertainly risky and volatile global economy

During a long time after economic reform, the country has obtain a plethora of remarked achievements. However, the current growth model, largely relying on input factors, cheap labor and resource-based extraction, has appeared weaknesses given the fact that the economy is required to improve its competitiveness more and more to be able to successfully integrate into the world economy. The economy has past through consecutive shocks (positive and negative ones), including: officially entering World Trade Organization in 2007; being suffered from oil price rocking in 2008, and global financial crisis and economic downturn in 2009; European debt crisis in 2010. These shocks reveal more obviously the weaknesses of the growth model, which places pressure on the economy to be re-structured. From all the arguments mentioned, some main assessment and policy implications are as follows:

(i) Vietnam's economic growth has been and is currently lead by TFP. In this sense, TFP doesn't only consist of pure technological progress contained in machinery, equipments, production process, but also other aspects such as institutional quality, shocks, business environment… Therefore, concentrating too much on importing technologies or technological progress could not be necessary enough to raise TFP. To enhance TFP in Vietnam economy at present and coming period should be basing on efficient enforcement of enacted laws that have not been come into daily practice, such as: Law on Bankruptcy, Law on Competitiveness.

(ii) To increase the predictability and credibility of policies, especially those that exert broad impacts on economic growth and stability, such as monetary policy and fiscal policy. In the past time, credibility and consistency of macroeconomic policies increasingly improve. In the context of various and conflicting sources of information and rumors, and a lot of rapid changes, credible and consistent policies will play a driving role to stabilize the economic cycle, and contribute in promoting TFP and thus taking part in boosting sustainable economic growth.

More specifically, monetary policy should focus on price level control as the primary goal. However, this does not mean that the policy will not head for other goals; stabilizing price level has to be on top of the list of goals of monetary policy while economic growth should be targeted at a certain reasonable extent, and ensure safe operation of financial and banking system. The government should specify clear order of priorities, where keeping inflation at reasonably low level is utmost goal.

Monetary policy should not largely be dominated by fiscal policy just as what happened in the past years. At present, State Bank of Vietnam is still considered as a ministerial and financial dependent agency of the government, therefore it faces pressures from government and Ministry of Finance in regulating monetary policy.

State Bank should be entitled entirely at its discretion to use tools of monetary policy so as to actively scope with changes and volatilities taking place in the economy.

As for fiscal policy, pursuing sound and consistent fiscal policy will be the critical point in deriving a stable business environment, improving reputation, governance, competitiveness of the nation, and be the prerequisite condition for the country to make a leapfrog development.

Fiscal policy should be institutionalized/legislated in a way that stance of counter-cyclical fiscal policy is considered as an fundamental orientation and stipulated in corresponding laws, such as: Law of State Budget, Law on Public Investment. It should be stipulated in Law on State Budget that in period of stable economic growth State budget must be in surplus position or at least balanced. Generally, State budget system has to be back to a hard budget system instead of the currently soft system. Reforming fiscal policy should be initiated from expenditure side, where expenditure accounts of the government have to be relevant and consistent to their pure functions. As for State budget revenue, it is necessary to have better institutions that allow raising revenue in years of high economic growth. This is the reserve of fiscal space for Government, which should be used to intervene counter-cyclically in years of slowing growth. Besides, revenue is to finance expenditure, where public expenditure has to bear the functions of stabilizing markets, supporting private sector, rather than mobilizing revenue widespread to largely finance recurrent expenditure of Government and pouring to state-owned enterprises at present.

It is necessary to institutionalize the coordination mechanism between fiscal policy and monetary policy, to ensure the independence of State Bank of Vietnam regarding goal of price control; using State Bank of Vietnam as a tool of Government in order to mobilize financial resource to fund budget deficit must be avoided.

(iii) To enhance business environment in a sense of greater transparency, more equal and fair competitiveness will make economic resource to be more efficiently allocated, raise TFP and long-run economic growth. Under the circumstance the global economy is still in difficulty, and domestic economy is facing with big challenges, the target of improving business environment in terms of "transparency, equality, and fair competitiveness" becomes significantly important that would not only help the economy to recover faster in the horizon of potential shocks, but drive the economy to grow sustainably. This is a more seriously importance when Vietnam will be taking part in a number of new trade agreements such as TPP, AEC, RCEP.

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