Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.6, No.8, 2015

Government Securities and Economic Growth

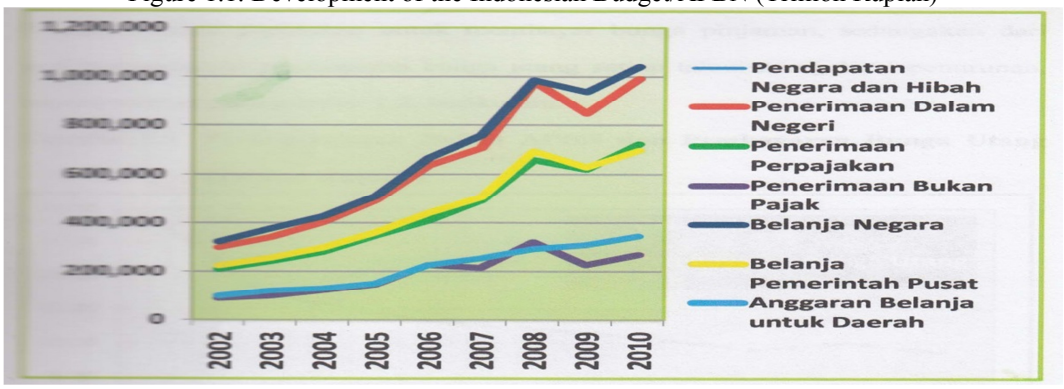
Desfitrina
Fakultas Ekonomi Universitas Tamansiswa Palembang
zulfadhlialius@yahoo.com

Abstract
The purpose of this study is an attempt to explain the effect of government securities (SBN) to economic growth. The review of the literature indicates that securities (SBN) which was published from 2000-2010 SBN effect on interest rates. The results of this review find that government securities significantly affect the value of economic growth in Indonesia.
Keywords: Securities and Economic pertumbuha

1. Introduction

Economic growth and economic development are two different terms, although there are some experts say the same (Guritno, 2001). The purpose of economic development is an attempt to achieve a level of prosperity and welfare of the people. In the modern economy (Guritno, 2001), in general, the role of government can be classified into three major groups, namely: allocation, distribution, and stabilization. Meanwhile, when there is a surplus, should be allocated to pay domestic debt and or abroad.

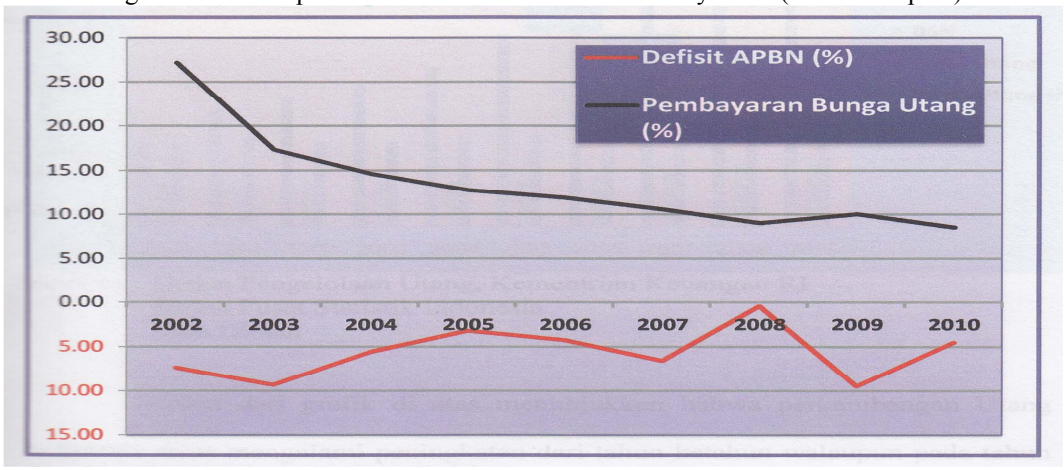
Figure 1.1. Development of the Indonesian Budget/APBN (Trillion Rupiah)



Source: Bank Indonesia, the data is processed

Seen from figure 1.1. above, it appears that the state budget from year to year continues to grow, but in 2009 only budget for state spending which is constantly increasing. Fiscal Year 2010, by 8.5% expenditure budget is used to pay interest on the loan, while the growth in terms of interest payments per year has decreased, as shown in Figure 1.2. following

Figure 1.2 Development of Deficit and Debt Interest Payments (Trillion Rupiah)



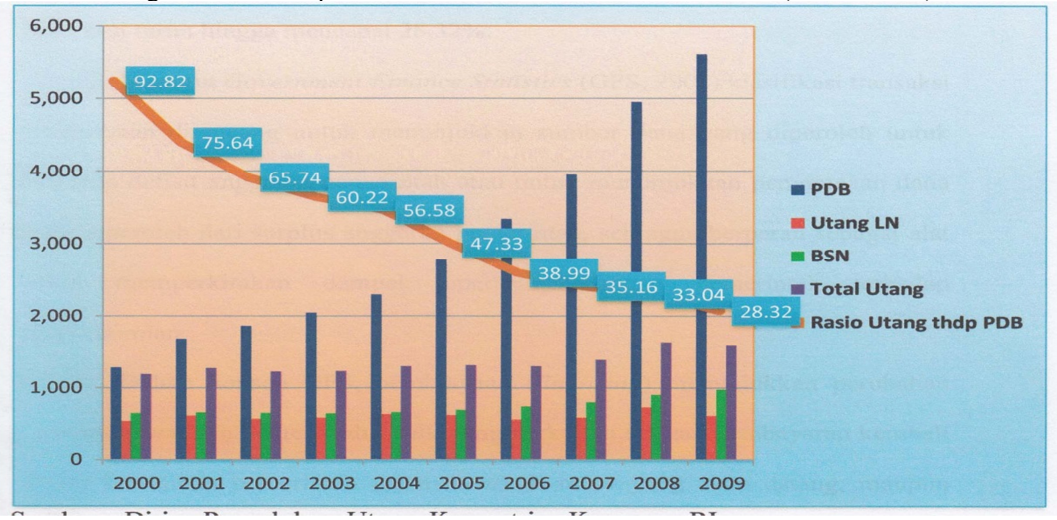
Source: Bank Indonesia, the data is processed.

The decline in interest payments on this debt shows increasingly good use of debt as one of the instruments of financing budget deficits. Indonesian government budget deficit is still in the range of 10%, this

also shows that the State Revenue is able to meet the needs of most Expenditure.

But behind the decline in the ratio of debt to the State Budget and Expenditure deficit ratio with the still at the level of 10%, the growth of government debt Indonesia continues to increase very high.

Figure 1.3 Development of the Indonesian Government Debt (Billion USD)



According to the Government Finance Statistics (GFS, 2001) classification of financial transactions designed to indicate the source of the funds raised to cover budget deficits or to demonstrate the use of the funds obtained from the government budget surplus, which serves as a tool for estimating the impact of the financial operations of government on the economy. In the GFS concept, finance (financing) shows the change in government obligations, whether in relation to the repayment of all government obligations (repayment) in the future, as well as changes to the government's liquidity (liquidity holding). The changes are needed to close the gap between the entire transaction expenses and the provision of government loans to other parties (expenditure and lending) with revenues derived from income and grants (revenue and grants). Financing the budget in the Budget are grouped into two domestic financing and foreign financing.

The decline in the value of the Rupiah against the US dollar resulted in foreign debt repayment burden gain weight. Since 1999, an increasing number of domestic debt amounted to cover the dependence of foreign loans. Financing from domestic sources is done through Government Securities (SBN) both in rupiah and foreign exchange (MOF, 2010) which is composed of government securities (GS) and sharia state securities (SBSN).

2. Review of Literature

2.1. Gross Domestic Product (GDP)

According to McEachern (2000) Gross Domestic Product is the calculation used by the state as the primary measure of national economic activity. GDP can also be used to study the state of the economy from time to time or to compare some of the state of the economy at a time. In an economy, both in developed countries and in developing countries, goods and services are produced not only by companies belonging to the country's population but also by residents of other countries. Always met national production generated by the factors of production that comes from abroad. Thus, as revealed by Sadono (2006) that the definition of Gross Domestic Product is the value of goods and services produced within a country by factors of production owned by the state and foreign countries. In terms of economics, economic growth is the addition of the GDP, which means also increase national income (Tambunan, 2001). GDP is the value of GNP minus net factor income from abroad. PNB value obtained and the calculation of national income minus net indirect taxes and depreciation costs (SEKI, 2007). It can be formulated as follows:

GDP = GNP - Revenues net of production factors and abroad.

GNP = national income - (net indirect taxes + depreciation).

Therefore, the value of GDP is an indicator that is very important for an investor to compare investment opportunities and risks in foreign countries.

The increasing of GDP, mathematically calculation is as follows:

$$R_{(t-1,t)} = \frac{GDP_t - -GDP_{t-1}}{GDP_{t-1}} x100\% \quad \text{.....(2.1)}$$

R ($_{t-1,t}$) = The percentage increase in GDP..
GDP $_t$ = GDP given year
GDP $_{t-1}$ = GDP previous year

Economic growth in absolute value can be expressed in nominal value based on current prices and real value (real) based on constant prices. According to current prices, the value of goods and services produced (the total forming GDP) is calculated based on the market price during the year, which means an increase in prices (inflation effects) also calculated (Tambunan, 2001).

2.2 Economic Growth

Simon Kuznets (Jhingan, 1999), defines economic growth as a long-term increase in a country's ability to provide more and more kinds of economic goods to its citizens, this ability to grow in accordance with the advancement of technology and institutional adjustment and ideological required.

This definition has three main components: first, the economic growth of a nation can be seen from the increasing continuous supply of goods; second, advanced technology dal am factors that determine the degree of economic growth growth ability in providing a wide assortment of goods to the population; Third, the use of technology is widely and efficiently requires an adjustment in the field of institutional and ideological that innovation generated by the science of mankind can be utilized appropriately.

2.2.1 The Harrod-Domar Growth Model

One of the many tactics basic development for takeoff is mobilizing savings fund (in domestic currency and foreign currency) in order to create investment cadngan in sufficient quantity to accelerate the pace of economic growth. Mechanisms that rely on increased investment in order to accelerate economic growth can be explained by the Harrod-Domar growth models, or who is now better known by the name of AK models.

2.2.2 Neoclassical Solow Growth Model

This model states that conditionally, economies of various countries will meet (converge) at the same income level, on condition that these countries have savings rates, depreciation, labor force growth and productivity growth are the same. Therefore, the Solow model is the basic framework for the study of convergence between countries.

2.3 Fiscal Policy

Fiscal policy is the government's policy with regard to the level of government spending, transfers and tax structures (Dornbusch, 2008, Sadono, S. 2004). In the view of Keynes, fiscal policy is essential to overcome the relatively serious unemployment. Onwards, aggregate expenditure can be further improved again by increasing government spending on goods and services that are needed and to increase government investment. It is assumed that the government do the shopping and transfer (TR) in a constant amount, applying the income tax propostional, collect part of the revenue (t), in the form of tax: is mobilizing savings fund (in domestic currency and foreign currency) in order to create investment cadngan in sufficient quantity to accelerate the pace of economic growth. Mechanisms that rely on increased investment in order to accelerate economic growth can be explained by the Harrod-Domar growth models, or who is now better known by the name of AK models.

DY = Y — TA + TR 2.2

C = *C* + cDI = *C* + c(Y + c(Y + TR —TA)..... 2.3

G=G TR = *TR* TA = tY 2.4

DY (disposible income) is the net income that can be spent by households after receiving transfers and pay government taxes, C and AD depends on tax rates (t), the multiplier depends on the tax rate. This fiscal policy specifications, can be rewritten consumption function, after substituting TR and TA on equation 2.3 with equation 2.4, becomes:

C = *C* + c(Y + *TR* - tY)
= C + *cTR* + c(1-0Y 2.5

Note in equation 2.5, that the entry of the transfer can raise autonomous consumption expenditure by the marginal propensity to consume and disposable income (c) multiplied by the number of transfers (assuming no taxes paid to the government). In contrast, income tax can lower consumption expenditure at every level of income. By combining identity with the aggregate demand equation 2.4. and 2.5 in the get.

AD =C+I+G+NX
= *[C* + *cTR* + c(1-t)Y] +*I*+*G*+*NX* =*(C*+*cTR*+*1*+*G*+*NX*+*c(1-0Y*
= *A* + c(1-0Y 2.6

Where: A=C+cTR+I+G+NX

AD slope becomes flatter because households now have to pay a portion of any income in the form of taxes and only left at t-1 and the revenues. Thus, as shown equation 2.6, the marginal propensity to consume out of income becomes c (1-t) instead of c

2.3.1 Equilibrium Income

How determinant of income when the government sector included. Back on the goods market equilibrium condition I = AD, and using equation 2.6, the equilibrium condition as:

Y = A + c (1-t) Y

By solving this equation for Io, equilibrium income level, by integrating everything into Y:

Y [1-c(1-0] = *A*

$$Yo = \frac{1}{1-c(1-t)}(C + cTR + I + G)$$

$$Yo = \frac{A}{1-c(1-t)} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ 2.7$$

By comparing equation 2.7 with equation equilibrium level of income and output are:

$$Yo = \frac{1}{1-C} A \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ 2.8$$

Seen that the public sector makes a substantial difference. He raised the autonomous spending through government spending (G) and expenses incurred as a result of net transfers (CTR), in addition to tax revenues decrease multipliers.

2.3.2 Impact of Changes in Fiscal

This can be explained in Figure 2.1. where the initial income level is Yo. The increase in government spending of government is a change in autonomous expenditure (autonomous spending), therefore, the increase in aggregate demand curve shifts to the top of the increase in government spending. At the beginning of the level of output and income, the demand exceeds the output of goods and in connection with it, the company expanded to reach equilibrium barn, at point E '. Changes in income equilibrium equal to the change in aggregate demand,

$AY_0 = \Delta G + c(1 - t)\Delta Yo$

Where other variables (C, G, I, and NX) is assumed fixed. So that the equilibrium income change into,

$$\Delta Y_0 = \frac{1}{1-C(1-t)} \alpha g \Delta G \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(2.9)$$

Where the notation αG is a multiplier and income tax,

$$A_G \equiv \frac{1}{1-C(1-t)} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ 2.10$$

Suppose that instead of increasing spending on goods and services pemerinath, G pemerinta actually increase the transfer payment, TR. Autonomous expenditure, A, will rise only by CATR, so the output will rise by Ag x CATR. The multiplier for the transfer payment is smaller compared to government spending by a factor of © because of the increase in TR partially saved.

2.4. Budget

The first important concept is the budget surplus (budget surplus), which is denoted by BS. Budget surplus is the excess of the government's tax revenues of the total expenses, including spending on goods and services of payment transfers

BS TA ≡ G - TR ……………………………………………………………………………2:11

Negative budget surplus, which is the excess expenditure of revenues, called the budget deficit. substitute equation 2:11, assuming that a proportional income tax generate tax revenue TA = tY, will produce.

BS ≡ ty - G -TR ………………..…………………………………………………2.12

2.5 Fiscal Sustainability

Fiscal sustainability is the ability to implement fiscal policies and government programs to maintain macroeconomic stability with emphasis on maintaining that country's debt to GDP ratio is relatively konstan.Manurung, 2010. Barnhill and Kopits, 2003. Seeing that fiscal sustainability is a primary budget balance

anatar interaction the key parameters, namely growth and interest rates affect public payment. Meanwhile, according to Joseph Ntamatungiro, fiscal 2004. That would be safe if there is a stable ratio of debt to GDP.

2.6 Crowding Out

Fiscal policy will increase may result in crowding out private investment due to rising income and interest rates. Fiscal policy shifts the IS curve, the curve that describes the equilibrium in the goods market. IS curve slope decreases due to the decrease in interest rates would raise investment spending, thus increasing aggregate demand and output level where the goods market equilibrium condition. Policy of fiscal expansion shifts the IS curve to the right.

2.7 Government Securities (SBN) and Government Securities (SUN)

Denominated in dollars, securities may be issued either in the short or long tenor, each referred to the Treasury Bills (SPN) and Treasury Bond (ON). Included in the ON is issued to large investors (FR, VR, Zero Coupon) as well as retail investors (ORI). While non-tradable securities which is now a part of the outstanding debt securities which are issued by Bank Indonesia both for BLBI or guarantee the economic crisis a decade ago offered to investors in the book building through an intermediary sales (lead manager) or guarantor publishing (underwriter). Collection and purchase requests made for securities to be issued, offered for sale to investors in all parts of the world during the period of bid. Law No. 19 of 2008 concerning the State Sharia Securities (SBSN) provide the legal basis for the government to be able to do (1) financing the procurement transaction and sharia-based portfolio management, (2) use of state property (BMN) as the underlying assets of the transaction , (3) establish a publishing company as a special purpose vehicle (SPV) which functions as trustee.

2.8 Investment

Investments can be defined as an activity put on one or more funds and the assets (assets) during a certain period in the hope of obtaining or increasing income. More extent of investment could mean business activities related to the withdrawal of resources (funds) used to hold capital at the present time and the capital goods will be produced by the flow of new products in the future. In the macroeconomic context, the notion of investment is "... the flow of spending that adds to the physical stock of capital" (Dornbusch R, 2008).

2.9. Investment Theory

According to this theory the change in output, the price of capital services relative to the price of output will change or affect the desired capital stock and investment. Neoclassical theory says that the determinants of the desired capital stock is the price of capital services that depend on the interest rate. Thus, monetary policy through its influence on interest rates can affect the desired capital stock and investment. Other investment theory put forward also by JM Keynes. In his book The General Theory of Employment, Interest and Money (1936), JM Keynes's theory of investment demand based on the concept of the marginal efficiency of capital (MEC). Systematically, the MEC can be expressed in the form of the following formula:

$$C_k = \frac{R_1}{(1+MEC)^1} + \frac{R_2}{(1+MEC)^2} + \frac{R_3}{(1+MEC)^n}$$

R = the expected return and a project, and Ck = current cost and additional capital. Subscript or superscript describe 1,2 years ... all n. One theory is the internal funds of investment theory said that the desire of investment depends on the rate of profit. Some explanation of this has been raised by a number of experts including the Jan Tinbergen who say that the realized profits accurately reflects the expected profit. Because the investment depends on the expected profit, then the investment is positively associated with the advantages that occur (realized profits).

2.10.Investment and Economy

Three important functions and activities of investment in the economy. The first, the investment is one component and aggregate expenditure. Then the increase in investment will increase aggregate demand and national income. Such improvements will always be followed by growth in employment. Secondly, the increase of capital goods as a result of the investment will add production capacity in the future and this development will stimulate the increase of national production and employment. Third, investment is always followed by the development of technology. This development will provide an important contribution to the rise in productivity and income per capita. Samuelson and Nordhaus (2010) also stated that the investment was instrumental in the macro economy that affect aggregate demand. In addition, the investment also affect the business cycle and capital accumulation.

Associated with additional investment is defined as the amount (stock) capital, it has an influence on economic growth depends on labor and the amount (stock) capital.

Results Accomplished

Robert J. Barro, (1974) Discusses US government bonds and the tax effect on private investment. Research Muhdi and Komei, (2009), the resulf of study found that the influence of domestic debt to private investment - factors affecting domestic debt in Indonesian domestic debt resulted in crowding in private investment in Indonesian private, foreign debt have had an attachment to the interests of the donor countries (Nasir Shahbaz and Mahmood, 2004), the OLS method with data time series- variables used variables that affect national saving variables that affect investment, government expenditure influence on savings. Individuals who are less sensitive to interest rate of domestic savings is the main source. Based on theoretical considerations and previous research, the model estimated in this study is the use of the model equations used in research Muhdi and Sasaki, namely as beikut:

sbn_t = **sbn (sbnt_t,sbn_t_5, pdbt_t, sbt-t)** .....(3.1)

Then of function 3.1. mentioned above, made the following equation:

$$\mathbf{sbn\_riil_t = \alpha_1 + \alpha_2 sb\_riil_{t-1} + \alpha_3 \frac{sbn\_riil_{t-1} - sbn\_riil_{t-5}}{pdb\_riil_{t-1}} + \alpha 4 dum_{t-1} + et} \quad \text{..... (3.2)}$$

Whre are:

Sbn real = the real (state) securities
Real GDP = Gross Domestic Product
real sb = Rate of governement securities (real)
Dum = variabe Dummy

3.Results and Discussion

3.1. Indonesian Government

Budget (APBN) is an annual plan of State Government that approved by the Representatives Home. Budget is an instrument of government for the people prosper, manage the economy of the country and including for political decision-making. Budget consists of state revenue and expenditure. Development needs continue to increase resulting in the state budget deficit budget every year. Deficit that state spending exceeds income countries. To cover the state budget deficit, financing done both from within the country and abroad. Among domestic financing is provided in the form of debt by issuing Government Securities (SBN).

3.2. Results of the first equation

This study aims to determine the effect of interest rates on government securities, DPDB and dummy on Government Securities (SBN) Government of Indonesia for the period 2000-2010. To perform the analysis of the problems studied, band is used econometric model with regression techniques and using statistical software Eviews 6.0. The OLS estimation results in this test are as follows:

Table 4.1. Output Estimation of the first equation

Variabel	Coefficient	Std.Error	t-Statistic	Prob.
C	40562.87	8216.987	4.936465	0.0000
SB_SBN _RIIL2(-1)	-777.1203	'219.2823	-3.543926	0.0011
DPDB DUM(-1)	0.911832	0.015963	57.12111	0.0000
	-11531.72	3738.319	-3.084734	0.0040
R^2 = 0.991268 **Fstat** = 1324.410 **DW Stat** = 1.967.548				

Source: Data processed

sbn rill$_s$* = 40562, 87 - 777, 1203 *sb sbn riil$_{t-i}$

$$+ \mathbf{0, 911832} \left(\frac{sbn\ riil_{t-1} - sbn\ riil_{t-5}}{pdb_{t-1}} \right)$$

- 11531,72 dum_{t-i}

From the equation above, it can be seen that the constant value of 40562.87 shows that if interest rates SBN, DPDB, dummy jointly positive effect on SBN. The regression coefficient for -777.1203 SBN interest rate stated that any increase in interest rates on government securities previous quarter by 1% then it will reduce

government securities amounted to 777.12 billion rupees. GDP regression coefficient of 0.911832 states that every $ 1 billion increase in GDP it will increase the amount of 0.911 billion Rupiah SBN.

Conclusions and suggestions

The first hypothesis states that there are significant state securities Indonesian government on the economy in this case is proven and acceptable. This means that government securities significantly affect the value of economic growth in Indonesia. Regression coefficient ratio SBN previous quarter amounted to 15314.54 declared an increase in the influence of the ratio of government securities by 1% the previous quarter will decline PMTDB amount of Rp 15314.54 billion.

Surat berharga negara pemerintah berpengaruh secara signifikan terhadap nilai pertumbuhan ekonomi di Indonesia. Artinya hipotesis pertama menyatakan bahwa terdapat pengaruh surat berharga negara pemerintah terhadap perekonomian di Indonesia hal ini terbukti dan hipotesi dapat diterima, dibuktikan dengan hasil analisis regresi menyatakan bahwa nilai koefisien regresi variabel surat berharga Negara pemerintah sebesar 0.0004 pada $\propto$ = 1%, sedangkan nilai signifikan sebesar 0.056095 menyatakan bahwa setiap peningkatan PDB kuartal sebelumnya sebesar 1 Milyar rupiah maka akan menambah PMTDB sebesar 0,056 Milyar rupiah Kofisien regresi nilai investasi swasta sebesar 0,58415. Koefisien regresi rasio SBN kuartal sebelumnya sebesar 15.314,54 menyatakan adanya pengaruh naiknya rasio SBN kuartal sebelumnya sebesar 1% akan menurun PMTDB sebesar 15.314,54 miltyar Rupiah. Peningkatan pertumbuhan ekonomi bukan di akibatkan faktor konsumsi rumah tangga atau konsumsi pemerintah, tetapi peningkatan investasi.

References

Barnhill, Jr. and Theodore M Kopits George, 2003. Assessing Fiscal Sustainability Under Uncertainty. IMF Working Paper.

Burnside, Craig and David Dollar. 2000. Aid, Policies and Growth. American Economic Review. September, Vol. 90: 4, pp. 847-868.

Barro, Robert J. 1974. Are Government Bonds Net Wealth ?, Journal of Political Economy 82 (6): 1095-1117

Damodar N. Gujarati, 2003. Basic Econometrics. Fourth Edition, International Edition, Singapore: Mc.Graw-Hill Higher Education.

Dornbusch, Rudiger, Stanley Fischer and Richard Startz. 2008. Macroeconomics 10th Edition, McGraw-Hill

Gujarati, Damodar, N .. 2003. Basic Econometrics. Fourth Edition, International Edition. Singapore: McGraw-Hill Higher Education.

Guritno Mangkoesoebroto, 2001. Public Economics, Third Edition, BPFE, Yogyakarta.

Umar Hussain. 2004. Research Methods. Jakarta:: PT.Raja Grafindo Perkasa. Jhingan, ML, 1999, Economic Development and Planning, Eagle Press, Jakarta.

Kuncoro, Mudrajad. 2007. Quantitative Methods: Theory and Applications to Business and Economics. Third edition. UPP STIM YKPN. Yogyakarta.

Krugman, Paul R, 2008. Iternational Theory and Policy, Maurice Obstfeld, Prentice Hall.

Lincolin Arsyad, 1999. Introduction to Planning and Economic Development Area, First Edition, BPFE, Yogyakarta.

Manurutng, Romulus, 2010. Fiscal Deficit and Resilience, Jurnal.pdii.lipi.go.id.

Mosley, Paul, John Hudson and Sara Horrell. 1987. Aid, the public sector and the market in less developed countries. Economic Journal. 97: 387, pp 616-41

Mankiw, N Gregory, 2007. Macroeconomics, 6th Edition, Worth Publishers, New York and Basingstoke

Muhdi and Komei Sasaki. 2009. Roles of External and Domestic Debt in Economy: anlysis of a Macroeconometric Model for Indonesia, Tohoku University.

Nasir, Shahbaz and Mahmood Khalid, 2004. Saving-Investment Behavior in Pakistan: An Empirical Investigation, The Pakistan Development Review.

Nopirin, 1992. Monetary Economics 1, BPFE, Yogyakarta.

Ntamatungiro, 2004. Fiscal Sustainability in Heavily Indebted Countries Dependent on nonrenewable Resources: The Case of Gabon, IMF Working Paper.

Todaro, Michael P. 2006. Economic Development, Ninth Edition, Pearson Education Limited, United Kingdom.

Sadono Sukirno, 2004, Macroeconomic Theory Introduction, PT.Raja Grafindo Persada, Jakarta Sritua Arief, 1993. Methodology of Economic Research, First Edition, Publisher Institute, University of Indonesia.

Widarjono, Agus. 2007. Econometrics: Theory and Applications (for economics and business). EKONISIA FE Ulf Yogyakarta.

....., 2001. Government Finance Statistics, International Manetary Fund

....., 2009. The New Era of Fiscal Policy (Thought, Concept and Implementation), PT. Kompas Media Nusantara, Jakarta.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Academic conference: http://www.iiste.org/conference/upcoming-conferences-call-for-paper/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar