Internal and External Balance with Expenditure Changing and Switching Policies in Bangladesh: An Empirical Analysis

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Abstract

This paper studies macroeconomic effects of internal and external balance with Expenditure changing and switching policies about Bangladesh. Expenditure switching policies are measures that shift expenditure between the domestic and external sectors, typically by increasing exports and decreasing imports of goods and services. Exchange rate adjustment is often combined with monetary and fiscal tightening as part of a comprehensive adjustment program featuring both expenditure-changing and expenditures witching measures. This paper shows the relation on exchange rate between government expenditure and money supply. If fiscal expansion--either government expenditure increase or tax cuts— raises output, but worsens current account balances. Conversely, fiscal contraction improves current account balances, but lowers output. In this paper it also seen that when money supply increases that time there create dual effect country faces inflation on the other hand currency devaluated as a result export increase.

Key words: Exchange rate, Government Expenditure and Money Supply

Introduction

Expenditure changing and switching policies play vital role to achieve macroeconomic stability, viz. internal and external balance. Internal balance is a state in which the economy is at its potential level of output, i.e., it maintains the full employment of a country's resources and domestic price levels are stable. External balance is attained when a country is running neither excessive current account deficit nor surplus (i.e., net exports are equal or close to zero). Attaining internal and external balances requires two independent policy tools. One is expenditure changing policy and the other is expenditure switching

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policy. Expenditure changing policy aims to affect income and employment with the goal of equating domestic expenditure or absorption and production and takes the form of fiscal or monetary policy. Expenditure switching is a macroeconomic policy that affects the composition of a country's expenditure on foreign and domestic goods. More specifically it is a policy to balance a country's current account by altering the composition of expenditures on foreign and domestic goods (see Balance of payments account). Not only does it affect current account balances, but it can influence total demand, and thereby the equilibrium output level.

When the exchange rate is flexible, fiscal expansion--either government expenditure increase or tax cuts--raises output, but worsens current account balances. Conversely, fiscal contraction improves current account balances, but lowers output. More specifically, if a country wants to raise its income level through fiscal expansion, it would have to experience a worsening in trade balances, because expansionary fiscal policy would lead to a rise in imports through improved disposable income and therefore worsens current account balances. Or, if a country with a current account deficit attempts to regain it, it could achieve that by implementing contractionary fiscal or monetary policy, so that as to reduce imports.

When a country wants to achieve both internal and external balances simultaneously, it is most effective if the country lets the value of its currency change so that change in the real exchange rate can affect both the economy's total demand and the demand for imports. Such policy to achieve current account balances by manipulating the demand for domestic and foreign goods through changes in the value of the currency is called expenditure switching policy. When expenditure switching policy is not available that is, when an economy is under the fixed exchange rate regime expenditure changing policy through fiscal policy becomes the only available policy tool for attaining internal and external balances. In the fixed exchange rate system, monetary policy becomes unavailable because it affects the interest rate and the exchange rate. However, fiscal policy is insufficient to achieve both internal and external balances in such an environment.

Objectives of the Study

The objectives of this study are:

i. To investigate the Internal and External Balance with Expenditure Changing and switching policies in the economic of Bangladesh.

ii. To assess what are the relation between the exchange rate and government expenditure and money supply.

iii. To assess the effect of the exchange rate, when government expenditure increases.

iv. To examine when imbalance create how expenditure changing policies and switching policy control it.

Review of Literature

Stanley W. Black (1983) was found that the various factors contributing to the increased dispersion in macroeconomic performance can be divided into differences in internal and external economic shocks hitting different countries, differences in the economic *structures* of different countries, such as openness, degree of indexation of wages, dependence on oil imports, etc., and differences in monetary and fiscal *policies,* as well as other policies followed by the countries in question. Alamedin A. Bannaga (2004) found that GDP growth can be perceived as an indicator of internal macroeconomic performance reflecting macroeconomic policy stance and hence could be used to investigate consistency between internal and external policies.

Raghuram G. Rajan (2006) shows that exchange rates play an even more important role in the external adjustment process. E. Smith (2011) found that faster adjustment speed, combined with the larger response of the external balance, means that provinces may see a quicker resolution of external imbalances, but larger deficits or surpluses may emerge before adjustment occurs. Muhammad Mahboob Ali and Anisul M. Islam (2010) observed that high-powered money played a very significant role in the money supply process of Bangladesh. Hasanuzzaman found that exchange rates play a vital role in a country's level of trade. Hafeez ur Rehman, and Rashid found that external and internal balance have been an important indicator of the growing economic activities in all the countries. Dr.Mohammed Jahirul Islam found that external trade is one of the vital components of development of any country.

Expenditure-switching policies, devaluation or revaluation is the most focused policy to affect current account balances and the equilibrium level of output. Joshua E. Greene found that stabilization policies fall under two headings: expenditure-reducing and expenditure-switching. Expenditure reducing policies are designed to adjust the level of economic activity by lowering (or, in the case of augmenting policies,

increasing) aggregate demand. Fiscal policy (which involves taxes and government expenditures) and monetary policy (which affects interest rates and the rate of monetary growth) are the main measures to achieve expenditure reduction. Expenditure switching policies are measures that shift expenditure between the domestic and external sectors, typically by increasing exports and decreasing imports of goods and services. Exchange rate changes are the main instruments to achieve expenditure switching. These two groups of policies are discussed next. Because high inflation and external sector deficits are the main economic imbalances facing most countries, this chapter emphasizes measures to reduce expenditure, rather than policies for expanding it. Nevertheless, for countries with low growth or serious recessions and sustainable external positions, one could also discuss expenditure augmenting policies, which would have the opposite effects from the measures discussed here. Changes in administered prices can also affect aggregate demand. Because they are typically viewed more as affecting resource allocation, these and other pricing issues are discussed under structural policies A growing number of economists now believe that sustainable economic growth requires establishing reasonable price stability and a viable external position. Without these two factors growth is difficult to sustain, even if a country's real GDP rises for a few years. Among countries in transition, for example, economic growth returned most quickly to countries that moved first to stabilize prices following the initial round of price liberalization (Fischer, Sahay, and Végh, 1996, 1997). Similarly, a number of researchers (e.g., Sarel, 1996; Ghosh and Phillips, 1998; and Khan and Senhadji, 2000) have found that developing and even industrial countries experience a decline in growth once inflation exceeds some modest "threshold" level. In the case of external imbalances an unsustainable position often forces an adjustment in policies (Milesi-Ferretti and Razin, 1996), often following a plunge in the exchange rate, as experienced in Mexico during 1994–95 and by a number of Asian countries during 1997. Why do price stabilization and a viable external position appear necessary for sustainable growth? Consider first the effects of significant inflation. Basically, inflation acts as a hidden tax, discouraging saving and investment, distorting relative prices, and encouraging speculative activity. It may also promote capital flight to countries with greater price stability. In addition, inflation often leads to a wasteful shift of resources from classic production to the creation of financial sector activities whose main goal is to minimize the cost of inflation—activities that would not be profitable in a stable price

environment (Leijonhufvud, 1977). External imbalances hamper growth by constraining the supply of imported goods and services and discouraging capital inflows that can finance domestic investment. Traditionally, many developing countries with heavy debt service obligations or unsustainable current account deficits have had substantial difficulties in financing the imports needed to undertake investment projects, particularly in the private sector. Corden, W. Max (1969) found that Exchange rate policy has three main goals: promoting competitiveness and a sustainable current account position, achieving equilibrium in the foreign exchange market, and switching expenditure (and sales or production) between foreign and domestic markets. The first and third of these objectives are particularly important from the standpoint of stabilization . Krugman, Paul and Maurice Obstfeld (2006) found that, Exchange rate adjustment is often combined with monetary and fiscal tightening as part of a comprehensive adjustment program featuring both expenditure-reducing and expenditures witching measures. This assumes that the higher costs of production arising from the devaluation, such as increased domestic prices for imported inputs, do not offset the rise in export revenues. So when an economy attempts to attain both internal and external balance, expenditure switching policy alone is insufficient. For example, if an economy is at the full employment level, i.e., internal balance is already attained, but if it is running current account deficits, policy makers in the economy could devalue its currency so that net exports rise. Here we assess the what are the relation between the exchange rate and government expenditure and money supply. To examine when imbalance create how expenditure changing policies and switching policy control it.

Perspective of Internal and External balances in Bangladesh

The interaction between internal and external balances can be demonstrated through a simple Keynesian model where consumption is a function of disposable income; current account is of the real exchange rate and disposable income (while foreign income that affects the domestic country's exports is assumed to be constant); and investment and government spending are exogenous.

When the exchange rate is flexible, fiscal expansion--either government expenditure increase or tax cuts--raises output, but worsens current account balances. Conversely, fiscal contraction improves current account balances, but lowers output. More specifically, if a country wants

to raise its income level through fiscal expansion, it would have to experience a worsening in trade balances, because expansionary fiscal policy would lead to a rise in imports through improved disposable income and therefore worsens current account balances. Or, if a country with a current account deficit attempts to regain it, it could achieve that by implementing contractionary fiscal or monetary policy, so that as to reduce imports. When a country wants to achieve both internal and external balances simultaneously, it is most effective if the country lets the value of its currency change so that change in the real exchange rate can affect both the economy's total demand and the demand for imports. Such policy to achieve current account balances by manipulating the demand for domestic and foreign goods through changes in the value of the currency is called expenditure switching policy.

When expenditure switching policy is not available that is, when an economy is under the fixed exchange rate regime expenditure changing policy through fiscal policy becomes the only available policy tool for attaining internal and external balances. In the fixed exchange rate system, monetary policy becomes unavailable because it affects the interest rate and the exchange rate. However, fiscal policy is insufficient to achieve both internal and external balances in such an environment.

Effects of Expenditure Changing Policy

Although it is expected that expenditure changing policy with fiscal policy changes can affect output in the short run regardless of whether the exchange rate is flexible or fixed, its effect, or the "multiplier of fiscal policy," is smaller in a open economy than that in a closed economy. That is, when fiscal expansion is implemented, that would increase money demand and thereby the interest rate, which results in discouraging private investment – the crowd-out effect. This outcome arises as long as some degree of price stickiness is assumed. Hence, some of the effect of fiscal expansion will be offset by the crowding out of investment, which makes the overall effect on income and also net exports (i.e., EX – IM = S – I) smaller than what could have been if the interest rate were assumed to be constant. Also the multiplier is smaller the more open to international trade the economy is, because more portion of income "leak out" of the system as the demand for foreign goods. Expenditure changing policy with monetary expansion, on the other hand, involves a reduction in the interest rate in the short run, which expands income and worsens net exports. Both types of expenditure

increasing policy function in the same way; incomes rises while current account worsens in the short run.

However, while monetary expansion favors private investment, fiscal expansion favors government spending. Under the fixed exchange rate system, while monetary policy becomes ineffective, the effect of fiscal policy can be larger than under the flexible exchange rate system. When expansionary fiscal policy is implemented, the interest rate would rise because of the crowd-out effect, but at the same time, the central bank would have to implement accommodative, i.e., expansionary, monetary policy to cancel the rise in the interest rate – such an action of cancelling the effect on money supply or interest rate is called sterilization. Otherwise, the interest rate would be affected, and that would affect the capital flows across the border (given the unchanged foreign interest rate) and therefore the exchange rate. Because fiscal expansion must be accompanied with sterilization, the effect of fiscal expansion on output is larger than that under the flexible exchange rate system where the exchange rate is allowed to fluctuate to reflect the change in the interest rate.

Effects of Expenditure Switching Policies

Among possible expenditure-switching policies, devaluation or revaluation is the most focused policy to affect current account balances and the equilibrium level of output. Devaluation increases the domestic price of imports and decreases the foreign price of exports; therefore, it decreases imports and increases exports. However, whether devaluation leads to an improvement in current account balances depends upon the elasticities of demand for exports and imports. According to the Marshall-Lerner condition, if the sum of the elasticities of demand for exports and imports is greater than one, depreciation of the domestic currency leads to a current account improvement. When an economy attempts to attain both internal and external balance, expenditure switching policy alone is insufficient. For example, if an economy is at the full employment level, i.e., internal balance is already attained, but if it is running current account deficits, policy makers in the economy could devalue its currency so that net exports rise. However, the improvement of current account balances would lead the economy to experience over-heating so that internal balance would disappear. If an economy is experiencing an inflationary gap, or over-heating, while maintaining balanced current account, a revaluation policy may reduce total

expenditure back to the full employment level, but lead to current account deficits. Therefore, a policy mix of expenditure switching and changing policies is usually necessary to achieve both internal and external balances. With the assumption that the Marshall-Lerner condition holds, for any given level of expenditure, devaluation leads to improvement of net exports, or current accounts, and therefore, a rise in output. However, when prices are assumed to be sticky in the short run, expenditure switching policy with devaluation involves the crowding-out effect. That is, the increase in output also raises the demand for money and consequently the interest rate, which discourages private investment. It is the crowding-out effect that offsets part of the income increase caused by devaluation. Hence, the new equilibrium income level will be a little lower than what could be achieved if the interest rate could remain constant.

Although devaluation policy is the most focused expenditure switching policy, it is not the only one. In general, expenditure policies take the form of trade (control) policy since they are aimed at affecting the volumes of either or both exports and imports. Tariff policy can be implemented to discourage the inflow of imports, and export subsidy can be used to encourage exports, though these policies tend to be industry specific. The most well-known tariff policy that has been actually implemented with macroeconomic ramifications is the infamous Smoot-Hawley Tariff Act of 1930. The goal of this policy was to switch demand for foreign goods to that for domestic ones at the expense of other countries to rescue domestic industries battered by the Great Depression. This policy, however, was followed by other countries that also tried to protect their domestic industries, eventually leading to rapid contraction of international trade.

Bangladesh Perspective

Policy Objectives

Fiscal policy will be geared towards promoting a stable macroeconomic environment, debt sustainability, and broad-based growth. Upfront tightening measures will be complemented by tax, subsidy, and PFM reforms to ensure Bangladesh stays on a sound fiscal path. To this end, we will limit our overall fiscal deficit (excluding grants) to around 4.5 percent of GDP in FY12 and pursue moderate fiscal consolidation in FY13 and over the medium term. During the program period, we aim to increase tax revenue to around 13 percent of GDP in order to create

adequate space to raise Annual Development Program (ADP) spending to at least 6 percent of GDP, in support of higher growth. Fiscal performance will be anchored by a ceiling on net claims on government by the banking system (a performance criterion) and supported by a floor on tax revenue (an indicative target). To ensure targets are met in FY12, we have capped total energy-related subsidy costs to Tk 150 billion in FY12 (a prior action). In part, this is being aided by recent domestic fuel prices increases, which have averaged nearly 40 percent since mid-2011, as well as through scheduled adjustments to electricity tariffs.

Administrative Revenue

We will consolidate revenue administration reforms already under way over the past few years to further modernize tax collections and enforcement. An NBR modernization plan (2012–16), building on its June 2011 outline of a tax modernization plan, will be formulated by mid-2012, with support from DPs. As part of our efforts, we aim to continue upgrading systems, broadening the coverage, and improving the coordination of the Large Taxpayers Units for income tax and indirect taxes. The use of the taxpayer identification numbers is also being expanded by beginning to automate their 6 issuance and linking them to national identification and business identification numbers—a process we aim to complete in our main tax offices by December 2012 (a program benchmark). Furthermore, we are upgrading the ASYCUDA system, with an aim of installing it in major land customs stations by December 2012, with support from UNCTAD. We have also begun implementing an alternative dispute resolution (ADR) mechanism in FY12 at the NBR on a pilot basis. Over the medium term, we will further improve tax compliance by strengthening audit and investigative procedures, establishing separate court benches dedicated to taxation issues, and fully rolling out the ADR mechanism.

Monetary and Exchange Rate Policy and Central Bank Operations on Policy objectives:

Monetary policy will aim to contain aggregate demand pressures, bring down inflation, and help build a reserve buffer. Bangladesh Bank has demonstrated its resolve by increasing its benchmark repo rate by 325 bps over the past 18 months to 7.75 percent, including the latest 50 bps rise in January 2012. As a result, credit growth has slowed significantly since mid-2011, in support of stabilization efforts. To improve the

monetary transmission mechanism, Treasury bill and bond yields have also been allowed to adjust more to market conditions. In addition, most remaining bank lending rate caps were removed in December 2011 (a prior action). Greater exchange rate flexibility has also been allowed to facilitate adjustment. Central bank actions will continue to be guided by its semiannual monetary policy statements, which will be consistent with our program ceilings on reserve money (an indicative target), as a nominal anchor, and on NDA of BB—its main operating targets (a performance criterion). To contain external vulnerability, we will target a modest reserve buildup in NIR of BB in 2012 (a performance criterion) and a further significant increase over the medium term, in keeping with monetary as well as fiscal tightening, continued exchange rate flexibility, and, over time, improved external prospects.

Monetary management

To help achieve the program targets, BB is prepared to maintain the existing restrained monetary policy and to take further steps to strengthen liquidity management, backed by an appropriately tight fiscal policy. Bangladesh Bank will undertake further hikes in its repo and reverse repo rates, as necessary, and continue to channel most liquidity support through the emergency repo window (currently provided at 300 bps above the regular repo window). It will also encourage all commercial banks to maintain market-determined lending and deposit rates to facilitate monetary transmission and properly price risk. Furthermore, BB will strictly enforce its cash reserves, liquid asset, and credit-to-deposit ratio requirements, sanctioning banks found in violation of these standards. In addition, it will finalize a lender of last resort policy and contingency plan in May 2012, approved by BB management, in line with TA we received earlier in this area. Finally, BB is 10 committed to improve its liquidity forecasting framework in 2012, with possible TA from DPs.

Exchange rate policy

Bangladesh Bank will allow interbank transactions at market determined rates and limit its intervention to smoothing short-term volatility, consistent with meeting NIR targets. To boost turnover in the spot interbank foreign exchange market, BB will monitor that the interbank selling rate remains aligned with the selling rate for bills of\collection of foreign exchange dealers. In keeping with our reserve targets, SOCBs will be expected to procure foreign exchange for oil-, food-, and

fertilizer-related import payments from the inter bank spot market, taking advantage of rising turnover in this market. At the same time, other banks will be encouraged to open letters of credits for these payments, notably for BPC, with BB setting notional targets, if necessary. Bangladesh Bank ceased issuing foreign exchange overdrafts in December 2011 and will reduce their outstanding balances to zero by June 2012 (a program benchmark), with settlement being done consistent with meeting our NIR targets. It will also enforce banks' net open foreign exchange position limits.

Central bank operations

Other measures are being taken by BB to strengthen its financial operations and controls. Bangladesh Bank will adhere to new reserve management guidelines adopted in mid-2011. It will also address significant vulnerabilities identified in the IMF's Safeguards Assessment, completed in July 2011, notably in external and internal audits and oversight mechanisms. On this matter, the government floated a tender in February 2012 for an internationally-affiliated firm to conduct an external audit on BB's end- June 2012 accounts, with the audit opinion to be signed by both the audit firm's international or regional head office and by its local affiliate (a prior action). Bangladesh Bank has also begun implementing an automated Enterprise Resource Planning system, phasing out its manual accounting system by June 2012, to ensure timely and comprehensive financial reporting, with ongoing support from the DPs.

Data and Methodology

Data

This paper is used three indicators such as Exchange rate(ER) express it U.S dollar, Govt .Expenditure (GEXP) and Broad Money (M_2).The research is made based on the analysis of secondary data obtained from the Bangladesh Bank, Ministry of Finance, Bangladesh Bureau of Statistics (BBS) and the paper on National Strategy for Accelerated Poverty Alleviation (NSAPR). During the analysis, publications of Bangladesh Bank, its different issues of Monetary Policy Statements (MPS), Monetary Policy Reviews(MPR), Monthly Economic Trend(up-to October, 2012), Annual Reports, Scheduled Bank Statistics, Bangladesh Bank Bulletin, Bangladesh Bank Quarterly, Balance of Payments, Bangladesh Bank website (www.bangladeshbank.org.bd),

Circulars, Working Papers, Policy Notes , Policy Papers were consulted. Also different issues of Bangladesh Economic Review published by Ministry of Finance, Statistical Yearbook, Journals and Periodicals were very helpful to the study. Furthermore, discussion with the relevant officials of Bangladesh Bank has been applied for empirical experience. Also relevant statistical test, spreadsheet analysis has been made to find out the outcome. Tables as well as graphical presentation of the relevant data were used to show its trends and outcomes in this study. Basically this study was confined to the behavior and trend analysis among the components of money supply.

Methodology

As the data was gathered, it was entered into the Statistical Package for the Social Sciences (SPSS) for analysis. After the complete data was entered, frequencies were run for the generation of descriptive statistics. For each question or variable in the model, the overall percentages, averages, median, modes and ranges (where applicable) are presented in table and/or chart form. This study runs regression for empirical result slope coefficient ($\beta 0$, $\beta 1$ and β_2) standard error and find t, p value for taken decision the model is significant or not .we also find r^2 to know goodness of fit of the model.

Model Specification

All data collection for the purpose of the study was evaluated, cross checked compared and critically analyzed.

The functional relationship between the variable can be expressed as

$$ER= \int (GovtExp, Money\ Supply)$$

1. The model employed in the study includes the following.

$$ER = \beta_0 + \beta_1 G1 + \beta_2 M_2 + Ui$$

2. That is, $ER = \beta 0 + \beta 1 GovtExp + \beta 2 BroadMoney + Ui$

This is linear regression model. Here we use three variables. One dependent variable and other are independent variable

Wh*ere:*

ER= Exchange Rate

G1 = Government Expenditure

M_2 = Money Supply

U = Stochastic error term

$\beta 1, \beta 2$ = slope of the regression equation

Regression Results

The regression results on Exchange rate (ER), Government Expenditure (GovtExp), and Broad Money (M2) for the sample of the data presented in table 1 is presented below while the detailed is contained in the appendix.

$$ER = \beta_0 + \beta_1 G1 + \beta_2 M_2 + Ui$$

$$\overline{ER} = 44.283 + 4.60G1 + 6.67M_2$$

$$S_e = \quad (2.286) \quad (0.00) \quad (0.00)$$

$$t = \quad (19.369) \quad (0.823) \quad (4.069)$$

$$p = \quad (0.00) \quad\quad (0.423) \quad (0.001)$$

$$R^2 = 0.81 \quad \overline{R^2} = 0.79$$

Results

In this regression results, where Intercept term (β_0) 44.283, Slope coefficient (β_1) 4.60 and Slope coefficient (β_2) 6.67.The regression result of intercept term (β_0) 44.283 suggest that when level of government expenditure and broad money were zero, the exchange rate was 44.283 Tk. This indicates a positive relationship between the constant parameter and Exchange Rate. Although the constant has no significant meaning in the model than reflecting the value of Exchange Rate when other explanatory variables are held constant. The coefficient of government expenditure there is a positive relationship between the exchange rate. If 1 percent rises in the government expenditure will bring on average increase exchange rate0.046 percent. But this result is not statistically significant because p value (.423) is very high. The coefficient of broad money shows a positive relationship with the dependent variable exchange rate If 1 percent rises in the money supply will bring on average increase exchange rate .06 percent.

The coefficient of determination (R^2) is .81 means that 52% variations in the exchange rate are jointly explained by the variation in all the explanatory variables government expenditure and money supply. The remaining 19% could be attributed to the stochastic error term not included in the model.

Findings

Study regression analysis shows that, there exist positive relationship between the Exchange rate and Government Expenditure and Positive relationship between Exchange rate and Broad Money during the period under consideration. According to the regression result .here we see that when 1 % increase money supply then exchange rate increases about 0.06 % this indicate that the our country faces imbalance .The country faces high inflation and unemployment, if money supply are not use in production purposes. We import more then export. In that case government try to balance by currency devaluate or appreciate, but here currency are devaluate to increase export. For this reason growth of the exchange rate is more when a tiny increase in money supply. In our regression result if 1 percent rises in the government expenditure will bring on average increase exchange rate 0.04 percent. Here government expenditure are not significant because when government expenditure increases in that case people income increases as a result production ,employment and consumption increases ,which induce import more and government again try to discourage import by devaluate the exchange rate .But at he same time economy faces inflation . In our regression result the intercept term (β_0) = 44.283 is statistically significant because p (0.00) value is very low about zero. The slope coefficient of government expenditure (β_1) = 4.60 is statistically significant because p (0.423) value is very high about 42 %.The slope coefficient of broad money supply (β) = 6.67 is statistically significant because p (0.001) value is very low about 1 % level.

In order to determine the goodness of the model and the coefficient do determination (R^2) is considered. The R^2 is 0.81 suggesting that about 81 % variation in Exchange rate is explained by government expenditure, broad money supply ,while 19 % of variation is be accounted by unenclosed variable in the model. The empirical investigation shows that intercept term and broad money supply are statistically significant.

The real exchange rate exchange rate policy can switch expenditure between domestic and imported goods and promote external balance. For example, a real devaluation, meaning a policy-induced lowering of the real exchange rate, will raise the relative price of imports, presumably lowering their consumption. For a broad array of services and

manufactured goods, a real devaluation will also reduce the cost to foreigners of domestically produced items. This will raise exports of goods and services, although the increase may take time to materialize. The real devaluation should also make it more attractive to export, by raising the domestic currency value of export receipts.13 Thus, a real devaluation should improve the current account balance directly, reducing imports and raising exports. A real devaluation should also have a secondary effect on the current account balance, because the rise in domestic prices following the devaluation will lower the real value of domestic financial balances, reducing expenditure generally, including imports. Adjusting the nominal exchange rate will change the real exchange rate, so long as domestic prices do not move sufficiently to offset the effect of the change in the nominal exchange rate. Thus, a nominal devaluation will ordinarily induce a decline in the real exchange rate, albeit a smaller decrease because of the inevitable upward effect of a nominal devaluation on domestic prices. The real devaluation will be greater to the extent that other policies reduce the likelihood of compensating domestic price adjustments. For example, combining a nominal devaluation with tight monetary and fiscal policies will restrain domestic demand, limiting the subsequent rise in domestic prices. For this reason exchange rate adjustment is often combined with monetary and fiscal tightening as part of a comprehensive adjustment program featuring both expenditure-reducing and expenditures witching measures. This assumes that the higher costs of production arising from the devaluation, such as increased domestic prices for imported inputs, do not offset the rise in export revenues.

Conclusion

At last it can be said that fiscal expansion--either government expenditure increase or tax cuts--raises output, but worsens current account balances. Conversely, fiscal contraction improves current account balances, but lowers output. On the other hand expenditure changing policy with monetary expansion, involves a reduction in the interest rate in the short run, which expands income and worsens net exports. Expenditure-switching policies, devaluation or revaluation is the most focused policy to affect current account balances and the equilibrium level of output. Devaluation increases the domestic price of imports and decreases the foreign price of exports; therefore, it decreases imports and increases exports. So nation can reach equilibrium level by both expenditure

changing and expenditure switching policy. In our regression result we see that expenditure and money supply increases as result exchange rate increases. When government expenditure increases that time our income increases as a result import increases. At the same time exchange rate increase that time our currency is devaluated as result net export increases and nation reach at balance level. Actually it is not good when government expenditure increase that time exchange rate increase .we always try to increase export level by fixed exchange rate. That time our production, employment will be increased. When money supply increase in that case exchange rate also increase. We should concern never devaluated currency when money supply increases.

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Appendix

Table :1 Exchange rate, Government Expenditure and Broad Money during 1994-2012

Year	Exchange Rate(ER)US (dollar)	Government Expenditure(G)	Broad Money(M2)
1994-1995	40.20	22010.00	42212.30
1995-1996	40.84	23160.00	45690.50
1996-1997	42.70	24080.00	50627.50
1997-1998	45.46	25860.00	55869.10
1998-1999	48.06	29780.00	63026.70
1999-2000	50.31	34460.00	74762.40
2000-2001	53.96	37400.00	87174.00
2001-2002	57.43	40757.00	98616.00
2002-2003	57.90	42075.0	113995.0
2003-2004	58.94	47184.0	129774.0
2004-2005	61.39	53903.00	151588.0
2005-2006	67.08	59030.00	181156.0
2006-2007	69.03	66836.00	211986.0
2007-2008	68.60	93608.00	248795.0
2008-2009	68.80	94140.00	296500.0
2009-2010	69.18	11052.00	363031.0
2010-2011	71.17	130011.0	440520.0
2011-2012	81.25	163590.0	480799.2

Statistics

		Exchangerate	GovtExp	BroadMoney
N	Valid	18	18	18
	Missing	0	0	0
Mean		58.4619	55496.4444	174191.4944
Median		58.4177	41416.0000	121858.1000
Mode		40.20(a)	11052.00(a)	42212.30(a)
Std. Deviation		12.02505	40751.39940	138784.69536
Variance		144.602	1660676552.732	19261191667.419
Range		41.05	152538.00	438586.90
Minimum		40.20	11052.00	42212.30
Maximum		81.25	163590.00	480799.20

A Multiple modes exist. The smallest value is shown

Correlations

		Exchangerate	GovtExp	BroadMoney
Pearson Correlation	Exchangerate	1.000	.776	.896
	GovtExp	.776	1.000	.805
	BroadMoney	.896	.805	1.000
Sig. (1-tailed)	Exchangerate	.	.000	.000
	GovtExp	.000	.	.000
	BroadMoney	.000	.000	.
N	Exchangerate	18	18	18
	GovtExp	18	18	18
	BroadMoney	18	18	18

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.901(a)	.811	.786	5.56409	.378

a Predictors: (Constant), Broad Money, Govt Exp

b Dependent Variable: Exchange rate

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	44.283	2.286		19.369	.000
	GovtExp	4.60E-005	.000	.156	.823	.423
	Broad Money	6.67E-005	.000	.770	4.069	.001

A Dependent Variable: Exchangerate