

Expenditure Changing and Expenditure Switching policies

In an open economy setting, policymakers need to achieve two goals of macroeconomic stability, viz. internal and external balances. 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 (also see Swan diagram). One is expenditure changing policy and the other is expenditure switching 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.

Internal and External Balances

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. Internal and external balances are:

Internal balance (II): $Y = Y^f = C(Y^f - T) + I + G + CA(EP^*/P, Y^f - T)$

External balance (XX): $CA = CA(EP^*/P, Y - T) = XX$ where XX is a sustainable amount of current account deficit or surplus.

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 (see Marshall-Lerner condition).

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 (also see Swan diagram and Assignment problem,).

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.

See also: Assignment problem, Balance of payments accounts, Capital mobility, Exchange rate regimes, Foreign exchange intervention, Marshall-Lerner condition, Money supply, Mundell-Fleming model, New open economy macroeconomics, Sterilization, Swan Diagram.

Further Reading

Caves, Richard E., Jeffrey A. Frankel, Ronald W. Jones (2002). *World Trade and Payments – An Introduction*. Boston: Addison Wesley.

The second half of this book presents theories and models for international macroeconomics. The effects of government macroeconomic policies are discussed from both the Keynesian and monetarist views as well as for economies with different degrees of capital account openness.

Corden, W. Max (1969). “The Geometric Representation of Policies to Attain Internal and External Balance,” in Richard N. Cooper, ed. *Internal Finance*.

Harmondsworth, U.K.: Penguin Books, p. 256 – 290.

This is a seminar paper where the models for expenditure switching and changing policies are introduced.

Krugman, Paul and Maurice Obstfeld (2006). *International Economics – Trade and Policy*. New York: Pearson/Addison Wesley.

This book is an introductory textbook for international trade and finance. In the international finance section, simple models for expenditure switching and changing policies are discussed. But for most parts of the book, free flows of capital

are assumed.

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