

## The Mundell-Fleming Model

### Introduction

The IS/LM Model describes a closed economy, one with no imports, exports, or external financial transactions. The Mundell-Fleming Model extends this framework to include the open economy linkages.

The biggest change is adding a BP (balance of payments) curve. External financial flows are sensitive to the domestic interest rate, and the net exports (exports minus imports) is sensitive to domestic income. The BP Curve records those combinations of domestic income and the domestic interest rate where net exports equals the net financial flow.

### The Model

The IS/LM portion of the model is identical to the model described in “IS/LM Basics” with one exception. The IS Curve incorporates net exports because it based on

$$C + I + G + (X - Z) = C + S + T,$$

where X is exports and Z is imports.

The BP Curve records those points where

$$X - Z = F,$$

where F is net financial inflows (purchases of foreign securities minus sales of domestic securities). This curve will be upward sloping because higher domestic income increases imports, which requires a higher domestic interest rate to attract an offsetting financial inflow. The slope may or may not be greater than the slope of the LM Curve. It depends on the degree of capital mobility. If capital is perfectly mobile, the LM Curve is horizontal because an infinitesimal change in interest rates attracts an infinite capital flow.

Above the BP Curve, the higher domestic interest rate causes a capital inflow that will cause the domestic currency to appreciate. The appreciation will decrease X - Z, absorbing the capital inflow, or the central bank will have to increase the money supply, shifting the LM Curve to get the IS/LM intersection on the BP Curve..

### Exercises

The Mundell-Fleming Model is a challenge because there are many cases to consider.

The first choice is among perfect capital mobility, imperfect capital mobility, or limited capital mobility. The second is between fixed exchange rates or flexible exchange rates.

The place to start is with perfect capital mobility. (Thinking by many is that this is now the only empirically relevant case.) Then, the two cases are fixed exchange rates and flexible exchange rates. The other cases for capital mobility are probably most relevant for smaller countries.

1. For each case, analyze monetary policy.
2. For each case, analyze fiscal policy.
3. For each case, analyze the effects of changes in foreign income.
4. For each case, analyze the effects of changes in the foreign interest rate.
5. How does the degree of capital mobility affect the effectiveness of monetary and fiscal policy?
6. How does the choice between fixed exchange rates and flexible exchange rates affect the effectiveness of monetary and fiscal policy?