

12.1: Overview of Policy with Floating Exchange Rates

Learning Objective

1. Preview the comparative statics results from the AA-DD model with floating exchange rates.

This chapter uses the AA-DD model to describe the effects of fiscal and monetary policy under a system of floating exchange rates. Fiscal and monetary policies are the primary tools governments use to guide the macroeconomy. In introductory macroeconomics courses, students learn how fiscal and monetary policy levers can be used to influence the level of gross national product (GNP), the inflation rate, the unemployment rate, and interest rates. In this chapter, that analysis is expanded to an open economy (i.e., one open to trade) and to the effects on exchange rates and current account balances.

Results

Using the AA-DD model, several important relationships between key economic variables are shown:

- **Expansionary monetary policy** ($\uparrow M^S$) causes an increase in GNP and a depreciation of the domestic currency in a **floating exchange rate system** in the short run.
- **Contractionary monetary policy** ($\downarrow M^S$) causes a decrease in GNP and an appreciation of the domestic currency in a floating exchange rate system in the short run.
- **Expansionary fiscal policy** ($\uparrow G$, $\uparrow TR$, or $\downarrow T$) causes an increase in GNP and an appreciation of the domestic currency in a floating exchange rate system.
- **Contractionary fiscal policy** ($\downarrow G$, $\downarrow TR$, or $\uparrow T$) causes a decrease in GNP and a depreciation of the domestic currency in a floating exchange rate system.
- In the long run, once inflation effects are included, expansionary monetary policy ($\uparrow M^S$) in a full employment economy causes no long-term change in GNP and a depreciation of the domestic currency in a floating exchange rate system. In the transition, the exchange rate overshoots its long-run target and GNP rises then falls.
- A **sterilized foreign exchange intervention** will have no effect on GNP or the exchange rate in the AA-DD model, unless international investors adjust their expected future exchange rate in response.
- A central bank can influence the exchange rate with direct Forex interventions (buying or selling domestic currency in exchange for foreign currency). To sell foreign currency and buy domestic currency, the central bank must have a stockpile of foreign currency reserves.
- A central bank can also influence the exchange rate with indirect open market operations (buying or selling domestic treasury bonds). These transactions work through money supply changes and their effect on interest rates.
- Purchases (sales) of foreign currency on the Forex will raise (lower) the domestic money supply and cause a secondary indirect effect upon the exchange rate.

Connections

The AA-DD model was developed to describe the interrelationships of macroeconomic variables within an open economy. Since some of these macroeconomic variables are controlled by the government, we can use the model to understand the likely effects of government policy changes. The two main levers the government controls are monetary policy (changes in the money supply) and fiscal policy (changes in the government budget). In this chapter, the AA-DD model is applied to understand government policy effects in the context of a floating exchange rate system. In Chapter 12, we'll revisit these same government policies in the context of a fixed exchange rate system.

It is important to recognize that these results are what “would” happen under the full set of assumptions that describe the AA-DD model. These effects may or may not happen in reality. Despite this problem, the model surely captures some of the simple cause-and-effect relationships and therefore helps us to understand the broader implications of policy changes. Thus even if in reality many more elements not described in the model may act to influence the key endogenous variables, the AA-DD model at least gives a more complete picture of some of the expected tendencies.

Key Takeaways

- The main objective of the AA-DD model is to assess the effects of monetary and fiscal policy changes.
- It is important to recognize that these results are what “would” happen under the full set of assumptions that describes the AA-DD model; they may or may not accurately describe actual outcomes in actual economies.

exercise

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is “a tax on imports,” then the correct question is “What is a tariff?”
 - Of *increase, decrease, or stay the same*, this is the effect on equilibrium GNP in the short run if government spending decreases in the AA-DD model with floating exchange rates.
 - Of *increase, decrease, or stay the same*, this is the effect on the domestic currency value in the short run if government spending decreases in the AA-DD model with floating exchange rates.
 - Of *increase, decrease, or stay the same*, this is the effect on the foreign currency value (vis-à-vis the domestic) in the short run if domestic government spending decreases in the AA-DD model with floating exchange rates.
 - Of *increase, decrease, or stay the same*, this is the effect on equilibrium GNP in the short run if the nominal money supply decreases in the AA-DD model with floating exchange rates.
 - Of *increase, decrease, or stay the same*, this is the effect on the domestic currency value in the short run if the nominal money supply decreases in the AA-DD model with floating exchange rates.
 - Of *increase, decrease, or stay the same*, this is the effect on equilibrium GNP in the long run if the nominal money supply increases in the AA-DD model with floating exchange rates.
 - Of *increase, decrease, or stay the same*, this is the effect on the domestic currency value in the long run if the nominal money supply increases in the AA-DD model with floating exchange rates.

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