INTRODUCTION

One of the principal trends in economics over recent years has been to place considerable emphasis on the need to examine the various interlinkages that exist between economies, and to move away from models which concentrate on the operation of closed systems. Of course, this is not to argue that conventional macro analysis ignores such interlinkages, indeed many of the older textbooks in macroeconomics and international economics include discussion of concepts such as the foreign trade multiplier. But the presentation of this and related material as 'open-economy macroeconomics' is a more recent phenomenon.

The purpose of this chapter is very modest. It is simply to investigate in a fairly unrefined fashion the major implications for macroeconomic analysis of opening up an economy and allowing for trade and capital flows.

Closed-economy macroeconomics tends to focus on the principal domestic behavioural relationships such as the consumption function, the investment function and the demand for money function and then proceeds to build these into an overall model of income determination; open-economy macroeconomics considers, in addition, import and export functions, and capital movements, and then examines how the process of income determination changes as a result of these additions.

FROM SIMPLE CLOSED- TO SIMPLE OPEN-ECONOMY MODELS

Most students of economics are familiar with the standard closed-economy models as represented by the Keynesian cross diagram, the equivalence of actual saving and investment, and, at a rather more sophisticated level, the IS–LM framework.¹ For a closed economy the reduced form for income determination is derived as follows:
Theory

\[ Y = C + I \]

\[ C = a + cY \]

\[ I = \bar{I} \]

\[ Y = a + cY + \bar{I} \]

\[ Y(1 - c) = a + \bar{I} \]

\[ Y = \frac{a + \bar{I}}{1 - c} \]

where \( Y \) is national income, \( C \) is consumption, \( c \) is the marginal propensity to consume, ‘\( a \)’ is a constant component of consumption and \( I \) is private investment.

In the case of an open economy, where there are imports (\( M \)) and exports (\( X \)), the reduced form is modified in the following fashion:

\[ Y = C + I + X - M \]

\[ M = mY \]

\[ X = \bar{X} \]

\[ Y = a + cY + \bar{I} + \bar{X} - mY \]

\[ Y(1 - c + m) = a + \bar{I} + \bar{X} \]

\[ Y = \frac{a + \bar{I} + \bar{X}}{1 - c + m} \]

As compared with a closed economy, the multiplier for the open economy has an additional term in the form of the marginal propensity to import (\( m \)), and is:

\[ \frac{1}{1 - c + m} \]

What we discover is that the open economy has an extra source of expenditure injection, namely exports, into, and an extra leakage, namely imports, from the circular flow of income.