Accounting Identity: Income Equals Product

That domestic income equals domestic product is a macroeconomic accounting identity.

One dollar of production necessarily generates one dollar of income.

Accounting Identity: Saving Equals Investment

That saving equals investment is another macroeconomic accounting identity.

Investment refers to physical investment, not financial investment.

Saving is income minus spending.

That saving equals investment follows from the domestic income equals domestic product identity.

Consider an economy without government. Saving is domestic income minus consumption,

$$s = di - c. \tag{1}$$

Domestic income equals domestic product,

$$di = dp. \tag{2}$$

Domestic product is consumption plus investment,

$$dp = c + i. \tag{3}$$

It follows that saving equals investment:

$$\begin{aligned} s &= di - c, \text{by } (1), \\ &= dp - c, \text{ by } (2), \\ &= (c + i) - c, \text{ by } (3) \\ &= i, \end{aligned}$$

as desired.

Saving by Sector

Household saving is income minus consumption.

Business saving is retained earnings—profit minus dividends.

Government saving is taxes minus spending.

How Does Saving Finance Investment?

That saving equals investment is a macroeconomic identity.

But how does saving finance investment?

Self-Finance

The simplest possibility is self-finance: the saver and the investor are the same person.

Financial Assets

Financial assets permit the saver and the investor to be different people.

The saver finances investment by buying debt or equity.

Financial Intermediation

A bank is the basic example of a *financial intermediary*, intermediate between the saver and the investor. The saver deposits money in the bank, and the bank loans money to the investor.

Government

Government saving can also finance investment.

Historical Development

Gerschenkron [1] argues that how investment is financed depends on when a nation starts to industrialize.

The industrial revolution started in Britain in the 1700's, with investment financed directly, either by self-finance or financial assets.

France and Germany started to industrialize in the first half of the 1800's. Initially banks financed investment, and direct finance came later.

Russia started to industrialize in the late 1800's. Initially the government financed investment, then banks, and later direct finance.

Less Developed Countries

In colonies that became independent after World War II, government saving and investment has been important but unfortunately has commonly been unsuccessful.

References

[1] Alexander Gerschenkron. *Economic Backwardness in Historical Perspective*. Harvard University Press, Cambridge, MA, 1962. HC335G386. 9