Relationship between investments and savings

The Necessity of Finance

Not only ideas, but also money to conduct investments 🡪 Entrepreneurs need funds**: You have to spend money to make money**

Matching up savings and investment spending

Two of the **essential ingredients in economic growth** are increases in the economy’s levels of human capital and physical capital:

* **Human capital**: Money invested in education, it is provided by government.
* **Physical capital**: Investment in new technologies, new machineries for production processes which are mainly created through private investment spending (a part from infrastructures of some kind).

How Physical capital is financed? Who pays for private investment spending?

In the modern economy, individuals and firms that create physical capital often do it with other people’s money – money that they borrow or raise by selling stock.

Investment = amount of savings 🡪 completely covered by savings

**Saving-Investment Spending Identity**

It states that: savings and investment spending are always equal for the economy as a whole.

GDP 🡪 total spending on different domestically produced final goods and services   
(GDP = C+I+G+X-IM)

**CLOSED ECONOMY**: The Savings-Investment Spending Identity

In a closed economy 🡪 GDP (excluded X-IM) = C + I + G   
Total Income = Total Spending   
(one person’s spending is another person’s income: the only way people can earn income is by selling something to someone else, and every dollar spent in the economy creates income for somebody)

* How income is spent? Total income can go 🡪 *consumer spending (C)* or government purchases of goods and service (*G*) or be saved (*S*). **Total income** = consumption spending (Total Spending) + Savings 🡪 GDP = C + G + S
* **Total Spending** = Consumption Spending (C + G) + Investment Spending (I) 🡪 GDP = C + G + I

The result is that:

GDP = C + G + I = C + G + S 🡪 **I (Investment Spending) = S** **(Savings)** \*\*In equilibrium, in periods in which a country is not in a recession or in expansion\*\*

\*\*\*Unplanned investments 🡪 firms need to make to response to a greater demand (expansion period) \*\*\*

Savings

Households are not the only parties that can save in an economy. Government can also save (or not).

**Budget surplus**: excess of tax revenue over government spending.

**Budget deficit:** excess of government spending over tax revenue.

**Budget balance**: the difference between tax revenue and government spending 🡪 S (Govern.) = T – TR - G

*T* = the value of tax revenues *TR* = the value of government transfers (money to finance investments) G = Government Spending for example buildings infrastructures or finance services

The budget balance is equivalent to savings by the government: **Positive** the government is saving, **Negative** the government is dissaving.

Types of Savings:

* **National savings**: the sum of the budget balance and private savings.   
  🡪 ***SNational* = *SGovernment* + *SPrivate***
* **Private savings:** the disposable income (income after tax) minus consumption.  
  🡪 S***private*** = I (income) – T (taxes) – P (consumption/ private spendin)

And since ***S* = *I*** has been established, we can say

***SNational* = *I*** **National savings = investment.**

**OPEN ECONOMY**: The Savings-Investment Spending Identity

**Open economy**: it is an economy in which goods and money can flow into and out the country

Interaction between countries affect savings 🡪 What happens when a country sends savings to or receives savings from abroad?

This affects the savings-investment spending identity because savings need not to be spent on investment spending projects in the same country in which the savings are generated.

Any given country can receive **inflows of funds**: - foreign savings that finance investment spending in that country.

Any given country can also generate **outflows of funds** - domestic savings that finance investment spending in another country.

**Net capital inflow** is the total flow of funds into a country minus the total flow of funds out of a country.

🡪 **NCI = IM – X = Imports** (foreign savings that finance some other country) **– Exports** (some country’s savings finances foreign countries)

\*\*\* A country with a positive net capital inflow has an extra flow of funds from abroad that can be used for investment spending. While a country that spends more on imports than it earns from exports must borrow the difference from foreigners \*\*\*

Since we know that the GDP is 🡪 GDP = C + I + G + X – IM…

**I = (GDP - C - G ) + (IM + X)**

Since we know that National Savings = GDP – C – G

🡪 I = S(national) + (IM+X) = S(national) + NCI Investment Spending = National Savings + NCI