



ESCOLA
BRASILEIRA DE
ECONOMIA E
FINANÇAS

Macroeconomia e Mercados Financeiros

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The Price System

Why Do Prices Exist?

The Price System

Hayek (1945), “The Use of Knowledge in Society”

Main point

Knowledge

The price system transmits knowledge across people in a way that it is possible to make the optimal use of all resources available, with no need for any person to know all details of the economy

The Price System

The paper starts with a question:

What is the problem we wish to solve when we try to construct a rational economic order?

Rational economic order: best use of all resources

The Price System

Simple answer

We just need to solve mathematically

The marginal rates of substitution between any goods must be the same

Problem

We don't have enough information

Example

Changes in the availability of tin

Tin (Sn)

Latin: stagnum, stannum



Further Examples

Optimal allocation of financial assets: risk and return

Optimal allocation of resources across technologies

Optimal allocation of housing

More examples

The Price System

Extra Material

Extra Material

For those that want to know how the price system works analitically

In the following graphs:

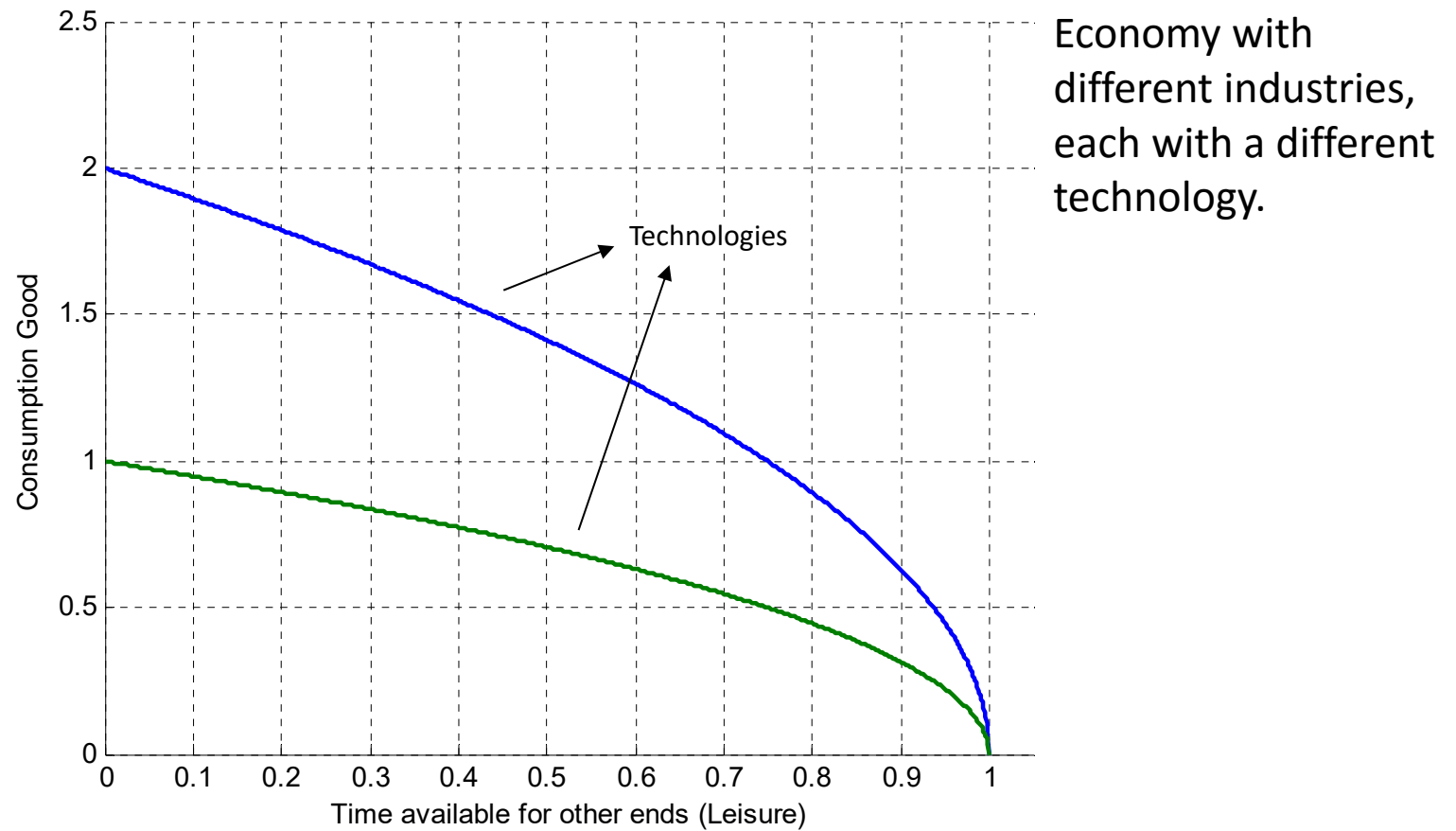
Two technologies, with different productivities

Best use of the technologies implies different quantities of labor

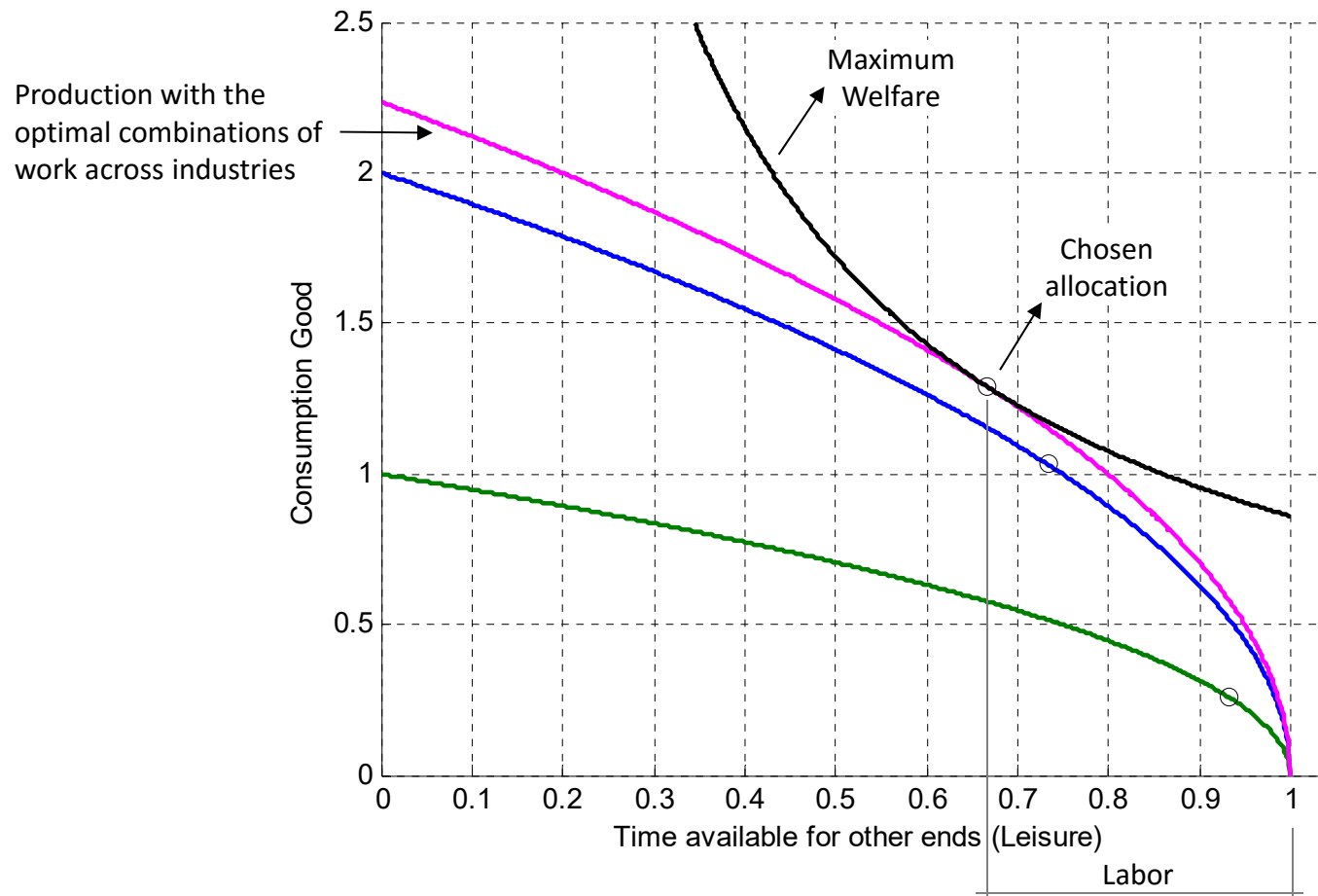
Without prices: to obtain the optimal quantities of labor, it is necessary to know each technology and a welfare function

With prices: each industry looks for its best allocation. The decision of each industry implies the optimal quantities of labor for the whole economy

Resources Across Technologies



Most Efficient Use

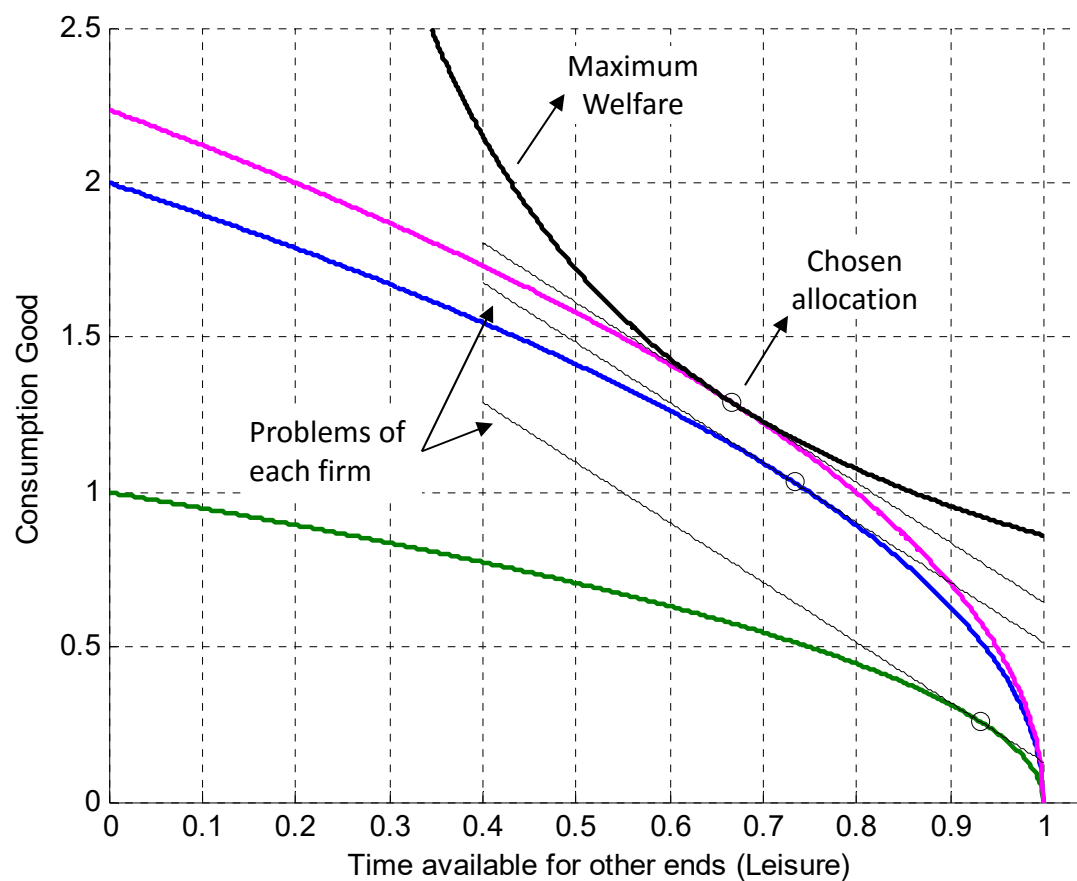


For a given quantity of labor, optimal combinations of work across technologies maximize output.

The chosen combination of work equalizes the marginal welfare valuation of the two goods.

As a result, it maximizes welfare.

With Prices



With prices, each industry only needs to find the quantity of labor that solves its own problem.

Each firm looks at the market price of labor.

This process implies the same chosen allocation as before and maximum welfare.