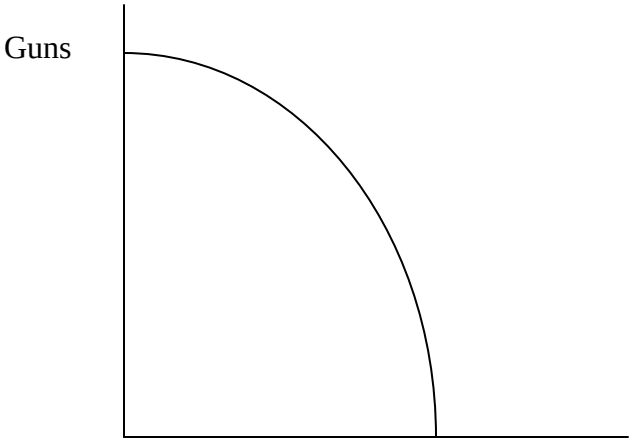
UNIVERSITY OF ESSEX Autumn Term 2011/12
DEPARTMENT OF ECONOMICS Tim Hatton

EC111 Introduction to Economics: Class Exercises 1

Outline Answers

1. a.

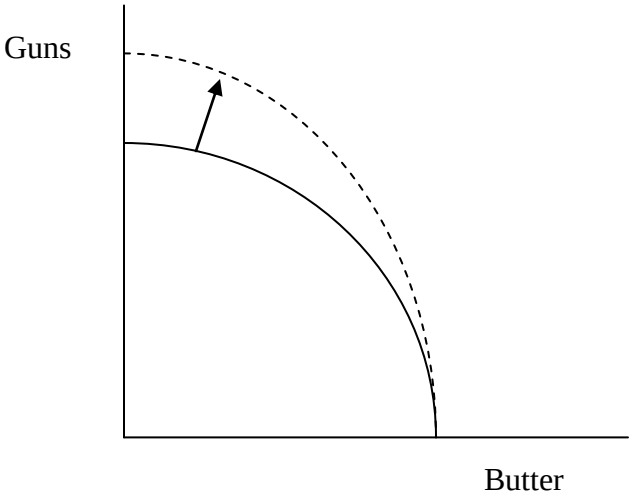


Concave means this shape (think of looking up at the curve from the origin), rather than bending towards the origin (draw an example of a convex or straight line PPF to contrast).
It means that the higher the output of one good, the greater the opportunity cost of obtaining another unit of the good in terms of the other good. [Compare the slopes at different points on the PPF, remembering that the slope measures the opportunity cost of butter]
That could be because some factors of production tend to be specialised. The more we shift factors into one industry the lower is their productivity in that industry relative to the other industry.

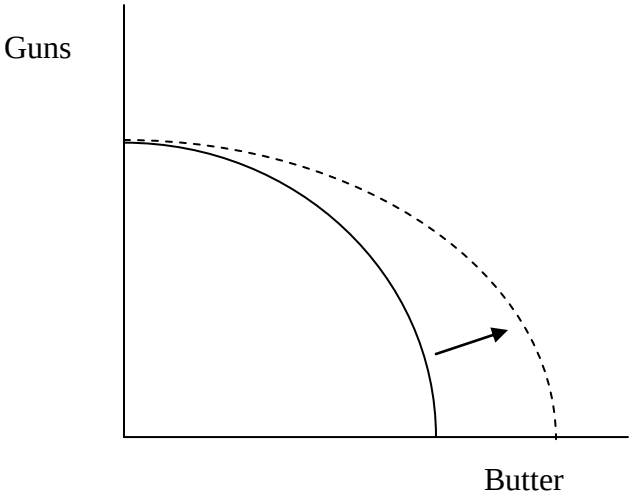
b.
Inside the PPF means that (1) some productive resources are not being used, say because of unemployment, or (2) because productive resources are being allocated inefficiently. (those that are most productive in industry A are allocated to industry B and vice versa).

c.

Technical progress in guns

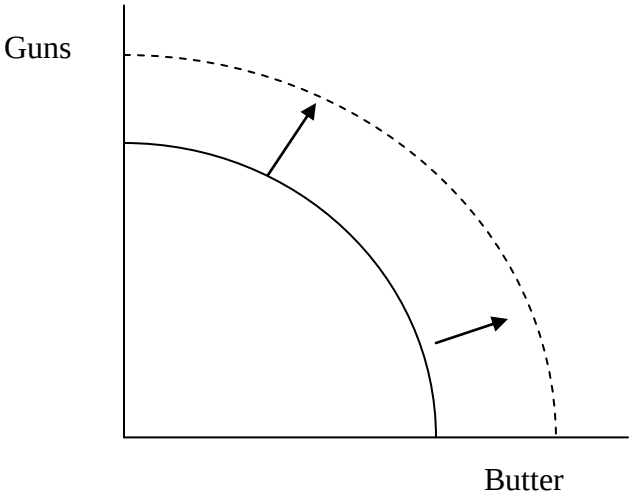


Technical progress in butter



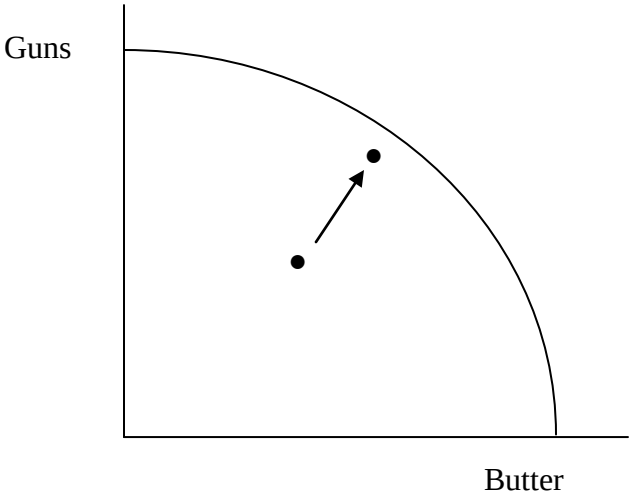
d.

PPF shifts outwards everywhere

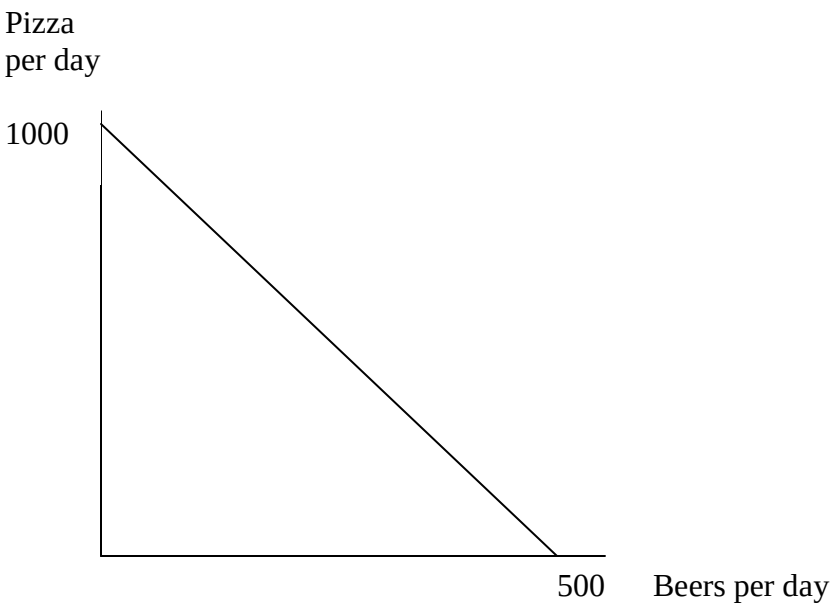


e.

An fall in unemployment shifts the economy towards the PPF it does not shift the PPF itself.



2. a.



Straight line PPF; each additional worker to an industry produces the same amount as all the previous workers.

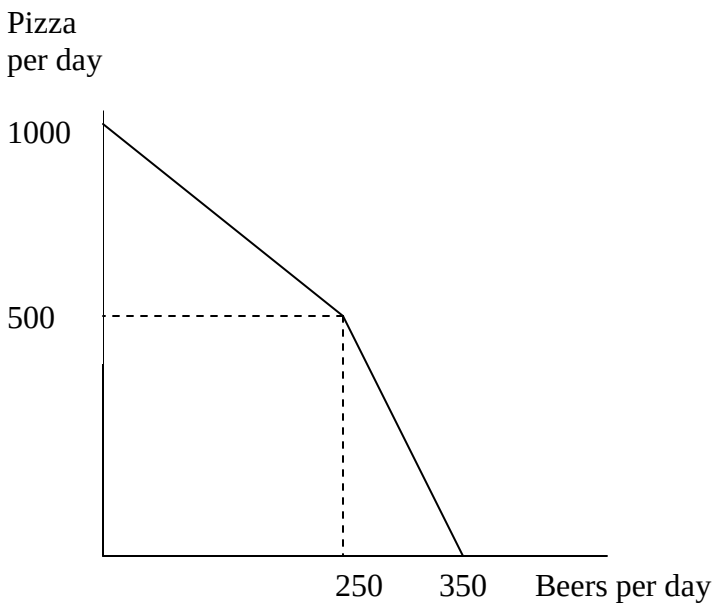
b.

400 pizzas requires 400/10 = 40 workers in the pizza industry. The other 60 are in the beer industry (if we are on the PPF).

c.

Whatever the number of pizzas produced, the economy needs to sacrifice ½ pint of beer to produce one more pizza. So the opportunity cost of a pizza is ½ pint of beer. [note that the slope of the PPF is – 2, which is the opportunity cost of a beer].

d



e.

When the economy is producing 400 pizzas, the economy needs to sacrifice 2 pints of beer to produce 10 more pizzas (by shifting one worker from home production of beer to pizza production), so the opportunity cost of a pizza is 1/5 of a pint.

When the economy is producing 600 pizzas, the opportunity cost of a pizza is ½ pint of beer. [identify these points on the PPF].