Toulouse School of Economics

Understanding Real World Organizations

TSE M1 – Semester 1
September 2022
Paul Seabright

Week 4: The Expansion of Market Exchange and the Resilience of non-Market Institutions.

Economics for the Common Good

The expansion of market exchange

- Comparison of present industrialised societies with their past
    - Locay on North America in C 17
- Comparison of industrialised countries with poor countries today
    - Dreze & Sharma on Palanpur (“inter-village exchange is infrequent”)
- Comparison of human with non-human social organization

“On sitting down for an everyday meal, a typical European-American family in seventeenth-century New England would find that it had itself produced almost all the components of the meal…the family grew the crops, raised the livestock, harvested and stored the products, and in general did all the processing necessary to prepare the food for consumption..The house..was likely to have been built by the family..The chairs and table the family used may also have been home produced, as well as the clothes the family wore to the meal. Had one considered instead an American Indian family of a century earlier, one would find that even their tools - their hoes, their mortars and pestles for grinding, and their arrowheads - were all of home manufacture”. *Locay (JPE 1990, pp.965-966).*

Families, firms and markets

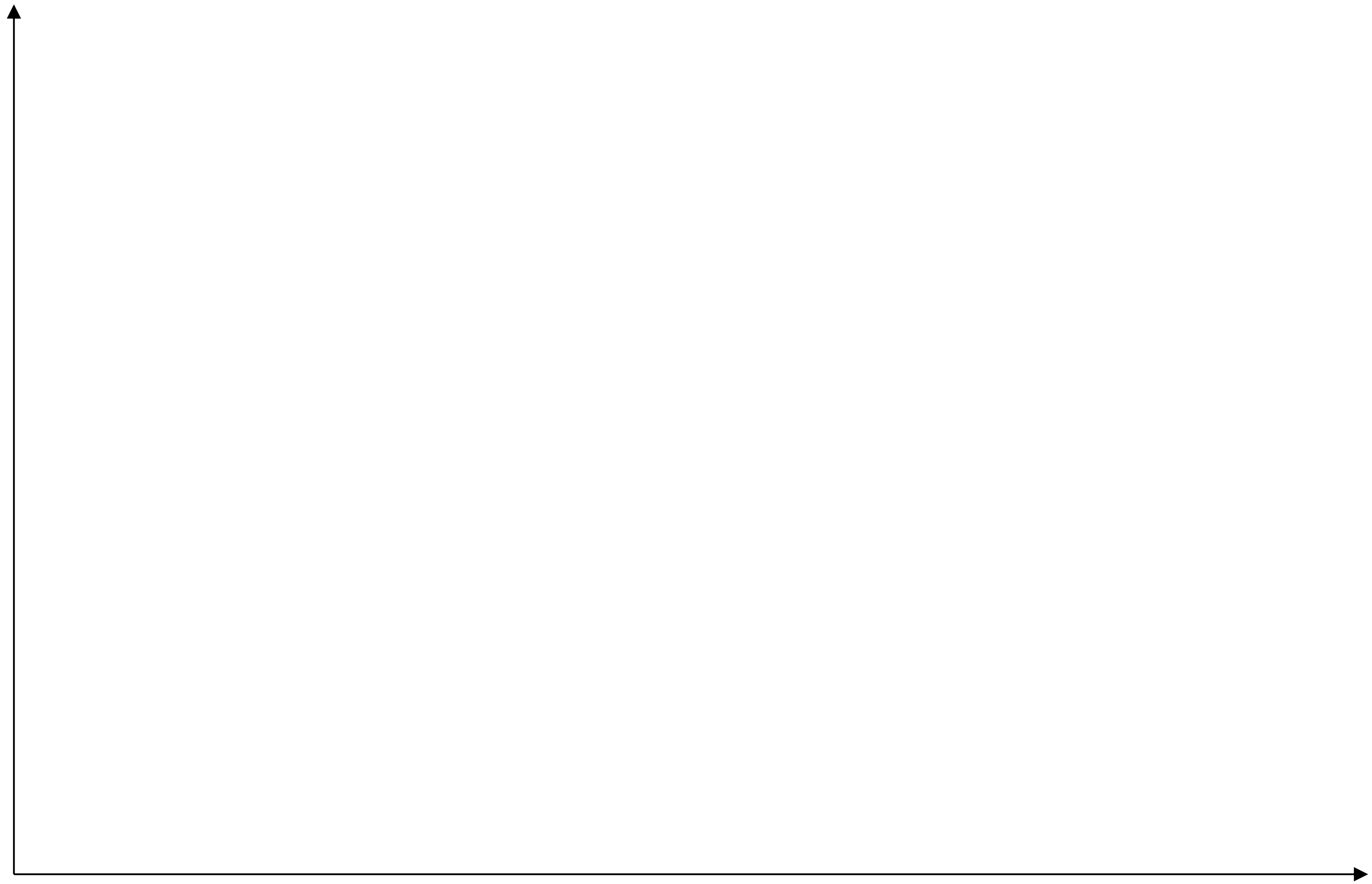
- Why does economic activity take place in groups?
- Why families? Why firms?
- Why is family production more prevalent in poorer countries?
  - Do low levels of development favour family production? (Adam Smith: "the division of labour is limited by the extent of the market")
  - Does family production perpetuate poverty?

A formal model (inspired by Locay, *JPE* 1990)

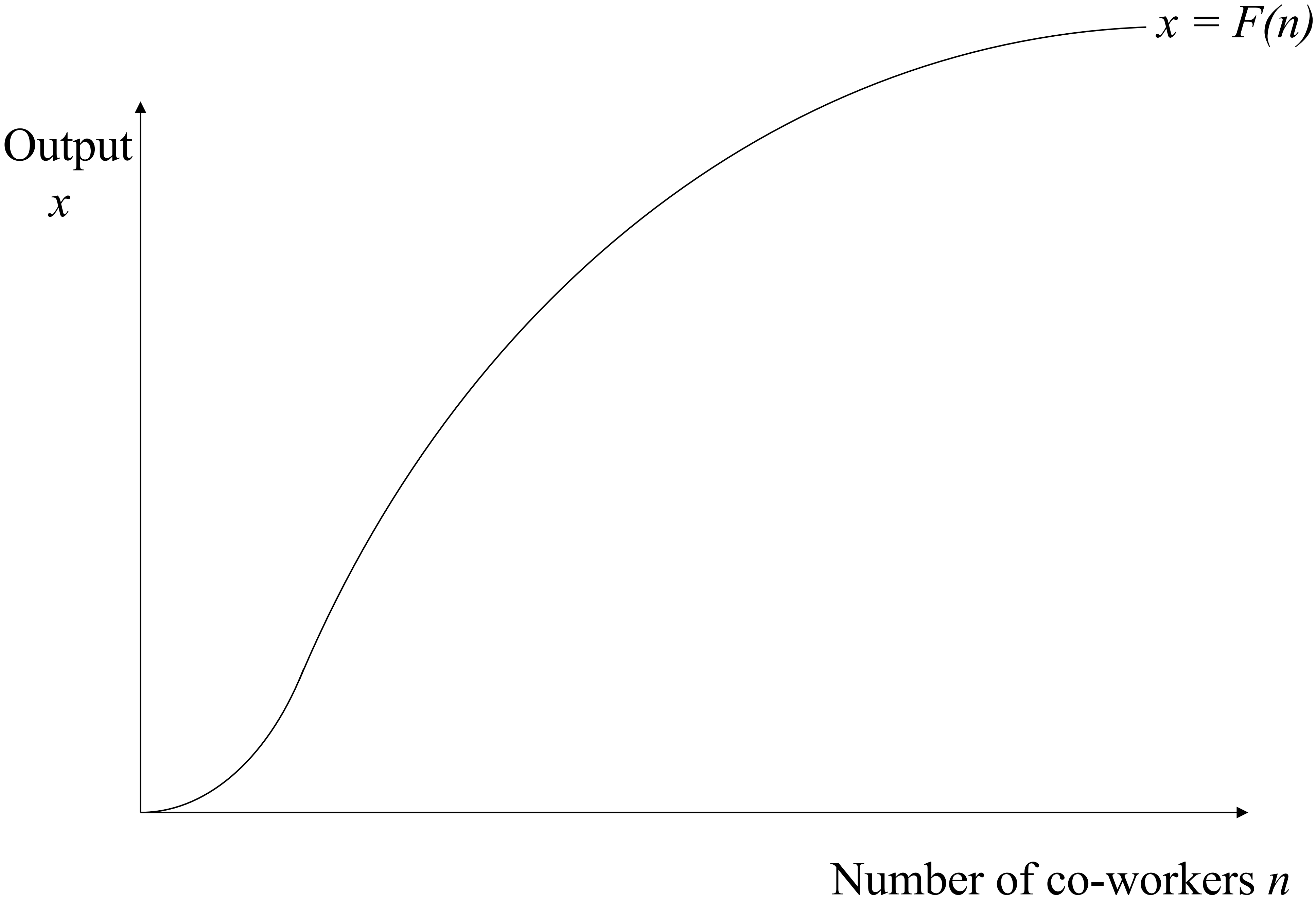
- Initial returns to scale:
  - $x = F(L)$ $F'>0$, $F''>0$ for $L<L'^*$; $F''<0$ else
  - $L = n.e$
- Limits to household size:
  - $L_H \leq M$
- Firm production needs costly monitoring:
  - $e = e(n); e'<0$
  - $x = F(n.e(n))$

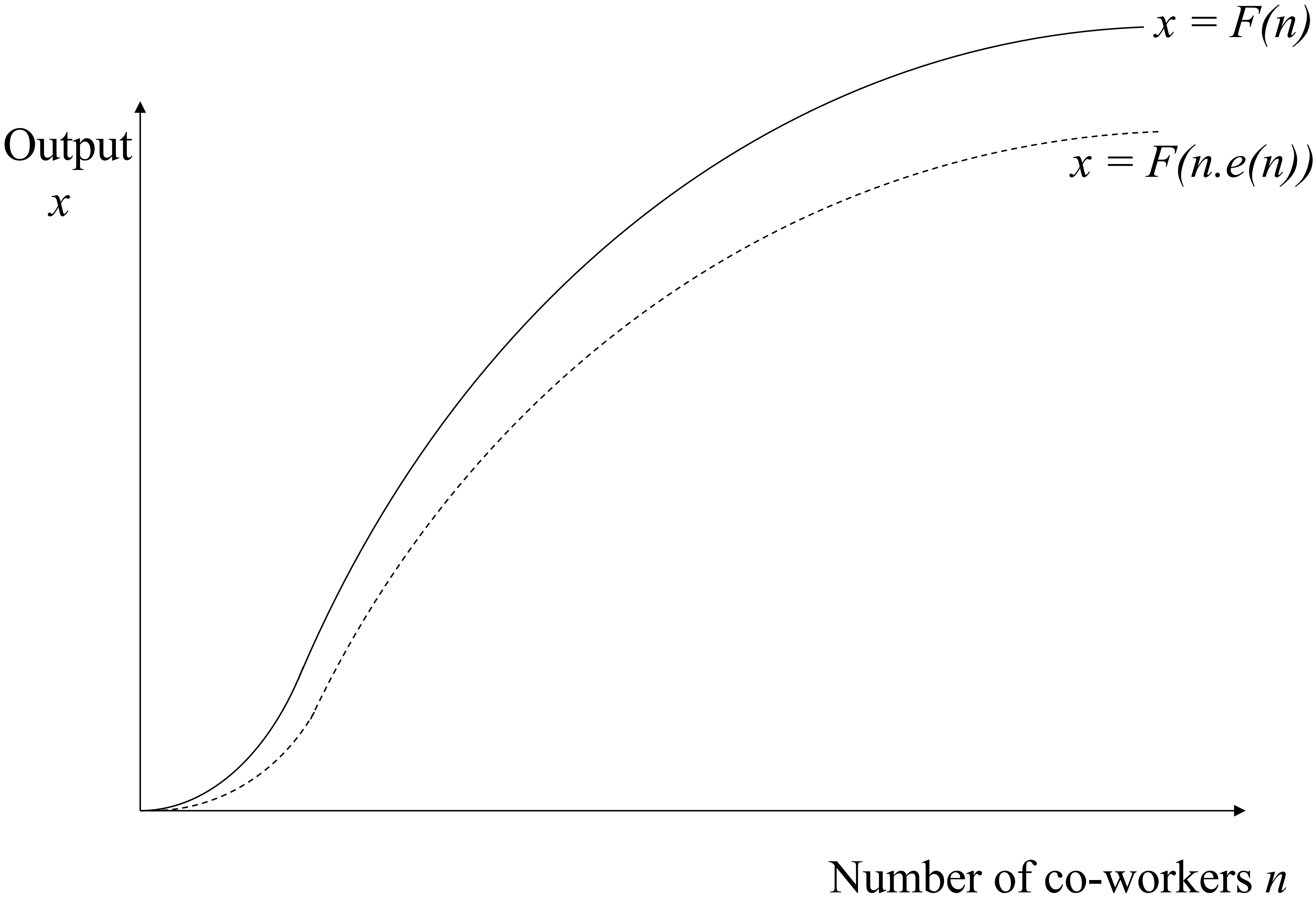
Implications:

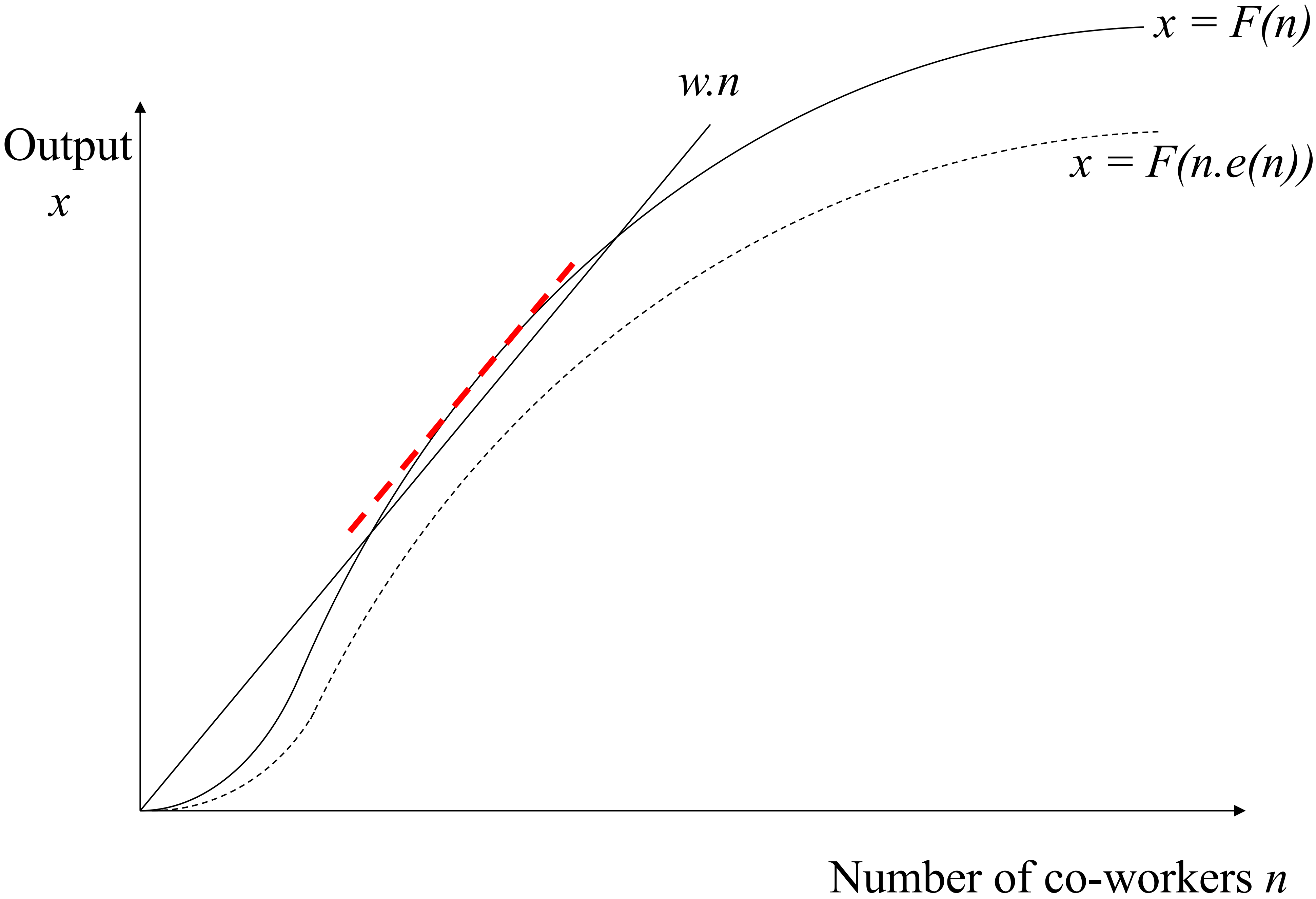
- Efficient size of firms depends on wage rate:
  - $n^*(w)$ solves Max $F(n.e(n)) - wn$



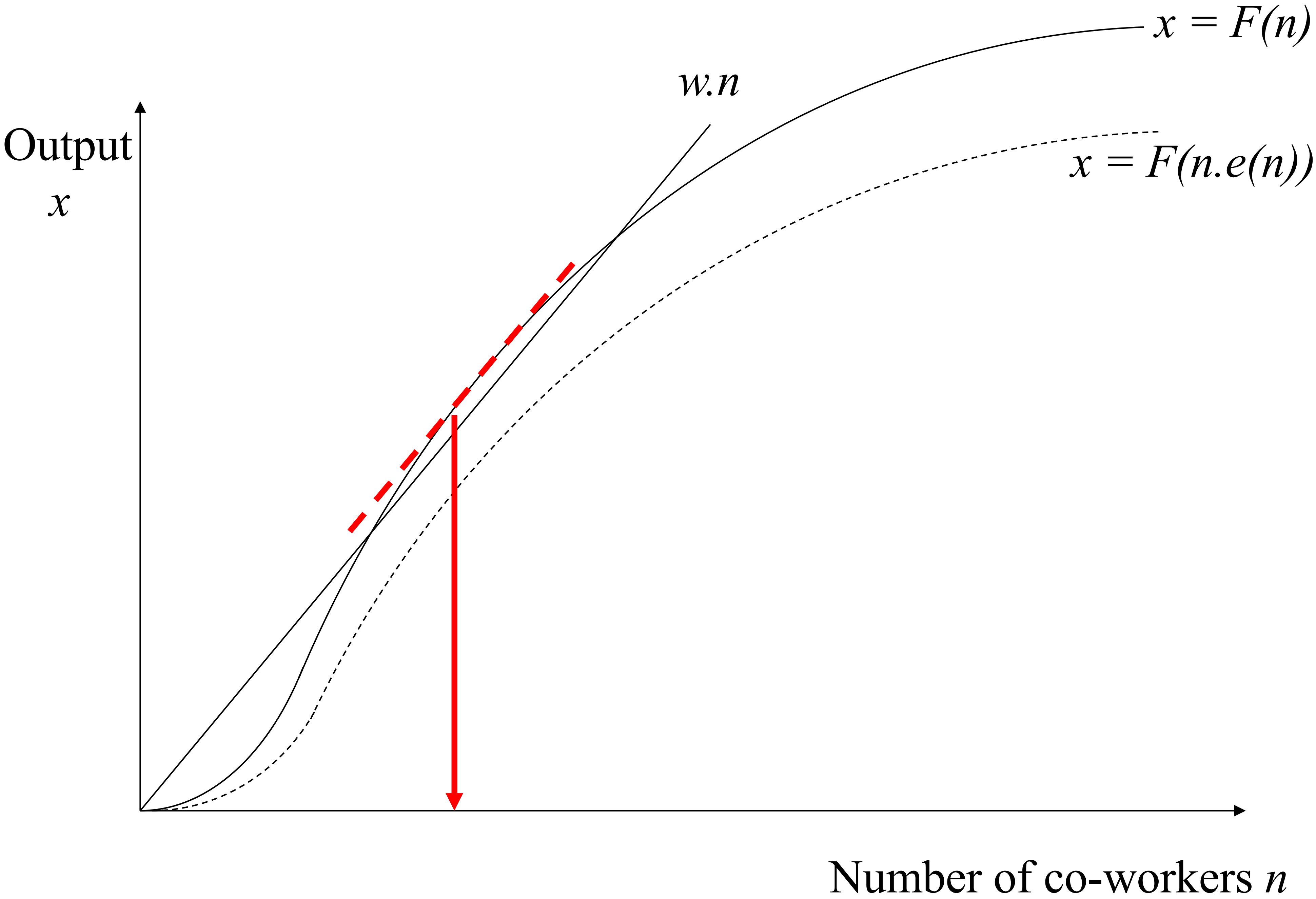

Output
x
Number of co-workers n


$x = F(n)$
Output x
Number of co-workers n


x = F(n)
Output
x
x = F(n.e(n))
Number of co-workers n



x = F(n)
w.n
Output
x
x = F(n.e(n))
Number of co-workers n


x = F(n)
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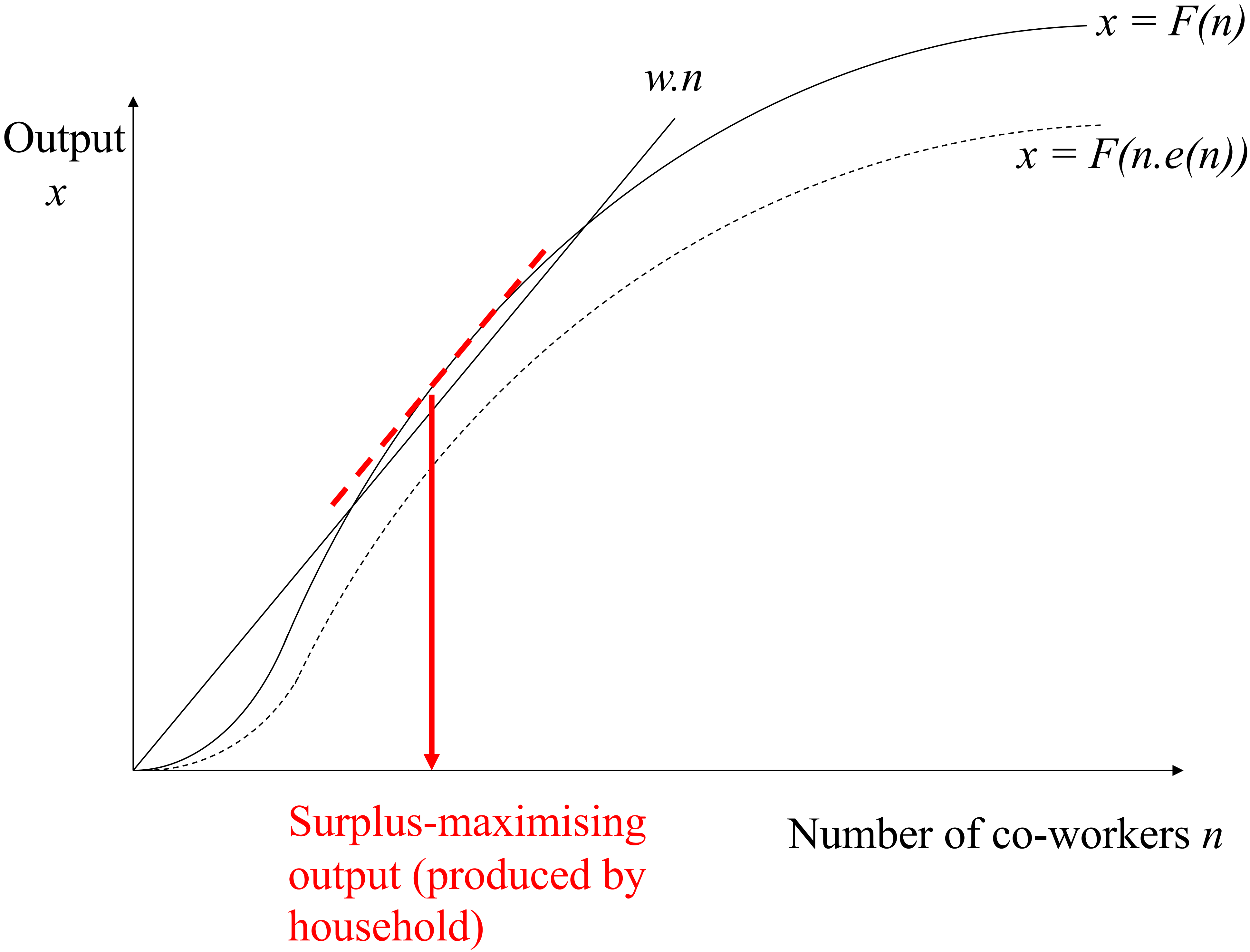
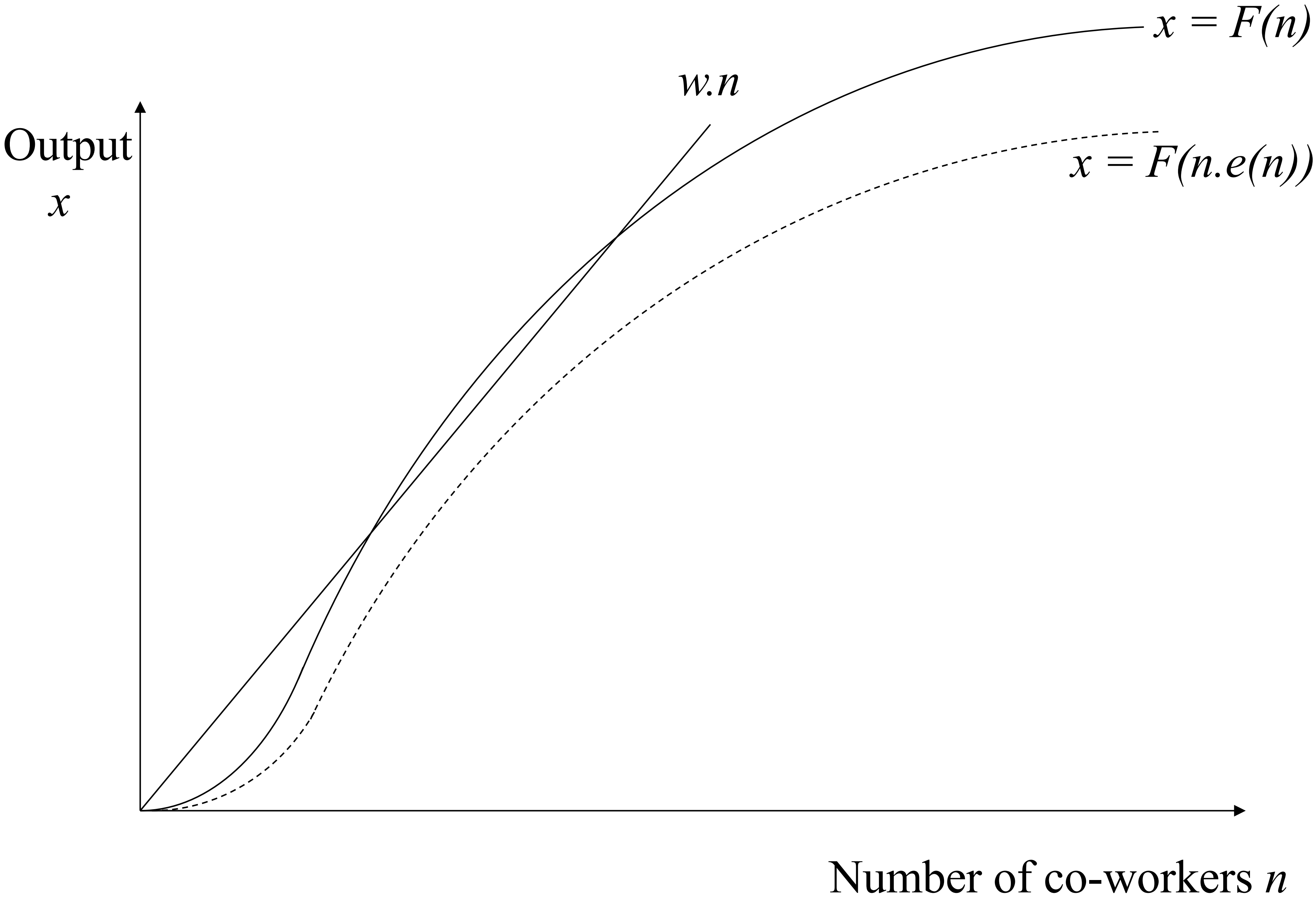
Output
x
x = F(n.e(n))
Number of co-workers n

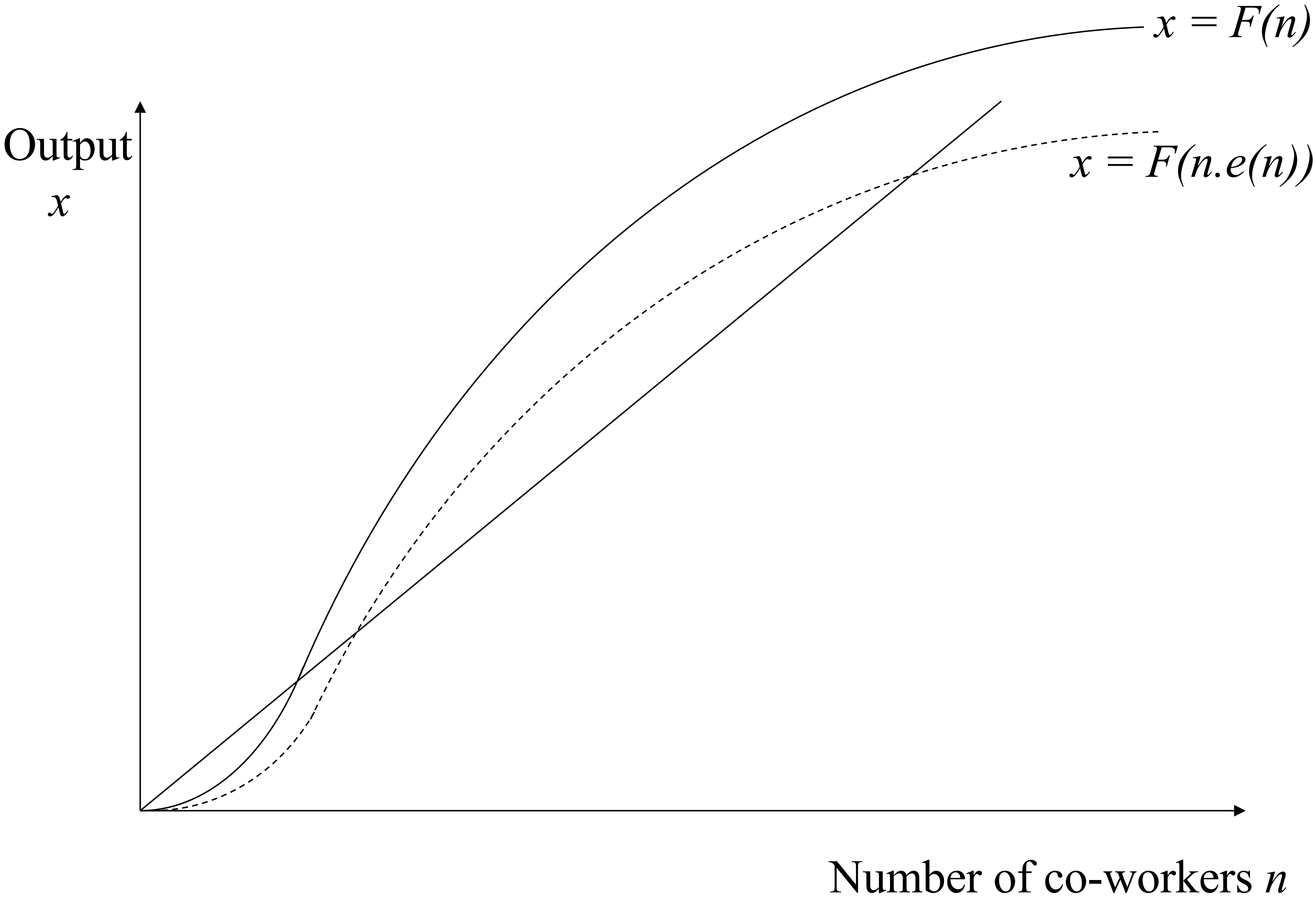


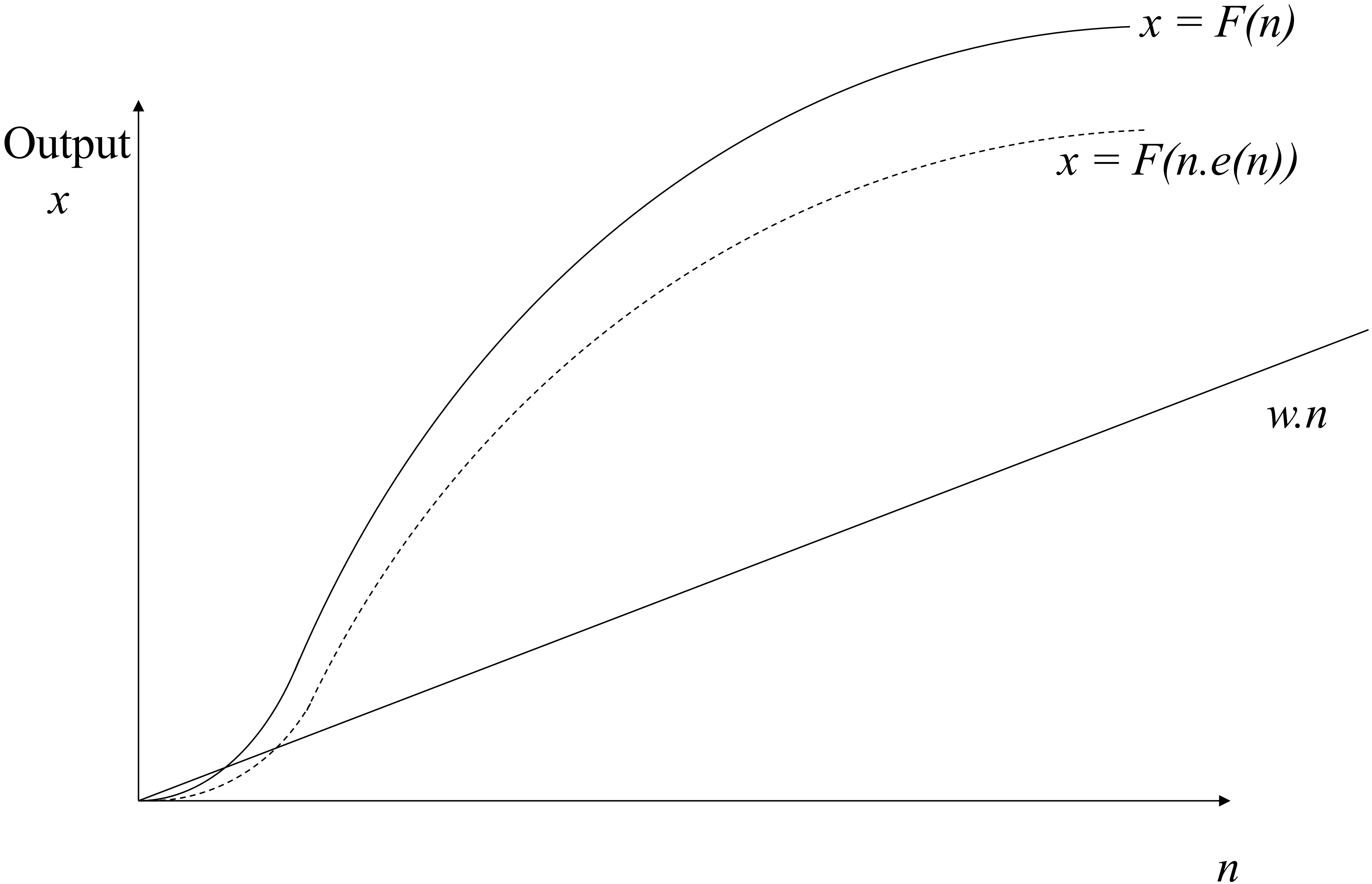
$x = F(n)$
$w.n$
Output
x
$x = F(n.e(n))$
Surplus-maximising output (produced by household)
Number of co-workers n

Now consider a fall in *w*:

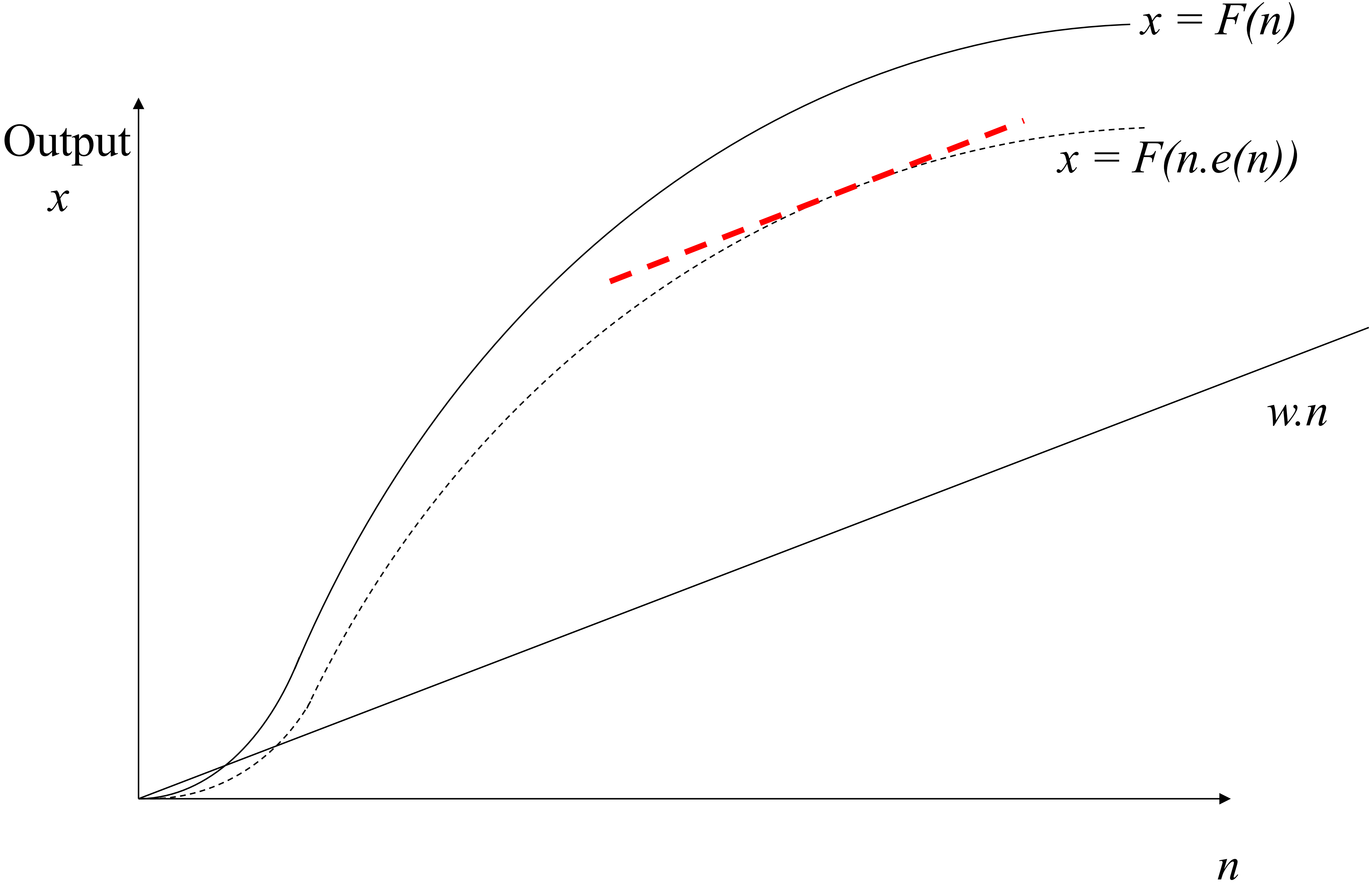


x = F(n)
w.n
Output
x
x = F(n.e(n))
Number of co-workers n

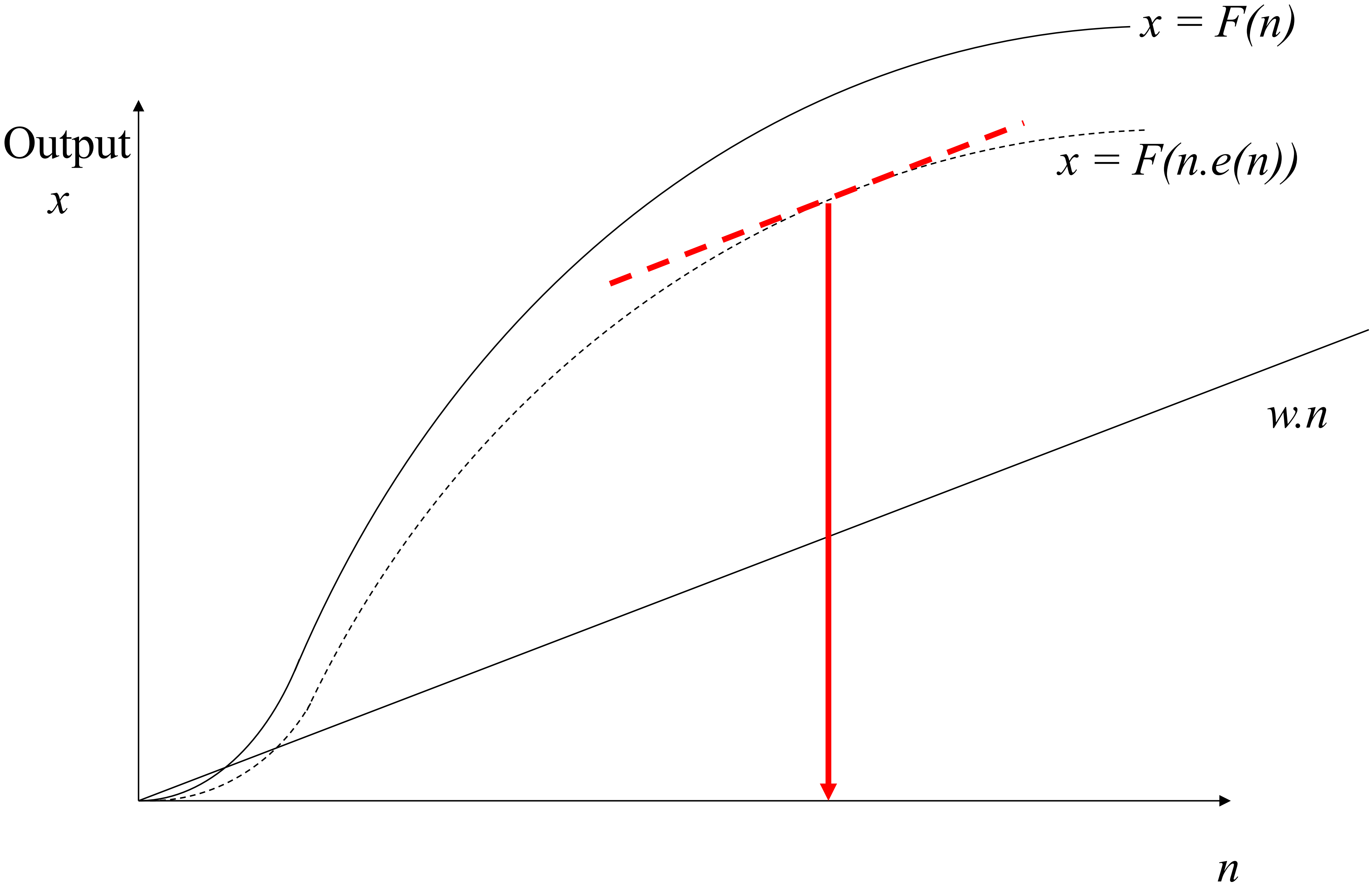

$x = F(n)$
Output
x
$x = F(n.e(n))$
Number of co-workers n



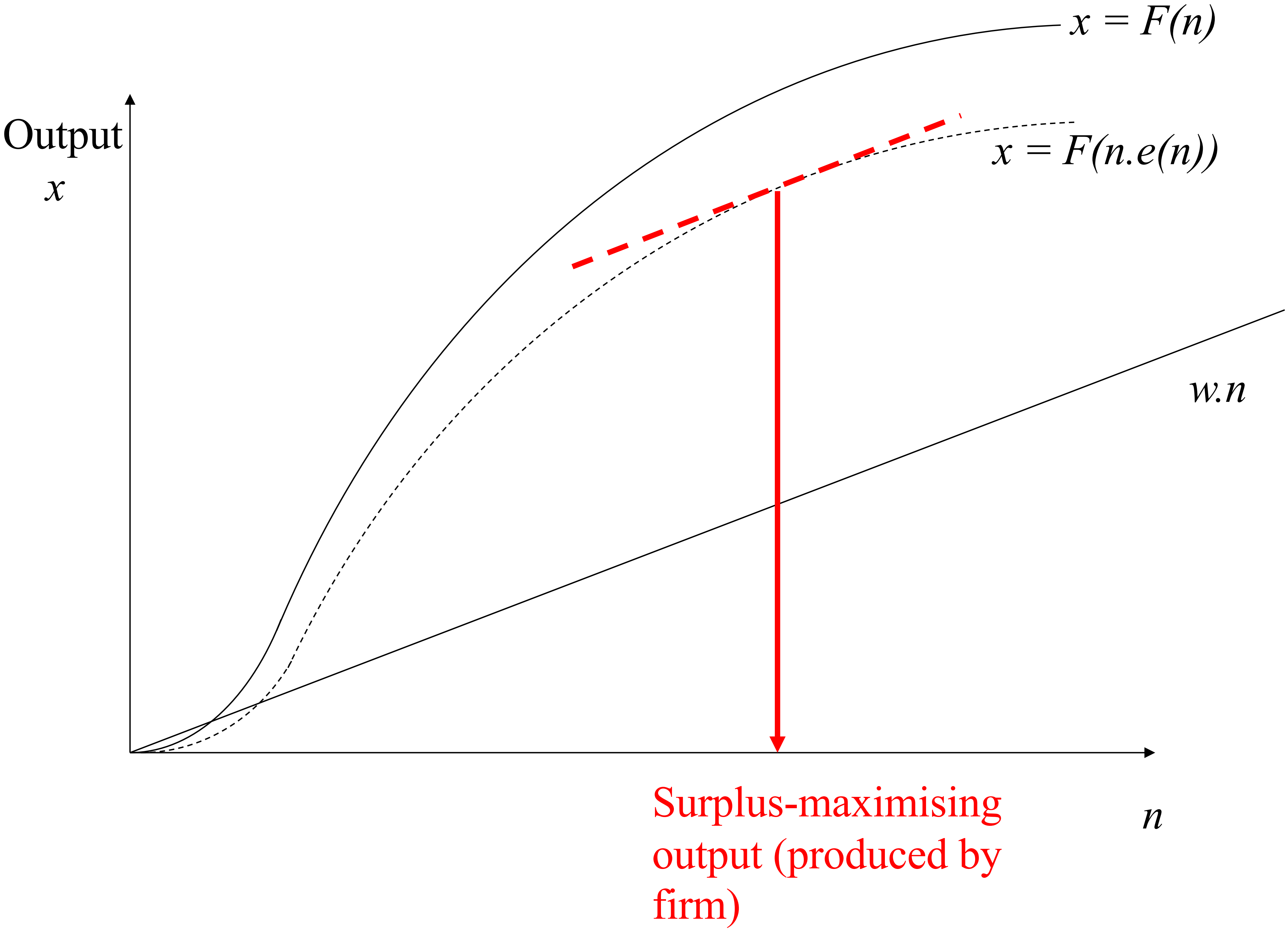
x = F(n)
Output
x
x = F(n.e(n))
w.n
n



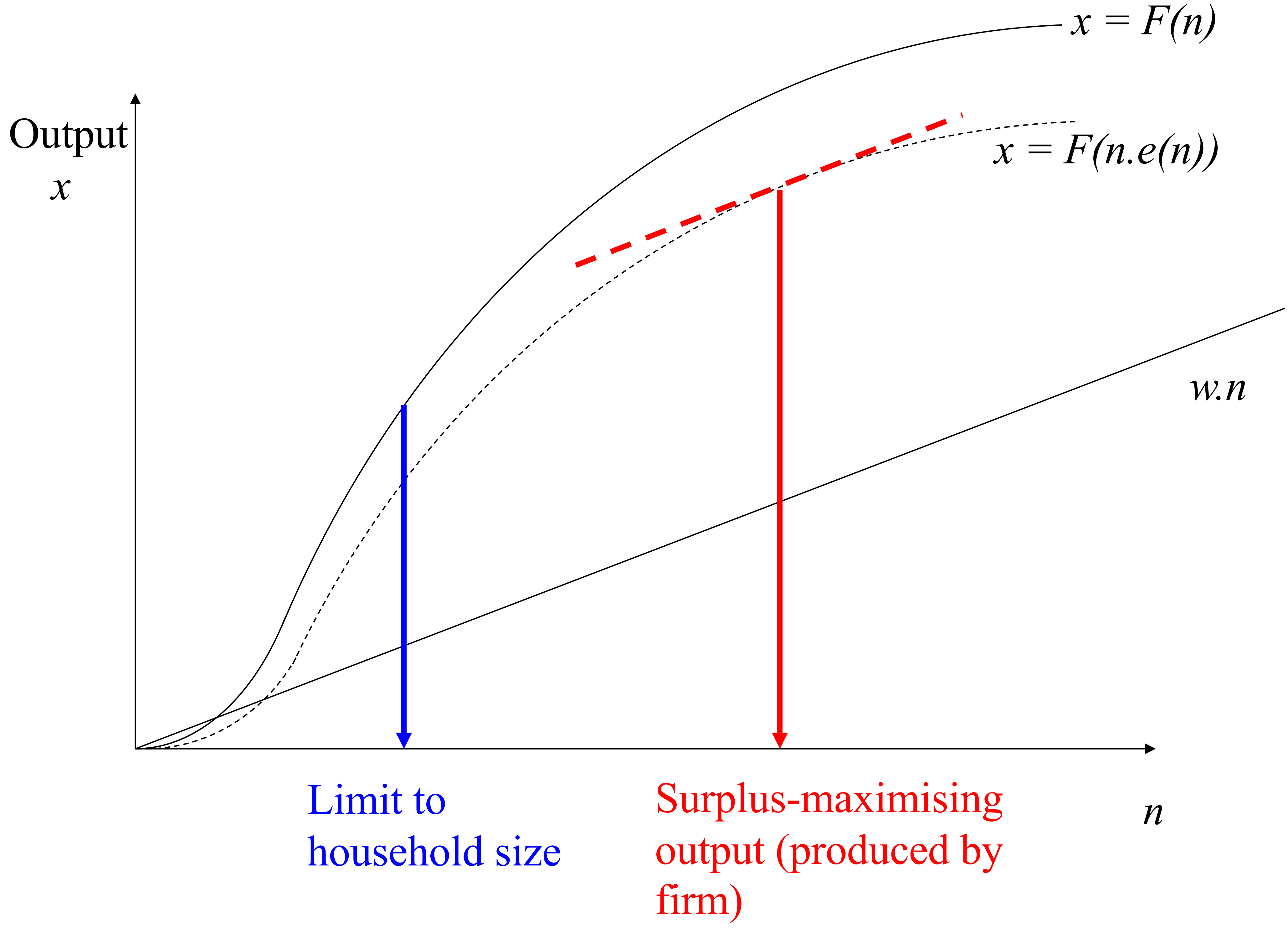
Output
x
x = F(n)
x = F(n.e(n))
w.n
n



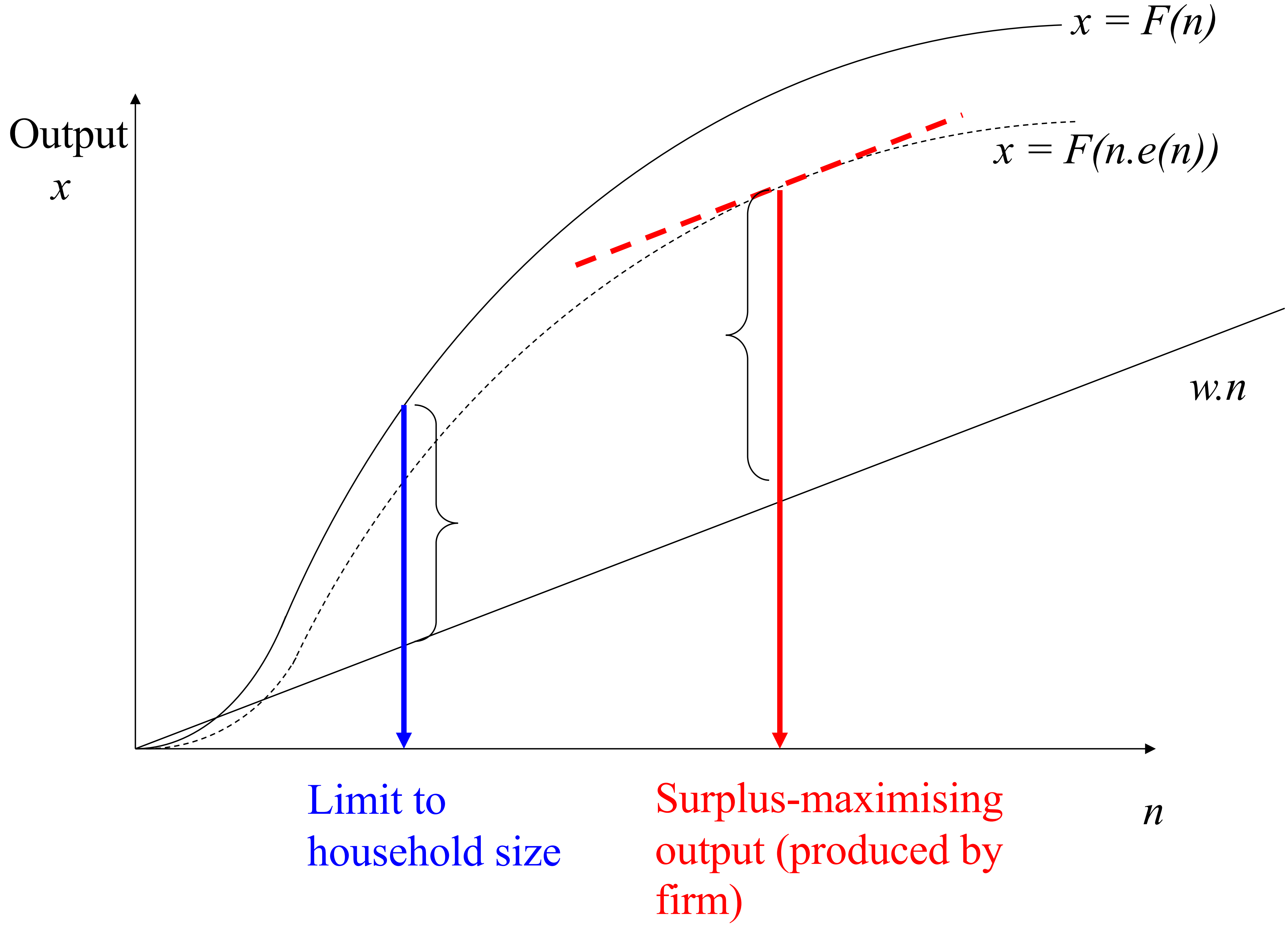
$x = F(n)$
Output
x
$x = F(n.e(n))$
$w.n$
n



x = F(n)
Output
x
x = F(n.e(n))
w.n
Surplus-maximising output (produced by firm)
n



$x = F(n)$
Output
x
$x = F(n.e(n))$
$w.n$
Limit to household size
Surplus-maximising output (produced by firm)
n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Limit to
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Surplus-maximising
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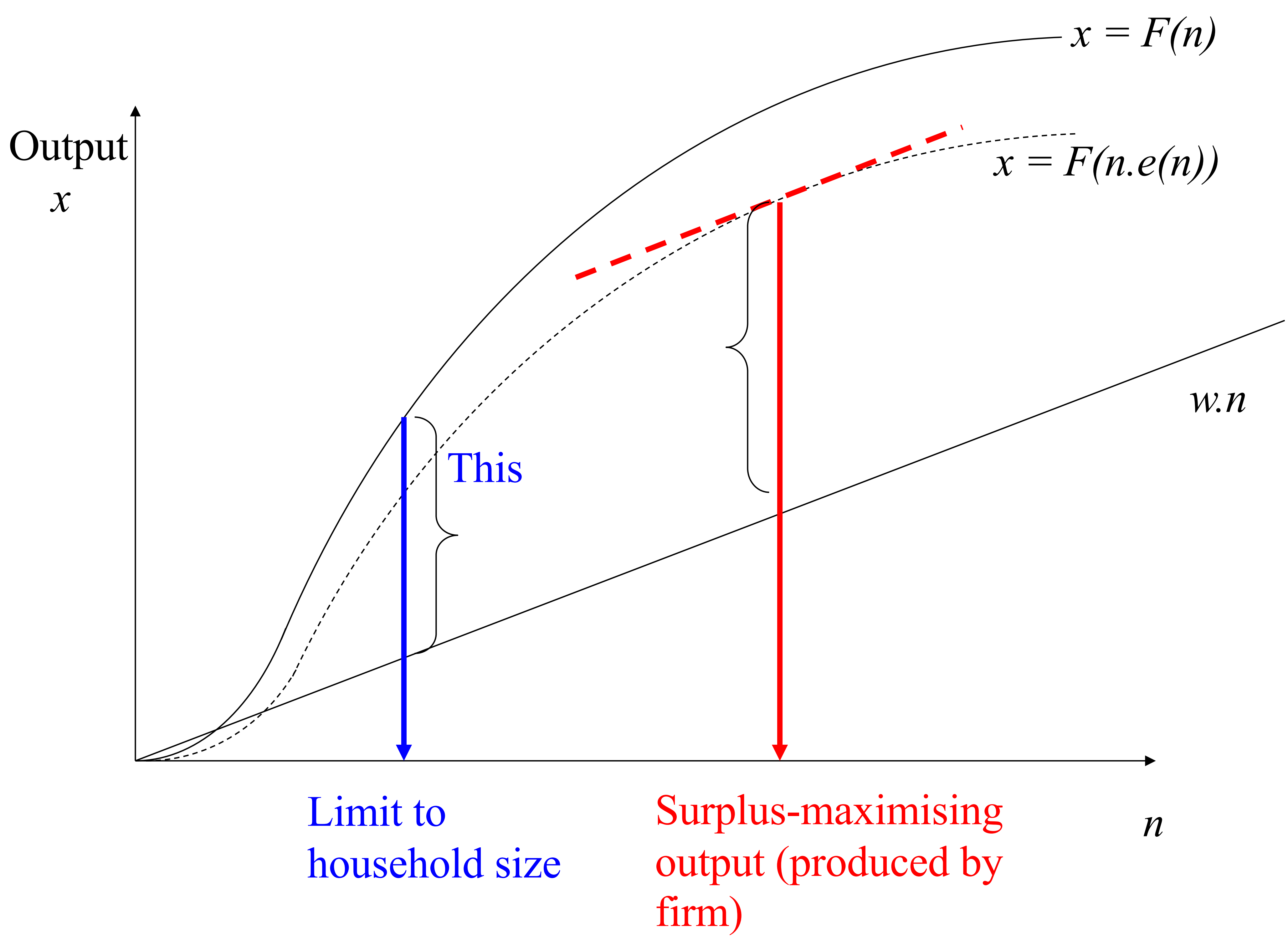
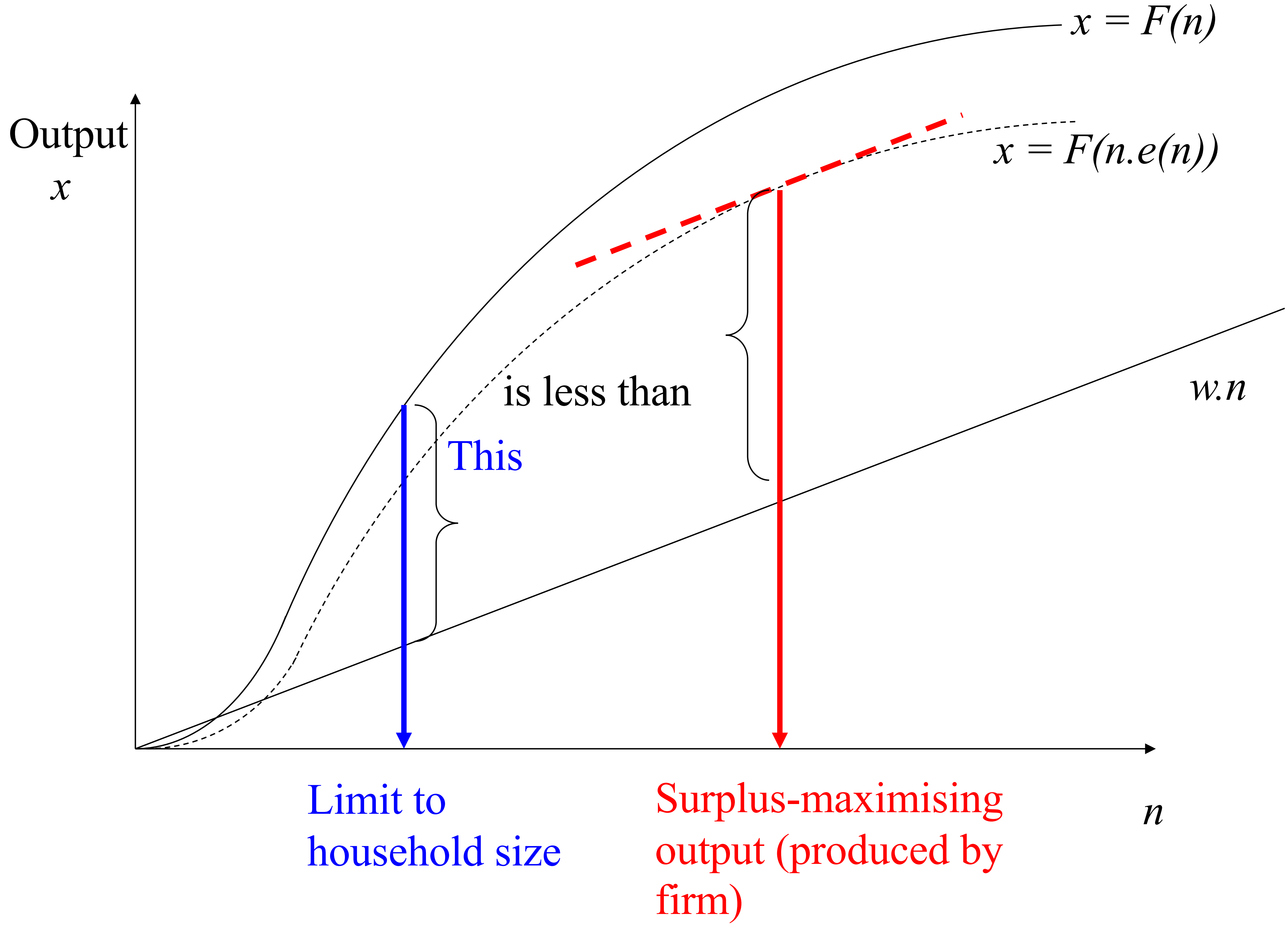
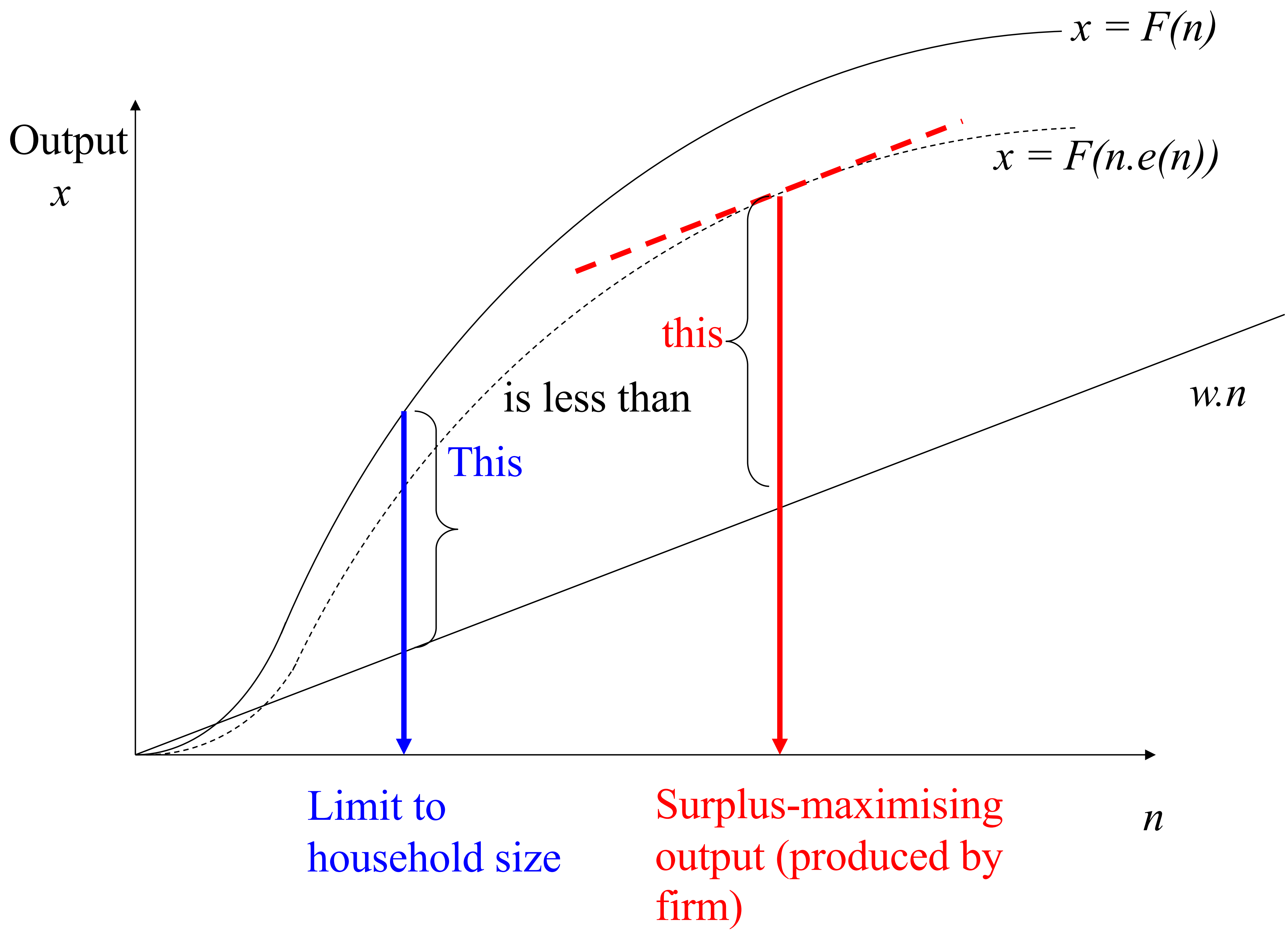


$x = F(n)$
Output
x
$x = F(n.e(n))$
$w.n$
This
n
Limit to household size
Surplus-maximising output (produced by firm)



x = F(n)
Output
x
x = F(n.e(n))
is less than
w.n
This
Limit to household size
Surplus-maximising output (produced by firm)
n



$x = F(n)$
Output
x
$x = F(n.e(n))$
this
is less than
$w.n$
This
Limit to
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Surplus-maximising
output (produced by
firm)
n

Implications:

- Efficient size of firms depends on wage rate:
  - $n^*(w)$ solves Max $F(n.e(n)) - wn$
- Good will be produced in households if:
  - $F(n^*e(n^*)) < F(M)$, otherwise in firms
- Decrease in wages favours firms:
  - $n^*(w)$ is decreasing in w
- Increase in size of economy has 2 effects:
  - demand and supply of labour both increase
  - net impact depends on wage rates

More general lessons

- Institutions can be seen as a response to contractual incompleteness
- Without formal enforcement individuals need incentives to cooperate
- Kinship is one incentive; there are others
- Institutions create coordinated expectations about the behaviour of others

The coexistence of markets and non-market institutions in a modern economy

- We can see various features of modern societies as responses to trust problems in economic transactions.

- Examples:
  - The growth of money as a medium of exchange;
  - The first textile factories compared to the putting-out system;
  - The separation of ownership and control in modern industrial firms.

- What we call “firms” are just particular forms of non-market hierarchical institutions that happen to function according to a particular set of rules.

What about media of exchange?

- In principle economic exchange is all about trading something you have for something you want – a "barter" phenomenon
- But in complex economies direct barter is rare – why?
- The usual reason the "double coincidence of wants" (Jevons 1893).
- A good modern example is the incompatibility of kidney donors and transplant patients – (for kidney exchanges, see Roth et.al.)
- But even with reduced search costs (eg via internet), barter can be difficult because of the double quality verification problem
- Banerjee & Maskin (QJE 1996) have proposed an elegant "Walrasian theory of money and barter"

The Banerjee-Maskin model

- 3 goods, each of which comes in two quality levels, High and Low
- Each trader can tell the difference between High and Low qualities of goods only if she either consumes or produces them
- Therefore in competitive equilibrium only low qualities are traded
- There is no single market but there are markets for each good, so a medium of exchange is necessary
- Only one good serves as a medium of exchange – the one for which the difference in the value of Low and High qualities is the smallest
- If the good is costly to produce, equilibrium is inefficient because too much is produced relative to the first best

What could serve as a medium of exchange?

- Gold or silver coinage had two major advantages due to historical innovations:
  - Archimedean specific gravity test
  - Serrated edge of coins
- Non-counterfeitable paper money (called fiat money) is even better because it is much cheaper to produce
- In some circumstances other standardized goods could serve: cigarettes in prisoner-of-war camps
- What was special about cigarettes? (Not that everyone smoked) Rather, that everyone could tell the quality

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