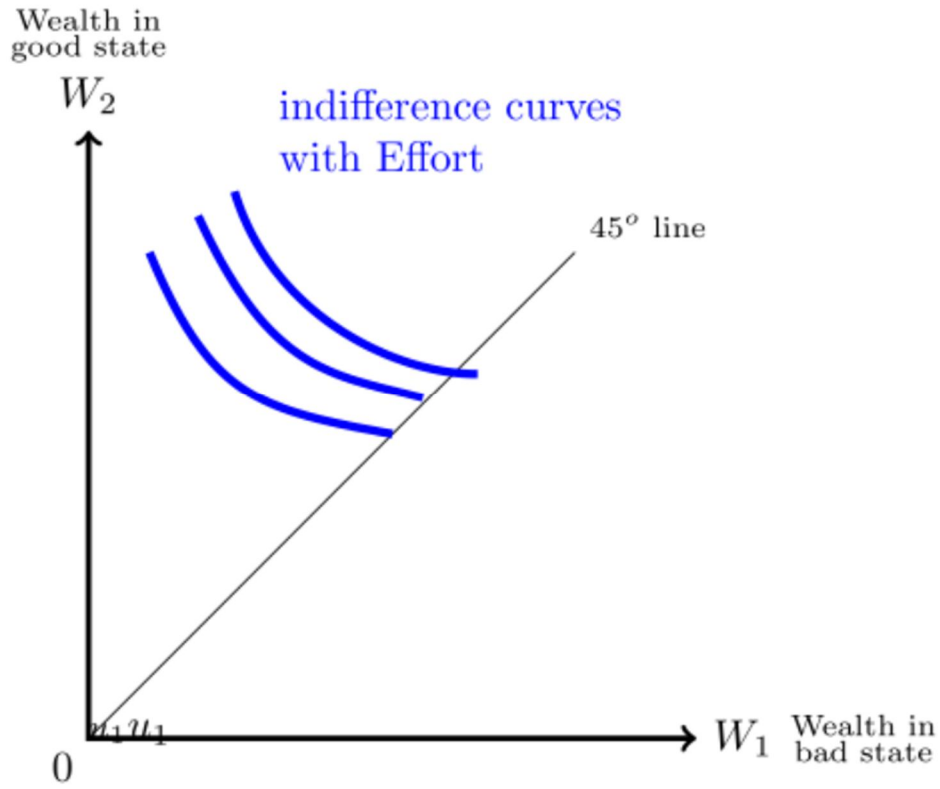
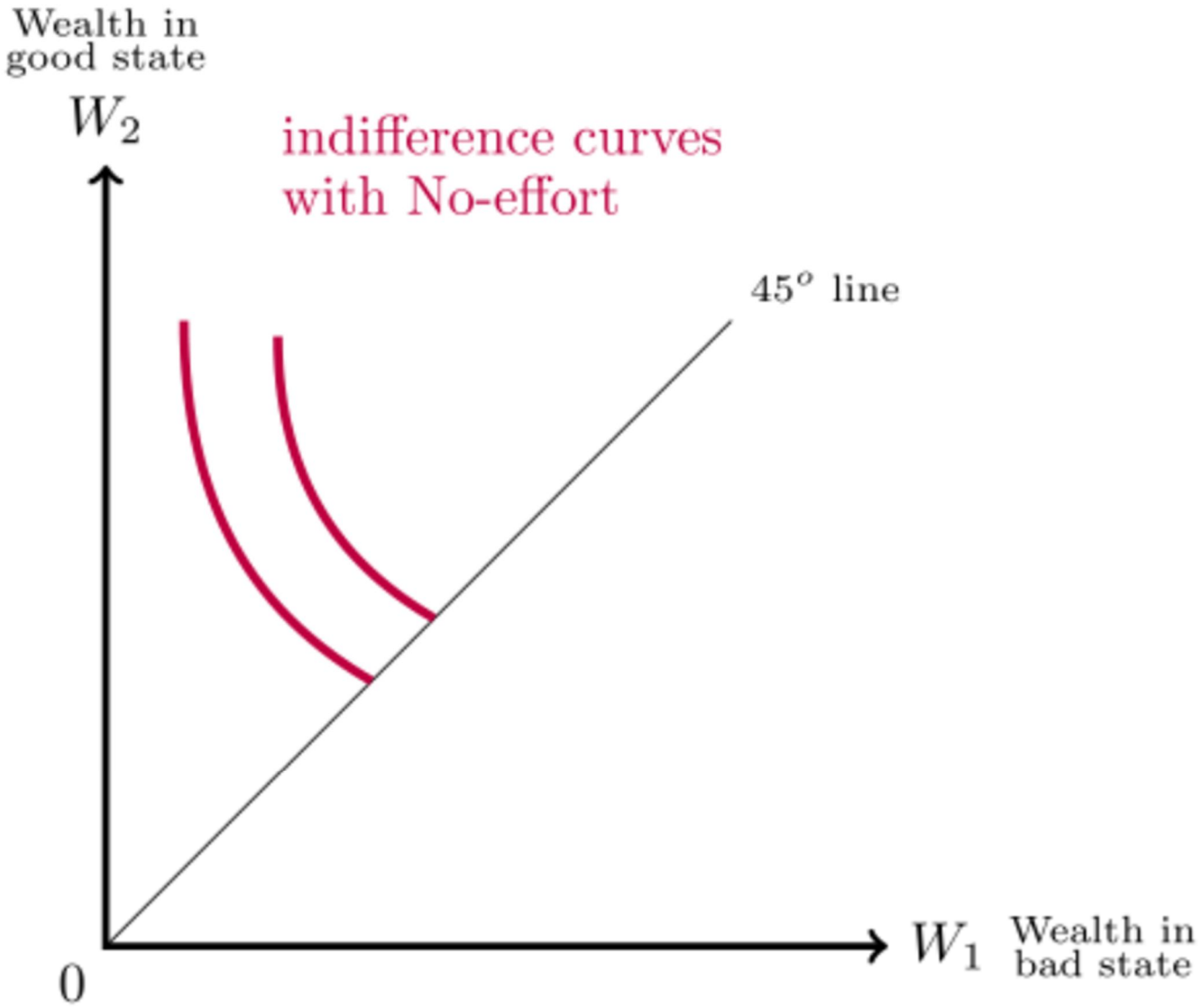
Through any point in the wealth space go **two** indifference curves: a less steep one corresponding to effort and a steeper one corresponding to no effort.

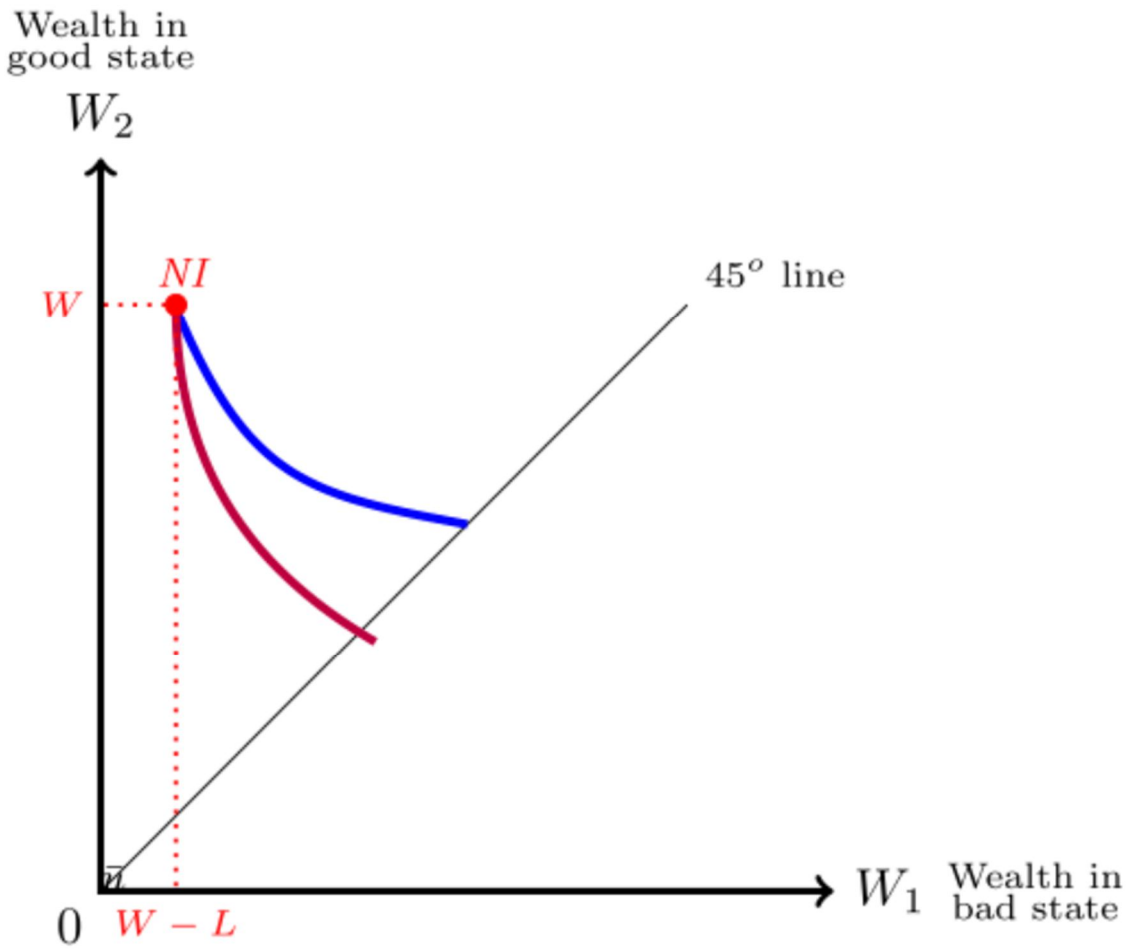
No-effort indifference curves:

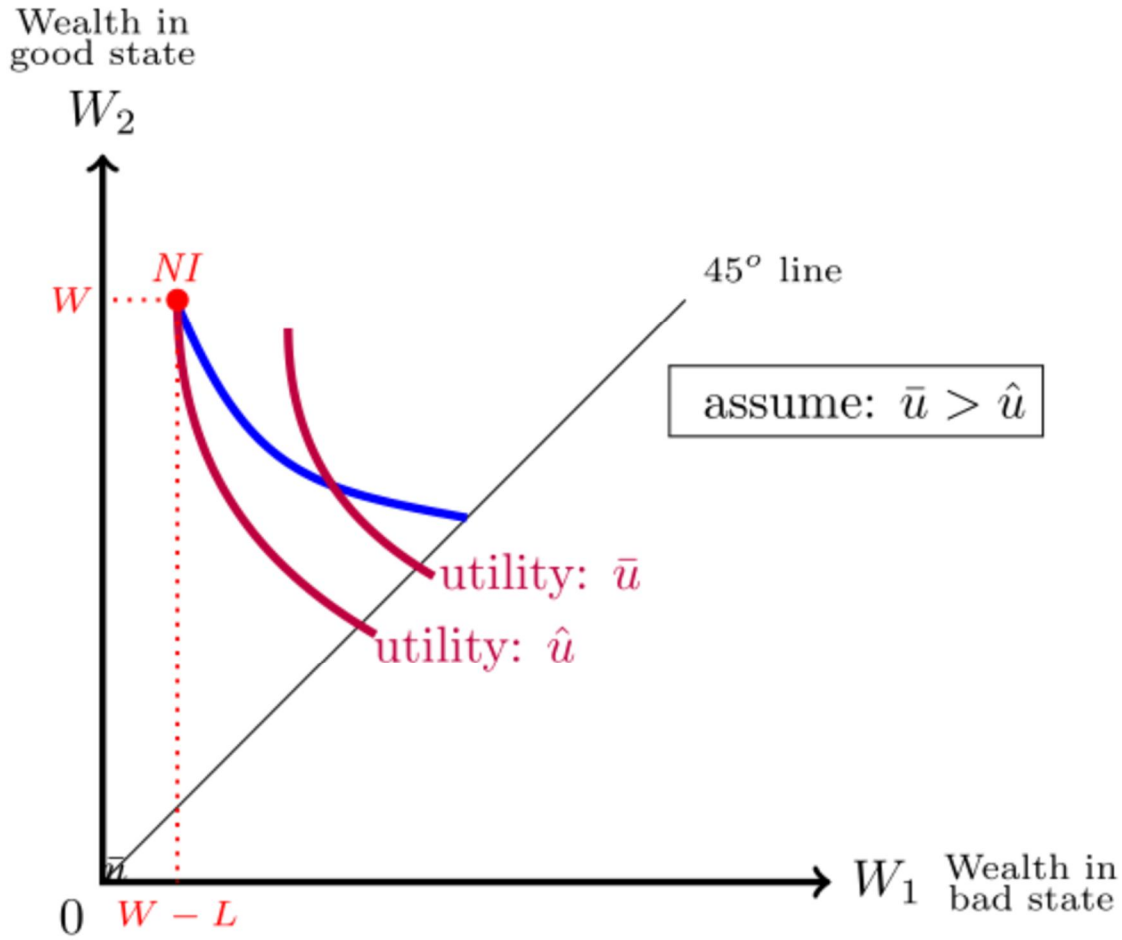


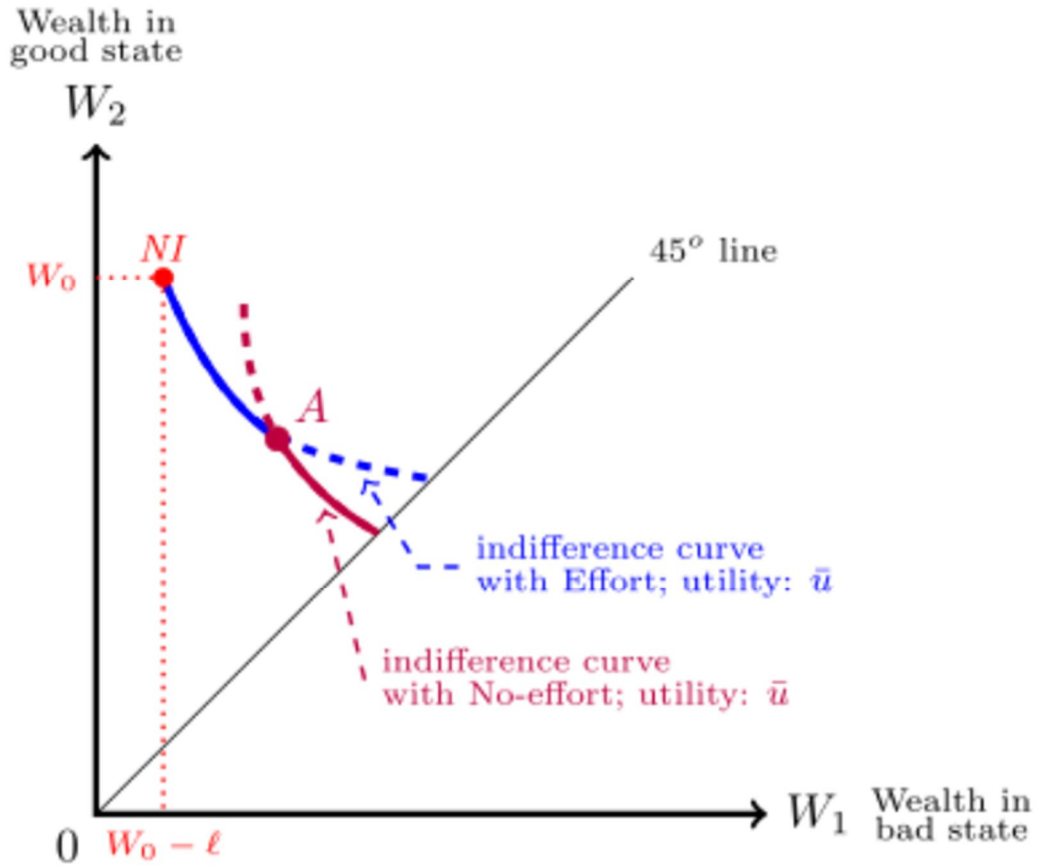
Next the no-effort indifference curves:



Indifference curves that go through the NI point:

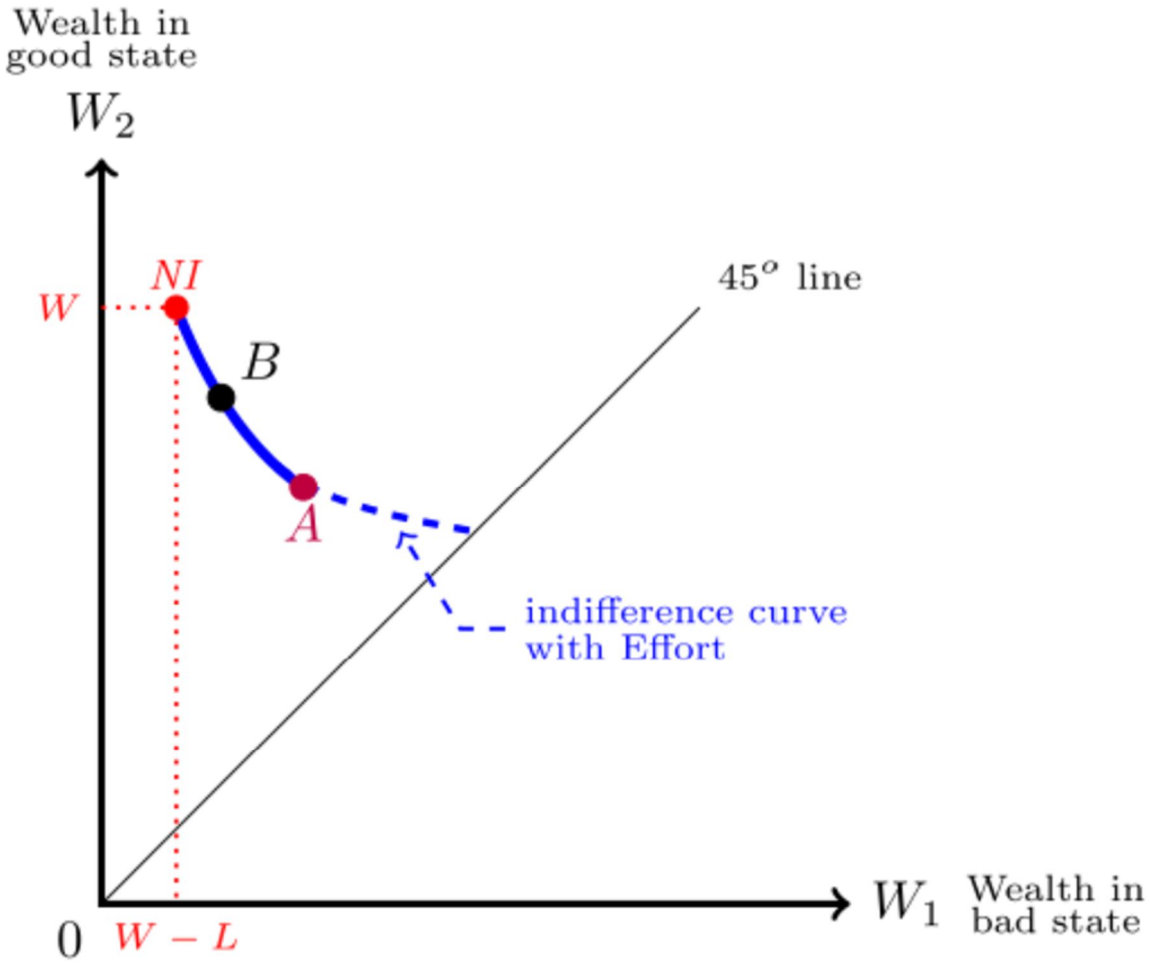



Wealth in
good state
W_2
W
NI
45^o line
assume: $\bar{u} > \hat{u}$
utility: $\bar{u}$
utility: $\hat{u}$
$\bar{w}$
0
$W - L$
W_1 Wealth in
bad state

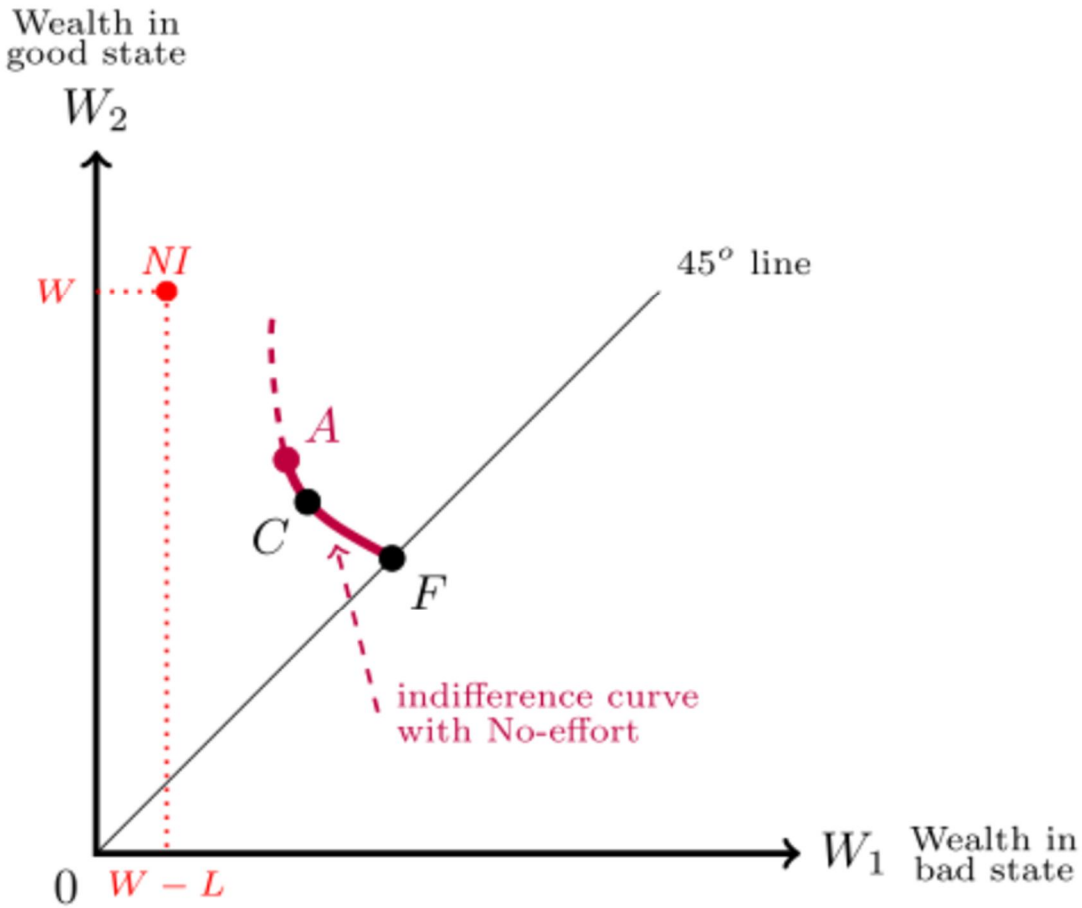


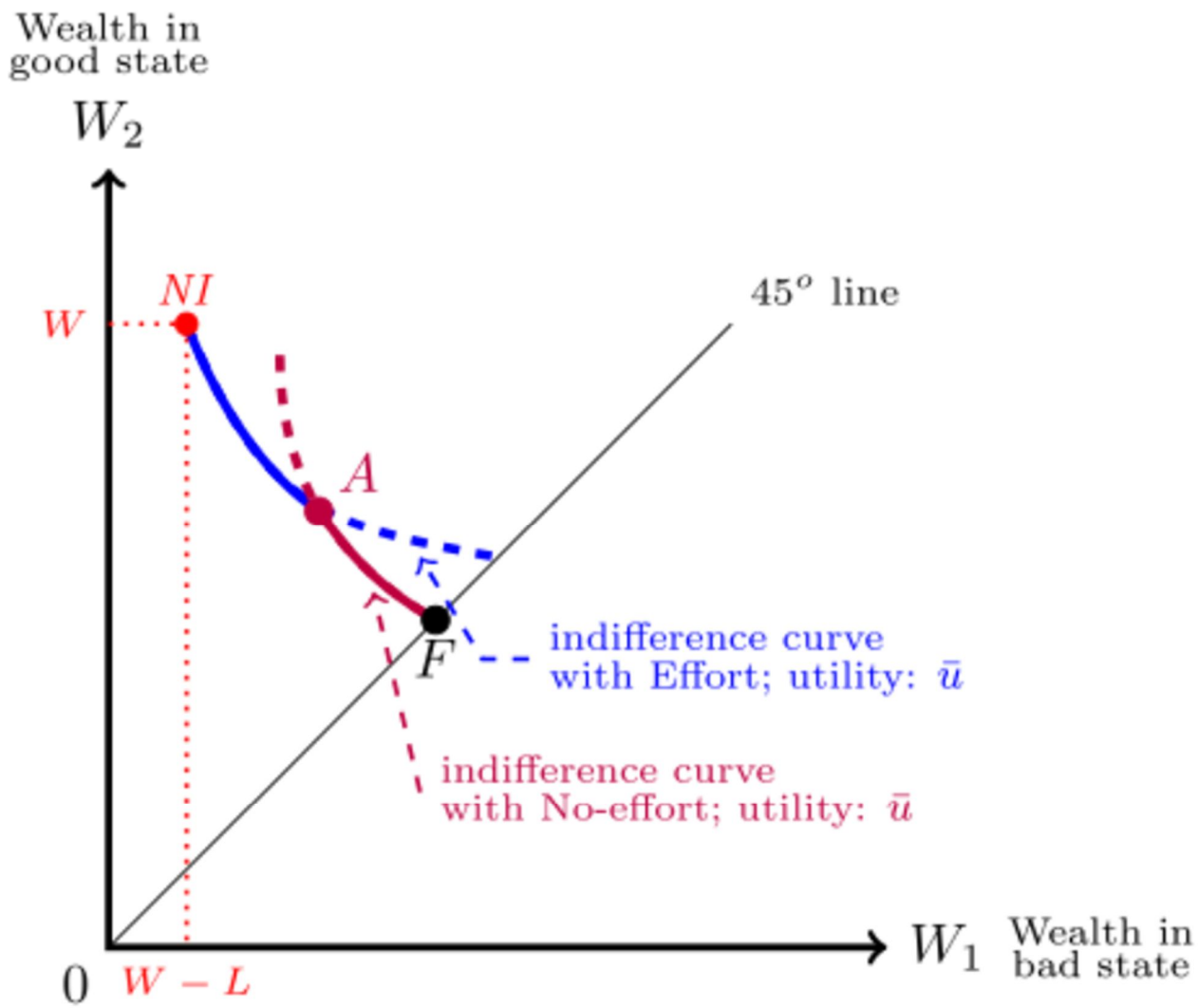
The monopolist will want the consumer to be on the **reservation utility locus**. But which contract on this locus will it offer?

It cannot be a point strictly between NI and A:



It cannot be a point strictly between A and F:




Wealth in
good state
W_2
W
NI
45^o line
A
F
indifference curve
with Effort; utility: $\bar{u}$
indifference curve
with No-effort; utility: $\bar{u}$
0
$W - L$
W_1 Wealth in
bad state

Example 1.

$W = 10,000 \qquad L = 1,900 \qquad p_n = \frac{4}{10} \qquad p_e = \frac{1}{10}$

$U_n(m) \equiv U(m,0) = \sqrt{m}$

$U_e(m) \equiv U(m,e) = \sqrt{m} - 1$

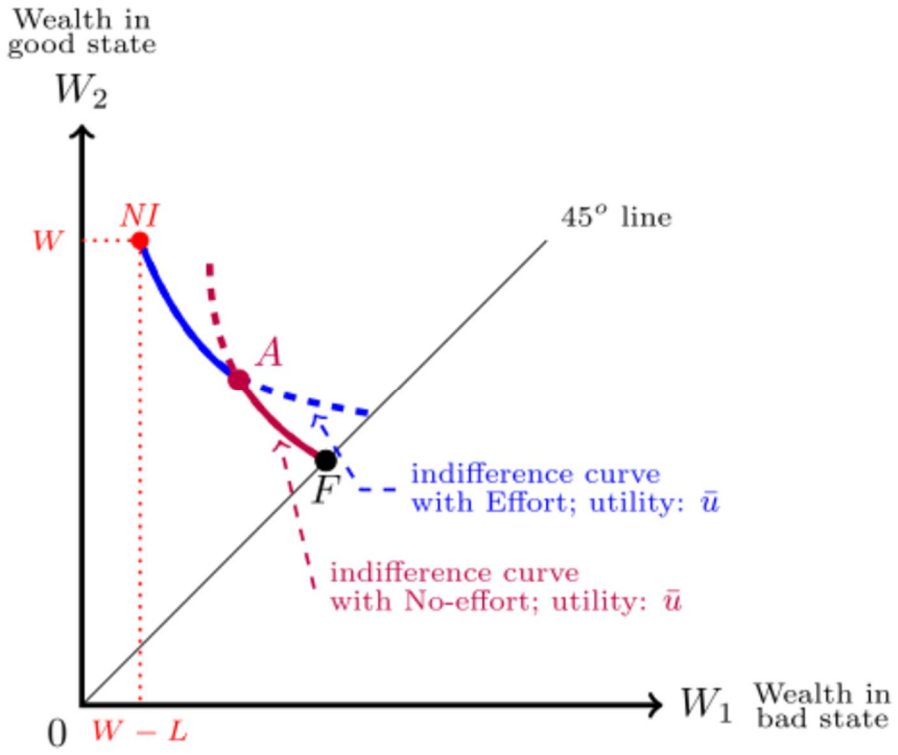
Then

$$\mathbb{E}[U_n(NI)] =$$

$$\mathbb{E}[U_e(NI)] =$$

So under no insurance the agent chooses

What contract would a monopolist offer? The choice is between A and F.



Find the premium of contract F. Given by the solution to:

Corresponding profits:

Calculate premium and deductible for contract *A*:

(on the no-effort indifference curve for utility 98)

(on the effort indifference curve for utility 98)

The solution is: $h_A =$ $d_A =$

Corresponding profits:

Thus the monopolist will offer

Example 2 ("effort" is a monetary expense)**.**

$W = 8,000 \qquad L = 3,000 \qquad p_n = \frac{1}{8} \qquad p_e = \frac{1}{10} \qquad U(m) \equiv 10\ln(m)$

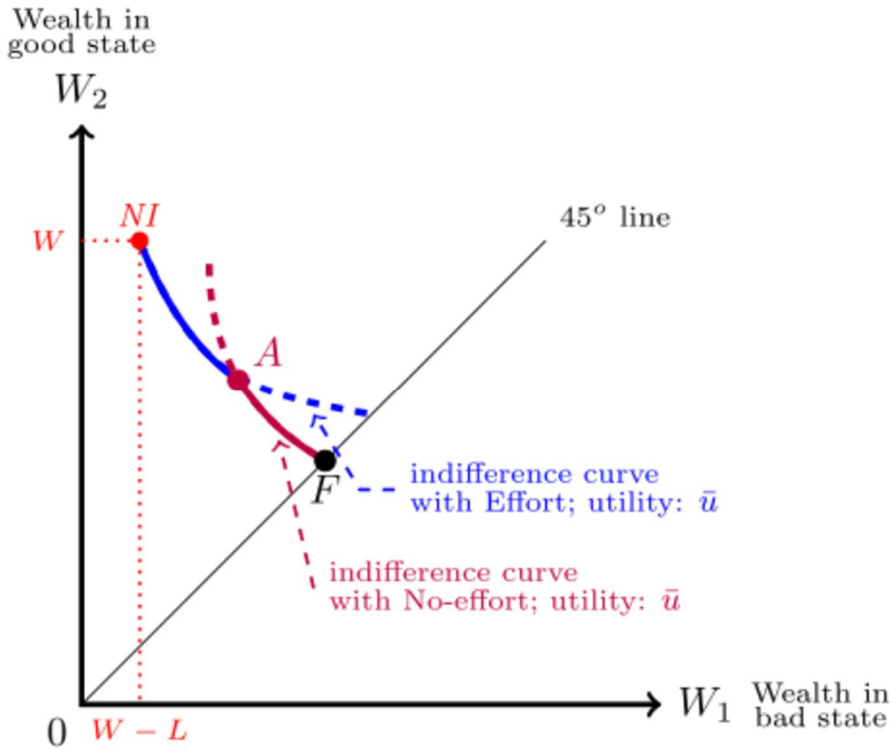
Cost of "effort": $50.

$\mathbb{E}[U_n(NI)] =$

$\mathbb{E}[U_e(NI)] =$

So under no insurance the agent chooses

What contract would a monopolist offer? The choice is between A and F:



Find the premium of contract F. Given by the solution to:

Corresponding profits:

Calculate premium and deductible of contract *A*.

Given by the solution to:

(on the no-effort indifference curve for utility 89.335)

(on the effort indifference curve for utility 89.335)

The solution is: $h_A =$ $d_A =$

Corresponding profits: