



You can't have it all

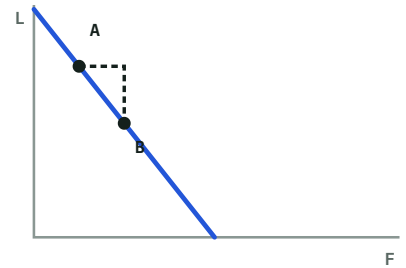
Nora and Tomas, a fishing village, and the gains from specializing and trading.

1

Opportunity cost

every choice has one

- **Opportunity cost** → the value of the best alternative you give up
- Café shift \$80 vs. a \$30 concert → the concert really costs $\$30 + \$80 = \$110$
- Nora: 4 loaves/hour or 1 fish/hour → 1 hour fishing costs her **4 loaves**
- Opportunity cost is measured in **what you give up**, not only in dollars

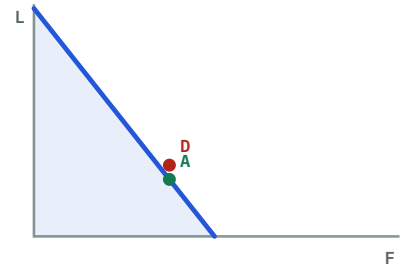


2

The frontier

what is possible

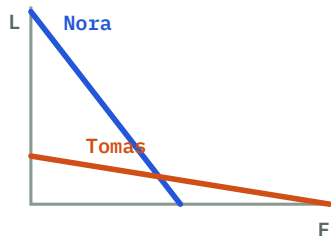
- **Production possibilities frontier (PPF)** → the most of two goods you can make with fixed time
- On the line → all hours used · below it → hours wasted · above it → out of reach
- Nora, 8 hours: **8 fish** or **32 loaves** · the line's **slope = opportunity cost**
- 6 fish take 6 hours → 2 hours left → at most $2 \times 4 = 8$ loaves, not 10



3

Comparative advantage

who should do what



Absolute advantage → doing more in the same time

Comparative advantage → giving up less to do it

1 fish costs **NORA** 4 loaves, but only **TOMAS** 0.5 loaf.
Tomas has the comparative advantage in fish; Nora, in bread.

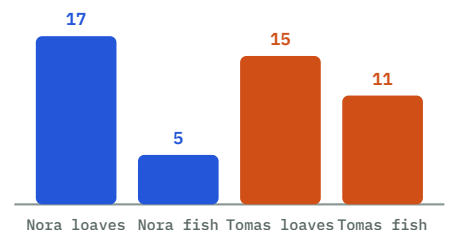
Nobody has the lower opportunity cost in everything — everyone has a comparative advantage somewhere

4

Specialize and trade

both sides gain

- **Specialization** → each person does the job with the lowest opportunity cost
- Full specialization: Nora bakes all day (**32 loaves**), Tomas fishes all day (**16 fish**)
- They swap at a price **between** the two opportunity costs: between 0.5 and 4 loaves per fish
- Example: Tomas gives 5 fish for 15 loaves → Nora ends with **17 loaves, 5 fish** ; Tomas with **15 loaves, 11 fish**
- Both baskets beat what each made working alone, half the day on each job (16/4 and 4/8)

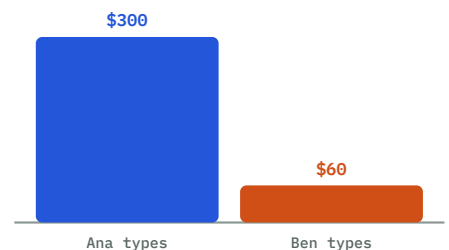


5

Better at everything?

faster ≠ cheaper

- Ana types twice as fast as Ben, but Ana earns the firm \$300/hour doing legal work
- Ana types the report: 1 hour → costs the firm **\$300** of lost legal work
- Ben types the report: 2 hours × \$30 → costs the firm only **\$60**
- Ana has the **absolute** advantage in typing; Ben has the **comparative** advantage — trade follows comparative advantage



6

When does trade help?

the price matters

- A trade helps both sides only if its price sits **between** what each side would pay to make the good alone
- Fish price range that helps both Nora and Tomas: **0.5 - 4 loaves per fish**
- Bad deal: 20 loaves for 2 fish = **10 loaves/fish** — above Nora's own cost of 4, so she is better off fishing herself

