



Who pays for a tariff?

A tax on imported goods: what it does to prices, factories and imports, who gains, who pays, what is lost, and what happened to US washers in 2018.

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Problem · tool

cheaper imports

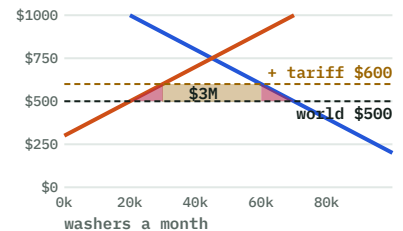
- **Problem** → goods cost less abroad ⇒ home factories sell fewer, workers fear for jobs · buying abroad pays when others have a lower **opportunity cost (comparative advantage, Micro 1)**
- **Tool** → **tariff** = tax on each imported good, paid by the importer to the state at the border

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Model

toy washers

- Washers in thousands a month · **BUYERS** $Q_d = 120 - P/10$ · **HOME FACTORIES** $Q_s = P/10 - 30$
- **No trade** → \$750 · 45,000 · **World price \$500** (small country: cannot change it) → buyers **70,000**, factories **20,000**, imports **50,000** · buyers pay \$250 less



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A tariff

price + tariff

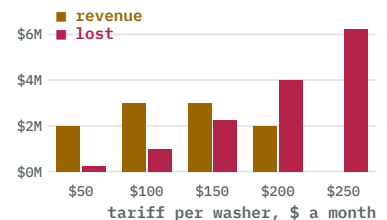
- Price at home = **\$500 + tariff** · \$100 → **\$600** · factories **30,000** (↑) · buyers **60,000** (↓) · imports **30,000** (↓)
- Tariff \$50 → 25k · 65k · imports 40k · \$150 → 35k · 55k · 20k · \$200 → 40k · 50k · **10k**
- **Prohibitive** tariff \$250 → imports **0** · price \$750 = no-trade price · revenue \$0

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Who pays

money map

- Importer hands it over, **buyers pay** (price ↑ by the whole tariff) · **\$100**: buyers lose **\$6.5M** a month = factories **\$2.5M** + state **\$3M** + **\$1M lost**
- **Revenue** = **tariff × imports still coming in** = \$100 × 30,000 = **\$3M** (not × 50,000)
- **Deadweight loss** = two triangles, each $\frac{1}{2} \times \text{tariff} \times \Delta \text{washers}$ · left: made at home for more than \$500 · right: buyers who give up
- Bigger tariff ⇒ loss ↑ · revenue ↑ then ↓ · \$200 → revenue **\$2M**, loss **\$4M**



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Evidence

US washers 2018

- Feb 2018 · **20%** on first 1.2M washers imported a year, **50%** beyond · Flaaen, Hortaçsu, Tintelnot (AER 2020)
- Washers ≈ **+12%** (≈ +\$86) ⇒ **buyers paid** · dryers, **no tariff, +\$92** ⇒ **complements** sold in pairs, priced together
- ≈ **1,800** new jobs · buyers ≈ **\$1.5 billion** a year · state ≈ \$82M · cost per job = **extra price ÷ jobs** ≈ **\$815,000** a year

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Reply · subsidy

other levers

- **Retaliation** = tariff in answer to a tariff · 2018: China, EU, Canada, Mexico on US goods (pork, whiskey) ⇒ home **exporters** lose (soy farmers)
- Arguments for → **security** (own steel, chips in war) · **infant industry** (protected while it learns, then ends)
- **Subsidy** \$100 per washer made: factories 30,000 · buyers still \$500 · state pays **\$3M** · lost only **\$0.5M** ($\frac{1}{2} \times \$100 \times 10,000$) · taxpayers pay, not buyers

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Trade-off

policy card

- **FOR** keeps jobs and factories in a town · **AGAINST** every buyer pays more, value lost, others may reply
- **Positive** (data can test: “washers +12%”) ≠ **normative** (values: “make our own washers”)
- Policy card: problem **imports beat home factories** → tool **tariff** → model **price +\$100: buyers −\$6.5M, factories +\$2.5M, state +\$3M, \$1M lost** → evidence **US 2018: washers +12%, ≈ \$815,000 a job** → trade-off **jobs in one industry vs higher prices for all**