Why did the deal fall through?

Read any negotiation as a **game**: players → moves → points → **best replies** · a deal better for both can be **unstable** · then ask: who can **commit**, what does each day **cost**, which **signals** are costly, who inside each side can **break ranks** (work while the rest hold out).

1 The case

and its table

- **Hollywood writers' strike**, USA · Nov **2007** → Feb 12, **2008** · ≈**12,000** screenwriters vs the **studios** (firms that make films and TV) · issue: pay for shows on DVD and online · ≈**100 days**
- **Your move**: sign, strike or talk more (never graded or stored) · moves: **Settle** (accept a deal now) · **Hold out** (keep refusing) · toy points, writers first
- **Best reply**: "your best move given what the other side does" → circle it · studios hold out → writers settle (1 > 0)
- 3 / 3 better for both, **not stable**: vs a settler, holding out pays **4 > 3** ⇒ not a **Nash equilibrium** (cell where nobody gains by changing alone; John Nash, American mathematician, 1950)
- **Chicken**: "each side wants to stand firm if the other gives way; both lose if neither does" → **two** stable cells (4 / 1, 1 / 4) · crash 0 / 0 · who gives way? the table does not say

LESSON · WRITERS / STUDIOS · TOY POINTS

	Studios Settle	Studios Hold out
Writers Settle	3 / 3	(1) / (4)
Writers Hold out	(4) / (1)	0 / 0

circle = best reply · green = stable · dashed = better for both

2 Commit & signal

Lessons 3 and 8

- **Commitment**: "tying your own hands so that your threat is believable" · **union** (group that bargains for all its workers) sets a strike date in public + members vote
- Writers can only hold out → studios: 1 > 0 ⇒ **settle** · **the catch**: both commit → **0 / 0**
- Words cost nothing · **Costly signal**: "an action that only a serious side would pay for" → walking out costs real pay
- Practice · chain: public vote → backing down costs the leaders trust → holding out ≈ certain → firm's best reply = settle · truck with no reverse on a one-lane bridge goes first

COMMIT: UNION CAN ONLY HOLD OUT

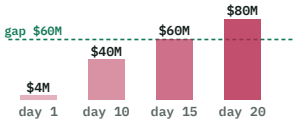
	Firm Settle	Firm Hold out
~~Union Settle~~	3 / 3	1 / 4
Union Hold out	4 / (1)	0 / 0

3 Clock & crowd

Lessons 9 and 6

- Milken Institute (California research group): ≈**$2.1 billion** lost to California · `$2.1B ÷ 100 days ≈ $20M a day` · 10 days → `$200M` · UCLA estimate, L.A. County only ≈$380M: estimates differ
- **Shrinking pie**: "the longer the standoff lasts, the less there is to share" · who can wait longer gets more (L. 9)
- Practice · firm $3M + workers $1M = `$4M a day` · day 10 → $40M · gap **$60M** gone by day **15** (`60 ÷ 4`) · day 20 → $80M · nobody receives it
- 12,000 members: each gains by quietly working while others hold out → **free rider** ("enjoys a group's effort without paying their share") = commons problem (Lesson 6) · answer: union rules

Practice · pie lost · $4M a day



4 How it ended

after ≈100 days

- Feb 12, 2008 · writers: share of download and ad-paid streaming money: flat fee in years 1-2, then **2%** of what the studio earns from a show before costs, after its first **17 days** online · DVD pay unchanged · over **9 in 10** writers who voted → end the strike
- Both settled → **3 / 3** · the model: why it is hard to reach on day one · the clock: what it cost to reach it · it does **not** say who did better (people still disagree)

5 Read any game

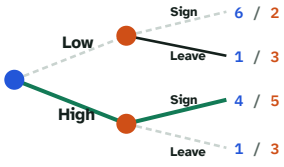
your turn · the course

- Your turn (not graded): your move if the other pitches in (does their share) / slacks (does little) ⇒ slack, slack = **dilemma** · slack, pitch in = **chicken** · pitch in, slack = **coordination** · pitch in, pitch in = **no conflict**
- Best move **whatever** the other does (**dominant strategy**) → dilemma: price war, ad race · the **opposite** → chicken: bridge, fence · the **same** → **coordination game**: dead phones, same plug
- Practice · trade: Tariff dominant (5 > 4, 2 > 1) → **2 / 2** not 4 / 4 = prisoner's dilemma · way out: trade every year (**repeated game**, L. 5)
- Practice · contract, solved backward (**backward induction**: last move first) · Ben's **outside option** (what he gets if talks fail) = 3 → Low fails (3 > 2) → Ana offers High → **4 / 5**

PRACTICE · TRADE TALK · NORTH / SOUTH

	South Open	South Tariff
North Open	4 / 4	1 / (5)
North Tariff	(5) / 1	(2) / (2)

Practice · contract · Ana, Ben



Watch out: "better for both" ≠ stable · chicken has **two** equilibria, a dilemma **one** · a threat counts only if carrying it out pays (or is the only move left) · days of standoff are lost by **both**, not moved from one side to the other