What did the pandemic teach economists?

AD and AS, a lockdown moves both curves at once, two shocks hide each other, a stimulus into a supply shock, timing, which events move AD and which AS, the US in 2020-22, the debate on the inflation of 2022, checklist sign 9.

1 AD and AS

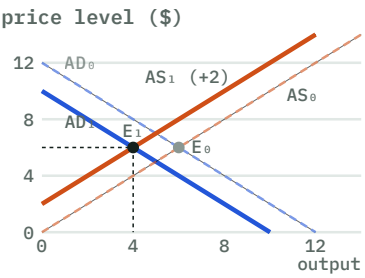
Macroeconomics, Lesson 4

- **Aggregate demand (AD)** = total spending at each price level · **aggregate supply (AS)** = total output firms make at each price level
- Coralia (toy island): AD `P = 12 − Y` · AS `P = Y` · Y = output (units), P = price level ($)
- Crossing: `A − Y = Y + s` → `Y = (A − s) ÷ 2`, `P = (A + s) ÷ 2` → **output 6, price level $6**
- **Spending** moves AD · **costs and capacity** of firms move AS (Lesson 5: supply shock = sudden rise in firms' costs)

2 Lockdown

both curves move

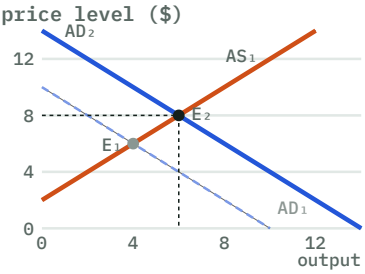
- **Lockdown** = order to stay home, many businesses closed → **both** curves move at once
- Less spending → **AD left** `12 − Y → 10 − Y` (alone: output 5, $5)
- Closed factories, parts stuck on the way → each unit **$2 more** → **AS up** `P = Y + 2`
- `10 − Y = Y + 2` → output `6 → 4`, price level **$6 → $6**: the price effects cancel ⇒ 2020 looked like a demand problem
- Unequal shocks (practice): AD `8 − Y`, AS `Y + 2` → output 3, **$5**: bigger fall in spending ⇒ prices ↓ · price change = (AS shift − AD shift) ÷ 2



3 Stimulus

Economic Policy, Lesson 8

- **Stimulus** = public spending or cheap loans meant to lift demand → **AD right**
- Checks + cheap borrowing → AD `14 − Y`, AS **still** `Y + 2` → output back at **6**, price level `$6 → $8`
- ⇒ same output, higher prices = **inflation** (prices rising across the economy): demand came back **before** supply
- Timing (practice, Palmera AS `Y + 2`): output 5 → **$7**, AD `12 − Y` · supply back (`P = Y`) → **$5** · gap $2



4 AD or AS?

sort the event

- **AD** (spending): stimulus checks, savings spent, restaurants empty, interest rates near zero
- **AS** (costs, capacity): factories closed, ships queuing at ports, chip shortage, workers sick, energy pricier
- Equal shocks (practice): AD −3, AS +3 → `9 − Y = Y + 3` → output 3, price level stays **$6**

5 2020-23

the real story, US

- Unemployment **3.5%** (Feb 2020) → **14.8%** (Apr 2020): biggest one-month jump since 1948, ≈20 million jobs lost in April (BLS = US office for jobs and prices)
- Real GDP (value of all output, price changes out) ≈**−8%** in one quarter (Q1 → Q2 2020) · the "−30%" = same fall as a yearly pace
- **CARES Act** (Mar 2020) ≈**$2.2 trillion**, $1,200 checks · **American Rescue Plan** (Mar 2021) ≈**$1.9 trillion**, $1,400 checks
- Container shipping `$1,420 (2019) → $10,377 (Sept 2021)` ≈ ×7 (Drewry, shipping consultants)
- Inflation **9.1%** US (June 2022, highest in ≈41 years) · **10.6%** euro area (Oct 2022), energy 4.4 points
- Fed (the US central bank): "transitory" (= temporary) in 2021, word dropped 30 Nov 2021 · rate `0–0.25%` → 11 rises (Mar 2022 – July 2023) → `5.25–5.50%`

6 Debate, checklist

checklist sign 9

- What caused 2022? **Too much demand**: checks + low rates, more spending than the economy could make · **Too little supply**: ports, parts, workers, energy after Russia invaded Ukraine (Feb 2022) · **Both**: the debate is how much each · no verdict
- Practice: "the checks alone caused it" → **goes beyond the facts** (supply shocks too)
- **Bubble checklist** · **Sign 1 · Bought to resell** · **Sign 2 · Money is a promise** · **Sign 3 · A run fills itself** · **Sign 4 · Printing to pay** · **Sign 5 · A supply shock cuts both ways** · **Sign 6 · Debt outlives the bubble** · **Sign 7 · Leverage turns a dip into a wipe-out** · **Sign 8 · A debt in a money you cannot print** · **Sign 9 · Two shocks at once hide each other**

Watch out: a lockdown moves **both** curves · flat prices ≠ no supply shock: a fall in spending can hide it · output back ≠ prices back · spending moves **AD**, costs and capacity move **AS**