

Monetary Policy Under Okun's Hypothesis

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 - Even after aggregate indicators return to trend, **earnings at the bottom continue to lag**
- Reducing the entire distribution to its **average can easily miss the mark**

New Objective: An Inclusive Recovery

- Distributional considerations have also forced their way into monetary policy

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- In the aftermath of a recession, objective of monetary policy expanded its scope from:
sustaining aggregate economic activity → pursuing a broad-based and inclusive recovery
- Pursuing an inclusive recovery requires running the economy hot for longer (**lower for longer**)
 - **Pro:** no group/community is left behind
 - **Con:** risk of higher inflation

→ **Key trade-off: inclusion vs inflation**

Okun's Hypothesis

ARTHUR M. OKUN*

Brookings Institution

*Upward Mobility in a
High-pressure Economy*

- Sustaining a high-pressure economy can deliver lasting gains for low-wage workers by allowing them to find steady employment, rebuild their skills, and climb the job ladder.

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Upward Mobility in a High-pressure Economy

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- Okun was also aware that a high-pressure economy implied an **inflation-inclusion trade-off**

“The sacrifice of upward mobility must be reckoned as one high cost of accepting slack as an insurance policy against inflation.”

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- The US post-pandemic recovery offers some **support for Okun's hypothesis** ... and a **reminder of its cost**
 - *“The unexpected compression”* (Autor, Dube and McGrew, 2023)
 - ... together with an inflation surge that eroded (much?) of those gains

What do we do?

- We build a **quantitative model** to assess Okun's hypothesis across the skill distribution
 - HANK model where workers move between employment, unemployment, and nonparticipation
 - **Okun's hypothesis** at work through **exposure + attachment + persistence**
 - Three channels disciplined by US worker flows and earnings losses

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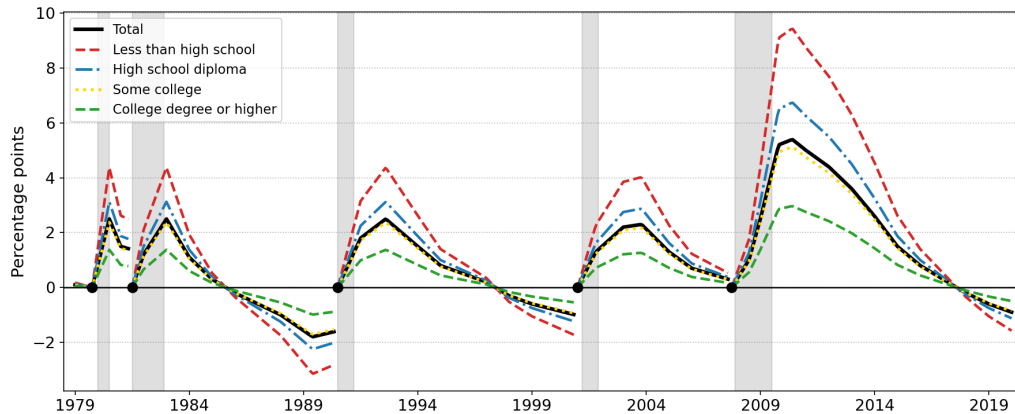
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 - Three channels disciplined by US worker flows and earnings losses
- Quantify the inflation-inclusion trade-off generated by a **lower-for-longer monetary policy rule**
 - **Very favorable trade-off (especially at the ZLB)**: lasting gains at the bottom, small inflation bias
 - The strategy **becomes risky** when expectations are not anchored or capacity constraints bind

Outline

1. Labor Market Hysteresis: Okun's Hypothesis
2. Model
3. Inflation-inclusion trade-off
4. When is the trade-off more difficult to navigate?
 - De-Anchoring of Inflation Expectations
 - Capacity Constraints on Production

Labor Market Hysteresis: A Microfoundation Based on Three Channels

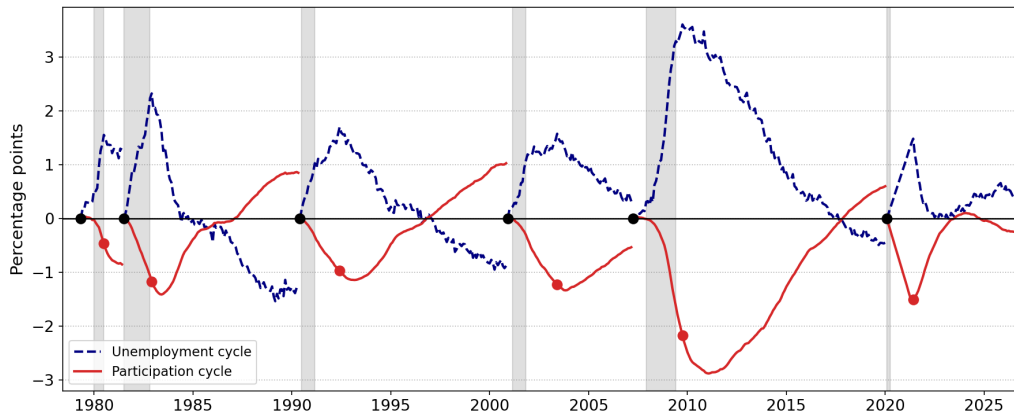
Channel I: Unemployment Exposure



Source: Aaronson et al. (BPEA 2019)

- Unemployment of **low-skill workers** is much more sensitive to the business cycle

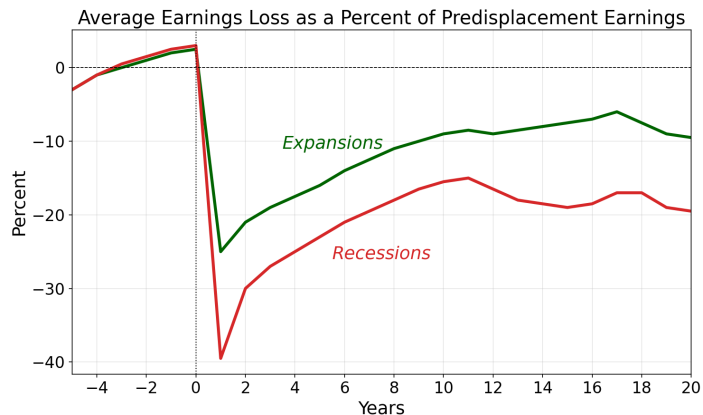
Channel II: Labor Force Attachment



Source: Hobijn-Sahin (Jackson Hole 2021)

- Unemployment is a **stepping stone into non-participation** (UN flow $\simeq 22\%$ $\gg$ EN flow)

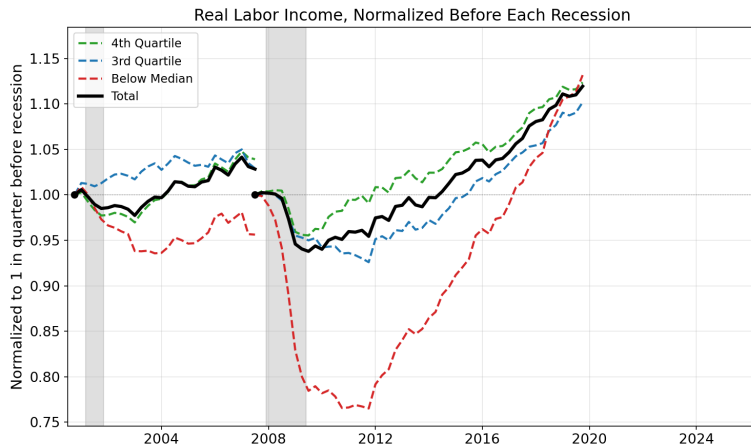
Channel III: Persistence



Source: Davis-von Wachter (BPEA 2011)

- Job displacement leaves **persistent earnings losses**

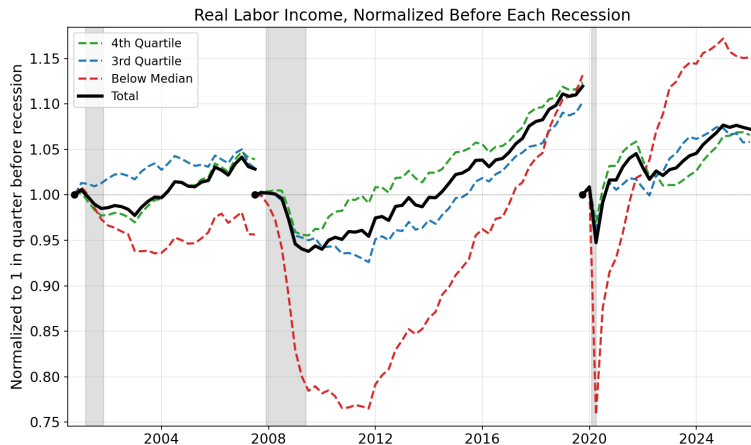
Combining These Three Channels



Source: Blanchet-Saez-Zucman (Real Time Inequality 2026)

- Long-lasting consequences of temporary shocks on earnings at the **bottom of the distribution**

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- Long-lasting consequences of temporary shocks on earnings at the **bottom of the distribution**
- COVID: the deepest drop at the bottom, but a **strong and fast recovery** in a hot labor market

Model

Okun's Three Channels in a HANK Model

- **Heterogeneity:** labor market status (E, U, N), skills (labor productivity), and wealth

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- **Three Okun channels:**
 - Exposure** job-loss and job-finding rates vary with skill and the cycle
 - Attachment** unemployment makes workers more likely to exit the labor force
 - Persistence** skills grow slowly on the job, but erode quickly off the job
- **Calibration:** US micro and macro evidence on worker flows and earnings
[level and cyclicalities of stocks and flows by worker skill level, earnings losses upon displacement, earnings growth, ...]

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[level and cyclicalities of stocks and flows by worker skill level, earnings losses upon displacement, earnings growth, ...]
 1. Anchored long-run inflation expectations (solution method)
 2. Flat Phillips curve (pre-COVID calibration)

Two Rules: Inflation Targeting and Lower for Longer

- **Inflation Targeting (IT)**: Taylor rule, subject to the ZLB

$$\frac{di_t}{dt} = -\beta_i \left(i_t - i^* - 2.25(\pi_t - \pi^*) + 0.15(u_t - u^*) \right) \quad \text{s.t.} \quad i_t \geq 0$$

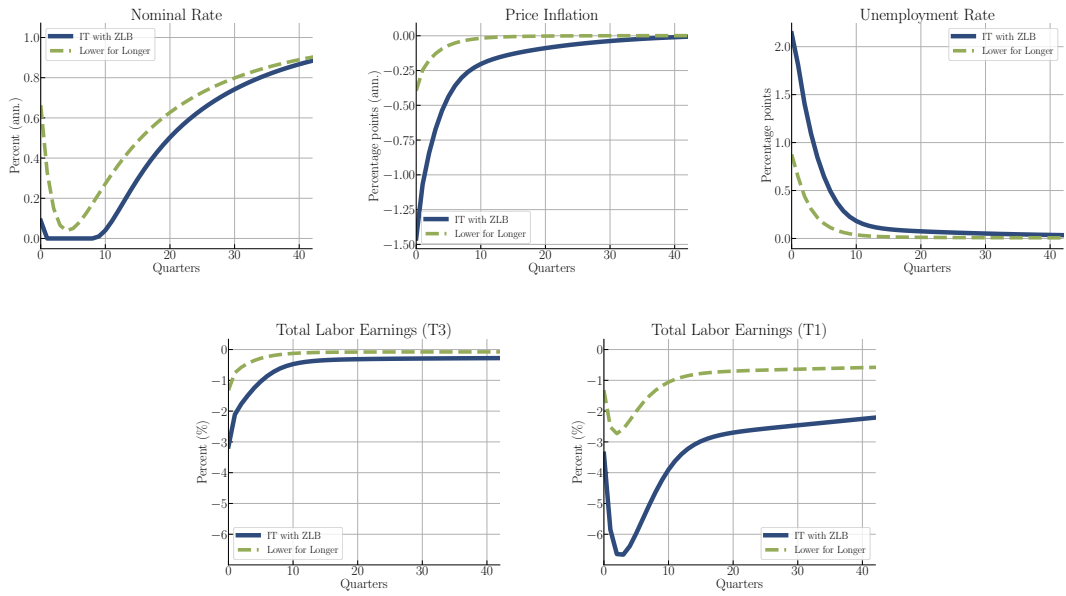
- **Lower for Longer (Lfl)**: motivated by two changes in the Fed's 2020 framework

AIT: lower rates while past inflation is below target

$$\frac{di_t}{dt} = -\beta_i \left(i_t - i^* - 2.25(\pi_t - \pi^*) - \underbrace{8.00(\pi_t^{MA} - \pi^*)^-}_{\text{Shortfalls: no tightening when the labor market is strong}} + \underbrace{0.15(u_t - u^*)^+}_{\text{Shortfalls: no tightening when the labor market is strong}} \right) \quad \text{s.t.} \quad i_t \geq 0$$

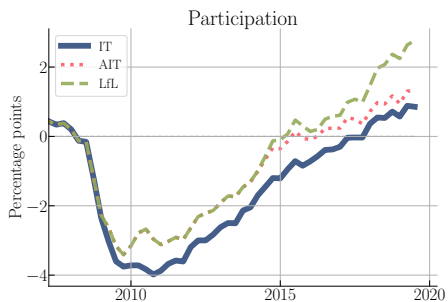
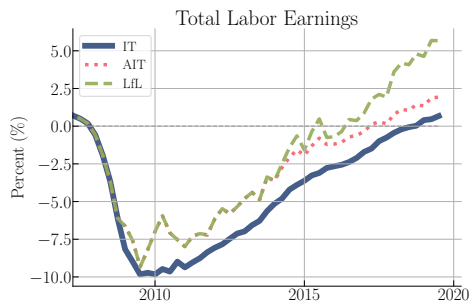
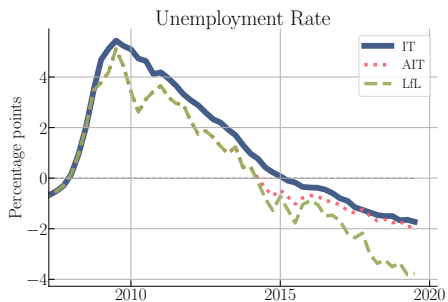
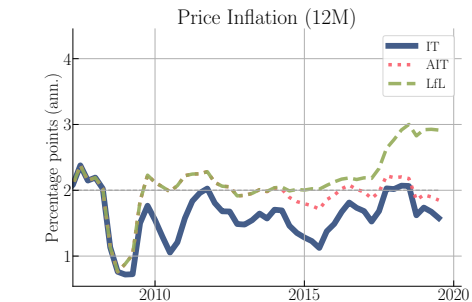
One Recession, Two Rules

LfL serves as an “antidote” to negative hysteresis at the ZLB [Alves-Violante 2024]



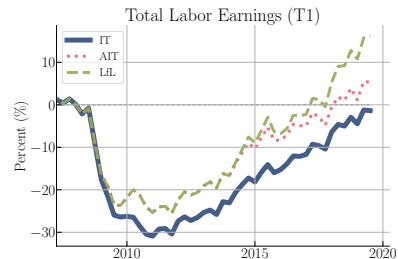
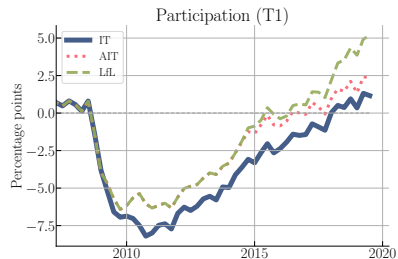
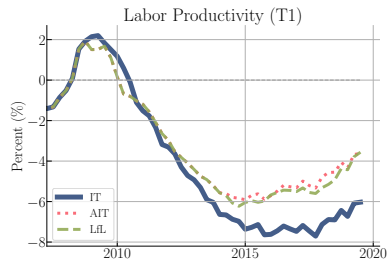
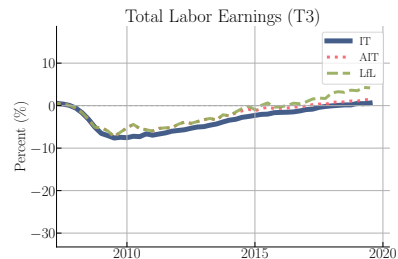
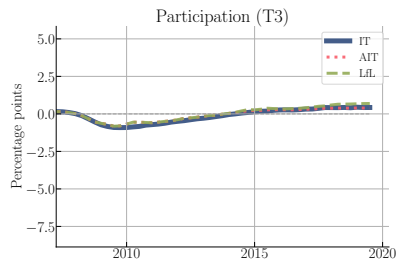
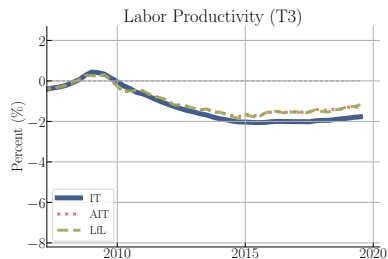
Great Recession Counterfactual: LfL instead of IT

Aggregates



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Distribution



Over Many Cycles: Large Gains at a Small Inflation Cost

	Inflation Targeting	Lower for Longer
Time at the ZLB (%)	15.2	6.6
Time in recession / in boom (%)	14.0 / 2.1	6.4 / 16.4
Unemployment rate (pp)	+0.5	−0.1
Labor earnings, T3 (%)	−1.7	+0.4
Labor earnings, T1 (%)	−9.0	+3.8
T1 participation (pp)	−1.7	+0.7
T1 labor productivity (%)	−3.5	+1.7
Inflation (bp from target)	−17	+25

Averages over a long simulation. Recession (boom): unemployment at least 1 pp above (below) steady state.

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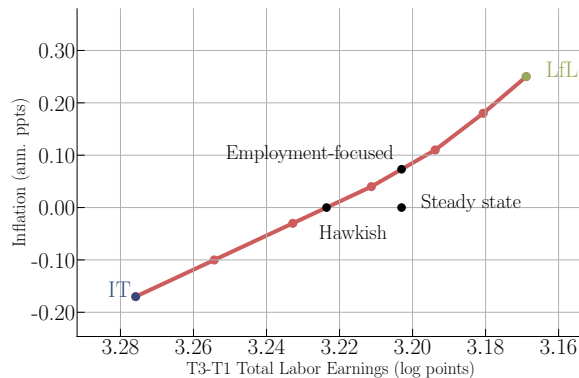
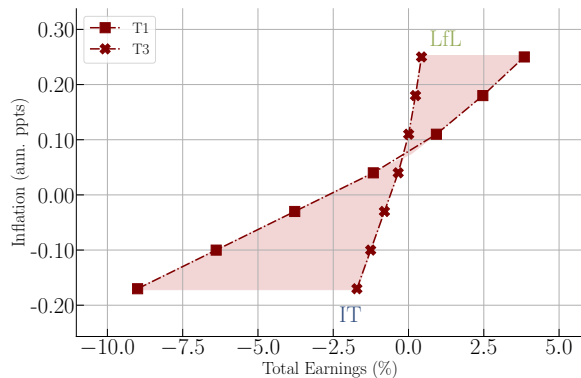
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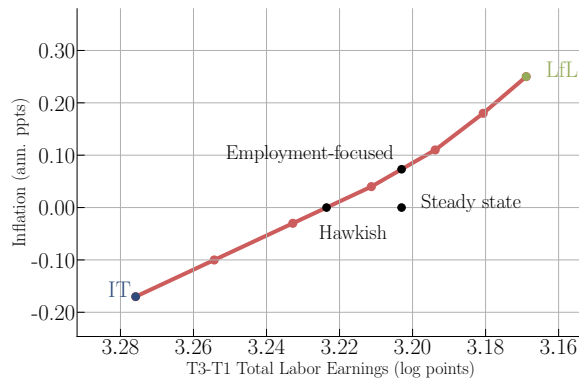
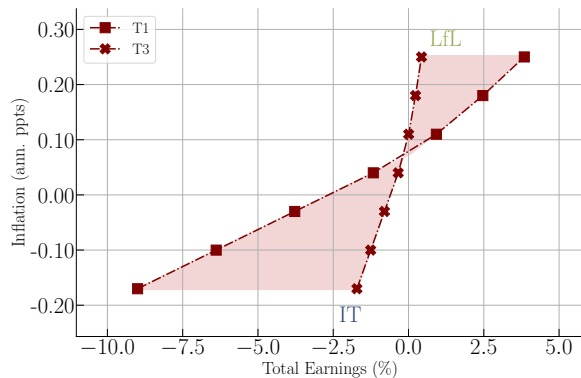
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- **The inflation cost:** average inflation goes from 17bp below target to 25bp above

Okun's Cones: A Menu for Policymakers



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- **Hawkish**: zero average inflation bias, and the T3-T1 earnings gap 5 log points narrower

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 1. **Long-run inflation expectations are anchored at target** —Phillips curve doesn't shift up
→ *What if households and firms anticipate the inflationary bias?*
 2. **Additional demand is cheap in inflation terms** —Phillips curve remains flat
→ *What if productive capacity is constrained, as in the 2021–22 pandemic recovery?*
- Relax each condition in turn and ask what happens to the **inflation–inclusion trade-off**

De-Anchoring Risk

What If the Inflationary Bias Is Anticipated?

- **Baseline solution (sequence of MIT shocks):** agents correctly anticipate the response to existing shocks, but do not internalize the inflationary bias created by future shocks
- **Alternative (Stochastic Extended Path):** agents integrate over future shocks up to H quarters ahead
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	$H = 0$	$H = 8$	$H = 16$	$H = 24$
Average inflation (pp)	0.333	0.445	0.519	0.541
Expected inflation, 5yr ahead (pp)	0.111	0.184	0.320	0.546
Unemployment rate (pp)	-0.242	-0.163	-0.073	-0.037
<i>Unemployment gain surviving</i>	100%	67%	30%	15%

Exercise without the ZLB; compare across horizons. H is how far ahead agents integrate over uncertainty.

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- Average unemployment gain melts to **15%** → **long-run neutrality for average unemployment**

Inclusion Gains Survive De-anchoring

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Earnings gap, T3—T1 (%)	−4.995	−4.936	−4.052	−2.748
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<i>Earnings-gap narrowing surviving</i>	100%	99%	81%	55%

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<i>Earnings-gap narrowing surviving (no participation, no scarring)</i>	100%	65%	31%	12%

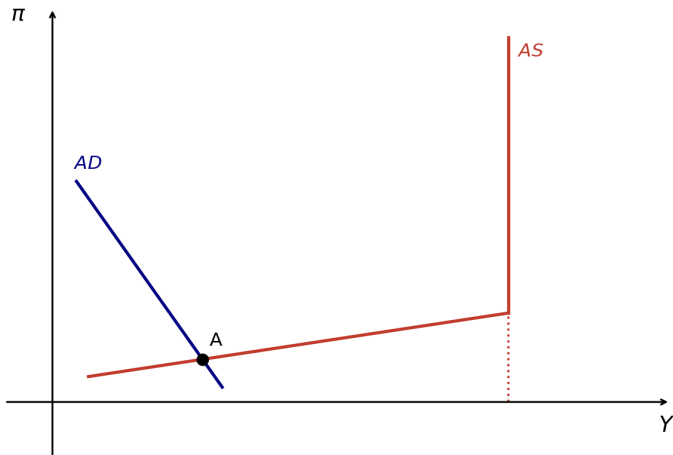
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- In a model without participation and skill scarring, retention falls to **12%**

The Pandemic and Capacity Constraints

Running the Economy Hot Against a Capacity Constraint

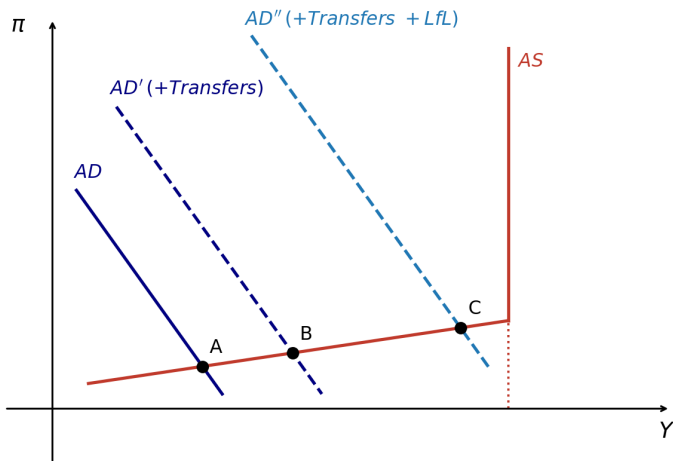
Alves and Violante, Stabilization Policy in the Wake of the Pandemic (2025)



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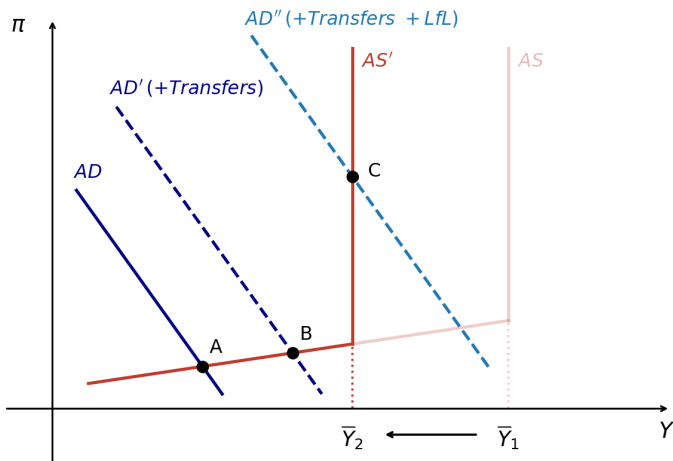
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⇒ with ample capacity, output recovers with little inflation

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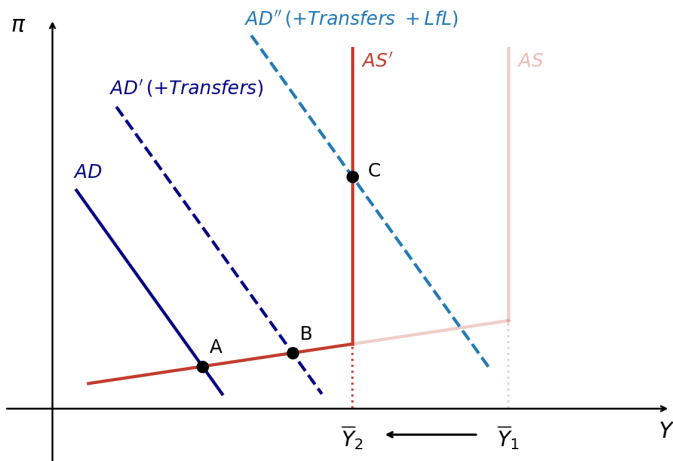
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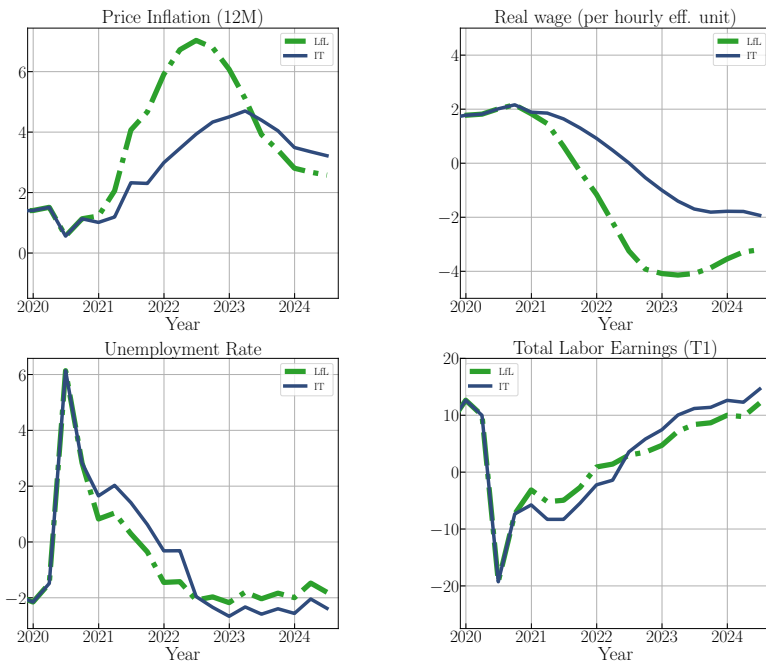
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- **Counterfactual:** keep fiscal support, replace LfL with IT—what happens to earnings at the bottom?

Pandemic Counterfactual: IT instead of LfL



- When capacity binds, real-wage erosion can outweigh the gains from a faster employment recovery

Conclusion

- A lower for longer strategy delivers what Okun conjectured

A high-pressure economy offers lasting gains for low-wage workers at a small inflation cost

- That holds as long as expectations stay anchored and the Phillips curve remains flat
- It can be **risky** if:
 - inflation expectations become **unanchored**
 - accompanied by fiscal support and **capacity constraints are close to binding**
 - financial stability risk is a concern

Thank you