Inflation Spirals

Based on joint work with Iván Werning

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Booth Management Conference 2024

How do we think about inflation

- The Quantity Theory of Money (Too much money…)

- Demand > Supply (Phillips Curve)

- Expectation Augmented Phillips Curve (Anchoring)

- Fiscal Dominance (Argentina)

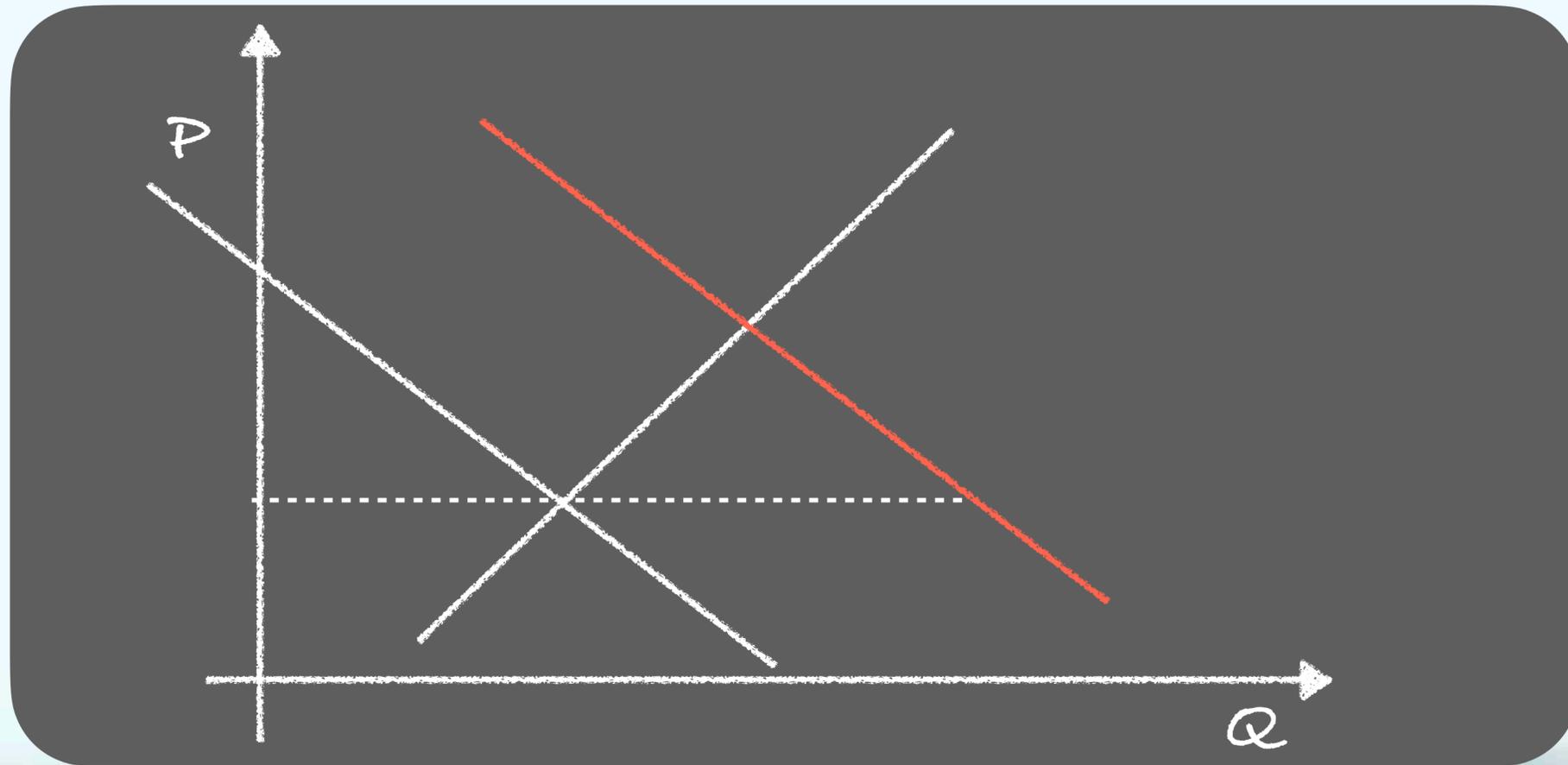# Two economists who got it right

What did they use?

- Fancy forecasting?

- New economic thinking?
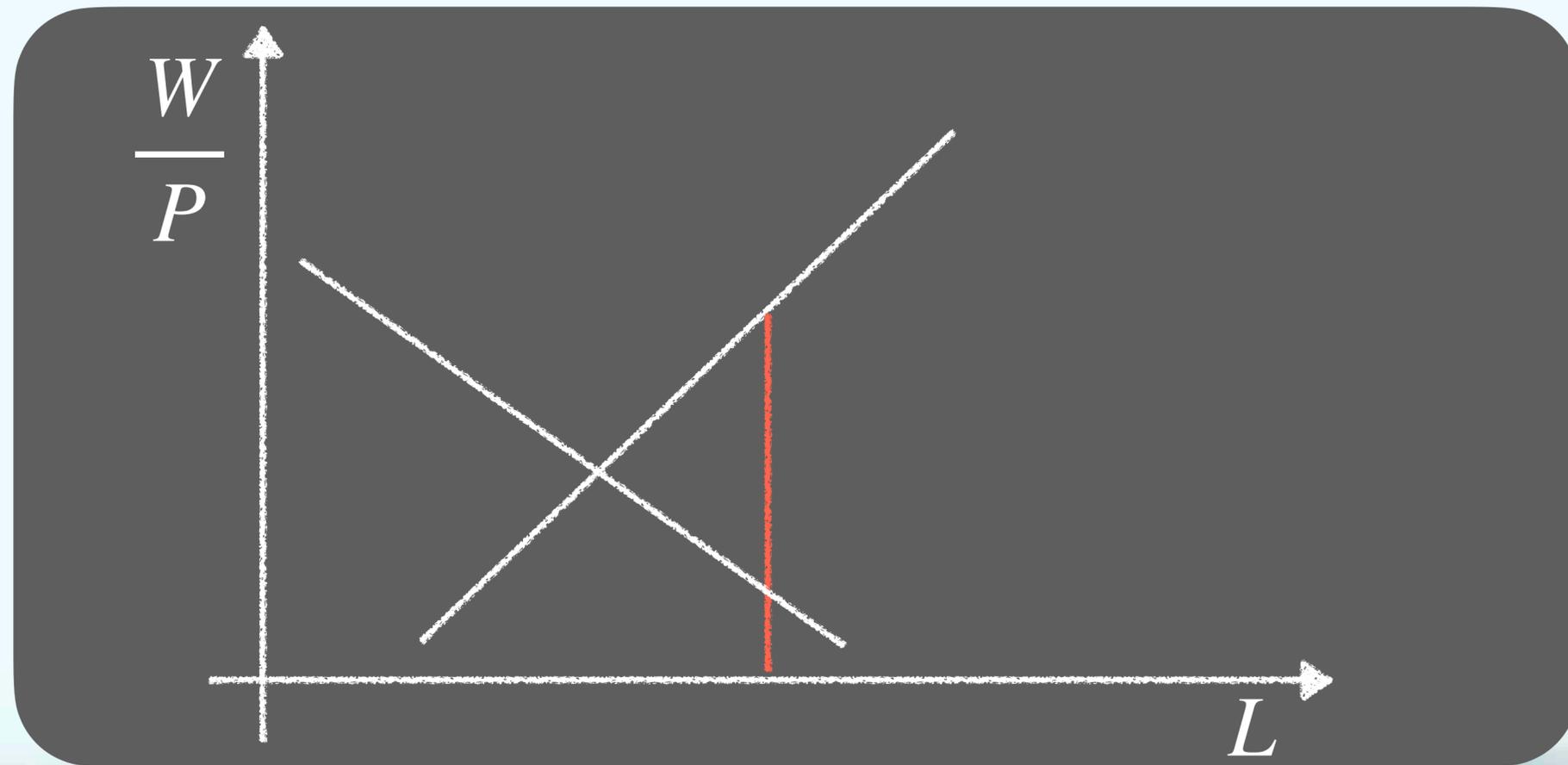
- AI?

- No, a good old fashioned Phillips curve

Logic of Phillips curve

- Easy to think when demand > supply prices go up
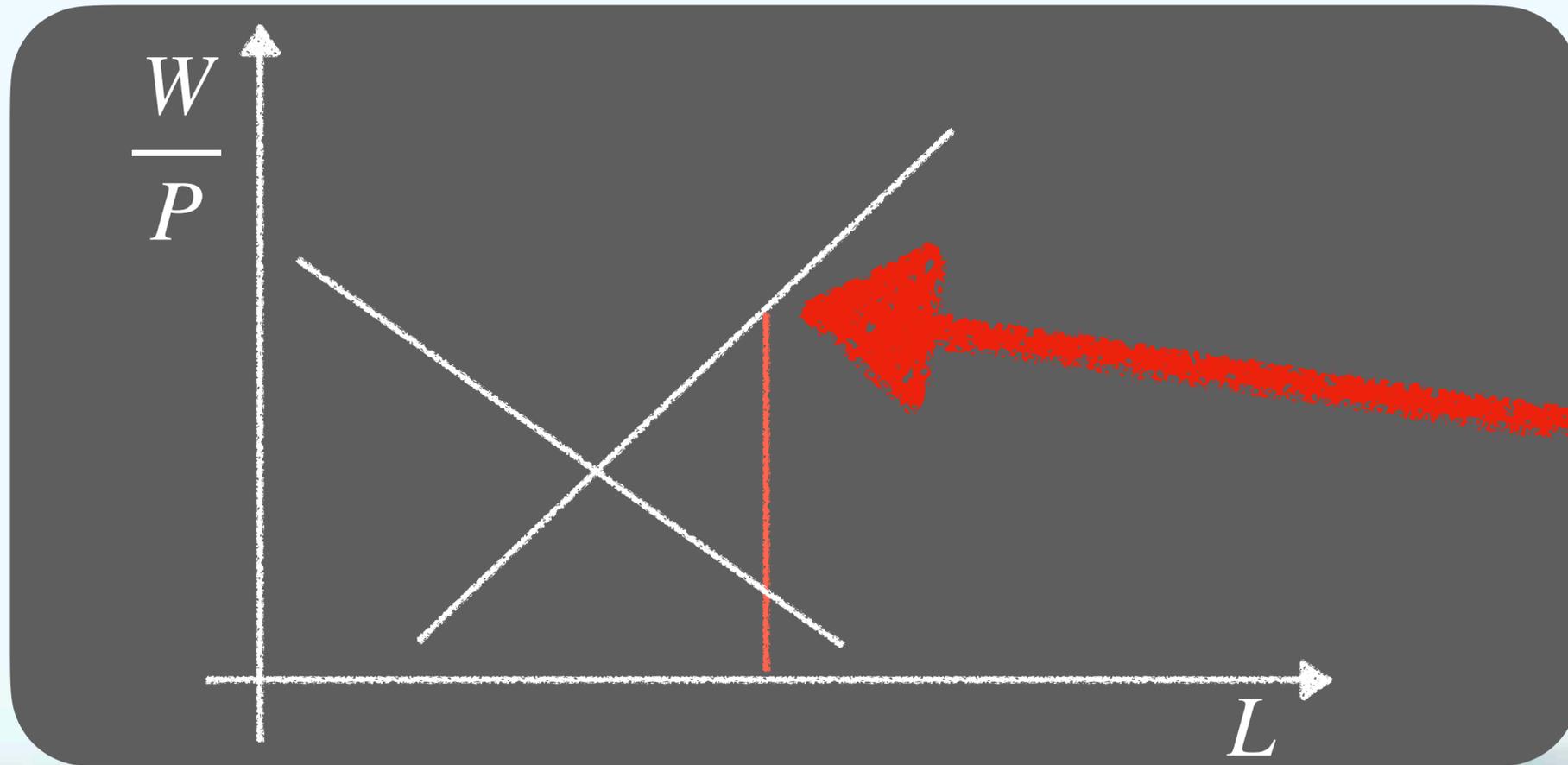
- But that is about a price *level*, not about inflation

Logic of Phillips curve

- Better way to think about it

- **Relative prices are "off"**
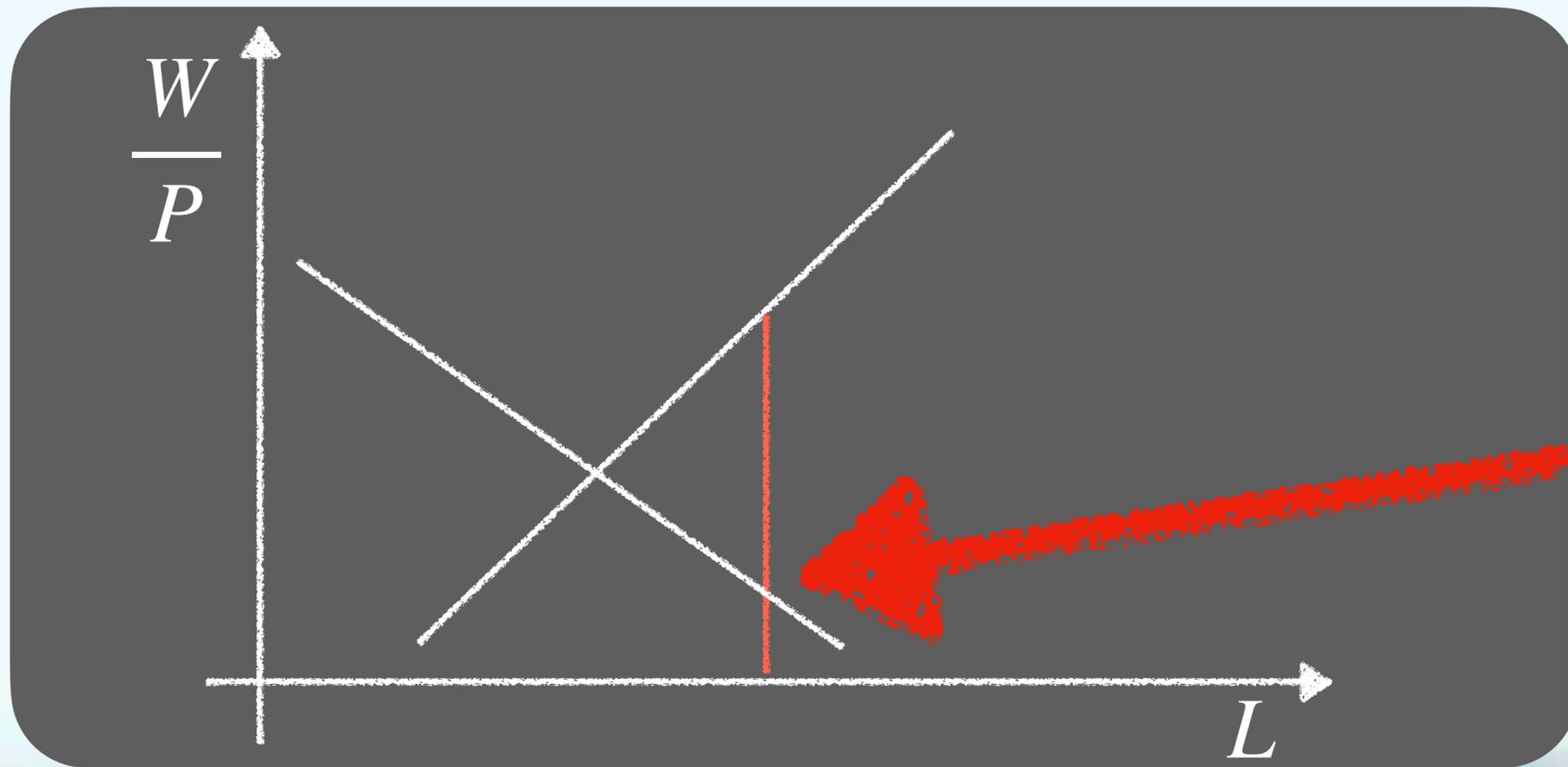
"Conflict" inflation

- Better way to think about it

- **Relative prices are "off"**

Workers want this wage

"Conflict" inflation

- Better way to think about it

- **Relative prices are "off"**

Firms want this wage

Staggered demands

- Every time workers can negotiate they try to bring $\dfrac{W}{P}$ up

- How? They increase W

- Every time firms adjust price they try to bring $\dfrac{W}{P}$ down

- How? They increase P

- **Spiral!**

- Important: workers do not buy the goods they produce, so it's not a micro problem of coordination. It's a macro problem
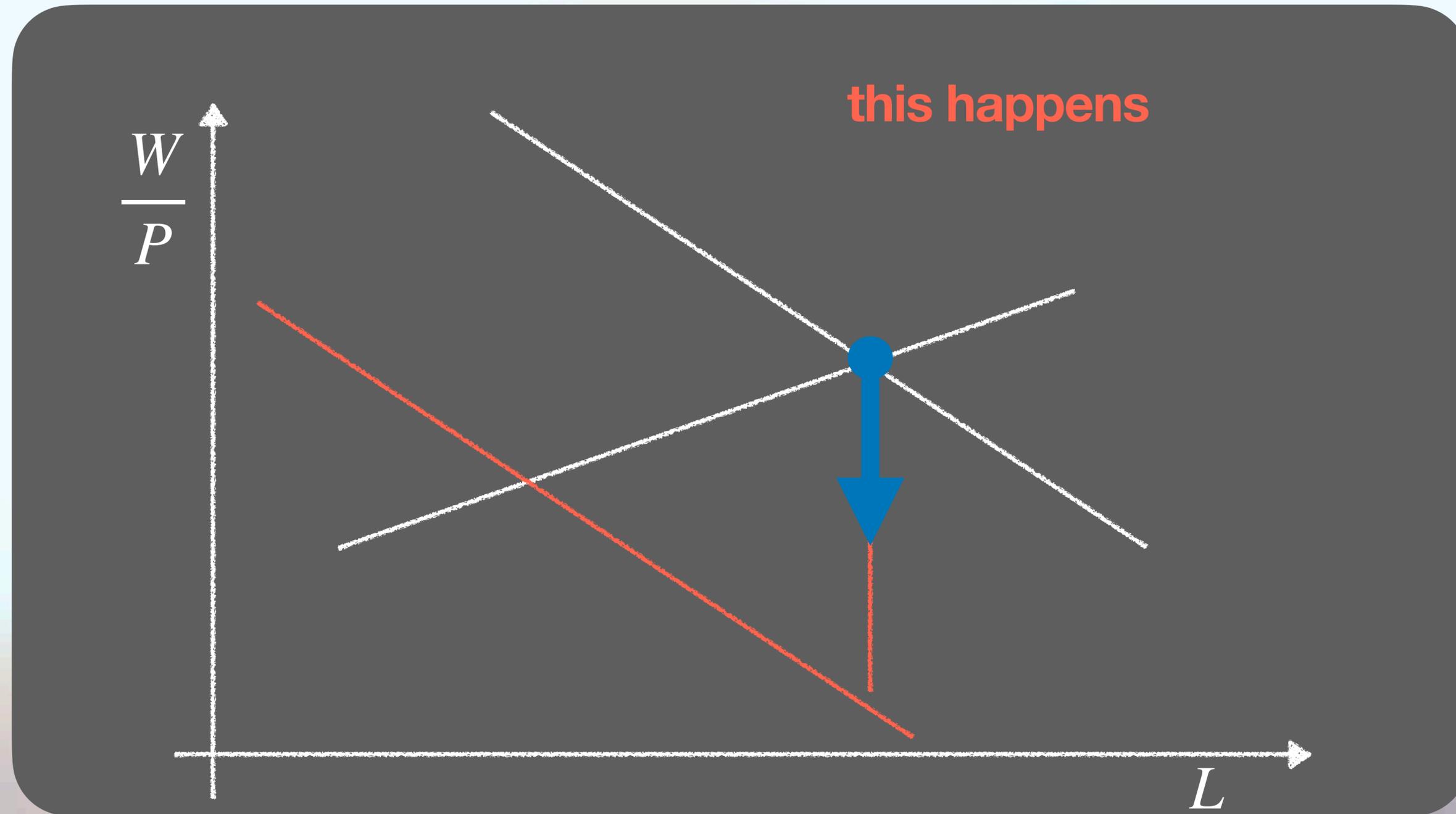
Underlying problem

- "Overheating"

- **Macro shocks and policy** are keeping the economy at $L > L*$
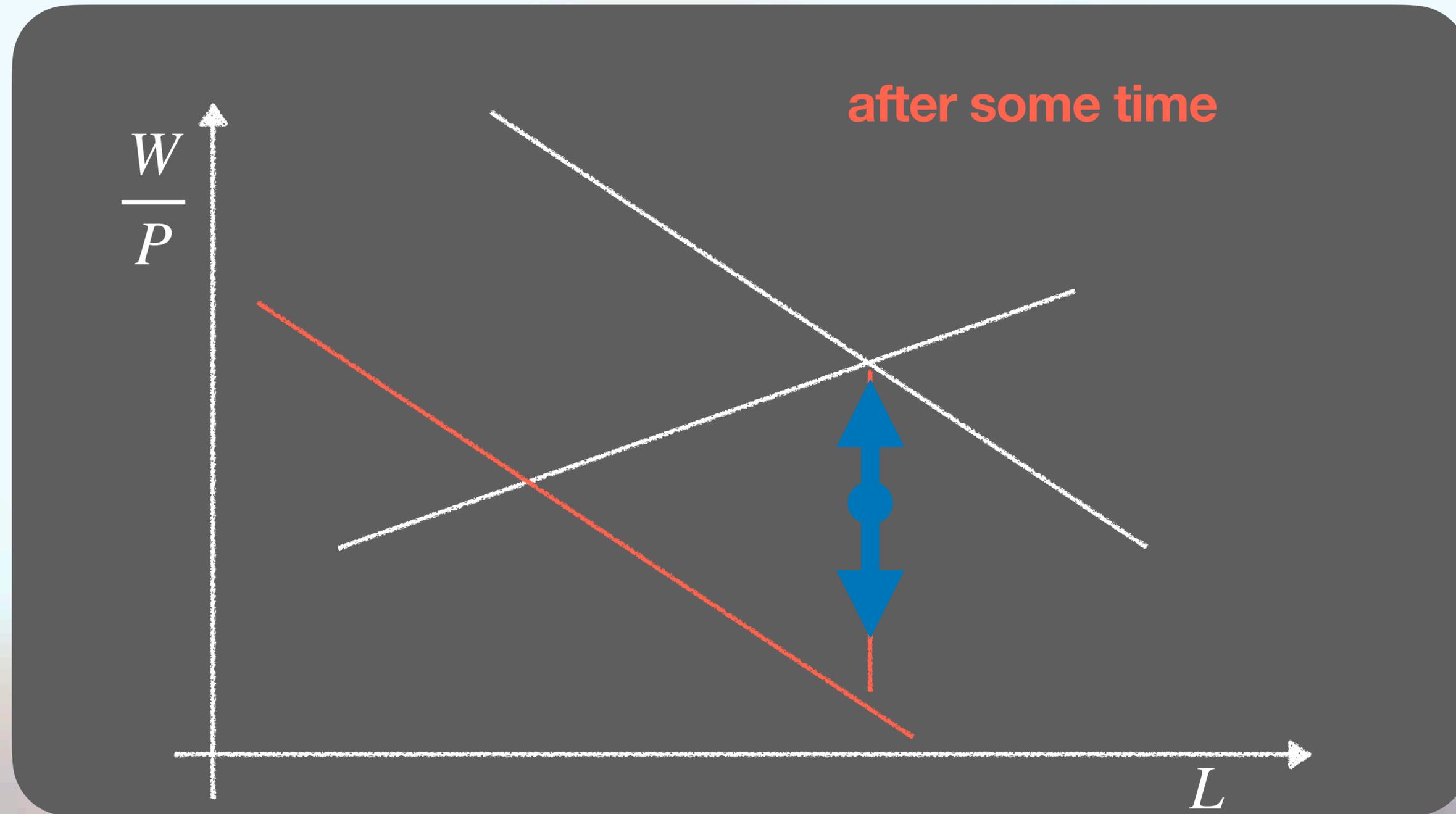
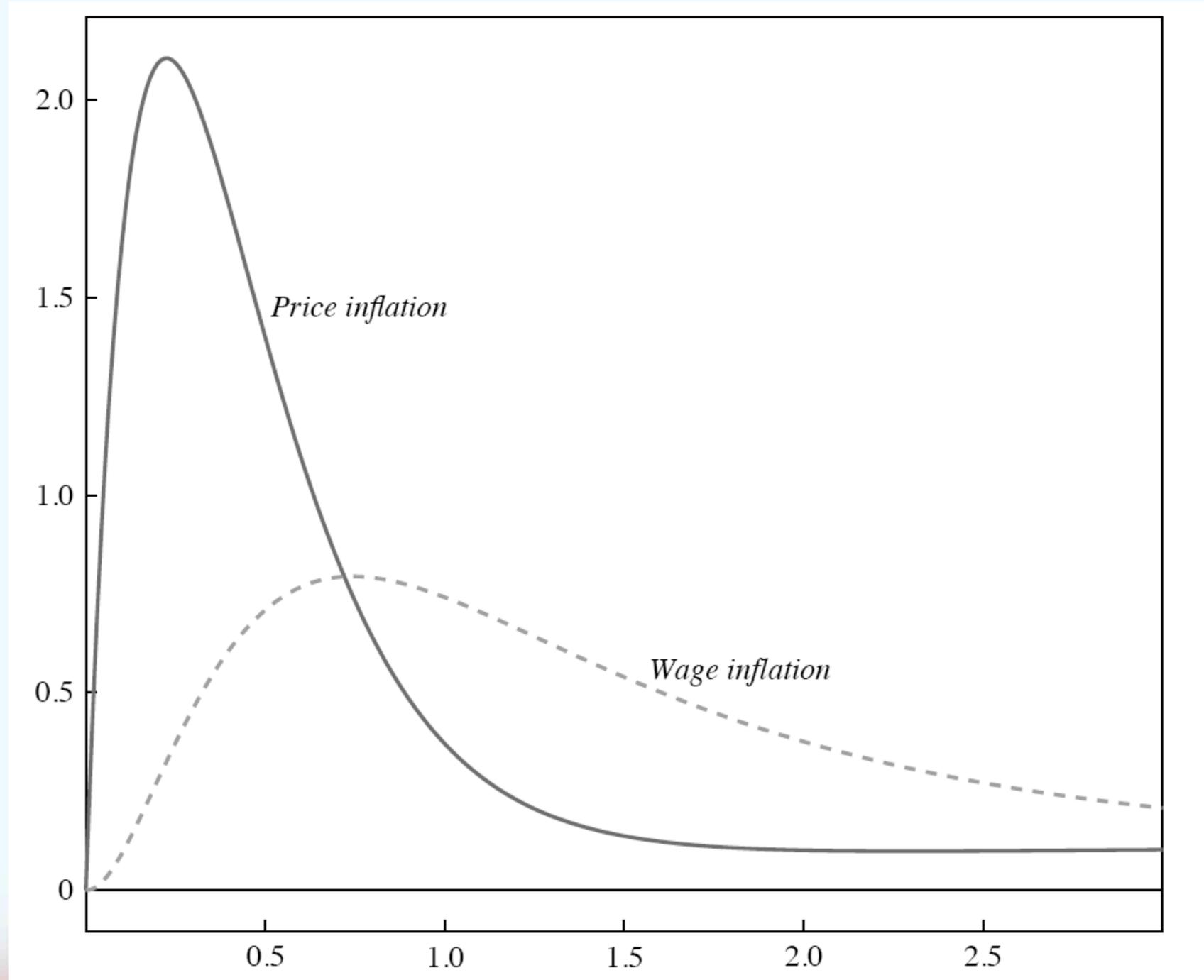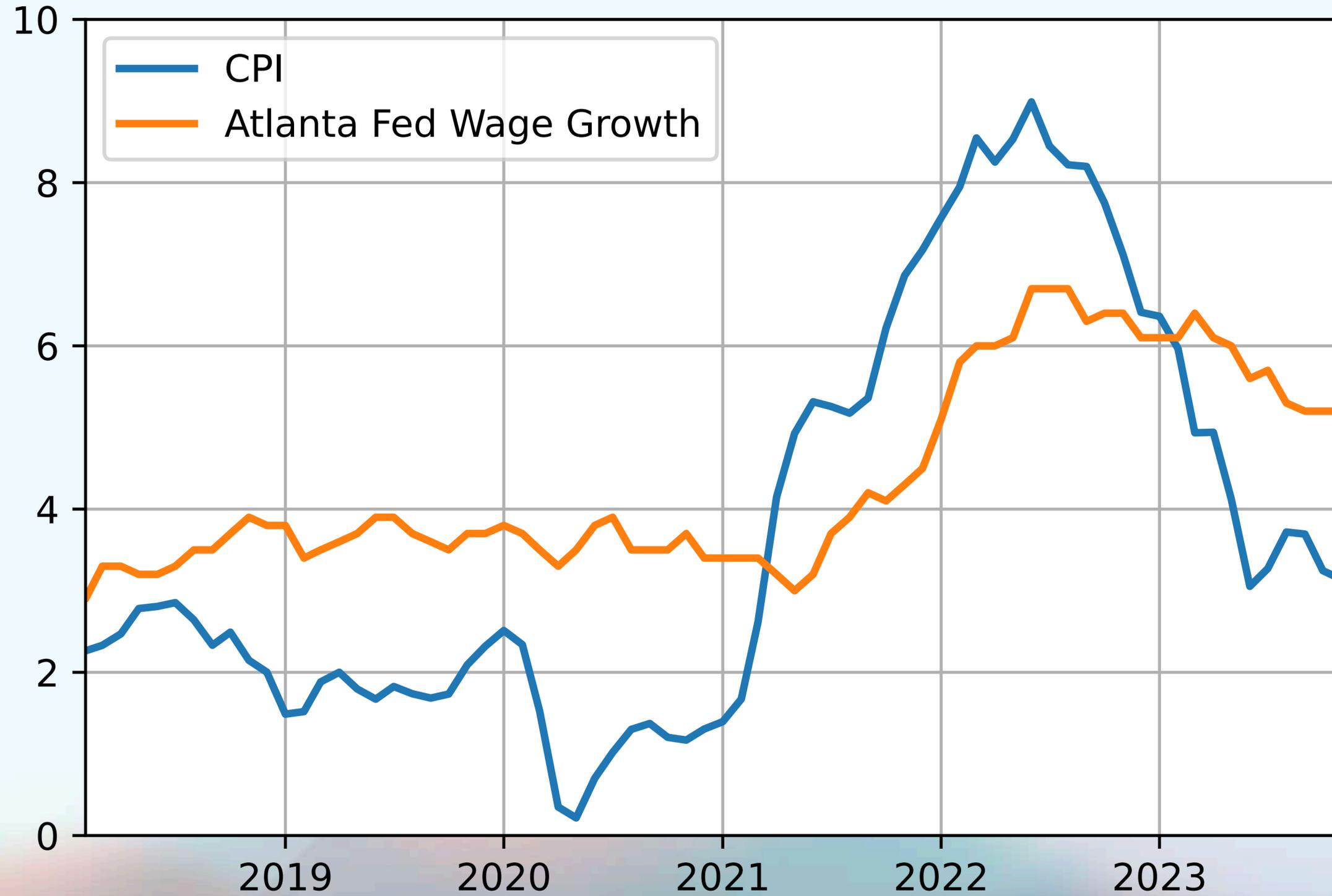- It is always about excess demand
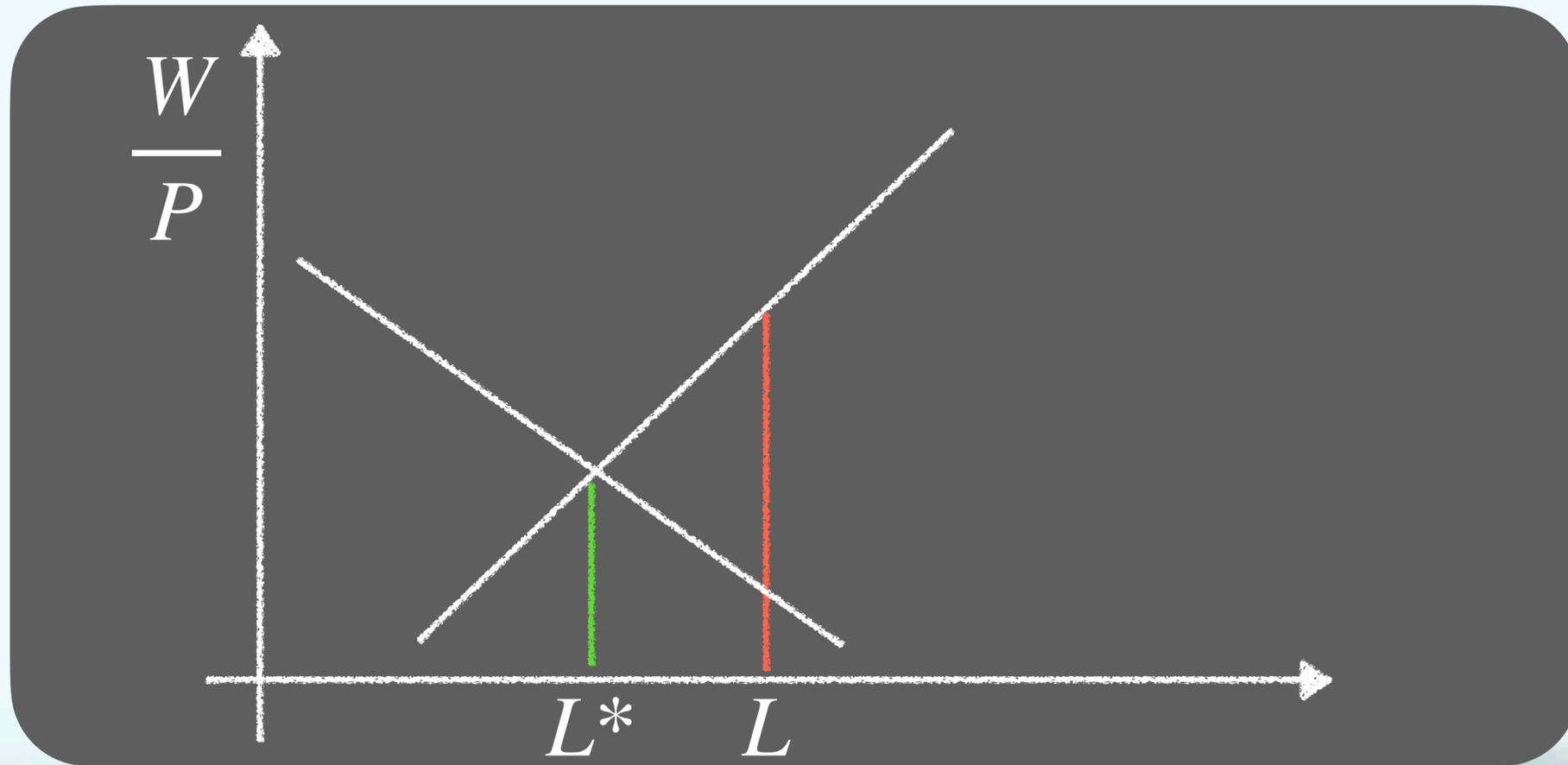
A Supply Shock
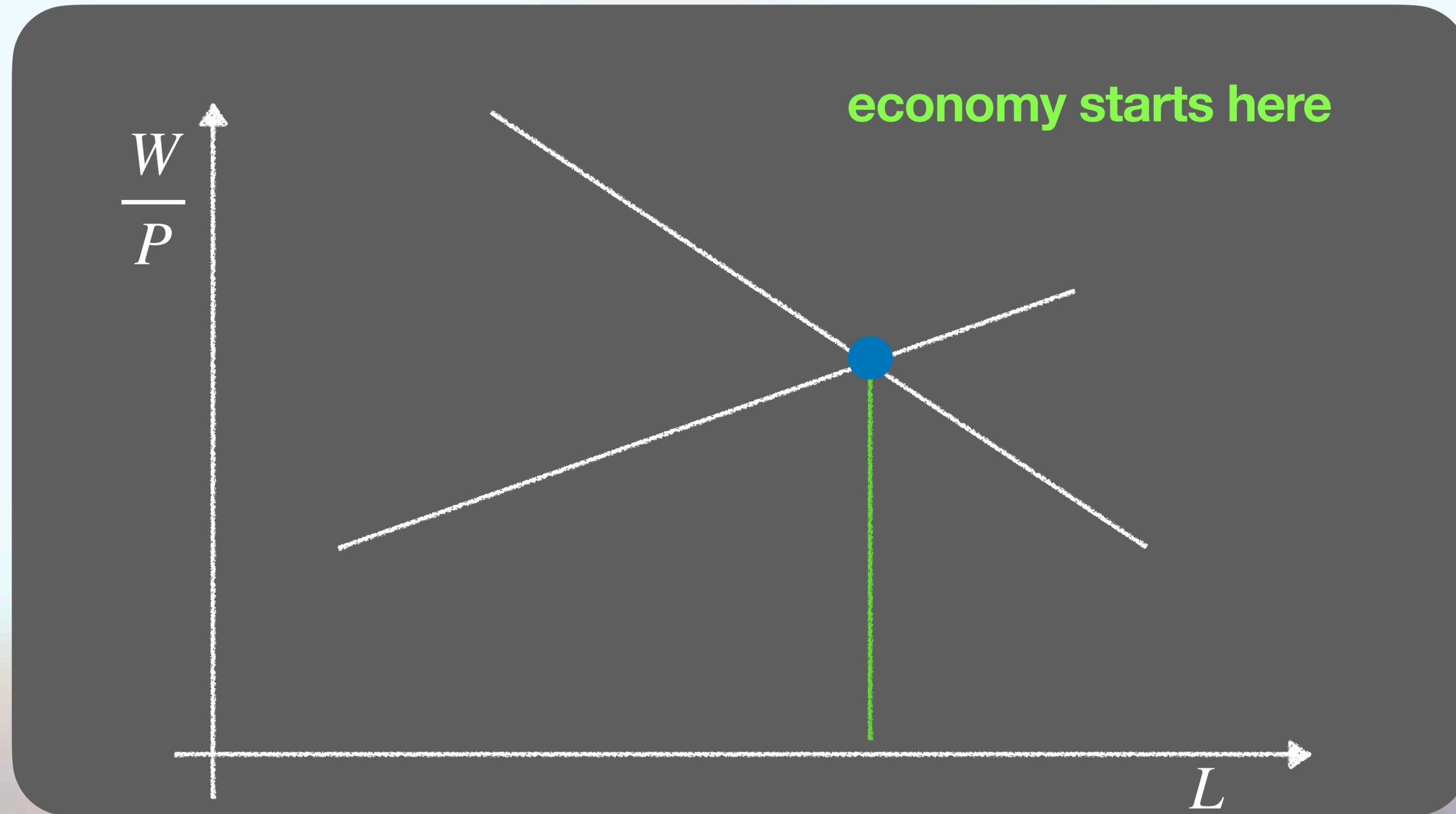
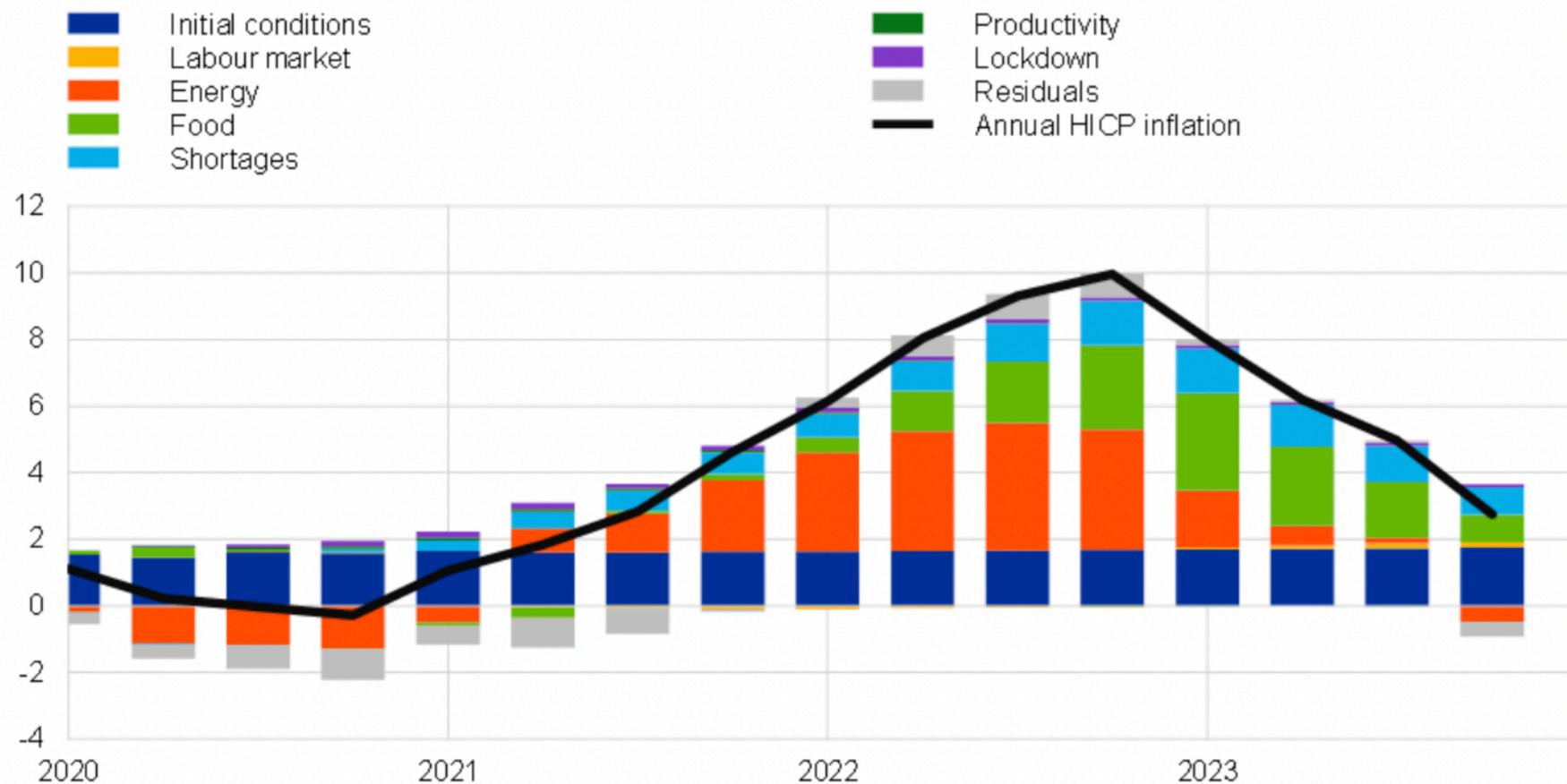# A Supply Shock

A Supply Shock

Two waves

Two waves

Empirical

- Price inflation = λ_p (w - p + supply shocks from non labor inputs)

- Wage inflation = λ_w (labor market pressure - (w - p))

- Decompositions along these lines (Bernanke&Blanchard + central banks)

Sources of annual price inflation in the euro area

Annual percentage changes and percentage point contributions

Legend:
- Initial conditions
- Labour market
- Energy
- Food
- Shortages
- Productivity
- Lockdown
- Residuals
- Annual HICP inflation

Source: ECB, Arce et al (2024)

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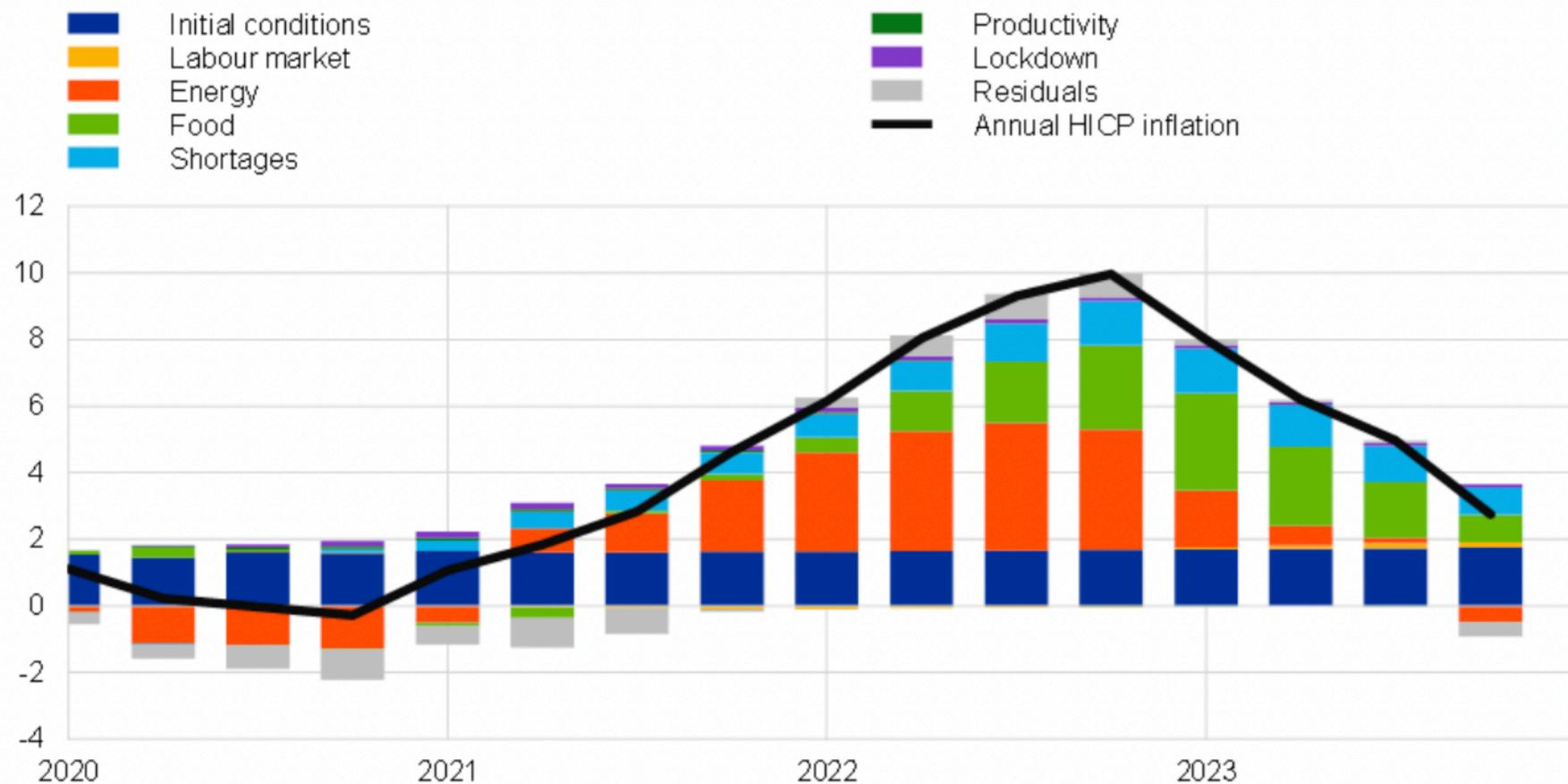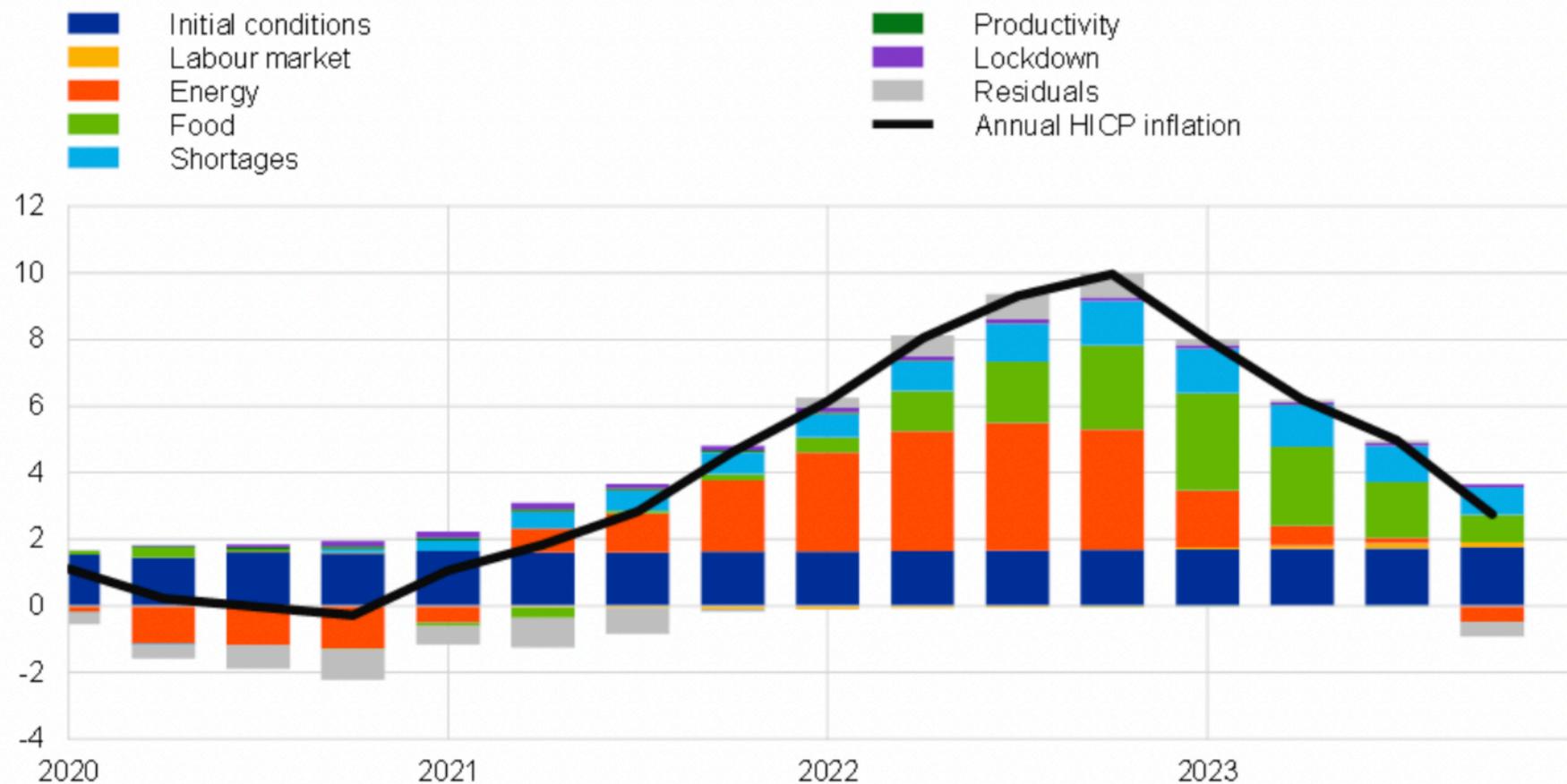|	
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Where did supply shocks come from?

- Energy
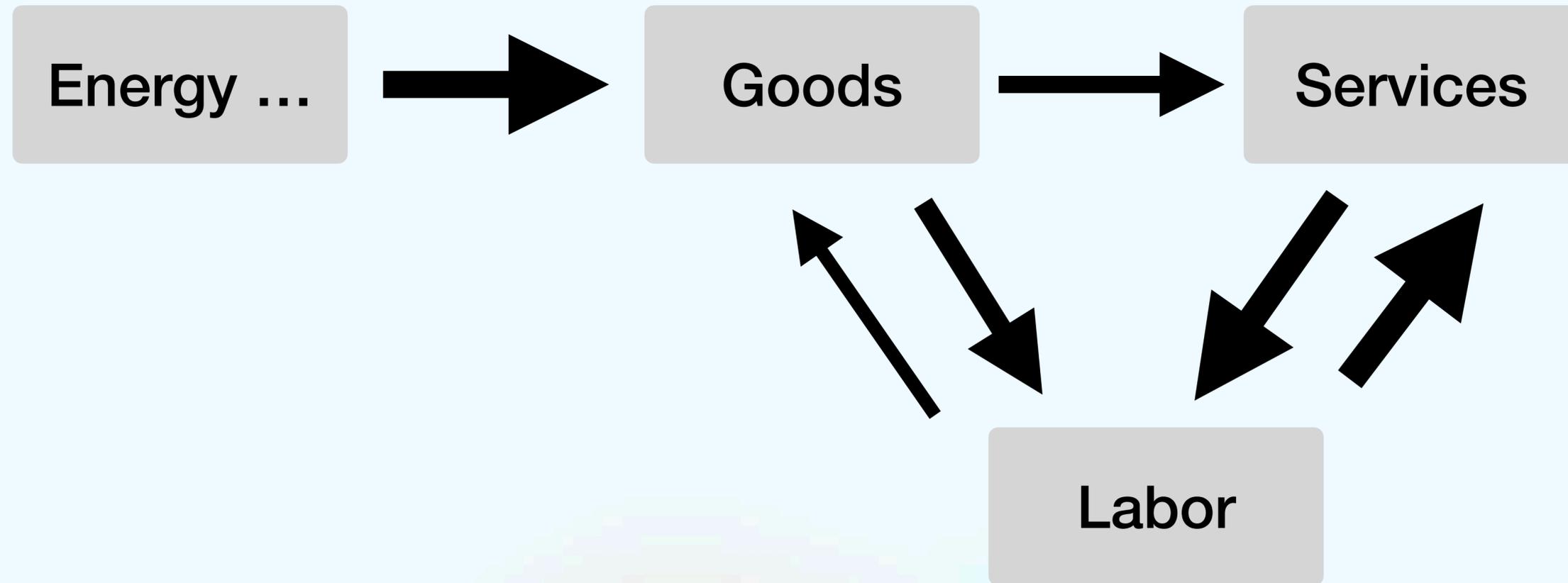
- International shortages

- Limited capacity

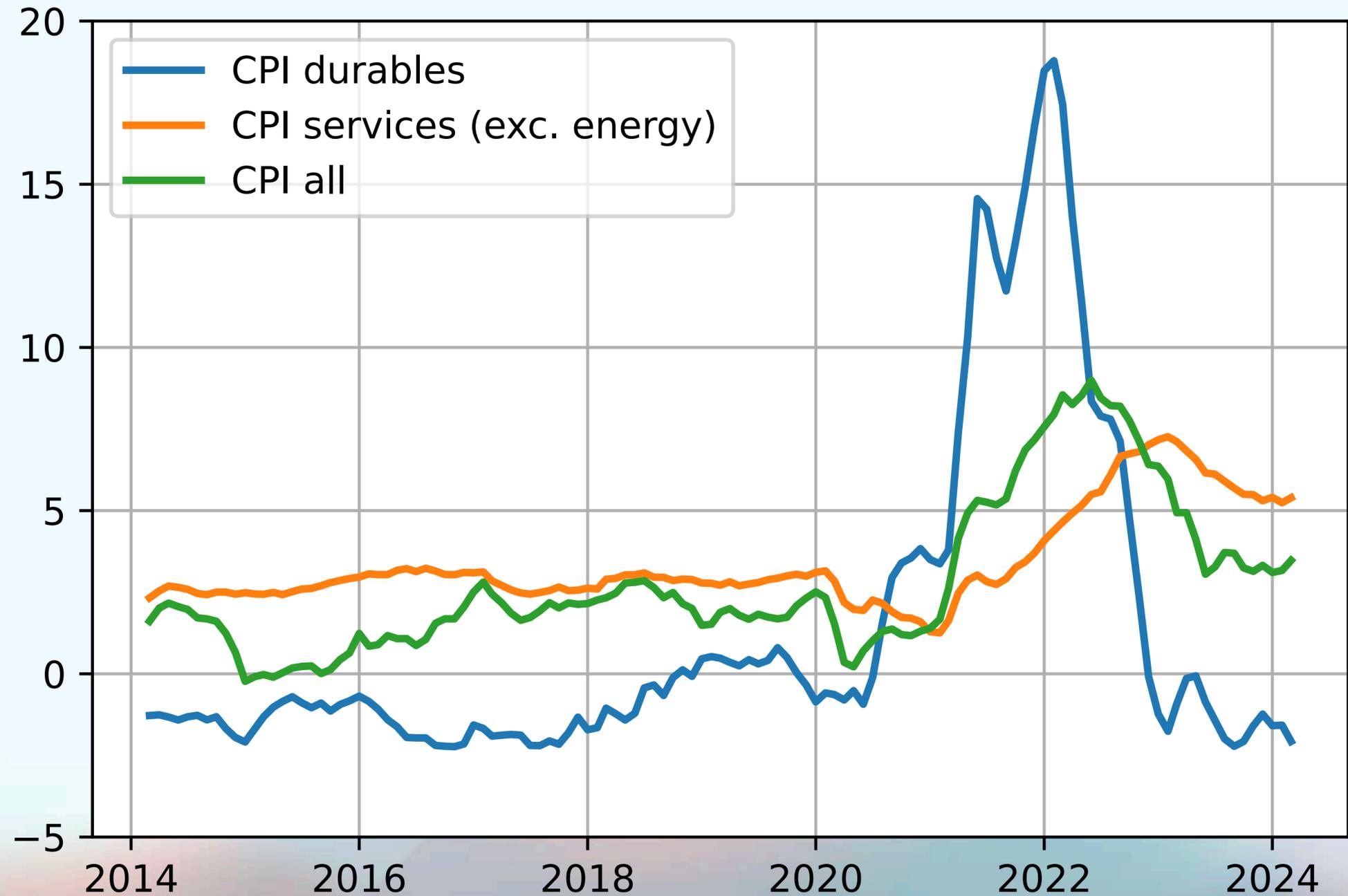## NYFed Global Supply Chain Pressure Index

Source: NYFed

Why did it take so long?

- Growing attention to multi sector transmission

Transmission across sectors

■ From non-core inflation to core inflation

Source: BLS

Back to Phillips curve logic

- Does the Phillips curve logic help?

- Was it $L > L^*$?

- Yes, if we think of global economy

- Energy prices, shipping costs… are all **endogenous**

- A non-linear Phillips curve?

- Yes, but not for labor inputs, for **non-labor** inputs

Was it a mistake?

- From point of view of individual countries, no

  - Price inflation = λ_p (w - p + **supply shocks from non labor inputs**)

    Can't do much about this

  - Wage inflation = λ_w (labor market pressure - (w - p))

    This costly/weak way to disinflate
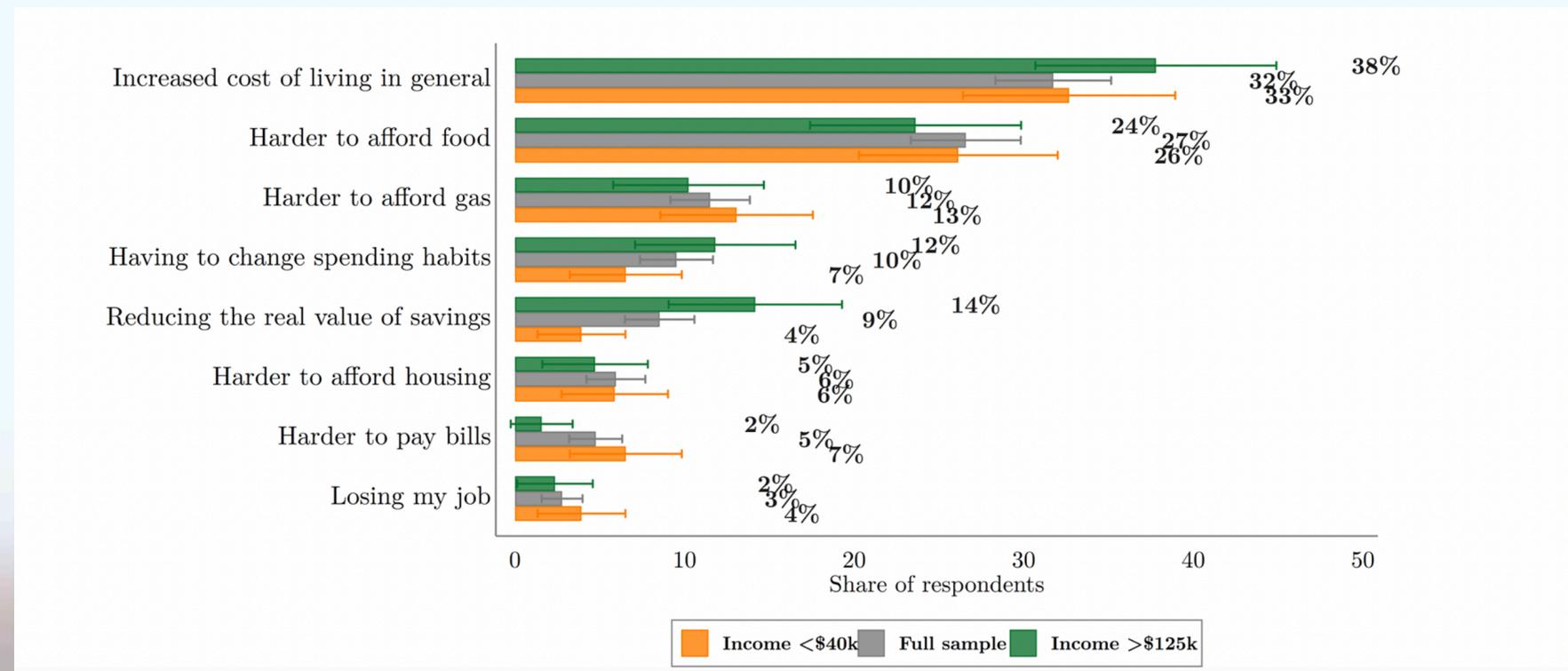
- But what about from a **global perspective**?

- Traditional view: too much tightening, individual countries try to get stronger exchange rate to reduce imported inflation

- With global supply constraints? Maybe too little?

The costs of inflation

- "Conflict" view: people are disappointed about the relative price they get

  - Workers: W/P too low

  - Businesses: P/W too low

- Evidence Shiller (1997), Stantcheva (2024)

THE MOST IMPORTANT IMPACT OF INFLATION ON MY LIFE HAS BEEN...

Source: Stantcheva (2024)