Will inflation return from the dead?

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The views expressed here are mine and do not necessarily reflect those of the Bank of Italy

The inflation mystery

- Williams (2010) "The surprise [about inflation] is that it's fallen so little, given the depth and duration of the recent downturn. Based on the experience of past severe recessions, I would have expected inflation to fall by twice as much as it has"

- Constancio (2015): "More important was the emergence, after the Great Recession, of a twin puzzle: first, missing disinflation in 2009-11, and second, missing inflation after 2012"

- The relationship between wages and economic slack is at the heart of the "twin puzzle"

The inflation mystery

Rolling estimates of the slope of the PC (panel of six advanced countries)

$$\pi_{,t} = \pi^*_{,t} + \beta\widetilde{y}_{i,t} + u_{i,t}$$

Blanchard (2016) "The slope of the Phillips curve has substantially declined. **But the decline dates back to the 1980s** rather than to the crisis. There is no evidence of a further decline during the crisis."

Three macroeconomic facts

"Bargaining power and the Phillips curve: a micro-macro analysis" M.J. Lombardi, M. Riggi and E. Viviano

1. **The erosion of workers bargaining power in wage setting**

$\downarrow$

2. **Higher importance of the extensive margin of labour (heads) relative to the intensive one (hours per workers) in driving labour input adjustment over the business cycle**
(because the marginal benefit of hiring is increasing with the share of the surplus coming from the employment relationship)

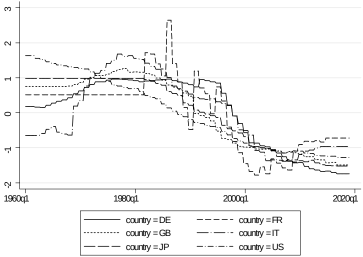
$\downarrow$

3. **A flatter Phillips curve**
(because the marginal wage is increasing in hours per employee, which is always true unless the elasticity of hours supply is infinite)

The erosion of workers bargaining power in wage setting

Krueger (Jackson Hole 2018)
"*The main effects of the decline in worker bargaining power over the last few decades have been to shrink the slice of the pie going to workers and increase the slice going to employers [...] My theme is that declining worker bargaining power can explain the puzzle of relatively weak wage growth despite historically low unemployment in the U.S.*"

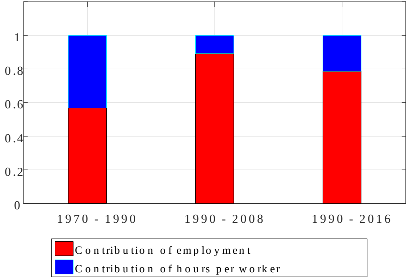
Workers bargaining power*



*based on union density and coverage (the share of workers who are members of a trade union and in jobs where a trade union is present), EPL and the coverage of collective bargaining agreements.

Changes in the margins of labour adjustment

Contribution to variation in euro area total hours worked from variations in the intensive margin and the extensive margin

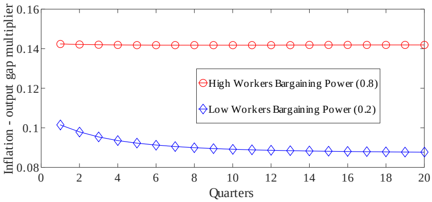


- When workers are less powerful, firms adjust more the extensive margin of labour (the number of workers) and less the intensive one (hours per employee) relative to what they do when workers bargaining power is higher.
- The share of fluctuations in total labour input due to the number of workers increased from an average 56% in 1970-1990 to 90% between 1990-2008.

Phillips curve

$$\widehat{\pi}_t = \beta \mathbb{E}_t \widehat{\pi}_{t+1} + k \left[(1+\eta) \underbrace{\left(\widehat{h}_t - \widehat{h}_{n,t} \right)}_{\text{hours gap}} + \underbrace{\left(\widehat{n}_t - \widehat{n}_{n,t} \right)}_{\text{employment gap}} \right]$$

Inflation output gap multiplier conditional on demand shock



- The decline in workers' bargaining power $\longrightarrow$ a contraction of the sensitivity of inflation to changes in the output gap as the relative contribution of adjustments through employment has increased.
- Indeed, the marginal wage $(\partial w / \partial h)$ is increasing in hours per employee, if labour supply elasticity is not ∞ $(\eta > 0)$

Will inflation return?

- The erosion of workers' bargaining power is a long-term trend. Looking ahead, it is still unclear whether a possible de-globalisation accompanied by the reshoring of supply chains might dampen or reverse that trend. Yet our results suggest that, during the recovery, unless workers' bargaining power recovers, a flare up of inflation due to tight labour markets is unlikely.
- **Krueger** August 24, 2018 Luncheon Address at the **Jackson Hole Economic Symposium**: "**Reflections on Dwindling Worker Bargaining Power and Monetary Policy**"
  "*[...] the price stability mandate would call for a more accommodative monetary policy in response to declining worker bargaining power [....] My tentative advice is that the optimal Central Bank response depends on [...] the elasticity of aggregate labor supply. These considerations should be part of the conversation along with Central Banks' other weighty concerns, such as the effect of monetary policy on financial stability, the effect of tariffs and trade wars on inflation and output, and the effects of demographic shifts on potential output.* "