

**Modelling Greedflation:
An Application of “Inflation is Conflict”**

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Great Papers!

- There is much to like in these wonderfully original and insightful papers.
- Perhaps especially:

They provide systematic treatments of inflation perspectives that are too often dismissed as “heterodox”.

- In this discussion, I illustrate this point with a version of Lorenzoni-Werning’s conflict model.
- I use the model to formalize the role of the heterodox concept of “greedflation” as a driver of current inflation.

A MPL-Anchored Conflict Model

- Discrete-time model with firms and workers.
- At any date t , the workers have a common marginal product of labor (MPL) z_t .
 - $z = (z_t)_{t=0}^{\infty}$ is an exogenous positive stochastic process, with $z_0 = 1$.
 - z is arbitrary - $\ln(z)$ could be trend-stationary or I_1 .
- Firms' and workers' *aspirations for the real wage* are also exogenous stochastic processes labelled (f, g) respectively.

What are Workers' Aspirations?

- At each date t , a fraction θ of workers set their date t (dollar) wage so that its growth over W_{t-1} tracks that of MPL:

$$W_t = W_{t-1} \frac{z_t}{z_{t-1}} .$$

- This is the key assumption in what I'm doing: The “mechanistic” wage-setting in the model embeds the evolution of MPL.
 - we will see: it ensures existence of a stochastic SS in which the real wage tracks MPL.
- The other fraction $(1 - \theta)$ workers set their wage based on their aspirations for the real wage (relative to the MPL).

$$W_t = g_t z_t P_{t-1}$$

What are Firm Aspirations?

- A fraction θ of firms set their prices equal to last period's P_{t-1} .
- The other fraction $(1 - \theta)$ of firms set their prices based on their aspirations for the real wage (relative to MPL):

$$\frac{(W_{t-1}/z_{t-1})}{f_t}$$

- NOTE: **aggressive** firm aspirations mean **low** f_t .
- NOTE: Equal fractions assumption simplifies but isn't necessary for my conclusions.

A Stochastic Steady State

- Suppose aspirations $f_t = \bar{f}$ and $g_t = \bar{g}$, where (\bar{f}, \bar{g}) are positive constants.
- Then the model has a stochastic steady-state in which the real wage tracks MPL:

$$\frac{W_t}{P_t} = (\bar{f}\bar{g})^{1/2} z_t, t \geq 0$$

$$\pi_t^{Price} = \pi_{SS}^{Price} \equiv (1 - \theta) \left(\frac{\bar{g}^{1/2}}{\bar{f}^{1/2}} - 1 \right), t \geq 1$$

$$\pi_t^{Wage} = (1 + \pi_{SS}^{Price}) \frac{z_t}{z_{t-1}} - 1, t \geq 1.$$

- Price inflation is constant and is positive iff $\bar{g} > \bar{f}$ - that is, there is *conflict* in aspirations between workers and firms.

– same as Lorenzoni-Werning

Sources of Above-SS Price Inflation

- Now suppose the aspirations (f_t, g_t) evolve stochastically around (\bar{f}, \bar{g}) .
- We observe that date t price inflation $\pi_t^{Price} > \pi_{SS}^{Price}$.
- What can we conclude about the underlying aspirations f_t, g_t ?

Sources of Above-SS Price Inflation, Cont'd

- We can (easily) solve for date t price inflation as:

$$\pi_t^{Price} = (1 - \theta) \left(\frac{ULC_{t-1}}{f_t} - 1 \right)$$

where $ULC_{t-1} \equiv \frac{W_{t-1}}{P_{t-1}z_{t-1}}$.

- In words, ULC_t is real (marginal) unit labor cost at date t .
- So, if inflation is above steady-state, at least one of two things has to be true:
 - firms are currently *aspiring* to a below-SS real wage ($f_t < \bar{f}$).
 - ULC_{t-1} is above SS.

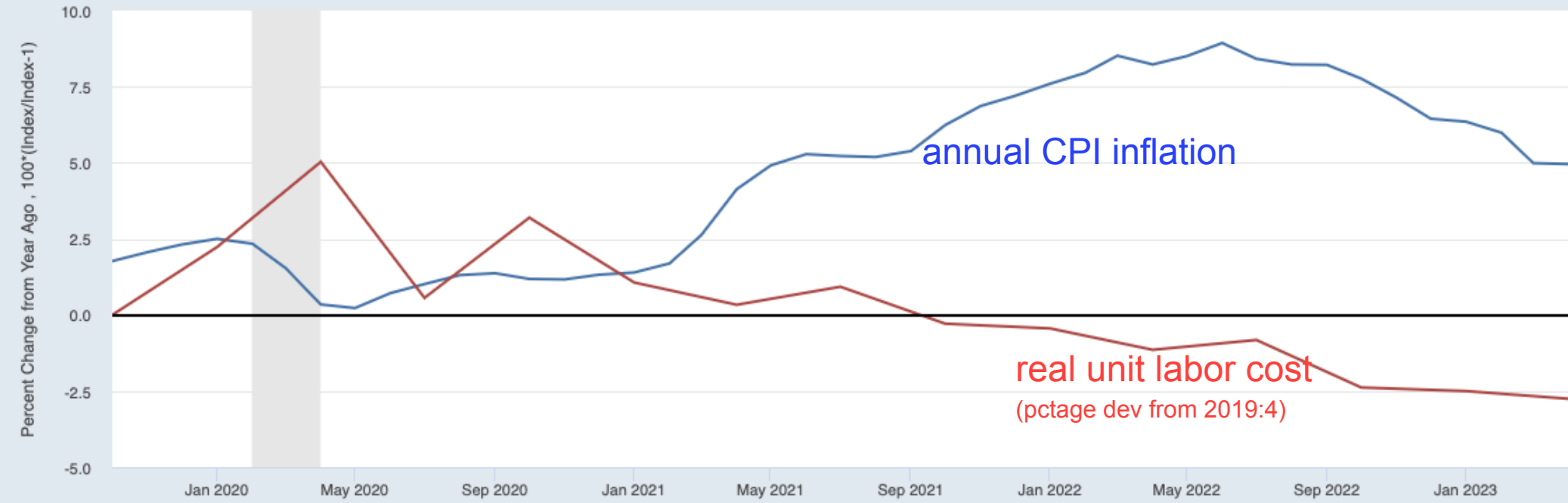
Source of Our Current Inflation?

- The chart shows that since early 2021:
 - CPI inflation has been above 2.1% (2019:Q4 level).
 - US real unit labor costs have been below 2019:Q4 levels.
- It follows that (according to this model and these data):

US 2021-23 inflation is largely attributable to firms' aspiring to low real wages.

High Inflation and Low Unit Labor Cost

FRED 



Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Labor Statistics

fred.stlouisfed.org

Wrap-Up

- I've described an MPL-anchored version of Lorenzoni-Werning's conflict model.
 - Key: “mechanistic” wage-setting tracks MPL.
- I've applied the model to recent US inflationary experience.
- The analysis attributes the unusually high inflation to unusually low firm aspirations for the real wage.
- In this way, it formalizes the role of **greedflation** as an inflation driver.

Questions

- There are important residual questions for this basic framing.
 - What factors/forces give rise to **coordination** in aspirations among firms and/or workers?
 - Relatedly, what factors/forces blunt **competition** from eroding the impact of aspirations?
 - What are the best **policy tools** with which to manage coordinated aspirations and their underlying drivers?
- So, these papers leave us with big questions to pursue.
- But that's what truly great research does!