NBER WORKING PAPER SERIES

WHY DO WORKERS DISLIKE INFLATION? WAGE EROSION AND CONFLICT COSTS

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Working Paper 32956
http://www.nber.org/papers/w32956

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
September 2024, Revised February 2026

The survey was approved by University of Chicago IRB, ID number 24-0060. We thank Anand Bharadwaj, Salomé Fofana, Chen Gao, Seyed Hosseini, Zifan Huang, and Daniela Villacreces Villacis for excellent research assistance. We thank Hassan Afrouzi, Fernando Alvarez, Cassiano Alves, Andrew Atkeson, Adrien Auclert, David Baqaee, Andres Blanco, Martin Beraja, David Berger, Bjoern Bruegemann, Ariel Burstein, Eduardo Dávila, Matthias Doepke, Andres Drenik, Martin Eichenbaum, Joel Flynn, Jordi Gali, Mark Gertler, John Grigsby, Cosmin Ilut, Oleg Itskhoki, Chad Jones, Gizem Kosar, John Leahy, Guido Lorenzoni, Christopher Hansman, Erik Hurst, Loukas Karabarbounis, Alisdair McKay, Ben Moll, Laura Pilossoph, Otis Reid, Ricardo Reis, Richard Rogerson, Matthew Rognlie, Karthik Sastry, Ludwig Straub, Jon Steinsson, Pedro Teles, Joe Vavra, Jonathan Vogel, Conor Walsh, Iván Werning, Christian Wolf, anonymous referees, and seminar participants at various institutions for comments that greatly improved the paper. Chen Lian thanks the BB90 Fund for financial support. The views expressed in this paper are those of the authors and do not necessarily reflect the views of the Federal Reserve Bank of Minneapolis, the Federal Reserve System, or the National Bureau of Economic Research.

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JEL No. E24, E31

ABSTRACT

How costly is inflation to workers? Answers to this question have focused on the path of real wages during inflationary periods. We argue that workers must take costly actions ("conflict") to have nominal wages catch up with inflation, meaning there are welfare costs even if real wages do not fall as inflation rises. We study a menu-cost style model, where workers choose whether to engage in conflict with employers to secure a wage increase. We show that, following a rise in inflation, wage catch-up resulting from more frequent conflict does not raise welfare. Instead, the impact of inflation on worker welfare is determined by what we call "wage erosion"—how inflation would lower real wages if workers' conflict decisions did not respond to inflation. As a result, using observed wage growth to measure worker welfare understates the costs of inflation. We conduct a survey showing that workers are willing to sacrifice around 1.75% of their wages to avoid conflict. Calibrating the model to survey data, we find that incorporating conflict significantly raises the costs of inflation for workers.

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1 Introduction

People in 2023 thought inflation was one of the United States' worst problems (Pew Research Center, 2022, 2023). Why do people dislike inflation so much? One reason could be that prices rise faster than nominal wages when inflation is high, meaning real wages fall and workers become poorer (Shiller, 1997; Stantcheva, 2024). A classic view, for instance from Fischer and Modigliani (1978) or Mankiw's (2020) textbook, suggests that this cost of inflation is small. The argument is that nominal wages generally keep up with prices after an inflationary shock. As a result, real wages do not persistently fall and workers do not suffer much.

This paper argues that inflation imposes costs on workers beyond its impact on real wages. We start from the observation that employers do not automatically give workers raises when inflation is high. Instead, workers have to fight for these raises, which places them in conflict with employers. We propose a standard and tractable menu-cost style model that incorporates the role that costly conflict plays in determining wage growth. We show that accounting for "conflict costs" meaningfully changes our understanding of the costs of inflation, both analytically and quantitatively. In this setting, what matters for worker welfare is not how inflation impacts real wages, but rather how inflation would affect real wages if workers did not choose to engage in more conflict as inflation rises, a concept we term "wage erosion." Our framework delivers a direct mapping between conflict costs and the wages that workers would sacrifice to avoid conflict, which we measure from a survey of US workers to be 1.75% of their wages. Combining our model with these estimates, we find that conflict more than doubles the costs of inflation to workers relative to the costs of inflation implied by falling real wages alone.[1]

We start the paper with motivating survey evidence about the relationship between conflict and inflation. We fielded a survey to 3,000 US workers at the start of 2024, in the aftermath of the post-pandemic inflation, and arrive at two conclusions. First, we find that conflict is important for determining wage growth. A significant portion of workers report taking costly actions—that is, they engaged in conflict—in 2023 to achieve higher wage growth than their employer offered. These actions include having tough conversations with employers about pay, partaking in union activity, or soliciting job offers. We find that these costly actions lead to higher wage growth: participants who took these actions report their median wage growth in 2023 was 3

[1] By the same logic, "conflict costs" can also be relevant for the welfare costs of other shocks that require nominal wage adjustments.

percentage points higher than the median of employers' default offers. Conversely, those who did not take the costly actions believe that conflict would have raised their median wage growth by 2 percentage points, suggesting sizable conflict costs that offset the benefits of higher wages.

Second, we find that conflict rises with inflation. Respondents say that the costly actions were primarily motivated by wanting wages to keep up with inflation. Additionally, when asked how they would behave at different rates of inflation, respondents were more likely to engage in conflict with employers when inflation was higher. We complement this result with observational evidence that conflict between workers and firms is more likely when inflation is higher. In cross-country panel regressions, we document a robust positive correlation between inflation and proxies for conflict such as labor market strikes, union membership, and job switching.

We propose a tractable "conflict cost" model to capture this state-dependent nature of wage setting and to investigate how conflict affects the welfare costs of inflation. Similar to the menu cost literature, workers face idiosyncratic productivity shocks. Motivated by our survey evidence, workers in the model receive a default nominal wage offer from their employer. Unless the offer is fully indexed to inflation, the worker's default real wage falls when inflation rises. In response, workers optimally choose whether to engage in conflict with employers. Conflict increases the worker's wage beyond their employer's default offer, ensuring that it keeps up with inflation. However, conflict is costly to workers. In our model, costly conflict is more likely as inflation rises, consistent with the state-dependence suggested by our motivating evidence. Without conflict, higher inflation lowers default real wages, raising the potential gains from conflict. These greater gains induce more workers to engage in conflict.

Our main analytical result characterizes the welfare costs of inflation shocks to workers. The path of real wages is no longer sufficient to inform worker welfare in this setting. In particular, wage catch-up after inflation that is achieved through more frequent conflict does not raise welfare. On the margin, the extra conflict costs paid by workers to ensure higher wages offset the benefits of those higher wages. The offset follows from worker optimality and the envelope theorem of Milgrom and Segal (2002), applied to discrete choices. Instead, the first-order impact of inflation shocks on worker welfare is determined by "wage erosion," defined as the effect of inflation shocks on real wages if workers' conflict decisions remain unchanged in response to inflation. As such, the welfare costs of inflation in the labor market can be significant even if real wages do not fall much, as workers must take costly actions more frequently to ensure wage catch-up. Moreover, unlike falls in real wages, which redistribute from workers to firms, conflict costs potentially create aggregate losses too.

How quantitatively important is conflict for the welfare costs of inflation? We answer this question by calibrating our model using additional, tailored survey questions. We then calculate the welfare costs of inflationary shocks to workers within that environment. We designed survey questions to directly inform the key parameters governing the importance of conflict in the model: the cost to an individual worker of conflict with an employer and the extent to which employers' default wage offers are indexed to inflation. In the survey, we find that conflict with employers is costly to workers – the median worker who dislikes these actions would sacrifice 1.75 percent of their wages to avoid conflict. We validate this estimate by showing that our measure of conflict costs predicts workers' reported conflict decisions in 2023. Regarding indexation, we find that workers perceive employers' default wage offers as weakly indexed to inflation. When presented with hypothetical inflation scenarios, they reported that, absent conflict, employers would raise default nominal wage growth by only 0.05 percentage points for each one percentage point increase in inflation.

When calibrated to match these survey moments, our model implies that conflict significantly raises the welfare costs of inflation for workers. In response to either transitory or persistent inflation shocks, incorporating conflict more than doubles the overall costs of inflation to workers. In various extensions, conflict continues to significantly increase the costs of inflation—for instance, at significantly higher levels of default wage indexation than our baseline calibration; when inflation and employment are determined in general equilibrium, allowing inflation to "grease the wheels" of the labor market (Blanco and Drenik, 2023; Blanco et al., 2025a); or when studying the inflation episode of 2021-23. In sum, the "conflict cost" model is a quantitatively relevant and tractable way of understanding the welfare costs of inflation for workers.

Beyond the specific application to the costs of inflation, our conflict cost model is a natural way of introducing state-dependent wage setting into New Keynesian models. To model sluggish wage adjustments, the New Keynesian literature typically assumes time-dependent wage setting (e.g., Erceg et al., 2000). State-dependent wage setting is a natural alternative. After all, the state-dependent approach is common when modeling price setting, and state dependence is consistent with empirical evidence in our survey and beyond (e.g., Grigsby et al., 2021). Moreover, there are distinct positive and normative implications compared to the time-dependent approach.[2]

Related literature. This paper contributes to the large literature on the costs of inflation. Previous work identifies inflation costs from a range of mechanisms, such as "shoe leather costs" of holding less money (e.g., Friedman, 1969; Lucas, 2000); "menu costs" from changing prices and the associated price distortions (e.g., Nakamura et al., 2018; Alvarez et al., 2019); tax distortions (e.g., Feldstein et al., 1978); uncertainty due to volatile inflation (Friedman, 1977); cognitive costs due to complexity and difficulty in budgeting (Binetti et al., 2024; Gabaix, 2025); and broader costs such as declining trust in government. Besides these other costs, we argue for significant "conflict costs" of inflation via the labor market.

Surveys from Shiller (1997) and Stantcheva (2024) show that people dislike inflation in large part because they believe high inflation lowers their standard of living. Our mechanism suggests a reason for this view. People know that if prices have risen faster than the default nominal wage offered by their employer, they must engage in painful conflict with their employer to rectify the situation. Del Canto et al. (2025) operationalize a sufficient-statistic approach in order to estimate the effect of inflationary shocks on welfare, taking into account, amongst other channels, the effect of inflation on real wages.[3] We show that the behavior of real wages is an important but incomplete account of the costs of inflation that operate in the labor market. Rather, having nominal wages keep up with prices entails significant additional welfare costs due to conflict.

In arguing that inflation leads workers to take costly actions, our paper relates to some previous evidence. Pilossoph and Ryngaert (2024), Stantcheva (2024), and Hajdini et al. (2025) use observational data and survey hypotheticals to show that workers with higher inflation expectations are more likely to search for new jobs in order to secure nominal pay increases. Besides providing additional survey evidence consistent with these papers, we model the welfare effects of inflation due to these costly actions, and quantify the costs with our survey and model.

There is also a growing literature exploring how job search affects wages and welfare dur-

[2]Previous work by Takahashi (2018), Costain, Nakov, and Petit (2019), Blanco and Drenik (2023) and Jo (2025) studies positive implications of state dependence in wage setting.

[3]Ferreira et al. (2024) and Pallotti et al. (2024) apply a similar sufficient statistic approach. Auclert (2019) develops the sufficient-statistic approach, in order to analyze the positive implications of monetary policy shocks. Doepke and Schneider (2006) also estimate the redistributional effect of inflation via asset markets, as opposed to labor markets.

ing inflationary episodes. Afrouzi et al. (2025) implement a state-of-the-art quantitative labor-search model with nominal rigidity, disciplined with information on labor market flows. We instead model a wide range of costly actions via a reduced form "conflict cost," within a menu-cost style model disciplined by survey evidence. Despite these differences, the two quite different approaches reach a similar conclusion: costly actions to secure wage increases are a key feature of inflationary episodes. Pilossoph et al. (2024) study how inflation reallocates workers along the job ladder, and its implications for the costs of inflation.

There is an empirical literature studying whether nominal wages keep up with inflation. Modern work such as Blanco et al. (2025b) emphasizes that wage dynamics during inflationary episodes depend on factors such as the nature of the inflationary shock and especially workers' position in the wage distribution. Consistent with this view, poorer workers experienced stronger real wage growth during the post-pandemic inflation (Autor et al., 2023). A common finding is that wages at least partly keep up with inflation for most workers, motivating us to study the associated costs.

Lorenzoni and Werning (2023a,b) study related themes about inflation and conflict. The aspect of conflict studied in these papers is disagreement between workers and firms over relative prices. In this way, conflict is a proximate cause of inflation dynamics. We study a related but different aspect of conflict: how inflation makes workers seek conflict with their employers to raise wages. Rather than investigate the cause of inflation, we ask how conflict affects the costs of inflation to workers.

2 Survey Design

We designed a two-part survey to motivate and calibrate our model. The first part gathers descriptive evidence on how workers responded to inflation in 2023, focusing on conflict and wage growth. The second part uses hypothetical scenarios to measure key parameters of our model.

The survey was conducted in the United States between February and March 2024 using Prolific, a research survey marketplace. We collected 3,000 responses from non-self-employed individuals aged 22 to 60 who were employed either full-time or part-time. To ensure data quality, we included an attention check: participants who failed were asked to return their submissions. We also imposed demographic quotas based on gender, education, and political affiliation. The quotas for gender and education matched population shares from the March 2023 Current Population Survey (CPS), while the political affiliation quota was based on Gallup data from 2024. On average, participants took 7 minutes and 15 seconds to complete the survey and were compensated at a rate equivalent to $12 per hour.

The context of the survey was the aftermath of a period of high inflation: inflation had been 8 percent in 2022 and 4.1 percent in 2023 and unemployment had been low, averaging 3.6 percent over this period. Therefore, the first part of the survey, which asks respondents about their labor market experience in 2023, provides context-dependent evidence explaining how workers behaved during a period of high but falling inflation. The second part of the survey asks hypothetical questions, which abstract from recent labor market conditions and therefore are better suited to calibrating key parameters of our model.

Appendix Table B.1 compares our sample characteristics to the US population. Our sample broadly matches the demographic distribution of the US population, albeit with a higher representation of individuals in their thirties and a smaller proportion of respondents in their fifties. Additionally, our sample includes a lower share of white individuals and a higher share of mixed-race individuals.

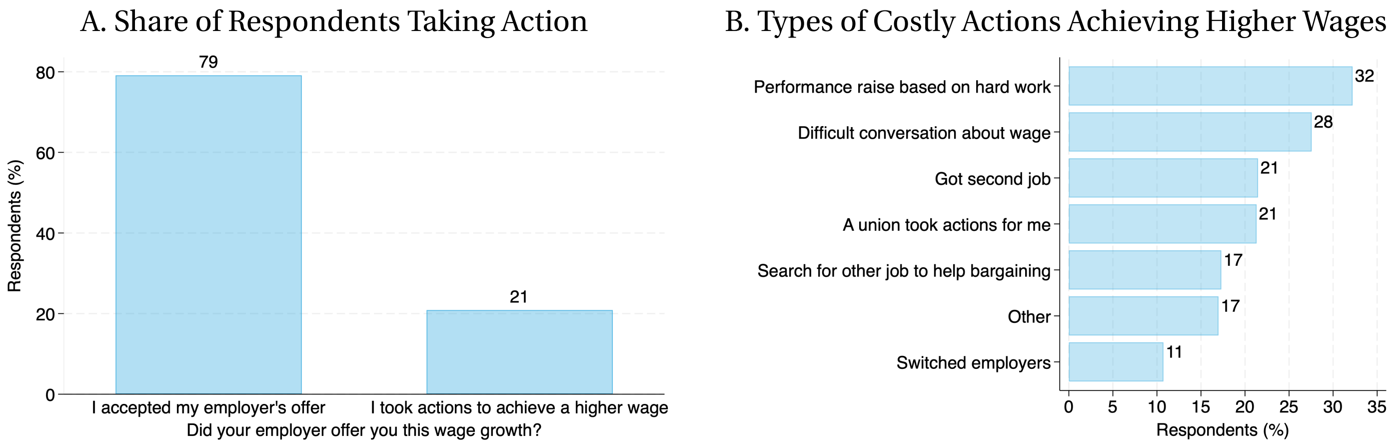
In the survey, we asked questions about "pay growth" and not "wage growth," because in preliminary tests we discovered that survey respondents found the "pay growth" wording easier to understand. However, for consistency with the rest of the paper, we refer to "wage growth" as we describe our results. The full questionnaire is in Appendix Section E.

3 Motivating Evidence: Wages, Inflation and Conflict

This section presents four empirical patterns that motivate our model. These findings document how conflict shaped wage growth in 2023. Because this evidence refers to a specific context—following a period of high inflation—we interpret it as motivating evidence about how conflict takes place. In Section 5 and in the second part of the survey, we use hypothetical questions to identify the key parameters of our model.

Finding 1: Workers chose between accepting their employer's default wage offer and engaging in costly conflict. We first elicited respondents' nominal wage growth in 2023 and then asked whether they accepted the default wage offered by their employers or took costly actions

Figure 1: Wage Growth and Costly Actions



Notes: Panel A illustrates the percentage of survey participants who either accepted their employers' default wage offer or took costly action to achieve a higher wage growth. For participants who took costly actions to secure higher wage growth in 2023, Panel B displays the percentage who undertook each specific action. Participants were asked to select all actions that applied to them. Each bar in the figure corresponds, in order, to the following answer choices: "I worked longer hours or performed better at work to get a performance-based pay increase"; "I initiated a difficult conversation with my employer about my pay"; "I obtained a second job in addition to my main job"; "A union bargained for higher pay on my behalf"; "I searched for a higher-paying job with other employers to facilitate pay negotiations with my employer"; "Other, please add additional comments below"; and "I switched employers to get a raise."

to secure this wage growth. Figure 1, Panel A, shows that 79% of workers accepted the wage offer made by their employer, while 21% of workers took actions to secure their wage growth. These costly actions are what we term "conflict." We find modest heterogeneity in who takes costly actions, with those who are younger, have higher incomes, or work in the government being slightly more likely to accept the default wage offers. The only group that was much less likely to have accepted the default wage offer was those in unionized sectors (see Appendix Figures B.1 and B.2).

We then investigated which actions respondents took to secure a higher wage growth. Figure 1, Panel B, shows the fraction of respondents who reported each action among those who took action.[4] We see that workers took a diverse set of actions, such as having difficult conversations with their employer, securing an offer from another employer to raise their wage with their current employer, having a union negotiate on their behalf, or working harder. Moreover,

[4] To elicit the actions in Figure 1, Panel B, without imposing preconceptions, we adopted the following procedure. In pilots, we asked respondents to explain their decisions in open-ended form. We then grouped these actions into categories, and asked the full survey to select from within these categories, also allowing respondents to select an "other" option, and randomizing the order. We will use the same procedure to elicit respondents' motivations for taking or not taking actions.

36 percent of respondents reported taking more than one action.[5]

Finding 2: Conflict raised wages. Workers who engaged in conflict believe these actions increased their wage growth. Orange bars in Panel A of Figure 2 display the distribution of nominal wage growth that action-takers reported receiving in 2023. We also asked respondents what nominal wage growth they believed they would have received without taking actions, and we plot its distribution in blue. The distribution of hypothetical wage growth without actions (blue bars) is generally to the left of actual wage growth (orange bars), with a median nominal wage growth of 0 percentage points without actions, compared to 3 percentage points with actions.[6]

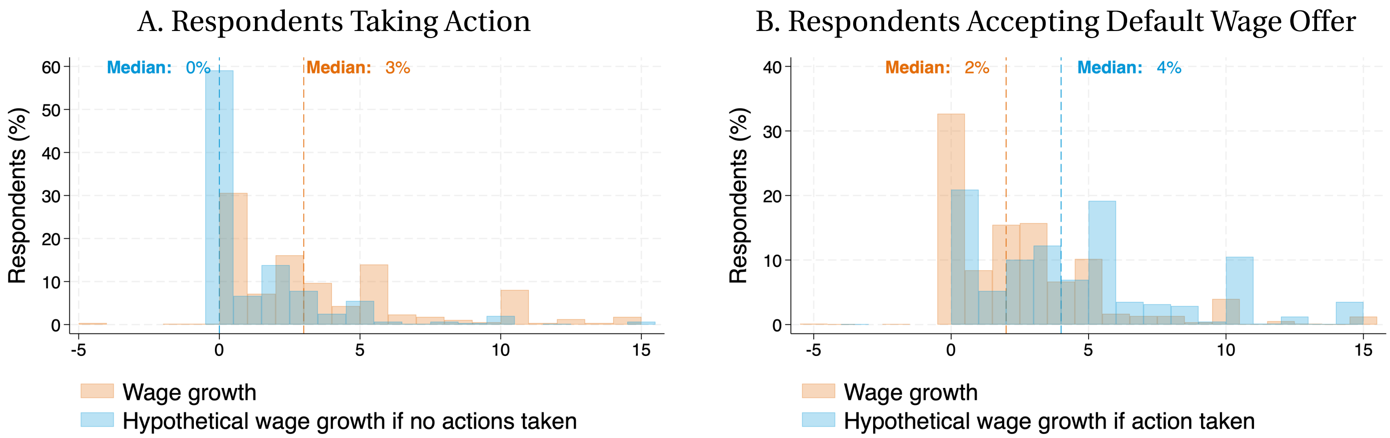
There is a similar pattern, both quantitatively and qualitatively, from directly comparing the wage growth for those workers in our survey who engaged in conflict in 2023 to those who did not. On average, those who took actions had a nominal wage growth that was 1.8 percentage points higher than those who did not, even conditional on other worker observables (see Appendix Table B.2 for details). Indeed, this pattern holds not only for nominal wage growth but also for perceived real wage growth, defined as the worker's nominal wage growth minus their perceived inflation rate in 2023. Workers who took action perceived their real wage growth to be 1.7 percentage points higher than that of those who did not take action.

Finding 3: Workers who did not engage in conflict believed it would have raised their wages. What about the workers who did not engage in conflict in 2023? One possibility is that workers did not engage in conflict because they believed it would not raise wages. Another possibility is that conflict could have raised their wages, but these workers disliked taking such actions. The evidence suggests the latter. In Panel B of Figure 2, we plot the distribution of nominal wage growth of people who did not take actions (orange bars), as well as the distribution of nominal wage growth they believe they would have received if they had taken actions (blue bars). These workers believe that median wage growth would have been 4 percentage points if they had taken actions, compared with 2 percentage points for median wage growth without

[5] For instance, of the 32% of respondents who took action by working harder, only 35% of them (11% of all action takers) took only this single action.

[6] Panel A of Appendix Figure B.3 plots the difference in nominal wage growth, with or without action, for each worker who took actions to secure a higher wage growth. The median worker reported that their actions raised their wage growth by 2%. The pattern in Panel A of Figure 2 also holds for perceived real wage growth, which we define as the worker's nominal wage growth minus their perceived rate of inflation in 2023. In Panel A of Appendix Figure B.4, the median perceived real wage growth of workers who took costly action was higher than it would have been without the action.

Figure 2: The Effectiveness of Conflict



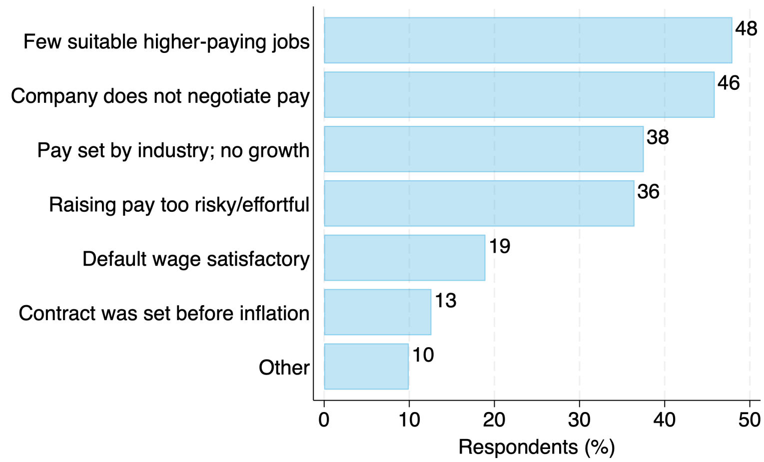
Note: Panels A and B depict the distribution of reported nominal wage growth in 2023 and the hypothetical nominal wage growth respondents reported they would have received if no actions had been taken or if actions had been taken to achieve a higher wage growth, respectively. The data range has been truncated, with values ranging from a minimum of -5% to a maximum of 15%. Panel A restricts to respondents who took actions in 2023, asking the question "Above, you indicated that you got a pay raise by either initiating a difficult conversation with your employer about your pay, searching for a higher paying job with other employers or switching employers in order to get a raise. If you, or possibly your union, had not implemented any of these strategies, what pay growth do you think your employer would have offered you in 2023?" Panel B restricts to respondents who accepted their employers' default wage offer in 2023, asking the question "[w]hat pay growth do you think you could have attained this past year if you had taken actions such as initiating a difficult conversation with your employer to ask for a raise, searching for higher paying jobs with other employers, or switching employers in order to get a raise?".

actions.[7]

The motivations of respondents who accepted the default wage offer suggest that acting to achieve higher wage growth is costly, as reported in Figure 3. Only 19% of these respondents said they did not take action because the default wage offer was satisfactory. The remainder cited a variety of reasons why taking action was difficult. In principle, even without costly conflict, workers might accept an unsatisfactory default wage offer if firms compensate them in other ways. For instance, the firm might offer better non-wage amenities instead of a higher default wage, or it might be unable to adjust wage offers in the short term but can compensate workers in the long term. However, in Figure 3, no respondent mentions non-wage amenities (within the "other" category); and only 13% hint at the possibility that a favorable contract in the future prevented them from taking actions that year ("contract was set before inflation").

[7]Panel B of Appendix Figure B.3 plots the difference in nominal wage growth, with or without action, for each worker who did not take actions to secure a higher wage growth. The median worker who did not take action believes their wage growth was 1 percentage point lower because they accepted their employer's default wage offer. The pattern in Panel B of Figure 2 also holds for perceived real wage growth, which we define as the worker's nominal wage growth minus their perceived rate of inflation in 2023. In Panel B of Appendix Figure B.4, the median perceived real wage growth of workers who did not take action was lower than it would have been with the action.

Figure 3: Motivations to Accept Default Wage Offer

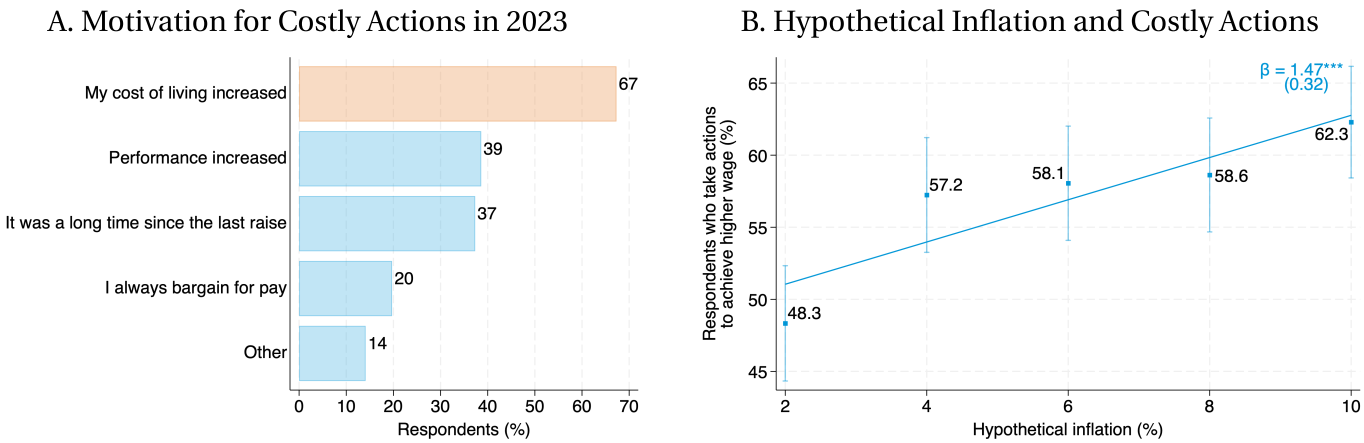


Note: This figure displays the percentage of participants who accepted their employers' default wage offer in 2023 citing each specific motivation. Participants were asked to select all motivations that applied to them. Each bar in the figure corresponds, in order, to the following answer choices: "I am unlikely to be able to find a higher paying job that suits me as well as my current job, perhaps because of the perks and benefits offered by my job, or because there are few good alternative jobs."; "My company does not negotiate to increase my pay. Perhaps because they would have to lay off workers or because they can replace me with another employee."; "My company sets pay in line with the rest of the industry, and industry-wide pay is not growing, perhaps because of the state of the overall economy."; "Taking actions to raise my pay, such as a difficult conversation or searching for a new job, is too difficult. These actions take too much time or effort, or risk a conflict with my employer."; "My employer's default wage offer was satisfactory, because they offered wage growth in excess of the increase in my cost of living."; "My contract was negotiated before the higher inflation."; and "Other, please add additional comments below."

Finding 4: Inflation leads to conflict. Our final finding considers the link between inflation and conflict. We present several pieces of evidence that suggest that inflation leads to conflict. First, we asked workers taking costly actions in 2023 to report why they chose to act. The answers, in Panel A of Figure 4, show that rising inflation was their main motivation, with 67% of the action takers reporting that they needed to combat a high cost of living and 78% of respondents citing either the cost of living or that it had been a long time since they got a raise. The next most important reason is that people deserved higher pay due to their performance, which mattered for only 39% of respondents.

Second, we used a hypothetical question to test whether workers are more likely to engage in conflict when inflation is high. We randomly assigned participants into five equally sized groups, each of which was offered a hypothetical scenario in which inflation was expected to be either 2%, 4%, 6%, 8% or 10% over the next 12 months. We stipulated that other aspects of employment such as hours worked and their employer would remain the same. We first asked respondents what nominal wage growth they thought their employer would offer them in that scenario. We then asked whether respondents would choose to take actions to achieve higher

Figure 4: Inflation and Conflict in Survey Data



Note: Panel A displays the percentage of each specific motivation for participants who took costly actions to secure higher wage growth in 2023, answering: "[w]hat was your, or your union's, motivation for taking actions in order to secure a pay increase in 2023?" Participants were asked to select all motivations that applied to them. Each bar in the figure corresponds, in order, to the following answer choices: "My cost of living increased due to high inflation, therefore I needed more money to fund my spending and saving plans"; "My performance and output in the workplace increased significantly"; "It was a long time since the last time my pay had been increased"; "I always bargain for pay"; and "Other, please add additional comments below". Panel B displays the relationship between the indicator of whether respondents would take actions to secure a wage growth higher than their employer's default offer under a hypothetical inflation scenario, and the hypothetical inflation rate. Standard errors are in parentheses. *** indicates significance at the 1% level. The sample is all respondents. Respondents answered the following question. "Consider a hypothetical situation in which inflation is expected to be π in the next 12 months. Suppose that you are working at the same job at the same place you currently work, and working the same number of hours. Would you accept your employer's offer without taking any actions to increase your pay or would you do your best to increase your pay using any strategies at your disposal?" The hypothetical inflation scenario is $\pi = 2\%, 4\%, 6\%, 8\%$ and 10%.

wage growth. Figure 4, Panel B, shows the results. The y-axis shows the fraction of respondents who, when given a particular hypothetical scenario, say they would engage in conflict with their employer to achieve higher wage growth. The x-axis is hypothetical inflation under each scenario. When hypothetical inflation is 2%, 48% of respondents say they would take costly actions to achieve higher wage growth. However, when inflation is hypothetically 10%, more than 60% of respondents would take action. The regression line indicates that for every percentage point increase in inflation, people believe they would be 1.47 percentage points more likely to take actions that put them in conflict with their employer. Pilossoph and Ryngaert (2024) and Hajdini et al. (2025) present related findings using survey and observational data—higher inflation expectations lead workers to search for new jobs, which is a specific kind of costly action.

Third, we find similar patterns in observational data, documenting a positive cross-country correlation between several proxies for conflict and inflation. We proxy the prevalence of conflict using cross-country data on union membership, union strikes, and job-to-job transitions, which are common costly actions reported in Figure 1. Consistent with our survey result, all three of these measures rise with inflation. Specifically, we estimate a regression

$$\Delta Y_{c,t} = \beta_{\pi} \Delta \pi_{c,t} + \gamma_c + \gamma_t + \epsilon_{c,t}, \tag{1}$$

where $Y_{c,t}$ is the proxy for labor market conflict in country c in year t and $\pi_{c,t}$ is the inflation rate in country c in year t. γ_c and γ_t are country and year fixed effects, respectively. We measure union membership as the fraction of employed workers in unions and we measure strikes using the log of the number of workers on strike in a given year, both sourced from the International Labor Organization. The union membership panel contains 37 countries from 1960–2022 and the strike activity dataset has 80 countries from 1969–2022. We measure job-to-job transitions as the fraction of employed individuals in one period who are employed by a different employer in the next period. We use data from Donovan, Lu, and Schoellman (2023), who construct harmonized measures of job-to-job transition rates. We use this data for 30 countries from 1997 to 2021.

The combination of differencing and fixed effects in Regression (1) removes country-specific trends in both conflict and inflation, consistent with our focus on shocks to inflation rather than changes in steady-state inflation. We are interested in β_{π}, which captures the relationship between the change in conflict and the change in inflation over the corresponding period.

Table 1 shows the results. Columns 1 through 3 show the results for 5-year changes and Columns 4 through 6 show the results for 2-year changes. Appendix Figure B.5 shows the binned scatterplot underlying the estimate of β_{π} in columns 1 through 3. There is a clear positive relationship – when inflation in a country rises by 10 percentage points over a 5-year period, job-to-job transitions rise by 1.0 percentage point, the fraction of employees who are in unions rises by 1.1 percentage points, and the number of workers on strike increases by 24 percent. Appendix Table B.3 shows that these relations are robust to various choices such as the time difference, fixed effects, outlier trimming, or the inclusion of other business-cycle controls. Overall, these correlations are consistent with the premise that an increase in inflation leads to more conflict between workers and firms. However, we caution that other reasons for the relationship are also possible—for instance, higher union power could cause more industrial action and, as a result, more inflation.

Towards a model of inflation and conflict. So far, our descriptive evidence suggests that inflation leads workers to take costly actions—which we term conflict— to have wages keep up

Table 1: Labor Market Action and Inflation: Cross-Country Evidence

	5-Year Difference			2-Year Difference		
	Job-to-Job (1)	Union (2)	Strikes (3)	Job-to-Job (4)	Union (5)	Strikes (6)
$\Delta_{t,t-5}$ Inflation	10.017***	11.150**	2.361***			
	(3.435)	(5.187)	(0.478)			
$\Delta_{t,t-2}$ Inflation				3.486	7.468**	0.929**
				(2.496)	(3.093)	(0.400)
Observations	282	1,308	1,962	381	1,419	2,196

Notes: This table shows the relationship between inflation and three labor market outcomes: job-to-job transitions (30 countries from 1997-2021, sourced from Donovan et al., 2023), union membership (37 countries from 1960–2022, sourced from the International Labour Organization), and strike activity (80 countries from 1969–2022, sourced from the International Labour Organization). We use headline inflation (expressed in decimal form, e.g., 0.02 for 2%), sourced from the World Bank. In all cases, inflation is trimmed at the top 2% across all years and countries within the World Bank dataset. All regressions include both country and year fixed effects. The dependent variable in the first three columns is the 5-year difference in each labor market outcome, while the last three columns show the 2-year difference specifications. In columns 1 and 4, the dependent variable is based on the job-to-job transition rate (in percentage points). In columns 2 and 5, the dependent variable is based on the union membership rate (in percentage points), defined as the fraction of workers who are in a union. In columns 3 and 6, the dependent variable is based on the log of the number of workers involved in strikes and lockouts. Standard errors are clustered at the country level. Included years and countries vary by column depending on data availability.

with inflation. The next section models this behavior and studies its implications for the welfare costs of inflation.

How should our model incorporate conflict? Because conflict can take many forms and none of the specific costly actions in Panel B of Figure 1 dominate, we follow the approach of menu-cost models of price setting (e.g., Golosov and Lucas, 2007). We model workers as paying a generic "conflict cost" to engage in conflict. This approach is suitable for us, as our key economic lesson does not depend on the underlying forms of conflict. At the margin, the benefits of higher wages from more frequent conflict are always offset by the associated conflict costs.

Specific forms of conflict from Panel B of Figure 1 connect to theoretical mechanisms studied in the literature. Costs of achieving higher wage growth can come from on-the-job renegotiation costs (Blanco and Drenik, 2023), costly job search (Afrouzi et al., 2025), the standard disutility from increasing labor supply, and the costs of initiating collective bargaining. The range of motives of workers who did not choose conflict in Figure 3 also connects to interesting theoretical mechanisms. 48% of workers did not seek conflict because they were unlikely to find a better job than their current one. These workers could be at the top of a job ladder, related to Burdett and Mortensen (1998). Moreover, 38% of workers did not engage in conflict because their firm set wages comparable to the rest of the industry, suggesting that strategic complementarities are relevant (Fukui, 2020). 36% of respondents said that raising wages at their current job was too difficult, suggesting that the on-the-job renegotiation costs of Blanco and Drenik (2023) are prohibitively large. Detailed explorations of specific forms of conflict for the impact of inflation are beyond the scope of our paper and are studied in greater detail in related work of Afrouzi et al. (2025), Blanco et al. (2025a), and Pilossoph et al. (2024).

How do we measure this generic conflict cost? While our descriptive evidence above is useful to motivate the model, it is not designed for measurement. The descriptive evidence reflects respondents' actions taken in response to the specific high but falling inflation in 2023. Survey respondents also choose whether to engage in conflict, potentially selecting into conflict in 2023 for reasons that may be challenging to model. As a result, in Section 5, we design hypothetical survey questions better suited to measuring the conflict cost, as they abstract from the particular actions taken in response to the specific economic conditions faced in 2023.

4 A Conflict-Cost Model

Motivated by the evidence in the previous section, we develop a "conflict-cost model" to investigate how conflict affects the welfare costs of inflation to workers. In the model, which focuses on the worker's decision problem, workers receive a default wage offer from their employer. This default offer may not be fully indexed to inflation. Workers optimally choose whether to engage in costly conflict with their employer to have their wages catch up with inflation. We emphasize key parameters that determine how conflict affects the welfare costs of inflation in the model, which we measure using survey hypotheticals in Section 5.

4.1 The Worker's Problem

Time is discrete and indexed by $t \in \{0, 1, \dots\}$. The economy is populated by a continuum of workers $i \in [0, 1]$. Each worker's expected utility is given by

$$\mathcal{U}_i = \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \left(\log c_{i,t} - \kappa_{i,t} \mathcal{I}_{i,t}\right)\right], \tag{2}$$

where $c_{i,t}$ is the worker's consumption, over which they have logarithmic utility.[8] The indicator $\mathscr{I}_{i,t}$ takes a value of one if the worker chooses to take actions that place them in conflict with their employer in order to increase their wage, and zero otherwise. $\kappa_{i,t}$ is the "conflict cost", i.e., the utility cost to worker i of taking the costly action at time t. The conflict cost takes the "Calvo-plus" form of Nakamura and Steinsson (2010) and Auclert et al. (2024).[9] Specifically, with probability $1-\lambda$, the worker incurs a utility cost $\kappa > 0$ to increase their wage, meaning $\kappa_{i,t} = \kappa$. With probability $\lambda \in [0,1)$, conflict is costless to the worker, meaning $\kappa_{i,t} = 0$. The cost $\kappa_{i,t}$ is i.i.d. over time and across workers. A costless wage increase might come from workers having a low cost of conflict for idiosyncratic reasons. It may also arise from firms unsolicitedly offering workers wage increases to ensure their wages keep up with inflation and productivity growth, thereby avoiding conflict.

Each worker i receives a real wage $w_{i,t} = W_{i,t}/P_t$, where $W_{i,t}$ is the nominal wage and P_t is the price level. If the worker does not take actions to increase their wage $\left(\mathscr{I}_{i,t} = 0\right)$, they earn a default real wage $w_{i,t} = w^d_{i,t} = w_{i,t-1}e^{\alpha-\pi^{ss}-(1-\gamma)(\pi_t-\pi^{ss})}$, which follows from $W^d_{i,t} = W_{i,t-1}e^{\alpha+\gamma(\pi_t-\pi^{ss})}$ in nominal terms. Here, α denotes the growth rate of the default nominal wage at steady state inflation π^{ss}, $\gamma \in [0,1]$ is the degree of indexation to inflation shocks ($\gamma = 0$ is no indexation and $\gamma = 1$ is full indexation), and $\pi_t = \log(P_t/P_{t-1})$ is the inflation rate. If the worker takes actions to increase their wage $\left(\mathscr{I}_{i,t} = 1\right)$, they raise their wage to a conflict-induced (real) wage $w_{i,t} = w^*_{i,t}$. The conflict-induced real wage $w^*_{i,t}$ grows in line with productivity, following

$$\log w^*_{i,t} = \log w^*_{i,t-1} + g + z_{i,t}, \tag{3}$$

where $z_{i,t}$ represents idiosyncratic productivity shocks and g represents trend productivity growth. The idiosyncratic shock $z_{i,t}$ has a mean of 0, is i.i.d. across workers and time, independent of $\kappa_{i,t}$, is continuously distributed over a support $[\underline{z},\infty)$ with probability density function $f\left(z_{i,t}\right)$, where $\underline{z} \geq \alpha - \pi^{ss} - g$. The lower bound $\underline{z}$ in the support of $z_{i,t}$ guarantees that, at steady-state inflation, the worker's productivity shock realization is never so negative that their default wage $w^d_{i,t}$ exceeds the conflict-induced wage $w^*_{i,t}$.

[8]The log-utility case provides a clean benchmark because conflict decisions are independent of wage levels, conditional on the wage gaps defined in (5).

[9]We adopt "Calvo-plus" costs for simplicity, however our main results hold with a more general distribution of costs as in Caballero and Engel (2007) and Alvarez et al. (2022). See Section 4.3 for details.

In the main analysis, we assume that the conflict-induced nominal wage is exogenous and fully indexed with inflation by imposing (3). In Section 4.3, we also demonstrate how our main result extends to cases where the conflict-induced nominal wage is partially indexed or overshoots in response to inflation shocks. In Appendices C.3 and C.4, we also extend the model so that the conflict-induced wage is determined endogenously.

In the main analysis, we study the case where the worker is hand-to-mouth and $c_{i,t} = w_{i,t}$. In Section 4.3, we study the case in which the worker faces a standard borrowing constraint and verify that our main conclusion stands.

Discussion. This setup captures several features of wage setting found in Section 3. Workers choose between accepting a default wage offered to them by the employer or increasing wages by taking costly actions that place them in conflict with their employers. We use a single reduced-form parameter κ to capture the time, monetary, or psychological costs associated with these actions. The actions ensure a conflict-induced wage that keeps up with both inflation and productivity growth. In the absence of these actions, workers receive a default wage offered by the employer that may not be fully indexed to inflation shocks $(\gamma < 1)$. In other words, the default contract between workers and employers is potentially incomplete with respect to inflation shocks (Grossman and Hart, 1986; Hart and Moore, 1990), with the degree of incompleteness captured by a parameter γ.

Alternative, more sophisticated wage setting policies could feature firms setting wages to prevent conflict entirely, in order to avoid paying higher conflict-induced wages after workers take actions. For instance, firms could always offer wages that are just high enough that workers choose not to engage in conflict. Our survey suggests that this form of more sophisticated wage setting is not too common. First, this more sophisticated policy would imply that default wage offers must be fully indexed to inflation to keep workers exactly indifferent to engaging in conflict when inflation rises. Second, with these sophisticated policies, conflict would never be observed in equilibrium. Neither prediction is supported by our survey.[10] We therefore summarize firms' behavior by the steady-state growth rate and the inflation indexation of the default wage (α and γ, respectively) and the frequency of "free" catch-up opportunities for workers (λ), which firms may offer to avoid conflict. In Section 5, we discipline these parameters using re-

[10] Firms might not engage in sophisticated wage-setting policies if there are costs to adjusting wages away from the default wage offer, such as managerial frictions to rearranging contracts.

sponses to tailored survey questions.

Our model is similar to the standard menu-cost model of price setting (e.g., Alvarez et al., 2016). However, we apply the model to wage setting and in doing so, impose three important differences. First, in the menu-cost model, the firm's objective depends on a quadratic loss based on the gap between the current price and the optimal reset price, while in our model, the worker's objective is always increasing in the gap between the current wage and the conflict-induced wage (as formalized in (7)). Second, the adjustments in our model are one-sided—workers take actions to raise their wage but not to cut it. In standard menu-cost models, adjustment is two-sided, as firms pay menu costs to either raise or lower prices. Third, in our model, all workers periodically receive wage increases, even without costly conflict and even if they do not receive a free wage catch-up opportunity, due to the default wage increases governed by α and γ. In the standard menu-cost model, prices instead remain unchanged if the firm does not pay a menu cost or receive an exogenous free opportunity to change their price.

4.2 The Impact of Inflation Shocks on Worker Welfare and Wages

The economy starts from a steady state with inflation $\pi^{ss} \geq 0$. An unexpected aggregate shock to the path of inflation $\{\hat{\pi}_t\}_{t=0}^{\infty} \equiv \left\{\pi_t - \pi^{ss}\right\}_{t=0}^{\infty}$ is realized at the beginning of period 0.[11] The economy does not face other aggregate shocks. We are interested in characterizing how the inflation shock affects workers' welfare and (log) real wages. Specifically, workers' aggregate welfare and real wages are defined as

$$\mathscr{W} \equiv \int_0^1 \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \left(\log c_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t}\right)\right] di \quad \text{and} \quad \log w_t \equiv \int_0^1 \log w_{i,t} di, \tag{4}$$

where $\mathbb{E}[\cdot]$ averages over the realization of idiosyncratic shocks (after the realization of the aggregate shock). The impact of the inflation shocks on workers' welfare and wages is denoted by $\hat{\mathscr{W}} \equiv \mathscr{W} - \mathscr{W}^{ss}$ and $\{\hat{w}_t\}_{t=0}^{\infty} \equiv \left\{\log w_t - \log w^{ss}\right\}_{t=0}^{\infty}$, respectively.[12]

[11] Both positive and negative shocks to $\hat{\pi}_t$ are allowed. Because of idiosyncratic shocks, the effects of inflation shocks on aggregate worker welfare are locally linear. In the main analysis, we focus on workers' problems and treat inflation as exogenous. In Appendix Section C.3, we study a general equilibrium model where inflation is endogenously determined.

[12] Note that, given workers' utility function, the change in welfare can be interpreted as a consumption-equivalent welfare loss, as in Lucas (1995).

To summarize the worker's problem conveniently, we introduce a "wage gap," defined as the difference between the actual wage and the conflict-induced wage, $x_{i,t} \equiv \log w_{i,t} - \log w^*_{i,t}$. Based on the process for real wages, the dynamics of the wage gap are given by

$$x_{i,t} = \begin{cases} x_{i,t-1} - \left(\mu + z_{i,t}\right) - \left(1-\gamma\right)\hat{\pi}_t & \text{if } \mathscr{I}_{i,t} = 0 \\ 0 & \text{if } \mathscr{I}_{i,t} = 1 \end{cases}, \tag{5}$$

where $\mu \equiv g - \alpha + \pi^{ss} \geq 0$ parameterizes the (negative) drift of the wage gap in steady state. We then rewrite the utility of worker i in (2) as a function of wage gaps, conflict decisions, and an exogenous constant that is invariant to conflict decisions and the path of inflation:

$$\mathscr{U}_i = \mathbb{E}\left[\sum_{t=0}^{\infty}\beta^t\left\{\log\left(w^*_{i,t}e^{x_{i,t}}\right) - \kappa_{i,t}\mathscr{I}_{i,t}\right\}\right] = \mathbb{E}\left[\sum_{t=0}^{\infty}\beta^t\left(x_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t}\right)\right] + \mathbb{E}\left[\sum_{t=0}^{\infty}\beta^t \log w^*_{i,t}\right]. \tag{6}$$

Worker i's problem can then be summarized by:

$$\max_{\{x_{i,t},\mathscr{I}_{i,t}\}_{t=0}^{\infty}} \mathbb{E}\left[\sum_{t=0}^{\infty}\beta^t\left(x_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t}\right)\right] \quad \text{s.t.} \quad (5) \text{ and } x_{i,-1} \text{ given.} \tag{7}$$

In each period t, a worker faces two options. First, the worker can choose to take actions ($\mathscr{I}_{i,t} = 1$), increasing their wage and eliminating the wage gap ($x_{i,t} = 0$). Second, the worker can refrain from conflict $\left(\mathscr{I}_{i,t} = 0\right)$ and allow the wage to adjust according to the employer's default wage offer, so $x_{i,t} = x^d_{i,t} \equiv x_{i,t-1} - \left(\mu + z_{i,t}\right) - \left(1-\gamma\right)\hat{\pi}_t$, where $x^d_{i,t}$ captures the wage gap implied by the employer's default wage offer.

When conflict is costly ($\kappa_{i,t} = \kappa$), the worker's optimal conflict choice can be characterized by a *threshold rule*: there exist thresholds $\{\mathbb{T}_t\}_{t=0}^{\infty}$ such that the worker engages in conflict ($\mathscr{I}_{i,t} = 1$) if $x^d_{i,t} \leq -\mathbb{T}_t$ and does not ($\mathscr{I}_{i,t} = 0$) if $x^d_{i,t} > -\mathbb{T}_t$. We use $\mathbb{T} > 0$ to denote the steady-state conflict threshold at which the worker is indifferent between conflict with employers and accepting the default wage at steady-state inflation π^{ss}.[13]

[13] There is a testable prediction—that the wage gap is a key determinant of conflict—which we verify using respondents' behavior in 2023. In Appendix Table B.4, we relate respondents' conflict decisions in 2023 to their perceived wage gap implied by the employer's default wage offer in 2023, defined as the difference between the nominal wage growth of their employer's default wage offer and their conflict-induced nominal wage growth. Consistent with our model, a more negative perceived wage gap strongly predicts more conflict (column 1), including after controlling for worker characteristics (column 2), and after controlling for perceived inflation—which, consistent

In the model, workers engage in conflict in steady state, without shocks to inflation. At π^{ss}, from the dynamics of wage gap in (5), there are two reasons a worker's wage gap can be pushed below $-\mathbb{T}$, inducing conflict: the negative drift of the wage gap in steady state ($\mu > 0$) and a large positive idiosyncratic shock $z_{i,t}$.

We now turn to characterizing the impact of inflation shocks on worker welfare. We first show that inflation increases the fraction of workers engaging in conflict, consistent with the survey and observational evidence in Finding 4 above. We define $\text{frac}_t \equiv \int_0^1 \mathscr{I}_{i,t} di$ as the share of workers who engage in conflict with their employer at each time t.

Proposition 1. *If $\gamma < 1$, then an increase in inflation at $t = 0$ leads to a larger fraction of workers engaging in conflict at $t = 0$, $frac_0$.*

Suppose that inflation increases. As long as default wages are not fully indexed to inflation shocks ($\gamma < 1$), workers' real wages fall absent conflict. As a result, more workers are pushed over their conflict threshold and choose to incur conflict costs in exchange for higher wages. This result shows that conflict is state dependent in the model. Alternatively, if conflict were time dependent—a special case of our model with $\kappa \to \infty$ and $\lambda > 0$—conflict $\{\mathscr{I}_{i,t}\}_{t=0}^{\infty}$ would not change with inflation.

We now study the impact of inflation shocks on aggregate worker welfare and how it connects with the responses of aggregate wages. We first decompose the response of aggregate (real) wages to inflation shocks into two terms:

$$\hat{w}_t = \hat{w}_t^{\text{erosion}} + \hat{w}_t^{\text{catch-up}}.$$

The first term, which we call *wage erosion*, is the impact of inflation shocks on real wages while holding each worker i's conflict decisions $\{\mathscr{I}_{i,t}\}_{t=0}^{\infty}$ as if the inflation were fixed at the steady state level. The second term, which we call *wage catch-up*, is the impact of inflation shocks on real wages through changes in each worker i's conflict decisions.

Formally, let $\omega_t\left(\boldsymbol{\pi_t}, \boldsymbol{\mathscr{I}_{i,t}}, h_{i,t}\right)$ denote worker i's real wage at time t for a given path of infla-

with the model, does not predict conflict conditional on the perceived wage gap (column 3). Without controlling for the perceived wage gap, higher perceived inflation does predict worker conflict decisions, consistent with the view that it lowers perceived wage gaps by increasing perceived conflict-induced nominal wage growth conditional on default nominal wage growth (column 4).

tion $\boldsymbol{\pi_t} = \{\pi_\tau\}_{\tau=0}^t$, conflict choices $\mathscr{I}_{\boldsymbol{i,t}} = \left\{\mathscr{I}_{i,\tau}\left(h_{i,\tau}, \boldsymbol{\pi}_\infty\right)\right\}_{\tau=0}^t$, and idiosyncratic history

$$h_{i,t} \equiv \left(\left\{z_{i,\tau}, \kappa_{i,\tau}\right\}_{\tau=0}^t, w_{i,-1}, w_{i,-1}^*\right).$$

Wage erosion measures how aggregate real wages would change in response to inflation shocks, holding conflict decisions fixed at their steady state value:

$$\hat{w}_t^{\text{erosion}} \equiv \int_0^1 \log \omega_t \left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}^{\boldsymbol{ss}}, h_{i,t}\right) di - \int_0^1 \log \omega_t \left(\boldsymbol{\pi}^{\boldsymbol{ss}}, \mathscr{I}_{\boldsymbol{i,t}}^{\boldsymbol{ss}}, h_{i,t}\right) di. \tag{8}$$

Here, $\mathscr{I}_{\boldsymbol{i,t}}^{\boldsymbol{ss}} = \left\{\mathscr{I}_{i,\tau}^{ss} \equiv \mathscr{I}_{i,\tau}\left(h_{i,\tau}, \boldsymbol{\pi}^{\boldsymbol{ss}}\right)\right\}_{\tau=0}^t$ is what conflict decisions would have been, given steady-state inflation, as well as the same history of idiosyncratic shocks. Wage catch-up is the component of wage adjustment that results from changes in conflict choices due to inflation shocks:

$$\hat{w}_t^{\text{catch-up}} \equiv \int_0^1 \log \omega_t \left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}, h_{i,t}\right) di - \int_0^1 \log \omega_t \left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}^{\boldsymbol{ss}}, h_{i,t}\right) di. \tag{9}$$

We can now examine the impact of inflation shocks on aggregate worker welfare. From (4), we can decompose this impact into two components:

$$\hat{\mathscr{W}} = \underbrace{\sum_{t=0}^{\infty} \beta^t \hat{w}_t}_{\text{aggregate real wage response}} - \underbrace{\hat{\mathscr{K}}}_{\substack{\text{aggregate costs of} \\ \text{inflation due to conflict}}}. \tag{10}$$

The first term captures the impact of inflation on the present value of aggregate real wages. The second term, the aggregate costs of inflation due to conflict, is given by

$$\hat{\mathscr{K}} \equiv \int_0^1 \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \kappa_{i,t} \left(\mathscr{I}_{i,t} - \mathscr{I}_{i,t}^{ss}\right)\right] di = \kappa \sum_{t=0}^{\infty} \beta^t \left(\text{frac}_t - \text{frac}^{ss}\right) \tag{11}$$

and captures how inflation shocks change the total conflict costs borne by workers. This term equals the utility cost per conflict multiplied by the change in the present value of the fraction of workers who engage in conflict due to inflation shocks. We now connect the two components of welfare change to the two components of wage adjustment, thereby presenting the main analytical result of the paper.

Theorem 1. *To first order, the impact of inflation shocks $\{\hat{\pi}_t\}_{t=0}^{\infty}$ on aggregate worker welfare is* *given solely by wage erosion,*

$$\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{erosion} = \sum_{t=0}^{\infty} \beta^t \hat{w}_t - \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{catch\text{-}up}, \tag{12}$$

because the welfare gains from wage catch-up due to conflict responses to inflation shocks are offset by the associated changes in conflict costs.

$$\hat{\varkappa} \approx \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{catch\text{-}up}. \tag{13}$$

Equation (12) shows that the impact of inflation shocks on workers' welfare depends only on wage erosion. The benefits of wage catch-up from more frequent conflict are offset by the additional conflict costs, implying that, to first order, wage growth achieved through costly conflict is irrelevant for worker welfare. The result follows from the general envelope theorem in Milgrom and Segal (2002), which applies to discrete choices, i.e., workers' optimal choices of whether to engage in conflict with employers $\{\mathscr{I}_{i,t}\}_{t=0}^{\infty}$. The result also applies to an arbitrary sequence of inflation shocks (including deflationary shocks), regardless of their persistence.

To illustrate the intuition behind this theorem, consider a sequence of positive inflation shocks $\hat{\pi}_t \geq 0$ for all t. First, consider the infra-marginal workers whose conflict decisions are unaffected by inflation shocks because inflation shocks do not push their wage gaps over the conflict thresholds. Inflation shocks erode their real wages, and there is no wage catch-up because their conflict decisions remain unchanged. The impact of inflation shocks on their welfare is hence captured by the wage erosion term, which equals the impact of inflation shocks on their observed real wages.

Second, consider the marginal workers who switch from not engaging in conflict to engaging in conflict due to inflation shocks. These workers' wage gaps are pushed over the conflict thresholds as the inflation shocks erode their real wages. Before the (small) inflation shocks, these marginal workers were near the conflict thresholds and were approximately indifferent between engaging in costly conflict and accepting the default offer due to worker optimality. As a result, even though these workers experience positive wage catch-up due to conflict, the conflict costs of achieving these wage gains offset those gains. Consequently, the impact of inflation shocks on these marginal workers' welfare is still captured solely by the wage erosion term.

One consequence of Theorem 1 is that the impact of inflation shocks on worker welfare and real wages can differ significantly. Welfare depends solely on wage erosion, while changes in the real wage also reflect wage growth achieved through changes in conflict decisions. Even if the aggregate nominal wage keeps up with inflation—so that the impact of inflation shocks on the aggregate real wage $\sum_{t=0}^{\infty} \beta^t \hat{w}_t$ is close to zero—inflation can still harm worker welfare if workers must engage in costly conflict more frequently for the aggregate nominal wage to keep up with inflation. As a result, measuring worker welfare using observed wage growth understates the costs of inflation.

Only in the special case of our model with time-dependent wage setting is the impact of inflation shocks on the aggregate real wage sufficient to capture their impact on worker welfare. In this case, with $\lambda > 0$ and $\kappa \to \infty$, Theorem 1 still holds. Conflict $\mathscr{I}_{i,t} = 1$ if and only if the exogenous free catch-up opportunity arrives. As a result, conflict decisions $\{\mathscr{I}_{i,t}\}_{t=0}^{\infty}$ are invariant to inflation shocks: both the aggregate costs of inflation due to conflict, $\hat{\varkappa}$, and the wage-catch up term, $\hat{w}_t^{\text{catch-up}}$ in Equation (9), are zero, since they arise only from how inflation shocks change conflict decisions.

The theorem focuses on the first-order impact of inflation shocks on worker welfare. For large shocks, and taking into account non-linearity, Theorem 1 does not hold exactly because some workers would strictly prefer to engage in conflict as inflation shocks push them over the conflict threshold. However, the general lesson remains the same. Workers have to engage in costly conflict to achieve wage gains. Therefore, the impact of inflation shocks on worker welfare differs from the impact on real wages and the aggregate cost of inflation due to conflict can be significant. This lesson can be seen from the decomposition of inflation shocks' impact on worker welfare in (10), which does not rely on a first-order approximation. In fact, if the inflation shock becomes very large, the aggregate costs of inflation due to conflict are the sole component of the overall costs of inflation to workers: eventually, every worker engages in conflict, leading to large aggregate costs of inflation due to conflict without declines in real wages after inflation shocks.

What determines the magnitude of wage erosion, and as such the impact of inflation shocks on worker welfare? The following proposition links wage erosion to two factors: first, the indexation of the default wage; and second, the frequency of conflict at steady-state inflation. We capture the frequency of conflict at steady-state inflation by the fraction of workers who, at steady state, do not engage in conflict from the current period onward for k periods, $\Phi_k^{ss} \equiv \int_0^1 \left(\Pi_{s=0}^k \left(1-\mathscr{I}_{i,t+s}^{ss}\right)\right) di$—that is, the probability that the employer's default wage offer "survives" without conflict over these periods. When conflict is frequent, the survival probability is low.

Proposition 2. *To first order, wage erosion and the impact of inflation shocks on worker welfare are given by*

$$\hat{w}_t^{erosion} = -\left(1-\gamma\right)\sum_{s=0}^{t}\Phi_{t-s}^{ss}\hat{\pi}_s \quad \forall t \geq 0 \quad \textit{and} \quad \hat{\mathscr{W}} \approx -\left(1-\gamma\right)\sum_{s=0}^{\infty}\beta^s\left(\sum_{k=0}^{\infty}\beta^k\Phi_k^{ss}\right)\hat{\pi}_s, \tag{14}$$

The proposition shows that given inflation shocks, wage erosion is a function only of the indexation of the default wage (γ) and the frequency of conflict in steady state as measured by the survival probability $\{\Phi_k^{ss}\}$. The impact on welfare, being the present value of wage erosion, depends on the same two factors. Welfare costs of inflation shocks are smaller when indexation is high—in the extreme case of full indexation ($\gamma = 1$), inflation shocks do not lead to any wage erosion. Welfare costs are also smaller when conflict is more frequent at steady-state inflation, meaning survival probabilities are low.

Intuitively, imagine a worker who did not engage in conflict between periods s and t at steady state. For such a worker, the inflation shock $\hat{\pi}_s$ lowers their real wage at t by $\left(1-\gamma\right)\hat{\pi}_s$. The term $1-\gamma$ captures the fact that the inflation shock may not lower real wages one-for-one even without conflict because of the indexation of the default wage. Suppose instead that the worker would engage in conflict between periods s and t at steady state. Then, $\hat{\pi}_s$ does not lower their real wage at t, because conflict allowed their nominal wage to fully catch up with inflation $\hat{\pi}_s$. Summing across workers, $\hat{\pi}_s$ erodes aggregate real wage at t by $\left(1-\gamma\right)\Phi_{t-s}^{ss}\hat{\pi}_s$. Summing over inflation shocks in all periods, we arrive at the expression for wage erosion in (14). The impact of inflation shocks on worker welfare then follows from (12).

The main value of Proposition 2 is to clarify how key parameters of the model determine the welfare costs of inflation shocks. First, a higher conflict cost κ means that workers engage in conflict less frequently at steady state, which raises the survival probabilities of the employer's default wage offer $\{\Phi_k^{ss}\}$. Therefore, a higher conflict cost increases the magnitude of wage erosion and raises the welfare costs of inflation shocks. Similarly, a lower probability of free wage catch-up λ or a higher growth rate of the default nominal wage at steady state α also raises the survival probabilities $\{\Phi_k^{ss}\}$ and, hence, the magnitude of wage erosion and the welfare costs of inflation shocks. Finally, higher indexation γ increases the employer's default wage offer after inflation shocks, which lowers the magnitude of wage erosion and the welfare costs of inflation shocks. Guided by the proposition, we design survey hypotheticals to directly measure these parameters in Section 5.

4.3 Extensions

To focus on the key economics and quantify our survey evidence in a simple manner, our baseline model captures conflict in a reduced-form way and focuses on the extensive margin of conflicts. This framework deliberately abstracts from certain specific features of conflict behavior documented in Section 3. In Appendix Section C.1, we develop theoretical extensions of the baseline model that incorporate some of these features. We show that the main result stated in Theorem 1 continues to hold in these extensions, a robustness that stems from the general applicability of the envelope theorem in Milgrom and Segal (2002).

First, Theorem 1 does not depend on the "Calvo-plus" assumption, but also holds for general distributions of conflict costs with non-negative supports. Second, Theorem 1 also holds if we focus on the intensive margin of conflict—allowing conflict costs to scale with wage gains from conflict. We study a model akin to Rotemberg costs in price setting: a worker engaging in conflict endogenously chooses how much to raise their wage $w_{i,t}$ beyond the default offer $w_{i,t}^d$, incurring a utility cost of $\frac{\kappa}{2}\left(\log w_{i,t} - \log w_{i,t}^d\right)^2$. The impact of inflation shocks on aggregate worker welfare is still given by wage erosion, namely the impact of inflation shocks on workers' real wages when their conflict decisions, here given by the intensity of conflict $\log w_{i,t} - \log w_{i,t}^d$, are held at the steady-state level. We also study a case in which a worker makes an intensive-margin labor supply decision, which maps directly to the hard-work option in Panel B of Figure 1. In this case, the impact of inflation shocks on aggregate worker welfare is given by "pay erosion," defined as the effect of inflation shocks on workers' total real pay if their labor supply is held at the steady-state level. Third, Theorem 1 extends to the case in which the worker does not have log utility and/or faces a standard borrowing constraint, provided each worker's wage erosion in (12) is appropriately weighted by their marginal utility.

In our baseline model, the conflict-induced (real) wage $w_{i,t}^*$ is exogenous and invariant to inflation shocks. However, Theorem 1 also extends to the case where $w_{i,t}^*$ comoves with inflation shocks and/or is endogenously determined, for example, based on the state of the labor market (as further explored in Appendix Sections C.3 and C.4).[14] In this case, (12) still holds, with the formula for wage erosion—still defined as how inflation shocks would affect workers' real wages if their conflict decisions were held at the steady state—given by:

$$\hat{w}_t^{\text{erosion}} = -\left(1-\gamma\right)\sum_{s=0}^{t}\Phi_{t-s}^{ss}\hat{\pi}_s + \sum_{s=0}^{t}\left(1-\Phi_{t-s}^{ss}\right)\hat{g}_{w,s}, \tag{15}$$

where $g_{w,s} \equiv \log\left(w_s^*/w_{s-1}^*\right)$ is the growth rate of aggregate conflict-induced (real) wages $\log w_s^* \equiv \int_0^1 \log w_{i,s}^* di$, and deviations from their steady-state values are still denoted by hats. Compared to (14), the additional term captures how changes in conflict-induced real wages affect workers' real wages when their conflict decisions are held at the steady state. Finally, as we discuss in Section 6.3 and Appendix Section C.3, Theorem 1 also holds when inflation is endogenously determined in general equilibrium, driven by either aggregate supply or demand shocks.

Three meaningful directions lie beyond the scope of the current paper. First, one could formally model costly on-the-job search and study how inflation affects those costs, as in Afrouzi et al. (2025) and Pilossoph et al. (2024). Second, one could introduce firm optimization and allow firms to endogenously choose the default wage contract (e.g., optimize γ and α). Third, one could introduce endogenous separation and study how it is influenced by inflation, as in Blanco et al. (2025a).

5 Using the Survey to Calibrate Key Model Parameters

As we have discussed, several model parameters determine the extent to which conflict affects the costs of inflation: how much workers dislike taking actions to increase their wages (i.e., the utility cost to each worker of engaging in conflict κ); the probability of free wage catch-up λ; the degree of indexation of employers' default wage offers γ; and the growth rate of the default

[14] In our baseline model, all workers are employed. In Appendix Section C.4, we extend the model to allow for unemployment, determined endogenously in general equilibrium through random matching in the Diamond–Mortensen–Pissarides tradition. Inflation can "grease the wheels of the labor market" (Blanco and Drenik, 2023) by increasing overall employment in general equilibrium. This channel increases worker welfare through both higher employment rates and the upward pressure these exert on wages in general equilibrium. But even in this extended setting, aggregate costs of inflation due to conflict remain significant, both in absolute value and as a share of the overall costs of inflation.

nominal wage at steady state inflation α. This section uses the second part of our survey, based on custom-designed hypothetical questions, to measure these parameters.

We use those survey hypotheticals to measure key parameters (instead of relying on the first part of the survey based on workers' experiences in 2023) to abstract from the specific context of the survey—namely, the high inflation of 2023 and the actions that workers took in response. As such, our parameter estimates are less affected by the specific context associated with the motivating evidence in Section 3.[15] An alternative approach would be to infer these conflict costs indirectly by calibrating a model to match moments of the wage growth distribution, as in the menu-cost literature (e.g., Alvarez et al., 2016). However, in our model, wage growth may arise from either conflict or default wage increases governed by α and γ. One cannot easily differentiate conflict-induced wage growth from default wage growth in the data, which makes it challenging to map the distribution of wage growth to conflict costs.

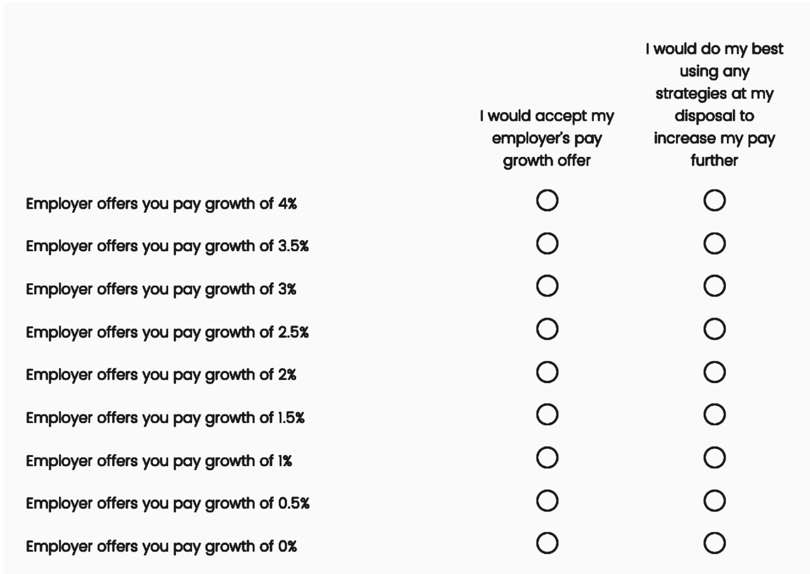
5.1 Conflict Costs

We first measure the fraction of their wages that workers would sacrifice to avoid conflict with their employers. As we discuss below, this object maps one-to-one to the conflict threshold $\mathbb{T}$ and hence the conflict cost κ in the model. To measure it, we proceed in two steps. First, we elicit the conflict-induced nominal wage growth in the next 12 months, that is, the wage growth workers believe they could secure from their employer if they took costly actions, ΔW^*. Second, we elicit the default nominal wage growth in the next 12 months at which workers are indifferent between accepting their employer's default wage offer versus choosing to take costly action, ΔW^{indiff}. The difference, $\Delta W^* - \Delta W^{\text{indiff}}$, measures the fraction of their wages that workers would sacrifice to avoid conflict with employers.

The elicited fraction of wages that workers would sacrifice to avoid conflict, $\Delta W^* - \Delta W^{\text{indiff}}$, maps directly to the conflict threshold $\mathbb{T}$ in our model. To see this, note that the difference between the default nominal wage growth ΔW^d and the conflict-induced nominal wage growth ΔW^* over the same horizon captures the wage gap of the default wage offer, $x^d = \Delta W^d - \Delta W^*$. In the model, for a worker without a free wage catch-up opportunity, if the wage gap x^d is suffi-

[15] A literature (e.g., Barsky et al., 1997; Falk et al., 2023) shows that answers to well-designed hypothetical survey questions are stable and predictive of incentivized or real-life decisions. However we caution that fully separating respondents from their recent experience, even with well designed hypothetical questions, is challenging.

Figure 5: Survey Question to Elicit Indifference Nominal Wage Growth ΔW^{indiff}



	I would accept my employer's pay growth offer	I would do my best using any strategies at my disposal to increase my pay further
Employer offers you pay growth of 4%	○	○
Employer offers you pay growth of 3.5%	○	○
Employer offers you pay growth of 3%	○	○
Employer offers you pay growth of 2.5%	○	○
Employer offers you pay growth of 2%	○	○
Employer offers you pay growth of 1.5%	○	○
Employer offers you pay growth of 1%	○	○
Employer offers you pay growth of 0.5%	○	○
Employer offers you pay growth of 0%	○	○

Notes: this figure contains the question from the survey eliciting the indifference nominal wage growth, ΔW^{indiff}. For each hypothetical default nominal wage growth offered by the employer, respondents are required to choose whether they would accept the offer or take costly actions to achieve a higher wage growth. Respondents first answer a question that reveals their conflict-induced nominal wage growth, ΔW^*: "[c]ommon strategies to increase pay include initiating a difficult conversation about pay with employers, or searching for higher paid jobs with other employers. Please, think ahead to 12 months from now. Suppose that you are working at the same job at the same place you currently work, and working the same number of hours. What pay growth do you think you would get if you do your best to increase pay using any strategies at your disposal, including the common strategies listed above?". In order to elicit the indifference nominal wage growth ΔW^{indiff}, respondents then answer the question "[y]our employer increases pay for everyone in your position, including you, by z% (possible values listed below). Would you accept your employer's offer without taking any actions to increase your pay or would you do your best to increase your pay using any strategies at your disposal (such as initiating a difficult conversation about pay with employers, or searching for higher paid jobs with other employers)? Remember that you have said that if you do your best to increase pay using any strategies at your disposal, you would have a pay growth of y%." Here, y is their answer to the previous question.

ciently negative ($x^d < -\mathbb{T}$, where $\mathbb{T} > 0$ is the conflict threshold), the worker engages in conflict. If the wage gap is less negative ($x^d > -\mathbb{T}$), the worker does not engage in conflict. At the conflict threshold ($x^d = -\mathbb{T}$), the worker is indifferent between accepting the default wage offer and engaging in conflict. As a result, when the default nominal wage growth is equal to the indifference nominal wage growth, $\Delta W^d = \Delta W^{\text{indiff}}$, we have $x^d = \Delta W^{\text{indiff}} - \Delta W^* = -\mathbb{T}$. So, $\Delta W^* - \Delta W^{\text{indiff}}$ equals the conflict threshold $\mathbb{T}$. We then use the conflict threshold $\mathbb{T}$ to pin down the conflict cost parameter κ.[16]

To elicit the indifference nominal wage growth, ΔW^{indiff}, we adapt the standard "multiple price lists for willingness to pay elicitation" used in experimental economics (e.g., Jack et al.,

[16]Formally, let $v^{ss}(x)$ denote the worker's value given its end-of-period wage gap in (7) at steady state. That is, $v^{ss}(x) \equiv x + \max_{\{\mathscr{I}_{i,t}\}_{t=1}^{\infty}} \mathbb{E}\left[\sum_{t\geq 1} \beta^t \left(x_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t}\right) | x_{i,0} = x\right]$, subject to (5) and $\pi_t = \pi^{ss}$ for all t. One can then use the conflict threshold $\mathbb{T}$ to pin down the conflict cost parameter $\kappa: v^{ss}(0) - \kappa = v^{ss}(-\mathbb{T})$. See Appendix Section C.2 for additional details about the mapping between our elicitation and the model.

2022). Based on the reported conflict-induced nominal wage growth ΔW^*, we constructed a menu of default nominal wage growth options where the maximum wage growth is ΔW^* and the minimum is ΔW^* minus 4 percentage points, with a gradient of 0.5 percentage points. Figure 5 shows this menu for an example in which the respondent reported $\Delta W^* = 4\%$. For each hypothetical default nominal wage growth in the menu, we asked participants whether they would accept the default offer or take actions to achieve higher wage growth.[17] In the top row, employers offer a default nominal wage growth equal to the conflict-induced nominal wage growth. If conflict is costly, workers should always accept the default offer. In the bottom row, the employer's default nominal wage growth offer is much lower than the conflict-induced nominal wage growth, so workers should choose conflict unless the costs are prohibitively large. At some intermediate default nominal wage growth hypothetically offered by the employer, workers should switch between accepting and engaging in conflict. The default nominal wage growth at which conflict decisions switch bounds the worker's indifference nominal wage growth, ΔW^{indiff}, within a 0.5% interval. Specifically, letting ΔW^{accept} denote the lowest default nominal wage growth in the menu at which respondents accept the employer's default offer, we have $\Delta W^{\text{indiff}} \in \left[\Delta W^{\text{accept}} - 0.5\%,\ \Delta W^{\text{accept}}\right]$ and the conflict threshold

$$\mathbb{T} \in \left[\Delta W^* - \Delta W^{\text{accept}},\ \Delta W^* - \Delta W^{\text{accept}} + 0.5\%\right]. \tag{16}$$

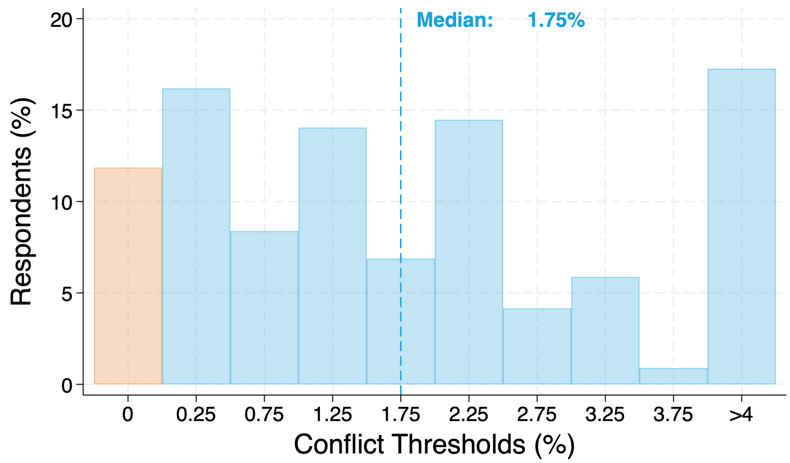
We set $\mathbb{T}$ at the median of the interval. For those who would take costly actions at all default wage offers, we assign a $\mathbb{T}$ of zero. For those who would never take actions that put them in conflict with their employer, we know that $\mathbb{T}$ exceeds 4% but cannot provide a point estimate. We summarize conflict thresholds using the median of the cross-respondent distribution to avoid measuring values of $\mathbb{T}$ above 4%.[18]

Figure 6 illustrates the full distribution of elicited conflict thresholds $\mathbb{T}$ in our sample. The conflict thresholds are large and heterogeneous. Conditional on having a positive $\mathbb{T}$, the median worker would sacrifice 1.75% of their wages in order to avoid taking costly actions that put them

[17] We randomized whether the menu was ascending or descending, and whether accepting or conflicting is ordered first, which means that the average results are unaffected by any anchoring due to page location. Fortunately, we find that the cost of conflict is the same across groups, meaning order is not important.

[18] The only group of respondents for whom we do not define conflict thresholds throughout the analysis is those who give non-monotone responses, which reassuringly correspond to less than 7% of the sample.

Figure 6: Distribution of Conflict Thresholds Elicited from Survey



Note: this figure illustrates the distribution of elicited conflict thresholds $\mathbb{T}$ showing the percentage of participants with each discrete value. $\mathbb{T}$ is defined as the difference between the conflict-induced nominal wage growth (ΔW^*) and their indifference nominal wage growth (ΔW^{indiff}), the default nominal wage growth at which workers are indifferent between accepting their employer's default wage offer versus taking costly action. Specifically, we set $\mathbb{T}$ at the median of the interval in (16). The data exclude respondents who give non-monotonic responses. The median elicited conflict threshold, conditional on being positive, is highlighted in the figure. The right-most column contains all respondents with a elicited conflict threshold of more than 4%.

in conflict with their employer.[19] We find substantial dispersion around this median value of $\mathbb{T}$, with more than 15% of the sample being willing to sacrifice at least 4 percent of their wages to avoid conflict. While there is substantial dispersion in what workers are willing to sacrifice to avoid conflict, we do not find much systematic heterogeneity across worker demographics or income (See Appendix Figure B.1.)[20,21] In our baseline model, we calibrate κ so that $\mathbb{T}$ =

[19] As discussed above, we measure the conflict threshold $\mathbb{T}$ based on workers who do not have a free wage catch-up opportunity and have a non-zero conflict cost. So, we report the median elicited $\mathbb{T}$ conditional on it being positive.

[20] To assess magnitudes, one useful comparison is union dues, which approximate how much workers pay to avoid direct conflict with employers. Union dues are generally between 1-2% of wages per year. For example, dues for the Service Employees International Union (health care, 1.9 million members) were 1.7%, and United Auto Workers (auto manufacturing, 1 million members) were approximately 1.1%.

[21] In Appendix Section D.1, we show that the elicited conflict threshold $\mathbb{T}$ is increasing in the conflict-induced nominal wage growth ΔW^*. One explanation could be heterogeneity in respondents' conflict costs. Intuitively, workers with higher conflict costs and higher thresholds $\mathbb{T}$ engage in conflict less frequently. Therefore, on average, their conflict-induced nominal wage growth ΔW^* is higher. Section 6.3 and Appendix Section D.2 evaluate this possibility in an extension of our baseline model, and finds that this extension accounts well for the relationship between conflict-induced nominal wage growth and elicited conflict thresholds. A second explanation for this pattern is forms of reference dependence in workers' conflict decisions, such as an aversion to nominal wage cuts.

1.75%. In Appendix Section D.2, we consider an extension of the baseline model which allows for cross-sectional heterogeneity in conflict costs, capturing the dispersion in the elicited conflict thresholds documented in Figure 6 and show that results are similar.

Finally, 11.90% of respondents report that they would always engage in conflict, irrespective of the employer's offer (the leftmost orange bar in Figure 6). These workers perceive that conflict is costless, which we map to the probability of a free wage catch-up in our model λ. In our quarterly calibration, we translate this yearly share into a quarterly free wage catch-up opportunity with probability $\lambda = 1-(1-0.119)^{1/4} = 3.12\%$.

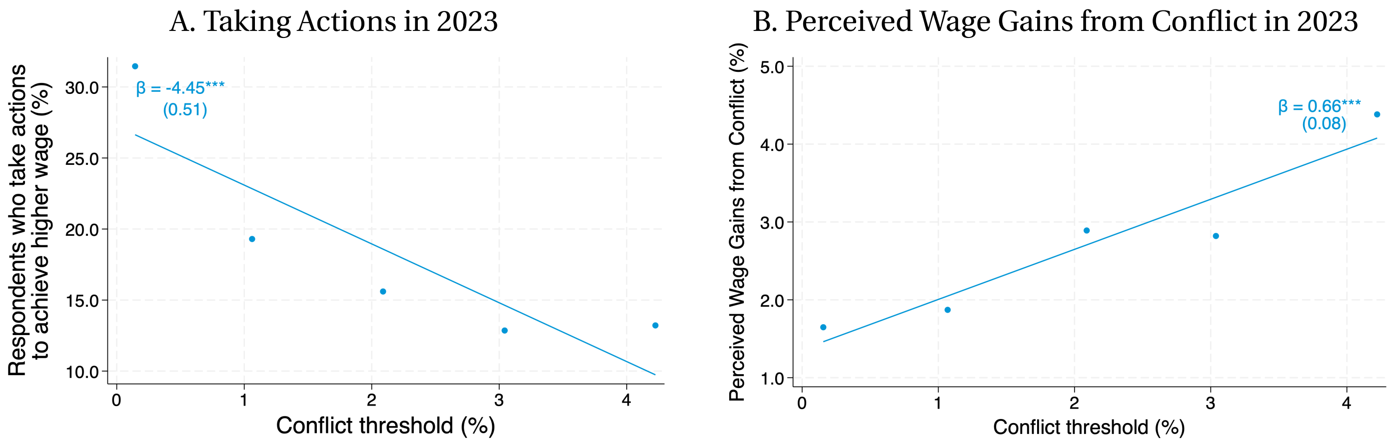
Our measure of $\mathbb{T}$ is derived from hypotheticals, but reassuringly, the cross-sectional variation is consistent with respondents' self-reported actions in 2023. We provide two pieces of evidence. First, respondents with a higher conflict threshold $\mathbb{T}$ elicited in hypotheticals (more averse to conflict) were less likely to engage in conflict in 2023. We see this in the left panel of Figure 7, where there is a strong negative relationship between the fraction of respondent who took actions in 2023 on the y-axis and their elicited $\mathbb{T}$ on the x-axis. In Appendix Table B.5, we further verify that the elicited $\mathbb{T}$ still negatively predicts the likelihood of worker conflict in 2023, after controlling for their perceived inflation and perceived wage gap in 2023.

Second, as we would expect, among respondents who did not engage in conflict in 2023, those with a higher elicited conflict threshold $\mathbb{T}$ perceived that they would have gained more wage growth through conflict in 2023. Specifically, the right panel of Figure 7 shows that, for respondents who accepted the default wage offer in 2023, those with higher $\mathbb{T}$ (most averse to conflict) have larger perceived wage gains from conflict (defined as the difference between their perceived nominal wage growth if they had taken costly actions in 2023 and the nominal wage growth of their employer's default wage offer that they accepted in 2023).[22] Together, these cross-sectional patterns show consistent answers across sections of the survey and increase our confidence that the elicited conflict thresholds predict worker behavior.

Appendix Section D.3 provides some evidence that aversion to nominal wage cuts is one force that tends to lower our elicited conflict thresholds.

[22]Perceived wage gains from conflict corresponds to $-x^d$ in the model, that is, the negative of the wage gap implied by the employer's default wage offer.

Figure 7: Validating Elicited Conflict Thresholds



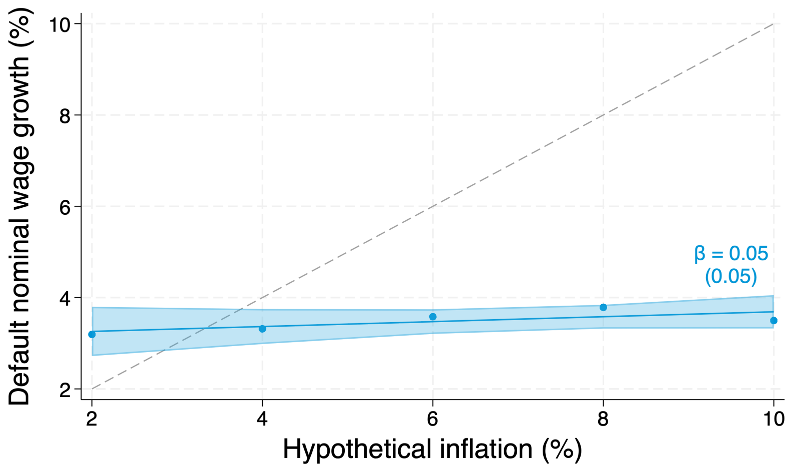
Note: Panel A shows the relationship between the elicited conflict threshold ($\mathbb{T}$), based on the hypotheticals in Figure 5, and an indicator for whether the respondent took actions to achieve higher wage growth in 2023. Panel B is restricted to respondents who accepted their employer's default wage offer in 2023 and shows the relationship between their elicited conflict threshold ($\mathbb{T}$) and perceived wage gains from conflict (defined as the difference between their perceived conflict-induced nominal wage growth had they taken costly actions in 2023 and the nominal wage growth of the employer's default wage offer they accepted in 2023). In Panel B, the perceived wage gains are trimmed at the 1st and 99th percentile. In both panels, we include those respondents with $\mathbb{T} > 4\%$, assigning them a value of 4.25%, and we exclude respondents who give non-monotonic responses in the elicitation of $\mathbb{T}$. The coefficients of these relationships are displayed, with robust standard errors enclosed in parentheses. Stars denote levels of statistical significance: 1% (***), 5% (**), and 10% (*). See Appendix Figure B.6 for robustness to including a control for conflict-induced nominal wage growth ΔW^*.

5.2 Default Nominal Wage Growth and Inflation

The framework in Section 4 shows that the aggregate costs of inflation due to conflict depend on how much the default nominal wage adjusts with inflation, captured by γ. This object is hard to measure in observational data, since one cannot easily distinguish between conflict-induced nominal wage growth and default nominal wage growth offered by an employer. Instead, we elicit the degree of indexation of default wage offers to inflation using survey hypotheticals. Similar to Section 3, we randomly assign participants into a hypothetical scenario in which inflation is expected to be 2%, 4%, 6%, 8% or 10% over the next 12 months. We then asked survey respondents what default nominal wage growth employers would offer them in that setting.

Figure 8 shows that workers perceive that employers would offer almost the same default nominal wage growth at all levels of inflation. The y-axis is default nominal wage growth that workers expect their employer to offer. The x-axis is hypothetical inflation scenario. For reference, we also plot the 45-degree line, which reflects the slope of fully indexed default nominal wage growth to inflation. The blue circles plot the mean default nominal wage growth expected by the respondents in the scenario that was posed to them. The regression line, with shaded 95% confidence intervals, has a slope of 0.05, but is not statistically significantly different from

Figure 8: Default Nominal Wage Growth and Inflation



Note: This binned scatterplot depicts the relationship between the default nominal wage growth respondents reported they would receive under a hypothetical inflation scenario and the hypothetical inflation rate, along with the 95% confidence interval of the predicted relationship. The gray dashed line serves as a reference 45-degree line. The coefficient of this relationship is displayed, with the standard errors enclosed in parentheses. The stars indicate levels of statistical significance: 1% (***), 5% (**), and 10% (*). The sample is all respondents. Respondents answered the following question: "Consider a hypothetical situation in which inflation is expected to be π in the next 12 months. Suppose that you are working at the same job at the same place you currently work, and working the same number of hours. What pay growth do you think you would get by default if you do not take any strategies at your disposal to increase your pay (such as initiating a difficult conversation about pay with employers, or searching for higher paid jobs with other employers)?" The hypothetical inflation scenario is $\pi = 2\%, 4\%, 6\%, 8\%$ and 10%.

zero. The slope implies that workers believe a 1 percentage point increase in inflation leads to a 0.05 percentage point increase in employers' default wage offers, absent conflict.[23] We calibrate $\gamma = 0.05$ based on this slope. Note that this slope captures perceived default wage indexation, which could be lower than actual default wage indexation. In our numerical exercises, we also explore robustness to much higher levels of γ than our baseline survey estimates.

Finally, Figure 8 also shows that workers perceive employers would offer them a default nominal wage annual growth of 3.25% at steady-state inflation (2% annually), which directly maps to α in the model, i.e., the growth rate of the default nominal wage at steady state inflation. Specifically, this implies a quarterly value of $\alpha = 0.81\%$, which means workers receive periodic default wage increases at steady-state inflation.

[23]We find similar results when relating the default nominal wage growth over the next 12 months that workers expect their employers to offer to the inflation they expect over the next 12 months (Appendix Figure B.7).

6 Quantifying How Conflict Affects the Costs of Inflation

In this section, we use the model developed in Section 4 to map the survey evidence in Section 5 into the costs of inflation for workers. This allows us to quantitatively assess how much incorporating conflict matters for these costs. We find that the costs of inflation incorporating conflict are significantly larger than the costs of inflation via falling real wages alone.

6.1 Calibration

We calibrate the model from Section 4 at a quarterly frequency and summarize the parameters in Table 2. As we discussed above, we use our survey to measure the costs of conflicts ($\lambda = 3.12\%$ and $\kappa = 7.97\%$ such that $\mathbb{T} = 1.75\%$), the degree of indexation of the default wage to inflation shocks ($\gamma = 0.05$), and the growth rate of the default nominal wage at steady state inflation ($\alpha = 0.81\%$). Furthermore, for the quarterly calibration, we set the discount factor to a standard value, $\beta = 0.99$. The trend productivity growth rate $g = 0.76\%$ is chosen to map a steady-state average annual growth rate of real wages of 3.02% in the ASEC-CPS survey.[24] We assume $\pi^{ss} = 0.5\%$, implying a steady-state annual inflation of 2%, again a standard value.

We assume that the idiosyncratic productivity shock is such that $z_{i,t}+\mu$ follows a Gamma (a, b) distribution, a flexible continuous distribution with support $[0,\infty)$.[25] We calibrate the shape and scale parameters of the Gamma distribution $(a, b) = (0.13, 0.03)$ such that idiosyncratic shocks have a mean of zero, $\mathbb{E}\left[z_{i,t}\right] = 0$, and the yearly share of workers engaging in conflict at steady-state inflation is equal to 48%, as in Panel B of Figure 4.[26] As in standard menu cost models, the distribution of idiosyncratic shocks impacts how workers' wage gaps move and thus the fre-

[24]We access ASEC-CPS data from the IPUMS CPS database (Flood et al., 2023).

[25]As assumed in the theory section, setting the lower bound of the idiosyncratic productivity shock to $\underline{z} = -\mu$ ensures that the steady-state distribution of wage gaps has non-positive support.

[26]This choice is conservative in terms of the aggregate costs of inflation due to conflict. Alternatively, we can calibrate to the 21% of workers who chose conflict in 2023 (Panel A of Figure 1), which we study in Appendix Section C.6. Our choice in the main text is conservative because it implies that a higher share of workers already engage in conflict each year in steady state, resulting in smaller aggregate costs of the inflation shock due to conflict. The difference in the fraction of workers between Panel B of Figure 4 and Panel A of Figure 1 can arise because workers who already engaged in conflict in 2022, when inflation peaked, were less likely to engage in conflict again in 2023. Alternatively, it could be that conflict in practice is less frequent than in hypothetical questions, as workers might underestimate the monetary, time, and psychological costs of conflict.

Table 2: Main Analysis—Calibration

	Description	***Value***	***Target***
β	Discount factor	0.99	Standard
κ	Conflict cost	7.97%	Own survey such that $\mathbb{T} = 1.75\%$
λ	Probability of free catch-up	3.12%	Own survey
g	Trend real wage growth	0.76%	ASEC-CPS 3.02% annual real wage growth
α	Default nom. wage growth at steady state inflation	0.81%	Own survey
γ	Indexation of default nominal wage	0.05	Own survey
π^{ss}	Steady state inflation	0.5%	2% annual inflation
$z_{i,t}$	Idios. shocks $z_{i,t} + \mu \sim \text{Gamma}(a, b)$	$(0.13, 0.03)$	$\mathbb{E}[z_{i,t}] = 0$ 48% yearly share of conflict

quency of conflict. As a result, the share of workers engaging in conflict at steady state inflation is informative about the distribution of idiosyncratic productivity shocks, which in turn impacts the costs of inflation shocks through Proposition 2.

6.2 Quantifying the Aggregate Costs of Inflation Due to Conflict

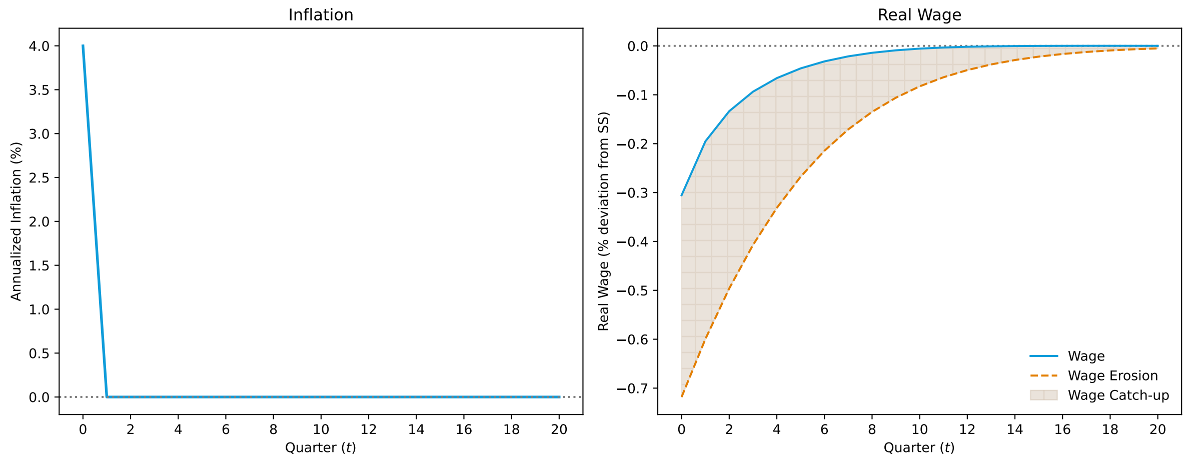
We use the calibrated model to quantify the welfare costs of inflationary shocks to workers. We solve for the first-order impact of inflation shocks $\{\hat{\pi}_t\}_{t=0}^{\infty}$ using Sequence-Space Jacobian methods, developed in Auclert et al. (2021) and Auclert et al. (2024). This approach allows us to analyze the welfare consequences of an arbitrary path of inflation.

We consider three inflationary scenarios in this subsection, plotted in the left figure of each panel of Figure 9. The first scenario is a transitory inflation shock (Figure 9, Panel A), in which we set $\hat{\pi}_0 = 1\%$ and $\hat{\pi}_t = 0$ for $t \geq 1$. The second scenario is a persistent inflation shock (Figure 9, Panel B), in which we set $\hat{\pi}_t = \rho^t \cdot 1\%$ with $\rho = 0.72$, which matches the empirical auto-correlation of inflation in the US time series (specifically, the auto-correlation of quarterly PCE inflation between 2013Q1 and 2024Q1). The third scenario is based on the post-pandemic inflation of 2021–2023 (Figure 9, Panel C).[27] As in Section 4, an unexpected aggregate inflation shock is realized at $t = 0$, and workers have perfect foresight about the path of inflation afterwards.

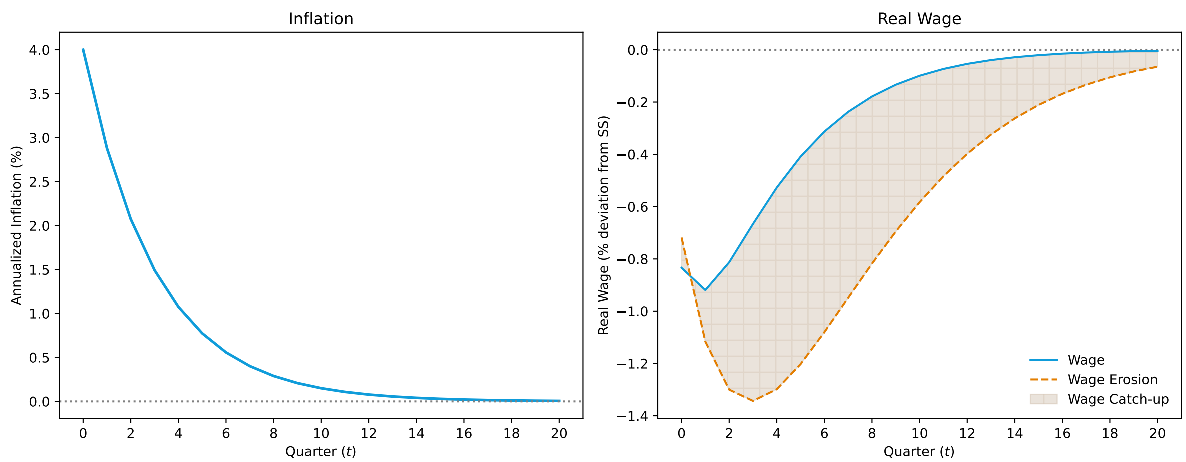
[27] Specifically, we study inflation shocks based on the difference between the headline Personal Consumption Expenditures (PCE) Inflation between January 2021 and December 2023 (quarterly frequency, but annualized), and steady-state inflation 2%. Following December 2023, we assume that inflation converges back to steady state at a rate of $\rho = 0.72$.

Figure 9: Real Wage Dynamics and the Aggregate Costs of Inflation due to Conflict

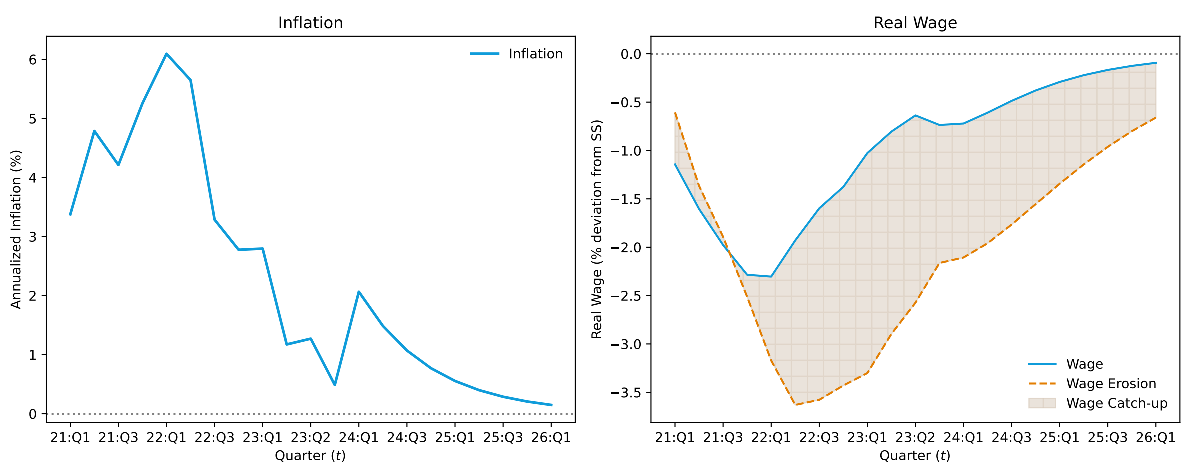
Panel A: Transitory Inflation



Panel B: Persistent Inflation



Panel C: 2021-2023 Inflation



Notes: each panel plots the response to a given inflation scenario. In Panel A, there is a transitory shock to inflation lasting one quarter. In Panel B, there is a persistent shock, that decays at quarterly rate $\rho = 0.72$. In Panel C, the shock to inflation is given by annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. In the left figure of each panel, we plot the path of annualized inflation shock. In the right panel, we plot the percent deviation of the real wage from the steady state in the solid blue line. We also plot wage erosion in the dashed orange line, which captures the impact of inflationary shocks on worker welfare. The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict.

Table 3: Decomposing the Impact of Inflation Shocks on Worker Welfare

	Overall Welfare Impact	**Real Wage Response**	**Impact due to Conflict**
Transitory inflation	−0.93%	−0.23%	−0.70%
Persistent inflation	−3.23%	−1.32%	−1.91%
2021-2023 inflation	−10.64%	−4.95%	−5.68%

Notes: the first column shows the overall impact on worker welfare after the transitory inflation shock (row 1), the persistent inflation shock (row 2), and the 2021-2023 inflation (row 3), as a percent of annual consumption. The second column shows the response of the present value of real wages in each scenario, again as a percent of annual consumption. The final column shows the welfare impact from aggregate costs of inflation due to conflict, $-\hat{\varkappa}$, again as a percent of annual consumption.

The right figure of each corresponding panel shows the dynamic response of real wages and wage erosion under each scenario, with the latter being relevant for welfare. For each scenario, the solid blue line displays the overall real wage response $\{\hat{w}_t\}_{t=0}^{\infty}$. The dashed orange line displays the resulting wage erosion $\left\{\hat{w}_t^{\text{erosion}}\right\}_{t=0}^{\infty}$. The shaded region captures the gap between the two, i.e., wage catch-up due to more frequent conflict $\left\{\hat{w}_t^{\text{catch-up}}\right\}_{t=0}^{\infty}$. The total area of the shaded region then captures the present value of wage catch-up due to conflict and measures the aggregate cost of inflation due to conflict, $\hat{\varkappa}$, defined in (11).

For the transitory inflation shock, real wages fall by around 0.3% on impact. However, the welfare-relevant wage erosion falls by more than 0.7%, meaning that the modest fall in real wages is mostly because workers engage in conflict more frequently to raise their wages. For the persistent inflation shock with $\rho = 0.72$, real wages and welfare-relevant wage erosion fall roughly equally on impact. However wage erosion falls significantly more than real wages in subsequent quarters. Therefore, there is a large but delayed wage catch-up to the inflation shock through more frequent conflicts in later quarters. The delay occurs because workers have incentives to delay conflict when the inflation shock is persistent. Even if they engage in conflict now so that their wages keep up with the initial inflation, the persistent inflation shock still causes their real wages to fall in the absence of future conflict. As a result, workers can economize on conflict costs by delaying conflict until inflation has accumulated. For 2021-2023 inflation, which peaked in 2022, there is again a large but delayed gap between real wages and wage erosion. Overall, in all cases, the shaded region between real wages and wage erosion is large, meaning a substantial fraction of the wage growth was achieved through costly conflict and the aggregate costs of inflation due to conflict are large.

Table 3 confirms the importance of conflict for the welfare costs of inflation. The table displays the welfare costs of inflation to workers and decomposes them into real wage responses and the aggregate costs of inflation due to conflict, according to (10). In the table, welfare units are denoted in terms of percent of annual consumption. For all inflationary scenarios, we find that the costs of inflation to workers, incorporating conflict costs, are more than twice the costs that arise from falling real wages alone. For example, for the persistent inflation shock with $\rho = 0.72$, the overall welfare costs of inflation to workers are 3.23% of annual consumption. The aggregate costs of inflation due to conflict are 1.91%, constituting 59% of the total costs.[28] For 2021-2023 inflation, aggregate costs of inflation due to conflict constitute 53% of the total costs.

One unique feature of the 2021-2023 inflation, compared with the previous simpler transitory and persistent inflation scenarios, is that it peaks several quarters after the initial quarter. Therefore, inflation expectations can meaningfully affect the timing of conflict decisions. In Appendix Figure C.8, we consider the case where workers' inflation expectations are based on observed inflation expectations in the survey data, by combining the Survey of Professional Forecasters (SPF) and the New York Federal Reserve's Survey of Consumer Expectations (SCE). In Appendix Figure C.9, we instead assume that workers have no foresight; they expect inflation to be at the steady state in the next period and are surprised by inflation in each period. No matter the assumptions on inflation expectations, the share of overall welfare costs of the 2021–23 inflation that is due to conflict remains above 50%.

6.3 Quantitative Robustness

We explore the robustness of our findings to different parameterizations and extensions of the model. The exact magnitudes of the costs of inflation to workers vary, but our main lesson—that a significant share of aggregate costs of inflation arises from conflict—is robust across a range of plausible calibrations.

Indexation parameter γ. The degree of inflation indexation of default wages is an important input to our calculations. If we allow the default wage to be more indexed, then the overall costs of inflation to workers fall. However, while the degree of indexation affects the overall costs of

[28]These results are not comparable to quantitative exercises from menu-cost models of price setting, which typically study the welfare costs of steady-state changes in inflation and use permanent decreases in consumption as welfare units (e.g., Nakamura et al., 2018). We instead study the welfare costs of transitory inflation shocks and use decreases in a single year of consumption as welfare units.

inflation, it does not affect the *relative* importance of conflict. Intuitively, the impact of inflation shocks on worker welfare is proportional to $1-\gamma$, i.e., all that matters for workers' decisions is the component of inflation that is not automatically accounted for through wage indexation, $\left(1-\gamma\right)\hat{\pi}_t$. The degree of indexation simply scales up both the overall costs of inflation shocks (see, e.g., (14)) and aggregate costs of inflation due to conflict, but does not affect the relative importance of conflict. We formalize this intuition:

Proposition 3. *To first order, the ratio of aggregate costs of inflation due to conflict to the overall costs of inflation shocks, $-\hat{\varkappa}/\hat{\mathscr{W}}$, is invariant to the degree of indexation of default wage $\gamma \in [0,1)$.*

Panel A of Appendix Figure B.8 quantitatively investigates how the indexation parameter affects the impact of the persistent inflation shock.[29] We vary the degree of indexation γ between 0 and 0.6. The upper bound is conservative: the indexation of actual wages to inflation estimated by Smets and Wouters (2007) is 0.58. The indexation of default wages to inflation shocks in the absence of conflict must be lower. Even with high indexation of 0.6, we still find meaningful costs of inflation to workers. Moreover, consistent with Proposition 3, we verify that the ratio of aggregate costs of inflation due to conflict to the overall costs of inflation remains constant—above 0.5—as the degree of indexation varies.

Probability of free wage catch-up λ. A second important parameter is λ, the probability that a worker receives a free wage catch-up opportunity. Our baseline calibration has $\lambda = 3.12\%$ using the share of workers who reported zero conflict costs in our survey, implying an 11.90% share of annual free catch-up. This strategy could understate the true value of λ. Workers who do not have zero conflict costs might still receive free wage catch-up if the firm offers workers unsolicited wage increases to avoid conflict. Panel B in Appendix Figure B.8 shows that our conclusions are similar with higher values of λ than in the baseline calibration.[30] As we increase λ and hence the share of annual free catch-up, $1-(1-\lambda)^4$, the share of aggregate costs of inflation arising from conflict becomes smaller. However, the ratio of aggregate costs of inflation due to conflict to the overall costs of inflation remains above 50% even if $\lambda = 12\%$, implying a 40% share of annual free catch-up (i.e., 4 times more than our baseline calibration). External estimates of

[29] Here, we discuss results for the persistent inflation shock from Panel B of Figure 9. Appendix Figures B.9 and B.10 also present the analogous results for the transitory shock and 2021-2023 inflation.

[30] For each λ, we re-calibrate κ so that conflict threshold $\mathbb{T} = 1.75\%$ is kept constant and fix all other parameters as in Table 2.

how wages increase beyond the default wage are well within this range.[31]

Conflict costs κ. Finally, we assess the quantitative robustness of our results to variations in the conflict cost κ, which map one-to-one with the conflict threshold $\mathbb{T}$ as explained in Section 5. In our baseline calibration, we calibrate $\kappa = 7.97\%$ so that the conflict threshold is $\mathbb{T} = 1.75\%$, following our survey evidence. Panel C in Appendix Figure B.8 varies the conflicts cost κ such that the conflict threshold $\mathbb{T}$ varies between 1% and 2%, the interquartile range of our estimates. We find that our quantitative results are robust to different parameterizations of conflict costs. Even with $\mathbb{T} = 1\%$, implying a significantly lower conflict cost $\kappa = 3.70\%$, the ratio of aggregate costs of inflation due to conflict to the overall costs of inflation remains above 50%.

We also consider an extension of our model that accommodates heterogeneous conflict costs, capturing the dispersion of elicited conflict thresholds in Figure 6. In Appendix Section D.2, we modify the baseline model by assuming that workers have heterogeneous conflict costs. We measure these conflict costs using the distribution of conflict thresholds in Figure 6. We show that the ratio of aggregate costs of inflation due to conflict to overall costs of inflation is again above 50% for all inflation scenarios.[32]

Alternative Calibration. Complementary to the above exercises studying robustness to variations in a given parameter, we also consider alternative calibrations. First, in Appendix Section C.7, we calibrate conflict costs and the probability of free wage catch-up (κ and λ) using only the 21% of respondents who took action in 2023, as these respondents may have a better understanding of the nature of conflict costs. Second, in Appendix Section C.8, we calibrate κ and λ using only the subset of respondents who took action in 2023 by having a difficult conversation with their employers. In both cases, the ratio of aggregate costs of inflation due to conflict to overall costs of inflation shocks remains close to or above 50% for all inflation scenarios, verifying the robustness of the conflict channel's importance.

General-equilibrium determination of inflation. In the main analysis, we study how inflation shocks impact worker welfare within a partial equilibrium model. In Appendix Section

[31] For instance, Faberman et al. (2022) estimate that 3.1% of all employed workers receive unsolicited job offers each month, which translates to 31% per year.

[32] This extended model also explains the untargeted positive relationship between the elicited conflict threshold and conflict-induced nominal wage growth documented in Footnote 21 and Appendix Section D.1: workers with higher conflict costs choose conflict less frequently, meaning that on the relatively rare occasions when they do, their wage growth is higher.

C.3, we extend our analysis by considering a general-equilibrium model in which inflation is determined endogenously. In this model, inflation can be driven by either positive aggregate demand shocks (monetary policy easing shocks) or negative aggregate supply shocks (productivity shocks). We show that the underlying source of inflation does not matter in evaluating the impact of inflation on worker welfare. The benefits from wage catch-up due to more frequent conflict in response to inflation are offset by the associated conflict costs. The ratio of aggregate costs of inflation due to conflict to overall costs of inflation remains high. However, aggregate shocks can impact worker welfare beyond their effect through inflation (e.g., through conflict-induced real wages, as in (15)). Demand-driven inflationary shocks are expansionary and can raise welfare beyond the shock's impact through inflation, while supply-driven inflationary shocks are recessionary and can reduce worker welfare beyond the shock's impact through inflation. In this sense, the source of inflation (demand- vs. supply-driven) does matter for overall worker welfare.

7 Conclusion

Why do workers dislike inflation so much? We show that "conflict costs" play a significant role: workers must incur these costs to have their nominal wages keep up with inflation, as employers do not automatically provide wage increases when inflation is high. We capture these conflict costs in a menu-cost style model applied to wage setting, and show, both analytically and quantitatively, that conflict costs change how inflation shocks impact workers' welfare. Disciplined by a survey of U.S. workers, our model demonstrates that incorporating conflict costs substantially increases the costs of inflation to workers.

Beyond the specific application to the costs of inflation, our conflict cost model offers a tractable approach to introducing state-dependent wage setting, providing many avenues for future research. For example, firms may also face costs in adjusting wages away from the default wage offer. These firm-side conflict costs are particularly relevant for downward wage rigidity, as firms would prefer to adjust wages downward when possible. In subsequent work, we aim to quantify these firm-side conflict costs, link them to empirical evidence on downward wage rigidity, and study their macroeconomic implications. We also hope that future work builds on our evidence linking conflict to wage growth, and continues to explore the importance of conflict in observational data.

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Why Do Workers Dislike Inflation? Wage Erosion and Conflict Costs

Supplemental Appendix (For Online Publication)

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A Proofs

In the theoretical appendices, to improve exposition, we define $\underline{x}_t = -\mathbb{T}_t$. When conflict is costly ($\kappa_{i,t} = \kappa$), the worker's optimal conflict choice is to engage in conflict ($\mathscr{I}_{i,t} = 1$) if $x^d_{i,t} \leq \underline{x}_t$, and not to engage ($\mathscr{I}_{i,t} = 0$) if $x^d_{i,t} > \underline{x}_t$. We use $\underline{x}^{ss} = -\mathbb{T}$ to denote the steady-state value of $\underline{x}_t$.

Proof of Proposition 1

At $t = 0$, wage gaps implied by the employer's default wage offer $\left\{x^d_{i,0}\right\}_{i\in[0,1]}$ are distributed with cumulative distribution function

$$G^d_0\left(x^d_{i,0};\boldsymbol{\pi}_\infty\right) = G^{d,ss}\left(x^d_{i,0} + \left(1-\gamma\right)\hat{\pi}_0\right), \tag{A.1}$$

where $G^{d,ss}$ is the steady-state stationary cumulative distribution function of the wage gap implied by employer's default wage offer, and where we define $\boldsymbol{\pi}_\infty = \{\pi_t\}^\infty_{t=0}$. As further explained in the proof of Theorem 1, the worker's optimal conflict decision at $t = 0$ can be characterized as follows. When conflict is costly ($\kappa_{i,0} = \kappa$), the worker chooses to engage in conflict if $x^d_{i,0} \leq \underline{x}_0\left(\boldsymbol{\pi}_{1:\infty}\right)$ and not if $x^d_{i,0} > \underline{x}_0\left(\boldsymbol{\pi}_{1:\infty}\right)$, where $\underline{x}_0\left(\boldsymbol{\pi}_{1:\infty}\right)$ is a threshold as a function of $\boldsymbol{\pi}_{1:\infty} = \{\pi_\tau\}^\infty_{\tau=1}$. When conflict is costless ($\kappa_{i,0} = 0$), the worker chooses to engage in conflict if $x^d_{i,0} \leq 0$ and not if $x^d_{i,0} > 0$. Then the fraction of workers that conflict at 0 is

$$\begin{aligned}
\text{frac}_0 &= (1-\lambda)\, G^d_0\left(\underline{x}_0\left(\boldsymbol{\pi}_{1:\infty}\right);\boldsymbol{\pi}_\infty\right) + \lambda G^d_0\left(0;\boldsymbol{\pi}_\infty\right) \\
&= (1-\lambda)\, G^{d,ss}\left(\underline{x}_0\left(\boldsymbol{\pi}_{1:\infty}\right) + \left(1-\gamma\right)\hat{\pi}_0\right) + \lambda G^{d,ss}\left(\left(1-\gamma\right)\hat{\pi}_0\right),
\end{aligned}$$

where the first term in the first line captures workers whose conflict is costly and whose conflict choice can then be characterized by the threshold $\underline{x}_0\left(\boldsymbol{\pi}_{1:\infty}\right)$, and the second term in the first line captures workers whose conflict is costless and whose conflict choice can then be characterized by the threshold of 0. The second line substitutes in (A.1). Because the cumulative distribution function $G^{d,ss}(\cdot)$ is an increasing function, the fraction of workers engaging in conflict at $t = 0$, frac_0, increases with $\hat{\pi}_0$.

Proof of Theorem 1 and Proposition 2.

Worker's problem. We first define $\chi_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right)$, which captures worker i's wage gap at time t for a given path of inflation $\boldsymbol{\pi_t} = \{\pi_\tau\}_{\tau=0}^t$, conflict choices $\mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right) = \left\{\mathscr{I}_{i,\tau}\left(h_{i,\tau}; \boldsymbol{\pi}_\infty\right)\right\}_{\tau=0}^t$, and history of idiosyncratic conditions $h_{i,t} \equiv \left(\left\{z_{i,\tau}, \kappa_{i,\tau}\right\}_{\tau=0}^t, x_{i,-1}\right)$.[33] This object is connected to worker i's real wage $\omega_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right)$ as defined in the main text by

$$\chi_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right) = \log \omega_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right) - \log w_{i,t}^*,$$

where $w_{i,t}^*$ is invariant to conflict decisions and the path of inflation. One can hence write wage erosion and wage catch up defined in (8) and (9) as

$$\hat{w}_t^{\text{erosion}} \equiv \int_0^1 \chi_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi^{ss}}\right), h_{i,t}\right) di - \int_0^1 \chi_t\left(\boldsymbol{\pi^{ss}}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi^{ss}}\right), h_{i,t}\right) di, \tag{A.2}$$

and

$$\hat{w}_t^{\text{catch-up}} \equiv \int_0^1 \chi_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right) di - \int_0^1 \chi_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi^{ss}}\right), h_{i,t}\right) di, \tag{A.3}$$

where $\boldsymbol{\pi^{ss}} = \{\pi^{ss}\}_{\tau=0}^\infty$, and $\mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi^{ss}}\right)$ captures what the conflict decisions would have been, given steady-state inflation, as well as the same history of idiosyncratic shocks (i.e., $\mathscr{I}_{\boldsymbol{i,t}}^{\boldsymbol{ss}}$ in the main text). From (4) and (6), the impact of inflation on aggregate worker welfare can be written as

$$\hat{\mathscr{W}} = \int_0^1 \mathbb{E}\left[\sum_{t=0}^\infty \beta^t \left[\chi_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right) - \chi_t\left(\boldsymbol{\pi^{ss}}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi^{ss}}\right), h_{i,t}\right)\right]\right] di - \hat{\varkappa}, \tag{A.4}$$

where $\hat{\varkappa}$ defined in (11) captures the aggregate costs of inflation due to conflict.

One useful property is that, for all $\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right)$,

$$\frac{\partial \chi_t\left(\boldsymbol{\pi_t}, \mathscr{I}_{\boldsymbol{i,t}}\left(h_{i,t}; \boldsymbol{\pi}_\infty\right), h_{i,t}\right)}{\partial \pi_s} = \begin{cases} 0 & \text{if } t < s \\ -\left(1-\gamma\right)\prod_{\tau=s}^t \left(1 - \mathscr{I}_{i,\tau}\left(h_{i,\tau}; \boldsymbol{\pi}_\infty\right)\right) & \text{if } t \geq s \end{cases}. \tag{A.5}$$

That is, if $t \geq s$, a one-unit increase in inflation at s lowers wage gap at t by $1-\gamma$ if the worker does not engage in conflict during $\{s, \cdots, t\}$.

The worker i's problem as a function of the inflation path $\boldsymbol{\pi}_\infty$ and initial wage gap $x_{i,-1}$ can be

[33] With slight abuse of notation, the history of the idiosyncratic condition here is slightly different (but a function of) $h_{i,t} \equiv \left(\left\{z_{i,\tau}, \kappa_{i,\tau}\right\}_{\tau=0}^t, w_{i,-1}, w_{i,-1}^*\right)$ as defined in the main text. This is motivated by the fact that the worker's problem (A.6) only depends on the initial wage gap $x_{i,-1} = \log w_{i,-1} - \log w_{i,-1}^*$.

written as:

$$\mathscr{U}\left(\boldsymbol{\pi}_{\infty}, x_{i,-1}\right) = \max_{\left\{\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right)\right\}_{t=0}^{\infty}} \mathbb{E}\left[\sum_{t=0}^{\infty}\beta^{t}\left[\chi_{t}\left(\boldsymbol{\pi}_{\boldsymbol{t}}, \mathscr{I}_{\boldsymbol{i},\boldsymbol{t}}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right), h_{i,t}\right) - \kappa_{i,t}\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right)\right]\right] \quad \text{s.t. (5)}, \tag{A.6}$$

where $\mathbb{E}$ averages over the realization of idiosyncratic shocks $\{z_{i,t}, \kappa_{i,t}\}_{t=0}^{\infty}$. Let $\left\{\mathscr{I}_{i,t}^{*}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right)\right\}_{t=0}^{\infty}$ denote the optimally chosen conflict decision for each individual history as a function of the inflation path π_{∞} that solves (A.6) and $\mathscr{I}_{\boldsymbol{i},\boldsymbol{t}}^{*}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right) = \left\{\mathscr{I}_{i,\tau}^{*}\left(h_{i,\tau};\boldsymbol{\pi}_{\infty}\right)\right\}_{\tau=0}^{t}$ denote the corresponding history of conflict decisions up to t.

Our goal is to apply the envelope theorem (Theorem 2) of Milgrom and Segal (2002), which allows the application of the theorem to settings with infinite discrete choices $\left\{\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right)\right\}_{t=0}^{\infty}$. The sufficient condition to apply the Envelope Theorem in Milgrom and Segal (2002) is, for each s,

$$\mathbb{E}\left[\sum_{t=0}^{\infty}\beta^{t}\frac{\partial\chi_{t}\left(\boldsymbol{\pi}_{\boldsymbol{t}}, \mathscr{I}_{\boldsymbol{i},\boldsymbol{t}}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right), h_{i,t}\right)}{\partial\pi_{s}}\right]$$

exists and is uniformly upper bounded by a Lebesgue integrable function. This is indeed true given (A.5), which means that

$$\left|\mathbb{E}\left[\sum_{t=0}^{\infty}\beta^{t}\frac{\partial\chi_{t}\left(\boldsymbol{\pi}_{\boldsymbol{t}}, \mathscr{I}_{\boldsymbol{i},\boldsymbol{t}}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right), h_{i,t}\right)}{\partial\pi_{s}}\right]\right| \leq \frac{1-\gamma}{1-\beta},$$

because each conflict decision $\mathscr{I}_{i,\tau}$ takes the value of either zero or one. Applying the Envelope Theorem and using (A.5), we have, for all $s \geq 0$,

$$\begin{aligned}\frac{\partial\mathscr{U}\left(\boldsymbol{\pi}_{\infty}, x_{i,-1}\right)}{\partial\pi_{s}} &= \sum_{t=s}^{\infty}\beta^{t}\mathbb{E}\left[\frac{\partial\chi_{t}\left(\boldsymbol{\pi}_{\boldsymbol{t}}, \mathscr{I}_{\boldsymbol{i},\boldsymbol{t}}^{*}\left(h_{i,t};\boldsymbol{\pi}_{\infty}\right), h_{i,t}\right)}{\partial\pi_{s}}\right] \quad \text{a.e.}\\ &= -\left(1-\gamma\right)\sum_{t=s}^{\infty}\beta^{t}\mathbb{E}\left[\prod_{\tau=s}^{t}\left(1-\mathscr{I}_{i,\tau}^{*}\left(h_{i,\tau};\boldsymbol{\pi}_{\infty}\right)\right)\right] \quad \text{a.e.,}\end{aligned} \tag{A.7}$$

where a.e. means almost everywhere in π_{s}.

We now further characterize the worker's optimal conflict decision. First, consider the $t=0$ conflict decision. After the realization of idiosyncratic shock $\left(z_{i,0}, \kappa_{i,0}\right)$, the worker's optimal conflict decision at $t=0$ solves

$$\mathscr{V}\left(x_{i,0}^{d}, \kappa_{i,0}, \boldsymbol{\pi}_{\boldsymbol{1}:\infty}\right) \equiv \max_{\mathscr{I}_{i,0}}\left(1-\mathscr{I}_{i,0}\right)\left(x_{i,0}^{d} + \beta\mathscr{U}\left(\boldsymbol{\pi}_{\boldsymbol{1}:\infty}, x_{i,0}^{d}\right)\right) + \mathscr{I}_{i,0}\left(0 + \beta\mathscr{U}\left(\boldsymbol{\pi}_{\boldsymbol{1}:\infty}, 0\right) - \kappa_{i,0}\right), \tag{A.8}$$

where $\boldsymbol{\pi}_{\boldsymbol{1}:\infty} = \{\pi_{\tau}\}_{\tau=1}^{\infty}$ and $x_{i,0}^{d} = x_{i,-1} - \left(\mu + z_{i,0}\right) - \left(1-\gamma\right)\hat{\pi}_{0}$, the wage gap implied by the employer's default wage offer, summarizes the impact of $x_{i,-1}$, $z_{i,0}$, and $\hat{\pi}_{0}$ on the worker's problem. Moreover, we can apply the Envelope Theorem similarly to show that $\frac{\partial \mathcal{V}\left(x^d_{i,0},\kappa_{i,0},\boldsymbol{\pi}_{\mathbf{1:\infty}}\right)}{\partial x^d_{i,0}}$ exists almost everywhere and its absolute value is bounded by $\frac{1}{1-\beta}$. That is, similar to (A.7),

$$\frac{\partial \mathcal{V}\left(x^d_{i,0},\kappa_{i,0},\boldsymbol{\pi}_{\mathbf{1:\infty}}\right)}{\partial x^d_{i,0}} = \sum_{t=0}^{\infty} \beta^t \mathbb{E}_0 \left[\prod_{\tau=0}^{t} \left(1 - \mathscr{I}^*_{i,\tau}\left(h_{i,\tau};\boldsymbol{\pi}_\infty\right)\right)\right] \geq 0 \quad \text{a.e.,} \tag{A.9}$$

where a.e. means almost everywhere in $x^d_{i,0}$ and $\mathbb{E}_0$ averages over the realization of idiosyncratic shocks $\{z_{i,t},\kappa_{i,t}\}_{t=1}^{\infty}$ starting from $t=1$. Note that

$$\begin{aligned}\mathcal{U}\left(\boldsymbol{\pi}_\infty, x_{i,-1}\right) = (1-\lambda) \int_{\underline{z}}^{\infty} \mathcal{V}\left(x_{i,-1} - \mu - \left(1-\gamma\right)\hat{\pi}_0 - z_{i,0}, \kappa, \boldsymbol{\pi}_{\mathbf{1:\infty}}\right) f\left(z_{i,0}\right) dz_{i,0} \\ + \lambda \int_{\underline{z}}^{\infty} \mathcal{V}\left(x_{i,-1} - \mu - \left(1-\gamma\right)\hat{\pi}_0 - z_{i,0}, 0, \boldsymbol{\pi}_{\mathbf{1:\infty}}\right) f\left(z_{i,0}\right) dz_{i,0}.\end{aligned}$$

We know that

$$\begin{aligned}\frac{\partial \mathcal{U}\left(\boldsymbol{\pi}_\infty, x_{i,-1}\right)}{\partial x_{i,-1}} = (1-\lambda) \int_{\underline{z}}^{\infty} \frac{\partial \mathcal{V}\left(x_{i,-1} - \mu - \left(1-\gamma\right)\hat{\pi}_0 - z_{i,0}, \kappa, \boldsymbol{\pi}_{\mathbf{1:\infty}}\right)}{\partial x^d_{i,0}} f\left(z_{i,0}\right) dz_{i,0} \\ + \lambda \int_{\underline{z}}^{\infty} \frac{\partial \mathcal{V}\left(x_{i,-1} - \mu - \left(1-\gamma\right)\hat{\pi}_0 - z_{i,0}, 0, \boldsymbol{\pi}_{\mathbf{1:\infty}}\right)}{\partial x^d_{i,0}} f\left(z_{i,0}\right) dz_{i,0} \geq 0.\end{aligned} \tag{A.10}$$

In other words, $\mathcal{U}\left(\boldsymbol{\pi}_\infty, x_{i,-1}\right)$ is weakly increasing and differentiable in $x_{i,-1}$.

First consider the case that conflict is costly ($\kappa_{i,0} = \kappa$). Because $\mathcal{U}\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}, x^d_{i,0}\right)$ is weakly increasing in $x^d_{i,0}$, the value of not conflicting, $x^d_{i,0} + \beta\mathcal{U}\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}, x^d_{i,0}\right)$, strictly increases in $x^d_{i,0}$. The value of conflicting $\beta\mathcal{U}\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}, 0\right) - \kappa_{i,0}$ is instead independent of $x^d_{i,0}$. The worker's optimal conflict choice can then be characterized by a threshold $\underline{x}_0\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}\right)$,[34] which satisfies

$$-\kappa + \beta\mathcal{U}\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}, 0\right) = \underline{x}_0\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}\right) + \beta\mathcal{U}\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}, \underline{x}_0\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}\right)\right). \tag{A.11}$$

The worker chooses to engage in conflict if $x^d_{i,0} \leq \underline{x}_0\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}\right)$ and not if $x^d_{i,0} > \underline{x}_0\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}\right)$.[35] Second consider the case that conflict is costless ($\kappa_{i,0} = 0$). In this case, the worker chooses to engage in conflict if $x^d_{i,0} \leq 0$ and not if $x^d_{i,0} > 0$.[36]

[34] Such a threshold always exists and is unique because $x + \beta\mathcal{U}\left(\boldsymbol{\pi}_\infty, x\right)$ strictly increases in x, $\lim_{x\to-\infty} x + \beta\mathcal{U}\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}, x\right) = -\infty$, and $\lim_{x\to+\infty} x + \beta\mathcal{U}\left(\boldsymbol{\pi}_{\mathbf{1:\infty}}, x\right) = +\infty$,

[35] There is a measure-zero set of workers who are indifferent between conflict and non-conflict. In our paper, we let these indifferent workers engage in conflict. Our results, e.g., Theorem 1, remain true if these indifferent workers do not engage in conflict.

[36] In our model, as discussed in the main text, the stationary distribution of wage gaps implied by the employer's default

Now we use the implicit Function Theorem for Lipschitz Functions (e.g., Clarke, 1990, p. 269) to prove that $\underline{x}_0(\boldsymbol{\pi}_{\mathbf{1:\infty}})$ is Lipschitz continuous in $\boldsymbol{\pi}_{\mathbf{1:\infty}}$ around $\boldsymbol{\pi}^{ss}$. To apply this theorem, define $H(\boldsymbol{\pi}_{\mathbf{1:\infty}}, x) \equiv -\kappa + \beta \mathscr{U}(\boldsymbol{\pi}_{\mathbf{1:\infty}}, 0) - x - \beta \mathscr{U}(\boldsymbol{\pi}_{\mathbf{1:\infty}}, x)$. One needs two conditions. First, $H(\boldsymbol{\pi}_{\mathbf{1:\infty}}, x)$ is Lipschitz continuous in $\boldsymbol{\pi}_{\mathbf{1:\infty}}$ around $\boldsymbol{\pi}^{ss}$ and $\underline{x}^{ss} \equiv \underline{x}_0(\boldsymbol{\pi}^{ss})$. This is true because of (A.7), (A.9), (A.10), and the fact that the absolute value of the partial derivatives is bounded above by $\frac{1}{1-\beta}$. Second, $\frac{\partial H(\boldsymbol{\pi}^{ss}, \underline{x}^{ss})}{\partial x} \neq 0$. This is true because $\frac{\partial H(\boldsymbol{\pi}^{ss}, \underline{x}^{ss})}{\partial x} = -1 - \beta \frac{\partial \mathscr{U}(\boldsymbol{\pi}^{ss}, \underline{x}^{ss})}{\partial x_{i,-1}} \leq -1$. As a result, $\underline{x}_0(\boldsymbol{\pi}_{\mathbf{1:\infty}})$ is Lipschitz continuous in $\boldsymbol{\pi}_{\mathbf{1:\infty}}$ around $\boldsymbol{\pi}^{ss}$.

Finally, consider the conflict decision for an arbitrary period t. It can be written as the same problem as (A.8),

$$\mathcal{V}\left(x_{i,t}^d, \kappa_{i,t}, \boldsymbol{\pi}_{\boldsymbol{t+1:\infty}}\right) \equiv \max_{\mathscr{I}_{i,t}} \left(1 - \mathscr{I}_{i,t}\right)\left(x_{i,t}^d + \beta \mathscr{U}\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}}, x_{i,t}^d\right)\right) + \mathscr{I}_{i,t}\left(0 + \beta \mathscr{U}(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}}, 0) - \kappa_{i,t}\right),$$

where $\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}} = \{\pi_\tau\}_{\tau=t+1}^{\infty}$ and $x_{i,t}^d = x_{i,t-1} - \left(\mu + z_{i,t}\right) - \left(1-\gamma\right)\hat{\pi}_t$, the wage gap implied by the employer's default wage offer at t. The optimal conflict decision at t can be characterized the same way as at 0, and the conflict threshold $\underline{x}_t(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}})$ is the same function as $\underline{x}_0(\boldsymbol{\pi}_{\mathbf{1:\infty}})$ and is Lipschitz continuous in $\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}}$ around $\boldsymbol{\pi}^{ss}$.

Aggregate worker welfare. We now study the impact of inflation shocks on aggregate worker welfare. We define $\mathscr{W}(\boldsymbol{\pi}_\infty) \equiv \int_0^1 \mathscr{U}\left(\boldsymbol{\pi}_\infty, x_{i,-1}\right) di$. From (4) and (6), the impact of inflation on aggregate worker welfare can then be written as $\hat{\mathscr{W}} = \mathscr{W}(\boldsymbol{\pi}_\infty) - \mathscr{W}(\boldsymbol{\pi}^{ss})$. From (A.7),

$$\begin{aligned} \frac{\partial \mathscr{W}(\boldsymbol{\pi}_\infty)}{\partial \pi_s} &= -\left(1-\gamma\right)\sum_{t=s}^{\infty}\beta^t \int_0^1 \mathbb{E}\left[\prod_{\tau=s}^{t}\left(1 - \mathscr{I}_{i,\tau}^*\left(h_{i,\tau}; \boldsymbol{\pi}_\infty\right)\right)\right] di, \quad \text{a.e.} \\ &= -\left(1-\gamma\right)\sum_{t=s}^{\infty}\beta^t \Phi_{s,t}(\boldsymbol{\pi}_\infty) \quad \text{a.e.} \end{aligned}$$

where $\Phi_{s,t}(\boldsymbol{\pi}_\infty) \equiv \mathbb{E}\left[\int_0^1 \left(\Pi_{\tau=s}^t \left(1 - \mathscr{I}_{i,\tau}^*\left(h_{i,\tau}; \boldsymbol{\pi}_\infty\right)\right)\right) di\right]$ captures the "survival" probability between period s and $t \geq s$, i.e., the fraction of workers who never engage in conflict during the period s, $s+1, \cdots, t$. Define $\tilde{\mathscr{W}}(\varepsilon) = \mathscr{W}(\varepsilon \boldsymbol{\pi}_\infty + (1-\varepsilon)\boldsymbol{\pi}^{ss})$. We have

$$\tilde{\mathscr{W}}'(\varepsilon) = -\left(1-\gamma\right)\sum_{s=0}^{\infty}\sum_{t=s}^{\infty}\beta^t \Phi_{s,t}\left(\varepsilon \boldsymbol{\pi}_\infty + (1-\varepsilon)\boldsymbol{\pi}^{ss}\right)\hat{\pi}_s \quad \text{a.e.}$$

wage offer, $G^{d,ss}\left(x_{i,-1}^d\right)$ has a non-positive support. As a result, at steady-state inflation, the worker always prefers to conflict and set the wage gap to zero if it is costless to do so. With positive inflation shocks ($\hat{\pi}_t \geq 0$ for all t), the distribution of wage gaps implied by the employer's default wage offer, $G_t^d\left(x_{i,t}^d\right)$, further studied below, also has a non-positive support for all t. So the worker again always prefers to conflict and set the wage gap to zero if it is costless to do so. The characterization here is more general, allowing negative inflation shocks and the possibility of positive wage gaps implied by the employer's default wage offer. Therefore, the worker could choose not to conflict even if it is costless to do so.

As a result, for all $\boldsymbol{\pi}_\infty$,

$$\hat{\mathscr{W}} = \mathscr{W}\left(\boldsymbol{\pi}_\infty\right) - \mathscr{W}\left(\boldsymbol{\pi}^{ss}\right) = -\left(1-\gamma\right)\sum_{s=0}^{\infty}\sum_{t=s}^{\infty}\beta^t\left(\int_0^1 \Phi_{s,t}\left(\varepsilon\boldsymbol{\pi}_\infty + (1-\varepsilon)\boldsymbol{\pi}^{ss}\right)d\varepsilon\right)\hat{\pi}_s. \tag{A.12}$$

From the formula for wage erosion in (8) and using (A.5), we know that

$$\begin{aligned}\hat{w}_t^{\text{erosion}} &= -\left(1-\gamma\right)\sum_{s=0}^{t}\left(\int_0^1 \mathbb{E}\left[\prod_{\tau=s}^{t}\left(1-\mathscr{I}_{i,\tau}^*\left(h_{i,\tau};\boldsymbol{\pi}^{ss}\right)\right)\right]di\right)\cdot\hat{\pi}_s,\\ &= -\left(1-\gamma\right)\sum_{s=0}^{t}\Phi_{s,t}\left(\boldsymbol{\pi}^{ss}\right)\cdot\hat{\pi}_s. \end{aligned}\tag{A.13}$$

Note that $\Phi_{s,t}\left(\boldsymbol{\pi}^{ss}\right)$ is equal to Φ_{t-s}^{ss} defined in the main text, i.e., the "survival" probability at steady-state inflation. It only depends on $t-s$ because the distribution of wage gaps in each period is the same, given by the stationary distribution. This proves Proposition 2.

We now prove the key part of Theorem 1. That is, to first order, $\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty}\beta^t\hat{w}_t^{\text{erosion}}$. From (A.13), we know that

$$\sum_{t=0}^{\infty}\beta^t\hat{w}_t^{\text{erosion}} = -\left(1-\gamma\right)\sum_{s=0}^{\infty}\sum_{t=s}^{\infty}\beta^t\Phi_{s,t}\left(\boldsymbol{\pi}^{ss}\right)\hat{\pi}_s.$$

Together with (A.12), we only need to prove that $\Phi_{s,t}\left(\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ for all $t \geq s$. As proved formally below, this follows naturally from the Lipschitz continuity of $\underline{x}_t\left(\boldsymbol{\pi}_{t+1:\infty}\right)$ in $\boldsymbol{\pi}_{t+1:\infty}$ around $\boldsymbol{\pi}^{ss}$ for each $t \geq 0$.

Formally, we first prove by induction that, for each $t \geq 0$, $G_t^d\left(x_{i,t}^d;\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ and is continuous in $x_{i,t}^d$, where $G_t^d\left(x_{i,t}^d;\boldsymbol{\pi}_\infty\right)$ is the cumulative distribution function of the wage gaps implied by the employer's default wage offer at t. From the proof of Proposition 1, we know that, at $t=0$, $G_0^d\left(x_{i,0}^d;\boldsymbol{\pi}_\infty\right) = G^{d,ss}\left(x_{i,0}^d + \left(1-\gamma\right)\hat{\pi}_0\right)$ is continuous in $\hat{\pi}_0$ (hence $\boldsymbol{\pi}_\infty$) and $x_{i,0}^d$. For all $t \geq 0$, given $G_t^d\left(x_{i,t}^d;\boldsymbol{\pi}_\infty\right)$, we can find, $G_t\left(x_{i,t};\boldsymbol{\pi}_\infty\right)$, the cumulative distribution function of the wage gaps at the end of period t (after conflict decisions):

$$\begin{aligned}G_t\left(x_{i,t};\boldsymbol{\pi}_\infty\right) = (1-\lambda)&\left(\max\left\{G_t^d\left(x_{i,t};\boldsymbol{\pi}_\infty\right) - G_t^d\left(\underline{x}_t\left(\boldsymbol{\pi}_{t+1:\infty}\right);\boldsymbol{\pi}_\infty\right),0\right\} + G_t^d\left(\underline{x}_t\left(\boldsymbol{\pi}_{t+1:\infty}\right);\boldsymbol{\pi}_\infty\right)\mathbb{1}_{x_{i,t}\geq 0}\right)\\ &+\lambda\left(\max\left\{G_t^d\left(x_{i,t};\boldsymbol{\pi}_\infty\right) - G_t^d\left(0;\boldsymbol{\pi}_\infty\right),0\right\} + G_t^d\left(0;\boldsymbol{\pi}_\infty\right)\mathbb{1}_{x_{i,t}\geq 0}\right),\end{aligned}\tag{A.14}$$

where the first line captures workers whose conflict is costly and whose conflict choice can then be characterized by the threshold $\underline{x}_t\left(\boldsymbol{\pi}_{t+1:\infty}\right)$, and the second line captures workers whose conflict is costless and whose conflict choice can then be characterized by the threshold 0. Recall that $\underline{x}_t\left(\boldsymbol{\pi}_{t+1:\infty}\right)$ is Lipschitz continuous in $\boldsymbol{\pi}_{t+1:\infty}$ around $\boldsymbol{\pi}^{ss}$. If $G_t^d\left(x_{i,t}^d;\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ and is continuous in $x^d_{i,t}$, $G_t\left(x_{i,t};\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ and is continuous in $x_{i,t}$ outside the point $x_{i,t}=0$.

One can then find

$$G^d_{t+1}\left(x^d_{i,t+1};\boldsymbol{\pi}_\infty\right)=\int_{\underline{z}}^{\infty}G_t\left(\mu+(1-\gamma)\hat{\pi}_{t+1}+z_{i,t+1}+x^d_{i,t+1};\boldsymbol{\pi}_\infty\right)f\left(z_{i,t+1}\right)dz_{i,t+1},$$

where $f(\cdot)$ is the probability density function for $z_{i,t+1}$. If $G_t\left(x_{i,t};\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ and is continuous in $x_{i,t}$ outside the point $x_{i,t}=0$ (so a.e. in $x_{i,t}$), $G^d_{t+1}\left(x^d_{i,t+1};\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ and is continuous in $x^d_{i,t+1}$.[37] This finishes the proof by induction that, for each $t\geq 0$, $G^d_t\left(x^d_{i,t};\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$.

Now we prove that $\Phi_{s,t}\left(\boldsymbol{\pi}_\infty\right)$ is continuous around $\boldsymbol{\pi}^{ss}$ for all $t\geq s$. To do so, we introduce $G_{s,t}\left(x_{i,t};\boldsymbol{\pi}_\infty\right)$, the distribution of wage gap $x_{i,t}$ conditioning that the employer's default wage offer "survives" between s and t, i.e., $\prod_{\tau=s}^{t}\left(1-\mathscr{I}^*_{i,\tau}\left(h_{i,\tau};\boldsymbol{\pi}_\infty\right)\right)=1$. First, for all $s\geq 0$,

$$\Phi_{s,s}\left(\boldsymbol{\pi}_\infty\right)=(1-\lambda)\left(1-G^d_s\left(\underline{x}_s\left(\boldsymbol{\pi}_{s+1:\infty}\right);\boldsymbol{\pi}_\infty\right)\right)+\lambda\left(1-G^d_s\left(0;\boldsymbol{\pi}_\infty\right)\right)$$

is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$. And

$$G_{s,s}\left(x_{i,s};\boldsymbol{\pi}_\infty\right)=\max\left\{\frac{(1-\lambda)\left(G^d_s\left(x_{i,s};\boldsymbol{\pi}_\infty\right)-G^d_s\left(\underline{x}_s\left(\boldsymbol{\pi}_{s+1:\infty}\right);\boldsymbol{\pi}_\infty\right)\right)}{\Phi_{s,s}\left(\boldsymbol{\pi}_\infty\right)},0\right\}+\max\left\{\frac{\lambda\left(G^d_s\left(x_{i,s};\boldsymbol{\pi}_\infty\right)-G^d_s\left(0;\boldsymbol{\pi}_\infty\right)\right)}{\Phi_{s,s}\left(\boldsymbol{\pi}_\infty\right)},0\right\}$$

is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ and in $x_{i,s}$. Moreover, for any $t\geq s$, define $G^d_{s,t+1}\left(x^d_{i,t+1};\boldsymbol{\pi}_\infty\right)$, as the distribution of $x^d_{i,t+1}$ conditioning that the employer's default wage offer "survives" between s and t. We have, for any $t\geq s$,

$$\begin{aligned}
G^d_{s,t+1}\left(x^d_{i,t+1};\boldsymbol{\pi}_\infty\right)&=\int_{\underline{z}}^{\infty}G_{s,t}\left(\mu+(1-\gamma)\hat{\pi}_{t+1}+z_{i,t+1}+x^d_{i,t+1};\boldsymbol{\pi}_\infty\right)f\left(z_{i,t+1}\right)dz_{i,t+1}\\
\Phi_{s,t+1}\left(\boldsymbol{\pi}_\infty\right)&=\Phi_{s,t}\left(\boldsymbol{\pi}_\infty\right)\left((1-\lambda)\left(1-G^d_{s,t+1}\left(\underline{x}_{t+1}\left(\boldsymbol{\pi}_{t+2:\infty}\right);\boldsymbol{\pi}_\infty\right)\right)+\lambda\left(1-G^d_{s,t+1}\left(0;\boldsymbol{\pi}_\infty\right)\right)\right)\\
G_{s,t+1}\left(x_{i,t+1};\boldsymbol{\pi}_\infty\right)&=\max\left\{\frac{(1-\lambda)\left(G^d_{s,t+1}\left(x_{i,t+1};\boldsymbol{\pi}_\infty\right)-G^d_{s,t+1}\left(\underline{x}_{t+1}\left(\boldsymbol{\pi}_{t+2:\infty}\right);\boldsymbol{\pi}_\infty\right)\right)}{\Phi_{s,t+1}\left(\boldsymbol{\pi}_\infty\right)/\Phi_{s,t}\left(\boldsymbol{\pi}_\infty\right)},0\right\}\\
&\quad+\max\left\{\frac{\lambda\left(G^d_{s,t+1}\left(x_{i,t+1};\boldsymbol{\pi}_\infty\right)-G^d_{s,t+1}\left(0;\boldsymbol{\pi}_\infty\right)\right)}{\Phi_{s,t+1}\left(\boldsymbol{\pi}_\infty\right)/\Phi_{s,t}\left(\boldsymbol{\pi}_\infty\right)},0\right\}.
\end{aligned}$$

By induction, for all $t\geq s$, $\Phi_{s,t}\left(\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ and $G_{s,t}\left(x_{i,t};\boldsymbol{\pi}_\infty\right)$ is continuous in $\boldsymbol{\pi}_\infty$ around

[37] This follows from Lebesgue dominated convergence theorem and the fact that $\left|G_t\left(\mu+(1-\gamma)\hat{\pi}_{t+1}+z_{i,t+1}+x^d_{i,t+1};\boldsymbol{\pi}_\infty\right)\right|\leq 1$ and $\int 1\cdot f\left(z_{i,t+1}\right)dz_{i,t+1}<\infty$.

$\boldsymbol{\pi}^{ss}$ and in $x_{i,t}$. This finishes the proof that $\Phi_{s,t}(\boldsymbol{\pi}_\infty)$ is continuous in $\boldsymbol{\pi}_\infty$ around $\boldsymbol{\pi}^{ss}$ for all $t \geq s$. As a result, to first order, $\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{erosion}}$. The rest of Theorem 1 follows directly from the fact that $\hat{\mathscr{W}} = \sum_{t=0}^{\infty} \beta^t \hat{w}_t - \hat{\varkappa}$ and $\hat{w}_t = \hat{w}_t^{\text{erosion}} + \hat{w}_t^{\text{catch-up}}$.

Proof of Proposition 3.

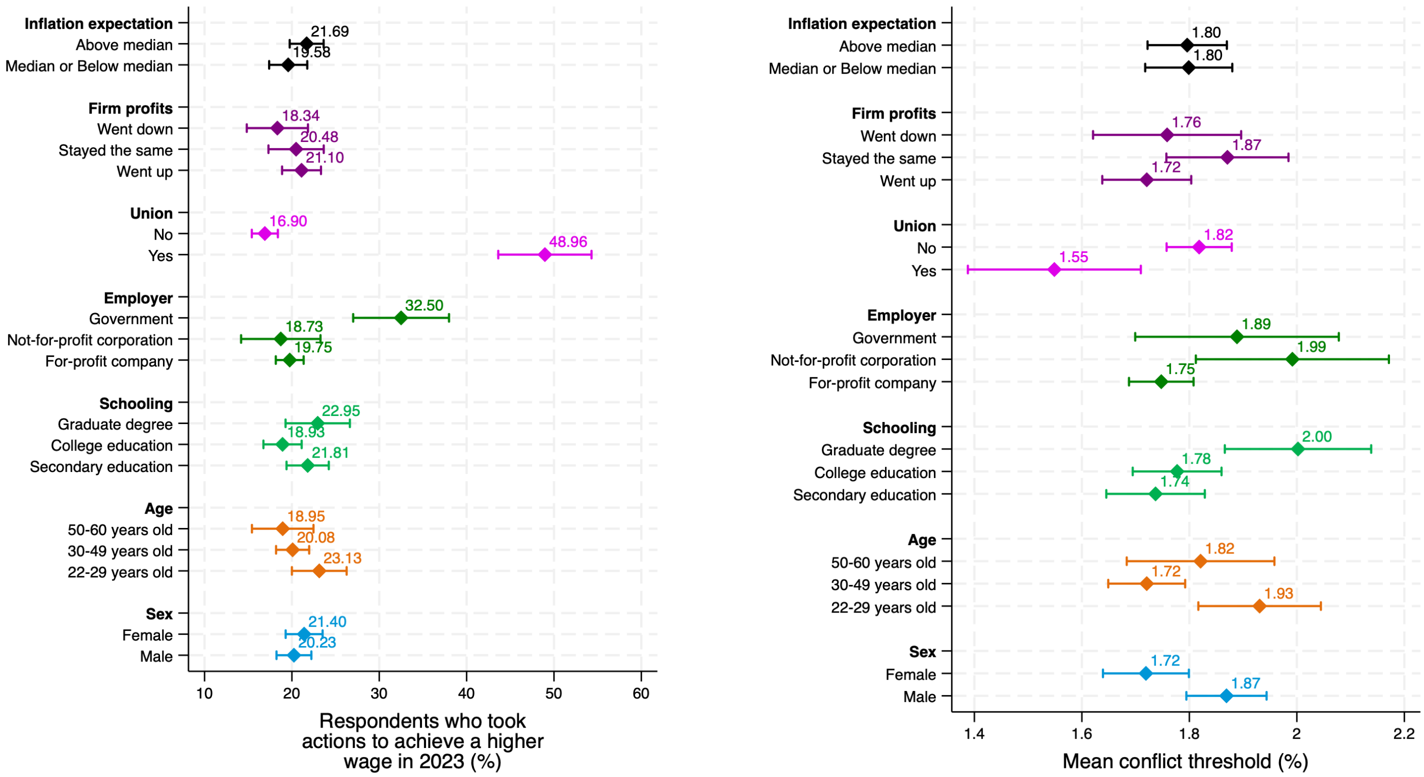
The workers' problem (7) depends on the degree of indexation γ and inflation shocks $\{\hat{\pi}_t\}_{t=0}^{\infty}$ only through *inflation shocks net-of-indexation* $(1-\gamma)\hat{\pi}_t$. To first order, $\hat{\mathscr{W}}$ and $\hat{\varkappa}$ will all be linear functions of $\{(1-\gamma)\hat{\pi}_t\}_{t=0}^{\infty}$. The degree of indexation simply scales both $\hat{\mathscr{W}}$ and $\hat{\varkappa}$ by a factor of $1-\gamma$, but does not affect $-\frac{\hat{\varkappa}}{\hat{\mathscr{W}}}$. This proves Proposition 3.

B Appendix Figures and Tables

B.1 Appendix Figures

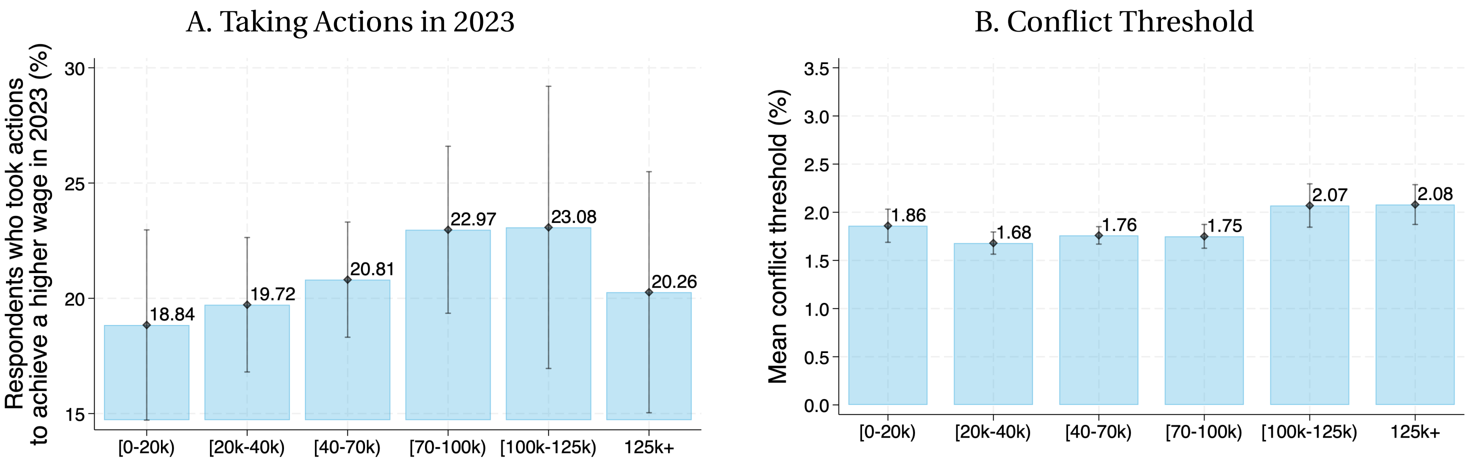
Figure B.1: Heterogeneity in Conflict: Demographics

A. Taking Actions in 2023 B. Conflict Threshold



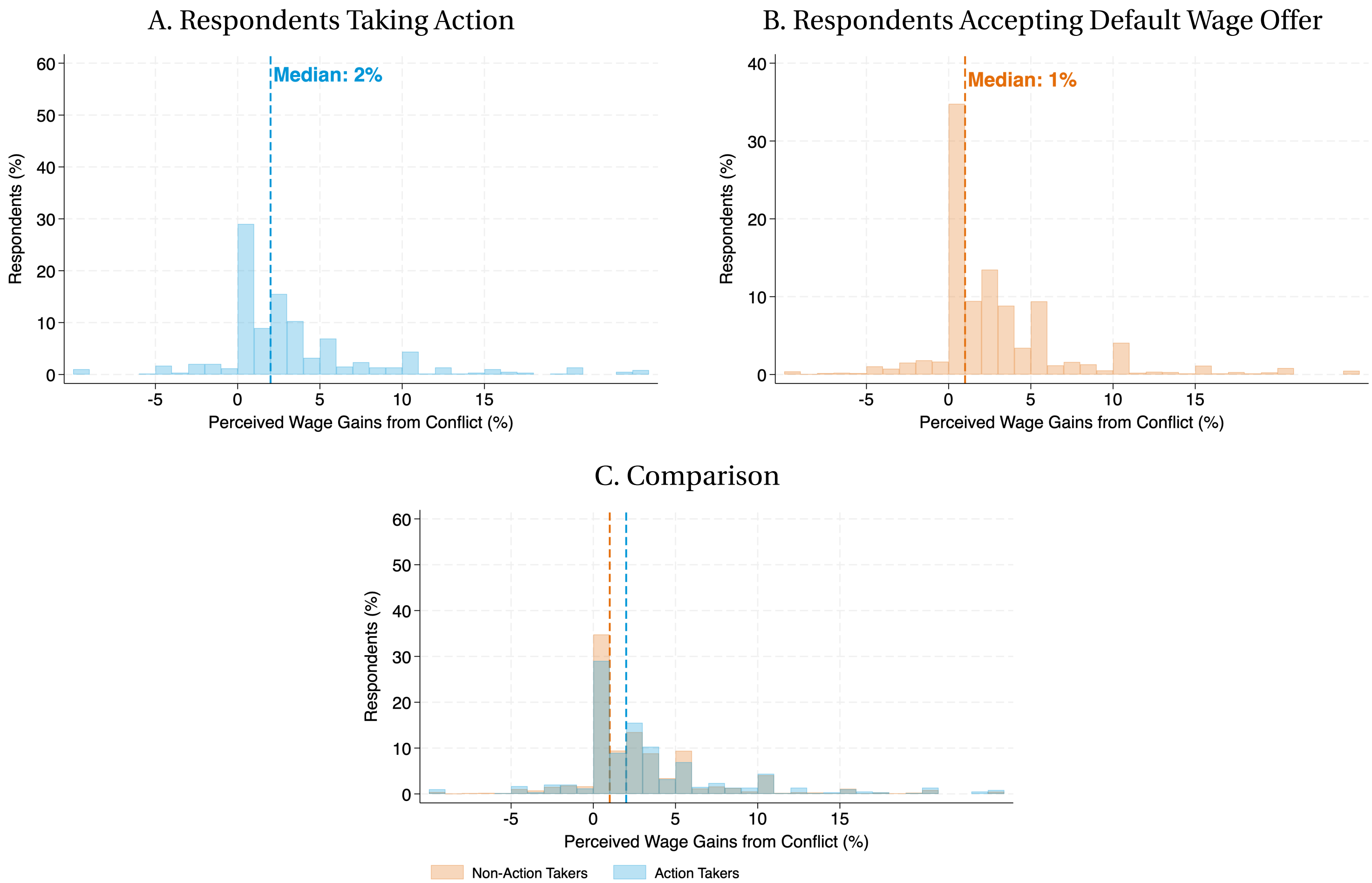
Note: Panel A displays the percentage of participants who took actions to achieve a higher wage growth in 2023, with 95% confidence intervals shown for each demographic category. Panel B illustrates the mean of the elicited conflict threshold $\mathbb{T}$, based on the hypotheticals in Figure 5, along with 95% confidence intervals displayed for each demographic category. In Panel B, we include respondents with $\mathbb{T} > 4\%$, assigning them a value of 4.25%; we exclude respondents who give non-monotonic responses in the elicitation of $\mathbb{T}$. The categories depicted include inflation expectations, firm profits, union membership, employer type, education level, age, and gender.

Figure B.2: Heterogeneity in Conflict: Income



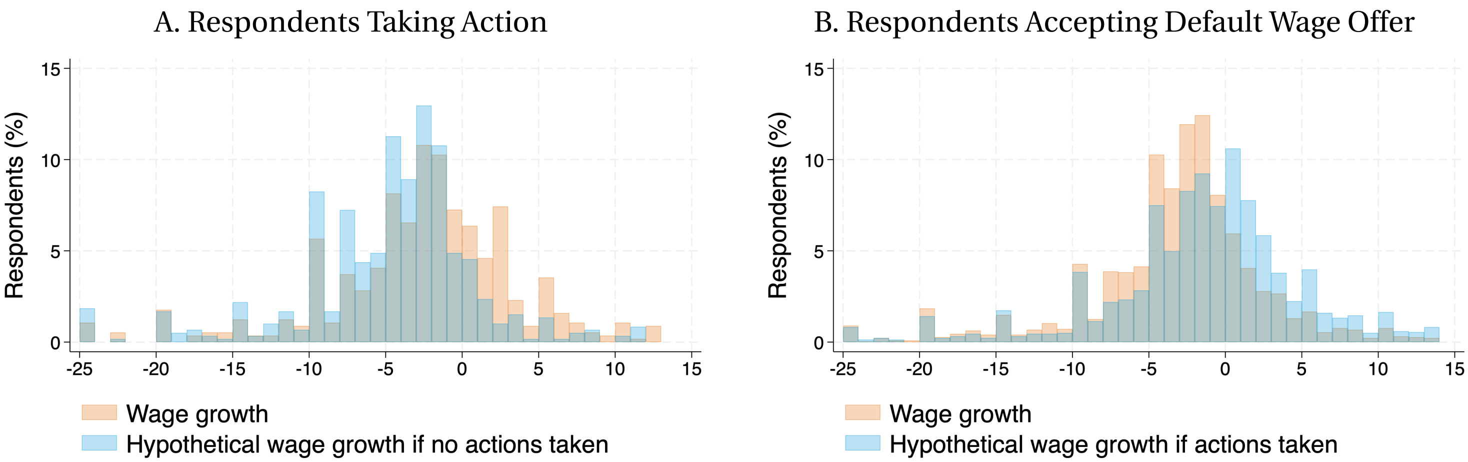
Note: Panel A shows the percentage of participants who took actions to achieve a higher wage growth in 2023, with 95% confidence intervals displayed for each income category. Panel B illustrates the mean of the elicited conflict threshold $\mathbb{T}$, based on the hypotheticals in Figure 5, along with 95% confidence intervals displayed for each income category. In Panel B, we include respondents with $\mathbb{T} > 4\%$, assigning them a value of 4.25%, and exclude respondents who give non-monotonic responses in the elicitation of $\mathbb{T}$.

Figure B.3: The Effectiveness of Conflict: Within-individual Distributions



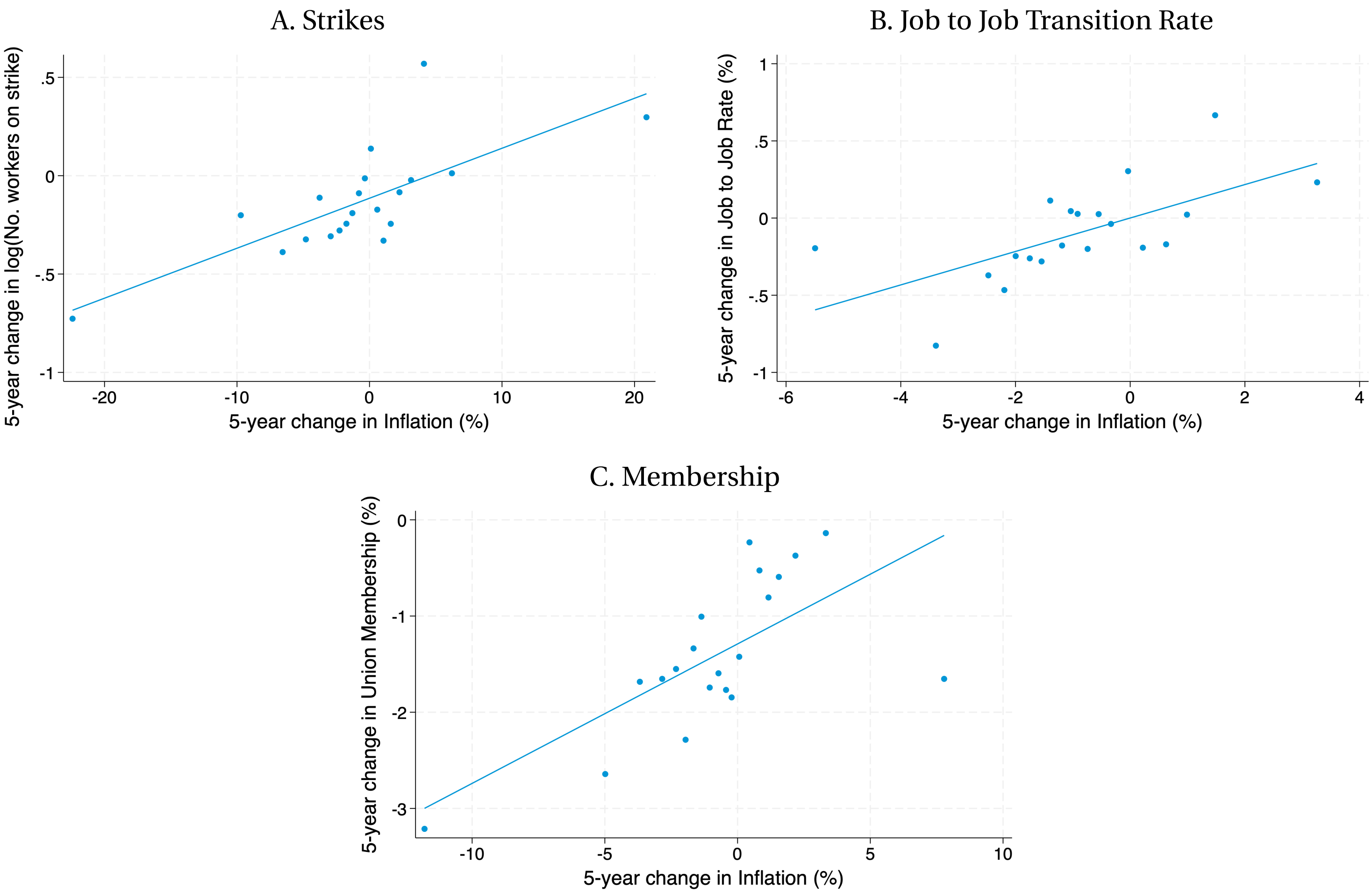
Note: In Panel A, we plot the perceived wage gains from conflict in 2023 for respondents who reported taking action to achieve that wage growth, which we define as the difference between the actual nominal wage growth and the hypothetical default nominal wage growth respondents reported they would have received if no actions had been taken. In Panel B, we plot the perceived wage gains from conflict in 2023 for respondents who did not take action to receive that wage growth, which is the hypothetical nominal wage growth respondents reported they would have received if they took actions minus their actual default nominal wage growth. In Panel C, we plot the distributions from Panels A and B on top of each other. In all panels, the unit of observation is the respondent. In all cases, the data range has been truncated, with values ranging from a minimum of -10% to a maximum of 25%. The data have been restricted to respondents who indicated that they took actions to achieve a higher wage growth in 2023 in Panel A and to respondents who accepted their employers' default wage offer in 2023 in Panel B.

Figure B.4: The Effectiveness of Conflict: Perceived Real Wage Growth



Note: Panels A and B depict the distribution of perceived real wage growth in 2023 and the hypothetical perceived real wage growth respondents reported they would have received if no actions had been taken or if actions had been taken to achieve a higher wage growth, respectively. The perceived real wage growth is defined as the worker's nominal wage growth in 2023 minus their perceived rate of inflation in 2023. The data range has been truncated, with values ranging from a minimum of -25% to a maximum of 15%. Panel A restricts to respondents who took actions in 2023, asking the question "Above, you indicated that you got a pay raise by either initiating a difficult conversation with your employer about your pay, searching for a higher paying job with other employers or switching employers in order to get a raise. If you, or possibly your union, had not implemented any of these strategies, what pay growth do you think your employer would have offered you in 2023?" Panel B restricts to respondents who accepted their employers' default wage offer in 2023, asking the question "[w]hat pay growth do you think you could have attained this past year if you had taken actions such as initiating a difficult conversation with your employer to ask for a raise, searching for higher paying jobs with other employers, or switching employers in order to get a raise?".

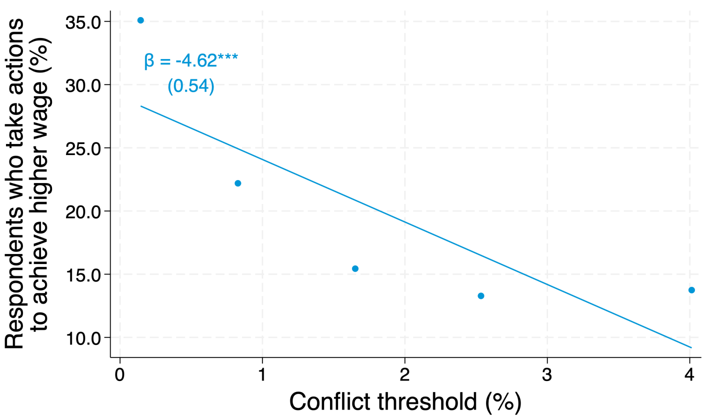
Figure B.5: Cross-country correlation between labor market conflict action and inflation: Binned scatterplots



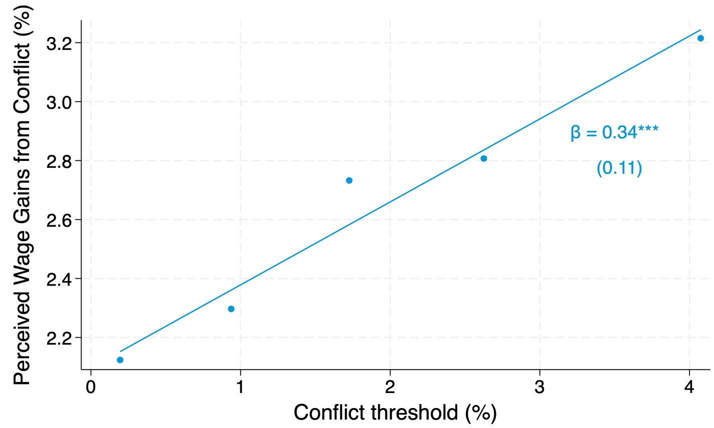
Note: Each panel presents a 20-bin scatterplot relating five-year changes in headline inflation (in percentage points) to labor market outcomes. Panel A shows the relationship with the five-year log difference of workers involved in strikes and lockouts (80 countries from 1969-2022, sourced from the International Labour Organization); Panel B plots the five-year change in the job-to-job transition rate (in percentage points, 30 countries from 1997-2021, sourced from Donovan et al., 2023); and Panel C depicts the five-year change in union membership, defined as the percent of workers in a union (in percentage points, 37 countries from 1960-2022, sourced from the International Labour Organization). The inflation data are sourced from the World Bank. In each panel, both the outcome variable and inflation are residualized on country and year fixed effects, and inflation is trimmed in the World Bank dataset to exclude the top 2% most extreme observations. Observations are unweighted.

Figure B.6: Validating Elicited Conflict Thresholds: Controlling for Conflict-Induced Nominal Wage Growth

A. Taking Actions in 2023

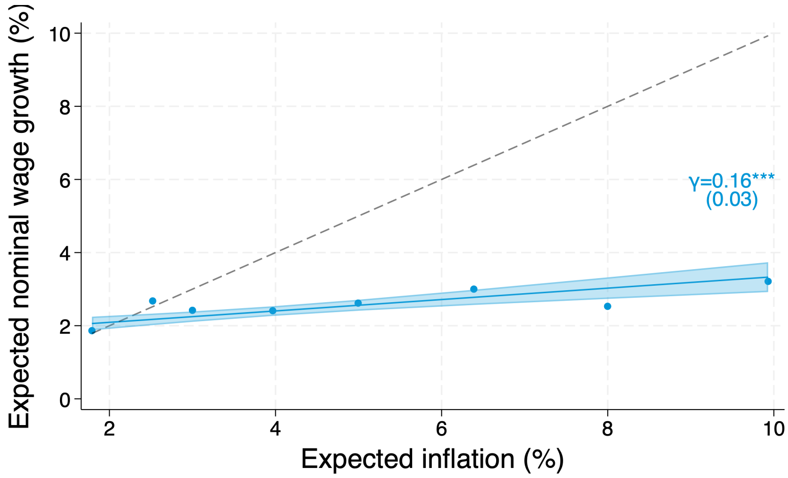


B. Perceived Wage Gains from Conflict in 2023



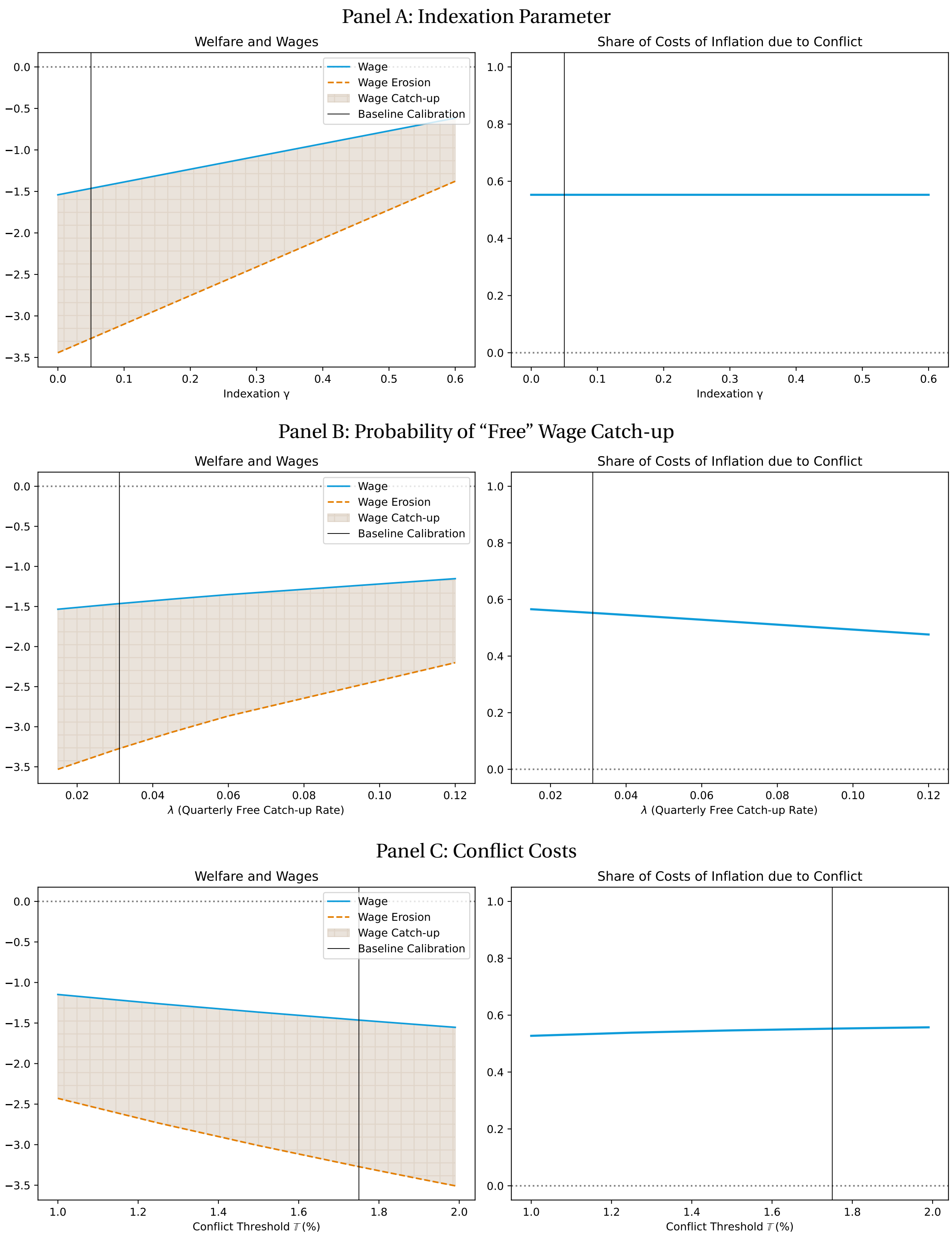
Note: Panel A shows the relationship between the elicited conflict threshold ($\mathbb{T}$), based on the hypotheticals in Figure 5, and an indicator for whether the respondent took actions to achieve higher wage growth in 2023, adding a control for the conflict-induced nominal wage growth (ΔW^*). Panel B is restricted to respondents who accepted their employer's default wage offer in 2023 and shows the relationship between their elicited conflict threshold ($\mathbb{T}$) and perceived wage gains from conflict (defined as the difference between their perceived conflict-induced nominal wage growth had they taken costly actions in 2023 and the nominal wage growth of the employer's default wage offer they accepted in 2023), adding a control for the conflict-induced nominal wage growth (ΔW^*). In both panels, we include those respondents with $\mathbb{T} > 4\%$, assigning them a value of 4.25%, and exclude respondents who give non-monotonic responses in the elicitation of $\mathbb{T}$. In Panel B, the perceived wage gains are trimmed at the 1st and 99th percentile. The coefficients of this relationship are displayed, with the standard errors enclosed in parentheses. Stars denote levels of statistical significance: 1% (***), 5% (**), and 10% (*).

Figure B.7: Wage Indexation: Variation from Inflation Expectations



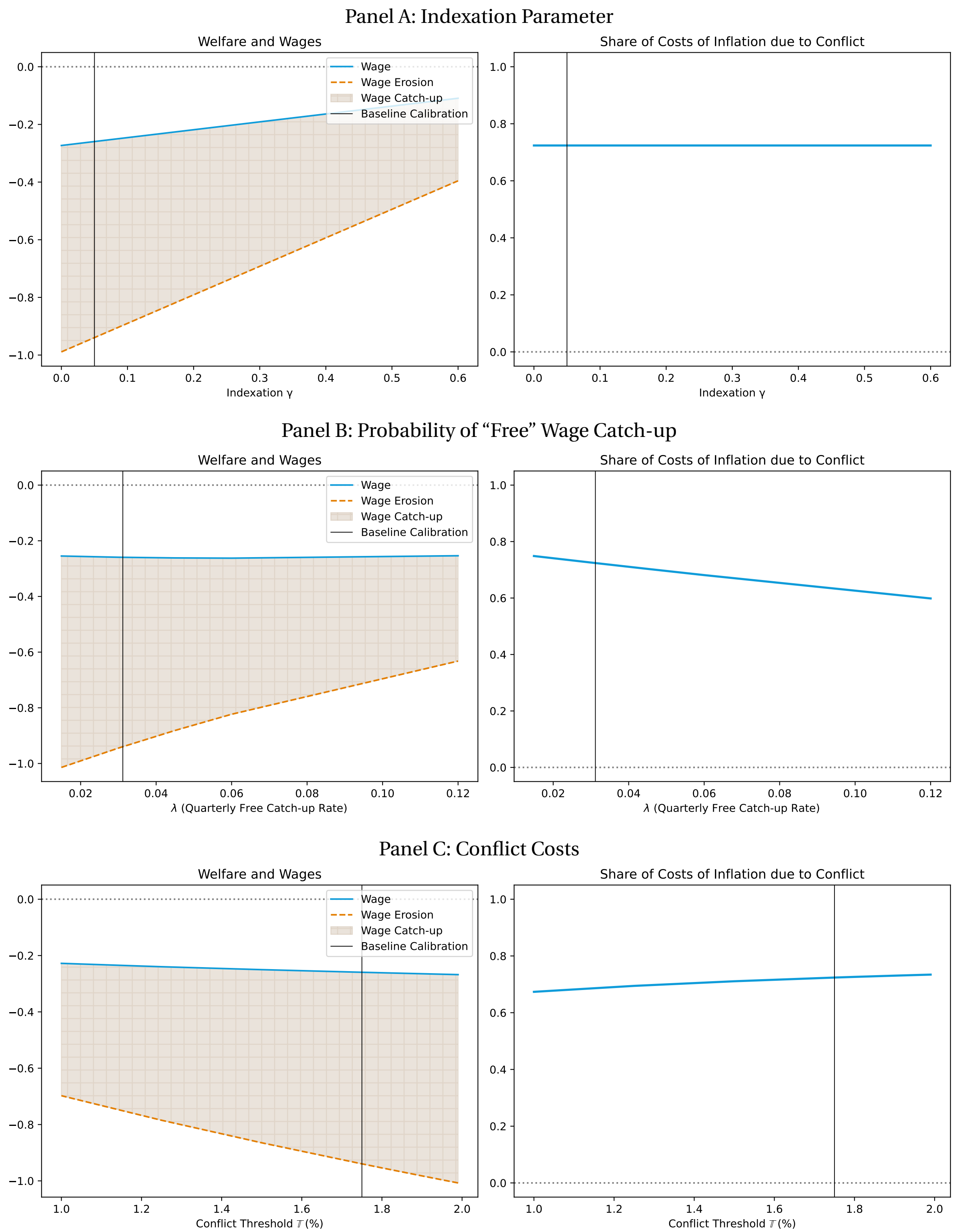
Note: This binned scatterplot depicts the relationship between the default nominal wage growth over the next 12 months that workers expect their employers to offer and the inflation they expect over the next 12 months, along with the 95% confidence interval of the predicted relationship. This figure restricts the sample to respondents who expect inflation between 0% and 10% next year. Among the full sample, 72% fall in this range, because 24% are excluded because they expect inflation above 10% and about 4% are excluded because they expect prices to fall. The gray dashed line serves as a reference 45-degree line. The coefficient of this relationship is displayed, with the standard errors enclosed in parentheses. The stars indicate levels of statistical significance: 1% (***), 5% (**), and 10% (*).

Figure B.8: Aggregate Costs of Conflict due to Inflation as a Function of Key Parameters (the Persistent Inflation Shock)



Notes: these figures summarize the impact of the persistent inflation shock on wages and worker welfare under different model parameterizations. The left figure of each panel plots the decline in the present value of real wages (blue solid line), and the present value of welfare-relevant wage erosion (dashed orange line) after the inflation shock, both as a percentage of annual consumption as in Table 3. The gap between the two lines, shaded in gray, represents the present value of wage catch-up achieved through more frequent conflict. The right figure of each panel plots the ratio of these two terms as the parameter varies. Panel A varies the indexation parameter γ between 0 and 0.6. Panel B varies probability of free wage catch-up λ such that the annual share of free wage catch-up, $1-(1-\lambda)^4$, is between 0 and 40%. Panel C varies the conflict cost κ such that the conflict threshold $\mathbb{T}$ varies between 1% and 2%.

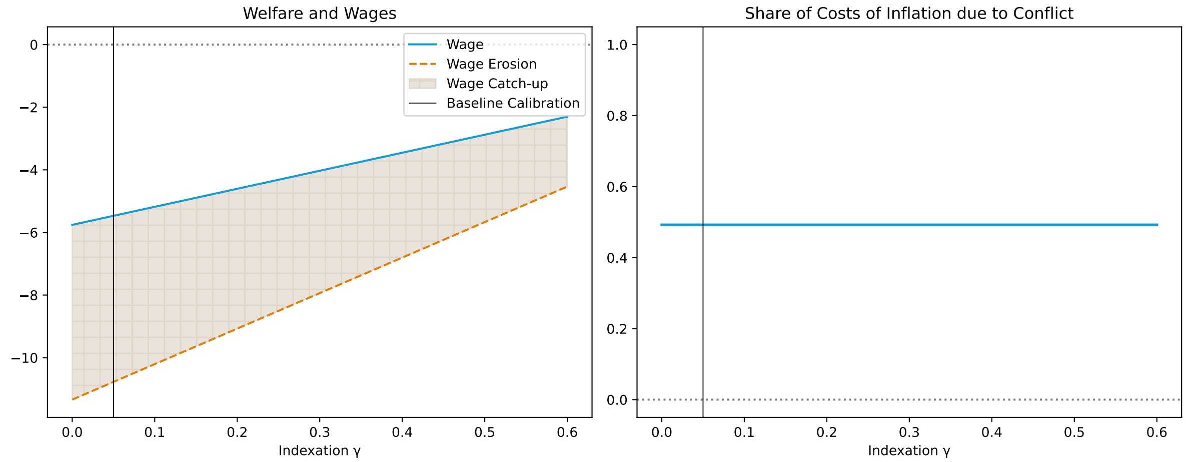
Figure B.9: Aggregate Costs of Conflict due to Inflation as a Function of Key Parameters (the Transitory Inflation Shock)



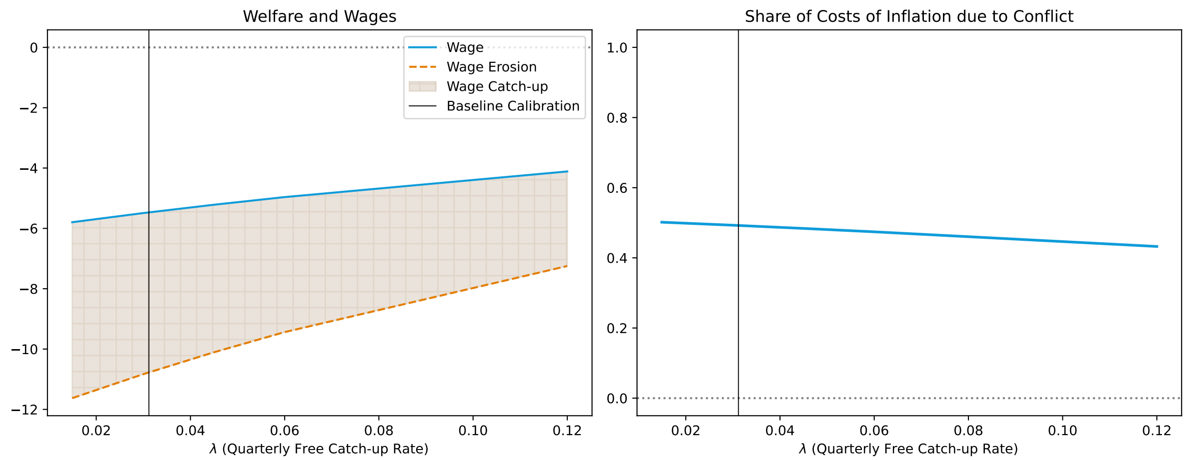
Notes: these figures summarize the impact of the transitory inflation shock on wages and worker welfare under different model parameterizations. The left figure of each panel plots the decline in the present value of real wages (blue solid line), and the present value of welfare-relevant wage erosion (dashed orange line) after the inflation shock, both as a percentage of annual consumption as in Table 3. The gap between the two lines, shaded in gray, represents the present value of wage catch-up achieved through more frequent conflict. The right figure of each panel plots the ratio of these two terms as the parameter varies. Panel A varies the indexation parameter γ between 0 and 0.6. Panel B varies probability of free wage catch-up λ such that the annual share of free wage catch-up, $1-(1-\lambda)^4$, is between 0 and 40%. Panel C varies the conflict cost κ such that the conflict threshold $\mathbb{T}$ varies between 1% and 2%.

Figure B.10: Aggregate Costs of Conflict due to Inflation as a Function of Key Parameters (2021-23 Inflation)

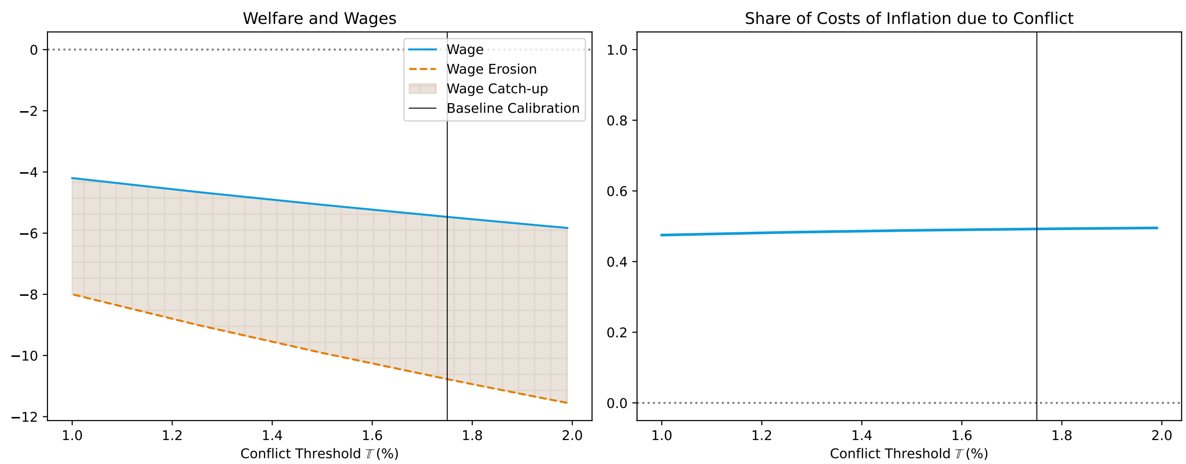
Panel A: Indexation Parameter



Panel B: Probability of "Free" Wage Catch-up



Panel C: Conflict Costs



Notes: these figures summarize the impact of the post-Pandemic inflation shock on wages and worker welfare under different model parameterizations. The inflation shock is given by the path of annualized headline PCE inflation over 2021–2023, after subtracting the steady-state inflation based on the historical mean inflation. The left figure of each panel plots the decline in the present value of real wages (blue solid line), and the present value of welfare-relevant wage erosion (dashed orange line) after the inflation shock, both as a percentage of annual consumption as in Table 3. The gap between the two lines, shaded in gray, represents the present value of wage catch-up achieved through more frequent conflict. The right figure of each panel plots the ratio of these two terms as the parameter varies. Panel A varies the indexation parameter γ between 0 and 0.6. Panel B varies probability of free wage catch-up λ such that the annual share of free wage catch-up, $1-(1-\lambda)^4$, is between 0 and 40%. Panel C varies the conflict cost κ such that the conflict threshold $\mathbb{T}$ varies between 1% and 2%.

B.2 Appendix Tables

Table B.1: Distributions in Survey Sample vs. Population

	Survey	US population
Male	0.52	0.52
Female	0.48	0.48
Secondary education (e.g., GED/GCSE)	0.02	0.02
High school diploma/A-levels	0.37	0.39
Technical/community college	0.12	0.11
Undergraduate degree (BA/BSc/other)	0.32	0.30
Graduate degree (MA/MSc/MPhil/other)	0.14	0.13
Doctorate degree (PhD/other)	0.04	0.04
Democrat	0.29	0.28
Republican	0.25	0.26
Independent	0.33	0.33
None	0.06	0.07
Other party	0.06	0.06
22-29 years old	0.24	0.20
30-39 years old	0.38	0.29
40-49 years old	0.21	0.26
50-60 years old	0.17	0.26
Full-Time	0.83	0.83
Part-Time	0.17	0.17
For-profit company	0.80	0.77
Not-for-profit corporation	0.10	0.07
State government	0.03	0.06
Federal government	0.02	0.03
Local government	0.04	0.07
Other employer	0.01	
White	0.68	0.75
Black	0.12	0.14
Asian	0.08	0.07
Mixed	0.08	0.02
Other	0.04	0.02
No reported ethnicity	0.00	

Covered by a	0.11	0.13
Not part of a	0.81	0.87
No reported	0.07	
Income		
$0-$19,999	0.11	0.12
$20,000-$39,999	0.24	0.22
$40,000-$69,999	0.34	0.31
$70,000-$99,999	0.17	0.16
$100,000-$124,999	0.06	0.08
$125,000+	0.07	0.11

Note: The table displays statistics for the overall U.S. population, as compared to the sample of respondents in our survey. We pre-screen so that our respondents are at least 22 years old but no older than 60, full-time or part-time employed, and not self-employed. The statistics for the U.S. population were also limited by these criteria before taking the summary statistics, which are constructed using IPUMS-CPS-ASEC data for March 2023, and Gallup data for 2024.

Table B.2: Wage Growth for Action Takers vs. Non-Action Takers

	Nominal wage growth		Real wage growth	
	(1)	(2)	(3)	(4)
Action taker in 2023	1.840***	1.797***	1.594***	1.704***
	(0.346)	(0.371)	(0.421)	(0.450)
Controls		X		X
Observations	2933	2786	2930	2782

Notes: The dependent variable in columns 1 and 2 is reported nominal wage growth in 2023 (in percent) and the dependent variable in columns 3 and 4 is the perceived real wage growth (in percent), defined as the nominal wage growth in 2023 minus the worker's perceived inflation in 2023. "Action taker in 2023" is an indicator equal to one if the respondent reported taking action to achieve a higher wage growth in 2023. All regressions trim nominal and real wage growth at the 1st and 99th percentiles. Columns 1 and 3 report the bivariate association between being an action taker and wage growth, while columns 2 and 4 add controls for union membership, tenure with the current employer, age, annual pre-tax income category, sex, and highest education level completed. Robust standard errors are reported in parentheses.

Table B.3: Inflation and Labor Market Outcomes—Robustness Table

	5-Year Difference					2-Year Difference	Level
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel (a): Job-to-Job Flows							
$\Delta_{t,t-5}$ Inflation rate	4.628*	8.405**	10.017***	16.469***	8.275**		
	(2.526)	(3.378)	(3.435)	(4.691)	(3.259)		
$\Delta_{t,t-5}$ log(GDP per capita)					1.926		
					(1.331)		
$\Delta_{t,t-2}$ Inflation rate						3.486	
						(2.496)	
Inflation rate							3.249
							(2.736)
Observations	285	283	282	265	282	381	456
Panel (b): Union Membership							
$\Delta_{t,t-5}$ Inflation rate	19.575***	14.638**	11.150**	5.696	12.516**		
	(6.429)	(7.065)	(5.187)	(8.554)	(5.890)		
$\Delta_{t,t-5}$ log(GDP per capita)					-3.167		
					(2.933)		
$\Delta_{t,t-2}$ Inflation rate						7.468**	
						(3.093)	
Inflation rate							16.772*
							(9.245)
Observations	1,308	1,308	1,308	1,178	1,232	1,419	1,566
Panel (c): Strike Activity							
$\Delta_{t,t-5}$ Inflation rate	2.831***	2.431***	2.361***	1.948	2.338***		
	(0.431)	(0.474)	(0.478)	(1.628)	(0.484)		
$\Delta_{t,t-5}$ log(GDP per capita)					0.923		
					(0.599)		
$\Delta_{t,t-2}$ Inflation rate						0.929**	
						(0.400)	
Inflation rate							2.261***
							(0.553)
Observations	1,962	1,963	1,962	1,763	1,853	2,196	2,554
Country FE	✓		✓	✓	✓	✓	✓
Year FE		✓	✓	✓	✓	✓	✓
5% tails trimmed				✓			

Notes: This table shows the relationship between inflation and three labor market outcomes: Panel (a) job-to-job transitions (in percentage points, 30 countries from 1997-2021, sourced from Donovan et al., 2023), Panel (b) union membership defined as the fraction of workers who are in a union (in percentage points, 37 countries from 1960-2022, sourced from the International Labour Organization), panel (c) log of the number of workers involved in strikes and lockouts (80 countries from 1969-2022, sourced from the International Labour Organization, excluding observations with zero strikes). We use headline inflation (expressed in decimal form, e.g., 0.02 for 2%), sourced from the World Bank. In all cases, inflation is trimmed at the top 2% across all years and countries within the World Bank dataset. In columns 1-5, the variables are differenced over 5 years, in column 6 we use the 2-year difference, and in column 7 we use levels. In all panels, Column 1 includes country fixed effects only. Column 2 introduces year fixed effects, and column 3 includes both country and year fixed effects. Column 4 trims 5% of the tails for 5-year inflation growth within each sample. Column 5 adds a control for the 5-year change in log GDP per capita. In all specifications, standard errors are clustered at the country level. Statistical significance is denoted as follows: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Table B.4: Predicting Whether Workers Took Action in 2023

	(1)	(2)	(3)	(4)	(5)
Perceived Wage Gap	-0.556***	-0.591***	-0.624***		-0.666***
	(0.144)	(0.144)	(0.154)		(0.147)
Perceived Inflation			0.081	0.316**	
			(0.154)	(0.153)	
Wage Growth without Action				-1.400***	-1.188***
				(0.177)	(0.170)
Observations	2,926	2,781	2,644	2,659	2,754
Controls		X	X	X	X

Notes: The dependent variable is an indicator equal to 1 if the respondent reported taking any action in 2023 to achieve a higher wage growth. The key independent variable is "Perceived wage gap" implied by the employer's default wage offer in 2023, defined as the difference between the nominal wage growth of their employer's default wage offer and their conflict-induced nominal wage growth. "Perceived inflation" is based on reported perceptions of price changes in 2023. "Wage growth without action" is the default nominal wage growth offered (or believed would have been offered) by the employer. All continuous regressors are expressed as percentages. To reduce the influence of outliers, the perceived wage gap and wage growth without action are trimmed at the 1st and 99th percentiles and perceived inflation is trimmed at the 1st and 95th percentile. Controls include union membership, tenure with the current employer, age, pre-tax income category, sex, and highest education level completed. Statistical significance is denoted as follows: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Table B.5: Predicting Whether Workers Took Action in 2023 Using the Elicited Conflict Threshold

	(1)	(2)	(3)
Perceived Wage Gap	-0.786***	-0.821***	-0.889***
	(0.147)	(0.148)	(0.156)
Conflict Threshold	-5.004***	-4.742***	-4.703***
	(0.522)	(0.522)	(0.538)
Perceived Inflation			0.050
			(0.158)
Observations	2,727	2,593	2,484
Controls		X	X

Notes: The dependent variable is an indicator equal to 1 if the respondent reported taking any action in 2023 to achieve a higher wage growth. The key independent variable is "Perceived wage gap" implied by the employer's default wage offer in 2023, defined as the difference between the nominal wage growth of their employer's default wage offer and their conflict-induced nominal wage growth. "Perceived inflation" is based on reported perceptions of price changes in 2023. "Conflict threshold" is the elicited conflict threshold ($\mathbb{T}$), based on the hypotheticals in Figure 5. We include those respondents with $\mathbb{T} > 4\%$, assigning them a value of 4.25%, and exclude respondents who give non-monotonic responses in the elicitation of $\mathbb{T}$. All continuous regressors are expressed as percentages. To reduce the influence of outliers, the perceived wage gap is trimmed at the 1st and 99th percentiles and perceived inflation is trimmed at the 1st and 95th percentile. Controls include union membership, tenure with the current employer, age, pre-tax income category, sex, and highest education level completed. Statistical significance is denoted as follows: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

C Additional Model Analysis

In the theoretical appendices, to improve exposition, we define $\underline{x}_t = -\mathbb{T}_t$. When conflict is costly ($\kappa_{i,t} = \kappa$), the worker's optimal conflict choice is to engage in conflict ($\mathscr{I}_{i,t} = 1$) if $x^d_{i,t} \leq \underline{x}_t$, and not to engage ($\mathscr{I}_{i,t} = 0$) if $x^d_{i,t} > \underline{x}_t$. We use $\underline{x}^{ss} = -\mathbb{T}$ to denote the steady-state value of $\underline{x}_t$.

C.1 Theoretical Extensions

More general distribution of conflict costs. Our main result, Theorem 1, does not depend on the "Calvo-plus" form and holds for a more general distribution of conflict costs with non-negative supports, because the application of the envelope theorem in Milgrom and Segal (2002) does not require specific restrictions on the distribution of conflict costs. Formally, we consider the general case that the conflict cost $\kappa_{i,t}$ is i.i.d. over time and across workers, independent of $z_{i,t}$, and drawn based on the cumulative distribution function $H\left(\kappa_{i,t}\right)$ with a support of $[0,\infty)$. The worker problem part of the Proof in Theorem 1 continues to hold, with the only modification being that the conflict threshold $\underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right)$ now also depends on $\kappa_{i,t}$, given by

$$-\kappa_{i,t} + \beta\mathscr{U}\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}},0\right) = \underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right) + \beta\mathscr{U}\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}},\underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right)\right).$$

That is, worker with a conflict cost $\kappa_{i,t}$ at t chooses to engage in conflict if $x^d_{i,t} \leq \underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right)$ and not if $x^d_{i,t} > \underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right)$. Similar to the Proof in Theorem 1, $\underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right)$ is is Lipschitz continuous in $\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}}$ around $\boldsymbol{\pi^{ss}}$ for each $\kappa_{i,t} \geq 0$.

The aggregate worker welfare part in Theorem 1 also continues to hold, with minor modifications about how we go from $G^d_t\left(x^d_{i,t};\boldsymbol{\pi}_\infty\right)$ to $G_t\left(x_{i,t};\boldsymbol{\pi}_\infty\right)$,

$$G_t\left(x_{i,t};\boldsymbol{\pi}_\infty\right) = \int_0^\infty \left[\max\left\{G^d_t\left(x_{i,t};\boldsymbol{\pi}_\infty\right) - G^d_t\left(\underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right);\boldsymbol{\pi}_\infty\right),0\right\} + G^d_t\left(\underline{x}_t\left(\boldsymbol{\pi}_{\boldsymbol{t+1:\infty}};\kappa_{i,t}\right);\boldsymbol{\pi}_\infty\right)\mathbb{1}_{x_{i,t}\geq 0}\right] dH\left(\kappa_{i,t}\right),$$

how we construct $\Phi_{s,s}\left(\boldsymbol{\pi}_\infty\right)$ and $G_{s,s}\left(x_{i,s};\boldsymbol{\pi}_\infty\right)$,

$$\Phi_{s,s}\left(\boldsymbol{\pi}_\infty\right) = \int_0^\infty \left(1 - G^d_s\left(\underline{x}_s\left(\boldsymbol{\pi}_{\boldsymbol{s+1:\infty}};\kappa_{i,s}\right);\boldsymbol{\pi}_\infty\right)\right) dH\left(\kappa_{i,s}\right),$$

$$G_{s,s}\left(x_{i,s};\boldsymbol{\pi}_\infty\right) = \int_0^\infty \max\left\{\frac{G^d_s\left(x_{i,s};\boldsymbol{\pi}_\infty\right) - G^d_s\left(\underline{x}_s\left(\boldsymbol{\pi}_{\boldsymbol{s+1:\infty}};\kappa_{i,s}\right);\boldsymbol{\pi}_\infty\right)}{\Phi_{s,s}\left(\boldsymbol{\pi}_\infty\right)},0\right\} dH\left(\kappa_{i,s}\right),$$

and how we construct $\Phi_{s,t+1}(\boldsymbol{\pi}_\infty)$ and $G_{s,t+1}\left(x_{i,t+1};\boldsymbol{\pi}_\infty\right)$ for any $t \geq s$,

$$\Phi_{s,t+1}(\boldsymbol{\pi}_\infty) = \Phi_{s,t}(\boldsymbol{\pi}_\infty)\int_0^\infty \left(1 - G^d_{s,t+1}\left(\underline{x}_{t+1}\left(\boldsymbol{\pi}_{t+2:\infty};\kappa_{i,t+1}\right);\boldsymbol{\pi}_\infty\right)\right) dH\left(\kappa_{i,t+1}\right),$$

$$G_{s,t+1}\left(x_{i,t+1};\boldsymbol{\pi}_\infty\right) = \int_0^\infty \max\left\{\frac{G^d_{s,t+1}\left(x_{i,t+1};\boldsymbol{\pi}_\infty\right) - G^d_{s,t+1}\left(\underline{x}_{t+1}\left(\boldsymbol{\pi}_{t+2:\infty};\kappa_{i,t+1}\right);\boldsymbol{\pi}_\infty\right)}{\Phi_{s,t+1}(\boldsymbol{\pi}_\infty)/\Phi_{s,t}(\boldsymbol{\pi}_\infty)}, 0\right\} dH\left(\kappa_{i,t+1}\right).$$

The intensive margin of conflict—allowing conflict costs to scale with wage gains from conflict. In our baseline analysis, conflict costs are fixed and do not depend on the wage gains from conflict (the gap between conflict-induced wage $w^*_{i,t}$ and the default wage $w^d_{i,t}$). Moreover, after engaging in conflict to raise their pay, the worker's (real) wage is given exogenously by the conflict-induced (real) wage $w^*_{i,t}$ and is not chosen by the worker. Here, we consider an alternative setup that captures the intensive margin of conflict. Workers choose the conflict-induced wage, and conflict costs increase with wage gains—akin to Rotemberg costs in price setting. Specifically, when engaging in conflict to raise their wages beyond the default offer, the worker chooses their (real) wage $w_{i,t}$ but incurs a period-t utility cost of $\frac{\kappa}{2}\left(\log w_{i,t} - \log w^d_{i,t}\right)^2$. In this case, our main result remains true: the impact of inflation shocks on aggregate worker welfare is still given by $\hat{\mathcal{W}} \approx \sum_{t=0}^\infty \beta^t \hat{w}^{\text{erosion}}_t$. Wage erosion is still defined as how inflation shocks would impact workers' real wages if their conflict decisions (defined now in terms of the intensity of the conflict $\log w_{i,t} - \log w^d_{i,t}$) were held at steady-state level.

Specifically, the worker i's problem is given by

$$\max_{\{w_{i,t}\}_{t=0}^\infty} \mathbb{E}\left[\sum_{t=0}^\infty \beta^t \left(\log w_{i,t} - \frac{\kappa}{2}\left(\log w_{i,t} - \log w^d_{i,t}\right)^2\right)\right],$$

where $w^d_{i,t} = w_{i,t-1}e^{\alpha - \pi^{ss} - (1-\gamma)(\pi_t - \pi^{ss})}$ captures the default real wage offered by the employer as in the main analysis. We can again summarize it terms of "wage gap," $x_{i,t} \equiv \log w_{i,t} - \log w^*_{i,t}$, defined as the difference between the actual wage and the frictionless wage $w^*_{i,t}$ given by (3):

$$\mathcal{U}\left(\boldsymbol{\pi}_\infty, x_{i,-1}\right) = \max_{\{x_{i,t}\}_{t=0}^\infty} \mathbb{E}\left[\sum_{t=0}^\infty \beta^t \left\{x_{i,t} - \frac{\kappa}{2}\left(x_{i,t} - \left[\overbrace{x_{i,t-1} - \left(\mu + z_{i,t}\right) - (1-\gamma)\hat{\pi}_t}^{x^d_{i,t}}\right]\right)^2\right\}\right].$$

Worker's optimal choice of $x_{i,t}$ implies, for all $t \geq 0$,

$$1 - \kappa\left(x_{i,t} - x^d_{i,t}\right) + \beta\mathbb{E}_t\left[\kappa\left(x_{i,t+1} - x^d_{i,t+1}\right)\right] = 0,$$

where $\mathbb{E}_t$ averages over the realization of idiosyncratic shocks $\{z_{i,s}\}_{s=t+1}^\infty$ starting from $t+1$. Iterating forward, we have, for all $t \geq 0$,

$$x_{i,t} = x_{i,t}^{d} + \frac{1}{\kappa\left(1-\beta\right)}.$$

Applying the envelope theorem similar to the proof of Theorem 1, for all $s \geq 0$,

$$\frac{\partial \mathscr{U}\left(\boldsymbol{\pi}_{\infty}, x_{i,-1}\right)}{\partial \pi_s} = -\beta^s \kappa \left(x_{i,s} - x_{i,s}^{d}\right)\left(1-\gamma\right) = -\frac{\beta^s}{1-\beta}\left(1-\gamma\right) \quad \text{a.e.,}$$

Similar to the proof of Theorem 1, the impact of inflation on aggregate worker welfare is

$$\begin{aligned} \hat{\mathscr{W}} &= \int_0^1 \mathscr{U}\left(\boldsymbol{\pi}_{\infty}, x_{i,-1}\right) di - \int_0^1 \mathscr{U}\left(\boldsymbol{\pi}^{ss}, x_{i,-1}\right) di. \\ &= -\left(1-\gamma\right)\sum_{s=0}^{\infty}\beta^s \sum_{k=0}^{\infty}\beta^k \hat{\pi}_s = \sum_{t=0}^{\infty}\beta^t \hat{w}_t^{\text{erosion}}, \end{aligned}$$

where

$$\hat{w}_t^{\text{erosion}} = -\left(1-\gamma\right)\sum_{s=0}^{t}\hat{\pi}_s \tag{C.1}$$

is now defined as how inflation shocks would impact workers' real wages if their conflict decisions (defined in terms of the intensity of the conflict $x_{i,t} - x_{i,t}^{d}$) are held at steady-state level. The formula in (C.1) is as if $\Phi_k^{ss} = 1$ for all k in the formula of wage erosion (14) in Proposition 2. This is because the inflation shock $\hat{\pi}_s$ would lower workers' real wage at $t \geq s$ by $\left(1-\gamma\right)\hat{\pi}_s$ if the intensity of their conflict decisions were held at steady-state level.

Intensive-margin of labor supply adjustment. Here, we consider an alternative setting where workers adjust labor supply along a continuous intensive margin. This maps directly to the hard-work option in Panel B of Figure 1. In this case, the impact of inflation shocks on aggregate worker welfare is given by "pay erosion," defined as the effect of inflation shocks on workers' total real pay if their labor supply is held at the steady-state level.

The worker i's problem is given by

$$\max_{\{\ell_{i,t}\}_{t=0}^{\infty}} \mathbb{E}\left[\sum_{t=0}^{\infty}\beta^t u\left(c_{i,t}, \ell_{i,t}\right)\right] \quad \text{s.t.} \quad (\text{C.2}),$$

where $\ell_{i,t}$ denotes worker i's labor supply. The worker's consumption is given by $c_{i,t} = w_{i,t} = w_{i,t}^{h}\ell_{i,t}$, where $w_{i,t}$ the worker's total real pay and $w_{i,t}^{h}$ is the worker's hourly real wage. We assume that $u\left(c,\ell\right)$ is strictly increasing in c, strictly decreasing in ℓ, jointly concave, continuously differentiable and belongs to the balanced growth path preferences of the form in King, Plosser, and Rebelo (1988).[38]

[38]Alternatively, we could allow a time-varying utility function $u_t\left(c,\ell\right)$ to guarantee the existence of a balanced growth path.

This ensures that a balanced growth path is possible since real wages grow over time in our model. The hourly wage evolves similarly to the analysis (but we abstract from wage gains due to costly conflicts, as we focus on the intensive margin of wage adjustment):

$$w_{i,t}^h = \begin{cases} w_{i,t-1}^h e^{\alpha-\pi^{ss}-(1-\gamma)(\pi_t-\pi^{ss})} & \text{w. prob. } 1-\lambda \\ w_{i,t}^* & \text{w. prob. } \lambda, \end{cases} \tag{C.2}$$

where $w_{i,t}^*$ follows its process in the main analysis. We define the function

$$v\left(w_{i,t}^h\right) = \max_{\ell} u\left(w_{i,t}^h \ell, \ell\right).$$

We assume that the maximizer $\ell^*\left(w_{i,t}^h\right)$ exists and is unique and continuously differentiable. It follows that

$$v'\left(w_{i,t}^h\right) w_{i,t}^h = u_c\left(w_{i,t}, \ell^*\left(w_{i,t}^h\right)\right) w_{i,t}.$$

The aggregate worker welfare can be written as

$$\mathscr{W} = \int_0^1 \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t v\left(w_{i,t}^h\right) di\right].$$

Let $\hat{w}_{i,t}^h = \log w_{i,t}^h\left(\boldsymbol{\pi}_t, h_{i,t}\right) - \log w_{i,t}^h\left(\boldsymbol{\pi}^{ss}, h_{i,t}\right)$ denote the effect of inflation on the worker's log hourly wage given their idiosyncratic history. Similar to the proof of the case with general utility in (C.11), to first order, the impact of inflation shocks on worker welfare is given by

$$\hat{\mathscr{W}} \approx \int \sum_{t=0}^{\infty} \beta^t v'\left(w_{i,t}^{h,ss}\right) w_{i,t}^{h,ss} \hat{w}_{i,t}^h di = \int \sum_{t=0}^{\infty} \beta^t u_c\left(w_{i,t}^{ss}, \ell_{i,t}^{ss}\right) w_{i,t}^{ss} \hat{w}_{i,t}^h di.$$

We now define "pay erosion" as the effect of inflation shocks on workers' total real pay when their labor supply is held at the steady-state level, and note that it equals the effect of inflation shocks on the worker's log hourly wage $\hat{w}_{i,t}^h$:

$$\hat{w}_{i,t}^{\text{erosion}} \equiv \log\left(w_{i,t}^h\left(\boldsymbol{\pi_t}, h_{i,t}\right) \ell_{i,t}^{ss}\right) - \log\left(w_{i,t}^h\left(\boldsymbol{\pi}^{ss}, h_{i,t}\right) \ell_{i,t}^{ss}\right) = \hat{w}_{i,t}^h.$$

We can then express the impact of inflation shocks on worker welfare as

$$
\begin{aligned}
\hat{\mathscr{W}} &\approx \int \sum_{t=0}^{\infty} \beta^t u_c\left(w_{i,t}^{ss}, \ell_{i,t}^{ss}\right) w_{i,t}^{ss} \hat{w}_{i,t}^{\text{erosion}} di \\
&= \sum_{t=0}^{\infty} \beta^t \left[\int_0^1 u_c\left(w_{i,t}^{ss}, \ell_{i,t}^{ss}\right) w_{i,t}^{ss} di\right] \int_0^1 \frac{u_c\left(w_{i,t}^{ss}, \ell_{i,t}^{ss}\right) w_{i,t}^{ss}}{\int_0^1 u_c\left(w_{i,t}^{ss}, \ell_{i,t}^{ss}\right) w_{i,t}^{ss} di} \hat{w}_{i,t}^{\text{erosion}} di. \qquad \text{(C.3)}
\end{aligned}
$$

Compared to (12), there are two main differences. First, as in the extension beyond log utility and hand-to-mouth workers, each worker's pay erosion must be weighted appropriately, reflecting differences in marginal utility and steady-state pay. Second, total pay erosion now plays the role of wage erosion. In our main analysis, because a worker's total real pay equals their real wage, pay erosion and wage erosion are equivalent.

Finally, we could allow workers to achieve wage gains through costly conflicts, as in the main analysis, while also allowing them to make the intensive-margin labor supply adjustments studied here. In this further extension, the impact of inflation shocks on worker welfare would still be summarized by (C.3). That is, the impact is still given by "pay erosion," defined as the effect of inflation shocks on workers' total real pay when both conflict decisions and labor supply are held at their steady-state levels.

Beyond log utility and hand-to-mouth consumers. In the main analysis, we study the case in which the worker has log utility and is hand-to-mouth. Our main result, Theorem 1, can be extended to the case where the worker faces a standard borrowing constraint or does not have log utility. Here, we allow the worker's utility $u(\cdot)$ to be an arbitrary twice-differentiable, strictly increasing, and strictly concave function. The worker's budget constraint is given by

$$
c_{i,t} + a_{i,t} = w_{i,t} + (1+r)\, a_{i,t-1} \quad \text{s.t.} \quad a_{i,t} \geq \underline{a}, \qquad \text{(C.4)}
$$

where $a_{i,t}$ is the net savings, r is the real rate of return on savings (treated as exogenous as in the main analysis), and $a_{i,-1}$ is given. The worker is subject to the standard borrowing constraint $a_{i,t} \geq \underline{a}$.

The worker i's problem as a function of the inflation path $\boldsymbol{\pi}_\infty$ and initial conditions $\left(w_{i,-1}, w_{i,-1}^*, a_{i,-1}\right)$ can be written as:

$$
\mathscr{U}\left(\boldsymbol{\pi}_\infty, w_{i,-1}, w_{i,-1}^*, a_{i,-1}\right) = \max_{\{a_{i,t}(h_{i,t};\boldsymbol{\pi}_\infty), c_{i,t}(h_{i,t};\boldsymbol{\pi}_\infty), \mathscr{I}_{i,t}(h_{i,t};\boldsymbol{\pi}_\infty) \in \{0,1\}\}_{t=0}^{\infty}} \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t u\left(c_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right) - \kappa_{i,t} \mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right] \qquad \text{(C.5)}
$$

subject to (C.4) and

$$w_{i,t} = \begin{cases} w_{i,t-1} e^{\alpha - \pi^{ss} - (1-\gamma)(\pi_t - \pi^{ss})} & \text{if } \mathscr{I}_{i,t} = 0, \\ w^*_{i,t} & \text{if } \mathscr{I}_{i,t} = 1. \end{cases} \tag{C.6}$$

Note that the wage gaps are no longer sufficient statistics for workers' problems when the worker faces a standard borrowing constraint or does not have log utility. Let $\left\{\mathscr{I}^*_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right\}_{t=0}^{\infty}$ denote the optimally chosen conflict decision and $\mathscr{I}^*_{\boldsymbol{i,t}}\left(h_{i,t};\boldsymbol{\pi}_\infty\right) = \left\{\mathscr{I}^*_{i,\tau}\left(h_{i,\tau};\boldsymbol{\pi}_\infty\right)\right\}_{\tau=0}^{t}$ the corresponding history of conflict decisions up to t. Also let $\left\{a^*_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right), c^*_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right\}_{t=0}^{\infty}$ denote the optimally chosen net savings and the corresponding consumption given the optimally chosen conflict and net savings decisions.

The key challenge is that the envelope theorem we use for Theorem 1 (Theorem 2 of Milgrom and Segal (2002)) only applies to unconstrained problems. To apply the envelope theorem suitable for constrained problems (Corollary 5 of Milgrom and Segal (2002)), the choice set must be a convex compact set. We henceforth consider an alternative problem where workers choose the *probability* of conflict with their employer to increase pay, $\mathscr{I}_{i,t} \in [0,1]$. In this case, workers' choices $\{\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\}_{t=0}^{\infty}$ reside in a convex compact set.[39] The dynamics of the worker i's real wage is given by:

$$w_{i,t} = \begin{cases} w_{i,t-1} e^{\alpha - \pi^{ss} - (1-\gamma)(\pi_t - \pi^{ss})} & \text{with prob. } 1 - \mathscr{I}_{i,t} \\ w^*_{i,t} & \text{with prob. } \mathscr{I}_{i,t} \end{cases}. \tag{C.7}$$

The worker's alternative problem is then given by

$$\tilde{\mathscr{U}}\left(\boldsymbol{\pi}_\infty, w_{i,-1}, w^*_{i,-1}, a_{i,-1}\right) = \max_{\{a_{i,t}(h_{i,t};\boldsymbol{\pi}_\infty), c_{i,t}(h_{i,t};\boldsymbol{\pi}_\infty), \mathscr{I}_{i,t}(h_{i,t};\boldsymbol{\pi}_\infty) \in [0,1]\}_{t=0}^{\infty}} \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t u\left(c_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right) - \kappa_{i,t}\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right] \quad \text{s.t. (C.4) and (C.7).} \tag{C.8}$$

In fact, the worker's value $\tilde{\mathscr{U}}\left(\boldsymbol{\pi}_\infty, w_{i,-1}, w^*_{i,-1}, a_{i,-1}\right)$, allowing them to choose the probability of conflict $\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right) \in [0,1]$, is the same as the worker's value $\mathscr{U}\left(\boldsymbol{\pi}_\infty, w_{i,-1}, w^*_{i,-1}, a_{i,-1}\right)$, when they make a discrete choice of whether to conflict or not $\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right) \in \{0,1\}$. This is because a worker will choose an interior probability of conflict $\mathscr{I}_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right) \in (0,1)$ if and only if they are indifferent between conflict and non-conflict. By the same token, the optimally chosen conflict decision $\left\{\mathscr{I}^*_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right\}_{t=0}^{\infty}$ for the problem (C.5) also maximizes the alternative problem (C.8).

We can then apply the envelope theorem in Corollary 5 of Milgrom and Segal (2002) to the alter-

[39] We use the fact that the infinite product of compact sets $[0,1]$ remains compact under the product topology.

native problem (C.8). Similar to (A.7),

$$\frac{\partial \log \omega_t\left(\boldsymbol{\pi_t}, \mathscr{I}^*_{\boldsymbol{i,t}}\left(h_{i,t};\boldsymbol{\pi}_\infty\right), h_{i,t}\right)}{\partial \pi_s} = \begin{cases} 0 & \text{if } t < s \\ -\left(1-\gamma\right)\prod_{\tau=s}^{t}\left(1-\mathscr{I}^*_{i,\tau}\left(h_{i,\tau};\boldsymbol{\pi}_\infty\right)\right) & \text{if } t \geq s \end{cases}. \tag{C.9}$$

As a result,

$$\begin{aligned} \frac{\partial \mathscr{U}\left(\boldsymbol{\pi}_\infty, w_{i,-1}, w^*_{i,-1}, a_{i,-1}\right)}{\partial \pi_s} &= \sum_{t=s}^{\infty}\beta^t \mathbb{E}\left[\lambda_{i,t} w_{i,t}\frac{\partial \log \omega_t\left(\boldsymbol{\pi_t}, \mathscr{I}^*_{\boldsymbol{i,t}}\left(h_{i,t};\boldsymbol{\pi}_\infty\right), h_{i,t}\right)}{\partial \pi_s}\right] \quad \text{a.e.} \\ &= -\left(1-\gamma\right)\sum_{t=s}^{\infty}\beta^t \mathbb{E}\left[u'\left(c_{i,t}\right) w_{i,t}\prod_{\tau=s}^{t}\left(1-\mathscr{I}^*_{i,\tau}\left(h_{i,\tau};\boldsymbol{\pi}_\infty\right)\right)\right] \quad \text{a.e.,} \end{aligned} \tag{C.10}$$

where $w_{i,t} = \omega_t\left(\boldsymbol{\pi_t}, \mathscr{I}^*_{\boldsymbol{i,t}}\left(h_{i,t};\boldsymbol{\pi}_\infty\right), h_{i,t}\right)$ and $\lambda_{i,t} = u'\left(c_{i,t}\right) = u'\left(c^*_{i,t}\left(h_{i,t};\boldsymbol{\pi}_\infty\right)\right)$ capture the Lagrange multiplier of the budget constraint at history $h_{i,t}$ given the aggregate shock $\boldsymbol{\pi}_\infty$. Aggregating (C.10),

$$\frac{\partial \mathscr{W}\left(\boldsymbol{\pi}_\infty\right)}{\partial \pi_s} = -\left(1-\gamma\right)\sum_{t=s}^{\infty}\beta^t\int_0^1 \mathbb{E}\left[u'\left(c_{i,t}\right) w_{i,t}\prod_{\tau=s}^{t}\left(1-\mathscr{I}^*_{i,\tau}\left(h_{i,\tau};\boldsymbol{\pi}_\infty\right)\right)\right] di, \quad \text{a.e.}$$

Similar to the proof of Theorem 1, we know that, to first order,

$$\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty}\beta^t\int_0^1 u'\left(c^{ss}_{i,t}\right) w^{ss}_{i,t}\hat{w}^{\text{erosion}}_{i,t} di,$$

where $c^{ss}_{i,t} = c^*_{i,t}\left(h_{i,t};\boldsymbol{\pi^{ss}}\right)$, $w^{ss}_{i,t} = \omega_t\left(\boldsymbol{\pi^{ss}}, \mathscr{I}^*_{\boldsymbol{i,t}}\left(h_{i,t};\boldsymbol{\pi^{ss}}\right), h_{i,t}\right)$, and

$$\begin{aligned} \hat{w}^{\text{erosion}}_{i,t} &\equiv \log\left(\omega_t\left(\boldsymbol{\pi_t}, \mathscr{I}^*_{\boldsymbol{i,t}}\left(h_{i,t};\boldsymbol{\pi^{ss}}\right), h_{i,t}\right)\right) - \log\left(\omega_t\left(\boldsymbol{\pi^{ss}}, \mathscr{I}^*_{\boldsymbol{i,t}}\left(h_{i,t};\boldsymbol{\pi^{ss}}\right), h_{i,t}\right)\right) \\ &= -\left(1-\gamma\right)\sum_{s=0}^{t}\prod_{\tau=s}^{t}\left(1-\mathscr{I}^*_{i,\tau}\left(h_{i,\tau};\boldsymbol{\pi^{ss}}\right)\right)\cdot\hat{\pi}_s. \end{aligned}$$

Together, the impact of inflation $\{\hat{\pi}_t\}_{t=0}^{\infty}$ on aggregate worker welfare can be written as

$$\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty}\beta^t\left[\int_0^1 u'\left(c^{ss}_{i,t}\right) w^{ss}_{i,t} di\right]\int_0^1 \frac{u'\left(c^{ss}_{i,t}\right) w^{ss}_{i,t}}{\int_0^1 u'\left(c^{ss}_{i,t}\right) w^{ss}_{i,t} di}\hat{w}^{\text{erosion}}_{i,t} di. \tag{C.11}$$

Compared to (12), different workers' wage erosion may receive different weights $\frac{u'\left(c^{ss}_{i,t}\right) w^{ss}_{i,t}}{\int_0^1 u'\left(c^{ss}_{i,t}\right) w^{ss}_{i,t} di}$: workers with lower levels of consumption have a higher marginal utility of consumption, so they receive a relatively higher weight conditional on their wage.

Conflict-induced real wages co-move with inflation. In our baseline model, the conflict-induced (real) wage $w_{i,t}^*$ is exogenous and invariant to inflation shocks. Theorem 1 also extends to the case where $w_{i,t}^*$ co-moves with inflation, for example, because $w_{i,t}^*$ depends on the state of the labor market, which itself may be influenced by inflation (as further explored in Appendices C.3 and C.4). In this case, the first-order impact of inflation shocks on aggregate worker welfare is still given by $\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{erosion}}$, where wage erosion—how aggregate shocks would impact the workers' real wages if their conflict decisions did not respond to aggregate shocks—is given by (15), restated here:

$$\hat{w}_t^{\text{erosion}} = -\left(1-\gamma\right)\sum_{s=0}^{t} \Phi_{t-s}^{ss} \hat{\pi}_s + \sum_{s=0}^{t} \left(1-\Phi_{t-s}^{ss}\right) \hat{g}_{w,s},$$

where $g_{w,s} \equiv \log\left(w_s^* / w_{s-1}^*\right)$ is the growth rate of aggregate conflict-induced (real) wages $\log w_s^* \equiv \int_0^1 \log\left(w_{i,s}^*\right) di$ and deviations from their steady-state values are still denoted by hats. The first term is exactly the same as in (14), and the second term captures how inflation shocks affect workers' real wages through the growth of conflict-induced real wages when conflict decisions are fixed at their steady-state value.

Specifically, the conflict-induced real wage $w_{i,t}^*$ now generalizes (3) and follows

$$\log w_{i,t}^* = \log w_{i,t-1}^* + g_{w,t} + z_{i,t}, \tag{C.12}$$

where $g_{w,t} \equiv \log\left(w_t^* / w_{t-1}^*\right)$ is the growth rate of the aggregate conflict-induced (real) wage, which can depend on inflation shocks, and $\log w_t^* = \int \log w_{i,t}^* di$. In this case, the worker's problem can then be summarized by:

$$\max_{\{\mathscr{I}_{i,t}\}_{t=0}^{\infty}} \mathbb{E}\left[\sum_{t\geq 0} \beta^t \left[x_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t}\right]\right],$$

subject to the dynamics of the wage gap

$$x_{i,t} = \begin{cases} x_{i,t-1} - \left(\mu + z_{i,t}\right) - \hat{g}_{w,t} - \left(1-\gamma\right)\hat{\pi}_t & \text{if } \mathscr{I}_{i,t} = 0 \\ 0 & \text{if } \mathscr{I}_{i,t} = 1 \end{cases},$$

where deviations from their steady-state values are still denoted by hats. This is the same problem as (7) with relevant aggregate shocks replaced from $\left\{\left(1-\gamma\right)\hat{\pi}_t\right\}_{t=0}^{\infty}$ to $\left\{\hat{g}_{w,t} + \left(1-\gamma\right)\hat{\pi}_t\right\}^{\infty}$. So, the Proof in Theorem 1, which focuses on the problem in (7) based on wage gaps, continues to hold:

$$\hat{\mathscr{W}}^x \approx \sum_{t=0}^{\infty} \beta^t \hat{x}_t^{\text{erosion}},$$

where $\hat{x}_t^{\text{erosion}}$ is defined as in (A.2), which captures the impact of aggregate shocks on aggregate wage gaps while holding each worker's conflict decision at the steady-state level, and is given by

$$\hat{x}_t^{\text{erosion}} = -\left(1-\gamma\right)\sum_{s=0}^{t}\Phi_{t-s}^{ss}\hat{\pi}_s - \sum_{s=0}^{t}\Phi_{t-s}^{ss}\hat{g}_{w,s} \quad \forall\, t \geq 0,$$

and $\hat{\mathscr{W}}^x$ is now defined as in (A.4), which captures the impact of aggregate shocks on worker welfare sans the exogenous component in (6):

$$\hat{\mathscr{W}}^x = \hat{\mathscr{W}} - \sum_{t=0}^{\infty}\beta^t \hat{w}_t^*.$$

From the definition of wage gap, $x_{i,t} \equiv \log w_{i,t} - \log w_{i,t}^*$, we know that wage erosion, which captures the aggregate shocks on aggregate real wages while holding each worker's conflict decision as if inflation and productivity growth are at the steady-state level, is connected with $\hat{x}_t^{\text{erosion}}$ by:

$$\hat{w}_t^{\text{erosion}} = \hat{x}_t^{\text{erosion}} + \hat{w}_t^*,$$

where $\hat{w}_t^* = \sum_{s=0}^{t}\hat{g}_{w,s}$. Together, we arrive at (15).

C.2 Additional Materials on Quantification

C.2.1 Mapping survey elicitation to the model

Conflict threshold. In our survey, we first ask respondents to think 12 months ahead and report their conflict-induced nominal wage growth relative to their current wage. We denote this growth by $\Delta W^* \equiv \log\frac{W^*}{W_-}$, where W^* denotes the nominal wage 12 months ahead induced by a single instance of conflict and W_- denotes the current nominal wage. The growth rate of the employer's default wage offer is given by $\Delta W^d \equiv \log\frac{W^d}{W_-}$, where W^d denotes the default nominal wage 12 months ahead absent any instance of conflict.

By definition, the wage gap implied by the employer's default wage offer is given by:

$$\begin{aligned} x^d &\equiv \log w^d - \log w^* = \log\frac{W^d}{P} - \log\frac{W^*}{P} \\ &= \log W^d - \log W^* = \log\frac{W^d}{W_-} - \log\frac{W^*}{W_-} \\ &= \Delta W^d - \Delta W^*, \end{aligned}$$

where P denotes the price level. In words, the wage gap of the default wage offer is the difference between default nominal wage growth and conflict-induced wage growth.

Let $v^{ss}(x)$ denote the worker's value given its end-of-period wage gap in (7) at steady state. That is, $v^{ss}(x) \equiv x + \max_{\{\mathscr{I}_{i,t}\}_{t=1}^{\infty}} \mathbb{E}\left[\sum_{t\geq 1}\beta^t\left(x_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t}\right)|x_{i,0} = x\right]$, subject to (5) and $\pi_t = \pi^{ss}$ for all t. If workers engage in conflict and obtain nominal wage growth ΔW^*, they receive the value $v^{ss}(0) - \kappa$. If instead they accept the default wage offer ΔW^d, they receive the value $v^{ss}\left(\Delta W^d - \Delta W^*\right)$.

As explained in the paper, we elicit ΔW^{indiff}, the default nominal wage growth at which workers are indifferent between accepting their employer's default wage offer versus choosing to take costly action. Formally, ΔW^{indiff} solves

$$v^{ss}\left(\Delta W^{\text{indiff}} - \Delta W^*\right) = v^{ss}(0) - \kappa.$$

Note that because the conflict threshold $\mathbb{T}$ solves precisely

$$v^{ss}(-\mathbb{T}) = v^{ss}(0) - \kappa,$$

it follows that $\mathbb{T} = \Delta W^* - \Delta W^{\text{indiff}}$.

Default nominal wage growth. In the model, the default wage is given by $W^d = W_- e^{\alpha+\gamma(\pi-\pi^{ss})}$. It follows that the default nominal wage growth is a function of inflation:

$$\Delta W^d(\pi) = \log\left(\frac{W^d}{W_-}\right) = \alpha + \gamma\left(\pi - \pi^{ss}\right).$$

In our survey, we elicit people's perceived default nominal wage growth under different inflation scenarios. We can then recover α and γ directly from the OLS regression in Figure 8.

C.2.2 Computation methods

To solve the model, we discretize the wage gaps on an equally-spaced grid ranging from -6% to 0%. We approximate the distribution of idiosyncratic shocks $z_{i,t}$ using a finite-support discretization method. To ensure a smooth solution, we slightly modify the baseline worker problem by introducing an arbitrarily small taste shock. Specifically, if the worker does not receive a free wage catch-up opportunity, then they choose to conflict if

$$v_t(0) - \kappa + \xi^{\text{conflict}} \geq v_t(x) + \xi^{\text{no-conflict}},$$

where ξ^{conflict} and $\xi^{\text{no-conflict}}$ denote i.i.d. Type-I Extreme-Value random variables with scale parameter $1/s$ and $v_t(x)$ denotes the worker's value given the end-of-period wage gap in (7) in the taste-shock-augmented model, as given by (C.14). This assumption implies that the probability that a worker with default wage gap x engages in conflict to increase their wage is given by

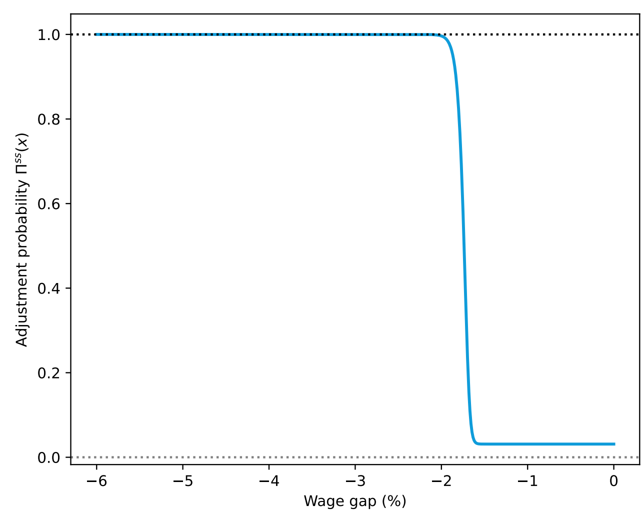
$$\lambda + (1-\lambda)\frac{e^{s(v_t(0)-\kappa)}}{e^{s(v_t(0)-\kappa)} + e^{s v_t(x)}}, \tag{C.13}$$

where

$$v_t(x) = x + \beta \mathbb{E}\left[\lambda v_{t+1}(0) + (1-\lambda)\left(\frac{\log\left\{e^{s(v_{t+1}(0)-\kappa)} + e^{s v_{t+1}\left(x^d_{i,t+1}\right)}\right\}}{s} + \frac{\gamma_{EM}}{s}\right)|x_{i,t} = x\right] \quad \text{s.t.} \quad (5), \tag{C.14}$$

where γ_{EM} is the Euler-Mascheroni constant. As $s \to \infty$, the solution with taste shocks converges to the baseline model. That is, the probability that a worker with wage gap x engages in conflict to increase their wage in (C.13) is λ if $v_t(0) - \kappa < v_t(x)$, and 1 if $v_t(0) - \kappa \geq v_t(x)$. In our numerical implementation, we set the shape parameter to a large value, $s = \frac{1}{0.0005}$. The resulting steady-state adjustment probabilities are shown in Figure C.1.

Figure C.1: The Probability that a Worker with Wage Gap x Engages in Conflict



Notes: this figure plots the steady-state probability that a worker engages in conflict in (C.13) under the baseline calibration with an additional Type-I EV–distributed taste shock, with location parameter 0 and shape parameter $s = 1/0.0005$.

C.3 General-Equilibrium Determination of Inflation

In the main analysis, we study the case in which inflation shocks are exogenous. Here, we study a general equilibrium model in which inflation is determined endogenously. In this model, inflation can be driven by either positive aggregate demand shocks (monetary easing shocks) or negative aggregate supply shocks (productivity shocks).

Workers. There is a continuum of labor types $i \in [0,1]$. For each type i, workers belong to a type-specific large family that provides insurance against idiosyncratic employment risk. Each worker of type i supplies one unit of labor inelastically. We use $n_{i,t}$ to denote the total number of employed workers of type i. The consumption of i's large family is given by $C_{i,t} = n_{i,t} w_{i,t} e^{-\kappa_{i,t}\mathscr{I}_{i,t}}$, where $w_{i,t}$ is the real wage of labor type i and $\kappa_{i,t}$ controls the fraction of wage loss by taking conflict decisions.[40] The conflict cost $\kappa_{i,t}$ follows the same process as in the main analysis and is equal for all members of the family.

The preferences of the large family of type i are given by:

$$\mathscr{U}_i = \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \log C_{i,t}\right] = \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \log n_{i,t}\right] + \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \left(\log w_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t}\right)\right].$$

Real wages are determined as in the baseline model: the default real wage is given by

$$w_{i,t}^d = w_{i,t-1} e^{\alpha - \pi^{ss} - (1-\gamma)(\pi_t - \pi^{ss})}$$

and the conflict-induced real wage is now given by:

$$\log w_{i,t}^* = \log w_t^* + \log \vartheta_{i,t} \quad \text{and} \quad \log \vartheta_{i,t} = \log \vartheta_{i,t-1} + g + z_{i,t},$$

where $\log w_t^*$ captures the aggregate component of the conflict-induced wage and $\vartheta_{i,t}$ captures the type-specific productivity level which is subject to type-specific productivity shocks $z_{i,t}$. These shocks satisfy $\int_0^1 z_{i,t} di = 0$ and $\int_0^1 \log \vartheta_{i,-1} di = 0$. Conflict decisions occur at the worker level, taking total labor demand for each type as given. So, the optimal conflict decision is exactly the same as in the main analysis, summarized by (7). The large-family framework follows the standard approach in the literature for incorporating labor markets into New Keynesian models, as Galí (2011), and ensures that the optimal conflict decision is perfectly aligned with the main analysis.

Firms. Competitive firms have a Cobb–Douglas production function using all labor inputs $i \in [0,1]$.

$$\log Y_t = a_t + \epsilon \int_0^1 \log\left(\vartheta_{i,t} n_{i,t}\right) di$$

where $\epsilon \in (0,1)$ captures the return to scale and a_t is an aggregate supply (productivity) shock. The firms maximize real profits:

$$\Pi_t = Y_t - \int_0^1 w_{i,t} n_{i,t} di.$$

[40] Note that specifying the conflict cost as a fraction of the wage, rather than in utility units, simplifies the analysis in this extension; moreover, the main analysis can be interpreted similarly in this way.

Wages. We use a simple wage rule to capture how a tighter labor market leads to higher wages in general equilibrium. Specifically, we assume that the aggregate component of the conflict-induced real wage is given by:

$$\hat{w}_t^* = \psi_N \hat{N}_t, \tag{C.15}$$

where $\log N_t = \int_0^1 \log n_{i,t} di$ captures aggregate employment, $\hat{w}_t^* = \log w_t^* - \log w^{*,ss}$, and $\hat{N}_t = \log N_t - \log N^{ss}$. Gertler et al. (2020) and Hazell and Taska (2025) show that this process approximates well the behavior of the real wages. Christiano, Eichenbaum, and Trabandt (2016) also find that simple wage rules of this sort approximate well the dynamics of more complex bargaining models.

Capitalists. Capitalists own the firms and earn dividends from their profits Π_t. They solve a standard intertemporal problem, choosing consumption, C_t^c, and savings, A_{t+1}^c, to maximize

$$\sum_{t=0}^{\infty} \beta^t \log C_t^c$$

subject to the budget constraint

$$C_t^c + A_{t+1}^c = e^{r_{t-1}} A_t^c + \Pi_t.$$

Their Euler condition for optimality is:

$$u'\left(C_t^c\right) = \beta e^{r_t} u'\left(C_{t+1}^c\right),$$

where

$$r_t = i_t - \pi_{t+1}$$

is real interest rate.

Monetary policy. The monetary authority controls the path of nominal interest rates $\{i_t\}_{t\geq 0}$, following a Taylor rule:

$$i_t = i^{ss} + \phi_\pi \hat{\pi}_t - \hat{\imath}_t$$

where $i^{ss} = -\log\beta + \pi^{ss}$ is the steady-state nominal interest rate, and $\hat{\imath}_t$ is an aggregate demand (monetary) shock with mean zero. A positive $\hat{\imath}_t$ corresponds to a monetary easing and a positive aggregate demand shock.

Market clearing. In equilibrium, the goods market clears according to $Y_t = \int_0^1 E_{i,t} di + C_t^c$, and the asset market clears according to $A_t^c = 0$, where $E_{i,t} \equiv C_{i,t} e^{\kappa_{i,t}\mathcal{I}_{i,t}}$ captures the total expenditure of workers of type i inclusive of the resource cost of conflict $n_{i,t} w_{i,t}\left(1 - e^{-\kappa_{i,t}\mathcal{I}_{i,t}}\right)$. Because assets are in zero net supply, the equilibrium is such that $C_t^c = \Pi_t = (1-\epsilon)\, Y_t$.

Calibration. We calibrate the model at a quarterly frequency. For consistency, the parameters that relate to the optimal conflict decision in (7) are the same as in the main analysis. We set $\epsilon = 0.85$ to target a 15% profit share (Karabarbounis and Neiman, 2019). We choose steady-state productivity a^{ss} to normalize steady-state output to one, $Y^{ss} = 1$. We set the steady-state real wage such that $N^{ss} = 0.945$, implying a steady-state unemployment rate of 5.5%. For the wage rule in (C.15), we set $\psi_N = 1$, as estimated by Gertler et al. (2020) and Hazell and Taska (2025). Finally, we set $\phi_\pi = 1.5$, the standard Taylor rule parameter.

The impact of aggregate shocks on worker welfare. The economy starts from a steady state. As in the main analysis, unexpected aggregate shocks to $\left\{\hat{a}_t \equiv a_t - a^{ss}, \hat{\imath}_t\right\}_{t=0}^{\infty}$ are realized at the beginning of period 0 and there is perfect foresight afterwards. Inflation $\left\{\hat{\pi}_t \equiv \pi_t - \pi^{ss}\right\}$ in this model is endogenously determined, and can be driven both by negative supply shocks $\{\hat{a}_t\}_{t=0}^{\infty}$ and positive demand shocks $\{\hat{\imath}_t\}_{t=0}^{\infty}$. We study the impact of aggregate shocks on worker welfare $\hat{\mathcal{W}} = \mathcal{W} - \mathcal{W}^{ss}$ where $\mathcal{W} = \int \mathcal{U}_i di$. In this environment, this impact is given by

$$\hat{\mathcal{W}} \approx \sum_{t=0}^{\infty} \beta^t \hat{N}_t + \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{erosion}}. \tag{C.16}$$

Relative to (12), there is a new term, $\sum_{t=0}^{\infty} \beta^t \hat{N}_t$, which captures the impact of aggregate shocks on employment. The second term, the wage erosion term, $\sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{erosion}}$, is still defined as how aggregate shocks would affect workers' real wages if their conflict decisions were held at steady state. The formula for wage erosion is given by (15), based on the extension allowing changes in the growth rate of aggregate conflict-induced (real) wages, $g_{w,s} \equiv \log\left(w_s^* / w_{s-1}^*\right)$, as aggregate shocks can affect them through (C.15). We restate it here:

$$\hat{w}_t^{\text{erosion}} = \underbrace{-\left(1-\gamma\right)\sum_{s=0}^{t} \Phi_{t-s}^{ss} \hat{\pi}_s}_{\equiv \hat{w}_t^{\text{erosion},\pi}} + \underbrace{\sum_{s=0}^{t} \left(1 - \Phi_{t-s}^{ss}\right) \hat{g}_{w,s}}_{\equiv \hat{w}_t^{\text{erosion},w^*}}, \tag{C.17}$$

where deviations from their steady-state values are still denoted by hats.

The first term, $\hat{w}_t^{\text{erosion},\pi}$, captures how much aggregate shocks erode real wages through inflation. This term is exactly the same as the formula for how inflation leads to wage erosion in Proposition 2 of our main analysis. In this sense, the underlying source of inflation (supply- vs. demand-driven) does not matter for how much inflation impacts worker welfare. The benefits from wage catch-ups due to more frequent conflict in response to inflation are always offset by the associated conflict costs.

The second term, $\hat{w}_t^{\text{erosion},w^*}$, captures how much aggregate shocks affect wage erosion through changes in the growth rate of conflict-induced (real) wages. That is, it captures how much aggregate shocks impact worker welfare beyond their effect through inflation. To understand this term, note that if workers' conflict decisions are held at the steady-state level, the growth $\hat{g}_{w,s}$ affects the real wage at time $t \geq s$ if workers engage in conflict between periods s and t at steady state, which occurs with probability $1-\Phi^{ss}_{t-s}$, i.e., the probability that the employer's default wage offer does not survive for $t-s$ periods at steady state. The sign of this term depends on the underlying shock that drives inflation (supply vs. demand-driven inflation). For example, in the general equilibrium model studied here, based on the wage rule in (C.15), negative supply-driven inflation (negative productivity shocks) can lower workers' conflict-induced real wages by lowering employment, thereby reducing their welfare beyond the shock's impact through inflation. On the other hand, positive demand-driven inflation (monetary easing shocks) can increase workers' conflict-induced real wages by increasing employment, raising their welfare beyond the shock's impact through inflation.

Similar to (10), we further decompose the impact of aggregate shocks on worker welfare (C.16) as

$$\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty} \beta^t \hat{N}_t + \sum_{t=0}^{\infty} \beta^t \hat{w}_t - \hat{\varkappa} \tag{C.18}$$

$$= \sum_{t=0}^{\infty} \beta^t \hat{N}_t + \sum_{t=0}^{\infty} \beta^t \hat{w}_t - \hat{\varkappa}^{\pi} - \hat{\varkappa}^{w^*}, \tag{C.19}$$

where the first term captures aggregate employment responses and the second term captures aggregate real wage responses. The third term, aggregate costs due to conflict $\hat{\varkappa}$, are still given by (11). Similar to (C.17), it can be further decomposed into aggregates costs due to conflict driven by inflation (as if $\hat{g}_{w,t} = 0$ for all t) and aggregates costs due to conflict driven by changes in the growth rate of conflict-induced (real) wages (as if $\hat{\pi}_t = 0$ for all t) . As in (13), the welfare gains from wage catch-up due to more frequent conflict are offset by the associated conflict costs. This observation holds regardless of whether the changes in conflict decisions are driven by changes in inflation or changes in conflict-induced (real) wages:

$$\hat{\varkappa}^{\pi} \approx \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{catch-up},\pi} \quad \text{and} \quad \hat{\varkappa}^{w^*} \approx \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{catch-up},w^*}. \tag{C.20}$$

C.3.1 The Impact of Aggregate Demand Shocks on Worker Welfare

We now study the impact of aggregate demand shocks on worker welfare. We consider a sequence of monetary easing shocks $\{\hat{\imath}_t\}_{t=0}^{\infty}$ (while holding productivity constant, $\hat{a}_t = 0$) such that the induced inflation sequence $\{\hat{\pi}_t\}_{t=0}^{\infty}$ is exactly the same as the persistent inflation scenario we studied in Panel B of Figure 9. That is $\hat{\pi}_t = \rho^t \cdot 1\%$ with $\rho = 0.72$.

Panel A of Figure C.2 plots the underlying positive aggregate demand shocks ($\hat{\imath}_t$), Panel B of Figure C.2 plots the inflation impulse responses to these shocks ($\hat{\pi}_t$), which coincides with the persistent inflation scenario we studied in Panel B of Figure 9. Panel C of Figure C.2 plots the aggregate output impulse responses to these shocks ($\hat{Y}_t$). The black dash-dotted line in Panel A of Figure C.3 plots the aggregate employment impulse responses to these shocks ($\hat{N}_t$). The blue solid line plots aggregate real wage impulse responses to these shocks ($\hat{w}_t$). Positive aggregate demand shocks lead to positive inflation, aggregate output, aggregate employment responses. Real wage responses are slightly negative and close to zero, due to a combination of the direct negative impact of inflation on real wages and the positive impact of employment on conflict-induced real wages in (C.15) and hence real wages. In Appendix C.3.3, we show that the model's prediction of real wage insensitivity to demand disturbances aligns with empirical evidence on the effects of monetary policy shocks.

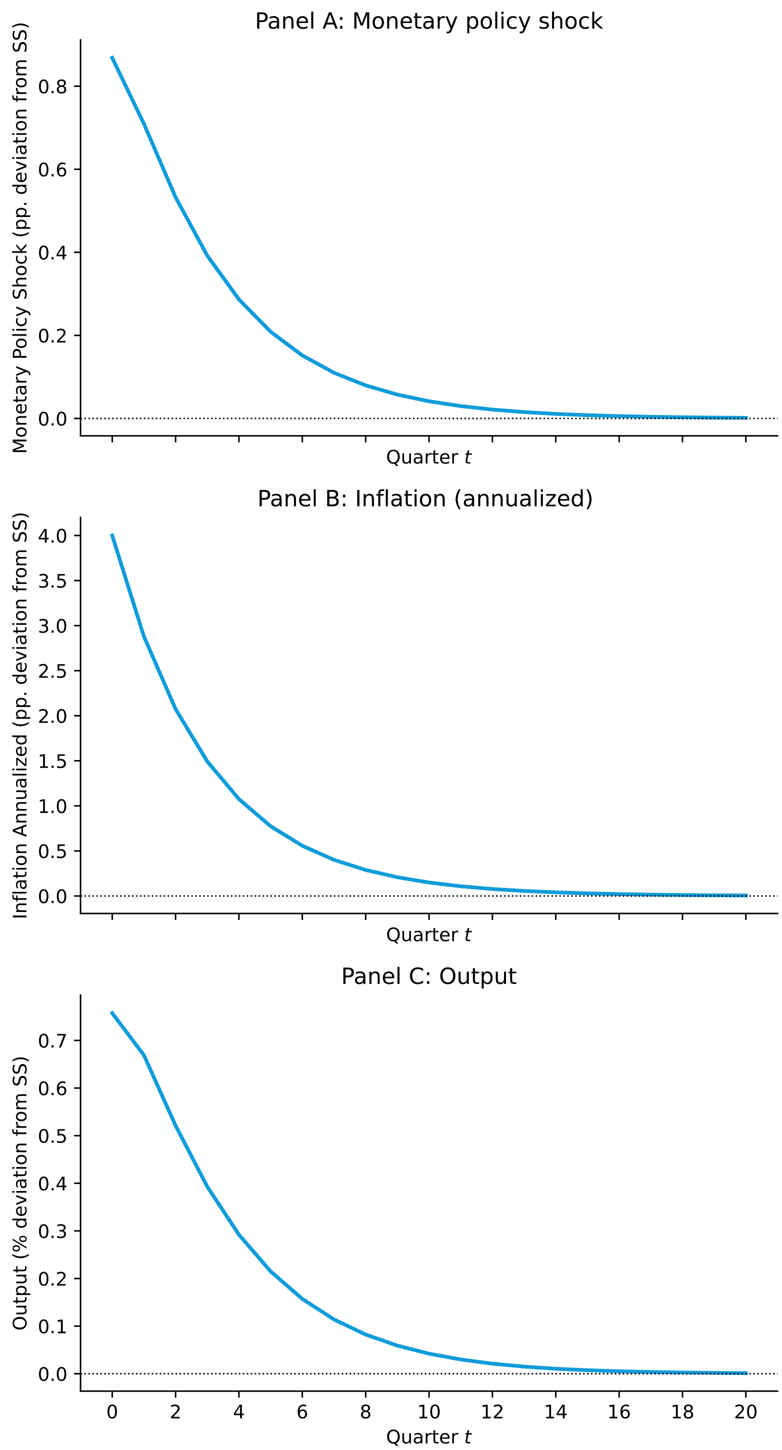
Based on (C.16), we know that the black dash-dot line ($\hat{N}_t$) and the orange dash line ($\hat{w}_t^{\text{erosion}}$) in Panel A of Figure C.3 fully characterize the impact of aggregate demand shocks on worker welfare. Negative wage erosion contributes to the aggregate costs to workers, and positive employment responses alleviate these costs. Furthermore, the gap between real wages and wage erosion is still substantial, meaning aggregate costs due to conflict ($\hat{\varkappa}$) remain an important part of aggregate costs to workers.

As in (C.19) , we can further decompose the impact of aggregate demand shocks to the impact driven by inflation and the impact driven by changes in the growth rate of conflict-induced (real) wages. Panel B of Figure C.3 zooms in the impact through inflation. Specifically, it plots inflation-driven wage erosion $\hat{w}_t^{\text{erosion},\pi}$ in (C.17) (as if $\hat{g}_{w,t} = 0$ for all t) and inflation-driven real wage changes $\hat{w}_t^{\pi}$ (as if $\hat{g}_{w,t} = 0$ for all t). The gap between those lines capture inflation-driven wage catch-up, which is equal to inflation-driven aggregate costs due to conflict $\hat{\varkappa}^{\pi}$ in (C.20) and is substantial. As discussed above, these terms are exactly the same as their counterparts for the impact of inflation in the main analysis. That is, Panel B of Figure C.3 is identical to Panel B of Figure 9, which studies the impact of the persistent inflation scenario on worker welfare.

Panel C of Figure C.3 zooms in the impact through changes in the growth rate of conflict-induced (real) wages. Specifically, it plots $\hat{w}_t^{\text{erosion},w^*}$ in (C.17) (as if $\hat{\pi}_t = 0$ for all t) and the corresponding $\hat{w}_t^{w^*}$ (as if $\hat{\pi}_t = 0$ for all t). The gap between those lines captures aggregate costs due to conflict through changes in the growth rate of conflict-induced real wages $\hat{\varkappa}^{w^*}$ in (C.20). Because conflict-induced real wages rises after positive aggregate demand shocks, workers engage in conflict more frequently to achieve them, so here are additional aggregate costs through conflict: $\hat{\varkappa}^{w^*}$ is positive, further increasing the total aggregate costs due to conflict $\hat{\varkappa}$.

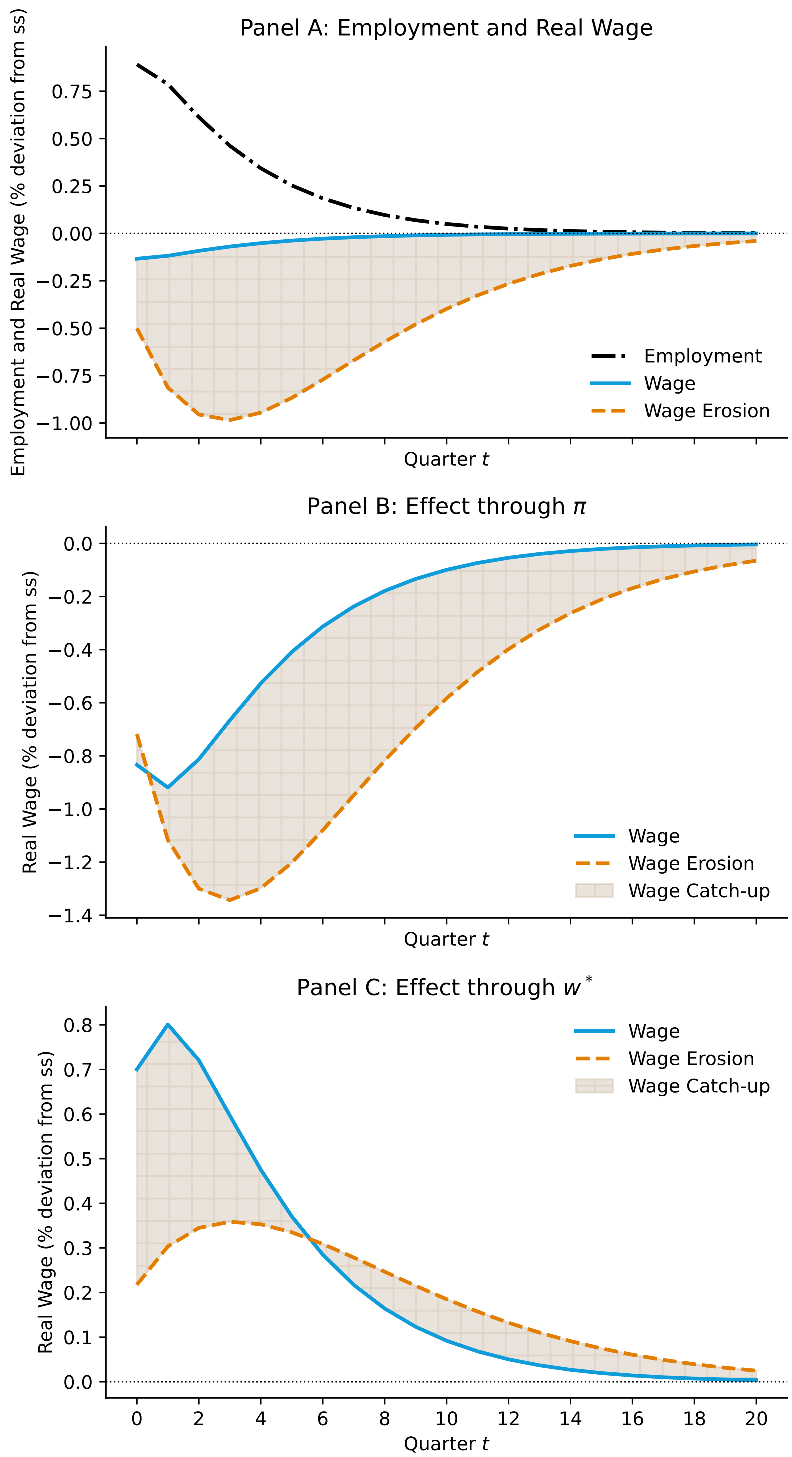
Note that, in this calibration, monetary policy shocks reduce worker welfare, despite leading to higher employment and exerting negligible effects on equilibrium real wages. This result underscores the importance of accounting for conflict costs when evaluating the welfare consequences of inflationary shocks.

Figure C.2: Impulse Responses to Aggregate Demand Shocks



Notes: Panel A plots the underlying aggregate demand shocks ($\hat{\imath}_t$), Panel B plots the deviation of inflation from the steady state ($\hat{\pi}_t$). Panel C plots the percent deviation of aggregate output from the steady state ($\hat{Y}_t$). The sequence of $\hat{\imath}_t$ is chosen such that the induced $\hat{\pi}_t$ is exactly the same as the persistent inflation scenario we studied in Panel B of Figure 9.

Figure C.3: Worker Welfare and its Decomposition—Aggregate Demand Shocks



Notes: Panel A plots the percentage deviation of employment from the steady state ($\hat{N}_t$, black dash-dotted), the percent deviation of the aggregate real wages from the steady state ($\hat{w}_t$, solid blue), and the wage erosion ($\hat{w}_t^{\text{erosion}}$, dashed orange). Panel B plots inflation-driven wage erosion $\hat{w}_t^{\text{erosion},\pi}$ in (C.17) (as if $\hat{g}_{w,t} = 0$ for all t) and inflation-driven real wage changes $\hat{w}_t^{\pi}$ (as if $\hat{g}_{w,t} = 0$ for all t). Panel C plots wage erosion driven by changes in the growth rate of conflict-induced real wages, $\hat{w}_t^{\text{erosion},w^*}$ in (C.17) (as if $\hat{\pi}_t = 0$ for all t), and the corresponding $\hat{w}_t^{w^*}$ (as if $\hat{\pi}_t = 0$ for all t). The sequence of $\hat{\imath}_t$ is chosen such that the induced $\hat{\pi}_t$ is exactly the same as the persistent inflation scenario we studied in Panel B of Figure 9.

C.3.2 The Impact of Aggregate Supply Shocks on Worker Welfare

We now study the impact of aggregate supply shocks on worker welfare. We consider a sequence of (negative) aggregate productivity shocks $\{\hat{a}_t\}_{t=0}^{\infty}$ (while holding monetary disturbances constant, $\hat{\imath}_t = 0$) such that the induced inflation sequence $\{\hat{\pi}_t\}_{t=0}^{\infty}$ is exactly the same as the persistent inflation scenario we studied in Panel B of Figure 9. That is $\hat{\pi}_t = \rho^t \cdot 1\%$ with $\rho = 0.72$.

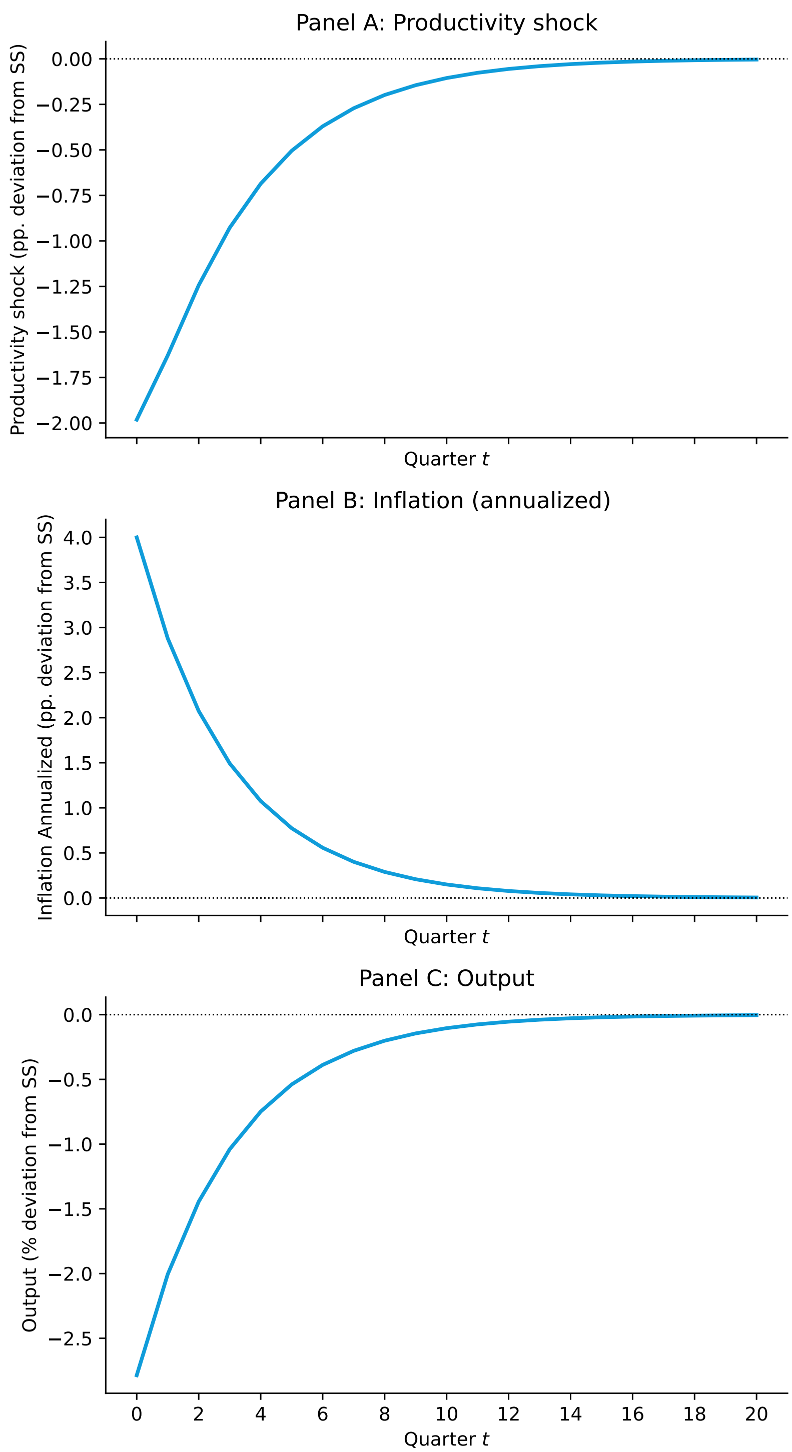
Panel A of Figure C.4 plots the underlying negative aggregate productivity shocks ($\hat{a}_t$), Panel B of Figure C.4 plots the inflation impulse responses to these shocks ($\hat{\pi}_t$), which coincides with the persistent inflation scenario we studied in Panel B of Figure 9. Panel C of Figure C.4 plots the aggregate output impulse responses to these shocks ($\hat{Y}_t$). The black dash-dotted line in Panel A of Figure C.5 plots the aggregate employment impulse responses to these shocks ($\hat{N}_t$). The blue solid line plots aggregate real wage impulse responses to these shocks ($\hat{w}_t$). Negative aggregate productivity shocks lead to positive inflation but negative aggregate output, real wage, and employment responses. In Appendix C.3.3, we show that the model's prediction of real wage declines to supply disturbances aligns with empirical evidence on the effects of oil shocks.

Based on (C.16), we know that the black dash-dotted line ($\hat{N}_t$) and the orange dash line ($\hat{w}_t^{\text{erosion}}$) in Panel A of Figure C.5 fully characterize the impact of aggregate productivity shocks on worker welfare. Both negative employment responses and negative wage erosion contribute to the aggregate costs to workers. Furthermore, the gap between real wages and wage erosion is still substantial, meaning aggregate costs due to conflict ($\hat{\varkappa}$) remain an important part of aggregate costs to workers.

As in (C.19), we can further decompose the impact of aggregate productivity shocks to the impact driven by inflation and the impact driven by changes in the growth rate of conflict-induced (real) wages. Panel B of Figure C.5 zooms in the impact through inflation. Specifically, it plots inflation-driven wage erosion $\hat{w}_t^{\text{erosion},\pi}$ in (C.17) (as if $\hat{g}_{w,t} = 0$ for all t) and inflation-driven real wage changes $\hat{w}_t^{\pi}$ (as if $\hat{g}_{w,t} = 0$ for all t). The gap between those lines capture inflation-driven wage catch-up, which is equal to inflation-driven aggregate costs due to conflict $\hat{\varkappa}^{\pi}$ by (C.20) and is substantial. As discussed above, these terms are exactly the same as the impact of inflation in the main analysis. That is, Panel B of Figure C.5 is identical to Panel B of Figure 9, which studies the impact of the persistent inflation scenario on worker welfare.

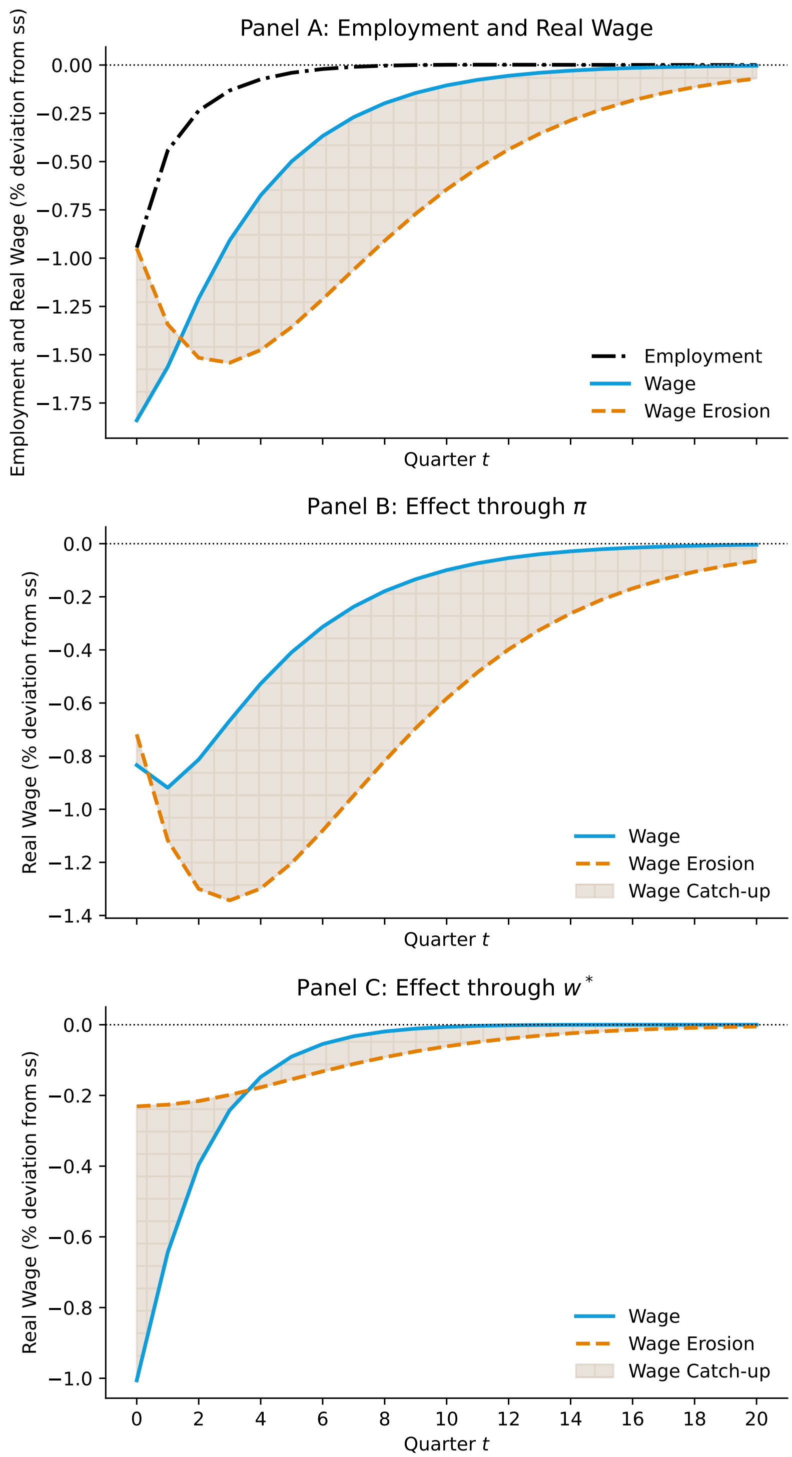
Panel C of Figure C.5 zooms in the impact through changes in the growth rate of conflict-induced (real) wages. Specifically, it plots $\hat{w}_t^{\text{erosion},w^*}$ in (C.17) (as if $\hat{\pi}_t = 0$ for all t) and the corresponding $\hat{w}_t^{w^*}$ (as if $\hat{\pi}_t = 0$ for all t). The gap between those lines captures aggregate costs due to conflict through changes in the growth rate of conflict-induced real wages $\hat{\varkappa}^{w^*}$ in (C.20). In this case, because conflict-induced real wages fall after negative productivity shocks, workers engage in conflict less frequently, and $\hat{\varkappa}^{w^*}$ is in fact negative. However, because inflation-driven aggregate costs due to conflict $\hat{\varkappa}^{\pi}$ remain large and positive, the total aggregate costs due to conflict $\hat{\varkappa}$ remain large and positive.

Figure C.4: Impulse Responses to Aggregate Supply Shocks



Notes: Panel A plots the underlying aggregate productivity shocks ($\hat{a}_t$), Panel B plots the deviation of inflation from the steady state ($\hat{\pi}_t$). Panel C plots the percent deviation of aggregate output from the steady state ($\hat{Y}_t$). The sequence of $\hat{a}_t$ is chosen such that the induced $\hat{\pi}_t$ is exactly the same as the persistent inflation scenario we studied in Panel B of Figure 9.

Figure C.5: Worker Welfare and its Decomposition—Aggregate Supply Shocks



Notes: Panel A plots the percentage deviation of employment from the steady state ($\hat{N}_t$, black dash-dotted), the percent deviation of the aggregate real wages from the steady state ($\hat{w}_t$, solid blue), and their wage erosion ($\hat{w}_t^{\text{erosion}}$, dashed orange). Panel B plots inflation-driven wage erosion $\hat{w}_t^{\text{erosion},\pi}$ in (C.17) (as if $\hat{g}_{w,t} = 0$ for all t) and inflation-driven real wage changes $\hat{w}_t^{\pi}$ (as if $\hat{g}_{w,t} = 0$ for all t). Panel C plots wage erosion driven by changes in the growth rate of conflict-induced real wages, $\hat{w}_t^{\text{erosion},w^*}$ in (C.17) (as if $\hat{\pi}_t = 0$ for all t), and the corresponding $\hat{w}_t^{w^*}$ (as if $\hat{\pi}_t = 0$ for all t). The sequence of $\hat{a}_t$ is chosen such that the induced $\hat{\pi}_t$ is exactly the same as the persistent inflation scenario we studied in Panel B of Figure 9.

C.3.3 Empirical Evidence on Response of Real Wages to Inflationary Shocks

In this section, we show that the model's implied real wage dynamics are consistent with those observed empirically in response to inflationary shocks. Similar to the model's predictions in Figures C.2 and C.4, we show that, empirically, real wages are essentially flat in response to aggregate demand shocks but fall in response to negative aggregate supply shocks. These results are consistent with the prior literature documenting the responses of real wages to, for example, technology shocks (Gali, 1999; Basu et al., 2006) and monetary policy shocks (Christiano et al., 2005; Altig et al., 2011). See also Angeletos et al. (2020), who show that real wages are flat in response to the "main business cycle shock."

Our analysis closely follows the recent work by Del Canto et al. (2025). To investigate the impact of aggregate demand shocks, we study the impact of the Gertler and Karadi (2015) monetary policy shocks on real wages. This series provides a monthly measure of monetary policy surprises between January 1990 and June 2019. Our supply shock series is the measure of oil shocks in Känzig (2021). This series provides a measure of oil supply shocks from January 1957 and December 2017. Our measure of the price level is the headline Consumer Price Index (CPI) and our measure of nominal wages is the mean weekly earnings, available at monthly frequency from the Outgoing Rotation Group of the Current Population Survey, calculated following Del Canto et al. (2025).

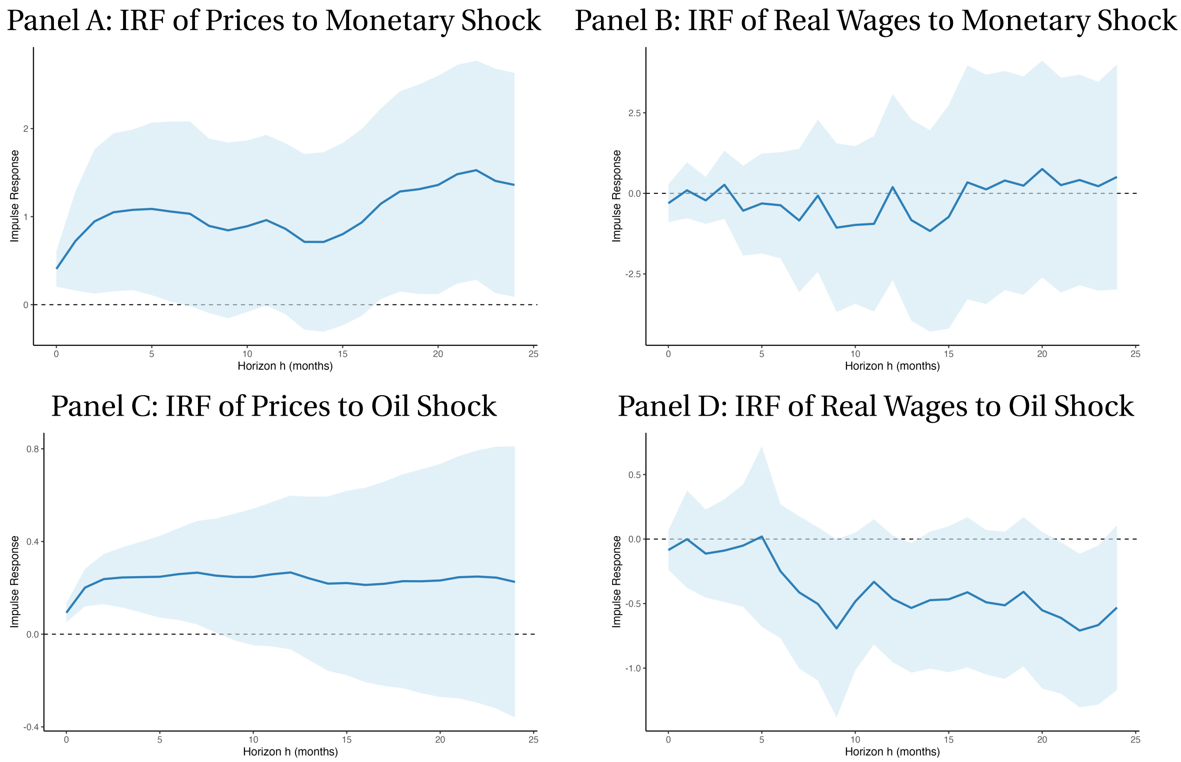
We estimate the impulse responses of prices and real wages using a standard local projection method. That is, we estimate the regression

$$y_{t+h} - y_{t-1} = \alpha_h + \beta_h \cdot \text{shock}_t + \epsilon_t,$$

where y_t is either the log CPI or the log real wage, and shock_t is one of the two shocks.

Figure C.6 presents the empirical impulse response functions across Panels A–D. Panel A (top left) displays the response of the price level to a monetary policy shock calibrated to induce a 25 basis point decline in the one-year Treasury yield. The shock leads to a persistent increase in prices, in line with existing empirical findings. Panel B illustrates that real wages exhibit no significant response following the monetary shock. Panel C (bottom left) reports the effects of an oil price shock, defined as a 10 percent increase in the real price of West Texas Intermediate (WTI) crude oil in the vicinity of OPEC-related announcements. In this case, as shown in Panel D (bottom right), inflation increases, while real wages decline.

Figure C.6: Impulse Response of Real Wage and Prices to Shocks



Notes: each panel reports monthly local-projection impulse responses. Responses are changes in logs relative to the month before the shock, $y_{t+h} - y_{t-1}$, where y_t is either headline CPI (prices) or the real wage (CPS ORG mean weekly earnings deflated by CPI). Monetary policy shocks use a monthly series available 1990:01–2019:06, normalized to raise the 1-year Treasury yield by 25 bp on impact. Oil-market shocks use a monthly series available 1957:01–2017:12, normalized to a 10% increase in real WTI around OPEC announcements. Solid lines show coefficients in log points; shaded bands denote 90% intervals according to Newey-West standard errors with 6 lags. Panel A: impulse response of prices to a monetary shock. Panel B: impulse response of real wages to a monetary shock. Panel C: impulse response of prices to an oil shock. Panel D: impulse response of real wages to an oil shock.

C.4 General-Equilibrium Determination of Employment

Our baseline model quantifies the aggregate costs of inflation due to conflict in a setting where all workers are employed. However, inflation shocks can also increase overall employment in general equilibrium by "greasing the wheels of the labor market" (Blanco and Drenik, 2023). This channel benefits aggregate worker-welfare through both higher employment rates themselves and their upward pressure on wages in general equilibrium.

In this section, we extend our model to consider the importance of conflict costs when employment and wages are determined in general equilibrium. We find that, even in this extended setting, aggregate costs of inflation due to conflict remain significant, both in absolute value and as a share of the overall costs of inflation.

Workers. Employed workers face a problem nearly identical to the benchmark model, except that they may become unemployed at the beginning of the period with an exogenous probability s. If they stay employed, they receive a default wage offer from their employer that is not fully indexed to inflation. Given the "Calvo-plus" conflict cost in the baseline model, workers optimally decide whether to engage in costly conflict with employers. Real wages are determined similarly to the baseline model. The conflict-induced wage is now given by:

$$\log w^*_{i,t} = \log w^*_t + \log \vartheta_{i,t} \quad \text{and} \quad \log \vartheta_{i,t} = \log \vartheta_{i,t-1} + g + z_{i,t}, \tag{C.21}$$

where $\vartheta_{i,t}$ captures worker productivity subject to idiosyncratic productivity shocks $z_{i,t}$ and satisfies $\int_0^1 z_{i,t} di = 0$ and $\int_0^1 \log \vartheta_{i,-1} di = 0$. The aggregate component of the conflict-induced wage w^*_t is further specified below.

Unemployed workers randomly match with vacancies created by firms. They find a job with probability $f_t = \theta_t q(\theta_t)$, where θ_t captures labor market tightness, and $q(\theta_t) = \Psi \theta_t^{-\eta}$ captures the probability that a vacancy will be filled.[41] When a worker who was unemployed in the previous period finds a job, their initial wage is given by $w^*_{i,t}$ in (C.21), which keeps up with inflation. If they stay unemployed, they earn $\phi w^*_{i,t}$ from home production, where $\phi \in (0,1)$ represents the flow value of unemployment.

Firms. Each firm employs at most one worker. If a firm is currently matched with a worker with productivity $\vartheta_{i,t}$, it produces $\vartheta_{i,t}$ units of final goods. Firms are owned by risk-neutral capitalists with a discount factor β. There is competitive entry to create vacancies (each of which costs $c_v \int_0^1 \vartheta_{i,t} di$ units of output), which will be filled with probability $q(\theta_t)$. Firms are uncertain about the productivity of the worker they will match with when they post the vacancy. Free entry implies the value of a vacancy is zero.

Determination of wages and employment. We use a simple wage rule, similar to Blanchard and Galí (2010), to capture how a tighter labor market leads to higher wages in general equilibrium. Specifically, we assume that the aggregate component of the conflict-induced real wage is given by:

$$\hat{w}^*_t = \psi_E \hat{E}_t, \tag{C.22}$$

where E_t captures the fraction of workers employed at period t, $\hat{w}^*_t = \log w^*_t - \log w^{*,ss}$, and $\hat{E}_t = E_t - E^{ss}$ capture deviations from their steady state value. Gertler et al. (2020) and Hazell and Taska (2025) show that this process approximates well the behavior of the real wage for newly hired workers, who

[41] Market tightness is defined as the number of vacancies divided by the number of job seekers at the beginning of the period, i.e., $\theta_t \equiv v_t / (1-(1-s)E_{t-1})$ where v_t denotes the number of vacancies and $1-(1-s)E_{t-1}$ represents the number of job searchers at the beginning of the period.

in our model receive the conflict-induced wage. Christiano, Eichenbaum, and Trabandt (2016) also find that simple wage rules of this sort approximate well the dynamics of more complex bargaining models.[42]

The employment rate E_t follows from the law of motion $E_t = \left[1 - s\left(1 - f_t\right)\right] E_{t-1} + f_t \left(1 - E_{t-1}\right)$.[43] The job finding rate is given by f_t, where the labor market tightness θ_t is determined in general equilibrium, based on the ratio between vacancies implied by free entry and the number of job seekers. The model is closed by goods market clearing.

Calibration. We again calibrate the model at a quarterly frequency. For the worker problem, we use the same parameters as in Table 2, except that we re-calibrate the conflict cost $\kappa = 7.10\%$ so that $\mathbb{T} = 1.75\%$, as indicated by the survey. This adjustment incorporates the fact that workers may be exogenously separated at a quarterly rate $s = 0.1$, a standard value (e.g., Shimer, 2005). We set the flow value of unemployment to $\phi = 0.50$, which is consistent with the results in Chodorow-Reich and Karabarbounis (2016).

For the matching function we set the elasticity of the vacancy filling probability with respect to tightness to $\eta = 0.7$, as in Shimer (2005), and calibrate $\Psi = 0.65$ so that the steady-state unemployment rate is 5.5%. We set $c_v = 0.07$ so that $c_v / q(\theta^{ss})$ is 10% of the aggregate conflict-induced wage $w^{*,ss}$ in steady state, in line with Silva and Toledo (2009). For the wage rule in (C.22), we set $\psi_E = 1$ so that all else equal a 1 percent point increase in employment increases real new-hire wages by 1%, as Gertler et al. (2020) and Hazell and Taska (2025) estimate.

The impact of inflation shocks on worker welfare. The economy starts from a steady state. As in the main analysis, an unexpected aggregate shock to the path of inflation $\{\hat{\pi}_t \equiv \pi_t - \pi^{ss}\}_{t=0}^{\infty}$ is realized at the beginning of period 0 and there is perfect foresight afterwards. We can interpret these inflation shocks as monetary policy shocks when the monetary authority uses the path of nominal interest rates to implement a path for inflation $\{\pi_t\}_{t=0}^{\infty}$. We study the impact of inflation shocks on worker welfare:

$$\hat{\mathscr{W}} \approx \sum_{t=0}^{\infty} \beta^t \left\{ E^{ss} \hat{w}_t + \left(1 - E^{ss}\right) \hat{w}_t^* + \hat{E}_t \left[\log\left(w^{ss}\right) - \log\left(\phi w^{*,ss}\right)\right]\right\} - \hat{\varkappa}, \tag{C.23}$$

where the first term captures the impact on employed workers' average real wage, the second term captures the impact on unemployed workers' average real income (an unemployed worker i earns $\phi w_{i,t}^*$), the third term captures the impact through changing employment rates (where $\log\left(w^{ss}\right) -$

[42] For consistency with the baseline analysis, the default real wage is again given by $w_{i,t}^d = w_{i,t-1} e^{\alpha - \pi^{ss} - (1-\gamma)(\pi_t - \pi^{ss})}$.

[43] The law of motion reflects the timing of our model: aggregate shocks, idiosyncratic productivity shocks, and exogenous separation of existing employment (with probability s) happen at the beginning of the period. Then, firms create vacancies and unemployed workers, both old and new, look for jobs. Finally, matches happen and production takes place.

Figure C.7: The Aggregate Costs of Inflation due to Conflict—GE Determination of Employment

Notes: this figure plots the impact of the persistent inflation shock with $\rho = 0.72$ for the general equilibrium extension of the baseline model. The figure displays the deviation of employment from the steady state (black dash-dotted), the percent deviation of the average real wage of the employed from the steady state (solid blue), and their wage erosion (dashed orange).

$\log\left(\phi w^{*,ss}\right)$ is the gap between employed workers' average real wage and unemployed workers' real income in steady state), and the fourth term captures aggregate costs of inflation due to conflict $\hat{\varkappa}$ defined in (11).

Figure C.7 studies the case of the persistent inflation shock. The figure displays employment $\{\hat{E}_t\}_{t=0}^{\infty}$ (black dash-dotted line), the overall real wage response $\{\hat{w}_t\}_{t=0}^{\infty}$ (solid blue line), and the resulting wage erosion $\{\hat{w}_t^{\text{erosion}}\}_{t=0}^{\infty}$ (dotted orange line), which is defined as how inflation would affect employed workers' average real wage if workers' conflict decisions are fixed at the steady state.[44] We observe that inflation "greases the wheels" of the labor market: employment increases with the inflation shock. Additionally, as in the baseline model, the gap between real wages and wage erosion is large, meaning that a substantial fraction of wage growth is achieved through costly conflict. The overall welfare costs of the inflation shock to workers in (C.23) are equal to 2.28% in units of annual consumption of the employed, lower than the baseline in Table 3, reflecting the general-equilibrium determination of employment and wages. The aggregate costs of inflation due to conflict remain significant: $\hat{\varkappa}$ is equal to 1.70% of annual consumption of the employed, representing 75% of the total welfare costs. Because most workers are not new hires, they still need to pay conflict costs to keep up with inflation and benefit from the higher conflict-induced wages from the tighter labor market.

[44]The definition of $\hat{w}_t^{\text{erosion}}$ is now given by (15), including the impact of inflation shocks on conflict-induced real wages $\hat{w}_t^*$ through changes in employment in (C.22).

C.4.1 Additional Details for General Equilibrium Determination of Employment and Wages

Worker's problem and welfare. Similar to (6), we can rewrite the utility of worker $i \in [0,1]$ as a function of wage gaps, conflict decisions, and a constant exogenous to worker i, and summarize worker i's problem as

$$\max_{\{\mathscr{I}_{i,t}\}_{t=0}^{\infty}} \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \left[x_{i,t} - \kappa_{i,t}\mathscr{I}_{i,t} + \left(1-E_{i,t}\right)\log\left(\phi\right)\right]\right] + \underbrace{\mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \log\left(w_{i,t}^*\right)\right]}_{\text{Exogenous to worker i}}, \tag{C.24}$$

where $E_{i,t}$ is the end-of-period employment status of worker i ($E_{i,t}=1$ means being employed, and $E_{i,t}=0$ means being unemployed); $x_{i,t}$ is their wage gap ($x_{i,t} \equiv \log w_{i,t} - \log w_{i,t}^*$ if the worker is employed, $E_{i,t}=1$, and $x_{i,t}=0$ if the worker is unemployed, $E_{i,t}=0$); and $\kappa_{i,t}$ is the i.i.d. conflict cost ($\kappa_{i,t}=\kappa$ with probability $1-\lambda$ and $\kappa_{i,t}=0$ with probability λ). The employment status $E_{i,t}$ evolves according to

$$E_{i,t} = \begin{cases} 1 & \text{if } \left(E_{i,t-1}=1 \;\&\; s_{i,t}=0\right) \text{ or } \left(\left(E_{i,t-1}=0 \text{ or } s_{i,t}=1\right) \text{ and } f_{i,t} \le f_t\right) \\ 0 & \text{else,} \end{cases}$$

where $s_{i,t}$ is the i.i.d. separation shock ($s_{i,t}=0$ with probability $1-s$ and $s_{i,t}=1$ with probability s) and $f_{i,t}$ is the i.i.d. job finding shock uniformly distributed in $[0,1]$. The wage gap of the employed ($E_{i,t}=1$) evolves according to

$$x_{i,t} = \begin{cases} x_{i,t-1} - \left(\mu + z_{i,t}\right) - \left(1-\gamma\right)\left(\pi_t - \pi^{ss}\right) - \hat{g}_{w,t} & \text{if } \mathscr{I}_{i,t}=0 \text{ and } E_{i,t-1}=1 \\ 0 & \text{if } \mathscr{I}_{i,t}=1 \text{ or } E_{i,t-1}=0, \end{cases} \tag{C.25}$$

where $g_{w,t} \equiv \log\left(w_t^*/w_{t-1}^*\right), \mu \equiv g - \alpha + \pi^{ss}$, and deviations from their steady-state values are still denoted by hats. (C.25) captures the fact that, if the previously unemployed worker finds a job, their wage is given by $w_{i,t}^*$, so their wage gap $x_{i,t}$ is zero.[45]

Aggregate worker welfare is given by

$$\begin{aligned} \mathscr{W} &\equiv \int_0^1 \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \left[x_{i,t} + \log\left(w_{i,t}^*\right) - \kappa_{i,t}\mathscr{I}_{i,t} + \left(1-E_{i,t}\right)\log\left(\phi\right)\right]\right] di \\ &= \sum_{t=0}^{\infty} \beta^t \left\{E_t \log w_t + \int_0^1 \mathbb{E}\left[-\kappa_{i,t}\mathscr{I}_{i,t} + \left(1-E_{i,t}\right)\log\left(\phi w_{i,t}^*\right)\right] di\right\}, \end{aligned}$$

[45] Given our timing assumptions, some workers are separated but immediately find a job within the same period. We assume that these workers retain their previous default nominal wage offer.

where $\log w_t \equiv \int_0^1 \frac{E_{i,t}}{E_t}\left[x_{i,t} + \log\left(w^*_{i,t}\right)\right] di$ is the employed workers' average wage. The impact of an inflation shock on aggregate worker welfare is given by

$$\hat{\mathscr{W}} = \sum_{t=0}^{\infty} \beta^t \left[E^{ss}\hat{w}_t + \left(1 - E^{ss}\right)\hat{w}^*_t + \hat{E}_t\left(\log\left(w^{ss}\right) - \log\left(\phi w^{*,ss}\right)\right)\right] - \hat{\varkappa},$$

where $\log\left(w^{ss}\right) - \log\left(\phi w^{*,ss}\right)$ captures the gap between the employed-workers' average wage and the unemployed-workers' income in steady state, and $\hat{\varkappa}$ denotes the aggregate costs of inflation due to conflict.

Finally, as in the baseline model, we define wage erosion by the counterfactual path of wages for workers holding constant the conflict decisions. It is now given by (15), including the impact of inflation shocks on conflict-induced real wages $\hat{w}^*_t$ through changes in employment in (C.22).

Firm's problem. The value of a firm employing worker i is given by

$$\begin{aligned}\mathscr{J}_t\left(\vartheta_{i,t}, w_{i,t}\right) = &\vartheta_{i,t} - w_{i,t} + \beta(1-s)\mathbb{E}_t\left[\mathscr{I}^*_{i,t+1}\mathscr{J}_{t+1}\left(\vartheta_{i,t+1}, w^*_{i,t+1}\right) + \left(1 - \mathscr{I}^*_{i,t+1}\right)\mathscr{J}_{t+1}\left(\vartheta_{i,t+1}, w_{i,t+1}\right)\right] \\ &+ \beta s \max\left\{\mathscr{V}_{t+1}, 0\right\}\end{aligned}$$

where $\mathscr{I}^*_{i,t+1}$ captures worker i's optimal conflict decision, $\mathscr{V}_t$ denotes the value of a posted vacancy, and we use the fact that firms are owned by risk-neutral capitalists with a discount factor β. The value of a posted vacancy is given by

$$\mathscr{V}_t = -c_v \int_0^1 \vartheta_{i,t} di + q\left(\theta_t\right)\int_0^1 \mathscr{J}_t\left(\vartheta_{i,t}, w^*_{i,t}\right) di + \beta\left(1 - q\left(\theta_t\right)\right)\max\left\{\mathscr{V}_{t+1}, 0\right\}.$$

The free entry condition implies that $\mathscr{V}_t = 0$ for all $t \geq 0$.[46]

Capitalists' consumption-and-savings problem. Capitalists own the firms, earn dividends from their operation, and pay the costs to post new vacancies. They face a standard intertemporal consumption-savings decision problem. In equilibrium, the real interest rate $e^{i_t - \pi_{t+1}}$ must satisfy the capitalists' Euler equation: $\beta e^{i_t - \pi_{t+1}} = 1$, because capitalists are risk-neutral with a discount factor β.

Monetary policy. In the main text, we specify monetary policy as determining a path for inflation $\{\pi_t\}_{t\geq 0}$. Implicitly, we assume that monetary policy controls the path of nominal interest rates $\{i_t\}_{t\geq 0}$ in order to implement the path of inflation.

[46] The free entry condition defined here based on $\mathscr{V}_t$ is only approximately right, as workers who immediately find a job retain their previous default nominal wage offer. But because the probability of immediate reemployment is small relative to the number of unemployed, we use this approximation to simplify.

Goods market clearing. The model is closed via goods market clearing. Let C_t^w and C_t^c denote the aggregate consumption of workers and capitalists, respectively. Goods market clearing is given by:

$$C_t^w + C_t^c + \left(c_v \int_0^1 \vartheta_{i,t} di\right) v_t = Y_t + \int_{\{i:E_{i,t}=0\}} \phi w_{i,t}^* di,$$

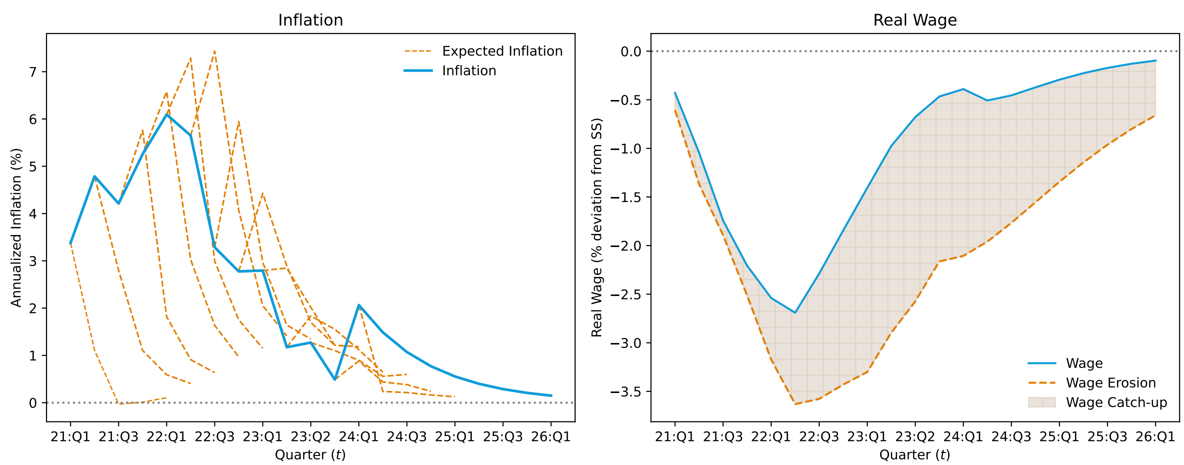
where v_t denotes the total number of vacancies posted, and $Y_t \equiv E_t \int_0^1 \vartheta_{i,t} di$ denotes aggregate production, i.e., the sum of production of all firms.[47]

[47] Since separations are exogenous and independent of productivity, we can factor aggregate output as E_t times average productivity.

C.5 Costs of 2021-2023 Inflation without Perfect Foresight

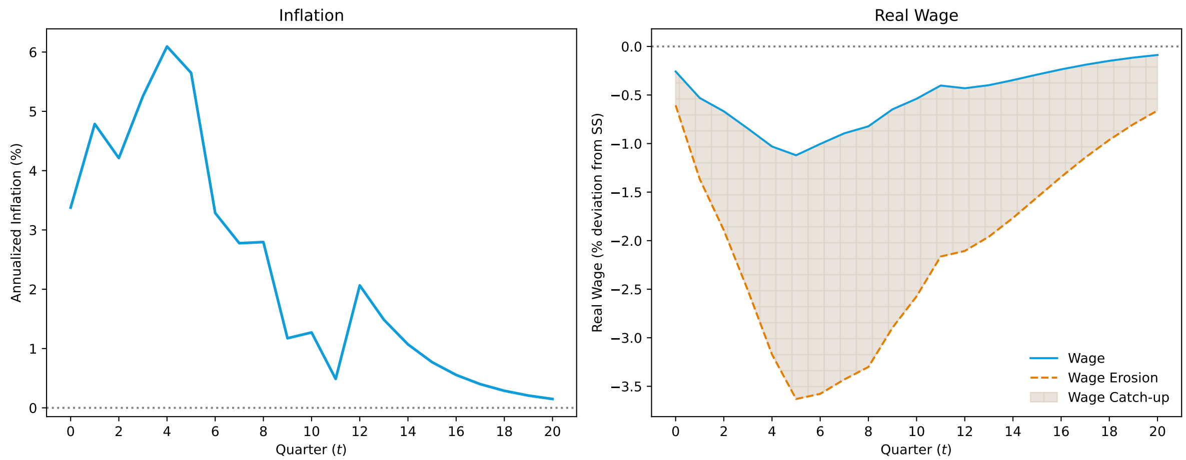
In this appendix, we study and decompose the costs of 2021–2023 inflation to workers without assuming perfect foresight of the 2021–2023 inflation. Two technical points are worth mentioning. First, as shown in Auclert, Rognlie, and Straub (2020), the Sequence-Space Jacobian approach can be easily extended to alternative models of expectations. Here, we follow Bardóczy and Guerreiro (2023) and specify workers' inflation expectations directly based on survey data. Second, for these cases without perfect foresight, to maintain comparability with the perfect-foresight case, we base our welfare assessments on the ex-post realized outcomes; i.e., we use the realized path of inflation to evaluate welfare. An alternative would be to consider "ex-ante welfare" based on workers' expectations.

Figure C.8: The Aggregate Costs of Inflation due to Conflict during the 2021-2023 Inflation with Observed Expectations Data



Notes: In the left panel, we plot the path of annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. We then contrast this realized path of inflation with expected inflation for each quarter, where expected inflation is from the Survey of Consumer Expectations and the Survey of Professional Forecasters. Specifically, the SCE provides households' expectations for inflation over the coming 12 months, but does not provide quarterly or long term expectations over this period. The SPF does provide quarterly and long term expectations, but arguably professionals' expectations are less relevant than households'. We create an expectation series that re-scales the value of the SPF so that mean expectations over the first year are the same as households' expectations from the SCE. We also use a spline to interpolate medium term expectations, which are not reported in the SPF. In the right panel, we plot the percent deviation of the real wage from the steady state in the solid blue line. We also plot wage erosion in the dashed orange line, which captures the impact of inflationary shocks on worker welfare. The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict. In this exercise, workers' inflation expectations are based on observed expectations.

Figure C.9: The Effect of 2021-23 Inflation With No Foresight



Notes: The path of inflation shock is given by the path of annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. The figure plots the percent deviation of the real wage from the steady state (solid blue line) and the welfare-relevant wage erosion (dashed orange line). The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict. Unlike in the main text, workers have no foresight about the inflation shock: in each period, they expect inflation to remain at the steady state in all future periods.

C.6 Alternative Calibration – Alternative Steady State Share of Conflict

In our baseline calibration, we calibrate the parameters of the distribution of idiosyncratic productivity shocks such that the yearly share of workers engaging in conflict at steady-state inflation is equal to 48%, as in Panel B of Figure 4. Here, we consider an alternative calibration where the yearly share of workers engaging in conflict at steady-state inflation is equal to 21%, based on the evidence for the year of 2023 in Panel A of Figure 1. This implies that the idiosyncratic productivity shock is such that $z_{i,t} + \mu \sim \text{Gamma}(a, b)$, where $a = 0.02$ and $b = 0.28$. We also re-calibrate the cost of conflict κ so that the conflict threshold is $\mathbb{T} = 1.75\%$. We fix all other parameters as in Table 2.

Table C.1: Decomposing the Impact of Inflation Shocks on Worker Welfare – Alternative Steady State Share of Conflict

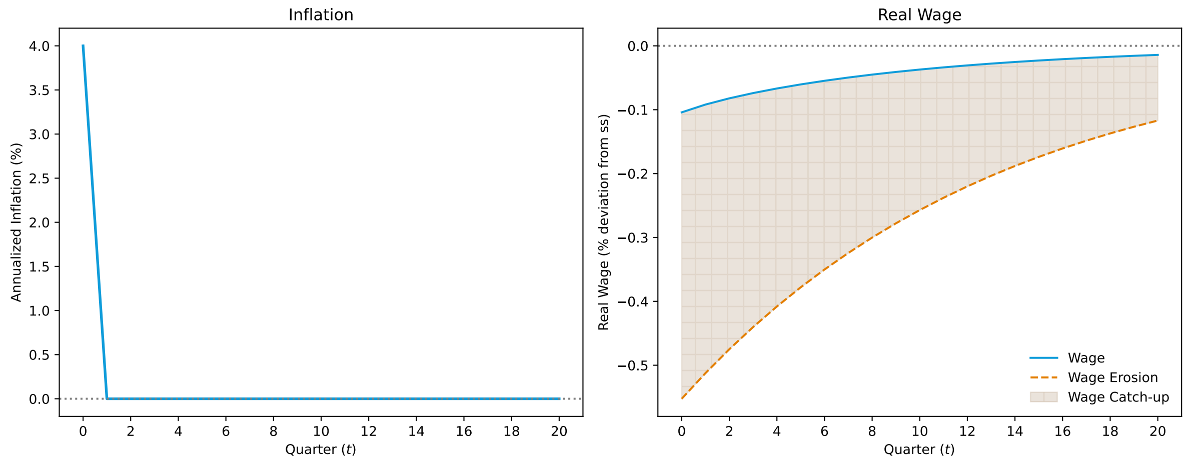
	Overall Welfare Impact	**Real Wage Response**	**Impact due to Conflict**
Transitory inflation	−1.67%	−0.25%	−1.42%
Persistent inflation	−5.80%	−0.95%	−4.86%
2021-23 inflation	−19.11%	−3.29%	−15.83%

Notes: the first column shows the overall impact on worker welfare after the transitory inflation shock (row 1), the persistent inflation shock (row 2), and the 2021-2023 inflation (row 3), as a percent of annual consumption. The second column shows the response of the present value of real wages in each scenario, again as a percent of annual consumption. The final column shows the welfare impact from aggregate costs of inflation due to conflict, $-\hat{\varkappa}$, again as a percent of annual consumption. We recalibrate so that the yearly share of workers engaging in conflict at steady state is 21%.

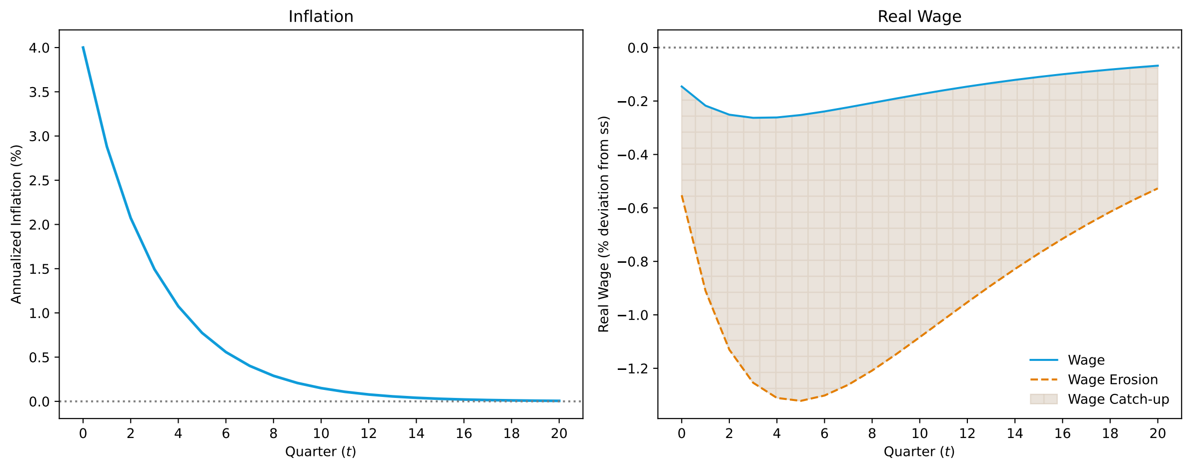
From Proposition 2, we know that a lower frequency of conflict in steady state implies higher costs of inflation shocks to worker welfare. As the Table C.1 shows (compared to Table 3 in the main text), the increase in total welfare costs of inflation shocks is primarily attributable to higher aggregate costs of inflation due to conflict. Figure C.10 plots dynamic response of real wages and wage erosion under inflation scenarios, corresponding to Figure 9 in the main text.

Figure C.10: Real Wage Dynamics and the Aggregate Costs of Inflation due to Conflict – Alternative Steady State Share of Conflict

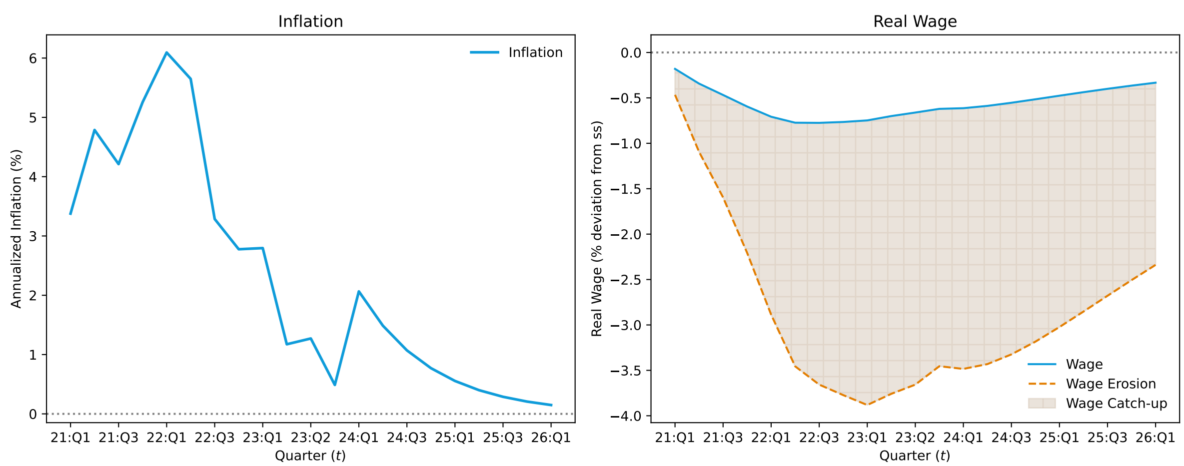
Panel A: Transitory Inflation



Panel B: Persistent Inflation



Panel C: 2021-2023 Inflation



Notes: each panel plots the response to a given inflation scenario. In Panel A, there is a transitory shock to inflation lasting one quarter. In Panel B, there is a persistent shock, that decays at quarterly rate $\rho = 0.72$. In Panel C, the shock to inflation is given by annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. In the left figure of each panel, we plot the path of annualized inflation shock. In the right panel, we plot the percent deviation of the real wage from the steady state in the solid blue line. We also plot wage erosion in the dashed orange line, which captures the impact of inflationary shocks on worker welfare. The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict. We recalibrate so that the yearly share of workers engaging in conflict at steady state is 21%.

C.7 Alternative Calibration – Action Takers in 2023

In our baseline calibration, we calibrate the conflict cost parameters (κ, λ) using elicited conflict thresholds based on all survey respondents. Here, we consider an alternative calibration using only the 21% of respondents who took action in 2023, based on their answers displayed in Figure 1, as these respondents may have a better understanding of the nature of conflict costs. For this subset of respondents, 22.56% have a zero elicited conflict threshold, and the median conflict threshold for those with a positive elicited conflict threshold is 1.25%. This implies $(\kappa, \lambda) = (4.59\%, 6.19\%)$. All other parameters are as in Table 2.

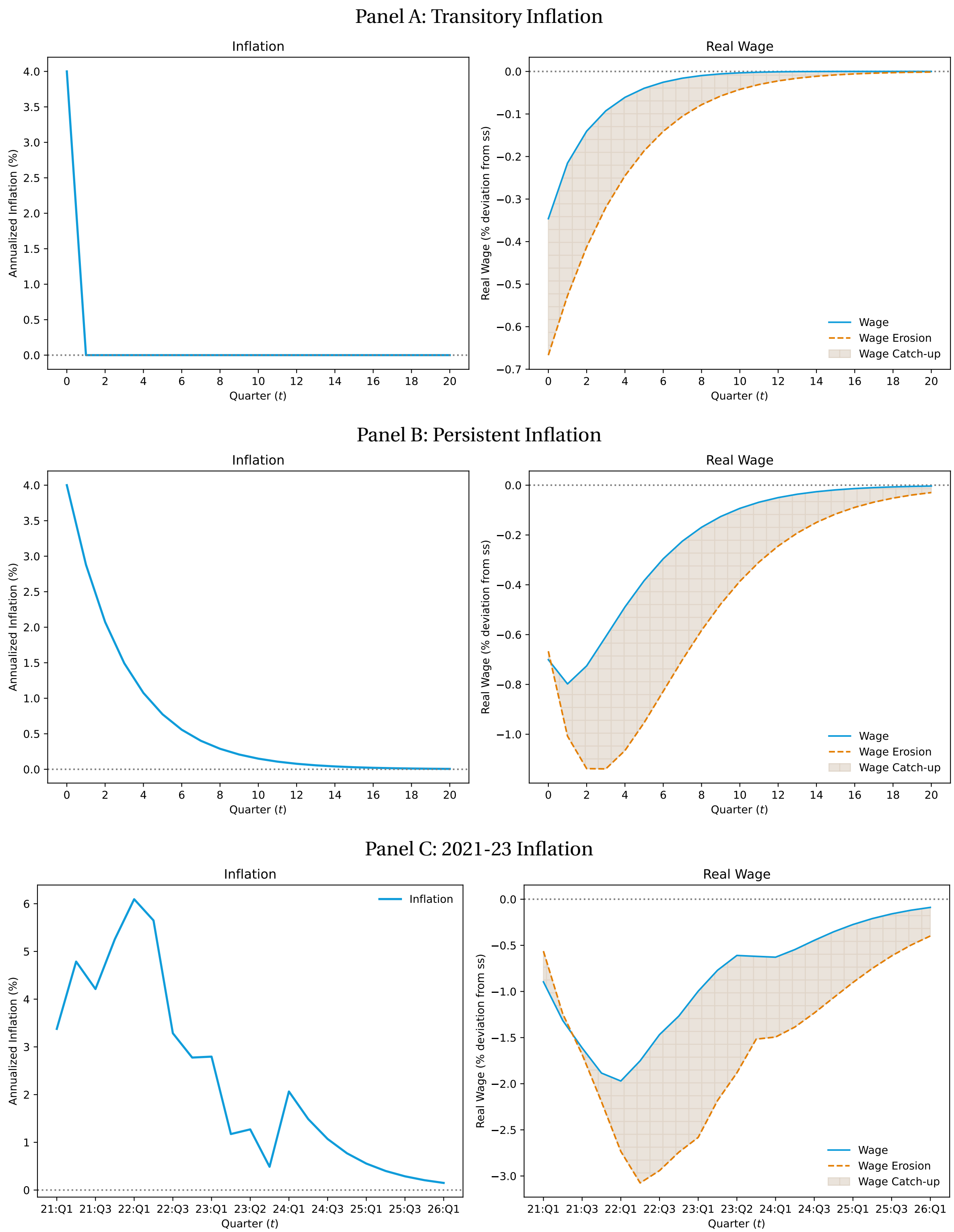
Table C.2 shows the welfare costs of inflation shocks to workers under different inflation scenarios, corresponding to Table 3 in the main text. Figure C.11 plots dynamic response of real wages and wage erosion under different inflation scenarios, corresponding to Figure 9 in the main text. The ratio of aggregate costs of inflation due to conflict to the overall costs of inflation is close to or above 50% for all inflation scenarios, verifying the robustness of the conflict channel's importance.

Table C.2: Decomposing the Impact of Inflation Shocks on Worker Welfare – Action Takers in 2023

	Overall Welfare Impact	**Real Wage Response**	**Impact due to Conflict**
Transitory inflation	−0.69%	−0.24%	−0.45%
Persistent inflation	−2.40%	−1.17%	−1.23%
2021-23 inflation	−7.90%	−4.24%	−3.67%

Notes: the first column shows the overall impact on worker welfare after the transitory inflation shock (row 1), the persistent inflation shock (row 2), and the 2021-2023 inflation (row 3), as a percent of annual consumption. The second column shows the response of the present value of real wages in each scenario, again as a percent of annual consumption. The final column shows the welfare impact from aggregate costs of inflation due to conflict, $-\hat{\varkappa}$, again as a percent of annual consumption. We calibrate the conflict cost parameters (κ, λ) using the 21% of respondents who took action in 2023.

Figure C.11: Real Wage Dynamics and the Aggregate Costs of Inflation due to Conflict – Action Takers in 2023



Notes: each panel plots the response to a given inflation scenario. In Panel A, there is a transitory shock to inflation lasting one quarter. In Panel B, there is a persistent shock, that decays at quarterly rate $\rho = 0.72$. In Panel C, the shock to inflation is given by annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. In the left figure of each panel, we plot the path of annualized inflation shock. In the right panel, we plot the percent deviation of the real wage from the steady state in the solid blue line. We also plot wage erosion in the dashed orange line, which captures the impact of inflationary shocks on worker welfare. The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict. We calibrate the conflict cost parameters (κ, λ) using the 21% of respondents who took action in 2023.

C.8 Alternative Calibration – Difficult Conversations with Employers in 2023

In our baseline calibration, we calibrate the conflict cost parameters (κ, λ) using elicited conflict thresholds based on all survey respondents. Here, we consider an alternative calibration using only the subset of respondents who took action in 2023 by having a difficult conversation with their employers, based on their answers displayed in Figure 1. Such an action perhaps best approximates our baseline model. For this subset of respondents, 28.03% have a zero elicited conflict threshold, and the median conflict threshold for those with a positive elicited conflict threshold is 1.25%. This implies $(\kappa, \lambda) = (4.39\%, 7.89\%)$. All other parameters are as in Table 2.

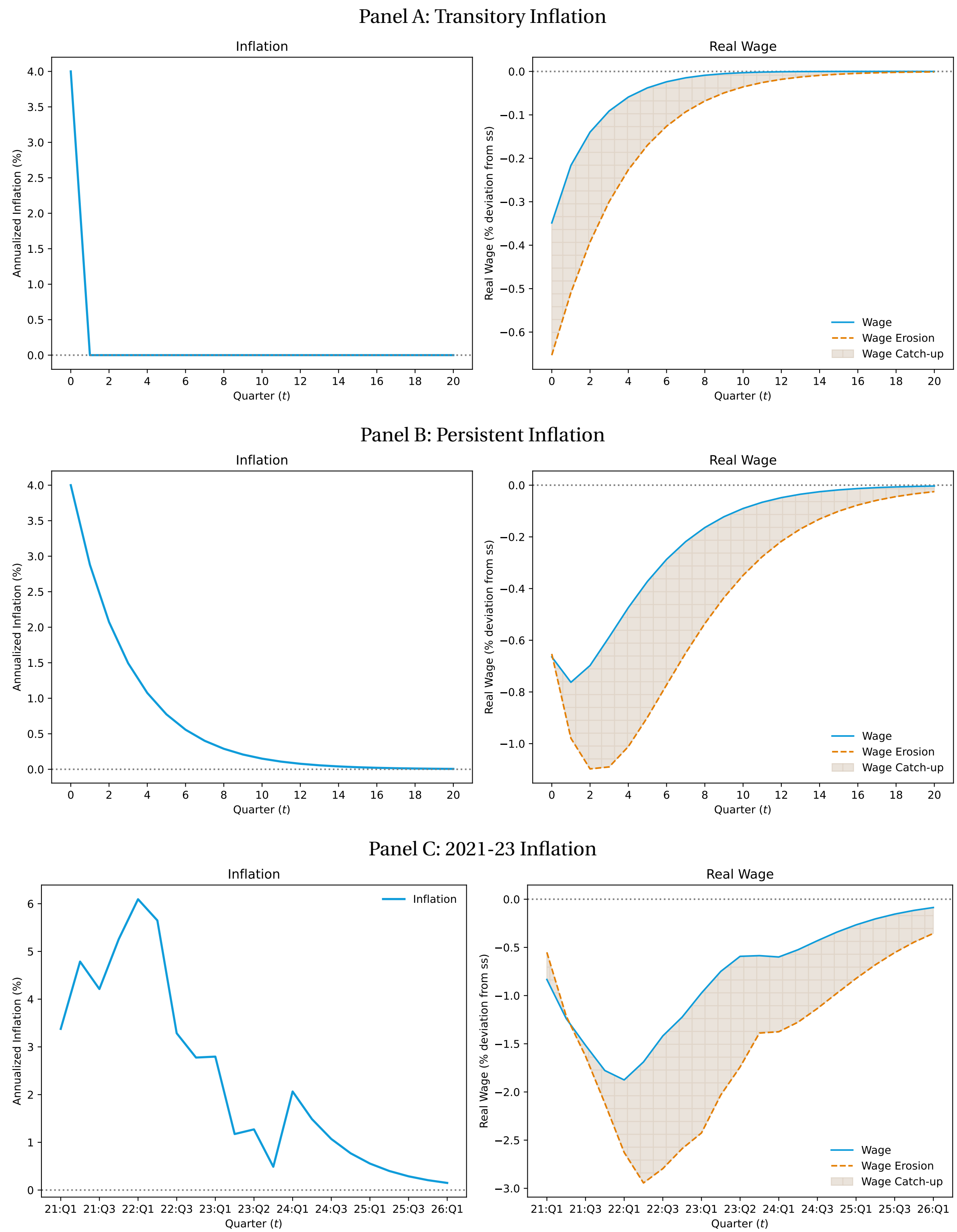
Table C.3 shows the welfare costs of inflation shocks to workers under different inflation scenarios, corresponding to Table 3 in the main text. Figure C.12 plots dynamic response of real wages and wage erosion under different inflation scenarios, corresponding to Figure 9 in the main text. The ratio of aggregate costs of inflation due to conflict to the overall costs of inflation is close to or above 50% for all inflation scenarios, verifying the robustness of the conflict channel's importance.

Table C.3: Decomposing the Impact of Inflation Shocks on Worker Welfare – Difficult Conversations with Employers in 2023

	Overall Welfare Impact	**Real Wage Response**	**Impact due to Conflict**
Transitory inflation	−0.64%	−0.24%	−0.41%
Persistent inflation	−2.24%	−1.12%	−1.12%
2021-23 inflation	−7.37%	−4.03%	−3.33%

Notes: the first column shows the overall impact on worker welfare after the transitory inflation shock (row 1), the persistent inflation shock (row 2), and the 2021-2023 inflation (row 3), as a percent of annual consumption. The second column shows the response of the present value of real wages in each scenario, again as a percent of annual consumption. The final column shows the welfare impact from aggregate costs of inflation due to conflict, $-\hat{\mathcal{X}}$, again as a percent of annual consumption. We calibrate the conflict cost parameters (κ, λ) using the subset of respondents who took action in 2023 by having a difficult conversation with their employers.

Figure C.12: Real Wage Dynamics and the Aggregate Costs of Inflation due to Conflict – Difficult Conversations with Employers in 2023



Notes: each panel plots the response to a given inflation scenario. In Panel A, there is a transitory shock to inflation lasting one quarter. In Panel B, there is a persistent shock, that decays at quarterly rate $\rho = 0.72$. In Panel C, the shock to inflation is given by annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. In the left figure of each panel, we plot the path of annualized inflation shock. In the right panel, we plot the percent deviation of the real wage from the steady state in the solid blue line. We also plot wage erosion in the dashed orange line, which captures the impact of inflationary shocks on worker welfare. The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict. We calibrate the conflict cost parameters (κ, λ) using the subset of respondents who took action in 2023 by having a difficult conversation with their employers.

C.9 Alternative Calibration – Respondents with $\Delta W^* \geq 4\%$

Here, we consider an alternative calibration in which we estimate the conflict cost parameters (κ, λ) using only the subset of respondents who report conflict-induced nominal wage growth $\Delta W^* \geq 4\%$. Those respondents' elicitation questions display no negative default nominal wage growth, so their elicitation is not affected by aversion to nominal wage cuts (as discussed in Appendix D.3). For this subset of respondents, 6.65% have a zero elicited conflict threshold, and the median conflict threshold for those with a positive elicited conflict threshold is 2.25%. This implies $(\kappa, \lambda) = (12.01\%, 1.71\%)$. All other parameters are as in Table 2.

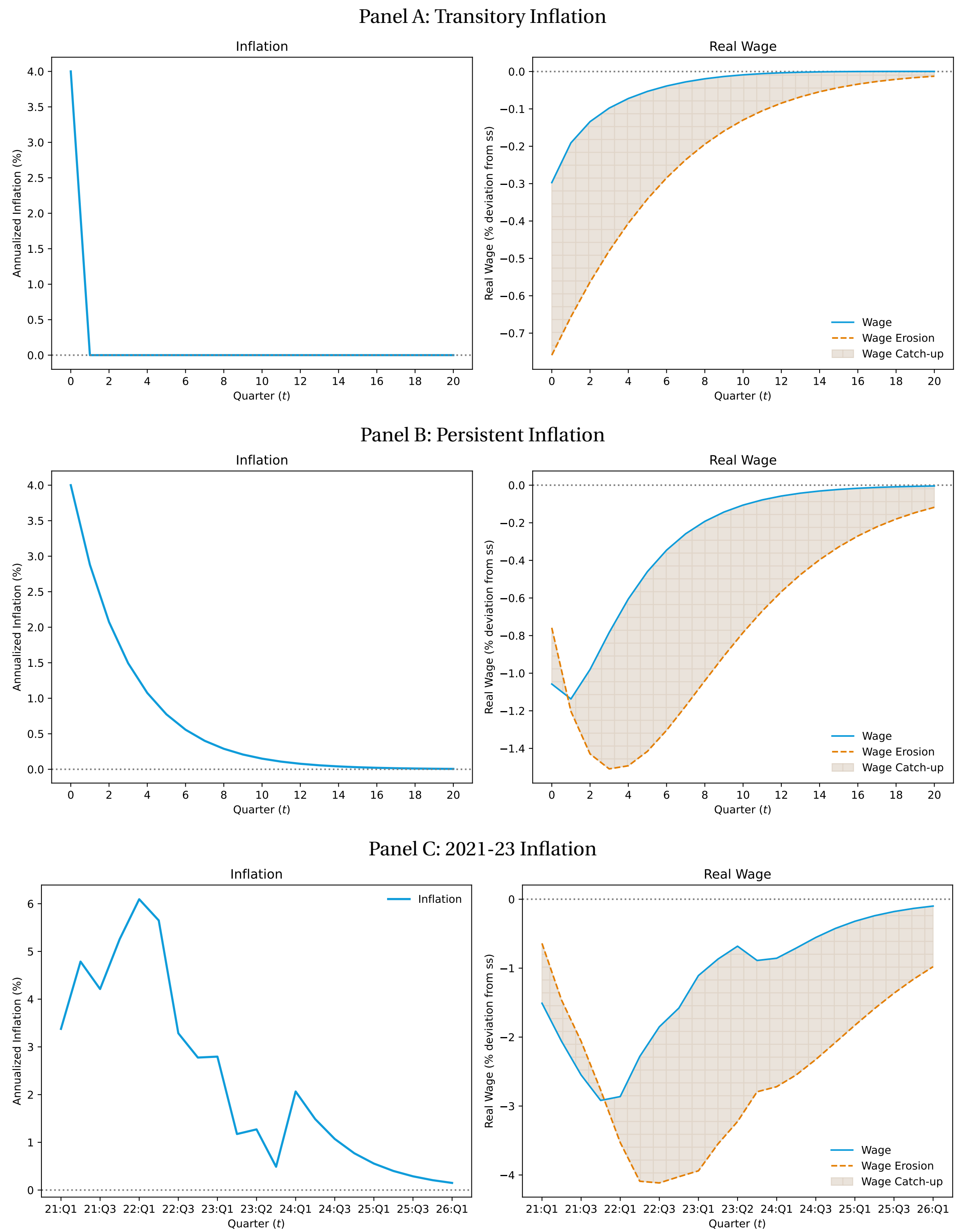
Table C.4 shows the welfare costs of inflation shocks to workers under different inflation scenarios, corresponding to Table 3 in the main text. Figure C.13 plots dynamic response of real wages and wage erosion under different inflation scenarios, corresponding to Figure 9 in the main text. The ratio of aggregate costs of inflation due to conflict to the overall costs of inflation is above 50% for all inflation scenarios, verifying the robustness of the conflict channel's importance.

Table C.4: Decomposing the Impact of Inflation Shocks on Worker Welfare – Respondents with $\Delta W^* \geq 4\%$

	Overall Welfare Impact	**Real Wage Response**	**Impact due to Conflict**
Transitory inflation	-1.14%	-0.24%	-0.91%
Persistent inflation	-3.98%	-1.56%	-2.42%
2021-23 inflation	-13.12%	-5.96%	-7.15%

Notes: the first column shows the overall impact on worker welfare after the transitory inflation shock (row 1), the persistent inflation shock (row 2), and the 2021-2023 inflation (row 3), as a percent of annual consumption. The second column shows the response of the present value of real wages in each scenario, again as a percent of annual consumption. The final column shows the welfare impact from aggregate costs of inflation due to conflict, $-\hat{\varkappa}$, again as a percent of annual consumption. We calibrate the conflict cost parameters (κ, λ) using the subset of respondents who report a conflict-induced nominal wage growth above 4%.

Figure C.13: Real Wage Dynamics and the Aggregate Costs of Inflation due to Conflict – Respondents with $\Delta W^* \geq 4\%$

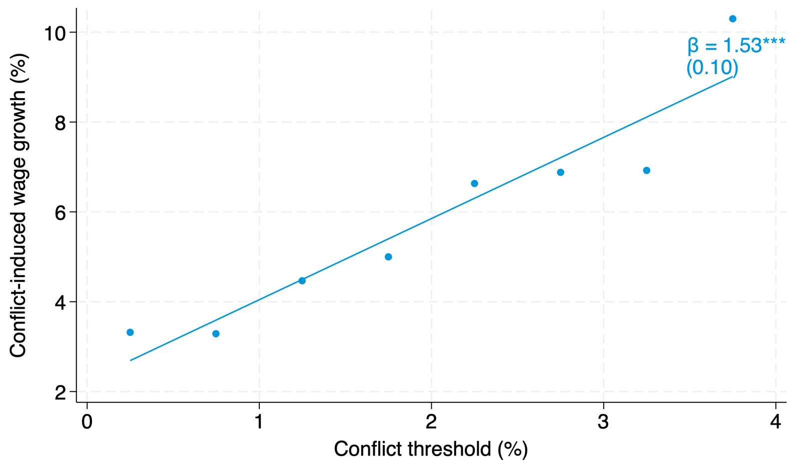


Notes: each panel plots the response to a given inflation scenario. In Panel A, there is a transitory shock to inflation lasting one quarter. In Panel B, there is a persistent shock, that decays at quarterly rate $\rho = 0.72$. In Panel C, the shock to inflation is given by annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. In the left figure of each panel, we plot the path of annualized inflation shock. In the right panel, we plot the percent deviation of the real wage from the steady state in the solid blue line. We also plot wage erosion in the dashed orange line, which captures the impact of inflationary shocks on worker welfare. The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict. We calibrate the conflict cost parameters (κ, λ) using the subset of respondents who report a conflict induced nominal wage growth above 4%.

D Heterogeneity in Conflict Thresholds

D.1 Conflict Thresholds and Conflict-induced Nominal Wage Growth in the Survey

Figure D.1: Conflict Thresholds and Conflict-induced Nominal Wage Growth



Notes: This figure plots a binned scatter of conflict-induced nominal wage growth over the next 12 months (ΔW^*, y-axis) against the elicited conflict threshold ($\mathbb{T}$, x-axis), based on the hypotheticals in Figure 5. The sample is restricted to respondents who report conflict-induced nominal wage growth below 50% and first engage in conflict then accept the default wage offer when eliciting $\mathbb{T}$. The solid line shows the fitted linear relationship from an OLS regression. The slope coefficient (β), standard error in parentheses, and significance stars are reported in the top right corner. Stars denote levels of statistical significance: 1% (***), 5% (**), and 10% (*).

D.2 Model with Heterogeneous Conflict Costs

One explanation for the previous pattern is heterogeneity in respondents' conflict costs. Intuitively, workers with higher conflict costs, and higher thresholds $\mathbb{T}$, engage in conflict less frequently and so, on average, their conflict-induced nominal wage growth ΔW^* is higher. This extension also captures the dispersion in elicited conflict thresholds in Figure 6. In this extension, we also verify that the ratio of aggregate costs of inflation due to conflict to the overall costs of inflation is still above 50% for all inflation scenarios, verifying the robustness of the conflict channel's importance.

We modify the baseline model by assuming that workers have heterogeneous conflict costs. We assume that there are groups of otherwise identical workers with heterogeneous conflict costs. Each group $g \in \{1, \ldots, G\}$ has mass $\pi_g \geq 0$. The conflict costs of workers in group g are determined by the same Calvo-plus structure as in the main analysis:

$$\kappa_{i,t} = \begin{cases} 0 & \text{w. prob. } \lambda \\ \kappa_g & \text{w. prob. } 1-\lambda, \end{cases}$$

where $\kappa_g \geq 0$ is heterogeneous across g. For simplicity, we keep λ the same for all groups and calibrate it as in the baseline model. This assumption can easily be relaxed. The aggregate worker welfare is now given by

$$\mathscr{W} = \sum_g \pi_g \mathscr{W}_g \quad \text{and} \quad \mathscr{W}_g = \frac{1}{\pi_g} \int_{i \in g} \mathbb{E}\left[\sum_{t=0}^{\infty} \beta^t \left(\log c_{i,t} - \kappa_{i,t} \mathscr{I}_{i,t}\right)\right] di,$$

where $\mathscr{W}_g$ denotes average welfare of workers in group g. Our previous results for $\mathscr{W}$ in Theorem 1 now apply directly to $\mathscr{W}_g$, so

$$\hat{\mathscr{W}}_g = \sum_{t=0}^{\infty} \beta^t \hat{w}_{g,t}^{\text{erosion}} = \sum_{t=0}^{\infty} \beta^t \hat{w}_{g,t} - \sum_{t=0}^{\infty} \beta^t \hat{w}_{g,t}^{\text{catch-up}}.$$

Averaging across all groups implies that Theorem 1 can also be extended for the impact of inflation shocks on aggregate worker welfare in this model:

$$\hat{\mathscr{W}} = \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{erosion}} = \sum_{t=0}^{\infty} \beta^t \hat{w}_t - \sum_{t=0}^{\infty} \beta^t \hat{w}_t^{\text{catch-up}},$$

where $\hat{w}_t \equiv \sum \pi_g \hat{w}_{g,t}, \hat{w}_t^{\text{erosion}} \equiv \sum \pi_g \hat{w}_{g,t}^{\text{erosion}}$, and $\hat{w}_t^{\text{catch-up}} \equiv \sum \pi_g \hat{w}_{g,t}^{\text{catch-up}}$. The same characterizations of wage erosion in Proposition 2 applies to the wage erosion of group g:

$$\hat{w}_{g,t}^{\text{erosion}} = -\left(1-\gamma\right) \sum_{s=0}^{t} \Phi_{g,t-s}^{ss} \hat{\pi}_s,$$

with $\left\{\Phi^{ss}_{g,k}\right\}$ capturing the probability that the employer's default wage offer "survives" without conflict for k periods at steady state for the group g. Define $\Phi^{ss}_k \equiv \sum \pi_g \Phi^{ss}_{g,k}$ for all k. Then, aggregate wage erosion is given by:

$$\hat{w}^{\text{erosion}}_t = -\left(1-\gamma\right) \sum_{s=0}^{t} \Phi^{ss}_{t-s} \hat{\pi}_s.$$

We set $G = 8$ to match the empirical distribution of elicited conflict thresholds $\mathbb{T}$ in Figure 6, ranging from 0.25% to 3.75%.[48] We set the mass π_g equal to the relative frequency of workers in each group. We then calibrate κ_g for each group to match the elicited conflict threshold for that group. We fix all other parameters as in Table 2.

Table D.1 shows the welfare costs of inflation shocks to workers under different inflation scenarios, corresponding to Table 3 in the main text. Figure D.2 plots dynamic response of real wages and wage erosion under different inflation scenarios, corresponding to Figure 9 in the main text. The ratio of aggregate costs of inflation due to conflict to overall costs of inflation is above 50% for all inflation scenarios, verifying the robustness of the conflict channel's importance.

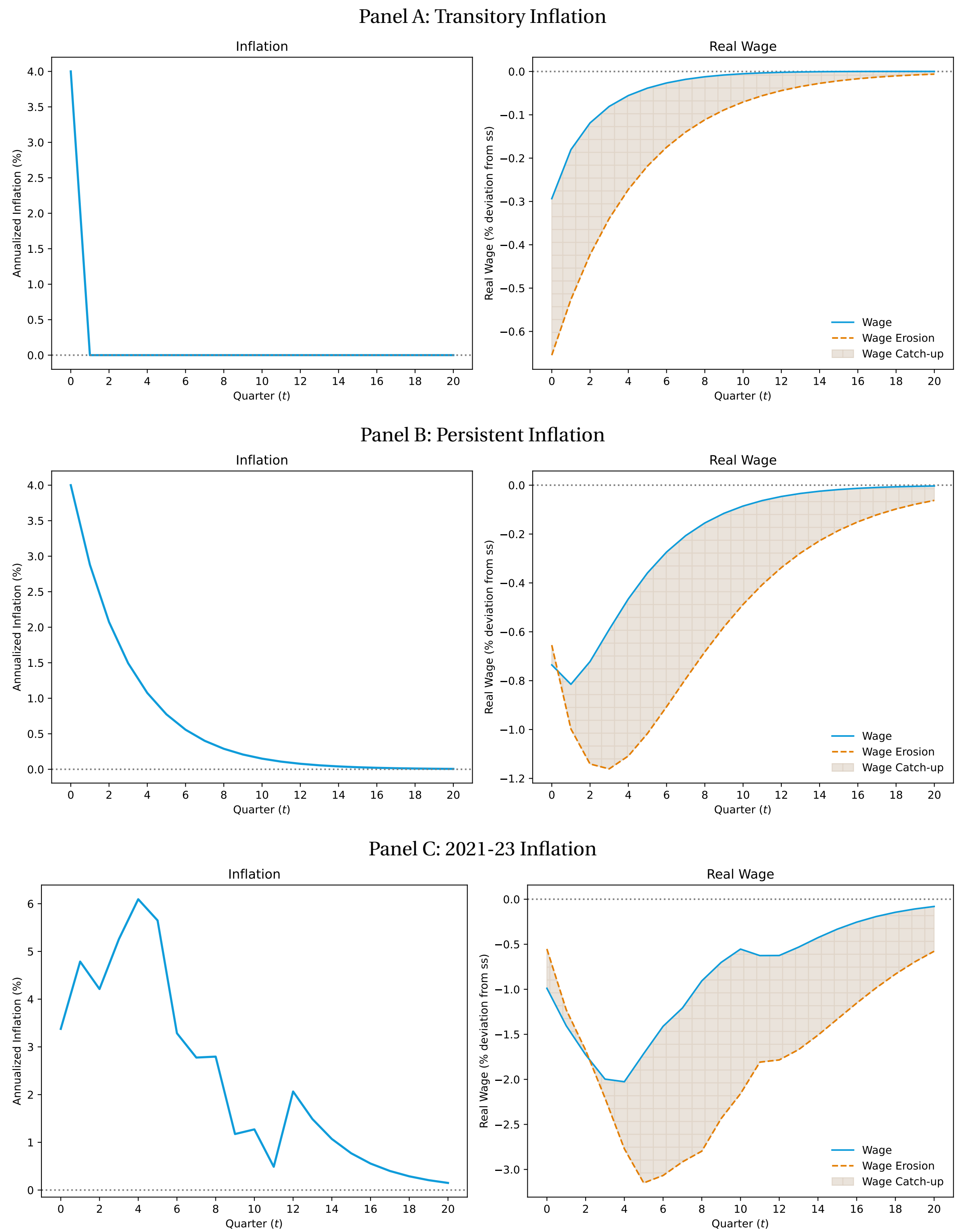
Table D.1: Decomposing the Impact of Inflation Shocks on Worker Welfare – Heterogeneous Conflict Costs

	Overall Welfare Impact	**Real Wage Response**	**Impact due to Conflict**
Transitory inflation	−0.80%	−0.21%	−0.59%
Persistent inflation	−2.79%	−1.16%	−1.62%
2021-23 inflation	−9.18%	−4.34%	−4.84%

Notes: the first column shows the overall impact on worker welfare after the transitory inflation shock (row 1), the persistent inflation shock (row 2), and the 2021-2023 inflation (row 3), as a percent of annual consumption. The second column shows the response of the present value of real wages in each scenario, again as a percent of annual consumption. The final column shows the welfare impact from aggregate costs of inflation due to conflict, $-\hat{\varkappa}$, again as a percent of annual consumption. The table is based on the extension with heterogeneous conflict costs in Appendix Section D.2.

[48] As in Figure D.1, to which we compare this extension, we restrict attention to respondents who first engage in conflict and then accept the default offer. For those who always engage in conflict with their employers, we use them to calibrate the probability of a free wage catch-up in our model λ and, for simplicity, assume that λ is the same for all groups g. We remove workers who would never engage in conflict in our elicitation of the conflict threshold of Figure 6 since their elicited $\mathbb{T}$ is not well defined.

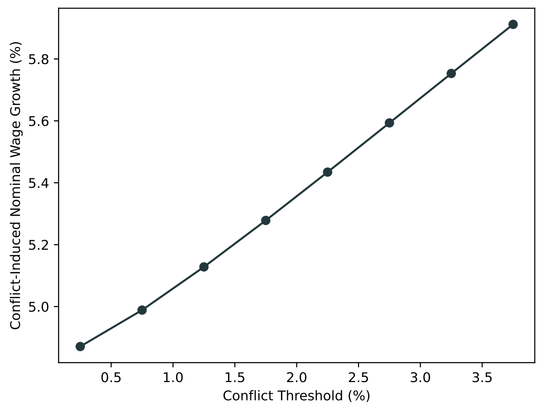
Figure D.2: Real Wage Dynamics and the Aggregate Costs of Inflation due to Conflict – Heterogeneous Conflict Costs



Notes: each panel plots the response to a given inflation scenario. In Panel A, there is a transitory shock to inflation lasting one quarter. In Panel B, there is a persistent shock, that decays at quarterly rate $\rho = 0.72$. In Panel C, the shock to inflation is given by annualized headline PCE inflation over 2021–2023, after subtracting the steady state inflation based on the historical mean inflation. In the left figure of each panel, we plot the path of annualized inflation shock. In the right panel, we plot the percent deviation of the real wage from the steady state in the solid blue line. We also plot wage erosion in the dashed orange line, which captures the impact of inflationary shocks on worker welfare. The gap between the two lines, shaded in gray, represents wage catch-up achieved through more frequent conflict. The figure is based on the extension with heterogeneous conflict costs in Appendix Section D.2.

This extended model with heterogeneous conflict costs also explains the untargeted positive relationship between the elicited conflict threshold and conflict-induced nominal wage growth documented in Appendix D.1: workers with higher conflict costs choose to conflict less frequently, implying that, on average, their conflict-induced nominal wage growth is also larger.

Figure D.3: Conflict Thresholds and Conflict-induced Nominal Wage Growth – Heterogeneous Conflict Costs



Notes: this figure displays the relationship between annualized conflict-induced nominal wage growth (y-axis) and conflict threshold (x-axis) based on the extension with heterogeneous conflict costs in Appendix Section D.2. The x-axis corresponds to the conflict threshold $\mathbb{T}_g$ for each worker group g. The y-axis reports the average yearly conflict-induced nominal wage growth for each worker group g, based on simulations of the evolution of workers' wages in the model over a one-year horizon.

D.3 Aversion to Nominal Wage Cuts and Elicited Conflict Thresholds

Another potential explanation for the pattern in Appendix Section D.1 is forms of reference dependence in workers' conflict decisions, such as aversion to nominal wage cuts.

In the hypothetical survey question of Figure 5, all respondents see a menu of default nominal wage growth rates spanning four percentage points below their reported conflict-induced wage growth. That is, based on the reported conflict-induced nominal wage growth, ΔW^*, we construct a menu of default nominal wage growth options where the maximum wage growth is ΔW^* and the minimum is ΔW^* minus 4 percentage points, with a gradient of 0.5 percentage points. Therefore, respondents with $\Delta W^* < 4\%$ must contemplate options with negative default nominal wage growth. An aversion to nominal wage cuts, which is a standard justification for downward nominal wage rigidity, can potentially affect the elicited conflict threshold of these respondents.

Figure D.4 below explores the importance of aversion to nominal wage cuts in the survey. In each panel, the x-axis is the conflict-induced nominal wage growth ΔW^* and the y-axis is the indifference wage growth, ΔW^{indiff}, the default nominal wage growth at which workers are indifferent between accepting their employer's default wage offer versus choosing to take costly action. The difference, $\Delta W^* - \Delta W^{\text{indiff}}$, measures the conflict threshold $\mathbb{T}$. In the left panel, we show respondents with $\Delta W^* \leq 3\%$, i.e., respondents considering default offers with negative nominal wage growth (all those below the black line). As a point of comparison, the right panel shows respondents with $\Delta W^* \geq 4\%$.[49] Lastly, the size of each bubble is the fraction of respondents that reported each ΔW^{indiff} for each given reported ΔW^* (i.e., the weight sums to 1 for each value of ΔW^*).

There are several patterns to note in the figure. First, there is "missing mass" of ΔW^{indiff} in the left panel below 0, consistent with aversion to nominal wage cuts. While the reported ΔW^{indiff} is fairly uniform within the four–percentage point interval for values in the right panel, it is less uniform on the left. This is especially true for the sample of workers with $\Delta W^* = 0\%$, where over 70% of respondents reported that they would not accept a default wage offer with below 0 nominal wage growth. Second, some respondents are willing to accept nominal wage cuts, and the fraction willing to do so decreases with ΔW^*. For example, 30% of respondents are willing to accept nominal wage cuts when ΔW^* is zero, while only 11% are willing to accept such cuts when ΔW^* is 1%.

These patterns suggest an aversion to accepting nominal wage cuts to avoid conflict, though some workers are still willing to contemplate such cuts in certain circumstances. This aversion likely lowers the estimated conflict thresholds for the 43% of the sample who reported $\Delta W^* < 4\%$.

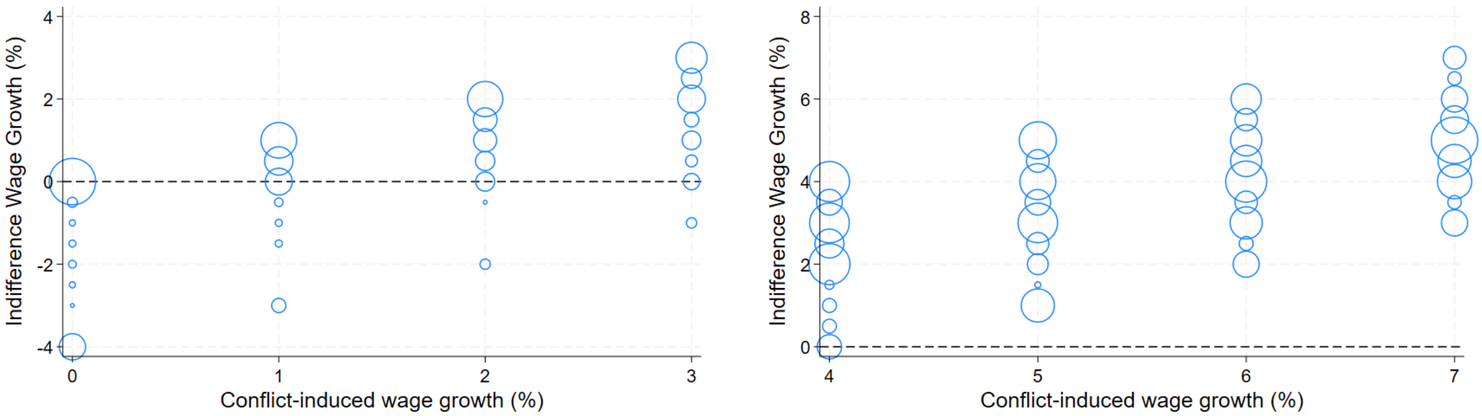
In Appendix Section C.9, we consider a calibration of the model using only the subset of respondents who report $\Delta W^* \geq 4\%$. In this subset of workers the median conflict threshold is 2.25% and

[49] We only display respondents with round-number values of ΔW^* as examples, to avoid an overly crowded figure.

the share of workers with zero conflict thresholds is 6.65%. We show that our quantitative results are robust to considering this alternative calibration. The ratio of aggregate costs of inflation due to conflict to the overall costs of inflation is even higher in this alternative calibration, owing to the higher elicited conflict threshold and thus higher conflict costs.

Figure D.4: Aversion to Nominal Wage Cuts in the Survey

A. Respondents with $\Delta W^* \leq 3\%$ B. Respondents With $\Delta W^* \geq 4\%$



Notes: this figure shows the distribution of ΔW^{indiff}, the default nominal wage growth at which workers are indifferent between accepting their employer's default wage offer versus choosing to take costly action, across different levels of conflict-induced nominal wage growth (ΔW^*). Panel A shows respondents with conflict-induced nominal wage growth $\Delta W^* \leq 3\%$, restricting to those reporting whole percentage points. Panel B shows respondents with conflict-induced nominal wage growth $\Delta W^* \geq 4\%$ and $\Delta W^* \leq 7\%$, restricting to those reporting whole percentage points. The size of each bubble is the fraction of respondents that reported each ΔW^{indiff} for each given reported ΔW^*.

E Survey Questionnaire

E.1 Pre-screening background questions

1. Before we begin, please enter your Prolific ID below.

   [Text box]

2. What is your current age in years?

   [Text box]

   [We accepted participants aged 22 to 60 years old.]

3. What is your employment status?

   [Full-Time; Part-Time; Due to start a new job within the next month; Unemployed (and job seeking); Not in paid work (e.g., homemaker, retired or disabled); Other]

   [We accepted participants who selected Full-Time or Part-Time]

4. Please describe your work

   [Employee of a for-profit company or business or of an individual, for wages, salary, or commissions; Employee of a not-for-profit, tax-exempt, or charitable organization; Local government employee (city, county, etc.); State government employee; Federal government employee; Self-employed in own not-incorporated business, professional practice, or farm; Self-employed in own incorporated business, professional practice, or farm; Working without pay in family business or farm; None of the above]

   [We rejected participants who selected Self-employed in own not-incorporated business, professional practice, or farm; Self-employed in own incorporated business, professional practice, or farm or Working without pay in family business or farm]

E.2 Consent

This is a consent form. Please read and click below to continue.

Study background: this is a study by researchers at the London School of Economics, the University of Chicago, and the University of California. Your participation in this research will take approximately 7 minutes.

What happens in this research study: if you decide to participate, you will be asked to complete a series of questions about your perceptions of inflation, the costs of inflation, and how you negotiate your pay. You will also answer basic questions about demographics.

Compensation: there are no costs to you for participating in this research study, except for your time. On completion of the survey, you will be redirected to Prolific. You will be paid around $1.50 for completing the survey.

Risks: Your involvement in this study poses no additional risks beyond those encountered in daily life.

Benefits: Participating in this research offers compensation, as detailed earlier. Additionally, the findings may contribute to society by informing better policymaking. This, in turn, can guide efforts to minimize the negative effects of inflation. Voluntary participation: participating in this research is voluntary. You can withdraw from the study at any time.

Confidentiality: We will collect data through a Qualtrics questionnaire in the University of Chicago system, overseen by our Research Team. All gathered data will be securely stored in a password-protected Dropbox account dedicated to this research project. Identifiable data will not be collected as part of this study. If you decide to withdraw, any collected data will be permanently deleted. De-identified information from this study may be used for future research studies or shared with other researchers for future research without your additional informed consent.

Contact: For questions, concerns, or complaints about this research, contact the researchers at danielav@uchicago.edu. For inquiries regarding the IRB process for this study, reach out to the University of Chicago IRB team at cdanton@uchicago.edu.

Agreement to participate: by clicking continue, you indicate that you have read this consent form and voluntarily agree to participate in the study.

E.3 Preamble

The button to continue will appear after 15 seconds.

The **annual inflation** rate measures how much prices in the economy rise from year to year. It is defined as the yearly growth of the general level of prices of goods and services. For example, an inflation rate of 2% means that, on average, prices for goods and services rise by 2% over 12 months. In other words, an average bundle of goods and services that costs $100 at the beginning of a year costs $102 at the end of the year. If the inflation rate is negative, it is referred to as deflation. Deflation means that, on average, prices of goods and services fall from one year to the next.

E.4 Demographics

1. How long have you been working for your current employer?

[Less than 1 year; Between 1 and 3 years (2); Between 3 and 5 years (3); Between 5 and 10 years (4); More than 10 years (5)]

2. Do most people in your occupation or industry have their pay set by a union?

[Yes; No; I don't know]

3. Which category represents your annual pre-tax individual pay from your current employer?

If you have multiple jobs, please report the pay in the job in which you have the most earnings

[15 non-overlapping brackets from $0-$9,999 to $200,000 or more]

4. What is the value of your household's **total financial investment** (checking and savings accounts, stocks, bonds, 401(k), real estate, etc.) **minus total financial liabilities** (credit card debt, mortgages, student loans, consumer loans, etc.)? If you are not sure, please estimate.

You should choose a negative range if the value of your liabilities is greater than the value of your investments.

[29 non-overlapping brackets from - $50,000 or less to $1,000,000 or more]

E.5 Experienced inflation in 2023

1. During the year 2023, did prices in general go up or down?

[*Prices in general went up; Prices in general went down; Prices in general stayed the same; I don't know]*

- **Branch:** If in Q1 of this section "Prices in general went up"

2. During the year 2023, by what percent did prices in general rise?

Please write your answer in percent. If you mean x%, input x.

[Text box]%

3. A general rise in prices in the economy, which we call inflation, can have many effects, both positive and negative. On net, do you think your household was made better or worse off because of inflation in the year 2023?

[*We were substantially worse off; We were somewhat worse off; Inflation didn't really affect our household; We were somewhat better off; We were substantially better off]*

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "We were substantially worse off" OR "We were somewhat worse off"

4. What were the biggest factors that contributed to your dislike for the rise in inflation (which is defined as the growth rate in prices) in the year 2023?

Please pick ***up to three reasons.***

[Inflation hurts my real buying power, it makes me poorer: things that I buy became more expensive more quickly than my pay rose.; Inflation reduced the value of my savings, such as my investments or pension, potentially meaning I had to change my saving behavior.; Inflation causes a lot of inconvenience: budgeting and financial planning is more difficult and confusing for me, for example, I find it

harder to comparison shop or plan my savings decisions.; Inflation is bad for society overall, for instance because inflation harms the overall economy, reduces political stability, disproportionately harms disadvantaged groups.; Inflation makes it challenging for businesses to operate effectively. When inflation is high, businesses struggle to set accurate prices for their goods and services. This leads to a poor allocation of resources and production.; Higher inflation makes it harder to know what will happen in the future.; Other, please add additional comments below [Text box]]

5. Please rank your top reasons that contributed to your dislike for the rise in inflation (which is defined as the growth rate in prices) in the year 2023, from the most (1) to the least (3) important reason.

[The options chose by respondents in the previous questions with radio buttons next to them to rank these options]

- **Same branch:**
  - **Same sub-branch:**
    - **Under sub-branch:** If in Q4 of this sub-branch "Inflation hurts my real buying power, it makes me poorer: things that I buy became more expensive more quickly than my pay rose."

6. Message: You previously suggested that a key reason that you disliked inflation was that the things that you buy became expensive more quickly than your pay rose, which reduced your standard of living. We want to understand more about your answer.

- **Same branch:**
  - **Same sub-branch:**
    - **Under sub-branch:** If in Q4 of this sub-branch not selected "Inflation hurts my real buying power, it makes me poorer: things that I buy became more expensive more quickly than my pay rose."

6. Message: You previously suggested that pay not keeping up with prices was not a key cost of inflation for your household over the past year. We want to understand a little bit more about why this is.

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "Inflation didn't really affect our household"

4. What were the reasons why you were not affected by inflation in the year 2023?

[My income, or my household's income, increased at roughly the same rate as inflation, ensuring that my real buying power did not fall as inflation rose.; My household altered our spending behavior in order to consume cheaper goods but maintain our living standards.; My household didn't notice any significant changes in the price of the goods that we buy. We could afford what we needed without cutting back on our budget.; Other, please add additional comments below[Text box]]

- **Same branch**
  - **Sub-branch:** If in Q3 of this branch "We were somewhat better off" OR "We were substantially better off"

4. Why do you think your household was made better off because of inflation in the year 2023?

[My income, or my household's income, increased at a higher rate than inflation, ensuring an increase in my real buying power; Other, please add additional comments below[Text box]]

- **Branch:** If in Q1 of this section "Prices in general went down"

2. During the year 2023, by what percent did prices in general fall?
Please write your answer in percent. If you mean x%, input x.

[Text box]%

3. A general fall in prices in the economy, which we call deflation, can have many effects, both positive and negative. On net, do you think your household was made better or worse off because of deflation in the year 2023?

[We were substantially worse off; We were somewhat worse off; Deflation didn't really affect our household; We were somewhat better off; We were substantially better off]

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "We were substantially worse off" OR "We were somewhat worse off"

4. Why do you think your household was made worse off because of deflation in the year 2023?

[Text box]

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "Deflation didn't really affect our household"

4. Why do you think your household was not really affected by deflation in the year 2023?

[Text box]

E.6 Exploring actions to increase pay

1. What was your pay growth in 2023?

Please write your answer in percent. If you mean x%, input x.

[Text box]%

2. Common strategies to increase pay include initiating a difficult conversation with your employer to ask for a raise, searching for higher paying jobs with other employers, or switching employers in order to get a raise. Moreover, you could have obtained a second job or worked longer hours to get a raise. A union could also bargain for higher pay on your behalf.

Did your employer offer you this [Stated pay growth value in Q1 in this section]% by default or did you, or a union on your behalf, use any of the actions above or other actions to increase your pay?

[My employer offered me this pay by default.; My employer did not offer me this pay by default and I, or a union on my behalf, used some of the strategies above.]

- **Branch:** If in Q2 of this section "My employer offered me this pay by default."

3. What was your motivation for accepting your employer's default wage offer and not taking other actions to negotiate a higher pay raise?

Please pick ***up to three options.***

[My company does not negotiate to increase my pay. Perhaps because they would have to lay off workers or because they can replace me with another employee.; I am unlikely to be able to find a higher paying job that suits me as well as my current job, perhaps because of the perks and benefits offered by my job, or because there are few good alternative jobs.; My company sets pay in line with the rest of the industry, and industry-wide pay is not growing, perhaps because of the state of the overall economy.; Taking actions to raise my pay, such as a difficult conversation or searching for a new job, is too difficult. These actions take too much time or effort, or risk a conflict with my employer.; My employer's default wage offer was satisfactory, because they offered wage growth in excess of the increase in my cost of living.; My contract was negotiated before the higher inflation.; Other, please add additional comments below [Text box]]

4. Please rank your top reasons for accepting your employer's default wage offer and not taking other actions to negotiate a higher pay raise, from the most (1) to the least (3) important reason.

[The options chose by respondents in the previous questions with radio bottoms next to them to rank these options]

- **Branch:** If in Q2 of this section "My employer did not offer me this pay by default and I, or a union on my behalf, used some of the strategies above."

3. Did you take any of the following actions to achieve this pay change?
Please select all that apply

[I initiated a difficult conversation with my employer about my pay; I searched for a higher paying job with other employers, to make it easier to bargain with my employer over pay; I switched employers in order to get a raise; I obtained a second job in addition to my main job; I worked longer hours or performed better at work in order to get a performance based pay increase; A union bargained for higher pay on my behalf; Other, please add additional comments below [Text box]]

4. Above, you indicated that you got a pay raise of this [Stated pay growth value in Q1 in this section]% by implementing a common strategy to increase pay such as initiating a difficult conversation with your employer to ask for a raise, searching for higher paying jobs with other employers, switching employers in order to get a raise or other. Moreover, you could have obtained a second job or worked longer hours to get a raise. A union could have also bargained for higher pay on your behalf.
If you, or possibly your union, had not implemented any of these strategies, what pay growth do you think your employer would have offered you in 2023?
Please write your answer in percent. If you mean x%, input x.

[Text box]%

5. What was your, or your union's, motivation for taking actions in order to secure a pay increase in 2023?
*Please pick **up to three options.***

[My cost of living increased due to high inflation, therefore I needed more money to fund my spending and saving plans; My performance and output in the workplace increased significantly; I always bargain for pay; It was a long time since the last time my pay had been increased; Other, please add additional comments below[Text box]]

6. Please rank your top reasons for taking actions in order to secure a pay increase in 2023, from the most (1) to the least (3) important reason.

[*The options chose by respondents in the previous questions with radio bottoms next to them to rank these options]*

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "I initiated a difficult conversation with my employer about my pay"

8. How many times in 2023 did you initiate a difficult conversation with your employer about your pay?

[Text box] times

9. Compared to a typical year, how were the conversations with your employer about pay?

[The conversations were substantially easier; The conversations were somewhat easier; The conversations were the same as a typical year; The conversations were somewhat more difficult; The conversations were substantially more difficult]

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "A union bargained for higher pay on my behalf"

10. Compared to a typical year, did your union take more actions to increase pay in 2023 (e.g., engage in a tough negotiation or go on strike)?

[Compared to a typical year, my union did not take more actions to increase pay.; Compared to a typical year, my union took more actions to increase pay. My union engaged in tougher negotiations.; Compared to a typical year, my union took more actions to increase pay. My union organized a strike.; Compared to a typical year, my union took other actions to increase pay, please add additional comments below. [Text box]]

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "I obtained a second job in addition to my main job"

11. In how many months in 2023 did you work for a second job in addition to your main job?

[Text box] months

12. Compared with a typical year, did you spend more months working on a second job in addition to your main job in 2023?

[Yes; No]

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "I searched for a higher paying job with other employers, to make it easier to bargain with my employer over pay"

13. In how many months in 2023 did you submit at least 1 job application?

[Text box] months

14. Compared to a typical year, did you submit more job applications in 2023?

[Yes; No]

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "I worked longer hours or performed better at work in order to get a performance based pay increase"

15. In how many months in 2023 did you work longer hours or did extra work to increase your performance?

[Text box] months

16. Compared to a typical year, did you work longer hours or did extra work to increase your performance in 2023?

[Yes; No]

- **Same branch:**
  - **Sub-branch:** If in Q3 of this branch "I switched employers in order to get a raise"

17. How many times in 2023 did you switch employers in order to get a raise?

[Text box] times

18. Compared to a typical year, did you switch employers more times in order to get a raise in 2023?

[Yes; No]

- **Branch:** If in Q2 of this section "My employer did not offer me this pay by default and I, or a union on my behalf, used some of the strategies above" but the only choice selected in Q2 of this section was "A union bargained for higher pay on my behalf" OR if in Q2 of this section "My employer offered me this pay by default."

19. Above, you indicated that you got a pay growth of [Stated pay growth value in Q1 in this section]% in 2023.

What pay growth do you think you could have attained in 2023 if you had taken actions such as initiating a difficult conversation with your employer to ask for a raise, searching for higher paying jobs with other employers, switching employers in order to get a raise, or others?

Please write your answer in percent. If you mean x%, input x.

[Text box] %

E.7 Employer's profits

1. During the year 2023, do you think that your employer's profits:

[Went up; Stayed the same; Went down; Not relevant - I work for a non-profit or government; I don't know]

E.8 Attention check

1. In questionnaires like ours, sometimes there are participants who do not carefully read the questions and quickly click through the survey. This means that there are a lot of random answers which

compromise the results of research studies. To show that you read our questions carefully, please enter turquoise as your answer to the next question.

What is your favorite color?

[Text box]

E.9 Future inflation

1. During the next 12 months, do you think that prices in general will go up, or go down, or stay where they are now?

[Go up; Stay the same; Go down; I don't know]

- **Branch:** If in Q1 of this section "Go up"

2. By about what percent do you expect prices to go up on the average, during the next 12 months?
Please write your answer in percent, if you mean x%, input x

[Text box] %

- **Branch:** If in Q1 of this section "Go down"

2. By about what percent do you expect prices to go down on the average, during the next 12 months?
Please write your answer in percent, if you mean x%, input x

[Text box] %

E.10 Cost of conflict

Common strategies to increase pay include initiating a difficult conversation about pay with employers, or searching for higher paid jobs with other employers. Please, think ahead to 12 months from now. Suppose that you are working at the same job at the same place you currently work, and working the same number of hours.

1. What pay growth do you think you would get by default if you do not take any strategies at your disposal to increase your pay, including the common strategies listed above?
Please write your answer in percent, if you mean x%, input x

[Text box] %

2. What pay growth do you think you would get if you do your best to increase pay using any strategies at your disposal, including the common strategies listed above?
Please write your answer in percent, if you mean x%, input x

[Text box] %

3. Your employer increases pay for everyone in your position, including you, by z% (possible values listed below). Would you accept your employer's offer without taking any actions to increase your pay or would you do your best to increase your pay using any strategies at your disposal (such as initiating a difficult conversation about pay with employers, or searching for higher paid jobs with other employers)?
Remember that you have said that if you do your best to increase pay using any strategies at your disposal, you would have a pay growth of [Stated pay growth value in Q2 in this section]%.

[9 rows presented in either descending or ascending order, each with different pay growth values. The maximum value corresponds to the pay growth stated in Q2 of this section, while the minimum value is this pay growth value minus 4. The difference between each row is 0.5 percentage points. For each row, respondents are presented with two options: "I would accept my employer's pay growth offer" or "I would do my best using any strategies at my disposal to increase my pay further."]

E.11 Hypothetical inflation

[In this section, participants were randomly assigned to one of 5 possible hypothetical inflation scenarios, either 2%, 4%, 6%, 8% or 10%.]
Consider a hypothetical situation in which inflation is expected to be [Hypothetical inflation]% in the next 12 months. Suppose that you are working at the same job at the same place you currently work, and working the same number of hours.
1. What pay growth do you think you would get by default if you do not take any strategies at your disposal to increase your pay (such as initiating a difficult conversation about pay with employers, or searching for higher paid jobs with other employers)?
Please write your answer in percent, if you mean x%, input x

[Text box] %

2. Would you accept your employer's offer without taking any actions to increase your pay or would you do your best to increase your pay using any strategies at your disposal?

[I would accept my employer's pay growth offer; I would do my best using any strategies at my disposal to increase my pay further]