Household expectations of the inflation rate are much more sensitive to inflation than to disinflation. To the extent that workers have bargaining power in wage determination, this asymmetry in their beliefs can make wages respond quickly to inflationary forces but sluggishly to deflationary ones. I microfound asymmetric household expectations using ambiguity-aversion: households, who do not know the quality of their information, overweight inflationary news since it reduces their purchasing power, and underweight deflationary news since it increases their purchasing power. I embed asymmetric beliefs into a general equilibrium model and show that, in such a model, monetary policy has asymmetric effects on employment, output, and wage inflation in ways consistent with the data. Although wages are downwardly rigid in this environment, monetary policy need not have a bias towards using inflation to grease the wheels of the labor market.