We examine inflation forecast disagreement during periods of deflation. Using a large cross-country data set of professional forecasters’ expectations, we show that the relationship between inflation outcomes and forecast disagreement is U-shaped: disagreement rises with both positive and negative inflation outcomes. The rise in disagreement goes beyond that associated with recessions and large changes in macroeconomic variables; furthermore, it cannot be accounted for by the zero lower bound. Delving deeper into the disagreement, we find that deflations are associated with movements in the left-hand tail of the forecast distribution. Econometric evidence indicates that such shifts have adverse consequences for real activity.