Monthy Report: August 2023
Based on survey responses from 14-25 August

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Headline Results
August 2023 Survey of Business Uncertainty

1. U.S. Firms Anticipate an Increase in Remote Work over the Next Five Years. (Slides 7 & 8)
2. U.S. firms remain more uncertain about future sales growth than before the pandemic. (Slide 4)
About the Survey

The Survey of Business Uncertainty (SBU) is fielded by the Federal Reserve Bank of Atlanta. It was designed, tested, and refined in cooperation with Nick Bloom of Stanford University and Steven Davis of the Hoover Institution and the University of Chicago Booth School of Business. Bloom and Davis received research support from the Sloan Foundation and the U.S. National Science Foundation. Davis also received research support from Chicago Booth.

Our monthly Survey of Business Uncertainty (SBU) goes to about 1500 panel members (as of August 2022), who occupy senior finance and managerial positions at U.S. firms. We contact panel members each month by email, and they respond via a web-based instrument.

Survey questions pertain to current, past, and future outcomes at the respondent’s firm. Our primary objective is to elicit the respondent’s subjective forecast distributions over own-firm future sales growth rates and employment levels. We also ask special questions on timely topics.

For more information on survey design and methodology, please refer to the resources on the SBU page and “Surveying Business Uncertainty,” published in the Journal of Econometrics and also available as NBER Working Paper 25956.
Nominal sales growth remains higher than before the pandemic but has fallen over the past year. Recent employment growth is in line with pre-pandemic growth.

**January 2017–August 2023**

**Realized Growth Rates over the Past Year**

NOTE: Calculated using monthly data through August 2023. Realized growth rate series for sales revenue and employment are activity-weighted averages of firms’ reported (look-back) growth rates over the past year (specifically, the previous four quarters for sales revenue and previous 12 months for employment).

NOTE: The chart shows smoothed series.

Source: Survey of Business Uncertainty conducted by the Federal Reserve Bank of Atlanta, Stanford University, and the University of Chicago Booth School of Business. For more information, see “Surveying Business Uncertainty” by David Altig, Jose Maria Barrero, Nick Bloom, Steven J. Davis, Brent Meyer, and Nick Parker, NBER Working Paper No. 25956, February 2020.
Sales revenue growth expectations have dropped in recent months. Firms remain more uncertain about future revenue growth than they were before the pandemic.

NOTE: The charts show smoothed series.

Source: Survey of Business Uncertainty conducted by the Federal Reserve Bank of Atlanta, Stanford University, and the University of Chicago Booth School of Business. For more information, see “Surveying Business Uncertainty” by David Altig, Jose Maria Barrero, Nick Bloom, Steven J. Davis, Brent Meyer, and Nick Parker, NBER Working Paper No. 25956, February 2020.
Expected employment growth has dropped in recent months. Uncertainty about employment growth has returned to pre-pandemic levels.

Source: Survey of Business Uncertainty conducted by the Federal Reserve Bank of Atlanta, Stanford University, and the University of Chicago Booth School of Business. For more information, see “Surveying Business Uncertainty” by David Altig, Jose Maria Barrero, Nick Bloom, Steven J. Davis, Brent Meyer, and Nick Parker, NBER Working Paper No. 25956, February 2020.

NOTE: The charts show smoothed series.
The distribution of realized sales growth remains wider than it was in the pre-pandemic period.

**January 2017–August 2023**

**Distribution of Sales Growth Rates over the Past Year**

NOTES: Calculated using monthly data through August 2023. The chart shows smoothed series. Lines show percentiles of the activity-weighted distribution of firm-level sales growth rates over the past year.

Source: Survey of Business Uncertainty conducted by the Federal Reserve Bank of Atlanta, Stanford University, and the University of Chicago Booth School of Business.
U.S. Firms Anticipate an Increase in Remote Work over the Next Five Years

For the three questions on this screen, consider employees who travel or otherwise spend time at client or customer sites to be in-person/on-site.

Thinking back five years ago, what share of your firm’s full-time employees were in each category in 2018? Answers should sum to 100

Currently, what share of your firm’s full-time employees are in each category? Answers should sum to 100

Looking forward to five years from now, what share of your firm’s full-time employees do you expect to be in each category in 2028? Answers should sum to 100

Note: “Hybrid” refers to full-time employees who work remotely 1, 2, 3 or 4 days in a typical week. Results not weighted.

Source: Survey of Business Uncertainty (SBU), 595 firms sampled from July 10-21, 2023. For more information, see the SBU website maintained by the Federal Reserve Bank of Atlanta and “Surveying Business Uncertainty” by Altig et al., Journal of Econometrics (November 2022).
U.S. Firms Anticipate an Increase in Remote Work over the Next Five Years

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Note: “Hybrid” refers to full-time employees who work remotely 1, 2, 3 or 4 days in a typical week. Results weighted by employment size.

Source: Survey of Business Uncertainty (SBU), 595 firms sampled from July 10-21, 2023. For more information, see the SBU website maintained by the Federal Reserve Bank of Atlanta and “Surveying Business Uncertainty” by Altig et al., Journal of Econometrics (November 2022).
We compute the subjective mean growth rates when constructing first moments. The first month's growth rate is $\text{Mean}_t(F_{\text{EMP}})$, averaging across all firms responding that month. We then obtain the expected job reallocation rate index value for month $t$. This is $\text{Mean} (\text{EMP}_t)$, the average of its month $t$ employment or sales growth rates, minus the absolute value of the average activity weighted mean growth rate expectation and uncertainty by the average of its month $t$ employment ($E_{\text{EMP}}$) and its expected employment level ($E_{\text{FEMP}}$). We top-code these weights at 500 for the employment index and 1000 for the sales index to diminish the influence of outliers among very large firms. We compute these subjective mean growth rates as described on slide 3, and winsorize them at the first and 99th percentiles before using them to construct the index.

When constructing first- and second-moment employment growth indexes, we weight firm $i$'s subjective mean growth rate expectation and uncertainty by the average of its month $t$ employment ($E_{\text{EMP}}$) and its expected employment level ($E_{\text{FEMP}}$). We top-code these weights at 500 to diminish the influence of outliers among very large firms. We construct forward-looking indices of excess job and sales revenue reallocation. These series measure the volume of cross-firm reallocation in economic activity above the reallocation required to support aggregate growth. For ease of exposition, we often refer to these as simply “reallocation rates”.

First, in each month $t$, we compute the activity-weighted average of own-firm expected gross job creation and destruction rates, which boils down to the activity-weighted average of the absolute value of subjective mean growth rates $|\text{Mean}(\text{EMP}_t)|$. Then, in each month $t$, we compute the absolute value of the activity weighted average of own-firm expected employment growth $\text{Mean}(\text{EMP}_t)$, which is effectively the absolute value of the employment growth expectations index in month $t$.

We then obtain the expected job reallocation rate index value for month $t$ by subtracting the outcome of the second bullet from the first. Letting $w_i$ be firm $i$’s activity weight in month $t$, we refer to these as simply “reallocation rates”.

**Expected Job Reallocation Rate** $= \sum \left( w_i \cdot |\text{Mean}(\text{EMP}_t)| \right) - \sum \left( w_i \cdot \text{Mean}(\text{EMP}_t) \right)$

**Analogously, the expected sales revenue reallocation rate index in month $t$ is the difference between the activity-weighted average of absolute expected sales growth rates, minus the absolute value of the average activity-weighted growth rate:**

$$\text{Expected Reallocation Rate For Sales Revenue}_t = \sum w_i \cdot |\text{Mean}(\text{Sale}_t)| - \sum w_i \cdot \text{Mean}(\text{Sale}_t)$$

We compute the subjective mean growth rates $\text{Mean}(\text{EMP}_t)$ and $\text{Mean}(\text{Sale}_t)$ as described on slides 18-21, and winsorize them at the 1st and 99th percentiles before using them to construct the index.

Firm $i$’s activity weight $w_i$ is the average of its month $t$ employment or sales level ($E_{\text{EMP}}$, or $E_{\text{FEMP}}$ or $E_{\text{Sale}}$) and its expected employment or sales level twelve months hence ($E_{\text{FEMP}}$, or $E_{\text{FSale}}$). We top-code these weights at 500 for employment and at the 80th percentile for sales to diminish the influence of outliers among very large firms.

### Computing Moments of the Firm-Level Subjective Forecast Distributions

We calculate first and second moments of the subjective growth rate distributions of employment and sales revenue over the next 12 months or four quarters, as appropriate. Following standard practice in the literature on business-level dynamics, we calculate the growth rate of $x$ from $t-1$ to $t$ as $g(x) = (x_t - x_{t-1}) / (x_t + x_{t-1})$. We calculate the growth rate of $x$ from $t-1$ to $t$ as $g(x) = (x_t - x_{t-1}) / (x_t + x_{t-1})$. We then obtain the expected job reallocation rate index value for month $t$. This is $\text{Mean} (\text{EMP}_t)$, the average of its month $t$ employment or sales growth rates, minus the absolute value of the average activity weighted mean growth rate expectation and uncertainty by the average of its month $t$ employment ($E_{\text{EMP}}$) and its expected employment level ($E_{\text{FEMP}}$). We top-code these weights at 500 for the employment index and 1000 for the sales index to diminish the influence of outliers among very large firms.
Appendix: Subjective Forecast Distribution of Future Sales Growth Rates at a One-Year Horizon

January 2017–August 2023

Subjective Distribution of Future Sales Growth Rates at a One-Year Horizon

NOTES: Calculated using monthly data through August 2023. The charts show smoothed series. This is a plot of the subjective distribution for the representative firm’s future sales growth rates over a 4-quarter look-ahead horizon. To calculate this distribution, we pool over all firm-level subjective forecast distributions in the indicated month and weight each firm by its activity level. Then we use the probabilities assigned to each possible future sales growth rate to obtain activity-weighted quantiles of the future sales growth rate distribution.

Source: Survey of Business Uncertainty conducted by the Federal Reserve Bank of Atlanta, Stanford University, and the University of Chicago Booth School of Business.
Appendix: Histogram of survey response frequency for the August 2023 survey wave

Source: Survey of Business Uncertainty conducted by the Federal Reserve Bank of Atlanta, Stanford University, and the University of Chicago Booth School of Business.