

COVID-19 Is Also A Reallocation Shock

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Chief Empirical Message

In addition to driving a huge economic contraction, the COVID-19 pandemic is also a major reallocation shock.

- **For every 10 layoffs between March 1 and mid-May, American firms hired 3 to 4 new workers.** (Think Amazon, Wal-Mart, CVS Healthcare, Lowe's home improvement chain, Domino's Pizza,...)
- **32-42% of COVID-induced layoffs since March will be permanent in the sense that job losers won't return to their old jobs.**
- **Full work days performed at home will triple *after* the pandemic as compared to before the pandemic.** About one-fifth of office worker days will shift from business premises to home.
- **Since the pandemic struck, firm-level forecasts (at a one-year horizon) imply rates of expected job and sales reallocation that are 2 to 4 times larger than before the pandemic.**
- **The cross-firm dispersion of stock market returns spiked in the wake of the COVID-19 pandemic.**

Assessing Near-Term Impact on Jobs

- April Survey of Business Uncertainty: “We would like to ask how developments related to the coronavirus are affecting staffing levels at your firm.”
 - "Since March 1, we made the following staffing changes in response to developments related to the coronavirus.”
 - “Over the next four weeks, we expect to make the following staffing changes in response to developments related to the coronavirus.”

Response categories: Temporary layoffs and furloughs, permanent layoffs, new hires, cuts in contractors and leased workers, additions to contractors and leased workers.

- Survey Response Period: April 13-24, 2020

Findings

1. The COVID shock caused net job losses from March 1 through mid-May equal to 13.7% of March 1 employment. Very similar to Cajner et al. (2020) for continuing firms over same period
2. The shock caused 3 new hires for every 10 layoffs during this period, according to SBU data
 - March-April JOLTS data: 4.3 hires for every 10 layoffs
 - JOLTS: Gross hiring rate fell from 4.6% in January and February to 3.9% in March and April 2020.
 - Weekly Census data derived from administrative records: Gross business formation was depressed, but not moribund, in the near-term wake of the pandemic, and it has largely recovered. See Figure 3 in the paper.

Findings

3. Firms see 77% of their layoffs as temporary, 23% as permanent (SBU Data)

- A Washington Post/IPSOS poll in late April/early May also finds that 23% of job losses were perceived as permanent.
- 23% of claimants for unemployment benefits in California during March-May 2020 perceive their layoffs as permanent at the time of filing.
- Appendix A derives two CPS-based estimates for the permanent-layoff share – 26% and 34% – depending on how we treat persons absent from work with pay for “other reasons.”

How Many Permanent Layoffs, Ultimately?

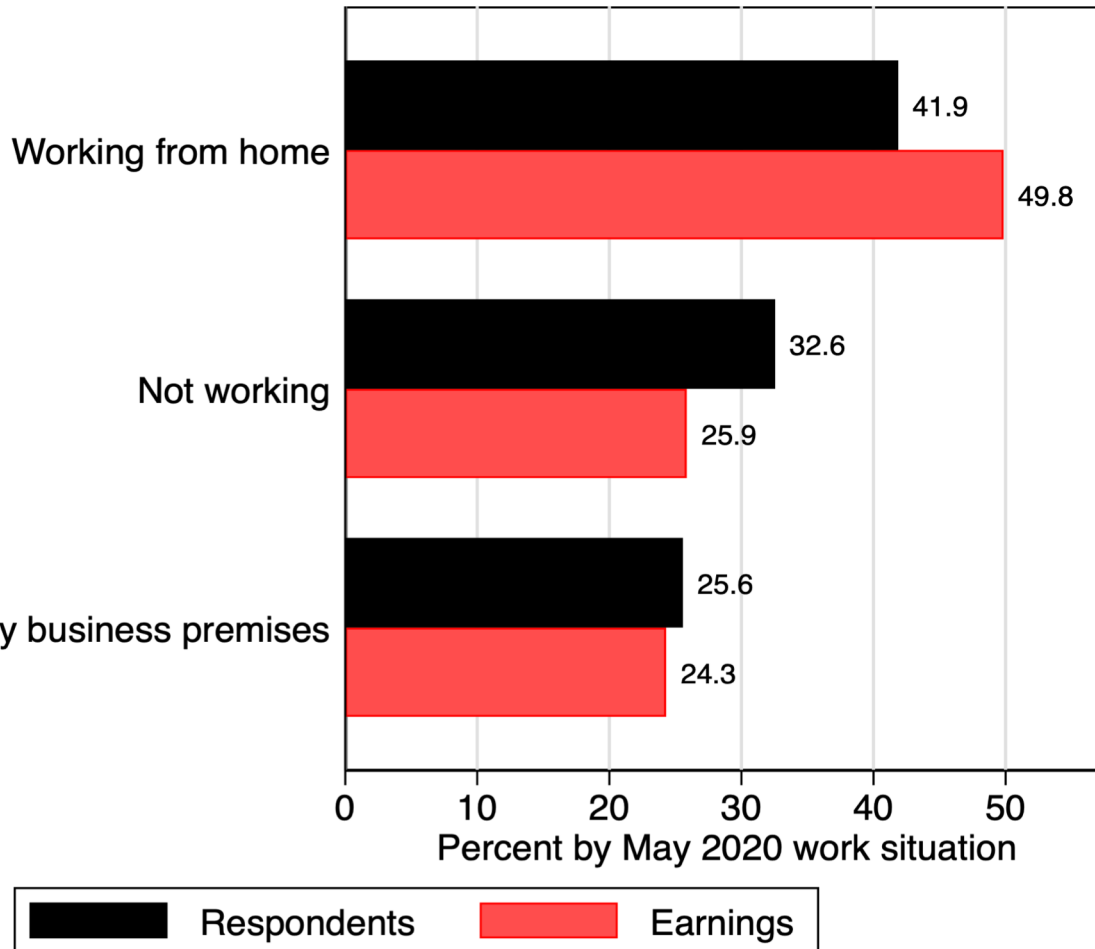
Historically, many “temporary” layoffs don’t lead to actual recalls. That suggests the 23% permanent-layoff share of recent job losses in the SBU, WP/Ipsos poll, and California claimants is too optimistic about the realized recall rate.

To project the realized permanent-layoff share, we apply evidence from two studies:

- Katz and Meyer (1990): 72% of UI recipients who expected recall were actually recalled. 13% of ex ante “permanent” layoffs were also recalled.
- Moscarini (based on Fujita and Moscarini, 2017) obtains actual recall rates of 87.5% and 6.6%.

Using realized recall rates in these studies (as a function of perceived layoff status), we project a realized permanent-layoff share of 32% to 42% for COVID-induced job losses.

Working from Home Accounts for > 60% of U.S. Labor Services Supplied in May 2020



Implies 62% of labor services supplied at home, 67% when weighting by earnings.

Brynjolfsson et al. find similar results in independent work.

Based on a survey of 2,500 U.S. residents, 20 to 64, who earned more than \$20,000 in 2019. Fielded from 21-29 May by QuestionPro on behalf of Stanford University. We reweight the sample to match the CPS by earnings class/industry/state.

The Post-Pandemic Shift to Working from Home

More than one-tenth of full work days will shift from business premises to home

Survey of Business Uncertainty (May 11 - May 22 2020)



What percentage of your <u>full-time</u> employees...					
(Employment-weighted Mean) Share of employees that ...					
	Rarely or never	1 full day per week	2 to 4 full days per week	5 full days per week	Paid working days at home as a percent of all working days
...Worked from home in 2019?	90.3%	3.4%	2.9%	3.4%	5.5%
...Will work from home after the coronavirus pandemic?	73.0%	6.9%	9.9%	10.3%	16.6%

BLS' American Time Use Survey (2017-2018)

	Rarely or never	1 full day per week	2 to 4 full days per week	5 full days per week	Paid working days at home as a percent of all working days
Full-Time Workers	89.8%	3.8%	3.8%	2.6%	5.2%

Disaggregated results say that one-fifth of all office worker days will shift from business premises to home.

Forward-Looking Measures of Reallocation

Each month, the SBU asks executives to forecast their own-firm outlook for jobs and sales at a one-year forecast horizon.

We use these forecasts to compute the expected excess job reallocation rate:

*Gross expected job gain rate among firms that expect to grow **plus**
Gross expected job loss rate among firms that expect to shrink
minus | Net expected job growth rate among all firms |*

We do the same for sales using sales forecasts.

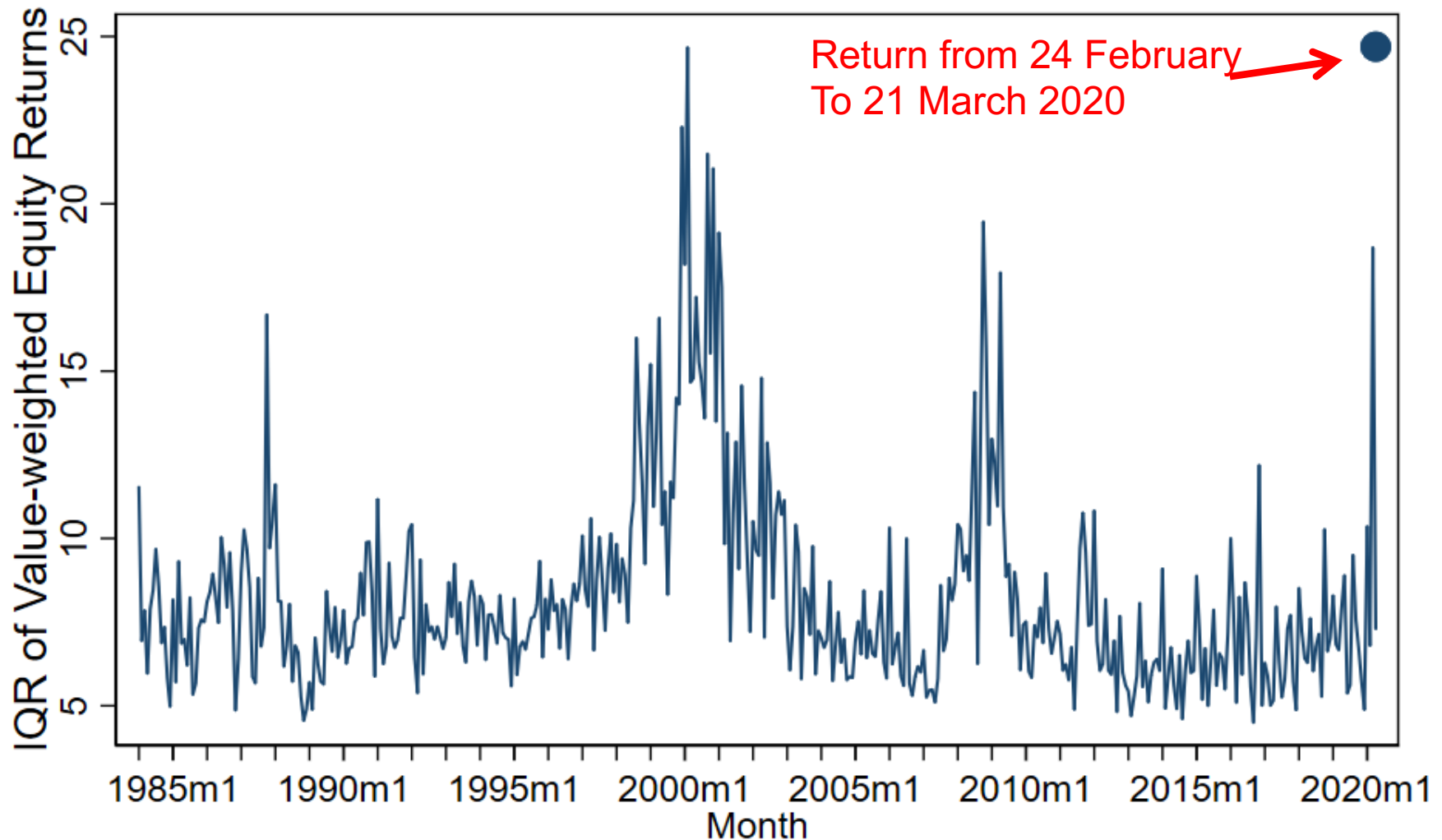
Our measures are forward-looking analogs to the backward-looking excess reallocation measures studied in Dunne, Roberts and Samuelson (1989), Davis and Haltiwanger (1992), and many other papers.

Expected Excess Reallocation Rates for Sales and Jobs at a One-Year Look-Ahead Horizon

Time Period	Expected Excess Reallocation Rates	
	Sales Revenue	Jobs
September 2016 to January 2020	0.97	2.23
April to June 2020	5.53	4.53

Notes: Authors' calculations using mxco data from the Survey of Business Uncertainty. We compute the indicated activity-weighted statistic for each month, and we then average over months in the Time Period to obtain the reported entries.

Dispersion of Monthly Firm-Level Stock Returns, January 1984 to April 2020, Using Closing Prices on Last Trading Day of the Month



Some Economics of Persistence

Why the massive, pandemic-induced shifts in consumer spending, working arrangements, and business practices will not (and should not) fully reverse:

1. >50% of employees were working from home as of May 2020. Persons and organizations have become better at remote interactions. This type of learning by doing is a source of persistence in the new working arrangements.
2. Millions of households have tried online shopping and delivery services in recent months, and many will continue to value the convenience and (perceived) safety.
3. After turning to virtual meetings out of necessity, many businesses will find they offer an easier, cheaper alternative to travel and in-person meetings.
4. Spurred by the pandemic, businesses and other organizations are undertaking investments in equipment, infrastructure and platforms that raise employee effectiveness when working remotely or engaging customers virtually.
5. Also spurred by the pandemic, leading technology companies plan to intensify efforts to develop new products that improve remote interactivity.
6. COVID has knocked down regulations that had inhibited a shift from in-person to virtual interactions, especially in the delivery of healthcare services.

Policy Message

Key elements of the U.S. policy response to the pandemic and legacy features of the U.S. policy landscape will impede the reallocation of jobs, workers and capital, slowing the recovery. Examples:

- Unemployment benefits > worker earnings
- Policies that subsidize employee retention irrespective of employer's business outlook.
- Licensing restrictions that impede worker mobility across occupations/jobs and states.
- Regulations that deter business entry and expansion – e.g., Certificate of Need laws in healthcare
- Land-use restrictions that deter the movement of jobs and workers to productive locations

A Case in Point

The U.S. Treasury struck an agreement with ten major airlines in mid-April to provide \$25 billion in subsidies in return for barring layoffs and furloughs before October. But demand for air travel won't recover any time in the near future.

- Relative to a year earlier, passenger counts at U.S. airports are down 93 percent on 31 March 2020, 94 percent on 30 April and 87 percent on 30 June.
- As of mid-June, American Airlines plans to restart 55 percent of its domestic flights in July while keeping international flights at 20 percent of pre-pandemic levels. Actual capacity will rise much less, because airlines are blocking many seats to maintain social distancing and allay passenger concerns about infection.
- American Airlines and United Airlines announced in May plans to cut management and administrative ranks by 30 percent.
- Boeing plans to cut 13,000 jobs in the U.S. in view of the collapse in air travel, and its suppliers have announced additional job cuts.
- In circumstances like these, employee-retention subsidies for the airline industry delay the redeployment of workers and other productive inputs to more efficient uses during the crisis and afterwards.
- Zombie jobs are not a path to recovery.