Banque de France and OECD

Telework and Productivity

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The views expressed here are my own and do not necessarily represent those of the Federal Reserve Bank of San Francisco or others associated with the Federal Reserve System.

Personal example of the benefits of telework



My San Francisco commute pre-pandemic



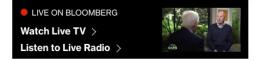
Preparing for this talk, with my collaborator

Business

Pandemic Blows Up Old Business Habits, Opening Path to a Boom

By <u>Craig Torres</u> +Sign Up November 9, 2021, 10:00 AM GMT+1

- ► Companies find new ways to match staff, tech, customer demands
- ► U.S. productivity has accelerated and profits hit record highs

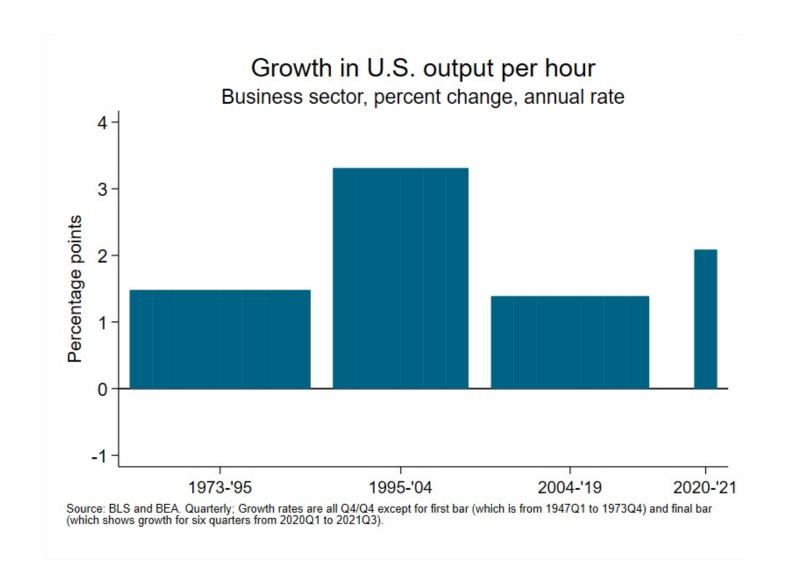


Are we on the cusp of the new 'Roaring '20s'?

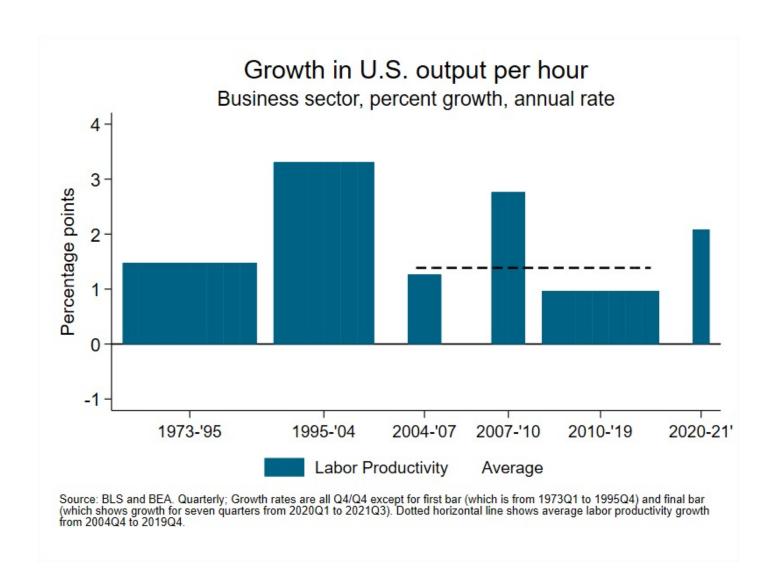
BUSINESS

Could the pandemic have us on the edge of another "Roaring 20s", the economy about to take off with bigger and better growth, investment and wages? Or once the immediate disruptions are sorted, are we doomed to slide back into our pre-COVID malaise of weak investment, soft growth and stagnant real take-home wages — a general timidity and wariness of risk?

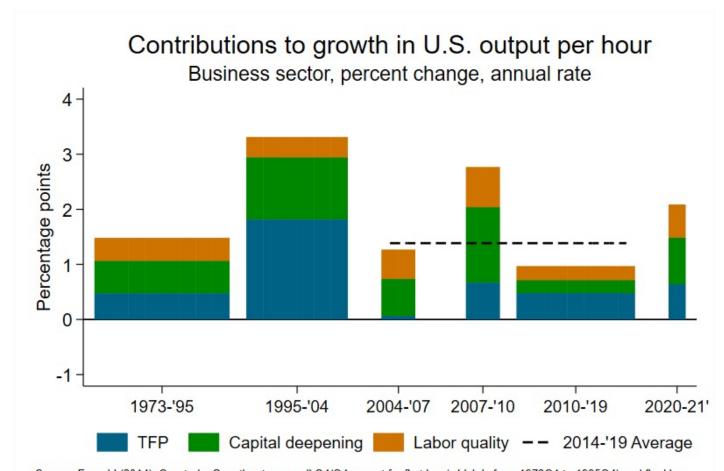
Pandemic rise in productivity growth



U.S. productivity strength looks like Great Recession

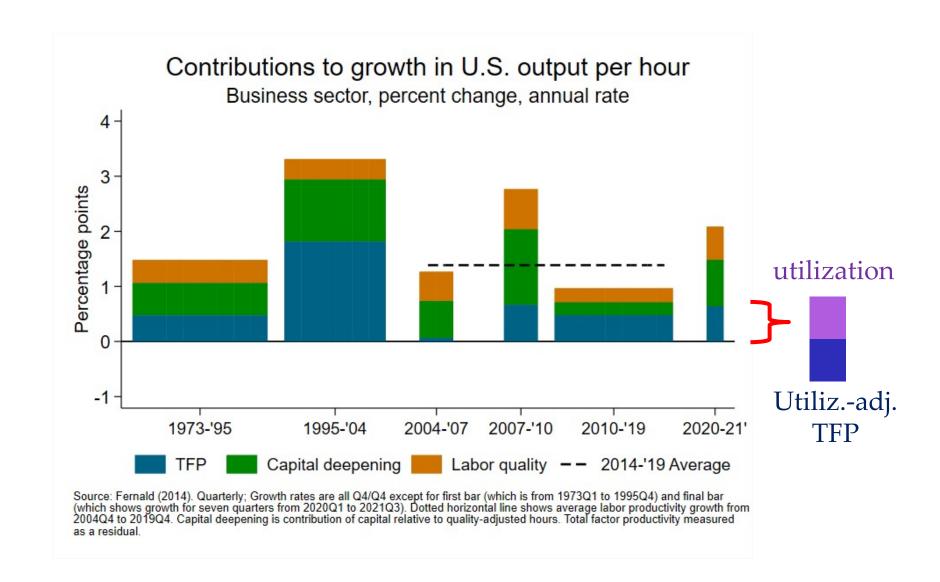


...for reasons that look cyclical, not structural

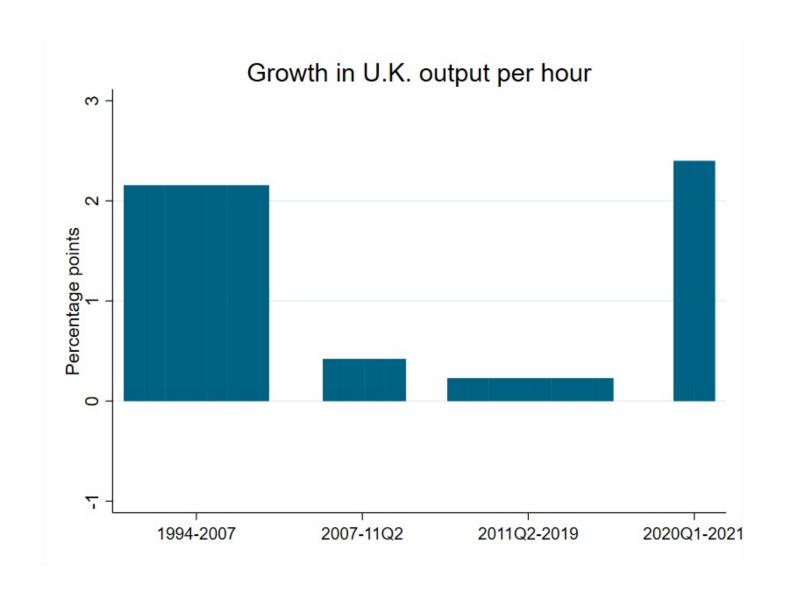


Source: Fernald (2014). Quarterly; Growth rates are all Q4/Q4 except for first bar (which is from 1973Q1 to 1995Q4) and final bar (which shows growth for seven quarters from 2020Q1 to 2021Q3). Dotted horizontal line shows average labor productivity growth from 2004Q4 to 2019Q4. Capital deepening is contribution of capital relative to quality-adjusted hours. Total factor productivity measured as a residual.

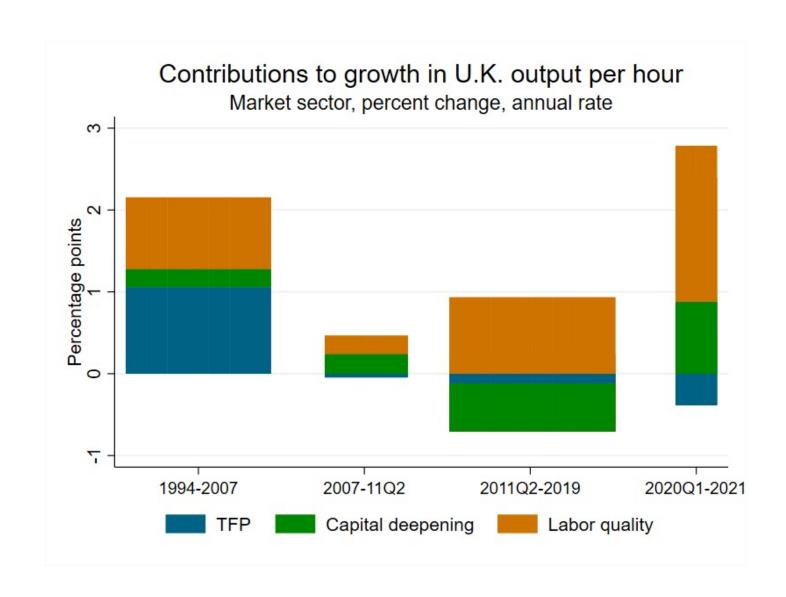
Utilization-adjusted U.S. TFP growth has been negative



U.K. also has strong pandemic productivity growth



UK TFP growth has been negative



Why wasn't telework more widespread before the pandemic?

- Common norm that important communication in person
- Was the technology there?
 - Getting better before pandemic, and even better since
- Concerns about company Culture, Communication, worker Commitment
- Monitoring

Monitoring can be challenging







ORACLE

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New norms?

Technology works (but Zoom fatigue real)

Still challenges

Is telework really here to stay?

- Surveys: Workers and managers think it will last (OECD/Peter-Francesco et al)
- Commercial real estate prices: Areas with a lot of potential to telework see larger declines in prices (Banque de France/Antonin et al.)
- Advertised telework: Increased substantially, and (so far) looks "permanent," at least in countries with high-quality digital infrastructure (Indeed/OECD)

Productivity in French manufacturing firms

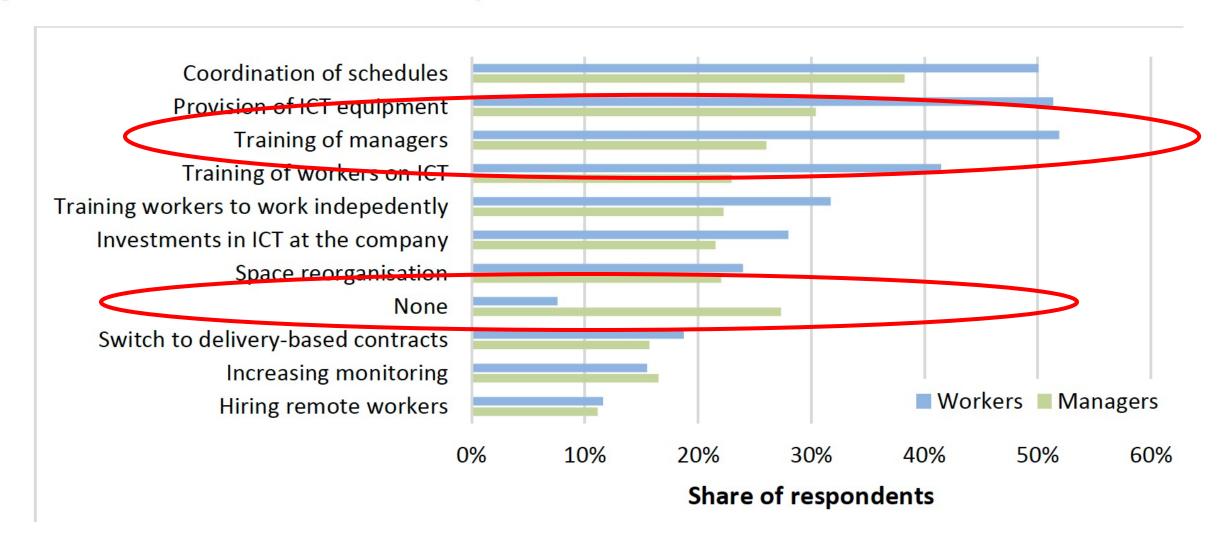
- Manufacturing is relatively low in telework intensity (surveys and jobs ads, as well as Cette et al paper):
 - Only about 1 percent of French manufacturing workers did telework prepandemic
- In cross-section, firms with higher TFP did more telework in 2019
 - Authors suggest that causation runs from telework to TFP
 - Have to believe IV results. Instrument: Average telework proportion of other firms in the industry...in a regression with fixed effects. What's the variation?
 - Even if believed causal link, implausible that increase from 5% to 25% would increase TFP by 9%. Way beyond what the 2019 data can tell us

Real estate suggests telework will have major reallocation effects

- High telework locations see larger increase in vacancies, reductions in construction, and reductions in prices
- Price effects are larger for office space than retail
 - Workers shift to working from home. But still go shopping (though location different...and isn't more of it online?)
 - Can you distinguish where people <u>live</u> from where their <u>office</u> is (or was?)

Survey evidence from OECD (Criscuolo et al)

Figure 8. What measures should be implemented to maximise the benefits from telework?



Job postings increasingly advertise telework

- Not just intentions (surveys) but actual employer decisions, and available in near-real time
- Large differences across sectors and countries
 - Cross-country differences related to government-imposed mobility restrictions
 - Why not relate to actual use of telework?
 - Surprised by how small the share of advertised telework is (still only 7-1/2% of job postings)
- In countries with high-quality digital infrastructure, telework postings rise when restrictions tighten, but remain high when restrictions ease

Takeaways: Work-from-home and productivity

- Workers really like teleworking. It's likely to stay
- Evidence on productivity effects is mixed (e.g., Bloom et al, 2015, versus Gibbs et al, 2021).
 - Workers and managers mostly think they're about as productive or more productive. Presumably depends on task
 - B d F paper finds strong results, but can't push them too hard
- My take from this nascent (but growing) literature: Probably a modest direct effect on productivity overall
 - Actual productivity data consistent with modest effects so far
 - Longer term, reduced knowledge sharing could slow innovation...but access to a broader labor pool could boost innovation
- One policy implication? Improve our direct measures of telework!